

CONTRACTS AND THE NATIONAL HEALTH SERVICE

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Doctor of Philosophy
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CONTENTS

	<u>page</u>
Acknowledgements	i
Contents	ii
List of Tables	v
List of Figures	vii
Glossary	ix
Introduction	1

SECTION ONE - THE ORIGINS AND DEVELOPMENT OF THE NATIONAL HEALTH SERVICE

Chapter One	The Origins of the National Health Service	6
Chapter Two	The Development of the National Health Service 1951 - 1979	18
Chapter Three	The Conservative Government and the National Health Service 1979 - 1989	25

SECTION TWO - THE OPTIONS FOR REFORM

Chapter Four	The Structure and Funding of the Pre Reform National Health Service	41
Chapter Five	Equity and Efficiency	50
Chapter Six	Reform and the National Health Service	67
Chapter Seven	Working For Patients	91

SECTION THREE - ECONOMIC THEORY AND THE REFORM OF THE NATIONAL HEALTH SERVICE

Chapter Eight	Internal Markets	99
Chapter Nine	Principal - Agent Theory	107
Chapter Ten	Reputation	112
Chapter Eleven	Reputation and Contracts	118
Chapter Twelve	Contracts and Quasi-Markets	123
Chapter Thirteen	Quasi-Markets and Regulation	129

SECTION FOUR - THE REFORMS IN PRACTICE - A RESEARCH STUDY

Chapter Fourteen	A Preliminary analysis of the contracting process	134
Chapter Fifteen	Research Design & Methodology	153
Chapter Sixteen	Results of Study	168
Chapter Seventeen	Discussion of Results	199
Chapter Eighteen	Conclusions	210
BIBLIOGRAPHY		220

APPENDICES

Appendix A	Principal - Agent Theory model	230
Appendix B	Principal - Agent Theory and Reputation Model	243
Appendix C	Optimal Contract Design Model	254
Appendix D	National Map showing Regional and District Health Authorities in the United Kingdom	265
Appendix E	A Map showing the North Western Regional Health Authority and the surrounding Regions	267
Appendix F	A Contract Basic used by an N.H.S.T. in preliminary discussions with purchasers	269
Appendix G	An N.H.S. Contract	275
Appendix H	A Sample Price list from an N.H.S.T.	282
Appendix I	A Promotional Brochure provided by an N.H.S.T. to prospective purchasers	290
Appendix J	The Patients Charter	296
Appendix K	Interviews with N.H.S. staff	307
Appendix L	Manchester Health Commission Contracts	331

LIST OF TABLES

	<u>page</u>
Table 1: Percentage change in programme expenditure between 1978/79 and 1986/87 in real terms	28
Table 2: Public Expenditure for the rest of the 1980's: Percentage change between 1982/8 and 1990/91 in real terms.	30
Table 3: Attitudes to taxes and benefits 1978 - 1985	33
Table 4: Total health care expenditure as a percentage of G.D.P. in 1984	36
Table 5: Comparison of aggregate performance indicators for medical systems.	69
Table 6: Sources of funding for the N.H.S. 1979 and 1987.	79
Table 7: Contracts for acute services, 1991/92, by contract type.	148
Table 8: Contracts for acute services 1991/92, by provider type.	148
Table 9: Number of clients rating on the HoNOS scales at one month.	172
Table 10: Number of clients with needs at one month	174
Table 11: Number of clients using other mental health services.	176

Table 12:	Functionality by sub-groups	177
Table 13:	Mean number of HoNOS scales and severity ratings by sub-groups.	177
Table 14:	Mean number of needs by sub-groups.	178
Table 15:	Mean keyworker time by sub-groups.	178
Table 16:	Number of clients rating on the HoNOS scales at two months.	179
Table 17:	Number of clients with needs at two months	180
Table 18:	Number of clients using other mental health services at two months	181
Table 19:	Functionality by sub-groups	182
Table 20:	Mean number of HoNOS scales and severity ratings by sub-groups.	182
Table 21:	Mean number of needs by sub-groups	182
Table 22:	Mean keyworker time by sub-groups.	183
Table 23:	Number of clients rating on the HoNOS scales at four months.	184
Table 24:	Number of clients with needs at four months.	185
Table 25:	Number of clients using other mental health services at four months.	186
Table 26:	Functionality by sub-groups.	187
Table 27:	Mean number of HoNOS scales and severity ratings by sub-groups.	187
Table 28:	Mean number of needs by sub-groups.	187
Table 29:	Mean keyworker time by sub-groups.	188

Table 30:	Results of regressions at one, two and four months	189
Table 31:	Keyworker costs at one, two and four months	190
Table 32:	Total costs at one, two and four months.	191
Table 33:	Mean scores on psychiatric rating scales.	194
Table 34:	Item composition of the BPRS factor groups.	194
Table 35:	Mean scores on the BPRS factor groups.	195
Table 36:	Number of clients using other mental health services.	196

LIST OF FIGURES:

	page:
Figure 1: N.H.S. Expenditure	45
Figure 2: Optimum Combinations of Inputs	54
Figure 3: Achieving efficiency in a market with different relative prices	55
Figure 4: Contract Curves	56
Figure 5: Average gain to individuals receiving successful treatment: clinical curative services.	71
Figure 6: Diphtheria death rates for children under 15: England and Wales.	72
Figure 7: U.S. Life expectancy at birth (males and females).	72
Figure 8: Average gains in life expectancy attributable to clinical preventative services.	73
Figure 9: Tuberculosis mortality rates: England and Wales.	73
Figure 10: Average gains in life expectancy attributable to clinical curative services.	74
Figure 11: The purchaser - provider relationship	137
Figure 12: Sources of referral	170
Figure 13: Male/Female mix.	201
Figure 14: Number of clients rating on the HoNOS scales at one, two and four months.	202
Figure 15: Number of clients with needs at one, two and four months.	203
Figure 16: Cost comparison of community care and resttlement	205

GLOSSARY

B.M.A.	British Medical Association
B.M.J.	British Medical Journal
C.C.T.	Compulsory Competitive Tendering
C.I.P.	Cost Improvement Programme
C.M.H.T.	Community Mental Health Team
C.P.N.	Community Psychiatric Nurse
C.P.R.S.	Central Policy Review Staff
D.G.M.	District General Manager
D.H.A.	District Health Authority
D.H.S.S.	Department of Health and Social Security
D.M.U.	Directly Managed Unit
D.o. H.	Department of Health
E.C.G.	Electro Cardio Gram
E.C.R.	Extra Contractual Referral
E.E.C.	European Economic Community
E.F.L.	External Financing Limit
E.N.T.	Ear, Nose and Throat
F.H.S.A.	Family Health Services Authority
F.P.C.	Family Practitioner Committee
F.P.S.	Family Practitioner Service
G.D.P.	Gross Domestic Product
G.M.C.	General Medical Council
G.N.P.	Gross National Product
G.P.	General Practitioner

G.P.F.H.	General Practitioner Fund Holder
H.C.H.S.	Hospital and Community Health Services
H.M.O.	Health Maintenance Organisation
H.M.S.O.	Her Majesty's Stationery Office
I.C.D.	International Classification of Disease
I.E.A.	Institute for Economic Affairs
I.V.F.	In Vitro Fertilisation
M.T.F.S.	Medium Term Financial Strategy
M.R.S.	Marginal Rate of Substitution
M.R.T.S.	Marginal Rate of Technical Substitution
M.R.T.	Marginal Rate of Transformation
N.A.H.A.T.	National Association of Health Authorities and Trusts
N.H.S.	National Health Service
N.H.S.T.	National Health Service Trust
N.U.P.E.	National Union of Public Employees
N.W.R.H.A.	North Western Regional Health Authority
O.C.D.	Obsessive - Compulsive Disorder
O.E.C.D.	Organisation for Economic Co-operation and Development
O.U.P.	Oxford University Press
R.A.W.P.	Resource Allocation Working Party
R.C.P.	Royal College of Physicians
R.C.S.	Royal College of Surgeons
R.H.A.	Regional Health Authority

S.E.L.C.A.	South East London Commissioning Agency
S.I.F.T.	Service Increment For Teaching
S.M.R.	Standard Mortality Ratio
S.W.F.	Social Welfare Function
S.W.O.T.	Strengths, Weaknesses, Opportunities, Threats
T. o. P.	Termination of Pregnancy
T.U.C.	Trades Union Congress
U.G.M.	Unit General Manager
U.K.	United Kingdom
U.S.	United States
U.S.A.	United States of America

INTRODUCTION

his thesis is examines the implications of the reforms of the National Health Service by the Conservative Government as set out in the White Paper 'Working for Patients' (Cmnd. 555). In particular it will examine the design and use of contracts caused by the separation of roles of purchaser and provider. This has created in economic terms a Principal - Agent relationship. The thesis will examine the economic theory relating to Principal-Agent relationships, in particular the problems of asymmetry of information between the two parties. It will also examine the potential role of reputation as an informational signalling device.

The thesis will then outline a preliminary analysis of the use of N.H.S. contracts in practice, drawing upon interview material from discussions with people on both sides of the purchaser provider split, and from themes drawn from this preliminary analysis a data collection instrument was designed and piloted in one area of healthcare (mental illness). The results of this exercise are reported and some conclusions drawn.

SECTION ONE - THE ORIGINS AND DEVELOPMENT OF THE NATIONAL HEALTH SERVICE

The first section of the thesis is an historical examination of the creation of the National Health Service. Whilst some would argue that the welfare state in Britain can be traced back to Elizabeth I, this thesis takes the National Health Insurance Act (1911) as the basis for the creation of what became the National Health Service. This is followed by an examination of policy on health in the inter war years. It is with the publication of the Beveridge Report (1942) that the creation of a National Health Service emerged in the form that was recognisable until the reforms which introduced the internal market. This service ultimately came into being on 5th July 1948. The second chapter of this section of the thesis examines the development of the National Health Service during the period 1951 - 1979, during which most major initiatives

concerned reorganisation of the structure of the service, for example, the introduction of the three tier system of Regional Health Authorities, Area Health Authorities and Community Health Councils in 1973. The final chapter of section one examines the record of the Conservative Government over the period 1979 - 1989 (prior to the publication of 'Working for Patients' (Cmnd. 555) as the underlying assumptions of the 'Welfare State' were increasingly questioned.

SECTION TWO - THE OPTIONS FOR REFORM

In this section the structure of the N.H.S. [?] by 1989 is outlined [?] in the first chapter ^{Ch 4} along with its sources of revenue and items of expenditure. Chapter Five gives various definitions of equity and efficiency necessary for the reader to be able to understand the criteria used to evaluate both the performance of the pre - reform National Health Service and the various alternative proposals suggested as models of reform. These alternative models (including those ultimately rejected) are then detailed in Chapter Six. Chapter Seven contains details of the White Paper 'Working for Patients' (1989) which contained the Conservative government's three major reforms; the introduction of G.P. fund holding, the creation of N.H.S. trusts and the introduction of tax exemption on private health insurance for the over 60s.

SECTION THREE - ECONOMIC THEORY AND THE REFORM OF THE NATIONAL HEALTH SERVICE

This section examines the implications of the reforms outlined in Chapter Seven, in particular the division of the roles of purchaser and provider and the extent to which a market in healthcare has been created. This has created a Principal - Agent relationship. The nature of the relationship means that there is an imbalance of power between the Principal and the Agent caused mainly by asymmetry of information. This

thesis examines the main problems inherent in such a relationship, for example, the possibility of opportunistic behaviour. In order that a mutually beneficial transaction is not prevented from occurring some incentives for co - operation are needed. It is argued that these incentives exist in the form of loss of reputation and the use of termination contracts, which are shown to be the optimal design of contract in the National Health Service context (due to the incorporation of risk sharing).

case ?

SECTION FOUR - THE REFORMS IN PRACTICE - A RESEARCH STUDY

Having considered the reforms in theory and arrived at the optimal form of contract, the final section of the thesis uses a series of interviews carried out with members of the National Health Service who have to operate the reforms in practice to generate ideas which lead to a research project concerned with asymmetry of information. In particular, their experiences of contracting are examined, together with an examination of the impact of the creation of the internal market on one particular provider. Community mental healthcare is identified as an area of particular difficulty and complexity. From this preliminary analysis the thesis examines the design of a data collection instrument and its subsequent piloting with a Community Mental Health Team (C.M.H.T.). Following the pilot study, the instrument was then revised and used in one area of healthcare (mental health) with two client groups, the long term and short term mentally ill. The results of this study are presented. These are encouraging in demonstrating links between client characteristics and costs and in providing cost data for the two clients involved in the study. The data collection instrument is then presented as a means of informing the contracting process and helping to overcome informational asymmetry (whilst simultaneously providing outcome data). This is then followed by a chapter of conclusions which examines how

the practice of contract use and the possibility of market failure may make achieving the reforms' objectives difficult. The data collection instrument which has been developed in the course of the study is seen as one way of addressing the problem of asymmetry of information in the important field of mental health and it is suggested that further development of this work would be valuable in informing parties involved in the contracting process.

SECTION ONE
THE ORIGINS AND DEVELOPMENT OF
THE NATIONAL HEALTH SERVICE

CHAPTER ONE
THE ORIGINS OF THE NATIONAL HEALTH SERVICE

THE ORIGINS OF THE NATIONAL HEALTH SERVICE

Introduction

This chapter examines the emergence of the modern welfare state, taking as its starting point the National Health Insurance Act (1911).

It then examines the move towards the creation of a National Health Service, which was one of the key components of the Beveridge Report (1942).

The final section of the chapter discusses the Labour Government's (1945 - 51) creation of the National Health Service and the difficulties that they encountered with both the medical profession and the escalating costs of healthcare provision.

The creation of the welfare state in Britain really began at the turn of the century with Asquith's Liberal Government of 1908-14 which introduced, through two politicians who later became Prime Ministers themselves (Churchill and Lloyd George), a whole series of measures which formed the basis of state welfare.

Lloyd George became Chancellor of the Exchequer in 1908, and as the first Cabinet Minister born into poverty, was determined to enact radical measures to eradicate its worst effects. In the field of health care the National Health Insurance Act (1911) was his most important reform.

In this Act Lloyd George proposed that instead of private personal insurance (which covered about 6 million people in 1908) there should instead be some form of community or national insurance scheme. He was largely concerned with the prevalence of tuberculosis, which was killing about 75,000 people every year. Under the new scheme (which was roundly condemned by both the medical and insurance professions) all those earning under £160 p.a. would pay four pence every week into the insurance fund, whilst the employer contributed three pence and the Treasury two pence. In return they would be guaranteed benefit of 10 shillings a week in case of

ickness and free medical attention from doctors on the panel system (this was a system where doctors were responsible for insured patients in addition to their private patients). The provisions of the 1911 Act did not extend cover to the family of contributors and excluded the cost of specialist services, hospital, dental and phthalmic work.

Lloyd George recognised the flaws in the 1911 Act and regarded it merely as the beginning of the creation of a welfare state that would care for all its citizens, but the outbreak of war was to delay progress.

In 1919 the Ministry of Health was created with Christopher Addison as Minister and Sir Robert Morant as the Permanent Secretary (Morant had previously been Chairman of the National Insurance Commission since 1911). The experience of the war years had shown the need for better public health care; only three out of every nine conscripts from 1916 had been passed fit for active service. The first action of the new Ministry was to increase the amount of sickness benefit but no action was taken either to extend cover or to directly improve public health.

From 1924-26 a Royal Commission sat on the Health Service and produced a minority report calling for a health service funded from general taxation to care for more of the population and a majority report, which agreed that ultimately such a service was desirable, but that it could not be afforded at present. By the time the Royal Commission had reported Neville Chamberlain had become Minister of Health and during the period 1926-27 increased the amount of sickness benefit and extended the scheme to cover dependents (although contributions were increased to finance this).

This was to be the last government health reform until the second world war but the doctors themselves were now beginning to consider the idea of creating a more unified and far reaching service.

In 1934 the Socialist Medical Association headed by Dr. Somerville Hastings

.P. and Dr. Stark Murray had succeeded in getting the Labour Party to adopt the idea of a non-contributory state medical service. The most important boost to the doctors' plans, however, came during the second world war with the B.M.A.(British Medical Association) publishing their own proposals in 'The Lancet' and the 'Medical Officer' for a complete reorganisation of health services on a national level and the publication of the Beveridge Report (1942) with its call for extension and integration of schemes to provide insurance against loss of earnings in the case of sickness, unemployment and old age. The Beveridge Plan was radical in that it suggested a guaranteed income at subsistence level to secure basic necessities such as food, clothing, housing etc. in all circumstances. It also contained elements of compulsion and universality; all would pay and benefits would go to all citizens, regardless of income and without stigma or a test of means. It hoped to provide the long awaited national minimum without the need for a social revolution. The main body of the report consisted of a scheme for the abolition of poverty through comprehensive social insurance. That in itself was enough to make the headlines. But attached to the main scheme were additional 'assumptions' that gave it a wider significance. Beveridge argued that the success of the social security scheme would depend upon three other changes; the introduction of family allowances, the creation of a National Health Service and the maintenance of a high level of employment. Beveridge declared that Want (i.e. poverty) was only one of five giants on the road to reconstruction. Disease, Ignorance, Squalor and Idleness also had to be met and mastered. This compelled the War Cabinet to appoint a Reconstruction committee to review and determine the priorities for post war policy. The committee's deliberations led to a series of White Papers defining the role and obligations of the post-war State. Educational Reconstruction (1943) proposed a system of secondary education for all and laid the groundwork for the Education Act (1944). In February 1944 A National Health Service White Paper was presented by Henry Willink who envisaged a free and

comprehensive service covering every branch of medical activity. The scheme did present many concessions to the B.M.A. and the supporters of local and voluntary hospitals; it was emasculated from the start and the proposals were taken no further. In May 1944 a White Paper on Employment Policy announced in its first sentence that henceforth it would be the duty of the state to maintain a "high and stable level of employment". In September 1944 Social Insurance indicated the Government's acceptance of most of Beveridge's insurance scheme and, finally, in March 1945 a White Paper on Housing Policy was produced

The Labour Party had immediately adopted the major proposals of Beveridge's report as party policy and called for their rapid implementation. This was rejected by Churchill who saw this as divergence from the war effort.

In July 1945 the Conservative Party, which had dominated the wartime government and sponsored the Beveridge Plan, created a new insurance ministry and introduced family allowance and the 1944 Education Act, was defeated by the Labour Party which offered an alternative vision for post-war reconstruction supported by 12 million voters.

*"The 1945 Labour Government boldly aimed to implement the Beveridge Plan in full within 3 years, and bring it into operation on the 3rd anniversary of the great electoral victory 5th July 1945. This was a formidable task. It would necessitate 5 Acts of Parliament, scores of regulations and the creation of a nationwide social security organisation"*¹.

The Labour Government inherited a health care system which covered only those earning less than £400 p.a. (approximately half the population) and still did not cover specialist treatment or provide free dental and ophthalmic services. There was little co-ordination of services with doctors spread around the country with little

¹ Griffiths (1969) pp 80-81

relationship to health needs, and public health authorities, G.P.s and hospitals all having separate administrations (as did factory and school hospitals²).

The task of organising the chaos of public health and introducing a new National Health Service was given to Aneurin Bevan. This was regarded as a surprise choice (Bevan had been expelled from the Party in January 1939 and although welcomed back during the war had almost been expelled again in July 1944; he was seen as a left wing rebel) but it proved to be inspired.

Bevan had a deep suspicion of the vested interests of middle class pressure groups such as the medical profession as he himself stated:

*"In my discussion with many of the best members of the medical profession...the margin of possible error which is part of their daily experience does not free them from what can only be described as a collective arrogance. This is accompanied by waves of something approaching hysteria whenever proposals affecting their profession are advanced"*³

More importantly still he had a zest for power and a desire to translate socialist policy into reality. He also proved to be an able administrator and a tactful and diplomatic negotiator.

His central task was, of course, the creation of a National Health Service and this was his main preoccupation for the next three years. He began with a series of meetings in late 1945 with the B.M.A. and the three specialist Royal Colleges (Surgeons, Physicians and Obstetricians) and he enjoyed amicable relations with all, especially Lord Moran of the Royal College of Physicians (R.C.P.) and Sir Alfred Webb-Jenkins of the Royal College of Surgeons (R.C.S.), but by November 1945 problems had begun to arise.

² for example Anerley School, Whitechapel was created in 1872 as an ophthalmic infirmary for the children at Whitechapel School and "separate special schools like those for ophthalmia or mental defectives were not introduced until the Poor Law School system was radically changed at the end of the century. But a beginning was at least made under the Poor Law Board, and the Education Authorities after the 1870 Act were supplied with a precedent for providing special State institutions." quoted from The Origins of the National Health Service: The Medical Services of the New Poor Law 1834 - 1871.

³ Bevan (1978) p113

Bevan presented a draft bill to the B.M.A. Negotiating Committee which was much more radical than they were expecting. Indeed, the N.H.S. illustrates that the links between the consensus of the war years and the Labour Government's proposals have often been overstated. Beveridge was limited since he was not directly concerned with the health services and the ideas of Henry Willink, especially in their final watered down form, fell short of Bevan's proposals in vital respects, most notably on hospitals and health centres.

Willink's scheme of 1944 had been savaged by the B.M.A. and elements of the Conservative Party (including Churchill) because of its alleged threat to the professional independence of doctors. Bevan's draft scheme of October/November 1945 markedly increased the control of the Ministry of Health.

Bevan had particular ideas about what he wanted to achieve, which he later outlined in his book 'In Place of Fear':

"The collective principle asserts that the resources of medical skill and the apparatus of healing shall be placed at the disposal of the patient, without charge, whenever he or she needs them; that medical treatment and care should be a communal responsibility that they should be available to rich and poor alike in accordance with medical need and by no other criteria. It claims that financial anxiety in times of sickness is a serious hindrance to recovery, apart from its unnecessary cruelty. It insists that no society can legitimately call itself civilised if a sick person is denied medical aid because of lack of means." ⁴

Bevan wanted to encourage group partnerships in 'under - doctored' areas and local health centres. He also proposed a salaried element in G.P.s income but accepted that capitation fees would remain the major component. Above all he was committed to the nationalisation of hospitals with voluntary, cottage and municipal hospitals under regional boards (who would be accountable to the Ministry).

⁴ Bevan (1978) p99

Bevan's proposals were discussed in Cabinet on the 18th October 1945 for the first time and disagreements arose over his plans for hospital nationalisation. A further discussion was held on the 20th December, at which Herbert Morrison (a man highly committed to local government and former leader of London County Council) led the calls for hospitals to be under local, rather than national, control and attacked Bevan's plan to make the cost of the hospitals a full charge on the Treasury. Morrison was supported by Chuter Ede (Home Secretary) and Albert Alexander (1st Lord of the Admiralty) but the majority backed Bevan (including Hugh Dalton (Chancellor of the Exchequer) and Lord Addison (former Minister of Health for Lloyd George)). Attlee summed up in favour and so Bevan's scheme went through.

The B.M.A., led by the elderly Dr. Guy Dain and Charles Hill (the "Radio Doctor"), were forced to admit Bevan had made concessions (notably making generous provision for both G.P.s and consultants in the administrative framework such as the Health Insurance committees and he ensured that the gulf between G.P.s and hospital services would remain. He had also left alone the system of private practice by specialists and allowed 'pay beds' to remain in the hospitals (allowing senior consultants to treat private patients in N.H.S. beds). Bevan had been deeply unhappy to do this, but had accepted Lord Moran's advice that not to do so would provoke a mass exodus into private practice. However, he still regarded the prospect of a full time salaried medical service lurking in the background as posing a fundamental threat to professional freedom and integrity. In its official journal, the British Medical Journal (B.M.J.) they also attacked the powers to be vested in the Ministry of Health and the executive committees to supervise G.P.s.

By March 1946, discussions between Bevan and the B.M.A. had virtually collapsed (a major factor in this being the fact that the B.M.A.'s Executive Council was made up largely of wealthy suburban doctors with the most to lose under the new

cheme).

The National Health Service Bill was carried overwhelmingly on its second reading (2nd May 1946) by 359 votes to 172 and was generally commended, although Henry Willink did move a hostile amendment to divide the House.

The Battle between Bevan and the B.M.A. continued; in December 1946 the B.M.A. conducted a ballot which showed G.P.'s voting 2:1 against participation. This led to a year of non-contact between the two sides, with the Presidents of the Royal Colleges trying to arbitrate. In February 1948 the B.M.A. conducted a further ballot which showed that of 45,549 doctors who took part (84% turnout) only 4,735 were in favour of participating in the N.H.S. It seemed that the N.H.S., destined to start on the 5th July, would be crippled by the non-participation of doctors and consultants.

Bevan had by now run out of patience and instead of providing specific reassurances that doctors would not be permanently enlisted by the state as full salaried professionals, attacked the B.M.A. instead.

In a speech to the House (9th February) he described the B.M.A. committee as '*a small body of politically poisoned people*' and he denounced the '*squalid professional conspiracy*'. This led to his proposals on medical salaries (much augmented following the Spens Report⁵) being misrepresented.

On the 24th March Lord Moran wrote to Bevan conveying the Physician's view that the co-operation of the general practitioners could be secured if the Minister made it clear that no full time salaried medical service would be constructed either by legislation or departmental regulation. Bevan, eager now for conciliation, made a statement in the House (7th April) along the lines suggested by Moran and adding that

⁵ Three interdepartmental committees under the chairmanship of Sir Will Spens were set up to look into the question of payment for doctors, dentists and consultants. The report on doctors appeared in 1946 and proposed a range of income between £1,000 and £2,500 - estimating that this could be achieved with a capitation fee of 15 shillings for each patient on a doctors list. It also recommended that in order to help young doctors and those in unfashionable practices there should be a direct payment to all doctors of £300 without regard to the number of their National Health Service patients.

the direct element of remuneration (£300) would last for only three years before becoming optional. This was to prove decisive, the B.M.A. welcomed it as “*affording the opportunity for re - examination of the points in dispute*” ⁶ and agreed to hold no other referendum.

By June (before the B.M.A. had given its final decision on participation) 26% of G.P.s had already joined the scheme and 93.1% of the population had registered for the 5th July start date.

As Kenneth O. Morgan notes “*it was Bevan’s, perhaps Britain’s, finest hour*” ⁷

Bevan's second task after creation was ensuring the survival of the new service with adequate funding. By 1948 the economic climate was grim and only the European Recovery Programme (Marshall Aid) allowed the Government to complete its welfare reforms (the decision to spend Marshall Aid on welfare was later criticised see, for example Barnett (1986))

The hospital and specialist service was the largest single item in the N.H.S. budget and proved difficult to control financially, since control was in the hands of regional boards rather than the Ministry. The pharmaceutical charges also proved to be very costly.

N.H.S. estimates increased rapidly from £228 million in 1949-50 to £356 million in 1950-51 and a projected £387 million in 1951-52 (in fact this was exceeded) and the suggestion of imposing financial charges was mooted. Bevan fought hard to resist such an imposition, which he felt would undermine the basic socialist and collectivist principles underlying the scheme but on 20th October 1949 (after a series of clashes with Sir Stafford Cripps) conceded the principle of a shilling charge on prescriptions on the understanding that it would be unlikely to be implemented (it was

⁶ British Medical Journal 17/4/48

⁷ Morgan (1985) p160

eventually introduced by the Conservatives in 1952).

In March 1950 Bevan and Cripps clashed again when Cripps proposed a ceiling on N.H.S. spending of £392 million and the introduction of charges for dentures and spectacles. This plan was abandoned but resurfaced in April 1951 when the new Chancellor Hugh Gaitskell proposed charging for dentures and spectacles to help fund the re-armament programme for the Korean War. The charges yielded £13 million but dealt the government a heavy blow when Bevan, Harold Wilson and John Freeman all resigned in protest. It also split the Labour Party into left and right factions for many years.

The achievements of the N.H.S. should not be tarnished by the political disputes which ended Bevan's ministerial career. It was obviously one of the Labour Government's outstanding triumphs, admired worldwide and represented an enormous landmark in the creation of the welfare state. The solidity of the administrative and financial structures Bevan created was confirmed by the Guillebaud Committee in 1956.

Bevan achieved compromise between state direction and professional independence (indeed he has been criticised for giving doctors and consultants a decisive place in the administration of the service) and the N.H.S. has proved a lasting monument to him and the other reformers and visionaries who helped to create the welfare state.

Summary

The creation of the National Health Service, despite the initial opposition of the medical profession, is undoubtedly the most significant welfare reform of the period 1911 - 1951. As the next chapter will show the structure created by the Labour government was widely regarded as the best achievable under the circumstances and

as to remain unchanged until 1974.

*or it's customers it was a godsend, perhaps the most beneficial reform ever enacted in England, given that it relieved so many not merely of pain but also of the awful light of having to watch the suffering and death of a spouse or a child for lack of enough money to do anything about it. A country in which such a service exists is utterly different from a country without it"*⁸

⁸ Calvocoressi 1978 p35-6

CHAPTER TWO

THE DEVELOPMENT OF THE NATIONAL HEALTH SERVICE

1951 - 1979

THE DEVELOPMENT OF THE NATIONAL HEALTH SERVICE

1951-79

Introduction

This chapter outlines the development of the National Health Service over the period 1951 - 1979. The major changes to the NHS over this time were structural (e.g. new levels of management introduced at the area level). This was also a time of rising costs, coupled with increased waiting lists and health service union militancy, factors which contributed to the first serious questioning of the principles of the welfare state and the National Health Service.

By the time of the Conservative's re-election to office in October 1951 they had little option but to accept the welfare reforms of the Labour Government, especially the N.H.S., and indeed claimed that Bevan had merely implemented their own welfare proposals.

However, the Conservatives were concerned with the rapidly escalating costs of the service. In 1952, prescription charges were introduced for the first time to meet increases in the costs of drugs and administration and to cover the costs of the generous Dankwerts Award to the general practitioners. In May 1953, Iain MacLeod, the Minister of Health, appointed a committee under Professor Guillebaud, to review the present and future costs of the N.H.S. and *"to advise how, in view of the burdens on the Exchequer, a rising charge upon it can be avoided while providing for the maintenance of an adequate service"*.

The committee reported to Parliament in January 1956, after carrying out one of the most detailed scrutinies ever into an institution or an industry. It saw no grounds for charges of extravagance and could suggest few ways of cutting costs that would not harm the efficiency of the service. Expenditure had decreased relative to G.N.P. from 3.75% to 3.25%. However, a dissenting minority report on structure by

ir John Maude (later to chair a Royal Commission on Local Government) called for unification under local government.

The Guillebaud Committee concluded that:

*“the structure of the N.H.S. laid down in the Acts of 1946 and 1947 was formed broadly on sound lines having regard to the historical pattern of the medical and social services of the country. It is very true that it suffers from many defects as a result of the division of functions between different authorities, and that there is a lack of co-ordination between the different parts of the service. But the framers of the Acts of 1946 and 1947 had not the advantage of a clean slate; they had to take account of the basic realities of the situation as it had evolved. It is also true that even now, after seven years of operation, the service works much better in practice than it looks on paper...we are strongly of the opinion that it would be altogether premature at the present time to propose any fundamental change in the structure of the N.H.S.”*⁹

The rising costs of the service were due to general inflation and further awards by the Pilkington Commission of 1960 and the Kindersley Review Body in 1963 and underlined Bevan’s realisation that a good service would have to be paid for.

Other reports continued to praise the N.H.S. In 1958 all the nation’s medical institutions, headed by the Royal College of Surgeons and the B.M.A., appointed a Medical Services Review Committee under Sir Arthur Porritt to examine the working of the service. It published its report in 1962 and praised not only the principle *“no other country in the world has attempted to provide organised medical care on so comprehensive a scale as Britain”* but also the preservation of clinical freedom *“when the N.H.S. came into being, fears were expressed about possible effects upon the general practitioners’ clinical independence. At that time much emphasis was laid by the profession on the need to preserve the doctors’ freedom. So far as we can judge those fears expressed in 1948 have so far proved to be largely unfounded”*

⁹ Report of the Committee of Enquiry into the cost of the National Health Service 1956

Dr. Almont Lindsay, Professor of History at the University of Virginia, conducted a wide ranging survey published in January 1963 and traced the results of the 1945 - 48 controversies, showing how considerable the achievements had been in the co-ordination of the hospitals, better administration of doctors, expansion of local authority services and the protection of the doctors' freedom and the enhancing of both their status and opportunity. He concluded:

"While the N.H.S. is something magnificent in scope and almost breathtaking in its implications, certainly ten or twelve years hardly permits a definitive judgment. As a growing evolutionary programme it will be re - appraised from time to time. With its origins deeply embedded in the past, the Service is giving good performance in spite of blemishes " ¹⁰ .

In the light of such views it is hardly surprising that during the Conservative period in office (1951-64) they made no attempts to alter the N.H.S. as created by Bevan, but it is worth noting that throughout this period Enoch Powell and Iain MacLeod (both former Ministers of Health) began to attack the assumptions of the welfare state and the universality of the social services. At the height of the consensus period these views were ignored and ridiculed. Twenty years later they were orthodox Conservative views.

Labour returned to government in 1964 and with a small majority, waited until after their 1966 election victory (363 seats against 267 for all other parties) before unveiling their plans for the N.H.S.

On 6th November 1967, Kenneth Robinson (Minister of Health) made a statement to the House in which he said he planned a careful examination of the administrative structure with a view to the next twenty years. The N.H.S. was still run under the tripartite system created by Bevan. Robinson described this as unwieldy and wanted greater integration.

¹⁰ Lindsay (1963)

Labour had clashed with the doctors already on its return to government and 18,000 were threatening to resign from the N.H.S. Fortunately Robinson was able to negotiate a new deal with them in 1966, usually referred to as the Family Doctor Charter, which revived the prestige and stature of the G.P. The government realised that the medical profession would never accept integrating the Health Service under the control of local government and so Robinson's proposals were to unify on the basis of 40 to 50 area health boards and the abolition of regional health boards. The plan got no further than a Green Paper. In 1970, Richard Crossman, Secretary of State at the newly merged Department of Health and Social Security, produced a new Green Paper. He planned to have 90 area health authorities (to ensure co-terminus boundaries with the 90 local authorities recommended by the Maude Commission on Local Government). He also proposed 14 regional health councils with planning, rather than executive, responsibilities. A further intention was mixed membership of health authorities boards, with one third and the Chairman appointed by the Secretary of State, one third by the local authority and the remaining third by the medical profession. Before Crossman's plans could be implemented the Conservative Party won the 1970 election and it was left to Sir Keith Joseph to re-organise the N.H.S.

He created an elaborate new three tier system of Regional and Area Health Authorities and 200 Community Health Councils below them; the latter were described by Shirley Williams as a "*seraglio of useless and emasculated bodies*" ¹¹ . G.P.s retained their own administrative vehicle, now called Family Practitioner Committees (F.P.C.s)

The N.H.S. Re-organisation Act was given Royal Assent on 5th July 1973, 25 years to the day after the N.H.S. started. To the re-organisation with its attendant increase in administrative staff Sir Keith "*brought all the enthusiasm he was to show for the dismantling of the system a mere 10 years later*" ¹² .

¹¹ Whitehead (1982) p92

¹² *ibid*

The deadline for the Act's implementation was the 1st April 1974, but in February 1974 Labour had won the General Election and having opposed the Bill in the House was expected to cancel it, but in the light of the economic situation Barbara Castle, the new Secretary of State, decided that this would cause too much chaos.

Implementing the scheme proved difficult with the introduction of a new tier of administrative districts operating largely under the 90 area health authorities. By 1975 administrative and clerical staff in the N.H.S. outnumbered hospital staff by 3 to 1 (105,000 against 33,000). The nurses began a long pay dispute, resolved by the Halsey Awards and Barbara Castle, urged on by increasingly organised and militant N.H.S. unions, began action against pay beds in N.H.S. hospitals. The aim was to stop queue jumping and consultants using the N.H.S. for their private patients.

In November 1974 the journalist James Cameron (undergoing heart surgery in the N.H.S.) had written an article in 'The Guardian' pouring scorn on *"public facilities being used for private gain. No union as far as I know demands that bus conductors reserve special seats in the bus for which they charge personal fees...yet a handful of prosperous medicine men (and what a tiny minority of doctors they are, albeit eminent, articulate and loud) require to earmark little slabs of the N.H.S. facility for their own use, at their own time, and at their own price. You could knock me down with a catheter!"*

To prevent the doctors from simply building up a bigger private sector if dislodged from the N.H.S. Barbara Castle wanted to limit the number of beds licensed in the private sector to the level of those previously allowed in the N.H.S. Her Minister of State Dr. David Owen disagreed, and as she noted at the time (Castle (1980)):

"He gets quite tetchy at the idea of trying to control the quantity of beds in the private hospitals that will undoubtedly spring up everywhere. He is far more reactionary in this than my officials are... I am convinced that we will have to fight like hell to

prevent the building up of a vast empire of private medicine”

Barbara Castle turned out to be quite correct. Shortly before resigning, the Prime Minister, Harold Wilson, set up a Royal Commission to consider the problem (it ultimately reported to the Conservative Government in 1979). His successor James Callaghan sacked Barbara Castle and replaced her with David Ennals who phased out only 1,000 pay beds and introduced a totally ineffective licensing scheme for the private sector.

Summary

The period covered in this chapter saw no change in the funding or basic principles of the N.H.S. but several organisational changes. It did, however, see the first signs of discontent with the system established in 1948. In May 1979 Mrs. Thatcher and the Conservative Party won the election and were ready to consider the most radical reforms in the brief history of the N.H.S.

CHAPTER THREE
THE CONSERVATIVE GOVERNMENT AND
THE NATIONAL HEALTH SERVICE

1979 - 1989

THE CONSERVATIVE RECORD ON THE NATIONAL HEALTH SERVICE 1979-89

Introduction

The election in May 1979 of Mrs. Thatcher's first administration marked the end of the period of consensus politics and a radical rethink on the welfare state and the N.H.S. This chapter examines the philosophical objections that the Conservative Party held against the post - Beveridge system and the options considered for reform prior to the publication of the 'Working for Patients' (Cmnd. 555) White Paper in 1989.

Conservative criticisms of the welfare state were concentrated in three areas. Firstly, the 'cradle to the grave' philosophy implicit in Beveridge had proved to be too expensive and demand for welfare had grown faster than national incomes' ability to pay for such services and benefits. This meant a choice between increasing taxes to pay for public spending (contrary to the stated economic policies of the government) or reducing the scale of state provision of welfare. It was argued that cut-back or restraint would allow the funding of tax cuts and also help to concentrate resources on the most needy (a view expressed in the 1960's by Powell and MacLeod). This could be classified as a selective, rather than universal, approach to welfare.

The second area of criticism was that the dominant role of the state has weakened the values of self-reliance, family and community solidarity and private charity. They argued that people should make provision for themselves and their families and that the role of the state should be to provide a 'safety net' for the very poor.

The third criticism suggested that the welfare ethic, by removing the risks and disciplines of the market, provided a cushion for failure and undermined incentives

or the ambitious.

Offsetting these criticisms there was an awareness among the Conservatives that many of the welfare programmes, and the N.H.S. in particular, were very popular.

The Thatcher Government's initial manifesto contained few specific commitments as far as the welfare state was concerned, merely making some generalised pledges; e.g. to make better use of available resources, cut back on bureaucracy and maintain spending on the N.H.S.

The general approach to the welfare state has been determined primarily by the constant pressure to hold down public expenditure. Even within the social security budget, where expenditure has risen sharply due to the recessions, total spending has been reduced to £2 billion below what it would have been as a result of changes in the method of inflation proofing some benefits. In all other social programmes, expenditure since 1979 has been less than planned for the early 1980's by the Callaghan government and has (apart from the N.H.S.) grown more slowly than the late 1970's

The following table shows the Government's spending record:

Table 1: Percentage change in Programme Expenditure between 1978/79 and 1986/87 in real terms.

Department	Percentage change on 1978/79 (estimated)
Defence	+29.8
Foreign Office	- 4.1
E.E.C.	-43.3
Agriculture	+62.6
Trade & Industry	-56.0
Energy	-0.3
Employment	+67.2
Transport	-8.0
Dept. of Environment - Housing	-59.0
Dept. of Environment - Other	- 5.3
Home Office	+40.7
Education	-0.6
Arts	+13.3
Dept. of Health & Social Security - Health	+19.7
Dept. of Health & Social Security - Social Security	+33.7
Scotland	+5.7
Wales	-0.4
N. Ireland	+6.8
Chancellor's Department	-10.8
Other Departments	-10.7

*Source: The Government's Expenditure Plans for 1986-87 and 1988-89 Cmnd. 9702
volume ii pp 6-7*

The Royal Commission on the N.H.S. reported to the new Government in July 1979. It was not as critical of the N.H.S. as some of the Conservatives had hoped; a point it brought out in its conclusions:

*“We are all too conscious that our report will be disappointing to those who have been looking to us for some blinding revelation which would transform the N.H.S. Leaving on one side our non - capacity for revelation of this kind, we must say as clearly as we can that the N.H.S. is not suffering from a mortal disease susceptible only to heroic surgery. Already the N.H.S. has achieved a great deal and embodies aspirations and deals of great value. The advances to be made - will be brought about by constant application and vigilance”*¹³

The commission also concluded that there was one tier too many in the administrative structure and in December 1979, the government document ‘Patients First’ set about removing the Area Health Authority tier. This was to be done by giving districts autonomy and establishing individual statutory authorities. Legislation was passed and by April 1982 the second N.H.S. reorganisation had been completed.

The reorganisation initiated by the new Secretary of State, Patrick Jenkin, did not remove the spending cuts dilemma or the need for greater health service efficiency.

Treasury ministers were concerned about the financial consequences of the long term impact of the rapid rise in welfare expenditure and the slow rate of economic growth, and so the Central Policy Review Staff or ‘Think Tank’ (C.P.R.S.) discussed the government’s macroeconomic dilemma of containing public expenditure over the course of the next few years if taxation was to be cut as planned.

The report was produced in September 1982, with public spending and taxes projected on the basis of existing policies and commitments with suitable adjustments for inflation. It foresaw two scenarios. One was very similar to the Medium Term

¹³ The Royal Commission on the National Health Service (Cmnd. 7615) July 1979

Financial Strategy (M.T.F.S.) and assumed a 2.5% rate of growth and an average of 5% inflation. The second predicted a 0.75% rate of growth until 1985-86 and 0.5% growth p.a. from 1986-90 with a 10% average inflation rate.

The key was, of course, public spending and Table 2 shows both the projected growth of public expenditure and its growth in real terms under both scenarios.

Table 2: Public expenditure for the rest of the 1980's: Percentage change between 1982-83 and 1990-91 in real terms.

Area of spending	High growth Scenario	Low growth Scenario

Total (incl. debt interest)	+12.6	+11.6
Defence*	+39.7	+39.7
Industry,Energy,Trade,Employment†	-1.0	+7.9
Education,Science and Arts	-2.0	-3.9
Housing	+20.9	+89.9
Health and personal social services	+24.4	+17.5
Social Security	+7.1	+2.5

* Increase of 26.1% if defence costs are assumed not to rise faster than inflation generally.

† excluding grants to nationalised industries

Source: Report of the inter departmental group of officials to Cabinet Sept. 1982

The differences in the expected rates of growth of expenditure can be explained largely by the varying impact of the two growth projections upon the relative rate of change of costs in the public sector. The latter were assumed to increase faster if the economy grew more rapidly. There were also complicated offsetting factors; higher growth was assumed to lead to more road building, while continued slow growth was

taken to imply higher spending on industry, employment and housing.

Under both scenarios public expenditure would clearly grow more rapidly than could be desired by the government. The C.P.R.S. paper examined the options and made radical proposals, implying that over the medium and long term some existing commitments would have to go if public spending was to be held broadly unchanged in real terms from 1983 onwards. The 'Think Tank' outlined four major areas for possible savings; defence, social security, the N.H.S. and education.

The proposals for the N.H.S. suggested the option of introducing private health insurance, eventually saving £3-4 billion a year from a total budget of £32.5 billion in 1982-83. There might have to be a compulsory minimum of private insurance for everyone. In the interim, charges could be introduced for visits to the doctor and could be raised further for prescriptions. The inter-departmental team had assumed that the growth rate under the low growth scenario could barely sustain present standards.

The contents of the paper horrified ministers and, under pressure, Mrs. Thatcher withdrew it from the cabinet agenda. Widespread outcry followed as the report was leaked to 'The Economist', but its starting assumptions were not accepted by everybody. There was some evidence that with a moderate (2-3%) rate of economic growth the demographic trends would not increase pressures on the public purse until the year 2020 and a crisis would only occur if the economy failed to grow by 2% or more.¹⁴

Nevertheless, with an election looming, the Conservatives were forced to disown the report and make a series of commitments which appeared to rule out the more radical solutions. In particular, the current broad pattern of financing the National Health Service was to be maintained

"The National Health Service is safe with us. As I said in the House of Commons on

¹⁴ The Economist 18/09/82

December 1st last, the principle that adequate health care should be provided for all regardless of ability to pay must be the function of any arrangements for financing the .H.S. We stand by that” ¹⁵

The continuing financial pressures had given the drive towards privatisation and contracting out a new momentum, typified by the following quotation from the D.H.S.S.

“The development of private facilities draws on other sources of finance and increases total health care provision in this country and, in so doing, helps to bridge the gap between the demand for health care and its supply. The independent sector can relieve ressure on hard pressed N.H.S. services” ¹⁶

The philosophy was summed up by Sir Geoffrey Howe in July 1982 when he said:

“There are more powerful reasons why we must be ready to consider how far private provision and individual choice can supplement, or in some cases possibly replace, the role of Government in health, social security and education. Most of these reasons are economic. The way forward must embrace a constant readiness to review our commitments and to consider market mechanisms as a means of promoting greater cost consciousness and of extending choice. We must meet the increasingly frustrated demands of society in a fair and efficient way ”.

As the following table shows, the electorate of the country were not as convinced as the government about the need to control public spending and reduce taxes.

¹⁵ Margaret Thatcher - Speech to Conservative Party Conference, Brighton, 8/10/82

¹⁶ Note to Chairmen of Regional Health Authorities, Feb. 1983, quoted in Ridell (1985)

Table 3: Attitudes to taxes and benefits 1978-85

Question: People have different views about whether it is important to reduce taxes or keep up government spending. How about you ? Which of these states comes closest to your own view (Figures given are in percentages)

	Oct. 78	May 79	Feb. 80	Mar. 81	Feb. 82	Mar. 83	Feb. 85
Taxes being cut even if it means some reduction in govt. services	25	34	22	20	21	23	16
Things should be left as they are	23	25	20	23	26	22	18
Govt. services should be extended even if it means higher taxes	39	34	52	49	49	49	59
Don't know	13	7	6	8	5	6	6

Source: Gallup Political Index ¹⁷

Whilst the government was struggling to allay the fears caused by the C.P.R.S. report it was also facing a bitter dispute with the N.H.S. unions. The Health Service unions, mindful of their unpopularity in the 'Winter of Discontent' when their strike

¹⁷ Kavanagh (1987) p 294

ction seemed to be designed to maximise patient distress (according to the conservatives), kept disruption in 1982 down to a minimum. Nevertheless, there were several crises caused by strike action and a 24 hour stoppage in June severely reduced hospital services with non-emergency patients no longer admitted for treatment. A Trades Union Congress (T.U.C.) sponsored 'Day of Action' in support of Health Service auxiliary workers also caused disruption and a mass rally of health unions in Hyde Park promised continuation of the battle for higher pay. This was followed by a series of regional stoppages, backed by the T.U.C. The Social Services Secretary, Norman Fowler, refused to give way and the dispute ended in December 1982 when the unions accepted the 6% for ancillary workers and 7.5% for nurses that had been on offer since June. Rodney Bickerstaffe, the N.U.P.E. General Secretary, was quoted in 'The Times' (6/12/82) as being *'bitterly disappointed'* and added *'health workers have been a dedicated and exploited group of workers for a very long time. The dedication will continue but so will the exploitation'*

The strike served to display the difficulty of allocating revenue within the Health Service between patient care and employee satisfaction. The pledges at the 1982 Party Conference to continue the N.H.S. in its existing form had stopped any radical reforms for the time being, but as one Cabinet Minister noted, reforms would not be long delayed:

*"What is sacred is the high priority to quality health care and absolute protection for those who cannot pay bills at the point of sale. That will remain the long term sacred aim. The cow is the Health Service administration, riddled with inefficiency. The ancillary services could be better done outside. You need to chop up the cow and its not part of the Conservative's 'One Nation' tradition to keep in being every bureaucracy"*¹⁸

In January 1983 Norman Fowler set out the Conservative plans for reforming

¹⁸ Holmes (1985) p 44

the welfare state. His aims were, first, that the proper starting point for the consideration of social policy was the economy; second, that the government should get the best possible value for the amount of money the taxpayer provides; and, third, that not everything should or can be done by the state. Whilst this was not an overt challenge to the post - Beveridge consensus (the provision of free and comprehensive state services) it did suggest a change of emphasis and priorities.

In October 1983, following the Conservatives⁹ re - election, the N.H.S. Management Enquiry (also called the First Griffiths Report) was published which swept away Sir Keith Joseph's structure of the previous ten years. The Joseph plan had involved the input of a doctor, nurse, treasurer and administrator working as a management team. The management enquiry concluded in favour of a single general manager to operate at unit, district and regional level. This was to be accompanied by a Health Services Supervisory Board to be chaired by the Secretary of State, and a Management Board accountable to it, with an executive chairman (Sir Roy Griffiths suggested that this post should be filled by a non-civil servant and someone from outside the N.H.S.). The report was implemented in June 1984.

The Thatcher Governments⁹ can justifiably claim to have maintained expenditure on the Health Service not only in real terms, with an average annual growth of 3%, but also in relation to various output indicators. The number of nurses and midwives rose by 45,000 to 396,000 between 1978 and 1982; the numbers of doctors and dentists by 4,000 to 40,000; while the number of ancillary workers fell by 2,000 to 170,000. Despite promises to prune bureaucracy and the abolition of the middle tier of management authorities, the number of administrators and clerical workers rose by 8,000 to 108,000. The number of in patients treated rose at an annual rate of 3% between 1978 and 1981, largely due to the shorter stays of patients in hospital.

The overall figures appeared to point to a continuity of policy, but there have been important changes. For demographic reasons the annual rise in resources must be

around 1% simply to maintain the existing provision of services. In addition, a rise of 0.5% annually is necessary because of the costs of medical advances and to finance innovation without reducing standards elsewhere. After allowing for all these factors and the increase in charges, the rise in real resource improvements in N.H.S. standards since 1979 has been at most 1.5% p.a.

However the U.K. spends a far lower proportion of G.D.P. on health care than any other comparable western industrialised nation. We are 17th in a 'league table' of 21 Organisation for Economic Co - operation and Development (O.E.C.D.) countries. When U.K. health care spending as a proportion of Gross Domestic Product (G.D.P.) is compared to other nations only Greece, Spain, Portugal and New Zealand spend less.

Table 4: Total health care expenditure as a percentage of G.D.P. (1984)

Country	% of G.D.P.	Country	% of G.D.P.
U.S.A.	10.7	Finland	6.6
Sweden	9.4	Japan	6.6
France	9.1	Denmark	6.3
Netherlands	8.6	Norway	6.3
Canada	8.4	Belgium	6.2
W. Germany	8.1	U.K.	5.9
Eire	8.0	Spain	5.8
Iceland	7.9	New Zealand	5.6
Australia	7.8	Portugal	5.5
Austria	7.2	Greece	4.6
Italy	7.2		

on the context?

Source: *Measuring Health Care 1960-83 O.E.C.D. Paris 1985*

Though it is correct to say that U.K. expenditure has been steadily rising (in

1949 £433 million was spent, in 1989 £23.5 billion or 4 times as much at constant prices) it is clear that the U.K. spending as a percentage of G.D.P. (unchanged since 1984) is well below the O.E.C.D. average (5.9% as compared to 7.5%). Comparative studies show that *per capita* spending in the U.K. is nearly 30% below the level that could be expected in terms of the U.K.'s G.D.P. per head.

Against the Government's achievements in increasing overall resources and the number of patients treated there have been problems. From 1981-82, Local Health Authorities have been required to provide some resources for the development of services through efficiency gains, with a target of 0.5% per year. The government has reinforced this efficiency drive with measures to strengthen accountability and the introduction of manpower targets for each staff group totalling cuts of 0.75 to 1% by March 1984. Problems have occurred when health authorities have had to finance higher than planned wage increases out of their existing budgets and so have reduced the money available for other services; and also the attempt to redistribute resources between regions on a more equal basis has squeezed the resources available to many health authorities.

With the government's plans for more radical funding abandoned, ministers turned to alternative sources of finance and the private sector to help pay for the N.H.S. Income from prescription charges, private patients, overseas visitors and personal social services rose from £345 million in 1978-79 to £750 million by 1982-83 and more slowly through the remainder of the decade. This was equivalent to a rise from 4.4 to 5.1% of gross health expenditure. For N.H.S. charges alone, the rise was from 2.2 to 3.1% of gross spending on health. Basic prescription charges had risen from 20p per item in 1979 to over £2.80 by 1989 (but over half the people who present prescriptions are exempt from the charges). The decision to use generic substitutes for branded drugs generated savings of over £150 million per year and from 1982-83 income tax relief was restored on employer - employee medical

insurance schemes and restrictions on partnership between the private sector and the N.H.S. were eased.

All of this led to an increase from 2.5 million to 4.2 million people insured with the 3 main provident associations and a private sector of 34,000 beds with 3,000 private beds in N.H.S. hospitals (compared to the 380,000 beds in the N.H.S.) There has also been an increase in the contracting out of cleaning, catering and laundry services (which costs the N.H.S. £800 million p.a.) but the combined effect of all these actions in containing public spending growth was highly marginal.

As the government continued to struggle with the problems of financing the N.H.S. it was faced with the threat of an industrial dispute with the nurses in 1987. The nurses were angry that recommendations of the independent pay review body (set up in 1982) after the last dispute were being ignored. 18 days before Mrs. Thatcher called a general election the nurses were paid in full.

Another major problem with the N.H.S. was the waiting lists. For the first 25 years of the N.H.S. close to half a million people were on waiting lists for hospital admission. From 1973 onwards waiting lists increased in four distinct stages (three of which coincided with N.H.S. industrial action). The first widespread strike of hospital ancillary workers in 1973 increased waiting lists that had been falling since 1971. In 1975 consultants and junior medical staff took industrial action by 'working to rule' and the lists grew again. By 1977 there were 600,000 on waiting lists. The third rise, never satisfactorily explained, occurred in 1978 when lists grew by 50,000. In 1982 there was further industrial action by ancillary workers and waiting lists rose to 750,000.

In March 1987 the government announced a £50 million waiting list initiative. It was to consist of two yearly tranches of £25 million and health authorities had to make specific bids for the money. The aim was to cut waiting lists by 100,000. The problem was that as health authorities were investing this new money to reduce waiting lists,

they were having to cut back on their existing budgets with the overall effect of increasing waiting lists. By 1989 waiting lists were around 960,000

Following the third successive Conservative election victory in June 1987 reform of Health Service was put back on the agenda. The super-ministry of the D.H.S.S. was broken up into the Department of Health and the Department of Social Security. In 1988, the King's Fund estimated that in addition to the nurses pay increase an extra £400 million spending in 1988-89 would make up for the past 6 years and allow the N.H.S. to start from a new base. Instead, Mrs. Thatcher announced a fundamental review controlled directly by herself which culminated in the White Paper 'Working for Patients'.

Summary

The Conservative governments of the period 1979 - 1987 increased spending on healthcare (although many of their critics felt that it was still not enough), however, their plans for radical reforms were withdrawn in the face of public opposition and disruption with the health service unions. It was not until after their third election victory in 1987 that health service reform (other than changes to the managerial structure) was to be enacted. The alternative proposals for reform will be detailed in the next section of this thesis.

SECTION TWO
THE OPTIONS FOR REFORM

CHAPTER FOUR
STRUCTURE AND FUNDING OF THE PRE - REFORM NATIONAL
HEALTH SERVICE

STRUCTURE AND FUNDING OF THE PRE-REFORM NATIONAL HEALTH SERVICE

Introduction

This chapter of the thesis examines the development of the structure of the National Health Service over the period 1948 - 1989 and how the structure laid down by Bevan was changed over time by both Labour and Conservative governments. It then proceeds to outline how the service was funded and what the major items of expenditure were.

The National Health Service Act (1946) called for the Minister of Health to 'promote the establishment in England and Wales of a comprehensive health service designed to secure improvement in the physical and mental health of the people of England and Wales'. A similar duty was laid on the responsible minister in Scotland.

The service was divided into three parts:

- (a) Hospital and specialist services
- (b) Local health authority services
- (c) Executive council services for general and dental practitioners

This structure remained unchanged until 1974. The reorganisation of Sir Keith Joseph (see Chapter Two for details) brought local authority health services into new Area Health Authorities and left G.P.s with their own administrative vehicle, now renamed Family Practitioner Committees (F.P.C.) working under the new area health authorities.

In 1980 the Health Services Act established a two tier structure. It was implemented in 1982 and is, organisationally, more of a federated than a centralised national service. Indeed, there is great contrast between the decentralised way in which the N.H.S. is administered and the more highly centralised social security system.

There are variations in the structure of the N.H.S. in each part of the U.K., so that although provision may be national, organisation is not.

At the first level, England is divided into regions. There are 14 Regional Health Authorities (R.H.A.s) responsible to the Department of Health. At the lower level there are 191 District Health Authorities (D.H.A.s). The boundaries of the districts are largely determined by the idea of 'natural communities', often based around a district hospital and its catchment area.

The variations in the rest of the U.K. include the absence of a regional tier in Scotland, Wales and Northern Ireland. In Northern Ireland there are also joint Health and Social Service Boards. The responsibility for health services in these parts of the U.K. rests with the three Secretaries of State for the territories. England also has 20 special health authorities covering a wide range of post-graduate teaching hospitals, such as the Royal Marsden and the Great Ormond Street Hospital for Sick Children. These are responsible directly to the Department of Health.

The R.H.A.s currently have three distinct roles; (1) to allocate central government funds to District Health Authorities, (2) to set regional strategy and policy to make the most effective use of resources and (3) to ensure that all areas of health care are adequately provided, and to provide common services to take advantage of economies of scale. The most important task of the R.H.A. is the allocation of money to the D.H.A.s; this has become more critical, since money has been allocated differentially to R.H.A.s because this made their decisions on allocations within regions more difficult and important in terms of carrying the redistribution of resources down to areas where it affects the patients.

The sources of funding

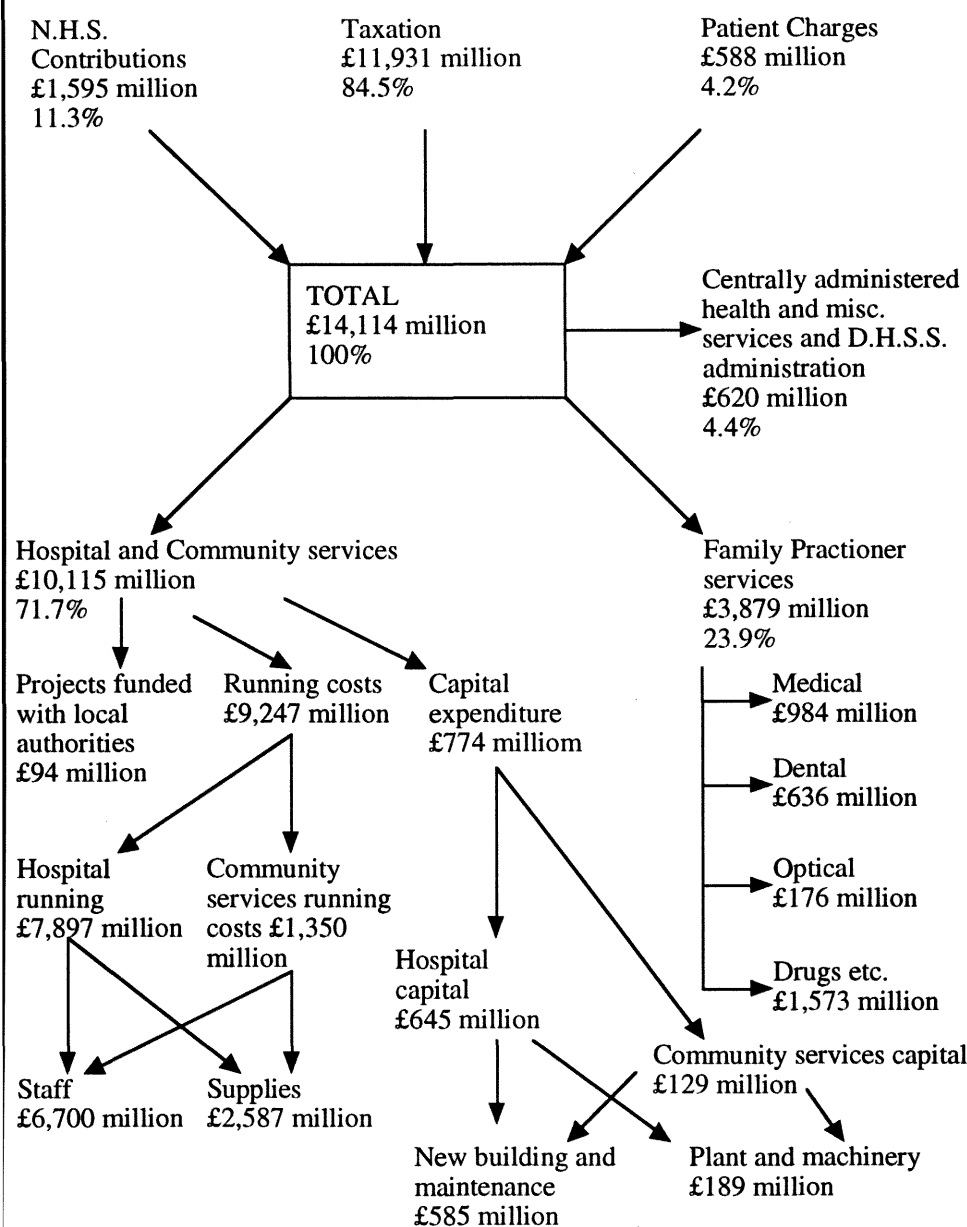
Almost all of the finance for the N.H.S. comes from the government. Over 10% of all public spending is absorbed by it and it is the U.K.'s largest single employer. At

local level, the N.H.S. gets some income from donations, sales of land, voluntary fund raising, private patients and charges for services to the private sector. However such sums are relatively small, amounting to only a few hundred million pounds. Government accounting also treats prescription charges as N.H.S. income, although in practice they are paid into a general funding pool (even if paid directly to the N.H.S. they would meet only 12% of the running costs).

Spending

As the following diagram (Fig.1) shows the N.H.S. budget is dominated by expenditure on hospital and community health services. Of this the bulk goes on staff costs (mainly in hospitals). It should be noted that family practitioners are organised separately and are self employed and therefore funded differently.

Figure 1: N.H.S. Expenditure



Source: N.H.S. funding and expenditure in England 1984-85 ¹⁹

Not all health provision at local level is controlled by the districts; family

practitioners, dentists, chemists and opticians are self-employed and contracted to the N.H.S. to provide services. The basis of payments differs widely between the groups, including the number of patients and the type of service provided. It is obvious that the cost to the N.H.S., therefore, depends upon which services are being paid for, the rate paid for such services and the numbers who use them. It is this element of customer discretion which makes it so hard to predict and control costs.

In the U.K., until the mid 1970's, there was a wide variation in the scale of provision of health care between different parts of the country. The then Labour Government decided that the main principle of allocation of funds should be that there should be comparable levels of service throughout the U.K. (as with the allocation of local government finance) to create equal access to health care.

To achieve greater fairness, in May 1975, the Minister of Health, Dr. David Owen, established the Resource Allocation Working Party (R.A.W.P.) to '*review the arrangements for distributing N.H.S. capital and revenue...with a view to establishing a method of securing... a pattern of distribution responsive objectively, equitably and efficiently...to relative need...*'²⁰.

When the working party reported, in September 1976, it recommended that the needs of the regions should be assessed according to a number of formulae based on factors such as population, characteristics, standard mortality ratios (S.M.R.s) and flows of patients across boundaries. From these formulae the allocations are decided.

Since 1976, the allocation of funds has followed the principle that the worse off regions receive the largest proportion of annual funding growth in order to obtain equalisation with the better off regions who receive less. The annual allocations to regions have been based on the previous year's approved expenditure, with an allowance for inflation, to which has been added a percentage growth determined by the funding relative to the R.A.W.P. targets.

²⁰ Owen (1988) p 61

In 1979-80, the poorest region was 9% below its R.A.W.P. target allocation, the richest 13% above. By 1984 - 85, these ranges had narrowed to 5% and 9% respectively. The R.A.W.P. formula has been modified over time; in 1985-86, it moved from an historical 2 year population factor to a projected population for the year of allocation. This made the R.A.W.P. more responsive to movements of population. Cross boundary flows between districts to reflect patient movements were incorporated in 1987. There are, of course, many problems associated with such formulae; for example, R.A.W.P. cannot reflect the different costs of treating different conditions. There have also been doubts expressed concerning the significance of S.M.R.s, or the suggestion that there is a relationship between S.M.R.s and actual need. A further problem was that the teaching hospital factor helped the four London regions (via the Service Increment for Teaching - S.I.F.T.) although it did not fully compensate for higher labour costs in the capital. The regions in the North argued that this was unimportant since they received nothing extra to reflect economic and social deprivation. Despite such difficulties, the R.A.W.P. was generally accepted within the N.H.S.

There was a separate R.A.W.P. formula for capital funding based on population distribution forecasts, but with no way of considering the age and condition of capital items.

Financial allocations below the regional level did not continue on the basis of the R.A.W.P. formula. The R.H.A.s had a variety of different allocation methods and discretion over how much of the funds they retained (this was called 'top slicing' and provided for regional services such as administration and blood transfusion.)

The R.A.W.P. formula did not extend to doctors. Even though doctors were paid by the district they were employed directly by the N.H.S. This meant that unlike spending on nurses, savings could not be made on doctors salaries to make up any

shortfall at the district level. It also meant that it was harder to equalise provision between regions since the distribution of doctors was not covered by the formulae.

Accountability, Control and Audit

In England, district management is responsible to the D.H.A. whose chairman is appointed by the Secretary of State. Regional management is responsible to the R.H.A., all of whose members are appointed by the Secretary of State, who is responsible to Parliament.

The practice is somewhat different ^{from} to the foregoing theory. The relationship between the D.H.A. and R.H.A. is unclear and there are direct links between the regional management and the Management Board, established in 1985 to carry out management functions on behalf of the D.H.S.S. (as it then was). This board is ultimately responsible to the Secretary of State.

Internal controls in the N.H.S. have developed in recent years to conserve resources. Normal budgetary procedures have been assisted by management information systems and the widespread use of performance indicators. Efficiency studies have also been undertaken by Sir Derek Rayner (now Lord Rayner), the former head of Marks & Spencer.

The formal audit operates at three levels; firstly the internal N.H.S. auditors undertake detailed work going from the Treasurer at district level to the regional Treasurer. This work is complemented by the D.o.H. / D.H.S.S. audit staff who report to the R.H.A. and the Secretary of State. Finally, the National Audit Office (N.A.O.) certify the consolidated N.H.S. accounts.

Summary

This chapter has outlines the structure of the N.H.S. prior to the reforms of 1989. The organisational structure is complex and varied across the U.K. This made

the control of costs difficult, since not all patient services were controlled at the district level, and the attempt to equalise health service provision through the R.A.W.P. formula was only partially successful since it failed to cover, among other things, the distribution of doctors. The next chapter will examine the concepts of equity and efficiency which were to be the key concerns of those suggesting reform of the structure and funding of the N.H.S.

CHAPTER FIVE
EQUITY AND EFFICIENCY

EQUITY AND EFFICIENCY

Introduction

Welfare economics concerns itself with the appraisal of economic systems. This chapter will begin by examining the optimality of the resource allocations produced by the market mechanism. The most widely used measure of evaluation is Pareto efficiency and the conditions necessary for such a resource allocation are examined.

The other major concern of welfare economics, particularly when applied to health care is the concept of equity. The remainder of the chapter examines some of the most widely used definitions of equity in the field of health service reform.

Pareto Efficiency

"The way forward must embrace a constant readiness to review our commitments and to consider market mechanisms as a means of promoting greater cost consciousness and of extending choice. We must meet the increasingly frustrated demands of society in a fair and efficient way" ²¹

Microeconomic theory has tended to be concerned with goals and, traditionally, economists have identified two major goals of economic life; efficiency and equity.

Efficiency basically means obtaining the most output at the least cost, whilst equity means distributing the output and the burden of its production in an equitable or fair manner. The concept of equity is a subjective one since there is no objective method which can be used to evaluate the fairness of a situation and no comparison of judgments made with others. It is not really possible for an economist to state whether or not a policy is fair, only whether or not he believes it to be fair.

²⁰ Maximum efficiency, or optimality, in an economic system occurs when *"it would be impossible to make someone better off without making anyone else worse*

²¹ Howe (1983)

off'' 22.

This is the major concern of welfare economics; the effect of economic policies on the level of welfare of individuals or groups. Welfare has been defined as a measure of 'well being' and economists have found it very difficult to give a more precise definition and it is usually represented by utility.

Before going on to define the terms of efficiency and equity it is necessary to consider other aspects of welfare economics concerning the improvement of welfare and Pareto optimality.

The major problem with utility is that it is impossible to measure it in absolute terms and this leads to the inevitable problem that it is equally impossible to aggregate the change in community welfare without it first being necessary to judge the merits of distribution patterns. The only clear scenario is that an increase in the welfare of every individual must lead to an increase in community welfare; in any other case it is extremely difficult to draw any conclusions.

The social welfare function was an approach to this problem which relates the overall welfare of a community to all the factors which might affect it, but it is obvious that this can only be achieved by incorporating the distributional judgments outlined above. This makes the Social Welfare Function (S.W.F.) almost impossible to use.

The Italian economist, Vilfredo Pareto (1848-1923), writing in the early years of this century recognised the limitations of the S.W.F. and based his work on avoiding distributional judgments, since they are highly controversial and not particularly easy to use. He defined an improvement in community welfare as only taking place if it involved an increase in the utility of one individual and a decrease in the utility of no other. This kind of change is seen as an increase in efficiency. Pareto

²² Scitovsky (1952)

himself defined a position of maximum efficiency as being where no one could be made better off without someone becoming worse off (*N.B.* This need not be a position of maximum welfare)

The development of Pareto's principles into conditions defining a position of maximum efficiency is based on the proposition that in such an optimum state it is not possible to redistribute resources so that an individual is able to obtain greater satisfaction except at the expense of another.

How do we recognise when such a state has been reached ? Boulding (1948) defined a number of marginal conditions which must exist if a redistribution making someone better off without making anyone else worse off is impossible:

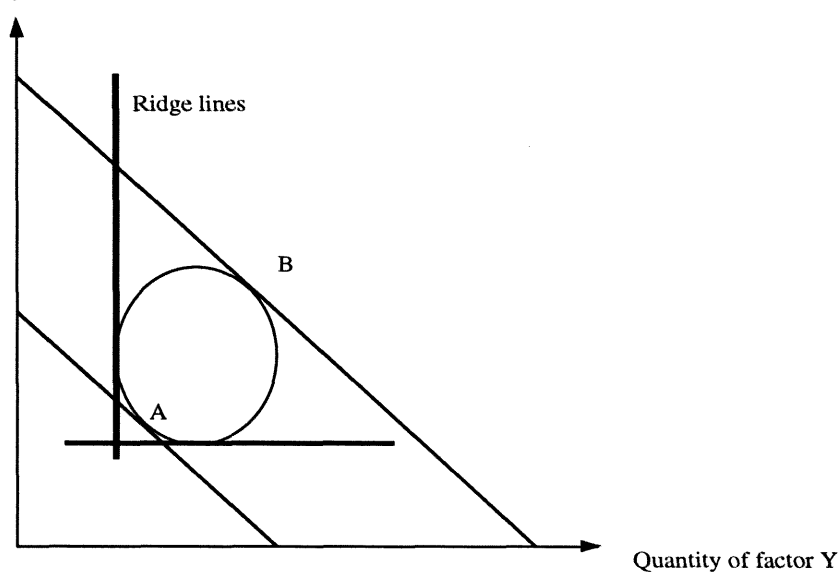
- If transformation from one economic variable to another is possible then the rate of indifferent substitution between them must be equal to the rate of technical substitution;
- and
- All equivalent rates of technical and indifferent substitution must be equal

The problem with these conditions is that not only do they help define a minimum but also a maximum level of efficiency. This should not prove to be too great a handicap since once a turning point has been identified the redistribution of resources should indicate if the position is a maximum or minimum.

This can be simply demonstrated using classical production theory in which a firm determines the optimum combination of inputs to ^{Produce} a certain output. If we take a given price ratio between the two factors of production then we know that the most efficient combination of factors is the point at which the rate of exchange between them in the market is equal, shown at point A in the following diagram (Fig.2)(i.e. where the isocost curve meets the isoquant).

Figure 2: Optimum Combinations of Inputs

Quantity of factor X



Quantity of factor Y

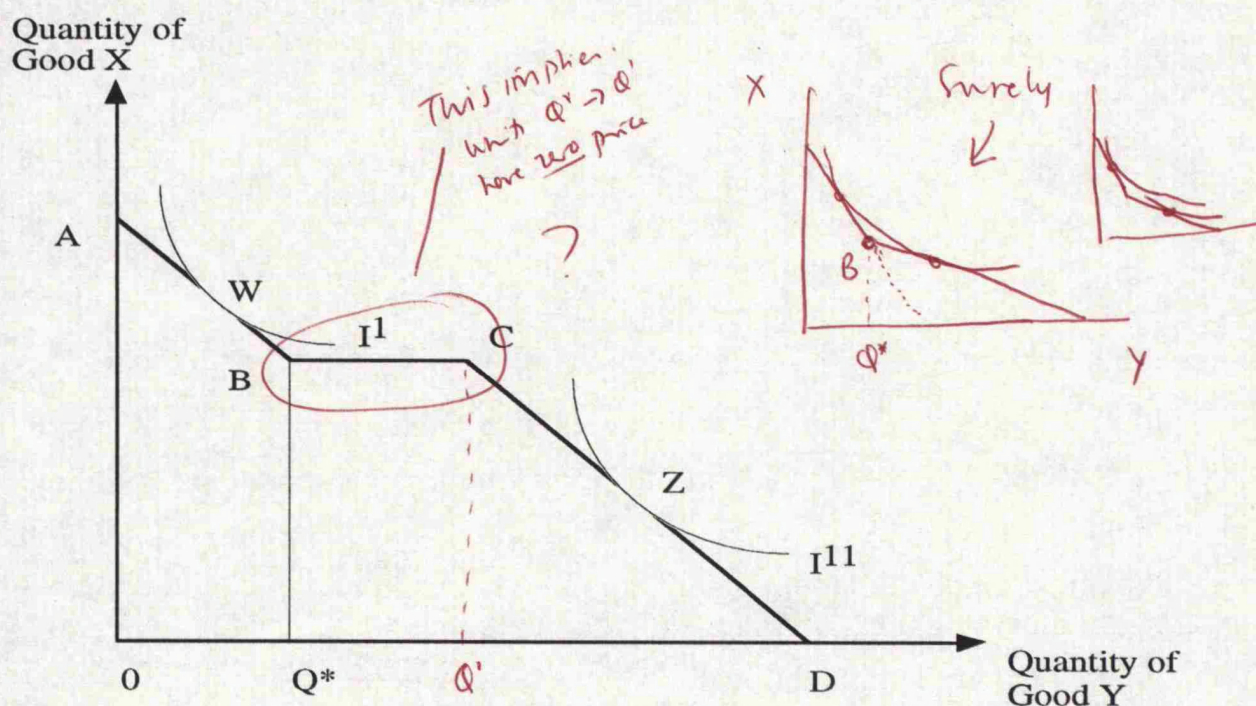
The isoquant does, however, continue beyond the ridge lines (which mark where the marginal return to each factor is negative) and curves backwards, which shows that with sufficient factors then the same level of output can be achieved but with much greater costs. The point B satisfies the necessary conditions for most efficient production but at minimum efficiency. In practice, of course, no producer would add factors until they yielded negative returns.

Other conditions are more serious; the first occurs where there are a number of positions of local welfare maximisation where the marginal conditions are satisfied. Pareto gives no help as to which maximum welfare position should be the objective. The problem becomes more acute if it is decided to pick a point when higher welfare could be achieved at a different point (this is the optimum otimorum where overall welfare is greatest). Normal economic analysis tends to ignore such a situation by having single well defined points of maximum efficiency. In real life, things tend to be rather different and the consumer choosing between two goods may find he will

receive a discount on one of the goods if he buys a certain quantity, so he faces different relative prices depending on the quantities purchased.

This can be shown quite simply on the following diagram (Fig. 3), where a discount is available on good Y after quantity $0Q^*$ has been purchased.

Figure 3: Achieving Efficiency in a market with different relative prices



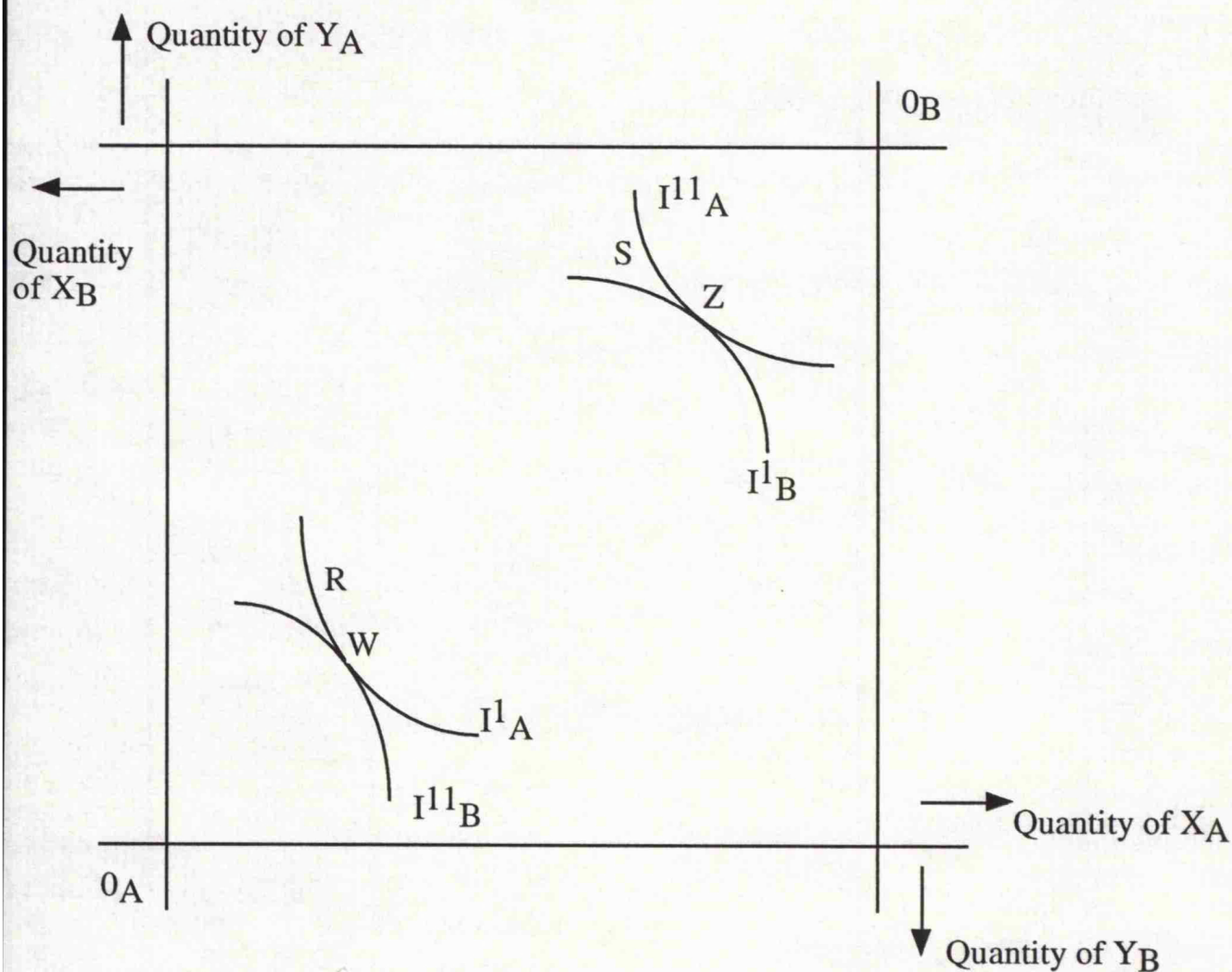
The budget line (ABCD) changes shape as good y become relatively cheaper after B. If the consumer wishes to maximise his/her utility *i.e.* by reaching the highest indifference curve for a particular budget line, then according to Pareto, he/she will do so at the point where the rate of exchange in the market (slope ABCD) is equal to his/her indifferent rate of substitution between the goods (curves I^1 and I^{11}). This means maximum efficiency is at the point of tangency, but in this case there are two such points, W and Z. Point Z represents higher welfare since I^{11} is further from the origin than I^1 , but the individual may not realise this and may end up at point W.

The other major problem with Paretian Theory is that it only allows comparison of an optimum position with a non-optimum. In practice, an optimum may

not be either an achievable or desirable objective (*i.e.* due to equity considerations or market imperfections). In such a circumstance Pareto's conditions are of no use in comparing sub-optimal situations

An example of such a sub-optimal position is where 2 people (A and B) are trading in an Edgworth Box (Fig. 4) with fixed amounts of two goods (X and Y). They will achieve maximum efficiency on the 'contract curve' (which is the locus of points of tangency of their indifference curves mapped from diagonally opposite origins). We know from Pareto that any point on the 'contract curve' is more efficient than a point not on it since it represents the locus of points where the rate of indifferent substitution between X and Y is the same for both A and B.

Figure 4: Contract Curves



If we were at point R then we could redistribute resources to increase efficiency by moving to W. A would be no worse off since he/she is still on the same indifference curve but B will be better off since he/she will be on an indifference curve further from his origin. If, however, it were impossible to reach such points as W and Z then we cannot use Pareto to compare the relative merits of S and R.

The Paretian approach is, despite its deficiencies, a highly important piece of welfare economics and Pareto optimal allocation can be characterised by a series of efficiency conditions.

Definitions of Efficiency

It is here that we can break up the term efficiency, which was broadly defined earlier, into; exchange efficiency, production efficiency and overall efficiency.

The exchange efficiency conditions mean that with the allocation of a given bundle of commodities among the households of the economy it would not be possible by reallocating the commodities to make one household better off without making another worse off. This will be the case where the Marginal Rate of Substitution between any pair of commodities is the same for all households. In a competitive economy, all households face the same set of prices but are interested only in their own consumption, the efficiency condition will be satisfied since each household will set its M.R.S. equal to the price ratio in order to maximise utility.

The production efficiency conditions characterise the efficient allocation of the economy's factors of production in producing its output. An economy will be producing efficiently if factors are allocated in such a way that it is impossible to reallocate them to produce more of one good without producing less of another. This will occur when the Marginal Rate of Technical Substitution (M.R.T.S.) between any pair of factors is the same in the production of all goods using the factors in a competitive economy, with firms facing the same prices and their production functions

depending only on their own inputs. The efficiency conditions will be satisfied because each firm will minimise costs by selecting a combination of factor inputs so that the factor price ratio is equal to the M.R.T.S.

For each of the points on the Production Possibility Frontier satisfying the production efficiency conditions there will be a large number of ways of allocating the bundle produced among households so that the exchange efficiency conditions will be satisfied. This large number can be reduced by introducing the overall efficiency conditions; an allocation will not be Pareto optimal overall if it is possible to reallocate production and distribution so as to make one person better off while making no one else worse off. This will occur when the Marginal Rate of Substitution (M.R.S.) between each pair of commodities equals the Marginal Rate of Transformation (M.R.T.) In a competitive economy where firms are price takers and face the same prices as households then the condition will be satisfied as firms will produce at the point where price equals marginal cost (since the ratio of prices is equal to the M.R.S. of households and the ratio of marginal costs equals the M.R.T.).

There are other types of efficiency which are worth considering; notably technical efficiency and X-efficiency.

Technical efficiency can be simply explained as being the case where the costs of producing a given level of output are minimised or the level of output maximised for a given level of cost.

The concept of X-efficiency is rather more controversial and was first advanced by Harvey Liebenstein in 1966. He later described X-efficiency as:

“Suppose that certain inputs have been allocated to a firm. These inputs can be used with various degrees of effectiveness within the firm. The more efficiently they are used the greater the output. When an input is not used effectively, the difference between the actual output and the maximum output attributable to that input is a

*measure of the degree of X-inefficiency”*²³

Basically an X-inefficient producer allows his costs of production to be higher than necessary by allowing such things as slackness or lack of effort (see Liebenstein, 1978) and this leads to a reduction in profits.

Comanor & Liebenstein (1969) argued that welfare losses due to X-inefficiency are much more important than those caused by overall or allocative inefficiency, but this has been disputed by Parish & Ng (1972) who argue that the gain to the producer in ease and leisure means welfare losses due to X-inefficiency are negligible.

Equity

In health economics the role of equity has been considered important, indeed many people would rate it higher than the traditional concerns of efficiency (for example, Mooney (1986) and McLachlan & Maynard (1982))

The major problem with equity is that the term is capable of a wide number of interpretations depending largely on the values of the person using it. This contrasts with the concept of efficiency, where a close consensus of interpretation exists based upon Pareto, outlined above.

In the field of health care, the economists Le Grand & Mooney have developed the definitions of equity which are most useful. The most common of these are; ‘equal treatment for equal need’, ‘equality of access’ and the rather more infrequently used ‘equality of health’. The rest of this chapter will attempt to analyse these definitions and attempt to find a interpretation of equity which can be applied to health policy.

‘Equal treatment for equal need’

The concept that individuals with the same need of health care should receive the same treatment has considerable appeal as a suitable definition of equity. A large

²³ Liebenstein (1978) p 16

part of its appeal is due to the implication that medical care should be distributed independently of any other criteria (i.e. income). In this approach, it would seem unjust if two individuals with the same disease received different treatment because one had more wealth or a better education than the other.

However, this definition does lead to difficulties with interpretation. For example what exactly is meant by treatment ? Does it refer to quantities of medical care or to the valuation placed by the patient on the treatment he/she receives or on the expenditure on medical care ? There are similar difficulties in defining need; is this what the patient wants, or what he/she would purchase at the prevailing price ? (for a more detailed discussion of these points see Mooney (1983,1986) and Williams (1978)). The major question, though, remains; does equal treatment for equal need (however defined) always remain consistent with equity ? Economists have found it easy to find examples where equal treatment is not automatically equitable. There is the example of two equally ill patients, one of whom, due to his superior physique or level of nutrition, responds better to medical treatment than the other. In this situation it is obvious that equality of treatment will lead to inequality of outcome, so most people would consider it more equitable to give the patient with the poor recovery response more treatment. This should bring his level of health closer to the other patient and so result in greater equity of outcome.

It is possible to argue that, in the foregoing example, the two patients are not equally needy, since one needed more treatment than the other to attain an equivalent improvement in health. The differential response does imply differences in need, so this is really a case of unequal need requiring unequal treatment. Glover (1977) cites the case in which there is one place in an intensive care unit, and two people in need of it are brought into the hospital. One is a seriously wounded bank robber and the other is a man who was equally seriously wounded when he went to aid a policeman under fire from the bank robber. Who should get the place in the intensive care unit ?

Should it be allocated at random ? Glover argues that most people would give it to the passer-by since he deserves the place by virtue of his actions. But an allocation on the grounds of compassion is different to one on the grounds of equity. An allocation on a principle of equity gives people what they 'ought' to have; one on the grounds of compassion gives people more than they ought to have, according to some other criterion.

Another example concerns two equally ill individuals who have identical response to medical treatment. They are identical in all other respects *e.g.* age, sex except that one is risk averse and the other is risk loving. If each is offered the opportunity of an operation with a fifty-fifty chance of permanent physical damage, the risk averse individual will decline the operation. In this case there is not equal treatment for equal need but it is not inequitable since the difference arose from choice.

We are left with the definition of equal treatment for equal need as being somewhat discredited and unsatisfactory. Many people have chosen to focus on other definitions, such as equality of opportunity or access as a more suitable definition.

Equality of access

Le Grand (1982) and Mooney (1986) have defined equality of access as the requirement that individuals should face the same personal costs of receiving medical treatment. If some individuals are charged more than others, or they have further to travel, or face a longer wait for medical treatment, then they face a higher personal cost of treatment than others and so, according to the definition, mean that there is inequality of access.

There tends to be some confusion between the concepts of equality of access and equal treatment for equal need. Mooney (1986) points out that the two are rather different. Access to treatment is a pure supply side phenomenon, whilst the amount of

treatment actually received depends on the interaction of supply and demand. In the last example quoted above the two individuals may face the same personal costs of treatment (therefore there is equal access) but if one chooses not to accept the treatment on offer then there is not equality of treatment.

Equality of access does share the same problem of interpretation as 'equal treatment for equal need'. How is personal cost to be measured ? Is personal cost measured in terms of money or the utility or satisfaction foregone ? But again the major question must be is equality of access always equitable ?

Again it proves easy to find examples where this is not the case. Le Grand (1987) uses the example of a group of wealthy individuals buying a country house in a remote rural region. Do these people have the right to expect the same access to top quality medical facilities as anyone else ? Should facilities be constructed where they live to bring down their travel costs ?

If we answer 'no' to these questions then we do not imply that all people who live in remote areas do not have a claim to access health care facilities. But there does not seem to be as strong a case for equality of access for people who have freely chosen to live in those areas. More generally, where people have a degree of choice over their situation and therefore their access to medical facilities, any resultant inequalities in access do not seem to be necessarily inequitable. Again, we find no automatic link between equity and equality.

Equality of health

When looking at the concept of 'equality of health', economists tend to focus on the equitable distribution of health care rather than health itself. Largely, this is due to the fact that equitable distribution of health care can be distributed or redistributed by acts of policy which equality of health cannot. It is possible, though, to affect by policy many of the factors that affect health *e.g.* housing, nutrition.

The meaning of equity in the context of health has not been discussed to any great extent. In the extensive literature on the extent and causes of inequalities in health (see, for example, Black (1980)) it is assumed, almost unquestioningly, that such inequalities are automatically unacceptable, *e.g.* inequality means iniquity.

It proves to be easy, once again, to find examples which suggest that no such simple link exists. In the case in which people who consciously and voluntarily assume health risks to undertake an activity solely to benefit themselves (*e.g.* smoking) it is argued that they should bear the consequences of such actions. Do heavy smokers who contract lung cancer have the same claim, on equity grounds, as non-smokers who also contract the disease ? This simply illustrates that an equal distribution of healthcare may not always be an equitable one.

It appears that all the simple egalitarian formulas^e of equity are not really adequate and so theory has been forced to turn to other, more philosophical, ideas.

Utilitarianism

Utilitarianism is usually described as “ the greatest happiness for the greatest number ”. This is interpreted by economists as allocating resources to maximise aggregate utility. We face the problems of measuring and comparing utility, however, we are more concerned with the definition of equity within the principle of utilitarianism.

There are two possible reasons for the belief that utilitarianism has equity implications; firstly it can arise because utilitarian distributions are thought to be egalitarian in nature and greater equality is identified with greater equity. Secondly, it is possible to define a particular distribution as equitable if it conforms to the principle of ‘the greatest happiness for the greatest number’.

But as this chapter has already shown greater equality does not necessarily mean

greater equity. Also, there is no reason to assume that utilitarian distributions are necessarily equal. By using an example it is easy to illustrate the flaws in this concept as an acceptable definition of equity.

If we assume that the marginal utility of health increases with income (the more resources people have the more they can enjoy their good health) and if we have two equally healthy individuals, one rich and one poor, then utilitarianism requires allocating health promoting resources away from the poor man to the rich man. The poor man would lose utility but this would be more than offset by the rich man's utility as he became more healthy. This means the overall level of utility would increase. In this situation the distribution of health is neither equal nor equitable. It shows that utilitarianism has little to offer as a definition of equitable distribution of health or health care; not a total surprise, since its concern is with maximising the sum of individual utilities, which in turn means that the inter-personal distribution is totally unimportant and so is not concerned with equity or distribution.

The maximin principle

The maximin principle was identified by Rawls in his "Theory of Justice" (1972) and he defines it as

"Social and economic inequalities are to be arranged so that they are both:
(a) to the greatest benefit of the least advantaged, and
(b) attached to offices and positions open to all under conditions of fair equality of opportunity" .

If we apply the maximin principle (or the difference principle as Rawls also calls it) to health or health care then it would seem to require that an inequality in either health or health care could be justified only if such an inequality were to operate to the benefit of the least advantaged.

Once again, problems can be found in this argument; for instance are the 'least

advantaged' defined in terms of the least healthy members of the population, or the most deprived overall ?

If we return to the earlier example of the bank robber and his victim and under our definition of the least advantaged the bank robber was worse off, then applying the maximin principle would mean treating the bank robber before the victim. Can this really be regarded as equitable ?

It seems that as with the explicit egalitarian concepts neither the utilitarians or Rawls can offer a better definition of equity in the case of health. This is largely because the equity of a given distribution is determined by the appliance of value judgments to the facts about the distribution and to the facts about the end result. However, the assessment of equity depends upon how the end result came about; its history. The simple observation of the fact that two individuals have different health states is not sufficient to determine the equity of their distribution.

Le Grand (1984) argues that we need to know why they are in different states of health and what is the history of the distribution before we determine our judgment concerning its equity. He further states that the most crucial fact about the differences concerns the extent to which they arose through individuals' choices. Applying this to health we can see that if an individual's ill-health is a result of factors beyond his/her control, then such a situation is inequitable; if it results from factors within his/her control then it is equitable.

Returning to the examples of the bank robber and the patient refusing a risky operation, we see that they had a degree of choice in their situations which thereby does not automatically qualify as inequitable. Those who, due to factors beyond their control (*e.g.* poverty), respond slowly to treatment would have a good claim on equity grounds to more treatment than those who respond quickly.

Implications

If we accept Le Grand's definition (which seems the best available) as an acceptable basis for an equitable distribution of health and health care what would its implications be ?

Obviously, doctors could not assess the extent to which patients' ill-health was due to their own choices before deciding whether or not to treat them, since they have neither the time nor resources to do so.

However, it would be more practical to apply such considerations, not to the allocation of treatment, but to the finance of that treatment. The question should not be 'is it equitable for this particular patient to receive treatment ?' but 'should the patient receive the treatment at the community's expense rather than his/her own ?'

To some extent, this is already applied in the N.H.S., by paying tax on cigarettes. Smokers are paying for the costs of treatment and caring for those who acquire diseases from undertaking the activity.

Summary

Equity and Efficiency were to be two criteria by which not only was the performance of the National Health Service judged but the relative merits of the reform options were to be considered by both politicians and economists. Neither equity nor efficiency are the sole goals of any health care system and the achievement of one is often balanced by some loss of the other. However, given their importance in the reform of the N.H.S. some definition and understanding of the terms is needed before the alternative models of health care delivery can be considered, which is the function of the next chapter.

CHAPTER SIX
REFORM AND THE NATIONAL HEALTH SERVICE

REFORM AND THE NATIONAL HEALTH SERVICE

Introduction

This chapter concentrates on the perceived major deficits in organised U.K. health care prior to the reforms. These were:

- 1) Lack of funding - especially compared to other industrial countries
- 2) Lack of effect on health status

The alternative delivery systems are then outlined; how they function in theory and practice. The two major alternatives to the public funding model being:

- 1) Private insurance
- 2) Social Insurance

The final section of the chapter takes the concepts of equity and efficiency developed earlier and in combination with cost-effectiveness and consumer choice criteria attempts to provide some judgments as to the relative merits and drawbacks of the three major delivery systems.

Perceived weaknesses of U.K. health care prior to reform

The level of funding

At the present time there would appear to be a widespread agreement that the U.K. is not spending enough on medical care. This is based on two criteria; firstly the 'shroud waving' of the medical profession, supported by the tabloid press, concerning patients dying through lack of adequate facilities, and secondly, international comparisons of the percentage of national resources which countries devote to health care.

The 'shroud waving' anecdotes actually provide little information on the state of medical services since even if we devoted the entire G.D.P. to health care some people would still die who could have lived had yet more resources been available. The

international comparisons carry more force, as Table 4 showed, only Greece, Spain, Portugal and New Zealand spend less on health. But does this mean that we are actually spending too little ?

The following table shows recent estimates of the resources devoted to medical care and Britain suffers in comparison.

Table 5: Comparison of aggregate performance indicators for medical systems

Country	Health spending as		Life expectancy		Infant mortality per 1000 live births
	% of G.D.P.		Latest year		
	Public	Total	male	female	
U.K.	5.3	5.9	71.4	77.2	10.2
FRANCE	6.5	9.1	70.4	78.5	8.9
ITALY	6.1	7.2	69.7	75.9	12.2
SWEDEN	6.4	9.4	73.0	79.1	7.0
W. GERM	6.4	8.1	70.2	76.8	10.2
U.S.A.	4.4	10.7	70.5	78.2	10.9

Source: Measuring Health Care 1960-83, O.E.C.D., Paris 1985

The international comparisons of G.D.P. share refer only to the inputs in medical care and say nothing about the output - the effectiveness of care in improving the health of the people living in each country. This is not an easy thing to measure but we can use the broad indicators shown in the table above as a basis for comparing the health patterns of the high and low spending countries.

As we can see, Britain, with the lowest proportion of G.D.P. spending on health care, has the highest male life expectancy of all the listed nations, apart from Sweden and higher female life expectancy than either Germany or Italy. If we compare infant

take a simplistic
comparison.

① lag?

② causation

We expect \rightarrow heart rate \uparrow

why?

mortality, then Britain is ranked in the middle. The simple point is that there is no guarantee that increasing the percentage of national income devoted to medical care will actually improve or prolong people's health. In 1979, Thomas McKeown published the controversial book 'The role of medicine: dream, mirage or nemesis?' ^{bad} in which he asserted that environment, behaviour and inheritance were the key ^{real} determinants of health status and concluded that organised medicine, whilst not irrelevant, was much less important than was popularly supposed. In many respects these conclusions were convincing; they highlighted the obvious point that medicine had not eradicated all disease and that the really spectacular reductions in ill-health had occurred in the late 19th and early 20th centuries. The conventional wisdom was that these health improvements occurred mainly because of changes in economic, social and environmental conditions rather than because of medical breakthroughs or the activities of organised health care.

Other authors have drawn similar conclusions to McKeown, in particular drawing attention to the influence of poverty and environment as a major factor in mortality rates (see for example Whitehead (1992), Davey Smith, Shipley and Rose (1990)). They also claim that the role of medicine and medical care is relatively small (for example Mackenbach, Bouvier - Colle and Jouglé (1990)). Their findings seem to suggest that it is not the amount of spending on health care, but the distribution of income within a country that is significant (see Wilkinson, (1992) and Wennemo (1993)). This means that the countries which show the longest average lifespans are not necessarily the richest but rather are those with the smallest spread in the distributions of income and the smallest proportions of the populations living in poverty.

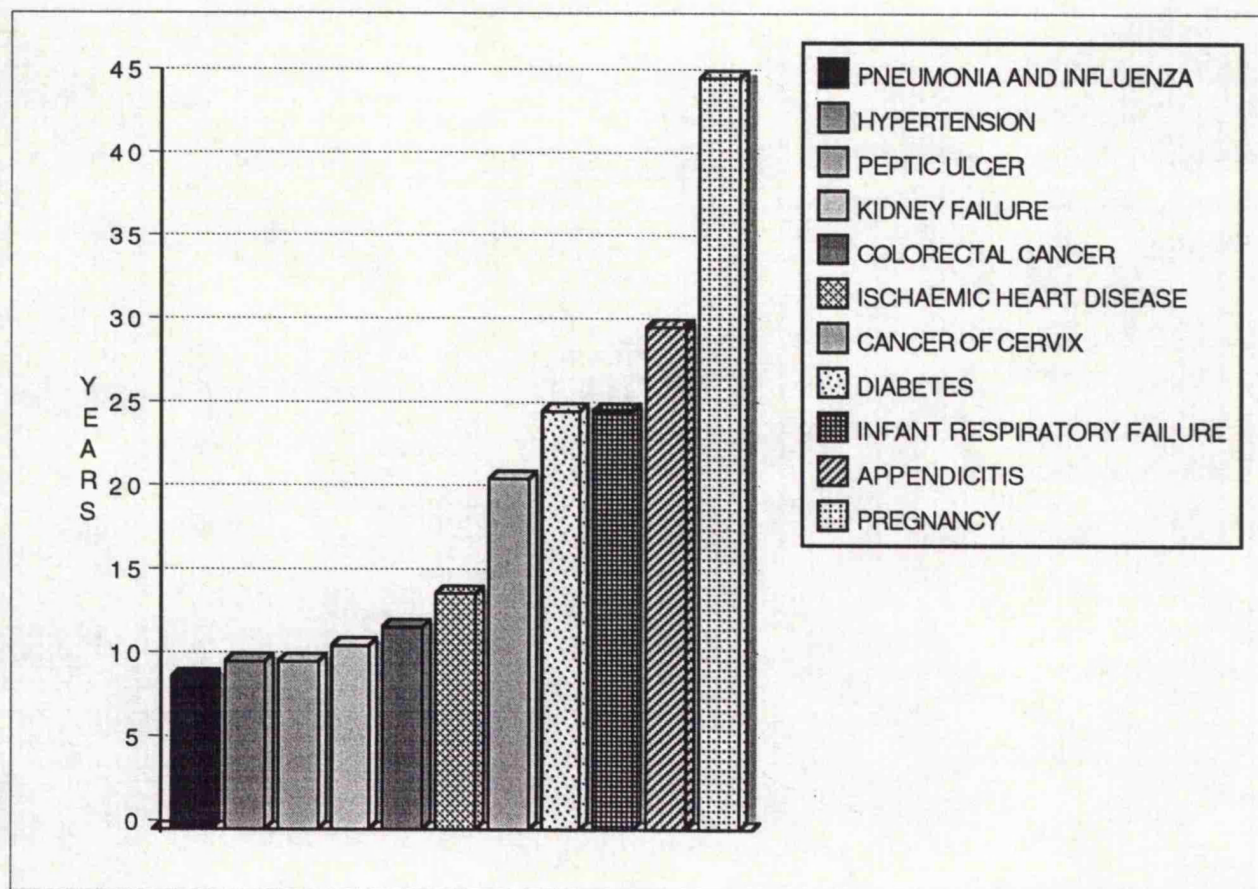
Based on the evidence shown in Table 5 and the research of McKeown and his successors then the case for devoting more money to health care is considerably weaker than is widely believed. Modern medicine is expensive and any doubts about its

value in terms of improving our health must be examined in detail.

A recently published work (Bunker, et al. (1994)) may not have confirmed the original vision of the N.H.S. as a gradual eliminator of disease but does counter a view of healthcare as having a relatively minor impact on health.

Bunker et al.'s analysis is revealing not just because it suggests that the relative impact different healthcare treatments and services may have been underestimated but it is a rare attempt to quantify the overall impact of medicine and healthcare on health.

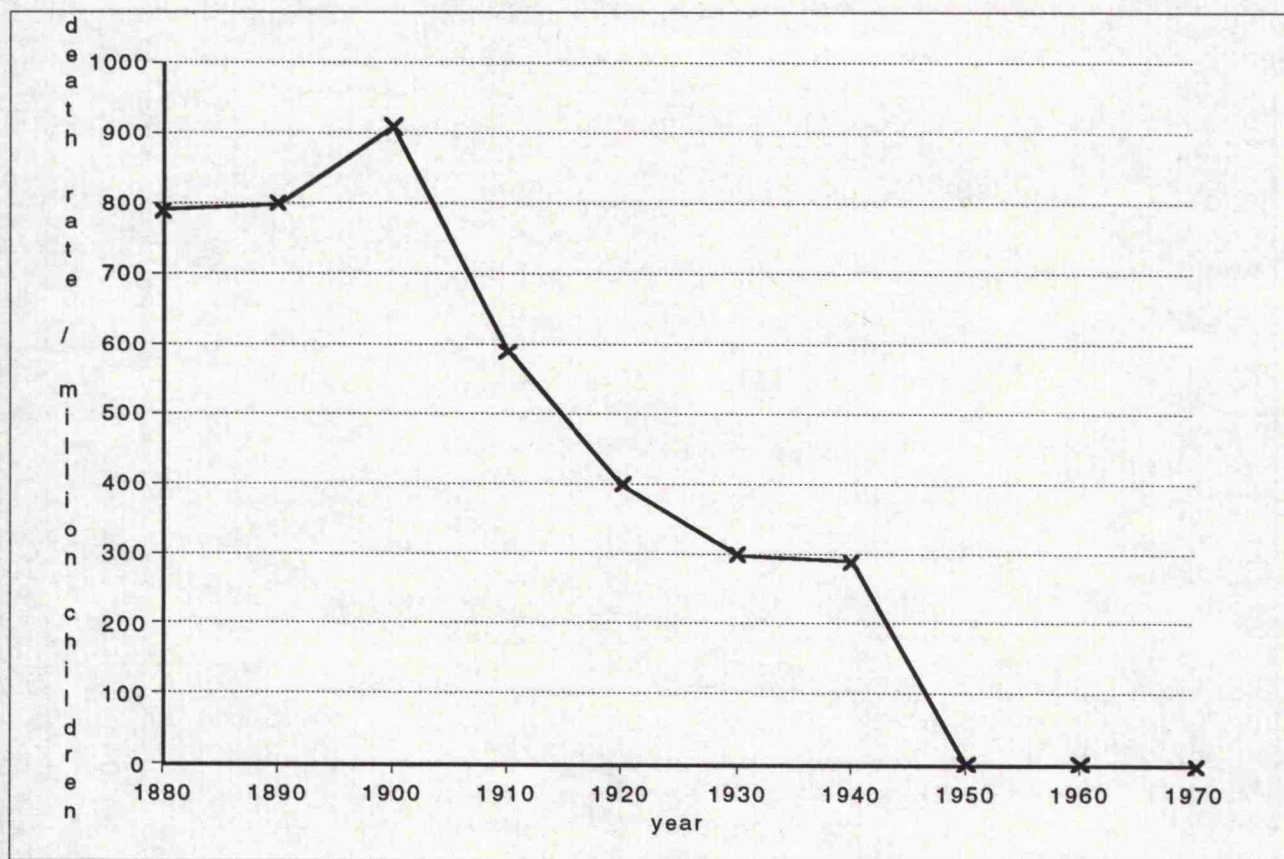
**Figure 5: Average gain to individuals receiving successful treatment:
clinical curative services**



Source: Bunker et al.

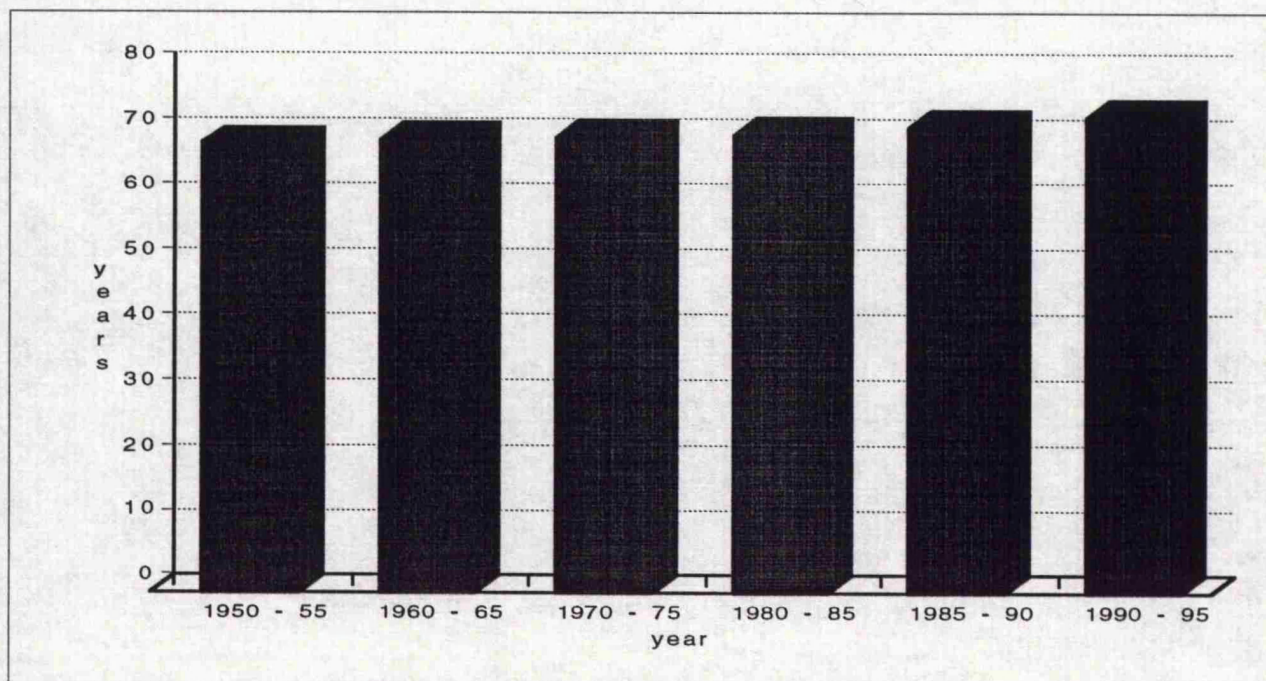
N.B. Figures relate to U.S. population

**Figure 6: Diphtheria death rates for children under 15:
England and Wales**



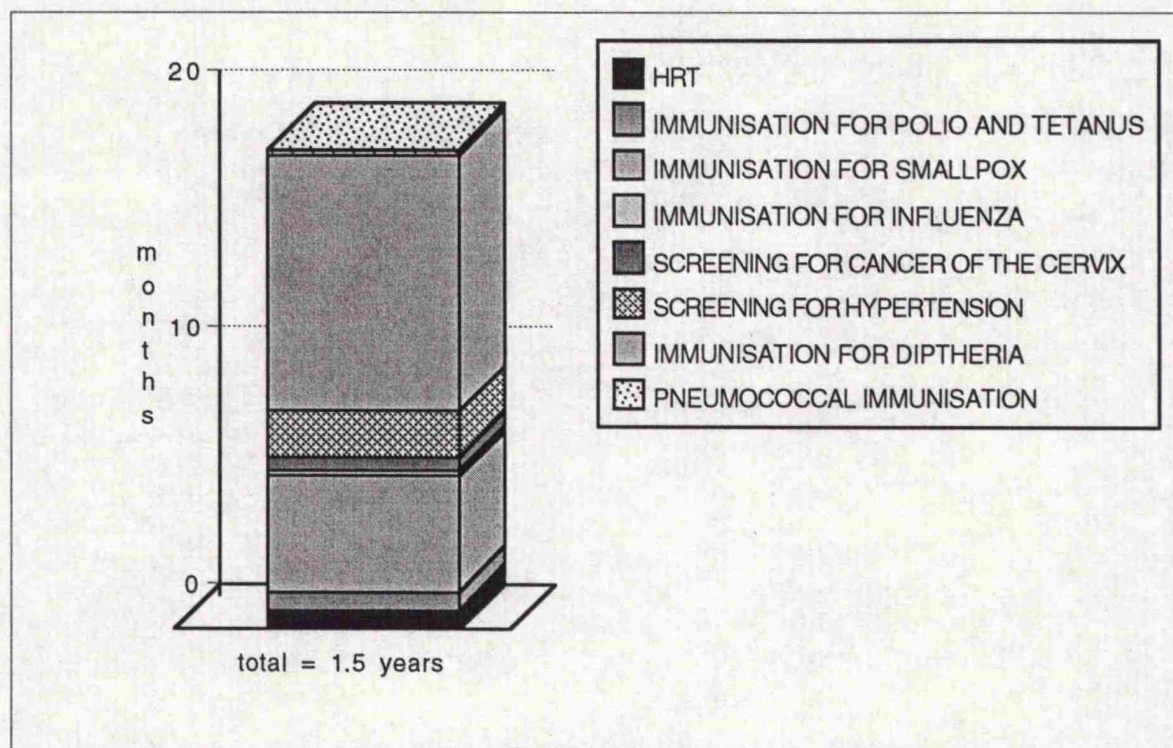
Source: McKeown

Figure 7: U.S. Life expectancy at birth (males and females)



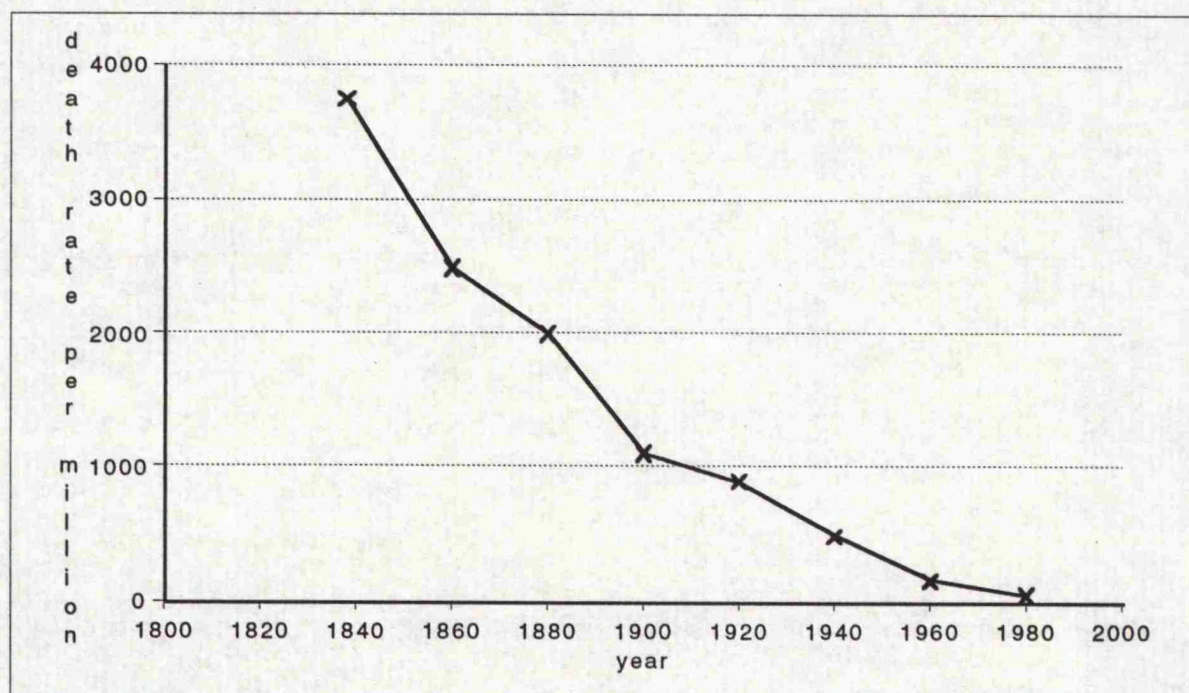
Source: Bunker et al.

Figure 8: Average gains in life expectancy attributable to clinical preventive services



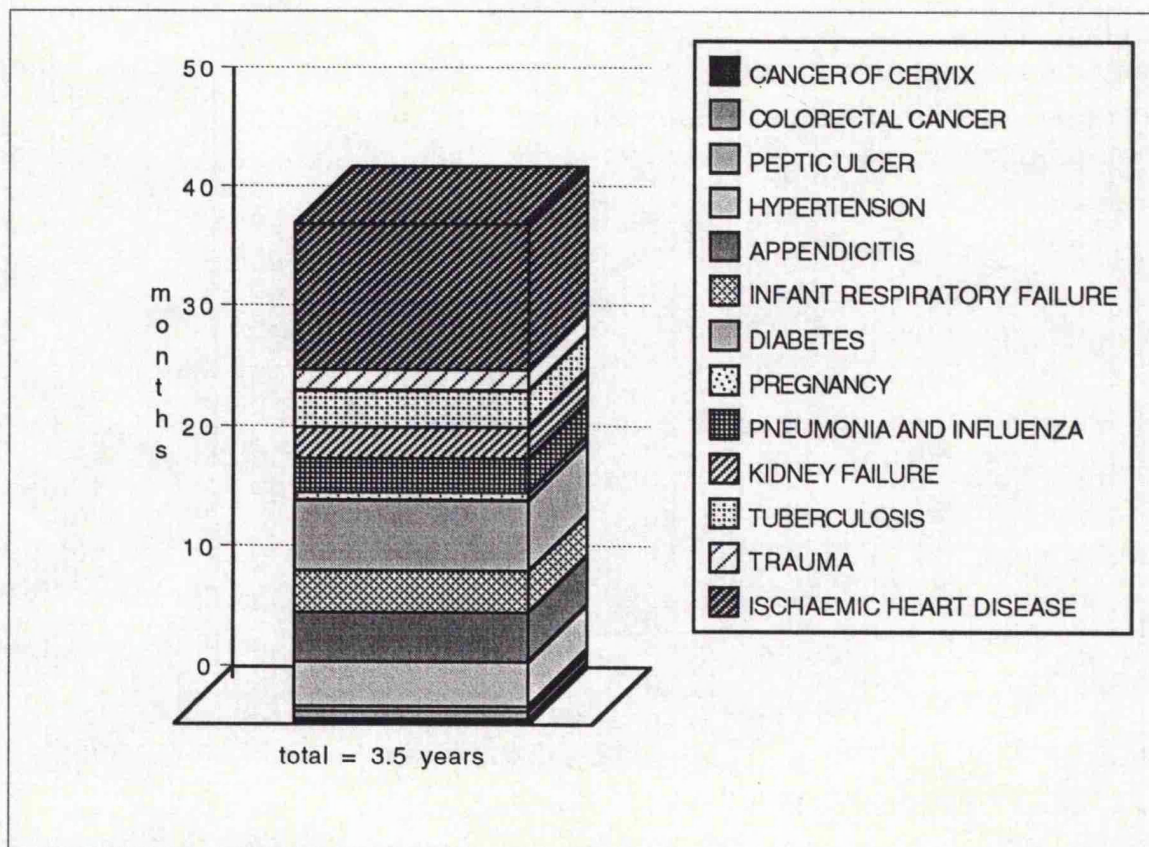
Source: Bunker et al.

Figure 9: Tuberculosis mortality rates: England and Wales



Source: McKeown

Figure 10: Average gains in life expectancy attributable to clinical curative services



Source: Bunker et al.

Bunker, et al's study suggests that, of those people he examines, clinical preventative services currently add around 1.5 years to average life expectancy for the entire U.S. population (see Figure 8). In addition they estimate that with current technology there is a potential to increase this figure to 2.3 years. Furthermore, gain in average life expectancy attributable to clinical curative services was estimated to be around 3.5 years (see Figure 10). This they argue could be increased to nearly 6 years if healthcare were to be extended to those who could benefit from current treatments. These results suggest that without effective healthcare services the average life expectancy in the U.S. would be between five and eight years less than its present figure of around 75 (see Figure 7). They also show that healthcare may have played a more significant role in previous health improvements, for example the introduction

of antitoxin for diphtheria in 1900 is followed by a rapid fall in mortality rates for children under 15 (see Figure 6) or the identification of the tubercule bacillus in 1879 (see Figure 9).

This work suggests that we should perhaps moderate the public health inspired conventional wisdom that organised healthcare plays only a minor role in determining health. This is not necessarily a contradiction of the views of McKeown and others that historically other factors were more important, or that there is a strong possibility that the really big improvements in health are already behind us, or that we can afford to be complacent about the effect of poverty or the environment on health, however it has begun to quantify and clarify the current and future role of medicine.

Alternative delivery systems

Given the fact that resources available for medical care are limited and that modern medicines are frequently very expensive this implies that a key function of any medical system must be able to contain costs and the following sub - sections will examine the different methods of these financing systems to see how they might do this.

Private Insurance - Theory

According to supporters of the free market it can maximise benefits to its participants in a way unrivalled by any other allocative system. It is a highly efficient and self adjusting mechanism and should, therefore, be relied upon to achieve efficiency whilst income transfers can achieve any distributional objectives the state may have.

If private insurance, particularly medical insurance, is to be efficient, then certain conditions must be achieved. For example, the likelihood of a person breaking a bone must:

- be less than 100%
- be known or capable of estimation
- involve no adverse selection (*i.e.* cannot conceal the fact he/she is high risk)
- involve no moral hazard (he/she cannot affect the likelihood of breaking a bone without the insurance company's knowledge and at no cost)
- not enable him/her, without the insurer's knowledge, to affect the amount of treatment (and therefore cost) he/she receives.

It must be noted that all but the first condition will fail where the insurance company lacks information about the risk status and behaviour of clients. This means that the case for private insurance is valid only in clear theoretical circumstances.

Private Insurance - Practice

The major problem with private medical insurance is that it leads to inefficiency because of gaps in coverage and it produces incentives to excessive consumption of medical care.

The gaps in coverage arise because policies offer incomplete (or no) cover for chronic or existing medical problems, simply because the likelihood of the policyholder requiring treatment is too high (a failure of the first condition). Policies also fail to cover the cost of pregnancies since these are often deliberate (failure of condition four). An additional problem concerns the elderly who, if they are able to obtain any cover, have to pay very high premiums because they tend to need more care and they may hide potential medical problems and conceal their true riskiness (failure of condition three).

In addition to these gaps private medical insurance can lead to the '3rd party payment problem', outlined in condition five, which leads to an explosion of costs (when doctors are paid a fee for a service and treatment is fully paid for by the insurers; then doctor and patient may treat such care as free, leading to excessive

consumption).

When the theory of private insurance has been put into practice its defects have soon become apparent. In the U.S.A. the private medical system is supported by substantial government spending in precisely the areas where private insurance theory suggests gaps in coverage will occur.

Government provision includes; Medicare (for the elderly), Medicaid (for the poor), Veterans' benefits (usually chronic health problems) and child and maternity welfare. However with the '3rd party payment problem' the cost of these schemes is now almost out of control.

If we compare the spending figures shown earlier then we see that the U.K. spends £400 per person p.a. on medical care, with £360 through the N.H.S. In the U.S.A. public spending (excluding tax relief on private insurance) is £470 per person p.a. and total spending is £1140, close to three times the U.K. figure. These figures show clearly that *public* spending in the U.S.A. is higher per person than the U.K. and that the U.S.A. spends 1.5 times that amount, in addition, on private care. Yet if we compare health in the two countries it is almost identical (see McLachlan & Maynard (1982) for examples of other countries with similar problems to the U.S.A.)

Health Maintenance Organisations (H.M.O.s)

The American response to the cost explosion outlined above has been the creation of H.M.O.s, Individuals, or their employers, pay a lump sum contribution to a group of doctors (the H.M.O.) who, in return, provide the contributor and family with a range of medical services. The doctors provide all the primary care themselves and buy in hospital care when necessary. The income of the H.M.O.s is used to pay for any health care and the doctor's^s salaries; any surplus can then be divided amongst the doctors (as extra income) or to members (in the form of lower contributions) or they can be ploughed back into the H.M.O. and used to improve its services.

H.M.O.s may be able to have some impact on costs (Halpern (1986)), but they still leave gaps in coverage and so seem to offer little to the U.K. health care system , being a specific response to an American problem.

Private Insurance - Conclusions

Under the theoretical conditions outlined above, private insurance is efficient. In practice two problems are encountered:

- Gaps in coverage
- Excessive expenditure on care

In addition, private insurance schemes distribute care less equally than the N.H.S. in terms of income group and risk category. Attempts to solve the problem by the use of H.M.O.s still do not eliminate the coverage problem. If we support a private scheme with public spending to cover the poor and non-insured then we encounter the problems of definition - who qualifies for state care ? There is also the risk of aggravating the 'poverty trap' by withdrawing subsidised care as income rises. This seems to suggest that private insurance, even in modified form, is not a useful model for reform.

Pure Public Funding

This is the financing of medical care out of general taxation, which is the method of raising the majority of N.H.S. revenue, as the following table shows (see Table 6):

Table 6: Sources of N.H.S. finance 1979 and 1987

Source	1979 (%)	1987 (%)
General taxation	88.3	85.0
User charges	2.2	3.2
National Insurance	9.5	11.8

Source: *Compendium of Health Statistics 6th edition, Office of Health Economics, 1987*

The advantage of this system is that it is very flexible and broadly based on the ability to pay. The great drawback is that the consumers cannot easily signal their willingness to pay for more and better health care. The only element of choice allowed in the present N.H.S. is in the selection of G.P.

The full drawbacks of the pre-reform N.H.S. will be covered later.

Social Insurance

In Western Europe the financing of health care is almost exclusively from insurance contributions rather than from general taxation (within the European Union only Denmark, Ireland and the U.K. rely on taxation).

The basic structure of contributions is in the form of a payroll tax paid by employers and employees, with separate arrangements for the self-employed and pensioners etc. A key feature for such a scheme to be successful is that it should contain an element of compulsion; there can be no opting out. A social insurance scheme has two real advantages over a private scheme:

- Contributions are based on income and the ability to pay rather than on actuarial risk or the benefits received
- Universal coverage

Social insurance is, in fact, less like actuarial insurance and closer to earmarked taxation and many proposals for reform have suggested a specific N.H.S. tax to be deducted from payslips (see Brittan (1988), Whitney (1988)).

The Brittan proposals have some serious defects, since they allow individuals who buy private insurance to opt out. This leads to adverse selection as the people most likely to opt out would be those who are healthy and with higher incomes. This would leave the N.H.S. with the less healthy and lost tax revenues with very little compensatory savings in expenditure. Further costs of such a scheme include:

- 'Deadweight' tax loss - those with private insurance can reclaim their N.H.S. contributions without increasing the amount they spend on private care
- Bureaucracy - substantial record keeping needed to determine who is entitled to N.H.S. care.
- Uncontrolled spending - additional private spending may be provided by employers.
- Quality differentials - people who opt out would probably receive better care or they would have no incentive to opt out. Public service may become largely residualised as in the U.S.A.

To gain the advantages of a social insurance scheme without any of the problems of a private scheme it becomes necessary to have a specific N.H.S. contribution as part of the tax system for example, the first 10% of income tax yield. This would have a number of advantages:

- A buoyant source of revenue for the N.H.S.
- Avoids the lack of coverage and excessive incentives for consumption problems of a private scheme.
- It would show the costs of the N.H.S. to each individual.
- It would allow more consumer choice by allowing individuals to signal their willingness to pay for more care (*e.g.* by surveys, referendum etc.).

Individuals would be allowed to 'top up' their health care with private schemes but not

opt out.

An objection to the scheme is that if we hypothecate specific tax to health care then why not extend this to education, defence etc. ? The answer to this could be that the demand for health care rises with income, so therefore the N.H.S. needs a buoyant source of revenue. Also since health care seems popular with the voters, an N.H.S. tax, providing what people want, should be more popular than other taxes. Health care is also an unique case because it is costly, affects the whole population and is relevant throughout a person's entire lifetime.

Several proposals were suggested for reform to encourage more competition within the N.H.S. and from outside:

Local Competition

- Allow the N.H.S. to introduce full cost basis of charging for inter-district transfers of patients. This would encourage specialisation among districts (in areas where they have a comparative advantage) and should lead to some competition.
- Allow G.P. practices to buy a wider range of services and increase capitation fees in line with this.
- Create consumer 'health co-ops' which provide G.P.s with contracts and offer a range of community services to compete with existing G.P. practices.
- Provide grants and tax relief to firms who provide primary health care on their own premises (provided the services were open to all employees)

Quality Control

In 1989 the medical profession was largely exempt from a social audit; this could be altered to encourage the reward of the best practitioners. Whilst such proposals would be difficult to implement, several suggestions for reform were made:

- Appoint consultants and G.P.s from district level and give them renewable contracts subject to performance and review.
- Consultants' budgets should relate to the amount of work they are contracted to undertake.
- Improvement in district wide nursing recruitment and supervision by strengthening middle management after the Griffiths report changes.
- Make local authorities responsible for local health issues, such as health education and environmental health which would make the health service more accountable to elected representatives.

Equality of access

Le Grand (1982) has shown that higher income groups receive a disproportionate share of resources from the N.H.S., despite its comparative advantage of access equalisation across income groups compared to other systems. This can be solved simply by targeting primary care on those with low incomes and poor health and by improving community care in such areas.

Long term funding

In 1989 the ability of N.H.S. managers to manage the organisation was impaired by the government's cash limits system and the underfunding of national pay awards. While the government continued to agree to such awards it did not provide managers with the extra funds to pay them. This was leading to ward closures and delays in opening new facilities as managers diverted funds.

These problems could have been relieved by central government making district allocations or using a R.A.W.P. formula with cash limits secured over a period of years. This would have allowed the government to fund the wages element of the cash limited allocation whilst the revenue expenditure other than wages would be indexed

to the previous years' G.D.P. deflator. The capital allocation would be linked to the preceding year's capital deflator and should be a borrowing limit rather than a cash grant. Central government could then award money to fund special projects or specialisations whilst the long term securing of cash limits would permit the districts to make plans for the future and cater for consumer needs, knowing they will be able to fund the projects.

Community care

The care of elderly, mentally ill and handicapped patients could be placed in the hands of local authorities rather than with the N.H.S. This should encourage the creation of community care departments who can employ the required specialist staff and provide or purchase suitable accommodation for the consumers (allowing them to be as independent as possible) whilst providing essential support services. This separation of activity from the N.H.S. would allow nationwide variation in provision according to local needs.

The purpose of community care has been described by Murphy (1991) as being "to help individuals achieve and sustain a fulfilling and rewarding 'normal' life when this has become difficult through mental disability"

The shift towards community care (in particular for the mentally ill) had begun in the 1960's with the 1962 Hospital Plan, whereby the government committed itself to a closure of the old mental hospitals (developed since the 1845 Lunacy Act) and the development of a community based mental health service.

The plan involved the N.H.S. providing psychiatric units in local general hospitals while Social Services were to provide support in the community in the form of day care and residential services.

By 1974 there were 60,000 people in mental hospitals (the peak population was

148,000 in 1954) but community provision was still very limited.

Concerned by a lack of progress the government published a White Paper in 1975 (Better Services for the Mentally ill) but this also had little impact.

In the late 1980's a series of government reports (particularly by the Audit Commission in 1986 and Sir Roy Griffiths in 1988) heavily influenced the governments thinking (culminating in the N.H.S. and Community Care Act 1990), which reviewed the financing, structure and organisation of community care.

The Act was to recommend that local authority social services departments should take the lead responsibility for assessing the needs of the local population and arranging the required care by designing and organising community services. There would also be a 'care management' system with a network of staff taking specific responsibility for people in need of community care.

The Act did, however, omit one of Griffiths' most important recommendations - the creation of a 'Minister for Community Care' to provide decisive government leadership, and the finance for community care was not to be 'ring-fenced', which allowed local authorities to divert money into other areas. These shortcomings, coupled with a high level of media attention given to cases where community care clients have committed violent crimes have led to a serious questioning about the efficacy with which the policy of community care is being implemented, especially for the mentally ill.

The Criteria for judgment

The ultimate aim of all the proposed reforms to health care delivery is to make the N.H.S. more responsive to the consumer, with a greater uniformity of service and equality of access, together with simpler funding and accountability processes. The next sub - section will consider the N.H.S. and its problems in the pre-reform period and how the proposed reforms might work against equity, efficiency and consumer choice criteria (these were formally developed by Brazier, Hutton & Jenkins (1988) as a response to proposals put before the N.H.S. review)

Technical Efficiency

- Does the system provide incentives for decision makers to minimise costs ?

Cost Effectiveness

- Are there incentives for decision makers to maximise the benefits of health care activity at least cost ?

Economic Efficiency

- Are there incentives for decision makers to maximise the benefits of all forms of health care and promotion at least cost ?

Equity

- How is the burden of finance distributed ?
- How is the access to funding and care distributed ?
- What is the distribution of health ?

Consumer Choice

- Are consumers offered a choice of how much they pay ?
- Are consumers offered a choice of how much is spent ?
- Are consumers offered a choice of who provides the care ?
- Are consumers offered a choice of when it is provided ?

The performance of the pre-reform N.H.S.

Technical Efficiency

Since the hospitals and community health services' budgets were cash limited, the incentives for the consultants, who determined resource allocation, to minimise costs should have been large. In fact, due to the lack of relevant financial information and the absence of rewards for economical doctors, there were few attempts to achieve technical efficiency.

The Family Practitioner Services had little incentive, either. Only about 45% of a G.P.'s income was dependent upon list size. The G.P. was encouraged to maximise preventative activities, and hence costs, and had no incentive to minimise pharmaceutical expenditure (the average G.P. was writing prescriptions worth £45,000 p.a. in 1989). They were also able to shift costs to the Hospital and Community Health Services (H.C.H.S.) by their referral practices (which varied by as much as 25 fold amongst G.P.s); however H.C.H.S. consultants could reciprocate by getting G.P.s to do the prescribing and domiciliary visits.

Local Authority expenditure was cash limited and so gave managers few incentives to cost minimise. The open ended budget of the social security system was abused by the H.C.H.S. and F.P.S. managers who transferred patients from hospitals (funded by the N.H.S.) into private nursing homes (funded by the Department of Social Security) to free their own resources.

Cost effectiveness

In the H.C.H.S. consultants decided who received health care, what kind of care they received and when they received it, with almost no review of these decisions by managers. Even if better cost, process and outcome data were available, consultants had little incentive to reform, since they had contracts for life.

G.P.s were similarly lightly evaluated and difficult to remove, and had little data on process costs to indicate efficiency. Local authority and social security systems were equally lightly evaluated.

Economic efficiency

H.C.H.S. and Local Authority budgets were determined by political decisions, whilst the F.P.S. budgets were dependent upon clinical activity. This meant there was almost no reference to health benefits in determining spending decisions. For example, would more health have been promoted by spending money on anti smoking campaigns, or tax increases on cigarettes, rather than spending on health care ?

Equity

As Table 6 shows, the N.H.S. is financed largely out of general taxation and is broadly based on the ability to pay, although the burden of taxation had shifted in the 1980's due to changes in income tax and V.A.T., so the burden of finance was not as equitable as it had previously been.

The allocation formula had increased inter-county equity, but there was still inequality in the distribution of hospitals and the allocation of primary care by the F.P.S.

The equality of access of different socioeconomic groups to health care [?] this differed across sectors of the N.H.S., with access to G.P.'s showing the least

inequality. Le Grand (1971) did show that the most affluent members of society incurred 40% more expenditure per illness on average than the poorest members.

In terms of the distribution of health, a study by Marmot, Shipley & Rose (1984) of 17,500 people over a 10 year period concluded that health may have more to do with factors such as genetic endowment, income and housing, than health care.

Consumer choice

In the pre-reform N.H.S., the consumer had no choice about paying his/her tax and little influence on the level of expenditure. He/she could choose their G.P. but not the consultant, if referred to hospital. The provision of health care was largely organised for the convenience of the providers (especially doctors), rather than for the consumer.

The performance of the alternative systems

Technical efficiency

The alternative schemes for the N.H.S. broadly agree that to improve technical efficiency there must be greater competition between the suppliers of services and they suggest that purchasing agencies buy services on behalf of patients; these can be separated from the providers. The purchasing agencies are motivated by being given specific obligations to meet within budget limits (in the same way an insurance firm of H.M.O.s operates). However, the U.K. has none of the problems which H.M.O.s were created to solve and the competitive contracting that the alternative schemes require could bring increasing administrative costs.

Cost effectiveness

This is a great concern of schemes which propose simple improvements to the

then existing N.H.S. The need for monitoring the quality of care as well as the cost is critical. The lack of measurement of outcomes in the pre-reform N.H.S. would seem to cast doubt on the ability of programmes with positive incentives to cut costs being successful. Proposals which emphasised an enhanced role for the private sector are relatively unconcerned about cost effectiveness as they advocated informed consumers making their own decisions on health care with little control on the overall level of expenditure or provision of services.

Economic efficiency

The proposals for H.M.O.s, provider markets and tax funding, all rely on political decisions about the size of budget allocations (as with the pre-reform N.H.S.). The proposals, including private insurance, would increase the total expenditure as those able and willing to pay for more health services would do so. It must be emphasised that any move towards greater economic efficiency would conflict with the government's objective of keeping tight control over public spending.

Equity

The alternative schemes would seem to do little to promote equity. The R.A.W.P. system had some success regionally, although substantial inequalities still remained. Measuring social class inequality is difficult and controversial (see Le Grand (1982), Birch & Maynard (1986)).

The problems with the other schemes that encourage competition is that patients may need to travel long distances; this would decrease equity since travel costs are proportionately greater for lower social classes and the use of H.M.O.s may lead to gaps in coverage as they try to cut down on risk.

Consumer choice

Private insurance, H.M.O.s and the Brittan plan would all increase choice, since people can choose; how to pay for health care, how much they wish to spend, who will provide the care and in many cases when and where they are treated. This extension of consumer choice is balanced against the fact that those left to rely on the residual state care would have even less choice, as resources move away from the public sector.

Summary

The perceived weaknesses of the N.H.S. did not have much supporting evidence and the alternatives to public funding were found to have practical drawbacks that made altering the method of funding the National Health Service an unattractive option for reform. There were to be important changes in the structure and delivery of health care contained in 'Working for Patients' which are discussed in more detail in the following chapter.

CHAPTER SEVEN
WORKING FOR PATIENTS

WORKING FOR PATIENTS

Introduction

This chapter examines the government proposals for reform, which accepted that a largely publicly funded N.H.S. was preferable to any of the alternative systems but they did propose three major reforms:

- 1) Opting out of hospitals from D.H.A. control
- 2) Introduction of G.P.F.H.
- 3) Tax exemption for the over 60's for private insurance

The possible impact of these reforms is then analysed against the equity and efficiency criteria used earlier.

The proposed reforms

In the government's review of the proposals put forward for reform, discussed in the previous chapter, a wide variety of alternatives were considered and in January 1989 the White Paper 'Working for Patients' (Cmnd. 555) was published, containing the decisions for reforming the N.H.S.

"Throughout this programme, the government will hold to ^{its} central aims: to extend patient choice, to delegate responsibility to those who are best placed to respond to patients' needs and wishes, and to secure the best value for money. The result will be a better deal for the public, both as patients and as taxpayers. The government will build further on the strengths of the N.H.S., whilst tackling its weaknesses. This will ensure that the N.H.S. becomes an even stronger, more modern service, more committed than ever to working for patients" ²⁴.

The government accepted the view that a largely publicly funded and provided N.H.S. was better value for money than any of the alternatives. However, a fundamental part of the reforms was the separation of the funding of care from its

²⁴ 'Working for Patients' p 102

provision. Budget holders were induced to trade by buying services from competing public and private suppliers of health care. The 'Working for Patients' proposals contained three main elements which can be considered as major reforms.

Opting Out

In 1989-90, Regions were to identify candidates for the 'opting out' of hospitals. These self governing N.H.S. hospitals were to be run by personal executives set up in 1990-91 prior to becoming self-governing in 1991 (This has been repeated annually since 1991).

The 'opted out' hospitals have greater freedom and control over the use of both their assets and revenues. They are free to set their prices and trade competitively. They will have control over their own rates of pay and can employ consultants and raise capital up to a limit set by the Treasury. Any existing capital would become interest bearing debt and all N.H.S. hospitals were to be charged for using these assets (which were financed on a one off basis by extra funding).

The 'opted out' hospitals had to provide Accident and Emergency (A&E) cover where needed and health authorities which had lost control of many hospitals could merge (as could F.P.C.s). Districts, as purchasing agents, were to get control over all the resources for their resident populations as the R.A.W.P. figures were to be replaced by a population capitation figure. Cross-boundary flow adjustments would no longer be needed as contracts and direct payments were to be introduced. Districts would be required to negotiate contracts with hospitals on behalf of their resident populations.

G.P. Practice Budgets

The principle of separating the purchase and provision from health care was reinforced by allowing G.P. practices (initially with over 11,000 patients) to hold

their own budgets to cover the costs of purchasing a range of services (diagnostic and elective surgery). G.P.s could then 'shop around' for the best provider and enter into contacts with them. They would also get 'indicative' (i.e. limited) drug budgets, in an attempt to control costs. Any surplus could be used to improve the practice and overspenders might lose their budgets.

Tax Exemption for the over 60's

This proposal was important because it suggested that it might indicate a shift in the method of financing health care.

Income tax relief would be made available on premiums for private medical insurance for anyone aged over 60. This was to reduce the real price of such insurance and to encourage spending on private health care.

Other proposals

The remaining proposals were either to support the three major reforms or to have little impact on the organisation and finance of the N.H.S.

The possible impact of the White Paper

Opting Out

The creation of self governing hospitals was intended to separate the provision of health care from its finance. This was to create a mechanism for minimising the cost of activity (promoting technical efficiency) by encouraging competition amongst the N.H.S. and private hospitals.

A major implication of this proposal was the lack of quality constraint. The N.H.S. had a virtual monopsony and was able to keep salaries down. The B.M.A. and the G.M.C. (General Medical Council) had a monopoly supply position. By allowing

opting out the N.H.S. lost its monopsony but the B.M.A. kept theirs. The competition for staff would mean that the more successful and efficient hospitals would offer higher salaries and the less efficient would offer lower salaries. This should lead to a spread of salaries and in the long run attract new entrants to the market. In practice, it was unlikely that the B.M.A. monopoly would allow this, but the hospitals that 'opt out' would tend to be the most efficient, anyway, and so the competitive purchasing of labour would tend to lead to a rise in the mean level of salaries in 'opted out' hospitals. If this sector grew to a significant size then such salary increases may well spill over into the residual sector. With a fixed budget, once salary gains exceed competitive efficiency gains, the only solution would be to reduce staff. The net result of this would be that the quality of care would be lowered and costs would be rising - the worst of all possible worlds.

If we return to the five judgment criteria applied previously, then it is difficult to see how this reform would bring any great benefits. There is little evidence that competition leads to increased technical efficiency in health services (see Luft (1987)) and since districts are not rewarded for improving health then they have little incentive to promote cost effectiveness. Equity might be improved by the use of capitation as the basis for resource allocation but consumer choice is limited to the contractual arrangements rather than personal preference.

G.P. Practice budgets

G.P.s would have an incentive to join the scheme since they could reinvest surpluses and this provided an incentive to minimise costs (since it would maximise the surplus) and so promote technical efficiency. Quality would be maintained, since they would wish to attract more patients to their list and this would encourage health promotion (healthy patients will use up less of the budget). The overall impact of this reform is difficult to predict since evidence from the U.S.A. is contradictory and

difficult to translate to a U.K. context.

The reform might create equity problems since G.P.s would be encouraged to select healthier patients for their lists but it does increase consumer choice since the patients could now choose the purchasing agent for a range of services, giving them more control over where they receive such treatment.

Tax exemption

In terms of efficiency such a reform is poor, since subsidising private insurance distorts the market and may encourage over-consumption. The people who tend to buy such insurance are normally healthy and wealthy and this means that the N.H.S. is left with the less healthy and lost tax revenues with little saving on expenditure.

It also conflicts with the equity objective since the distribution of health care is based on willingness to pay rather than on equality of access. In terms of consumer choice it does allow poorer people the chance to afford private care if they so choose.

Summary

The N.H.S. reforms proposed by the Conservative Government were radical, although mainly organisational and have not led to the change in financing that many people feared.

Its objectives were to improve efficiency and cost-effectiveness and enhance consumer choice. Evidence concerning whether or not these objectives could be achieved seemed inconclusive and fears were expressed for the quality of care which might be provided. There were also fears of market pressures leading to cost inflation and increased expenditure; exactly what the Government wanted to avoid.

The reforms seemed to offer little improvement in equity, suggesting that those with the largest human capital and financial resources would still receive the care they wanted, with the most disadvantaged suffering, whilst the tax relief was a clear step

away from the basic principles which had guided the N.H.S.; perhaps a dangerous precedent for the future. The next chapter concentrates upon the key part of the reforms, the division of the roles of purchaser and provider to examine how they should work to improve efficiency and whether or not this goal can be achieved

SECTION THREE
ECONOMIC THEORY AND THE REFORM OF THE NATIONAL
HEALTH SERVICE

CHAPTER EIGHT
INTERNAL MARKETS

INTERNAL MARKETS

Introduction

This chapter defines the type of market the government created in the National Health Service and why such markets are not considered to be true markets but are in fact more accurately described as Quasi-markets.

It also looks at the economic arguments as to why such markets should be introduced and those features that characterise the health care market.

It concludes by examining some of the possible defects in such markets and how they might fail to achieve the government's objectives.

The proposals contained in 'Working for Patients' continued the Conservative government's market approach to the welfare state, that had begun in 1988.

All of the welfare reforms since 1988 have had one fundamental similarity; the introduction of what have come to be termed quasi-markets²⁵. These can be seen in the Education Reform Act (1988), the Housing Act (1988) and the Housing and Local Government Act (1989).

What are quasi-markets ?

In a quasi-market the state is no longer both funder and provider but is instead primarily the funder. The government acts to purchase services from a variety of providers, both public and private, all of whom are competing with each other.

The actual method of funding has also been altered; the government will no longer allocate resources directly, but will instead rely upon a bidding process or earmarked budgets, to allocate money between the competing providers.

²⁵ The term was first used by Williamson (1975)

These developments are called quasi-markets, because they replace a state monopoly with competitive independent providers; thus creating a market.

They are quasi because they differ from a conventional market in several key areas:

- The providers of health care need not be privately owned, nor need they be determined to maximise profit
- Consumer purchasing is done through a third party (G.P. or health authority) and is done with earmarked budgets rather than money.

The first introduction of quasi-markets into the N.H.S. occurred in 1979 when Compulsory Competitive Tendering (C.C.T.) was used for the provision of catering and cleaning services. However, within 'Working for Patients' there was to be a considerable extension of quasi markets.

From 1st April 1991, hospitals and other health care units can 'opt out' of health authority control (57 did so in the first wave). These 'opted out' units can compete with other private units and the remaining N.H.S. units for contracts with health authorities and G.P.s. Alongside the 'opting out' of hospitals, G.P.s who work in practices over a certain size can control their own budgets, which they can spend on treatments for their patients.

The pressure for reform in welfare has arisen due to several problems with the existing system:

1. Inefficiency (Allocative and X)

Many believe that the welfare bureaucracy was wasting resources on excessive administration, and was unable and unwilling to respond to the consumers wants

2. Inequity

There have been many economists (see for example Le Grand (1982) and Goodin

and Le Grand (1987))who argue that the N.H.S. has devoted a disproportionate amount of resources to the articulate middle class; at the expense of the poor, who should have been the major beneficiaries of the system.

Theoretically, the introduction of quasi-markets should resolve these problems:

- Competition should encourage a more efficient use of resources, thereby reducing the level of X-inefficiency. The use of competing suppliers should improve allocative efficiency, since people will take their budgets to those providers who give the best service.
- Equity will be improved by giving the poor some measure of economic power (they can take their business elsewhere) and extending consumer choice among competing suppliers.

The reforms may find difficulty in achieving the desired results due to the unique problems of the health care market.

The health care market and its characteristics

We shall now consider the features of the market in more detail.

Data

Many health care systems are characterised by an absence of data in three areas

- Input cost
- Activity cost
- Outcomes

The N.H.S. does not generate any cost data and due to the fragmented nature of the health care system (primary,hospital and community), trying to calculate the total cost of one health episode from start to finish is virtually impossible. It is also very difficult to calculate opportunity cost, given this lack of data.

Activity cost is also difficult to measure and is often of little value since it takes no account of outcomes (for example the procedure is cheap and successful, but the patient still dies), so its use as a gauge of efficiency is doubtful.

In terms of measuring outcomes, again, the data tends to be combined with process measures and mortality rates.

Variations

Even the small amount of data generated by health care systems shows that there is an enormous variation in both cost and activity. The reason for this variety is the lack of information on input-output relationships; many studies (Cochrane (1972), Fuchs (1974) and Black (1986) have shown that at least 10% of treatments have no impact upon patient health.

Lack of incentives

The existence of moral hazard and third party payment creates no incentives for providers and patients to use resources efficiently, whilst the fragmentary nature of most systems encourages providers to shift patients onto other parts of the system in order to reduce costs on their own budgets (without consideration to the overall cost to the system).

Impact on X-efficiency

Since many of the institutions working in the quasi-market are not profit maximising they may not respond to market incentives. Alongside this problem there is imperfect information and the existence of a monopoly supplier of labour.

All of these factors would seem to suggest that quasi-markets may find it difficult to promote X-efficiency.

The belief of those who advocated reforms was that public providers are

naturally wasteful and inefficient, since they are not driven by a profit motive and face no competition. Therefore, it is argued that the introduction of competitive providers will reduce the costs of delivery.

However, since some of these competing organisations will not be profit maximising, there may well be an *upward* movement in costs for a variety of reasons;

The cost of establishing the market

In order to operate efficiently costs of care must be calculated and purchasers of such care invoiced. Equally, contracts must be negotiated, implemented and monitored. All of these activities take time and involve costs. Whilst the measures may well help to improve resource allocation, it is possible that they may cost more to establish than they can generate in savings through increased efficiency.

Competition costs

The organisations within the health care market will need to attract consumers if they are to survive and flourish. This will require resources being devoted to advertising and other forms of activity designed to increase their market share. Whilst this may well mean better informed consumers, who can make their choices more efficiently there is again the danger that costs may be greater than savings.

Ending the N.H.S. monopsony

One of the most important factors in keeping the costs of the N.H.S. down was its position as a monopoly employer of medical services, placing it in a strong bargaining position with the various professional bodies and unions. Now its role is to purchase services from hospitals who will be competing for staff. Evidence from the U.S.A. (Sloan & Elnicki (1978), Feldman & Scheffer (1982) and Robinson (1988) suggests that this will increase both the dispersion and the mean level of

wages. The effect of increasing wages will put a considerable pressure on budgets, either forcing them to rise, or forcing budget managers to reduce quality and/or output of their service (although this in itself could create political pressures for a budget increase).

Input costs

Since it is very difficult to assess the quality of outcomes that a health service provides, the providers of health care may be forced to compete on the quality or quantity of their inputs. This would affect input costs, and since, as has already been noted earlier, the link between inputs and outputs is poor in many areas, we may see a rise in costs with no discernible benefits at the end.

Start-up costs

Many of the providers of health care have been hostile to the government's changes, for a variety of reasons. This may lead to the government being forced to increase salaries and other resources to overcome this hostility and ensure the smooth running of the new system.

Impact on allocative efficiency

The reform of the N.H.S. to create quasi-markets will give the consumer more choice and therefore, according to its supporters, increase allocative efficiency even if the projected cost savings do not occur.

Again this assessment may be inaccurate. Many consumers have only one hospital or G.P. in their area and so will have little choice about who treats them. There is also the problem regarding the lack of information, highlighted previously.

Impact on Equity

One of the main criticisms of markets is that they create and sustain inequalities, and Quasi-markets may well do the same, with health care providers wishing only to compete for the young and healthy, since they will be less of a strain on their budget. This may leave the old and the sick receiving even less as a proportion of health care than they did under the old system.

Summary

This chapter has identified the type of market that has been created in the National Health Service and its distinguishing features. It has examined the arguments in favour of such market system - empowering the consumers of health care and introducing competition but has also drawn attention to problems inherent in the health care market that may prevent such reforms from having the desired impact - market failure through imperfect information and localised monopoly and the equity considerations of having competition for the young and the healthy since they are less of a strain on budgets. The next chapter looks at how such markets are to be driven in practice and how purchasers and providers can reach agreements.

CHAPTER NINE
PRINCIPAL - AGENT THEORY

PRINCIPAL - AGENT THEORY

Introduction

The creation of internal quasi-markets under the 'Working for Patients' reforms has created a problem in that the purchasers of health care must rely on someone else to carry out activities on their behalf. This gives rise to a Principal - Agent relationship. This chapter will look at the theoretical Principal - Agent model, its underlying assumptions, and its application to markets in the N.H.S.

Background

Principal - Agent Theory developed from theories of the firm. Classical theory of the firm is based upon the idea that an individual owns all a firm's assets, which he finances through saving and borrowing; gets his income from the profit made by the business, takes all the risks, employs any inputs and controls the firm. However the development of capitalism meant that increasingly economic activity was conducted by large corporations, whose distinctive characteristic is the divorce of ownership from control. The owners of the company are the shareholders and the controllers of the company are its managers.

Under managerial capitalism it is argued that the separate interests of managers and owners can and do exist and that managers can pursue their own interests subject to the extent of the sanctions possessed by the owners.

The major weakness of such models is that they largely omit the role of information and the behaviour of the owners. The central implication of the separation of ownership and control is that of asymmetry of information. If the owners were as well informed as the manager then the owner could [~]publish any deviations by the manager. If, however, the owner perceives that the manager has better information then he/she could try to devise a contract that took account of this and try to provide incentives that mean the manager takes notice of the owners objectives. ?

It is Principal - Agent theory which provides a model for analysing the role of asymmetric information and how successful incentive schemes could be in aligning objectives.

Basic Principal - Agent theory

The general Principal - Agent model provides a general analysis of the situation where a principal(P) employs an agent(A) to carry out an activity on their behalf. A must choose some effort variable (ϵ) which determines an outcome $x=x(\epsilon,\theta)$ where θ is a random variable with a known distribution.

Under the *moral hazard* model then A must choose ϵ before θ is known. P can only observe the outcome x and not ϵ or θ and therefore has no way of knowing if A has chosen the value of ϵ that he/she would prefer. The problem for the principal is to design a contract that rewards A according to x whilst taking into account the fact that A can choose a value of ϵ which is non-optimal for P. The second model concerns *adverse selection* - A knows the value of θ before choosing ϵ but P does not know the values of ϵ or θ but does know that A knows θ . The problem facing P in this model is to design a contract that forces A to reveal θ .

Principal - Agent model

What we shall first consider are: how does the fee payable to A relate to the outcome, and if P has information on A's effort, how does the fee relate to the level of A's effort?

We can consider several cases;

1. If P has no information on A's effort, the fee will depend only on the outcome (if A is risk neutral).

Fee= outcome - Principal's share (constant)

This provides the right incentive for A. But if A is risk averse, then since the fee

depends upon the outcome, A would be required to bear some of the risk. If P were to pay him a constant fee (to insure against such risk), P would be removing his incentives.

However, based on results first shown by Holmström (1979) we can prove that:

- i. even if the Agent is risk averse, his/her fee would always depend to some extent on the outcome, but A need not bear all the risk.
- ii. the level of welfare approaches the maximum attainable level when the Agent's effort either approaches zero or grows very large, and that these results will apply even if the Agent is risk averse, as opposed to risk neutral

2. If P has information on A's effort, then A's fee will depend not only on outcome but also on effort. If A is risk neutral, then the fee will depend only on the outcome, but if A is risk averse, P can provide an incentive by making the fee in some way dependent upon effort, providing that P can find a satisfactory way of observing this.

This means that A would no longer be dependent upon a risky outcome for a fee.

A problem might arise in that P might not be able to accurately measure A's effort, in which case P's use of information about effort would add a further undesirable risk for A. This poses the question " is information of any value ? " (see Harris & Raviv (1976, 1978 a)). Again, Holmström (1979) has proved that, since the fee would always depend to some extent upon the information possessed by P, then information does have value. But continuing the point developed in part ii. of case 1 above, the value of such information will tend to zero as effort is either approaching zero or growing large. The formal model can be found in Appendix A.

Principal - Agent relationships in the N.H.S.

Traditional Principal - Agent theory has largely been concerned with the separation of ownership from control. This is not the problem that exists within the National Health Service. The problem in health care terms is that a series of Principal

- Agent relationships have been created. Firstly there exists the relationship between the patients and the G.P.F.H. The patients must rely on the G.P. to purchase health care on their behalf and the two parties may have very different objectives in mind. The secondary Principal - Agent relationship exists between G.P.F.H.s and the N.H.S.T.s where G.P.s must purchase health care without being able to observe effort or have complete information about costs.

In both cases the Agents have similar problems; how do you signify the quality of service you offer to potential Principals in a situation where they do not have full information about you ? This problem was classically analysed by Akerlof (1970) where he considered the implications of asymmetrical information about product quality in the used car market.

In Akerlof's analysis cars were either of a high quality (reliable) or low quality unreliable (lemons). The dealers of used cars needed some way to signal to buyers that they had high quality products by offering guarantees or warranties. Such activities would not be rational for sellers of low quality cars - the guarantees would be more expensive to honour than if high quality cars were sold. This ability to signal has been applied to the job market (i.e. by Spence (1974)) and is equally valuable in analysing the difficulties in contracting where there are Principal - Agent relationships with asymmetry of information in the health service.

Summary

Asymmetry of information is a characteristic of all health service Principal - Agent relationships mainly due to the need for specialised knowledge and the inability to observe directly 'effort'. The Agents have the problem of needing to signal to potential purchasers the quality of their efforts. This will be developed further in the next chapter where the reputation of the Agent is considered as not merely as a signal of quality but also as an incentive for the Agent to perform.

CHAPTER TEN
REPUTATION

REPUTATION

Introduction

The last chapter and Appendix B examined the design of contracts where there are Principal - Agent relationships. Much Principal - Agent theory has concentrated on the design of optimal contracts, and much of it has employed models in which the payment to the Agent depended upon some measure of output. However, such contracts can only be used if the information is symmetric, that is, equally available to both parties.

In practice, performance can often only be measured subjectively, for example, by a supervisor. This is particularly true when there is a team effort in production (see Alchian & Demsetz (1972)).

This brings additional problems, in that it makes the danger of moral hazard two sided; contracts must be designed, not only to encourage effort from the Agent, but give the Principal no incentive to misjudge the Agent's performance.

In the particular market we are considering, there may be one further problem, in that the Agents have different abilities which are known to them but not to the Principal at the time of 'hiring'. This means that contracts must also be able to select between employees of various abilities and provide appropriate incentives based on ability.

In these circumstances, it has been argued that termination contracts are the most suitable form of contract (see Malcolmson (1981), Stiglitz & Weiss (1983), Shapiro & Stiglitz (1984)).

A termination contract means that the amount paid to the Agent is not dependent upon performance (therefore the Principal has no incentive to misjudge the Agent's performance), but the Agent can be fired at the end of the contract (this gives the Agent the incentive to work). But the prospect of losing a contract at the end of a period will only work if the cost of finding another is sufficiently high. According to

the work of Shapiro & Stiglitz, the existence of involuntary unemployment is the market's way of ensuring costs are high and therefore the Agent does have an incentive to work; but in the Shapiro & Stiglitz model, all the Agents are identical and so the additional problem of adverse selection is not considered.

MacLeod & Malcolmson (1984) have argued that if adverse selection arises under a system of termination contracts, this will, in fact, reduce the existence of moral hazard and remove the need for involuntary unemployment as an incentive to effort. The reason for their assertion is that, with adverse selection the Agent's work history will convey information to the Principal about that Agent's ability and attitude to work. This means that an Agent's reputation becomes highly important, since it directly affects their employment prospects (if they lose a contract their reputation suffers) and so, even without involuntary unemployment, they have an incentive to work.

Before reputation can become a credible market force we need to establish some form of hierarchy of jobs, such that an Agent's position within the hierarchy conveys information to the Principal about that Agent's abilities; being fired from a position within the hierarchy must involve a loss of reputation, since it conveys the fact that the Agent is not suitable for such a position.

Hierarchy and Reputation

The use of hierarchy in this particular case is different to much of the literature on hierarchies (see, for example, Calvo & Wellisz (1979), Rosen (1982) and Waldman (1984)) which assume that supervision and high level decision making can improve the productivity of lower ranks or that higher ranks give instructions to lower ranks (see Marshak & Radner (1977) and Beckmann (1983)). We shall assume that hierarchy is mainly a means of providing incentives and information for both Principal and Agent. This involves a system of ranks where Agents start at the bottom of the hierarchy and if they perform well, can be 'promoted' up the structure to a position with higher pay

(what Stiglitz (1984) would call an horizontal hierarchy - the number of employees being paid a high wage tends to be less than the number being paid lower wage).

Also we make the following further assumptions;

- All new entrants start at the bottom of the hierarchy and will tend to be promoted only one step at a time (see Doeringer & Piore (1981) for more detail)
- The rank structure allows a labour market to operate for employees who are not new entrants to the market (*i.e.* can transfer into the organisation from outside)
- Agents are never demoted and only those in the lowest rank are ever dismissed (even though the threat remains at all levels)
- There is a finite number of ranks
- Wages rise with seniority/experience faster than productivity (see Medoff & Abraham (1980))
- Variance of wages rises with seniority/experience (see Mincer (1974))

See Appendix B for the formal model.

Hierarchy, Reputation and the National Health Service

Applying the model of reputation and hierarchy to the National Health Service the idea of termination contracts does not lead to unemployment for the hospital if the contract is ended but does lead to damage to reputation and important financial penalties which could lead to the hospital being unable to function in certain areas or

possibly altogether (these points are made by managers in Appendix K). Reputation is an important factor for hospitals and clinicians, many of whom have established specialisms (*e.g.* Great Ormond Street for paediatrics, Papworth for cardiac transplants) which act as a signal to potential purchasers indicating the quality of the institutions and staff.

Reputation does lead to a hierarchical structure in terms of ranking individuals and institutions (again, a point to be developed later that G.P.F.H.s will look not only at price of services before awarding a contract but at the staff employed in that specialism and whether or not they are known.) The importance of reputation to Agents is clear if one examines the promotional marketing brochure contained within Appendix I. Not only are the current departmental consultant Otolaryngologists prominently identified but reference is made to famous predecessors and the overall reputation of the unit since the last century.

Clearly the model of contract design incorporating reputation is applicable to the internal market model, where G.P.F.H.s cannot directly observe the actions of the Agents (N.H.S.T.s) and where price alone is not a guarantee of quality and so some form of signalling is needed.

Summary

When we examine an employment situation where moral hazard and adverse selection occur simultaneously, we find that very different contracts are needed to achieve a satisfactory relationship between Principals and Agents. This chapter has shown that termination contracts, along with a hierarchy of ranks allowing for promotion from the bottom, will deal with both problems simultaneously:

- Moral hazard

When the ability of Agents is unknown to Principals, the loss of reputation caused by dismissal means that workers have an incentive to perform, whilst the use of

termination contracts mean that Principals have no incentive to misjudge their Agent's performance.

- Adverse selection

This problem is dealt with by starting all Agents at the bottom of the hierarchy and promoting them upwards rank by rank. This also means that Principals can pay the most able Agents the highest wages.

CHAPTER ELEVEN
INCENTIVES AND CONTRACTS

INCENTIVES AND CONTRACTS

Introduction

As the preceding chapter on Principal Agent theory has shown, the two parties have a divergence of interest, therefore, the Principal must find a way of altering the Agent's preferences or reward the Agent for following actions he/she does not really want to do.

The second problem faced by a Principal (after a divergence of interest) is the difficulty in measuring the Agent's activities (if P could accurately observe A's effort there is no incentive problem, since pay can be linked directly to effort). As has been shown already the Agent must choose an effort level.

To encourage an high effort level, a variety of schemes can be used to provide incentives such as; piece rates, royalties and commission payments. In these cases, the incentive effect is based upon marginal payments (the amount of additional reward that a little extra effort would produce) and the Agent will choose to work at the level at which the marginal benefits equal the marginal cost.

It is not necessary to rely on continuous schemes (and increase in output results in a comparable increase in payments); in the real world many incentive schemes are discontinuous (a change in performance does not generate a change in pay until certain thresholds are reached). Nor is it necessary to offer financial incentives above the fixed payment, since promotion or the threat of sacking (with consequent repercussions for reputation and position within the hierarchy) can mimic the incentive effects of a continuous scheme.

The major weakness of incentive schemes is that they encourage concentration on the goal that rewards the Agent to the detriment of other considerations (*i.e.* quantity could take precedence over quality). This is why discontinuous incentive schemes are preferable in the area of the public sector covered in this thesis, since there is normally a delay in assessing other crucial variables, such as quality, and so

Which are?

What's wrong with
99%, 98%, 97%?

pay can more fairly equate to performance.

Given these difficulties in aligning goals and monitoring performance the problem facing Principals is how to devise a contract that will function in this area of the public sector that will unite the goals of both parties without creating an undue burden of risk sharing on the Agent which would lead to a reduction in bidding and an incentive for cost padding.

The question that must now be considered is, can the Principal devise some form of incentive scheme that ensures the Agent has the same aims as the Principal ?

The simplest scheme (providing the only consideration is the Agent's effort) is for the Principal to set a marginal payment rate of 100%. This does not mean that the Principal receives nothing from the transaction because, in the contract, there should be a fixed figure that the Agent pays to the Principal. Since the Agent retains the fruit of his/her labours (after this initial payment), the Agent is, in effect, buying the right to act from the Principal and becoming self employed. But contracts with 100% marginal rates are fairly uncommon due to two defects:

- If the Principal is uncertain of the Agent's productivity, it will be in the Principal's interest to offer a variety of contracts with a variety of marginal rates
- If the Agent does not have full control over the output (due to random factors), then he/she will not want the full accountability for output that 100% rates imply and might prefer a lower rate to share risk with the Principal.

All of this means that contracts must be designed not simply to achieve a convergence of interests using incentives (either continuous or discontinuous), but to spread the risk between P and A, and if the Agent has private information that is

relevant to the performance of the contract, then the contract should be designed to reduce the Principal's disadvantage. *meaning?*

Contract Design

Most of the contracts that try to solve the problems of incentives and risk sharing at the same time, fail to fully satisfy either requirement and so are, inevitably, some form of compromise.

The Principal's aim (particularly in the field of health care) is to keep the costs low but it is the Agent who bears the brunt of keeping costs down. Therefore, there is a need to consider the optimal form of contract that allows health care services to be produced at the lowest possible cost.

3 types of contract will be considered:

The fixed price contract

Under this type of contract, the Principal will pay the Agent a set amount (equal to the Agent's bid) regardless of the actual cost to the Agent. This means that the Agent bears the full costs, and so will have to cover any unforeseen variations.

The cost plus contract

In this case the Principal pays a fixed fee plus the Agent's costs. This means that the Agent has no incentive to limit costs.

The incentive contract

This combines elements of the two types of contract mentioned above. If the Agent's costs exceed the bid then the Principal and Agent share the overrun, if costs are less than the bid then they share the savings.

Depending upon particular circumstances, any of these contract types may be optimal contracts. These circumstances will be identified and how, in the case of an incentive contract, the optimal sharing ratio can be calculated (see Appendix C). McAfee & McMillan (1986 b) found in their surveys that the average saving made in a switch to incentive contracting was 13.1%. Feldstein (1983) in his study of contrasting U.S. health care schemes suggested that savings of up to 20% were possible.

Summary

This chapter has combined game theory with principal agent theory. It has demonstrated that for any case with more than two bidders a cost plus contract cannot be optimal, since the Principal is most unlikely to select the bid from the Agent with the lowest costs (*i.e.* the most efficient). An incentive contract will deal with the three problems confronting the Agent:

- Adverse selection
- Moral hazard
- Possible risk aversion

Whilst the optimal contract trades off risk sharing with moral hazard, it also affects how Agents bid for contracts and so demonstrates the interdependence of the two parties.

CHAPTER TWELVE
CONTRACTS AND QUASI-MARKETS

CONTRACTS AND QUASI-MARKETS

Introduction

Given that the U.K. reforms have to operate in a quasi-market (consumers decisions are filtered through a purchaser acting on their behalf) the previous chapter has identified that some form of incentive contract will be optimal in these conditions. This chapter looks at the reality of the U.K. marketplace and examines the prevalence of different types of contracts and the implications of their use.

The reform of the N.H.S. has been designed to make health care provision separate from its finance. This does not create a true market but a quasi-market, since consumers' decisions must come through purchasing Agents such as D.H.A.s and G.P.F.H.s. These purchasers must negotiate contracts with providers of care to achieve the best value for money care within their budget constraints.

The types of contract used must specify the cost of services and the type of services to be provided and can be of three types;

- Block
- Cost and volume
- Cost per case

Under a block contract, the purchaser pays the provider an annual fee in return for a specified range of services. Such contracts impose an high degree of risk on the provider, since the fee is fixed but the costs of provision are variable. If the providers are risk averse, this may increase the fee charged for a specific quantity and quality of services (in order to cover the element of risk). This is obviously undesirable in a system where minimising costs is one of the principal objectives, therefore some

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element of risk sharing would be preferable (*i.e.* an incentive contract would be optimal). There is some element of risk sharing built into the system for opted out hospitals that become N.H.S. Trusts. When a unit becomes a trust, all the assets of the facility become the property of the trust, but they are given a debt equivalent to the market value of those assets. This debt is in two forms; firstly a fixed rate loan in the form of interest bearing debt, and, secondly, a public equity stake in the form of public dividend capital. The payment due on the public dividend capital is only due when the trust achieves a financial surplus. This means that the effect of making a loss is less severe than if all the debt was in interest bearing form. This should result in providers submitting lower bids for contracts.

Cost per case contracts are normally used to deliver treatments required on an irregular basis and so do not specify the quantity of service. Prices are regulated so that if entering a contract with an N.H.S. purchaser, the trust must earn 6% return on assets. These contracts tend to impose risk upon the purchaser unless a maximum limit is set upon the number of cases that can be treated. Another, potentially more serious problem, arises when the provider knows more about the costs than the purchaser since this gives an incentive to overcharge.

The final form of contract is the cost and volume contract which combines elements of the block and cost per case contracts. These contracts specify the basic level of activity to be provided and any activity beyond this level is to be done on a cost per case basis.

Although evidence about the actual type of contract use is limited, a survey of hospitals engaged in the first wave of trust creation (Newchurch (1990)) found that 25% intended to operate on block contract entirely and a further 61% on mainly block contracts. This suggests that the quasi-market system will initially rely heavily on the block contract, which, as the previous chapter has shown, may result in increasing

costs of provision. More evidence can be gathered from studies of the U.S. health care system which has operated a similar market and contract driven environment for some time. Studies of the U.S. (for example, Schlesinger et al. (1986) and De Hoog (1987) have found that:

- over time the number of bidders for each contract declines.
- contracts tend to be re-awarded to existing providers.
- economies of scale encourage the concentration of provision among a small number of large providers.

These effects may well be due to the purchasers concern to get health care of an appropriate quality in circumstances where they find great difficulty in observing quality. This affects contract design and therefore the bidding for contracts and the results of contracts.

The traditional purchaser of care in the U.K. was the government, which due to its size is generally considered to be risk neutral. This means that when dealing with providers who are risk averse, the government can bear some of the risk through incentive contracts and so secure a lower contract price. The creation of quasi-markets moves health care purchasing away from the government and means that such risk spreading is no longer possible. The use of purchasing Agents, acting for others, means that risk aversion will have increased, since a poor outcome of the contract will be highly damaging to their position and reputation.

The lack of observation of quality and the asymmetry of information, which are important since the purchaser is an Agent, may well act to encourage purchasers of health care into long term arrangements with providers who are known to them. This has two effects:

- Reduced transaction costs in evaluating bids due to the small number of bidders.
- Those providers who hold the contract will be more likely to receive it again at the end of the period (point of termination) since their performance is best known to the purchaser.

The purchaser may also wish to put some quality control measures into the contract, but this will increase the transaction cost of the contracting process and so reduce the number of bidders, and may result in only large providers bidding (since they are best able to support these additional costs). The end result is a reduction in competition for contracts, which may encourage inefficiency in production and opportunistic behaviour on the part of providers, so that rather than a quasi-market creating increased competition it will result in monopolistic suppliers. This monopolistic position is likely to be further reinforced because of the lack of ability and willingness of patients to travel.

The purchasers' concern over quality and their inability to directly assess quality, coupled with the increased risk aversion, means that price will become increasingly unimportant in deciding who to award contracts to, and purchasers and providers may enter into long term relationships as the best way of allaying purchasers' fears.

The evidence on contract design for quasi-markets suggests that the most efficient contract will depend upon conditions, and that there is no single type that can be recommended. Evidence from the U.S. suggests that the technology of production, informational asymmetry and the degree of risk aversion, together with the relative power of purchaser and provider will determine which contract is best suited for a particular area of the health care market.

Fixed price contracts (block) give incentives to limit cost increases but this may be achieved at the expense of quality (see Lanning et al. (1991), Thorpe & Phelps

Comp^{me}
nt p127.

(1990), Culyer & Posnett (1990), Gaumer et al. (1989) and Shortell & Hughes (1988))
. Cost plus contracts give incentives to increase quality, if the purchaser has adequate monitoring, but in the absence of such systems cost padding is more likely (see Nyman (1986,1988) and Gertler (1989)). Incentive contracts, that offer some degree of risk sharing will give incentives when the provider is more risk averse than the purchaser.

The studies of the effects of contract use in the U.S. have tended to show that providers do not respond to the incentive effects, and that attempts to write quality specifications into contracts will lead to increasing transaction costs and a falling number of bidders (especially small bidders), and without credible monitoring and sanctions these specifications will have little impact. These have led to the aforementioned tendency for long term relationships, but this may encourage provider opportunism and limit the competitive effects that quasi-markets were designed to bring.

Summary

Whilst evidence from the preceding chapter suggests that some form of incentive contract would be optimal, the evidence from the U.K. market suggests that a heavy reliance will be placed on block contracts, which provide incentives for cost padding. The U.S. evidence, which is based on a longer experience of the use of markets and contracts, has been that over time the number of bidders for each contract declines, purchasers enter long term relationships with providers and that provision of care becomes concentrated among a few large scale providers. This suggests that the efficiency gains from splitting purchaser and provider through a markets and contracts approach may well be lower than originally envisaged.

CHAPTER THIRTEEN
QUASI-MARKETS AND REGULATION

QUASI-MARKETS AND REGULATION

Introduction

The last chapter showed that evidence from the U.S. suggests that over time competition within the healthcare marketplace declined as provision of care became concentrated. This may lead to inefficient production and opportunistic behaviour. This may well suggest a *prima facie* case for regulation to be introduced in the U.K. market to avert a repetition of these effects.

As the preceding chapter demonstrated the gains from the introduction of quasi markets may be much lower than initially intended. Does this then suggest that increased regulation of the market might be needed ?

Regulation depends upon information, and the problems of asymmetry of information means that the regulator cannot control all aspects of a provider's behaviour. It is the information available to the regulator that determines the best strategy to pursue. If the regulator has access to accurate cost and demand information, then the regulation of price is probably the best strategy. If such information is not available, then encouraging new entrants and trying to promote competition is a more realistic approach.

The amount of information available to the regulator will depend upon the number of providers. A market with a single provider may involve the regulator in high transaction costs in acquiring information, whereas a market with many providers may have lower transaction costs. A further problem is that in a rapidly changing market any information gathered may rapidly become outdated.

Entry regulation

The U.S. health care system has fairly widespread entry regulation because of the fear that the third party payment problem will lead to over-consumption. The

method chosen to control such over-consumption was to limit capacity. This problem is unlikely to occur in U.K. quasi-markets because the government imposes a budget constraint, and, as mentioned earlier, the U.K. may end up with a lack of competition rather than an excess, which means that a policy of promoting entry might be more suitable rather than one of restriction.

Price regulation

The dangers of local monopolies in health care were also identified earlier, and this means that price regulation might be used to restrict monopoly profits. In order to do this the regulator would need information, which involves difficulties already identified, such as transactions costs and relevance. The inherent danger of price regulation is that it tends to reduce innovation (since prices are reset in line with costs, the provider benefits for only a short period) and competition (it prevents cross subsidisation and use of loss leaders). One area where price regulation might prove useful is to introduce 'relative pricing', where high risk patients would attract a higher capitation fee if a G.P. accepted them to his/her list. However a higher fee would not necessarily mean greater treatment and so this would be difficult to monitor.

Summary

Regulation of the healthcare marketplace can take two main forms; entry regulation and price regulation. Price regulation is the more appropriate alternative for the U.K. market. However, the regulator would face the difficulty of acquiring information in the first place and the rate of change of technology and techniques may mean that the information once acquired may already be outdated. A further problem is that price regulation may actually inhibit competition. It appears that direct regulation may not resolve the fundamental problems of quasi-markets - lack of quality information and informational asymmetry - so, perhaps, what is really needed

is an information gathering and distribution outlet if the U.K. quasi market is to function in the way it was intended.

SECTION FOUR
THE REFORMS IN PRACTICE - A RESEARCH STUDY

CHAPTER FOURTEEN
A PRELIMINARY INVESTIGATION OF THE CONTRACTING
PROCESS

A PRELIMINARY INVESTIGATION OF THE CONTRACTING PROCEDURE

Introduction

The review of the literature on contracting has suggested that the design of contracts will be a crucial element in achieving the government's objectives of improving efficiency and cost effectiveness. This chapter of the thesis will examine how contracts are used in practice within the N.H.S.

The forming of relationships and the contracting process

The reforms of the NHS have been designed to create an "internal market" for health care. The concept originated in the work by Enthoven (1985). Under his proposals, the D.H.A. would be responsible for providing comprehensive care for its own community. If it provided emergency care for outsiders it would be paid a standard rate, but it could provide non-emergency care at a negotiated price. It could also control referrals of its own population outside the district, again, at a negotiated price. This would allow Districts to enter into contractual arrangements they might prefer and so give managers much more freedom and incentives.

They could buy-in services from producers who offered the best value, threaten to take their contracts elsewhere to encourage better performance from their own providers and sell off assets in order to use their capital more efficiently. Managers would be allowed to retain all the savings made to use them for the priorities they determined within their district.

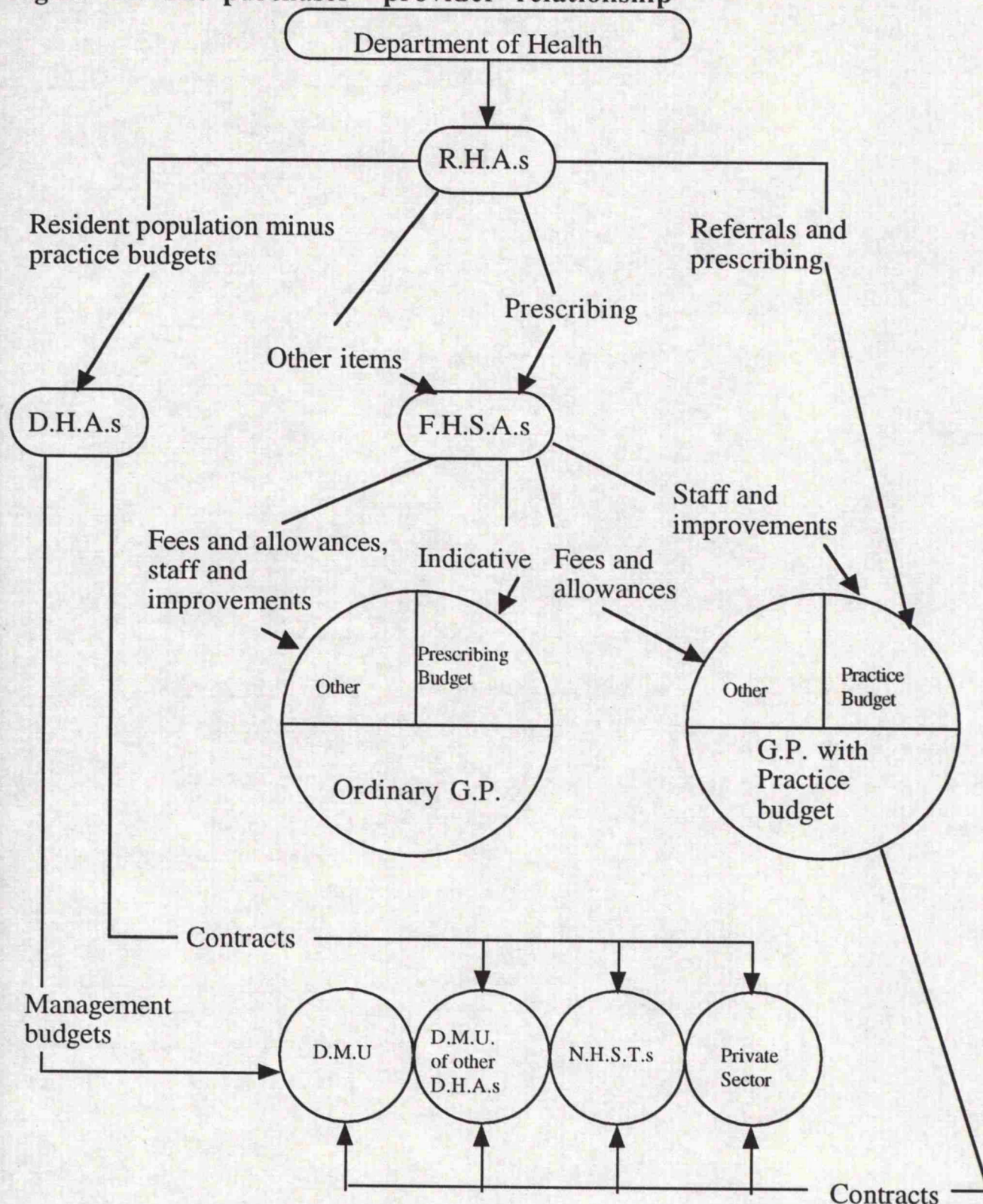
In order for his system to function efficiently Enthoven outlined a number of conditions that would have to be met:

- Incentives to encourage cost effectiveness
- Suitably trained managers
- Good information flows
- A culture that encouraged buying/selling
- Medical decision making free from conflicts of interest

The end result of these changes would create an “internal market” where consumer choice would drive the system to be more efficient and responsive.

The White Paper “Working for Patients” drew extensively on Enthoven’s ideas. Essentially, it split purchasing from provision under the dynamic relationship shown below (see Fig 11):

Figure 11: The purchaser - provider relationship



The phrase "internal market" has been refined by Mullen (1990) who has identified two distinct forms of markets.

Type I - health authorities receiving funding for their residents and having specific responsibility for the health care of that population. They are to provide and/or purchase this care to meet the perceived needs of the population. It is also assumed (but never explicitly stated) that the population can only be treated by contracted providers. This is often called a provider led system.

Type II - health authorities still receiving funding for their population but residents may receive treatment anywhere and the health authority must reimburse the provider. This is the patient led system.

Type II systems are very similar to the private insurance schemes that were analysed earlier, where hospitals are paid for providing a service and so have an incentive to maximise the activity they provide (since this will earn the most money). Such systems are similar to the U.S. system with its inflationary consequences and tendency to over consumption. Type I markets are closer to H.M.O.S.'s which provide a specified range of services in return for an annual fee.

Much of the present NHS internal market is of the Type I variety, but it is the emergence of the Type II market (for example, with G.P.F.H.s placing contracts) that should encourage competition and allow the government's objectives of increasing efficiency, cost effectiveness and a more responsive service to be achieved.

The first major study of the impact of the reforms was the 'Monitoring Managed Competition Project' of N.A.H.A.T., carried out in conjunction with West Midlands R.H.A. and the then Newcastle Polytechnic.

The study surveyed all 32 acute provider units within the region and 24 U.G.M.s responded to the survey (a 75% response rate). The data was based on a survey carried out in November 1990 and face to face interviews with managers and

clinicians during the summer of 1990.

The survey identified ten factors that influenced the decision as to where to place contracts in the first year of the reforms. The major factors were; existing patient flows, G.P. preferences, ease of travel for residents and previous experience of the provider. Only 22% of those surveyed felt that prices were a significant factor in deciding where to place contracts, and only 12% were concerned with quality considerations.

It was therefore decided to embark on a series of preliminary structured interviews which were designed to explore the issues of market effectiveness and asymmetry of information in one D.H.A.

The interviews were of an exploratory nature and were intended to open up issues for further investigation in a pilot research study, which is reported in Chapter 16. Manchester was selected as a suitable area for this exploration because many of the issues raised by the market changes are prevalent. Manchester Health Commission is currently in a state of change that began in 1994 when the previous health authorities in the city merged to form a single Manchester Health Authority. The complex development of contracting by the Health Authority is illustrated in Appendix L.

It is against this contracting background that interviews with staff took place (the full text of the interviews is in Appendix K). The interviews with staff members within the N.H.S. support the findings of the N.A.H.A.T. study:

“The GP wishing to become a fund-holder must apply to his D.H.A. one year in advance. They then receive a budget for outpatient and elective care based upon the number of cases they had seen in hospitals in the preceding year. This budget is no longer available to the D.H.A. who contract with us on behalf of non fund-holders.

The main concern is “what are our waiting lists and prices ? ” ²⁶

N.H.S.T. provider

²⁶ See Appendix H

"The non-price factors are a crucial part of D.H.A. commissioning."

D.H.A. purchaser

"Price is certainly a consideration but it isn't the only one and that's a major point in my opinion. We have to carry GPs; they make the referrals."

At present we have not needed to market ourselves to a large degree, because most of our competitors are not trusts, but we use a variety of methods ²⁷ - meetings with GPs, presentations, invites to G.P.s to visit the Trust. At present most of our fundholders are local - about 90% are within Greater Manchester and Macclesfield.

N.H.S.T. provider

Objectives of the contracting parties

Many people feel that contracting should lead to improvements in services for patients citing quality, improved attitudes of staff to patients and the reduction in waiting times and waiting lists as the greatest benefits (however these latter effects may be due to the extra resources devoted to the reduction rather than the reforms). This should be an area in which the Purchaser can use the contracting system to achieve better services for patients as the provider's objectives are to retain and attract new business.

"The separation of provision from purchase is an immensely powerful framework which generates all sorts of incentives to improve performance that, frankly, were just missing before."

D.H.A. purchaser

²⁷ See Appendix I

"The government has pursued a policy of trying to separate purchasing from the provision of public services generally...it has created incentives throughout the system for people to do better."

D.H.A. provider

"The internal market has forced us to be more outward looking in our orientation...This is certainly good not only in terms of planning the service but also in delivering to patients and additionally, what information and interchange of ideas they give to G.P.s."

D.H.A. provider

"Allowing G.P.F.H.s has been a good idea and is forcing an improvement in quality."

N.H.S.T. provider

"I would prefer to be able to buy in-patient care myself where I know I can get a good service. The same applies to social services, I want to be able to use my budget to influence and improve care."

G.P.F.H.

"Decisions taken by individual NHS purchasers and providers may contain an opportunity for one decision maker and likely threats for others"

D.H.A. provider

Can either party dictate terms ?

Traditional Principal - Agent theory has suggested that the Principal dictates terms to the Agent, and the section above concerning objectives bears out this theory

(the potential threat to business of not complying with the Purchaser's request).

"We have prided ourselves in being able to give G.P.F.H.s what is regular contract monitoring information for their own purposes. We treat them as autonomous customers and give them their own data sets indicating the number of patients that we are treating against the contract levels they have agreed with us under our block contracts. We currently have such agreements with three G.P.F.H.s We usually have regular quarterly meetings with each and go through all the issues including quality matters such as access and speed of referral."

D.H.A. provider

"normally they want conditions on waiting times and quality; for example, many specify that they expect each patient to receive a weeks supply of any drugs we prescribe. We may offer discounts on some specialisms."

N.H.S.T. provider

"They are mainly concerned with waiting times ²⁸ ; as yet the "hotel issues" have not been raised - we are spending money on improving our environment and we do try to monitor patient response."

N.H.S.T. provider

"We have had instances of clients sent to hospitals that do not provide clean bed linen or pillowcases for example. I would prefer to be able to buy in-patient care myself where I know I can get a good service."

G.P.F.H.

²⁸ See Appendix J for Patients Charter setting out statutory obligations

A study of the impact of the reforms on one provider unit

A study of one provider unit, assessing the impact of the reforms in organisational and cost terms does provide some evidence of a reversal of traditional theory and that the Agent may have some power to force the Principal into accepting contract types. This may well be due to the factors such as patient immobility that have been identified as a major factor in deciding where to place the contract in the first place and that it involves a transfer of risk from the Principal to the Agent, which would be welcomed by risk averse Principals.

The unit

The unit to be examined is the Central Manchester Healthcare Trust. This trust was one of the first wave of N.H.S.T.'s formed on the 1st April 1991. It is actually comprised of seven sections:

- Manchester Royal Infirmary
- Manchester Royal Eye Hospital
- St. Mary's Hospital
- Barnes Hospital
- Psychiatric services
- Community services
- Dental Hospital

N.B. It is possible that in 1994 Community services may leave this trust and join a new city wide trust.

The local providers

Central Manchester Healthcare Trust is part of the North Western Regional Health Authority (geographically)²⁹. It is one of 19 provider units located within this region. Of these 18 other provider units just under half are N.H.S.T.s and the rest are

²⁹ See Appendix D

D.M.U.s still controlled and funded by N.W.R.H.A.

The competitors

Apart from the 18 other provider units located within the same region the other major competitors of this particular trust are the provider units located in the surrounding health authorities:³⁰

- Mersey
- Trent
- Yorkshire
- Northern

Of these 4 regions Mersey has been the most active marketer of alternative services to Central Manchester.

The organisational implications

Since the trust was established, a new department has been created to deal with marketing and contract negotiations. The staff of this new department were mainly internal transfers from the former planning department. This department has two main functions:

- Agreeing activity, income and quality with purchasers. The particular quality concern has been with waiting lists; the longest lists are for orthopaedic surgery (particularly hip and knee), ophthalmology (cataracts) and coronary bypass surgery.
- Taking action if targets are not met

In order to fulfil these tasks, it is provided with data by the information unit. This unit had existed for several years before the reforms and fulfils a variety of roles; data audit, providing information to purchasers, monitoring reports and

³⁰ See Appendix E

providing the P.A.S. support team. The Patients Charter requires that quarterly information is provided to G.P.s and dental practices who contract with the trust, giving, for example, detail on waiting times. Most practices check the information provided by this particular trust (which provides more information than is required by law). The data audit role was a function given to the information department under the new reforms and required the hiring of additional staff to deal with the invoicing of G.P.F.H.s. The trust deals with 164 practices in the present financial year 1993/94 (this compares to 20 in 1991/92 and 60 in 1992/93 and an expected 300+ in 1994/95 most of whom are based within the Mersey or N.W.R.H.A.s) generating around 2,500 invoices per month.

The cost implications

The costs can be broken down into two parts; start-up costs and annual costs. These costs fell mainly on the information department (who were responsible for generating the information to make the new system work). The start-up costs were estimated to be £250,000 which comprised the capital costs (*i.e.* software, terminals, furniture) and staff costs (six additional staff). The annual costs mainly fall at the year end and include the changing of all the contract identities, tariffs and the financial year they are to be charged under (the trust is currently developing new in house software packages to eliminate some of these costs).

The contracting arrangements

Initially the trust was using block contracts (which were encouraged by the Department of Health as part of the steady state process -no purchaser was going to suddenly be faced with vastly increased bills for medical treatment), but then went over to a cost per case contracting system. This was more attractive from the trust's point of view since it meant that they had less of the risk to bear (since any unforeseen

increase in treatment costs could be covered) but this was less attractive to the purchaser since they then bore more of the risk (unless quantity agreements are reached) and does raise the problem of asymmetry of information, giving the provider the incentive to cost-pad. However, the trust is now intending to revert to block contracts for the outpatient arrangements with the 35 largest G.P.F.H.s that it deals with.

A variety of reasons lay behind this decision:

- Reduces the amount of invoicing required
- Reduces the need to chase up and monitor as much data
- Reduces the amount of data needing manipulation

In short, the transactions costs of providing cost per case contracts on such a large scale was greater than the element of increased risk to be borne under the block contract system. The use of block contracts for the largest fundholding practices will generate cost savings by being easier to handle (there is a 6 week deadline involved in invoicing for treatment once it has been provided before the contract terms are breached and the treatment can longer be invoiced), substantially reducing the quantity of data that they need to monitor, this will become increasingly important if the projected increase in the number of G.P.F.H.s is correct. The fund argues that to successfully and cost effectively manipulate such quantities of data, a new computer system is required (which the Department of Health is proving reluctant to pay for).

This problem was identified at an early stage:

“ There will be many thousands of buyers, and many hundreds of sellers in the N.H.S. internal market. Providing information on such a scale requires an extensive, national high-tech communications network, providing direct access to computerised information systems...Without the framework of a national communications network

linking every part of the N.H.S., there will be islands of information technology in hospitals, not a market information facility designed to enhance the efficiency of the internal market place " ³¹ . These cost savings must be expected to outweigh any unforeseen cost increases that might affect treatments provided in future under block contracts or the trust has access to other funding sufficient to meet any likely cost increases.

From the government's perspective, such a move towards block contracts is bound to be worrying, whilst block contracts give providers an incentive to hold costs down (since they must bear all cost overruns), the lack of cost sharing means that a risk averse provider will need to be paid a premium over and above the actual cost in order to accept the contract (although as a trust there is some element of risk sharing identified earlier). Block contracts offer the provider the chance to pursue opportunistic strategies such as a reduction in the quality of some services and an over consumption of high cost 'prestige' treatments. However the alternative cost per case system which avoids such incentive problems does require a high degree of information; to be complete contracts they must price each individual treatment must be priced for each possible type of patient, which adds significant administrative costs.

Types of contract used

The types of contract available have been detailed in Section 3 of the thesis along with their potential drawbacks. In practice the evidence on contracting shows that the block contract, initially envisaged as the starting point for the reformed system were expected to be replaced over time by more sophisticated contracts. If the unit studied in the preceding section is typical then the transactions costs of such contracts may well inhibit their use within the N.H.S.

³¹ T.Jones The Health Service Journal 9/9/89 pp 1368 - 1369

A national survey (covering c. 60% of all D.H.A. purchasers in England and Wales) carried out in December 1991 gives further indications of structure and change in the market.

Table 7: Contracts for acute services, 1991/92, by contract type (n = 101)

Contract type	Number	Value (£ million)	% of number	% of value	Avg value (£ million)
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Block	1,131	4,346.5	40.7	60.4	3.84
Block ³²	1,179	2,434.5	42.4	33.8	2.06
Cost & Volume	169	314.1	6.1	4.4	1.86
Cost per case	108	17.6	3.9	0.2	0.16
R.H.A. Agency ³³	191	85.9	6.9	1.2	0.45

Source: National survey of English and Welsh D.H.A.s, conducted in December 1991

Table 8: Contracts for acute services, 1991/92, by provider type (n = 101)

Provider type	Number	Value (£ million)	% of number	% of value	Avg value (£ million)
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NHS in District	488	5,610.1	17.8	78.6	11.50
NHS non District	2,161	1,503.4	78.6	21.1	0.70
Private sector	13	1.5	0.5	0.0	0.12
Voluntary sector	67	9.4	2.4	0.1	0.14
Other	19	1.2	0.7	0.2	0.63

Source: National survey of English and Welsh D.H.A.s, conducted in December 1991

As this survey shows the block contract predominates in number (83%) and value (94%) whilst the more detailed type of contract accounts for only 5% of the

³² with ceilings and floors

³³ on behalf of D.H.A.

value of all contracts. This is almost certainly due to the lack of cost information necessary to formulate such contracts. The data also shows that the N.H.S. has virtually all the contracts (99.7% by value and 96.4% by number).

"You can't really run cost and volume contracts effectively unless you have got a very clear idea not only on each specialty's bottom line costs but also on how these costs behave for different case loads. But beyond our regional specialties we are still running most of our services against block contracts and our goal for this year is the rather limited one of simply ensuring costs to the institution are covered by income."

D.H.A. provider

"Presently they are still largely block contracts but they're becoming more hybrid in that they may have trigger points. This may mean no more than stating "once you have delivered x episodes, we'll talk again". There are a couple of smaller specialist contracts that are more cost and volume. However in terms of resources the great majority of our contracts remain of the block variety."

D.H.A. provider

"Block contracts. Irrespective of the amount of work done the G.P.F.H. pays the same. Our providers could see all the people on our list or they could see none."

G.P.F.H.

Problems identified in the contracting process

In order for the market to function properly the purchasers and providers need certain information.

They must first be informed of prices. These are the signalling device of the market and should reflect surplus and scarcity and, therefore, change resource allocation. However many people believe that the internal market created in the white paper will not allow this to happen, since there is a lack of accurate cost data on which to base prices and also regulation limiting the rate of return on assets employed to 6%. This will have a knock on effect on capacity. Providers will be encouraged to compete in terms of quality if they cannot compete on price and this may lead to overcapacity and duplication (both of which are wasteful) in order to improve quality (*i.e.* reduce waiting lists).

"there is still a lot of worry and concern about whether we have the systems in place and the data available to be able to operate effectively in the new environment. In particular, there is a real anxiety that we don't have a sufficient handle on how our costs behave at different levels of output, something that we need to know to be able to manage and compete effectively."

D.H.A. provider

"Everybody is tooling up to do everybody out of business. This hardly makes a great deal of sense"

D.H.A. provider

"It's an enormous undertaking and we are still at a pretty rudimentary stage, although less so in multi-district specialties like cardiac surgery and renal services where we have in effect had cost and volume agreements running with the R.H.A. since before the current reforms. For these regional specialties we are certainly further down the track in terms of costing and separating these costs into their fixed and variable

components than the rest of our provision. You can't really run cost and volume contracts effectively unless you have got a very clear idea not only on each specialty's bottom line costs but also on how these costs behave for different case loads"

D.H.A. provider

"The costs of such care are difficult to calculate, the costs of surgery are clear but how much does it cost to care for a schizophrenic who is fine for six months at a time and then goes into crisis ?"

G.P.F.H.

Summary

This chapter has examined the practical implementation of the reforms from all perspectives of the purchaser-provider split. It has shown that the price of services is not the only, and in some cases, not even the primary determinant of where to place contracts. In practice the G.P.F.H. has had considerable power to dictate the terms of contracts (which one would expect from traditional Principal - Agent theory) although evidence from one unit suggests that there may well be areas where the Agent can dictate terms to the Principal, this, whilst being a reversal of traditional theory may be accepted by the Principal where patient immobility is a major problem and it involves the transfer of risk from the Agent. It does however mean that cost padding may be used by Agents to protect themselves from bearing all the risk of unforeseen cost increases.

The block contract is identified as the most frequently used form of contract within the N.H.S. and all parties make the point that information on costs is vital to the operation of a successful system. The next chapter of the thesis will examine a methodology for gathering cost information in a particular area of health (mental Illness, which was identified by the interviewees as a particularly difficult area) which

can be used to monitor and inform the contracting process.

CHAPTER FIFTEEN
RESEARCH DESIGN AND METHODOLOGY

RESEARCH DESIGN AND METHODOLOGY

Introduction

The review of the theory of principal - agent relationships and reputation in section 3 of the thesis has identified several areas where potential problems in the post reform N.H.S. might arise. The purpose of this chapter is to consider these problems, outline a preliminary analysis which can identify whether or not, in practice, such problems occur and then how a system of data collection could be used to help overcome such practical problems.

Areas of Investigation

As Chapter 9 identified, the central implication of Principal - Agent relationships is that of asymmetry of information. In the health service the problem is twofold; firstly detailed specialised knowledge is required on behalf of the Principals (they must understand the components of a treatment episode) and secondly, they cannot directly observe the actions of the Agent (this means that they cannot be sure of the Agents 'effort' in cost minimisation and also they cannot directly observe the quality of the care the Agent may provide).

The existence of informational asymmetry has further implications in that it can lead to opportunistic behaviour by both parties.

The other areas of investigation that must be considered are the types of contract used (which may also have cost implications) and the extent to which reputation is considered important as a signalling device.

Stage One

Having identified the nature of the problem from the literature the next stage was to use a preliminary investigation to examine whether or not the practical

implementation of the reforms had encountered the problems that might be expected from a theoretical perspective (the results of this preliminary investigation are reported in chapter 14).

Two of the most important principal - agent relationships created by the reforms have been that of General Practitioner Fund Holders (G.P.F.H.) to National Health Service Trusts (N.H.S.T.) and District General Managers (D.G.M.) to National Health Service Trusts (N.H.S.T.) Therefore the first stage was to interview N.H.S. staff within such relationships to identify:

- how the relationships are formed and the process takes place
- the objectives of the parties concerned
- whether or not either party can dictate terms
- types of contract used
- problems experienced in the process

Identifying staff who work in the appropriate area (contracting) can be done with standard reference works, for example, the 'Directory of the N.H.S.' published annually by the Health Services Journal provides a list of business managers and contact addresses and telephone numbers. Finding staff willing to discuss contracting is very much more difficult due to the commercial confidentiality clauses inserted in contracts of most staff. Appendix K contains the transcripts of interviews conducted face to face (with a tape recorder if agreed) where the five areas of practical interest were discussed with representatives from the D.G.M., N.H.S.T. and G.P.F.H. Following this preliminary investigation a process of refinement would take place and the work would focus on the problems experienced in one particular field on healthcare (mental illness). The results of stage one are presented in chapter 14.

Stage Two

The major problem in the field of mental illness was the lack of cost data on treatment for the mentally ill in the community. The problem was felt to be far more serious than in the area of elective surgery, since with mental illness the individuals may have long periods of stability followed by sudden acute episodes. The problem therefore is one of identifying the characteristics of these people, examining their use of services and designing a data collection instrument that can be used to provide cost information and to examine possible relationships between patient characteristics and costs, which can overcome the problems of asymmetric information and then inform the contracting process.

In line with the developments in the rest of Britain, the pattern of care in mental health services in Wales is currently undergoing a major transformation. Recent years have witnessed a significant change in the pattern of admissions and durations of stay in the nine large mental hospitals in Wales. The developing pattern is one of a drop in the number of long-stay patients, with short term admissions and re-admissions for most patients. The number of long-term patients (i.e. in hospital for over one year) has fallen in recent years from 3,589 in 1975 to 2,271 in 1987. The average duration of stay has also decreased e.g. of those patients discharged from hospital in 1987, 84% were discharged within two months of admission. There is, however, a high level of re-admissions (76%) which may to some extent reflect the inadequacy of support services outside the hospital.

In May 1989, the Welsh Office issued a consultative document entitled; 'Mental Illness Services: A Strategy for Wales', outlining a strategy for developing the overall pattern of mental illness services in Wales over the next two decades. The Strategy sets out the aims and key principles for the development of a comprehensive range of mental health services. The objectives for such services are detailed in 'Policies and Priorities for Health Services in Wales' (Welsh Office, October, 1985) and are

described as follows:

“...the policy is for the development by district health authorities, in full co-operation with the social services, housing authorities and the voluntary sector, of a locally based service so as to prevent avoidable hospital admissions and long-term institutional care...”.

The ultimate objective of the All Wales Strategy is therefore to produce a comprehensive range of community based services and facilities which are locally based and will provide effective alternatives to in-patient care. The Strategy states that such services should be ‘fully integrated and coordinated to be readily accessible and responsive’ (p.5) to users of the mental health services. Multidisciplinary community mental health teams (CMHTs), were identified as a major vehicle for the development of such decentralised community services. Central funding from the Welsh Office was made available to promote the changes in the patterns of services at a local level. Each district health authority or county was required to produce a joint county plan outlining the development of comprehensive community services within their district.

It therefore seemed clear that the development of mental health services in Wales offered a suitable opportunity for a pilot study of a cost data instrument, specifically the development of community based services in Clwyd. The care of the mentally ill in Clwyd had, until recently, been provided at the North Wales Hospital, Denbigh. From its maximum of 1,409 beds in 1964, numbers had now dropped to below 300 patients in 1992 for the first time in over 120 years. The hospital site has now closed, with the bulk of mental health services transferred to community based facilities.

The Clwyd County Plan for Mental Illness Services (1991) set out a programme of major changes in the delivery and organisation of mental health services in Clwyd over three years. The plan set out a strategy for the planning, management and implementation of the closure of the hospital and the relocation of services within

localities within the county. It also described the provision of new community based services, the main focus of which was to be the development of multidisciplinary CMHTs. Eight such teams were to be established within the county. The teams work to a defined catchment area, operate from a common base and develop a shared record system for all disciplines in the team.

In August 1995 the North Wales Hospital finally closed and all services have become based on CMHTs, with acute facilities at district general hospitals. It was therefore decided to undertake an investigation of client characteristics and costs in one of the most developed CMHTs in Clwyd.

“Health service contracts were introduced in April 1991 and the Community and Mental Health Unit in Clwyd presently has two major contracts with Clwyd and Gwynedd Health Authorities. These contracts include the provision of mental illness services, although these requirements are not set out in any great detail on this occasion. It is envisaged that contracts will, however, become more specific year after year, thus enabling the purchasers of service to monitor and evaluate their benefits more precisely.”

Clwyd County Plan for Mental Illness Services

The contracting process in mental health

There has been a gradual shift since the 1960's away from hospital based services for the mentally ill to provision in the community through Community Mental Health Teams (C.M.H.T.s). For a full description of the process see Jones (1988) and Murphy (1991). These C.M.H.T.s are funded jointly by the N.H.S. and Social Services. G.P.F.H.s contract only with the N.H.S. for the provision of mental illness services (but the workers involved may be provided by Social Services).

The process of becoming a fundholding G.P. has been described earlier (see previous chapter and Appendix J) and once they have achieved fundholding status they must approach the provider (in this study the provider was an N.H.S.T.) to contract for mental health services in the same way that they would contract for mental health services.

Meetings were then held with local providers from both the N.H.S.T. and Social Services to gather approval for the idea of carrying out a detailed costing in the locality (Clwyd in North Wales) and to discuss the general approach, instruments to be used and any ethical implications. Providers also agreed access to budget information which had been used previously to cost services. A C.M.H.T. was identified which was relatively well developed in an area where services have been moved from an hospital to a community base.

The function of CMHTs

The CMHT is a multi - disciplinary group of staff who may be full or part time. The core members will be workers in psychiatry, psychology, nursing, social work and occupational therapy.

“Health service contracts are specifically concerned with purchasing services to meet the health needs of a defined population. Health Services on the other hand, are only part of the response to individuals’ mental health needs. This must be recognised in the service contract and may require the development of collaborative arrangements with other agencies in both preparing the contract specification and negotiating the services to be provided.”

Clwyd County Plan for Mental Illness Services

A CMHT receives referrals, offers assessment in appropriate cases (or may refer clients to other services). There are currently eight such teams in the county. It will co-ordinate a care plan through a keyworker or care manager and may provide

certain types of treatment and resources.

other adult mental illness services

i. In-patient care

Whilst the major aim of current policy on mental illness is to reduce dependency on in-patient care, it is recognised that this will still have a significant part to play. The area chosen for the pilot study in Clwyd has two psychiatric units at the two general hospitals providing 125 beds.

ii. Day services

Historically, day services have been provided in either NHS day hospitals or in Social Services day centres. Day services can be broadly defined as the provision of a range of activities in which clients can be involved in order to combat various problems (e.g. anxiety, low self esteem). There are 11 such centres in the area, some are only open for half the week.

iii. Supported Living

These facilities tend to be used for two main reasons: as a permanent home or as a temporary home under certain circumstances (e.g. in a crisis, for respite care or preparation for independent living). In the area covered by the CMHT participating in the pilot study, Social Services provide 24 places, the Health Authority has 15 places and the voluntary sector has 25 places. There are also several private care homes and nursing homes registered for psychiatric care.

The intention of the study is to pilot an instrument that can be used to gather cost data in one area of health care (mental illness) where detailed costings of care are not available, to examine the possibility of relationships between the characteristics of the mentally ill and the costs of caring for them in the community from two perspectives; firstly, in terms of the cost of providing Community Mental Health Team

(C.M.H.T.) input, and secondly the total costs of community care packages (which may prove useful to contractors if the introduction of total fundholding were to go ahead).

The data collection instrument (from a costing viewpoint) was designed by interviewing keyworkers from a variety of C.M.H.T.s across a wide range of disciplines (Psychiatry, Nursing, Social Work, Psychology, Occupational Therapy) to identify the functions they carry out. This can be broken down into two sorts of activities, those that can be specifically allocated to individual clients and those general activities which, whilst affecting how they care for clients, cannot be allocated to individuals. The costs of these latter activities are divided equally amongst their active caseload. The service utilisation questionnaire was designed by a process of investigation with keyworkers and service providers to determine what facilities were available in the locality for the care of the mentally ill. A copy of the data collection instrument can be found on pages 162 - 163.

C.M.H.T. INFORMATION SHEET

STAFF NAME: _____

WEEK BEGINNING: _____

CASELOAD: _____

CLIENT: _____

Please record the time spent on the following activities during the last 4 weeks

With client

With informal carers regarding this client

With other agencies/people on behalf of this client

Travelling on behalf of the client

Administration

(e.g. case notes/talking to support workers/other CMHT members)

Team building

In contact with line manager

Supervision (being supervised/supervising others)

Meetings/Training/Ward Rounds

Crisis/Duty work

SERVICE UTILISATION

During the last four weeks has your client used any of the following:

SERVICES (Due to mental illness)	YES/NO	HOW OFTEN	WHERE
G.P. At Home	<input type="text"/>	<input type="text"/>	
In Surgery	<input type="text"/>	<input type="text"/>	
Out Patients	<input type="text"/>	<input type="text"/>	<input type="text"/>
Day Hospital	<input type="text"/>	<input type="text"/>	<input type="text"/>
Hospital (In Patient)	<input type="text"/>	<input type="text"/>	<input type="text"/>
Voluntary Organisation (e.g. MIND)	<input type="text"/>	<input type="text"/>	
EMI Day Care	<input type="text"/>	<input type="text"/>	
Support Worker	<input type="text"/>	<input type="text"/>	
Other C.M.H.T. Member	<input type="text"/>	<input type="text"/>	
Respite Care	<input type="text"/>	<input type="text"/>	<input type="text"/>
Consultant Psychiatrist	<input type="text"/>	<input type="text"/>	<input type="text"/>
Group Therapy (C.M.H.T. based)	<input type="text"/>	<input type="text"/>	<input type="text"/>
<u>Other Social Services</u>			
Day Centre	<input type="text"/>	<input type="text"/>	<input type="text"/>
Home Help	<input type="text"/>	<input type="text"/>	
Meals on Wheels	<input type="text"/>	<input type="text"/>	
Informal Day Care	<input type="text"/>	<input type="text"/>	<input type="text"/>
Club	<input type="text"/>	<input type="text"/>	<input type="text"/>

One C.M.H.T (that was not to be included in stage two) was then selected for a pilot testing of the instrument on a random sample of its caseload. The purpose of the pilot was to examine the instrument and refine the questioning process and identify areas of possible omission or confusion. This was done by interviewing each keyworker (n=14) using the forms and considering their experiences. It should be noted that whilst the instrument is composed of questions asking about different activities the cost of a keyworker hour is always the same (because keyworkers see clients on a 'round', allocating a mileage allowance to each client was impractical, so even when travelling the costs are the same).

After refinement of the instrument (activities such as training sessions and ward rounds were added, and a question on mileage covered was deleted) it was then used with another C.M.H.T. on a selected sample of their caseload. C.M.H.T. caseloads can be split into two types of client; those receiving continuing care (defined as being on the caseload for over one year) and new referrals (those receiving care for under one year). The results of the study are reported in Chapter 16.

The study collected individual service utilisation data from clients and converted this into an individual cost. This will help identify bilateral relationships between client characteristics and costs. This will provide managers and planners with a more effective means of allocating resources to achieve optimum outcomes for mental health service users. As Knapp (1993) as noted:

"A reasonable expectation about mental health services is that the costs of community care service packages respond to, or are associated with differences in levels of need and changes in need, the latter being the principal final outcomes of the system. With the accumulation of experience on the needs and preferences of people with long term

mental health problems living outside hospital, the increasing emphasis on efficiency in the utilisation of public resources, and the growing tendency to co-ordinate services through care management and care programme procedures, there are good reasons for expecting strong associations between costs, client characteristics and outcomes."

Client outcomes were measured along a variety of dimensions, based on information gathered by the author (in the case of economic data) or by psychologists trained in using the standardised psychiatric measures through interviews with clients, keyworkers and care staff. The main instruments relevant to characteristics, needs and outcomes are described below.

New referral study

- **Client Profiling Package (CPP)**

This has been developed from the Health of the Nation Outcome Scales (see the White Paper 'The Health of the Nation: a strategy for health in England (Cmnd. 1986(1992)) which introduced health targets (e.g. reduction in deaths by suicide). The introduction of health targets does mean that some system of outcome measurement is necessary, to allow judgments as to whether or not such targets are achieved. The C.P.P. incorporates measures of need as well as client characteristics. The HoNOS scales will be validated against existing scales of proven reliability and validity used in a study of continuing care (see below). This instrument was developed as a part of this study into the possible links between characteristics and costs.

Continuing care study

The instruments used for psychiatric evaluations were all of proven reliability and validity.

- Brief Psychiatric Rating Scale (BPRS)
(see Overall & Gorham (1962), Luckoff et al. (1986))
Consists of 21 symptom constructs each with explicit criteria for ratings of severity on a 7 point scale ranging from 0 (not present) to 6 (extremely severe). It was also used to generate 5 factor groups.
- Krawiecka Rating Scale (KRS)
(See Krawiecka, Goldberg & Vaughan (1977))
This consists of eight 5 point scales (0 'absent' to 4 'severe') designed to provide a clinical assessment of chronic psychotic patients.
- Scale for the Assessment of Negative Symptoms (SANS)
(see Andreasen (1982), Andreasen & Olsen (1982))
Provides assessment for the 'negative' symptoms of schizophrenia each of which is defined by observable behavioural components that are rated on a six point scale (0 'not present' to 5 'severe').
- Rehabilitation Scale of Hall and Baker (REHAB)
(see Baker & Hall (1983))
This is a standardised scale to assess the rehabilitation status of psychiatric patients. The scale is normally divided into two parts; deviant behaviours and general behaviour. In the current study the section on deviant behaviour is not used (since deviant behaviour is not normally observed in clients in the community, it is more frequently observed in institutionalised surroundings), and this version is known as the Capacity for Independent Living Scale (CIL).

Potential Difficulties with the study.

The greatest difficulties in carrying out such a methodology lie mainly in assessing the new referral clients. Since these clients are in an acute phase of mental illness interviewing them was not possible. This means that an independent view of their condition, or indeed their own opinions, cannot be considered.

There is also the danger of 'double counting' activities by the keyworker (e.g. regarding a meeting as both 'team building' and as a meeting. This study has also been forced to calculate the costs of a keyworker by using average salary for a grading of nurses and social workers since the exact salaries were not available.

CHAPTER SIXTEEN
RESULTS OF STUDY

RESULTS OF THE STUDY

Introduction

Having identified that contracting for healthcare in one area (mental health) is presents problems associated with asymmetry of information the next stage of the process was to discuss the problem with mental health providers and from these discussions to design and pilot an instrument that can be used to gather data on the costs of care for individuals using mental health services which would be of value in the contracting process. This chapter of the thesis reports on the results of this pilot study.

The New Referrals Study

Introduction

This part of the study was designed to follow a sample of 60 clients through the first 4 months of contact with a community mental health team and record client characteristics, needs and service use over this period using the Client Profiling Package (CPP). This data would then be analysed to examine associations between costs and client mental health characteristics.

Cases initially accepted

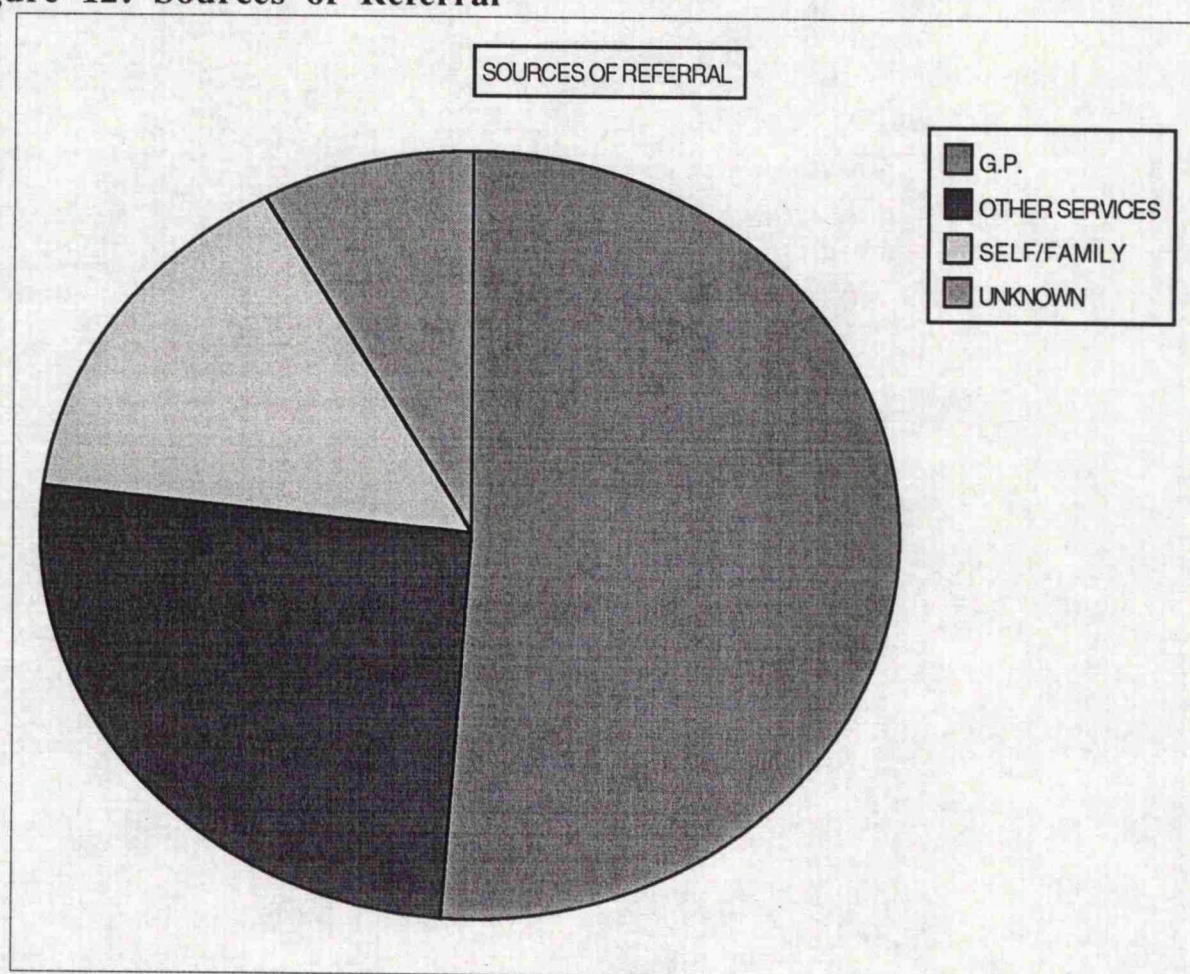
The CMHT held a weekly allocation meeting. It required a period of 12 weeks before the CMHT had accepted 60 referrals as cases. Over this 12 week period the CMHT received a total of 156 referrals.

Sources of Referral

See Fig.12

	%
GP	51
Other services (e.g. midwife, police)	26
Self/family/friends	15
Unknown	8

Figure 12: Sources of Referral



From the original 156 referrals, 137 were assessed by the team and 64 were accepted as cases. The reasons for non-acceptance varied; e.g. some assessments were done by Approved Social Workers (A.S.W.s) within the team on behalf of the Elderly

Mentally Ill (E.M.I.) service, other clients were referred on to more appropriate services.

Cohort Mix

The case collection procedure yielded the following proportions of males and females.

	Number	%
Female	44	69
Male	22	31

39% had previous contact with mental health services.

One month after acceptance

12 clients were lost to the study between the initial assessment and the first follow up. This was due to a variety of reasons such as ; moving from the area , refusing service or not attending appointments.

The Cohort Mix

	Number	%
Female	34	65
Male	18	35

Living Situation

The client group is divided into three sub groups, since preliminary analysis had shown that living situation may be an important variable in predicting the keyworker's

input into a case.

	Number
Lived alone	10
Lived with family	37
Other living situations (e.g. residential care)	5

Client Characteristics

Table 9 shows the number of clients experiencing each of the problems contained within the HoNOS scales and the severity of their problems. There are eleven HoNOS scales in the instrument, and clients can score on any or all of these scales. The following table (table 9) shows how many clients experienced each problem during the first month of contact with the C.M.H.T.

Table 9: Number of clients rating on the HoNOS scales at one month.

Scale	No. of clients rating	% of clients rating
Employment	13	25
Housing	12	23
Social Relations	24	46
Other	41	79
Hallucination	6	12
Mood Disturbance	47	90
Physical Problems	17	33
Memory	6	12
Alcohol/Drug Misuse	5	10
Self Harm	18	35
Aggression	17	33

Severity ratings on the HoNOS scales

Severity is measured on a five point scale (0,1,2,3,4). 0 means that there was no problem within the period rated. 1 is a sub clinical problem. 2 is a mild but definite problem. 3 is a moderate problem and 4 is a severe or very severe problem. Brief examples of each rating point are contained within the HoNOS instrument.

Scale	0	1	2	3	4
Employment	38	7	5	1	0
Housing	39	5	5	2	0
Social Relationships	26	10	9	4	1
Other Problems	10	10	17	10	4
Hallucinations	46	0	3	1	2
Mood Disturbances	5	14	21	9	3
Physical Problems	35	6	5	3	3
Memory & Orientation	46	3	2	0	1
Alcohol & Drug Misuse	45	1	1	2	1
Self Harm	33	6	6	5	1
Aggression	35	10	2	3	2

Client Needs

Keyworkers were also asked to identify areas of functioning where they felt their clients had a need for help. There were twelve needs scales in the C.P.P. and the clients could be rated as having any or all of the needs.

Table 10 shows the number of clients with needs and the severity of those needs.

Table 10: Number of clients with needs at one month

Scale	No. of clients rating	% of clients rating
Other	12	23
Physical Health	16	31
Advocacy	11	21
Mental Health	51	98
Social Networks	24	46
Leisure	9	17
Accommodation	10	19
Employment	10	19
Travel	14	27
Finances	9	17
Self Care	6	12
Domestic	13	25

Severity ratings on the Needs scales

Scale	0	1	2	3
Other Needs	40	1	6	5
Physical Health	35	7	5	4
Advocacy	40	7	1	3
Mental Health	1	10	21	20
Social Networks	24	14	6	4
Leisure & Recreation	38	2	5	2
Accommodation/Living Situation	42	3	4	3
Employment & Occupation	35	6	3	1
Travel	38	4	3	7
Finances	40	4	3	2
Self Care	45	1	3	2
Domestic	39	3	7	3

Use of Other Mental Health Services

Keyworkers were asked to identify the services used by the clients other than their C.M.H.T. over the one month period (see Table 11). This enables a total cost of services to be calculated.

Table 11: Number of clients using other mental health services

Service	Number of clients using
Day centre	0
Health visitor	0
Drop-in centre	0
Hospital in-patient	4
Day hospital	3
Clinical assistant DV	4
Psychiatrist DV	5
Other CMHT staff member	4
Residential care	2
Voluntary organisations	7
Group therapy sessions	6
GP counsellor	1
Psychiatric out-patients	14
GP in surgery	23
GP at home	11

Sub-Grouping According to Living Situation

Functionality

Each client was rated on functional disability, including the ability to perform activities of daily living. The scale runs from 0 to 100, with higher scores indicating higher levels of overall disability. A rating of 0 - 20 is defined as 'no problems. During the period rated good function in all areas, no need of support'. A rating of 21-40 means 'minor problems only'. A rating of 41-60 means 'major inability to perform one or more complex skills such as weekly budgeting, occupation, shopping,

making travel arrangements.’. A score of 61 - 80 is ‘major problems in some areas of self care (eating, washing, dressing, toilet) as well as major inability to perform several complex skills’. The final category of 81 -100 is ‘severe disability or incapacity in all or nearly all areas of functioning.’

Table 12: Functionality by sub-groups at one month

Living Situation	Average functionality
Group as a whole	38
Living alone	37
Living with family	36
Other living situations	61

HoNOS Scales and Severity

This shows the average number of problems and the severity of those problems for each of the three sub-groupings. The range of scales is 0 - 11 and the range of severity scores from 0 - 44.

Table 13: Mean number of HoNOS scales and severity by sub-group at one month

Living Situation	HoNOS Scales	HoNOS Severity
Group as a whole	4	8
Living alone	4	7
Living with family	4	7
Living other	5	15

Needs Scales

This shows the number of identified needs for the group as a whole and for the sub groups. The range of scores is from 0 - 12.

Table 14: Mean number of needs by sub-group at one month

Living Situation	Number of Needs
Group as a whole	4
Living alone	3
Living with family	3
Living other	5

Keyworker Time

This shows the time spent on average by keyworkers with the three sub groups compared to the figure for the cohort as a whole.

Table 15: Mean keyworker time by sub group at one month

Living Situation	Average Keyworker Time (mins)
Group as a whole	322
Living alone	372
Living with family	298
Other living situations	393

Two Months After Acceptance

The number of clients in the study had fallen to 42 with 10 clients being discharged by the team.

The Cohort Mix

	Number	%
Female	32	76
Male	10	24

Living Situation

	Number
Lived alone	9
Lived with family	29
Other living situations (e.g. residential care)	4

Client Characteristics

Table 16: Number of clients rating on the HoNOS scales at two months

Scale	No. of clients rating	% of clients rating
Employment	10	24
Housing	8	19
Social Relations	26	62
Other	28	67
Hallucination	3	7
Mood Disturbance	35	83
Physical Problems	11	26
Memory	4	10
Alcohol/Drug Misuse	4	10
Self Harm	16	38
Aggression	9	21

Client Needs

Table 17: Number of clients with needs at two months

Scale	No. of clients rating	% of clients rating
Other	10	24
Physical Health	10	24
Advocacy	8	19
Mental Health	35	83
Social Networks	13	31
Leisure	9	21
Accommodation	9	21
Employment	10	24
Travel	9	21
Finances	7	17
Self Care	5	12
Domestic	8	19

Use of Other Mental Health Services

Table 18: Number of clients using other mental health services at two months

Service	Number of clients using
Day centre	0
Health visitor	1
Drop-in centre	1
Hospital in-patient	2
Day hospital	4
Clinical assistant DV	0
Psychiatrist DV	2
Other CMHT staff member	3
Residential care	2
Voluntary organisations	6
Group therapy sessions	4
GP counsellor	0
Psychiatric out-patients	11
GP in surgery	20
GP at home	5

Sub-Grouping According to Living Situation

Functionality

Table 19: Functionality by sub group at two months

Living Situation	Average functionality
Group as a whole	38
Living alone	37
Living with family	36
Other living situations	61

HoNOS Scales and Severity

Table 20: Mean rating on HoNOS scales and severity by sub-group at two months

Living Situation	HoNOS Scales	HoNOS Severity
Group as a whole	4	7
Living alone	3	5
Living with family	4	6
Other living situations	5	14

Needs Scales

Table 21: Mean number of needs by sub-group at two months

Living Situation	Number of Needs
Group as a whole	3
Living alone	3
Living with family	3
Living other	6

Keyworker Time

Table 22: Mean keyworker time by sub group at two months

Living Situation	Average Keyworker Time
	(mins)
Group as a whole	260
Living alone	169
Living with family	248
Living other	552

Four months after acceptance

The cohort was reduced to 26, with 16 cases being discharged between months two and four.

The Cohort Mix

	Number	%
Female	21	81
Male	5	19

Living Situation

	Number
Lived alone	6
Lived with family	16
Other living situation (e.g. residential care)	4

Client Characteristics

Table 23: Number of clients rating on the HoNOS scales at four months

Scale	No. of clients rating	% of clients rating
Employment	9	35
Housing	5	19
Social Relations	16	62
Other	16	62
Hallucination	4	15
Mood Disturbance	19	74
Physical Problems	7	27
Memory	7	27
Alcohol/Drug Misuse	3	12
Self Harm	6	23
Aggression	8	31

Client Needs

Table 24: Number of clients with needs at four months

Scale	No. of clients rating	% of clients rating
Other	6	23
Physical Health	6	23
Advocacy	7	27
Mental Health	24	92
Social Networks	8	31
Leisure	5	19
Accommodation	4	15
Employment	8	31
Travel	8	31
Finances	8	31
Self Care	6	23
Domestic	6	23

Use of Other Mental Health Services

Table 25: Number of clients using other mental health services at four months

Service	Number of clients using
Day centre	2
Health visitor	0
Drop-in centre	0
Hospital in-patient	1
Day hospital	2
Clinical assistant DV	1
Psychiatrist DV	2
Other CMHT staff member	4
Residential care	2
Voluntary organisations	2
Group therapy sessions	2
GP counsellor	0
Psychiatric out-patients	6
GP in surgery	14
GP at home	1

Sub-Grouping According to Living Situation

Functionality

Table 26: Functionality by sub-group at four months

Living Situation	Average functionality
Group as a whole	38
Living alone	32
Living with family	33
Other living situations	62

HoNOS Scales and Severity

Table 27: Mean ratings on the HoNOS scales and severity by sub-group at four months

Living Situation	HoNOS Scales	HoNOS Severity
Group as a whole	4	8
Living alone	3	7
Living with family	4	6
Living other	6	16

Needs Scales

Table 28: Mean number of needs by sub-group at four months

Living Situation	Number of Needs
Group as a whole	4
Living alone	2
Living with family	3
Living other	8

Keyworker Time

Table 29: Mean Keyworker Time by sub-group at four months

Living Situation	Average Keyworker Time
	(mins)
Group as a whole	226
Living alone	203
Living with family	223
Living other	270

Linking Characteristics to Costs

Keyworker Input

Based on information gathered in the CPP a series of multiple regressions were run at each stage of the study to examine correlations between client characteristics to costs. A data set appropriate for multiple regression requires a sample of research units (in this case clients) for whom scores are available on a number of independent variables (I.V.s) and on one dependent variable (D.V.). In this case the IVs are the characteristics of the clients (symptomatology and needs) and the DV can be either keyworker time or cost of service.

To determine the best set of IVs for predicting a DV a test for the significance of the difference between two correlated correlations is available (Steiger (1980)). Since a multiple correlation can be thought of as a simple correlation obtained between obtained DVs and predicted DVs; that is $R = r_{yy1}$. A comparison of the relative effectiveness of combinations in predicting the DV can be obtained by testing the significance of the difference in, for example r_{yy1a} and r_{yy1b} . The z test for the difference between r_{yy1a} and r_{yy1b} is:

$$Z_{\text{bar}^*} = (z_{ya} - z_{yb}) \text{ sq. root } ((N-3)/2 - 2s_{\text{bar } r_{yy1a}, r_{yy1b}})$$

where N is the sample size and

$$z_{ya} = 1/2 \ln (1+ryy1a/1-ryy1a)$$

$$z_{yb} = 1/2 \ln (1+ryy1b/1-ryy1b)$$

$$\text{and } s_{\text{bar } ryy1a, ryy1b} = (r_{ab})(1 - r_{\text{bar}2} - r_{\text{bar}2}) - 1/2 (r_{\text{bar}2})(1-r_{\text{bar}2} - r_{\text{bar}2} - r_{2ab})/(1-r_{\text{bar}2})^2$$

$$\text{where } r_{\text{bar}} = 1/2 (ryy1a + ryy1b)$$

The multiple regressions shown below link the client costs to the clients score on five of the HoNOS scales (Aggression, Self Harm, Mood Disturbance, Hallucinations and Other Mental and Behavioural Problems) together with their scores on five of the needs scales (Self Care, Domestic, Finances, Social Relationships and Mental Health) which were determined as the best IVs. All are significant at the 5% level apart from the regression for the living with family sub group at the four month stage. The results are very good for the sub-groups of clients living alone or in other accommodation such as residential homes but are poorer for those clients who live with their families. There are several possible reasons for the weaker correlation, for example some families are very supportive and help the clients recover, but in other cases the families may not be supportive or may be the root cause of the clients problems.

Table 30: Results of multiple regression equations at one, two and four months

1 Month	R²
Alone	0.857
Family	0.403
Other	0.995

2 Month	R²
Alone	0.862
Family	0.378
Other	0.998

4 Month	R²
Alone	0.998
Family	0.393
Other	0.999

Keyworker Costs

The cost of an hour of a keyworker's time was calculated (based on the division of annual salary by 45 working weeks of 37.5 hours) and this was then multiplied by the time spent with each client in the study. The following monthly averages were then calculated. These figures include on-costs but do not include trust costs such as capital charges and re-apportionments. All figures are in pounds (£s).

Table 31: Mean keyworker costs at one, two and four months

1 Month	Mean	Min	Max
All	67.38	20.74	144.76
Alone	77.89	30.80	126.33
Family	62.52	20.74	144.76
Other	82.33	53.42	121.09

2 Months	Mean	Min	Max
All	54.46	6.91	175.56
Alone	35.34	19.69	81.50
Family	51.96	6.91	106.64
Other	115.54	42.95	175.56

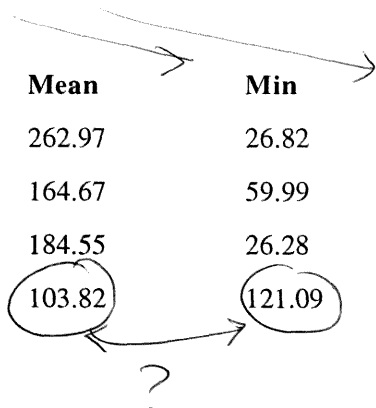
4 Months	Mean	Min	Max
All	47.24	2.72	97.42
Alone	42.46	25.56	54.05
Family	46.72	2.72	97.42
Other	56.51	22.84	93.44

Total Costs

The total costs of each client's care packages were calculated, including the keyworker costs and the mean totals and ranges are shown in Table 32.

Table 32: Mean total costs of care at one, two and four months

1 Month	Mean	Min	Max
All	262.97	26.82	2954.46
Alone	164.67	59.99	376.01
Family	184.55	26.28	2068.86
Other	103.82	121.09	2954.46



2 Months	Mean	Min	Max
All	226.49	6.91	2907.79
Alone	198.97	35.98	1173.76
Family	210.79	6.91	2907.79
Other	402.29	141.91	787.32

4 Month	Mean	Min	Max
All	276.42	2.72	4078.53
Alone	759.25	28.28	4078.53
Family	78.82	2.72	209.57
Other	342.56	52.03	677.44

New Referral Study - Leavers and Stayers

- Over the course of the study 26 clients were discharged.
- 21 of the 26 discharged lived with family (81%).
- Only 4 of the discharged lived alone (15%).
- Only 1 of the discharged lived in the 'other' sub group (4%).

The group that were discharged had on the whole fewer symptoms (mean of 3 compared to 4 for the stayers) and less severe symptoms (mean severity of 4 compared to 8 for the stayers). They also had fewer needs (2) than the stayers (4) and these needs were less severe (4 as opposed to 7).

In terms of functional disability, the leaving group had an mean score of 24, this was

also lower than the score of 38 for those who remained in the study.

The leaving group received a mean 164 mins per month from the keyworker while on the other hand the stayers received an mean of 319 mins per month, which is consistent with the leavers having lower symptomatology than the group who remained in the study.

In terms of total cost to services the group who stayed cost on average £317.48 per month compared to the leaving group who cost £78.64 per month on average. The group who stayed included people in hospital and residential care, with considerably higher than average symptomatology, who received the most expensive care packages.

The fact that the vast majority of leavers were people who lived with families may suggest that family carers play a significant role in helping these clients recover from their problems and reduced the costs of care to mental health services.

Continuing Care Study

Characteristics

The clients who made up the continuing care sample had to meet the criteria of a diagnosis of serious mental illness or have a diagnosis of depression with a period of hospitalisation in the preceding twelve months (not exceeding six months) and to have been in receipt of community services for at least one year. Having met these criteria they were then asked for their agreement to participate in the study.

The following table shows the average client score on the BPRS, KRS, SANS and the Capacity for Independent Living Scales.

Table 33: Mean scores on psychiatric rating scales

	Average Score
BPRS scales	7
BPRS total	15
KRS scales	4
KRS total	6
SANS scales	2
SANS total	3
CIL scales	4
CIL total	22

BPRS Factor Groups

Based on the results of a factor analysis of the BPRS from a sample of 3596 subjects, Overall & Gorham (1976) suggest the use of five 'factor' scores. The following table presents the item composition of each factor score.

Table 34: Item composition of the five factors used for analysis of the BPRS

Factor	Item Composition
Anxiety-Depression	Somatic concern
	Anxiety
	Guilt feelings
	Depressive moods

Anergia	Emotional withdrawal
	Motor retardation
Thought disturbance	Conceptual disorganisation
	Grandiosity
	Hallucinatory behaviour
	Unusual thought content
Activation	Tension
	Mannerisms and posturing
Hostile-Suspiciousness	Hostility
	Suspiciousness
	Uncooperative

BPRS Factor Scores

Table 35 gives the average scores for the study cohort in each of the five factor groups.

Table 35: Mean scores on the BPRS factor groups

	Scales	Total
BPRS factor group 1	2	5
BPRS factor group 2	1	2
BPRS factor group 3	1	2
BPRS factor group 4	1	2
BPRS factor group 5	1	2

Keyworker Time

The average keyworker time spent with the client or on client related activity was 195 mins.

Use of Other Services

The following table shows the number of clients using other mental health services over the one month period.

Table 36: Number of clients using other mental health services

Service	Number of clients using
GP at home	0
GP in surgery	6
Out-patients	5
Day hospital	5
In-patients	2
Voluntary organisations	3
Other CMHT member	4
Residential care	6
Psychiatrist DV	3
Clinical assistant DV	0
Group therapy	0
Day centre	7
Social Services club	3
User group	2
Employment scheme	1
Drop in	10

Linking Characteristics to Keyworker Input

Multiple regressions were run on the group and the best regression equation linked three of the BPRS factor Groups (Anxiety - Depression, Activation and Hostile - Suspiciousness) with the clients score on the Capacity for Independent Living scales.

R^2 0.757 P value .0146

Linking Characteristics to total costs

The best multiple regression linking the total costs of care to the client's characteristics is achieved by linking the clients score on the KRS and a subsection of the CIL (General Behaviour) to cost.

R^2 0.58 P value 0.0037

Costs

Keyworker Costs

The keyworker input for each client was recorded and the following results were calculated.

	Cost (£)
Mean	40.87
Minimum	0.00
Maximum	216.83

Total Costs

Including the costs of all other services in the calculation (excluding the Employment Scheme for which no figures were available).

	Cost
	(£)
Mean	626.68
Minimum	8.38
Maximum	3030.85

Summary

This section of the thesis has reported on the use of the data collection instrument and examined the relationships that exist between client characteristics and costs. The next chapter of the thesis will discuss the results of the pilot study.

CHAPTER SEVENTEEN
DISCUSSION OF RESULTS

DISCUSSION OF RESULTS

Introduction

The previous chapter detailed the results produced by the deployment of a data collection instrument in one area of healthcare. This chapter of the thesis will examine those results, how they compare with other studies in the field and the possible implications of a wider scale use of the instrument. Given the previously identified lack of data in this field, which is a serious weakness in a market system some conclusions are drawn about its potential use in the contracting process and in achieving improvements in efficiency and effectiveness which were the primary objectives of the reforms.

New Referrals Study

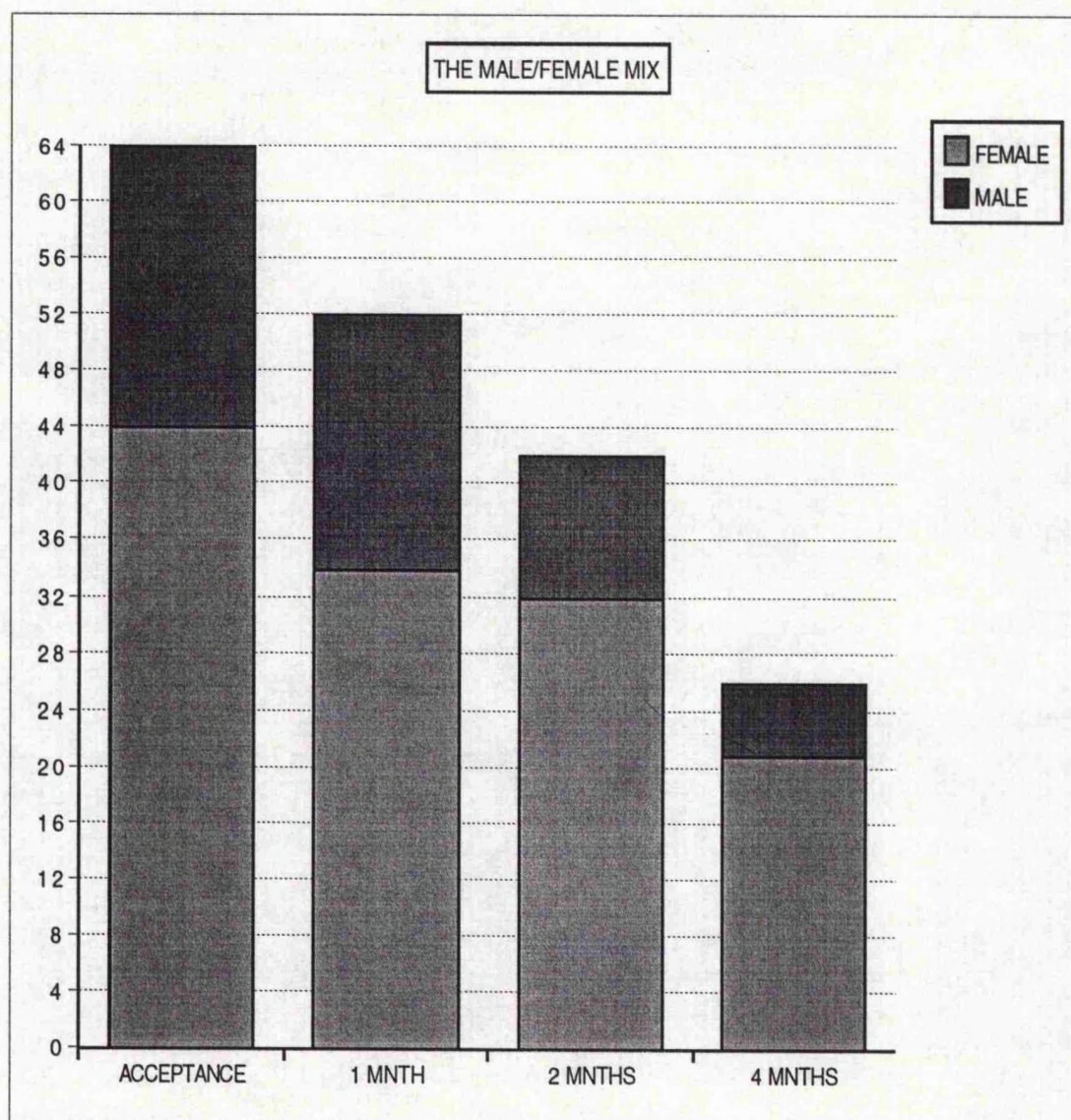
The team received 156 referrals over a 12 week period (mean 13 per week). Of these 156 referrals, 137 (88%) were given an initial assessment by the team and 64 (41%) were accepted as cases. By the end of the study (at four months) only 26 clients remained as cases (17% of original referrals). The C.M.H.T. discharged 26 cases over the course of the study.

The ratio of females to males increased over time from 69% to 81% (see Fig. 13). There might be several possible reasons why there are more females than males in the study; firstly, women may be more likely to suffer from the less severe forms of mental illness, which are more likely to be part of a study of new referral clients. Secondly, they may be more willing than men to admit to such mental health problems. Thirdly, since women are more likely to be in part time employment than men, and so find it easier to attend appointments. However, it has to be accepted that such explanations of the difference between males and females are speculative.

In their review of sex differences in the epidemiology of mental disorders, Weissman & Klerman (1977) observe that:

“Women come for help for minor complaints, but mortalities show that men die sooner. For depression, women seek treatment more often but men have a higher suicide rate. In our society the public assumption of the sick role is interpreted by men as a sign of weakness. Moreover, the health care system is organised in ways which make it difficult for most men to come for treatment.”

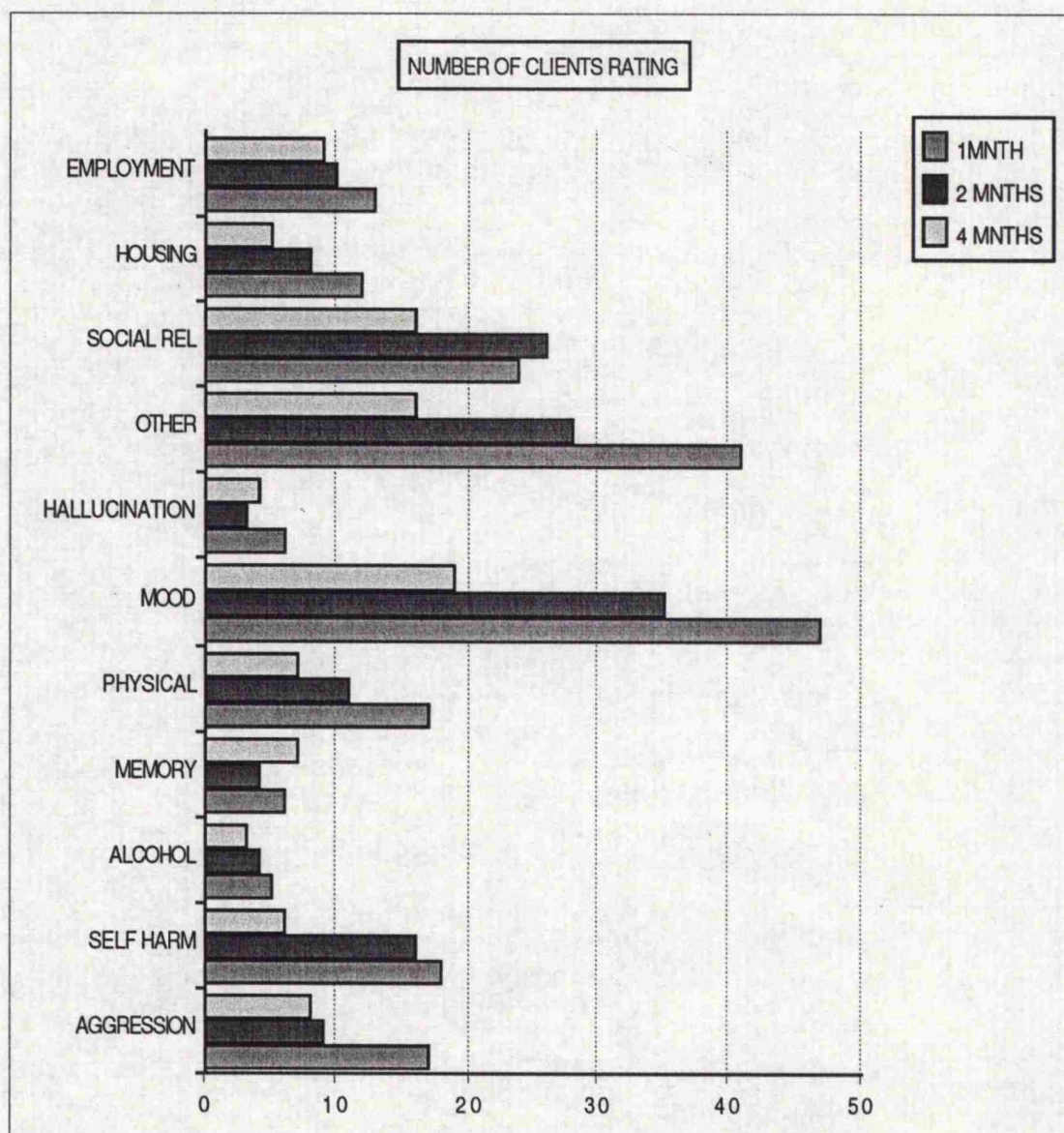
Figure 13: The male/female ratio



Examination of the study sample showed that the most frequently identified

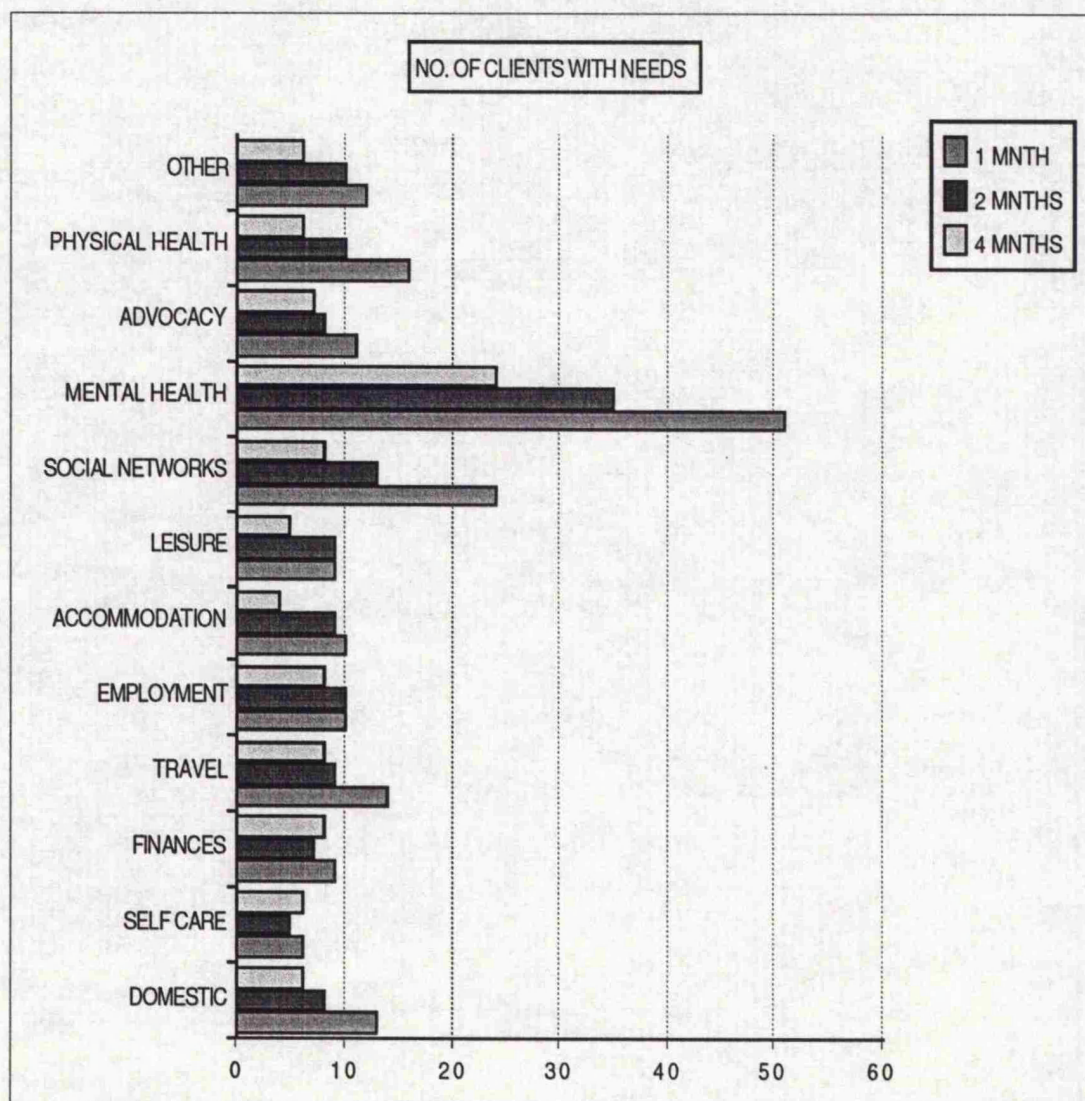
problem at each period (1,2 and 4 months) was that of mood disturbance (both depressive and expansive). In percentage terms, the number of clients reported as having the problems fell in the cases of housing, other mental and behavioural problems, mood disturbance, physical problems, self harm and aggression but rose in; employment, hallucinations, memory and orientation, social relationships and alcohol and drug misuse. The reasons for the increase in the percentages reporting problems in these latter areas is unclear, but may be due to the fact that over time keyworkers have more understanding of the client's problems.

Figure 14: Number of clients rating on the HoNOS scales at one, two and four months



The most frequently identified need for help at each stage of the study was for help with mental health (how the client thinks, feels and behaves - see Fig 15). There were falls in the percentages of clients experiencing needs on the scales for; other needs, physical health, mental health, social networks, accommodation, travel and domestic, but there were increases in the percentage of clients needing help with; advocacy, leisure and recreation, employment and occupation, finances and self care. Again these increases may be due to the increased knowledge of the keyworker rather than to any deterioration in the clients' functioning.

Figure 15: Number of clients with needs at one, two and four months



There were, however, marked differences in those clients who were discharged by the team over the course of the study and those 26 who remained all the way

through. Those who were discharged had fewer, and less severe symptoms and needs, were more functional, received less keyworker time and the costs of care were lower. The most expensive client group was those living in situations such as residential care homes. This client group had the severest problems (rating on 6 scales as opposed to 4 scales with a mean severity score of 15 compared to 8 for the other clients). They were also the least functional (mean functionality score of 61 compared to 37). They were also the most costly group, in terms of both keyworker costs and total costs of care.

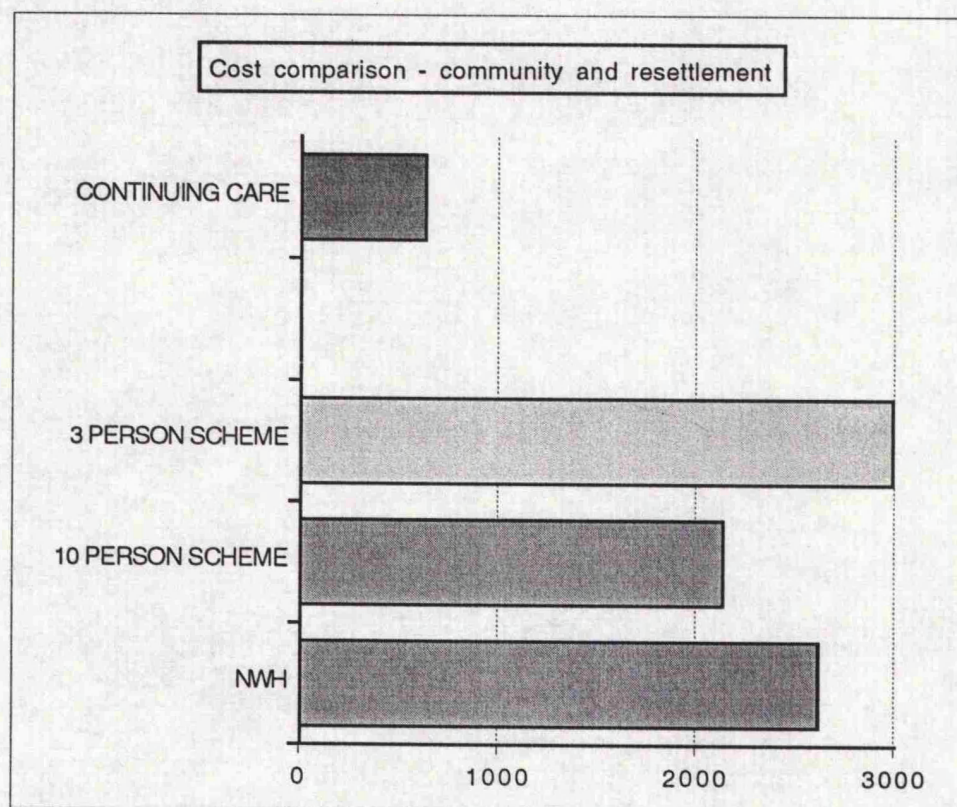
The mean amount of time spent by keyworkers on clients and client related activity fell over the course of the study from 322 minutes to 226 minutes (range 13 mins. to 838 mins.), which may be due to the fact that, over time, keyworkers had achieved a greater understanding of the clients' problems and that other services were now being used. The mean costs of keyworker input fell from £67.38 to £47.24 over the same period (range £2.72 to £175.56). The mean total costs of care increased over the study from £262.97 to £276.42 (range £2.72 to £4078.53), this increase is almost certainly due to the fact that by the end of the study only the severest and least functional clients remained. The proportion of keyworker costs within total costs fell over time from 25% to 16% (again reflecting the increased knowledge of keyworkers and the increased use of other services).

Continuing Care Study

Those clients in the continuing care study had broadly similar symptomatology to a group of long stay psychiatric patients resettled from the now closed North Wales psychiatric hospital (see Crosby & Barry Eds. (1995)). Using the BPRS the group in the community study had an higher mean score (15 as opposed to 12) than those who had been long stay psychiatric patients, an identical mean score on the KRS (6), and a lower score on the SANS (3 compared to 6, this may be due to the fact that they have

spent less time in institutional settings). The study reported in Crosby & Barry also contained cost data on the various resettlement projects compared to hospitalisation costs, which, given the broadly comparable symptomatology, allows some comparison of the relative costs of community care against institutional settings (see Fig 16)

Figure 16: Cost comparison of community care and resettlement



The mean costs of community care were £626.68 per month (range £8.38 to £3030.85). The costs of hospitalisation were £2616 per month, and the two resettlement schemes costed (3 people sharing a house and 10 people in self contained flats with communal areas) were £2992 and £2136 per person per month respectively. The only other scheme for which U.K. costs are available is the Team for the Assessment of Psychiatric Services (T.A.P.S.) see Knapp (1995). The client group is not directly comparable in that they include people with organic brain disorders for example, but the mean monthly cost per person is £1587 per person. The mean cost of

keyworker input is £40.87 and the mean amount of time on client and client related activity is 195 mins. Keyworker costs account for 6% of total costs.

Comparison with other work in the field

The only other study to attempt to link the costs of care to client characteristics (albeit with a resettlement rather than a community group) is the TAPS project, where the economic analysis is conducted by Professor Martin Knapp. Using a sample of 217 clients Knapp has produced an equation that can explain 35% of the cost variation.

Over time the results of the regression equation have deteriorated, which Knapp attributes to increased heterogeneity of patient characteristics and changes in local policy and practice. The regression equations produced as a result of the present pilot study are considerably higher, and in all cases bar one are significant at the 5% level. This may be due to the fact that the pilot study linked individual characteristics to individual costs, but the results, although encouraging, should be treated with some caution since they are the results of a pilot study rather than a longitudinal study.

Knapp et al., identify several characteristics which affect the costs of care; marital status, age, total time in psychiatric hospitals, some psychiatric symptoms, social behaviour, social networks and gender.

The TAPS study found that single men were the most expensive group to care for, since they enjoy less support from family members. They also found that the most significant psychiatric factor affecting costs was non - specific neurotic behaviours and that greater scores on the social behaviour instrument (indicating more abnormal behaviour and higher needs) led to higher costs of care.

The pilot study reported in this thesis found that those people with the worst symptomatology, and greatest needs and the highest scores on the CIL scale were the most costly to care for, which complements the results found by Knapp et al. Age, was not found to have a significant impact on care costs, and data on time in hospital was

not relevant to this particular study. The study also found that those people living with family tended to be discharged sooner, again reinforcing Knapp's findings about the roles of family carers. It can also be argued that the role of non - specific neurotic behaviour as a major predictor is mirrored in the findings of the new referral study and the continuing care study where neurotic symptoms are included as independent variables (IVs) in the best prediction equations.

Possible implementation of the instrument

The results of the pilot study are encouraging in terms of providing both cost information and statistically significant relationships between certain characteristics and cost of care. However, it should be stressed that this study has been applied to the clients of only one CMHT and so generalising from these results is difficult (the sample represents about 10% of the caseload of one CMHT, and the ethical need for informed consent may have produced a biased sample). Shepherd et al. (1980) estimates that about 7% of the population suffer from chronic mental illness. Therefore the study should be repeated with a larger sample, over several CMHTs in order to test the reliability and validity of the pilot study.

The pilot study has also raised other questions which could be tackled by further research. For example, what happens to the new referrals between four and twelve months, how many are discharged in this period and how many then become continuing care clients ? What happens to the costs of care over this period ? What exactly do family carers do that contributes to the early discharge of clients who live with their families ?

If mental health services were to introduce such an instrument it would require the agreement and support of both health and social services, since the keyworkers they provide to each team would be required to complete the instruments. There would also be the transactions costs of such an exercise to be considered; the cost of

the materials, training keyworkers to self - complete the instrument and the keyworker time taken in completing the forms once trained (there is also the cost of keyworkers completing forms rather than caring for clients). There would also be the costs of data input and analysis to be considered. The benefits obtained from such an exercise in terms of better data would have to be weighed against these costs.

The data collection instrument *mutatis mutandis* could also be applied to other areas of community care such as child guidance, child development and learning disability, with similar caveats to be born in mind.

Summary

In order for the internal market (or indeed any market to work) people must first be informed of prices. These are the signalling device of the market and should reflect surplus and scarcity and, therefore, change resource allocation. However, many people believe that the internal market created in the white paper will not allow this to happen, *since there is a lack of accurate cost data on which to base prices* and also regulation limiting the rate of return on assets employed to 6%. The intention of this study was to use a data collection instrument to gather cost data on a group of individuals in an area where the preliminary analysis had indicated that lack of cost information was a serious weakness.

The first step was to gather cost data for the two client groups that comprise the caseload of C.M.H.T.s. Associated with this, there were other issues that needed to be examined; were resources being allocated efficiently amongst the clients (did those with the severest problems receive the highest levels of care ?, did the C.M.H.T. discriminate between those who remained as open cases and those who were discharged ?)

The results presented here demonstrate several points; firstly it is possible to gather cost data in this field of healthcare which can discriminate between long and

short term mentally ill. Secondly, there exist relationships between certain client characteristics and costs which are statistically significant at the 5% level. The existence of such relationships means that the instrument could be used to predict the costs of care for particular clients or client groups. This could be used in the contracting process, as G.P.F.H.s can buy services for long and short term mentally ill at differential rates, and the use of other services can be extrapolated from this sample, so that if total fundholding were to be introduced, contracts with other mental health services could be drawn up.

CHAPTER EIGHTEEN
CONCLUSIONS

CONCLUSIONS

Contracting in general

The Principal - Agent problem

The decision to split the purchasers of healthcare from the providers of healthcare has created Principal - Agent relationships. This thesis has concentrated on one of the relationships between Primary and Secondary care (the relationship of the G.P.F.H. to the N.H.S.T.). The traditional problems with such relationships identified by economic theory have been:

- Moral Hazard
- Adverse Selection

These problems traditionally arise in cases where there is asymmetry of information, in the case of the healthcare market the providers of care have much more detailed information on how costs are derived and on the quality of care and how much effort is expended in fulfilling the requirements of the principal. This lack of information on the Principal's part means that the negotiation of contracts is extremely difficult. What has made these relationships even more complex than normal has been the withdrawal of the government (traditionally the most risk neutral body) from direct purchasing of services, meaning that the problem of risk aversion by both parties must be considered within the relationships.

Contracts

Given the problems caused by the creation of Principal - Agent relationships the thesis then went on to consider a range of theoretical contracts that might be used to overcome the difficulties and identified three main types of contract:

- Fixed fee
- Cost plus
- Incentive

Given that the aim of the reforms was to increase efficiency and effectiveness, these would be the primary concerns of the Principal (the purchaser of healthcare). The Agent must therefore be given a contract that fulfils these primary aims in circumstances where observation is extremely difficult for the Principal. These theoretical contract forms were examined and it was shown that the optimal form of contract was the incentive contract in almost all cases. The analysis also drew upon elements of game theory to demonstrate the interdependence of the two parties to the contract.

Reputation

The literature also suggested that in cases where information is asymmetric and the Principal has difficulties in observing the actions of the Agent, then the reputation of the Agent may play an important role. It can be used to signal to prospective purchasers the Agents' position relative to other competing Agents and changes in reputation may act as signals as to past performance and ability. This would seem to be borne out by some of the evidence contained within this thesis, an examination of the promotional literature in Appendix I shows that the reputation of both the hospital and its staff are seen as major selling points by the trust. This is also supported by comments made during interviews where G.P.F.H.s are concerned as to who the trust employs and that they may be willing to place contracts with a trust that employs people known to the G.P. even if the costs of doing so are higher. However the role of reputation is only a major concern to the Agent if the risk of losing a contract (and thereby diminishing the reputation) is a real one. Evidence from the U.S. suggest that contracts tend to be re-awarded to the provider since this is the only Agent that the principal really has any knowledge of and so over time in the U.K. the Agents (were the U.S. effects to be replicated) may be less concerned about their reputation and its incentive effects may well lessen. This trend could be further reinforced by other

evidence from America which suggests an increasing contraction of providers over time and the emergence of local monopolies.

Contract use in practice

Evidence on the type of contracts used in the U.K. has suggested that there is a reliance on the block contract. This can be considered to be undesirable because it expects the Agent to bear all the risk of cost overruns and thereby gives an incentive for cost padding to cover the likelihood of this happening. This cost padding is in addition to the incentive for such behaviour that already exists due to the asymmetry of information. Block contracts are favoured by the purchasers because they reduce risk from their point of view (they pay a fixed amount for the care) and the evidence from one trust suggests that instead of moving away from such contracts as we might (given the theoretical evidence) expect providers to do they have shifted back to block contracts since they feel that the transactions costs of using what are more optimal contracts outweighs the increased risk they bear by using block contracts.

Regulation

Given the predominance of block contracts within the U.K. marketplace and the evidence from the U.S. that competition actually diminishes over time it may be considered appropriate to introduce some form of regulation into the marketplace to prevent, or at least reduce, cost padding and opportunistic behaviour and prevent the exploitation of local monopolies.

In order to be effective any organisation attempting to regulate price must be able to access relevant and up to date information and act upon such information before it becomes out of date. The transactions cost of acquiring such information are likely to be very high (adding to the cost of the U.K. healthcare administration) and may in fact act to reduce competition rather than encourage it. Again evidence from

the U.S. (Hadley & Langwell (1991)) found that even when the market did produce efficiency gains they tended to be offset by the higher administration costs of running a market based system.

Market Failure

The evidence suggests that increasingly the market will be dominated by large providers, who enjoy the benefits of economies of scale and are best able to bear the risk of bidding for contracts. This suggests that local monopolies will develop over time. This trend may well be reinforced by the fact that many rural communities already have only one district general hospital which serves a large geographical location (due to the dispersal of population) and that travel costs, together with patient unwillingness to travel, mean that in many areas of the U.K. local monopoly already exists. Indeed the unwillingness to travel was a point highlighted by one interviewee who had arranged with a G.P.F.H. to transport all the patients who needed surgery for cataracts from the surgery in Blackburn to the Eye Hospital in Central Manchester and back again within 24 hours only to find himself confronted by an elderly lady who “hadn’t been to Manchester for 40 years and wasn’t about to start now!” despite the fact that her vision was reduced to almost zero by cataracts!

Since it is those patients in the lowest socioeconomic groups who will find it hardest to travel the governments objectives of improving access to healthcare for this group may also prove to be difficult to achieve.

The development of the National Health Service was in response to the general objective of ‘securing improvement in the physical and mental health of the people...and in the prevention, diagnosis and treatment of illness’³⁴ . The reforms were based on the proposition that the health service’s failure to meet the needs of the population was due to internal inefficiency rather than underfunding. Competition and

³⁴ Royal Commission on the NHS. Cmnd paper 7615. London. HMSO, 1979

better information were seen as correctives which would not jeopardise the underlying principles which had guided the N.H.S. for 40 years. So have the reforms succeeded ?

Given the lack of data and the fact that the reforms have only been in place since 1990 it is very difficult to reach a definite conclusion. The view from those people within the N.H.S. has been mixed and this finding is supported by the Middlesex University survey of public health directors (see Marks (1995)). In this survey 56% felt that quality of access to care for all patients had been weakened by the reforms and 50% felt that the trust between doctors and patients had been weakened. This was felt to be largely due to the two tier system that had developed between fundholders and non-fundholders. The introduction of fundholding G.P.s is certainly regarded by the current government as a success and they have plans to widen the scheme by reducing the number of patients a practice must have before applying for fundholding status and by the introduction of 'total fundholding' whereby G.P.s hold budgets for all care, not just elective surgery. The theoretical evidence would also support the introduction of G.P.F.H., and yet it seems that the introduction of such a scheme has had unintended consequences for equity and dealt a damaging blow to that fundamental of healthcare - patient trust.

The introduction of the purchaser - provider split has been welcomed generally by those interviewed and again the Middlesex survey supports this (57% felt it had contributed to an improvement in service). However the evidence on contract use suggests that the heavy reliance on block contracts in a situation with informational asymmetry means that the government's aim of improving efficiency will be much harder to realise and that the evidence from the U.S.A. suggests that over time competition will decrease, with implications for consumer choice and equality of access as well as for costs of care.

Any attempt to assess the impact of the reforms at this early stage is confounded by the near simultaneous introduction of the 'Patients Charter' (see Appendix J),

which may well be responsible for the increased throughput of patients and the reduction in waiting times.

Perhaps the most interesting result to be found within the thesis is that, in a reversal of traditional theory, the Agent (in this case the provider) has considerably more power in these relationships than was supposed. They have been able to re-negotiate contracts with purchasers to move to, from the provider viewpoint, easier to manage contracts. Economic theory suggests that they would probably like, from a risk aversion point of view, to use contracts other than block. The additional transactions cost of administering such contracts is deemed to outweigh the burden of risk in a block contract but when they have an informational advantage over the purchaser they may be able to cost pad such contracts to take account of the additional risk. The Principals (purchasers) may well have been willing to move to such contracts anyway (since they know that they bear no risk of cost increases and from a financial viewpoint they know exactly what they will have to pay) and so the power of the Agent should not be overestimated, although given the potential emergence of local monopolies and the apparent immobility of patients may well act to increase their power relative to the principals.

Whilst the reforms are still in the early stages of implementation and the available data is very limited drawing conclusions about their impact is difficult. The reforms have involved large organisational and financial costs and the widescale use of block contracts does not bode well for achieving efficiency improvements. The weakening of doctor-patient trust and equality of access must also be weighed against any gains achieved by the new system. Ultimately if the principles of the healthcare system are damaged then the reforms may end up eroding the foundations of the very system they were intended to improve.

One of the areas of most concern to the N.H.S. reformers was community care for the mentally ill (see for example Audit Commission (1986) and Griffiths (1988). The N.H.S. and Community Care Act (1990) contained not only the reforms outlined in 'Working for Patients' but several important changes for community care services.

Local authority Social Services departments were given the lead responsibility for designing, organising and purchasing community services for the mentally ill. These new arrangements were designed to foster community services for people with long term mental disorder, particularly those living in their own homes, and should encourage care at home rather than in institutions.

Preliminary investigation of the contracting process identified that community care for the mentally ill was still regarded as a problem area, where lack of information on the costs of community care for the mentally ill was preventing the development of contracting for services in the manner envisaged by the reformers. This finding provided the stimulus for the development of a pilot study of community care in which a purpose-designed instrument was used to provide cost information.

Contracting in mental health services

Data Collection Instrument

The preliminary analysis of contract use in the NHS revealed that in one particular area of healthcare (mental illness) the contracting process was very difficult, due to the lack of cost data. In order for any market to function there must be cost information. In the absence of such data, the market approach cannot achieve the government's objectives of improving effectiveness and efficiency.

To overcome this deficit there is a need for data collection instruments and systems that can be used to provide cost data, which will then allow the contracting process to develop. The instruments should also be accompanied by outcome measures, so that both purchasers and providers are not only informed as to the costs of

treatment, but the results of such treatment. This can help to redress the informational asymmetry that the separation of roles in the NHS has caused. This problem is particularly acute in areas of community care where heterogeneity of patients is marked, and the GPFH, who is unlikely to have specialised in areas such as psychiatry and learning disability, is at a particular disadvantage. Furthermore, the nature of the clients and their problems means that relying on their feedback as a means of monitoring service delivery is unreliable.

The final section of this thesis described the design and subsequent piloting of a data collection instrument and the production of a refined version which was then used in a pilot study of a sample of clients from one CMHT. The results of this study are reported in Chapter 16. The fundamental contribution of the study was to reveal the different costs of community care for the two groups. This basic information can be incorporated into contracts between GPFHs and NHSTs to reflect the fact that different types of clients (short and long term) have different costs associated with them.

The use of the data collection instrument together with the psychiatric measures can also be used in the contracting process as a means of assessing patient outcomes (which must be done if any improvements in efficiency and effectiveness are to be measured.)

The most significant result of the study may well be the establishment of statistically significant relationships between certain client characteristics and costs. This would allow purchasers and providers to profile individual clients, or client groups and then draw up more detailed contracts. It could also be used to estimate the costs of resettlement projects from psychiatric hospitals and allows service planners to calculate the levels of service needed for different casemixes.

The additional data obtained from the service utilisation questionnaire will also allow for future planning, and ensuring that the optimal levels of service are provided

locally. It can also be used by purchasers should the introduction of total fundholding come about; they will be able to contract for these additional services based on extrapolations of current usage by the clients in the sample.

If contract use in the National Health Service is to achieve the objectives of the reforms, information on costs and outcomes must be made more widely available than is the case at present. The use of instruments similar to the one used in this thesis, which has shown encouraging results on a small scale, is a possible solution to the problem.

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APPENDIX A
THE PRINCIPAL - AGENT MODEL

PRINCIPAL - AGENT THEORY

In Principal - Agent theory we assume that both P and A act in a manner that will maximise their expected utility.

The Principal's utility function is normally deemed to be dependent only upon wealth; the Agent's to depend upon wealth and effort (this can be interpreted in: (a) a monetary way, if it involves expenditure by A, (b) a non-monetary with monetary equivalent, or (c) a totally non-monetary way)

where:

$U(w)$ = Principal's utility function

$V(w,e)$ = Agent's utility function

and

$V(w,e) = V(w-e)$

if w = wealth and e = effort

The outcome of the Agent's effort (normally measured in monetary terms) is assumed to depend upon:

- i. A's effort
- ii. Random factors beyond A's control

and we further assume that:

- i. outcome increases with effort
- ii. A makes decisions before he/she knows about the random elements.

P may or may not have information about A's efforts. If P has information, then it is denoted by z . z depends upon effort and the random factors already mentioned, and since effort and random factors also determine outcomes (denoted by x) then z may depend on x and e ³⁵. We further assume that z conveys information about e in the sense that different levels of real effort give different probability densities (denoted by

³⁵ see Shavell (1979) p 57 footnote 7 for discussion of why this is true

q) of observed effort *i.e.* z changes with e ³⁶. Since the fee can only be determined by some variables known to both parties and A must know everything P knows (particularly true in the health care contract we will be considering), then the fee must be determined by variables known to the principal

ϕ = fee payable to Agent

this can be a function of outcome

$\therefore \phi = \phi(x)$

or if P has information

$\phi = \phi(x)$

so given a fee schedule A will select the effort to maximise his/her expected utility

\therefore if P has no information

$$EV(\phi, e) = \int V(\phi(x), e) r(x; e) dx$$

where

r = probability density of x given e

If however P has information;

$\phi = \phi(x, z)$

$$EV(\phi, e) = \iint V(\phi(x, z), e) r(x; e) dx q(z/x; e) dz$$

where

q = probability density of z given x and e

Given the Agent's fee schedule and expected effort, then the Principal's utility is given by:

$$EU(\phi, e) = \int U(x - \phi(x)) r(x; e) dx \text{ (if P has no information)}$$

If however P has information then the expected utility function would be

$$EU(\phi, e) = \iint U(x - \phi(x, z)) r(x; e) dx q(x/z; e) dz$$

So, given a fee schedule we can determine the expected utilities of both principal and

³⁶ see Rao (1965)

agent \therefore we can find the Pareto optimal fee schedule

i.e. max. $EU(\phi, e)$ over ϕ

subject to the constraint that

$$EV(\phi, e) \geq V^0$$

where:

$EV(\phi, e)$ is maximised over e

and:

V^0 = reservation utility, the utility the Agent could expect to achieve in his/her next best employment

If we differentiate the $EV(\phi, e)$ function then we get

$$EV_e(\phi, e) = 0$$

N.B. if we had to maximise $EU(\phi, e)$ in a situation where we could pick ϕ and e , we would be in a Pareto optimum situation, which is called the first best problem.

What then will be Agents fee ?

CASE 1

P knows only the outcome

$$\text{i.e. } \phi = \phi(x)$$

If the agent is risk neutral, then as already described above, the agents fee will depend upon the outcome, x , minus the Principals share.

$$\therefore \phi(x) = x - k$$

where k = Principal's share;

but if the agent is risk averse, then a Pareto optimal fee must depend upon

- i. the outcome (to some extent).
- ii. the fact that the Agent does not bear all the risk.

Proof of i. and ii.

To prove i. we must first assume the Principal is risk neutral and that the fee equals a

constant. If we alter the fee so that it depends to some degree upon outcome, then we find no first order effect upon EV which can be attributed to the increased risk since, initially, his/her fee and therefore wealth was constant.

If:

W = utility function of risk averse individual

y = initial wealth

η = random variable (with zero mean)

t = scalar multiplier

$$\therefore EW(t) = \int W(y+t\eta) dG(\eta)$$

$$\text{and } EW^1(t) = \int \eta W^1(y+t\eta) dG(\eta)$$

$$\therefore EW^1(0) = W^1(y) \int \eta dG(\eta) = 0$$

where G = c.d.f. of η

so first order effect of risk is 0

But:

if $EV_e(\phi, e) = 0$ still holds and we alter the fee to take account of outcomes then there will be a positive first order effect on effort which will not change A's first order expected utility, but will increase the outcome so that P will be able to reward A whilst still being better off.

If the fee was a constant, K , we can prove that this would not be Pareto optimal since:

$$\phi(x) = K + \alpha(x - \bar{x}(0)) + \alpha\beta$$

where $\alpha, \beta > 0$ and $\bar{x}(e) = \int x r(x; e) dx$

A will be better off by setting $e=0$ on average, since he will gain an additional amount equal to $\alpha\beta$

but ϕ does give an incentive to increase e

since if $e > 0$ then $\bar{x}(e) > \bar{x}(0)$.

A will now maximise over e

$$j(e, \alpha, \beta) = \int V(K + \alpha(x - \bar{x}(0)) + \alpha\beta, e)r(x; e) dx$$

with the first order condition

$$j_e(e, \alpha, \beta) = 0$$

This will determine the optimal level of e as a function of α and β i.e. $e(\alpha, \beta)$

if we let $J(\alpha, \beta) = \max_e j(e, \alpha, \beta)$

$$\text{then } J_\alpha(\alpha, \beta) = j_e(e(\alpha, \beta), \alpha, \beta) + j_\alpha(e(\alpha, \beta), \alpha, \beta)$$

$$\therefore J_\alpha(\alpha, \beta) = \int (x - \bar{x}(0) + \beta)V_1(K + \alpha(x - \bar{x}(0)) + \alpha\beta, e)r(x; e) dx$$

thus since $e(0, \beta) = 0$

$$J_\alpha(0, \beta) = j_\alpha(0, 0, \beta) = \int (x - \bar{x}(0) + \beta)V_1(K, 0)r(x; 0) dx = \beta V_1(K, 0) > 0$$

\therefore for any possible value of β if α is chosen small enough, A must be better off

The Principal will also be better off since his/her expected utility will be:

$$K(\alpha, \beta) = \int U(x - k - \alpha(x - \bar{x}(0)) - \alpha\beta)r(x; e) dx$$

where $e = e(\alpha, \beta)$

we must now prove that $K_\alpha(0, \beta) > 0$ if β is chosen appropriately

$$K_\alpha(0, \beta) = \int U(x - k)r_e(x; 0) dx + \int (\bar{x}(0) - x)U^1(x - k)r(x; 0) dx$$

$$- \beta \int U^1(x - k)r(x; 0) dx$$

but

$$\int (\bar{x}(0) - x)U^1(x - k)r(x; 0) dx \text{ is equal to}$$

$$\int_{x \leq \bar{x}(0)} (\bar{x}(0) - x)U^1(x - k)r(x; 0) dx +$$

$$\int_{x > \bar{x}(0)} (\bar{x}(0) - x)U^1(x - k)r(x; 0)$$

dx

$$\geq \int_{x \leq \bar{x}(0)} (\bar{x}(0) - x)U^1(\bar{x}(0) - k)r(x; 0) dx +$$

$$\int_{x > \bar{x}(0)} (\bar{x}(0) - x)U^1(\bar{x}(0) - k)r(x; 0)$$

$$dx \\ = U^1 (\bar{x}(0) - k) \int (\bar{x}(0) - x)r(x;0) dx = 0$$

and

$$\int U(x - k)r_e(x;0) dx > 0$$

Since we assume that an increase in e will always increase x regardless of random factors

\therefore to prove this we must show that:

$e_{\alpha}(0,b)$ is greater than some $\delta > 0$ regardless of β 's value (providing $\beta > 0$)

If we differentiate the earlier equation

$$j_e(e, \alpha, \beta) = 0$$

$$e_{\alpha}(0, \beta) = -j_{e\alpha}(0,0,\beta) / j_{ee}(0,0,\beta)$$

and $j_{ee}(0,0,\beta) < 0$ (this is the second order differential to prove a maximum; then we can show that $j_{e\alpha}(0,0,\beta)$ is > 0 and is independent of β , no matter how small β

actually is since:

$$j_e(e, \alpha, \beta) = \int V(k + \alpha(x - \bar{x}(0)) + \alpha\beta, e)r_e(x;e) dx + \int V_2(k + \dots, e)r(x;e) dx$$

then:

$$j_{e\alpha}(e, \alpha, \beta) = \int (x - \bar{x}(0) + \beta)V_1(k + \alpha(x - \bar{x}(0)) + \alpha\beta, e)r_e(x;e) dx \\ + \int (x - \bar{x}(0) + \beta)V_{21}(k + \dots, e)r(x;e) dx$$

and given that:

$$\int r(x;e) dx = 1 \text{ then } \int r_e(x;e) dx = 0 \text{ then}$$

$$j_{e\alpha}(e, \alpha, \beta) = V_1(k,0) \int x r_e(x;0) dx + \beta V_{21}(k,0)$$

but with our earlier assumption that x increases with e regardless of random factors

$$\int x r_e(x;0) dx > 0$$

$j_{e\alpha}(0,0,\beta)$ takes the form $K_1 + \beta K_2$

where $K_1 > 0$ and if $\delta = K_1/2$ then

$j_{e\alpha}(0,0,\beta) > \delta$ for any value of β (if $\beta > 0$)

To prove ii. we assume initially that A bears all the risk and that P receives a constant.

If we then introduce risk sharing then we should find two effects;

- No first order effect on P's utility since initially his/her wealth was constant
- Positive first order effect on A's utility due to the reduction in risk sharing

so if:

P receives a constant k

A receives $x - k$ and e = level of A's effort

we can construct a new fee system that will make both P and A better off

$$\phi(x) = (1-\alpha)x - k + \alpha\beta$$

where $\alpha > 0$, $\beta > 0$

the Agent will select e to maximise

$$j(e, \alpha, \beta) = \int V((1-\alpha)x - k + \alpha\beta, e) r(x; e) dx$$

and if $J(\alpha, \beta) = \max_e j(e, \alpha, \beta)$ then

$$J(0, \beta) = \int (\beta - x) V_1(x - k, \hat{e}) r(x; \hat{e}) dx$$

which will be greater than zero if:

$$\beta > \int x V_1(x - k, \hat{e}) r(x; \hat{e}) dx$$

$$\int V_1(x - k, \hat{e}) r(x; \hat{e}) dx$$

and we can show that P will be better off with such β if α is chosen small enough

P's expected utility is

$$K(\alpha, \beta) = \int U(K + \alpha x - \alpha\beta) r(x; e) dx$$

and e is set by A

$$K_\alpha(0, \beta) = U^1(K)(\bar{x}(\hat{e}) - b)$$

so $b < \bar{x}(\hat{e})$ must hold if P is to be made better off

∴ β value must be such that

$$\beta > \int x V_1(x-k, \hat{e}) r(x; \hat{e}) dx < \bar{x}(\hat{e})$$

$$\int V_1(x-k, \hat{e}) r(x; \hat{e}) dx$$

The second proposition in this case was that the level of welfare approaches the maximum attainable level when the Agent's efforts either approach zero or grow very large.

If λ = index of efficiency of A's effort

e = level of A's effort

$r(x; \lambda e)$ will now give density of x

We assume that as λe approaches ∞ then r will converge to a density r^*

where r^* = first best level

if $\lambda = 0$ then r is not affected by e so we can achieve a first best solution through risk sharing, but if $\lambda > 0$ then r is affected by e and we cannot achieve the first best solution, since risk cannot be shared in a Pareto optimal manner³⁷. However, we can prove that as λ approaches ∞ the difference between the achievable and first best solutions will tend to zero.

i.e. if $EU^*(l)$ = expected utility of P under first best conditions and $EU(l)$ is the expected utility of P under achievable conditions then

$$\lim_{\lambda \rightarrow \infty} (EU^*(l) - EU(l)) = 0$$

proof

$$EV(\phi, e, \lambda) = \int V(\phi(x), e) r(x; \lambda e) dx$$

$$EU(\phi, e, \lambda) = \int U(x - \phi(x)) r(x; \lambda e) dx$$

then if

ϕ increases with x

$EV(\phi, e, \lambda)$ must increase with λ (since if λ increases then λe increases then x

³⁷ see Borch (1962) for proof

increases) and if

ϕ increases with x then

$$\lim_{\lambda \rightarrow \infty} e(\phi, \lambda) = 0$$

and $\lim_{\lambda \rightarrow \infty} e(\phi, \lambda) = \infty$ where $e = A$'s effort given ϕ and λ

but if $\lim_{\lambda \rightarrow \infty} e(\phi, \lambda) = 0$ does not hold then there exists some $\varepsilon > 0$ and a sequence

$\lambda_i \rightarrow \infty$ such that

$$e(\phi, \lambda_i) \geq \varepsilon \text{ for all } i$$

but

$$\int V(\phi(x), \varepsilon/2) r(x; \lambda_i \varepsilon/2) dx > \int V(\phi(x), e(\phi, \lambda_i)) r(x; \lambda_i e(\phi, \lambda_i)) dx$$

if i is sufficiently large since

$$\lim_{i \rightarrow \infty} \int V(\phi(x), \varepsilon/2) r(x; \lambda_i \varepsilon/2) dx = \int V(\phi(x), \varepsilon/2) r^*(x) dx$$

$$> \int V(\phi(x), \varepsilon) r^*(x) dx \geq \int V(\phi(x), e(\phi, \lambda_i)) r^*(x) dx$$

$$> \int V(\phi(x), e(\phi, \lambda_i)) r(x; \lambda_i e(\phi, \lambda_i)) dx$$

however

$$\int V(\phi(x), \varepsilon/2) r(x; \lambda_i \varepsilon/2) dx > \int V(\phi(x), e(\phi, \lambda_i)) r(x; \lambda_i e(\phi, \lambda_i)) dx$$

contradicts our definition of $e(\phi, \lambda_i)$

$\therefore \lim_{\lambda \rightarrow \infty} e(\phi, \lambda) = 0$ must hold if $\lim_{\lambda \rightarrow \infty} \lambda e(\phi, \lambda) = \infty$ does not hold then for any

$N > 0$ there must exist a sequence $\lambda_i \rightarrow \infty$ such that $\lambda_i e(\phi, \lambda_i) < N$ for all values of i but

if

$$\int V(\phi(x), N/\lambda_i) r(x; N) dx > \int V(\phi(x), e(\phi, \lambda_i)) r(x; \lambda_i e(\phi, \lambda_i)) dx$$

for a sufficiently large i

since

$$\lim_{i \rightarrow \infty} \int V(\phi(x), N/\lambda_i) r(x; N) dx = \int V(\phi(x), e(\phi, \lambda_i)) r(x; \lambda_i e(\phi, \lambda_i)) dx$$

$$\geq \int V(\phi(x), e(\phi, \lambda_i)) r(x; N) dx > \int V(\phi(x), e(\phi, \lambda_i)) r(x; \lambda_i e(\phi, \lambda_i)) dx$$

however

$$\int V(\phi(x), N/\lambda_i) r(x; N) dx > \int V(\phi(x), e(\phi, \lambda_i)) r(x; \lambda_i e(\phi, \lambda_i)) dx$$

contradicts our definition of $e(\phi, \lambda_i)$, again, then the statement $\lim_{\lambda \rightarrow \infty} \lambda e(\phi, \lambda) = \infty$ must hold true. Also if ϕ allocates a random variable in a Pareto optimal way between two risk averse people then ϕ must be increasing³⁸, so if ϕ^* allocates variable x with density r^* in a Pareto optimal way so that

$$\int V(\phi^*(x), 0) r^*(x) dx = V^0$$

$$\text{then } EU^* = \int U(x - \phi^*(x)) r^*(x) dx$$

$$\text{and we wish to prove that } \lim_{\lambda \rightarrow \infty} EU^*(\lambda) - EU(\lambda) = 0$$

and we know that

$$EU^* \geq EU^*(\lambda) \geq EU(\lambda)$$

we must finally prove that

$$\lim_{\lambda \rightarrow \infty} EU(\lambda) = EU^*$$

if P is risk averse then ϕ is increasing and so is $\phi^* + K$ for any K

so $\lim_{\lambda \rightarrow \infty} e(\phi^* + K, \lambda) = 0$ and

$$\lim_{\lambda \rightarrow \infty} \lambda e(\phi^* + K, \lambda) = \infty$$

so if $K > 0$

$$\lim_{\lambda \rightarrow \infty} \int V(\phi^*(x) + K, e(\phi^* + K, \lambda)) r(x; \lambda e(\phi^* + K, \lambda)) dx =$$

$$\int V(\phi^*(x) + K, 0) r^*(x) dx > V^0 \text{ (EQN 1)}$$

1)

and:

$$\lim_{\lambda \rightarrow \infty} \int U(x - \phi^*(x) - K) r(x; \lambda e(\phi^* + K, \lambda)) dx =$$

$$\int U(x - \phi^*(x) - K) r^*(x) dx \text{ (EQN 2)}$$

to prove that $\lim_{\lambda \rightarrow \infty} EU(\lambda) = EU^*$ then we must show that if $\varepsilon > 0$, $EU^* - EU(\lambda)$

$< \varepsilon$ if λ is sufficiently large.

³⁸ see Borch (1962)

We can show from equations 1 and 2 above that if $K > 0$ but still small enough, then for all sufficiently high l

$$EV(\phi^* + K, e(\phi^* + K, \lambda), \lambda) > V^0$$

and

$$EU^* - EU(\phi^* + K, e(\phi^* + K, \lambda), \lambda)$$

because the Agent's utility is greater than V^0 this implies that:

$$EU^* - EU(\lambda) < \varepsilon$$

If the Principal is risk neutral then ϕ^* will be a constant K^*

if $\bar{x} = \int x r^*(x) dx$ and if K_1 and $K_2 > 0$ then:

$K^* + K_1(x - \bar{x}) + K_2$ must be strictly increasing and since:

$$\lim_{\lambda \rightarrow \infty} \int V(K^* + K_1(x - \bar{x}) + K_2; e(K^* + K_1(x - \bar{x}) + K_2, \lambda))$$

multiplied by

$$r(x, \lambda e(K^* + K_1(x - \bar{x}) + K_2, \lambda)) dx$$

$$= \int V(K^* + K_1(x - \bar{x}) + K_2, 0) r^*(x) dx$$

$$> \int V(K^*, 0) r^*(x) dx = V^0$$

and this will hold for any sufficiently small K_1 and $K_2 > 0$ and completes the proof

CASE 2

In this case, P knows the outcome and has information about effort.

$$\therefore \text{fee } \phi = \phi(x, z)$$

If A is risk neutral he/she can act for P (who may be risk averse), to minimise variation in P's return (outcome - cost of A's effort). For both parties, A will try to maximise the return, since the fee depends upon it (outcome - P's share (a constant K)) and he/she bears the cost of his/her effort. In this case, the Agent is paid only on the outcome and so the information has no value.³⁹

However, if A is risk averse, then under a Pareto optimal schedule his/her fee must to

³⁹ For proof see Harris & Raviv (1976)

some extent, depend upon information about his/her effort and that information has a positive value. Since A is risk averse, it would be desirable (from A's point of view) to have his/her level of effort, rather than the outcome, used as an incentive in the fee schedule. If P has imperfect information about A's effort and uses it, then a new risk is introduced.

But we can show that the fee schedule would depend on information despite the new risk by using similar arguments to those presented in Case 1.

i.e. suppose A's fee depends solely on outcome. If we alter this to depend slightly on imperfect information about A's behaviour we should see the following effects;

- No first order effect on EU or EV can be attributed to the new risk since initially the wealth of each was constant given the outcome.
- No first order effect on EV, given a change in e .
- Positive first order effect on EU - P can give some of this to A, making both better off.⁴⁰

Therefore, information about effort is valuable if A is risk averse, but the value of that information will tend to zero as λ approaches zero or ∞ .

⁴⁰ For proof see Ross (1973) and Shavell (1979)

APPENDIX B
PRINCIPAL - AGENT RELATIONSHIPS AND REPUTATION

MODEL ⁴¹

Consider a Principal operating in a competitive market with many identical competitors. He/she may hire Agents for any length of time measured in multiples of γ (where γ is the minimum hire period)⁴²

For simplicity, we assume γ is exogenous. We further assume team production, therefore, the input/output of the Agent is not directly known.

The team production requires at least N^0 members. Once the team has this many members, each additional team member's marginal product depends only upon the effort exerted by that individual.

The relationship between effort and marginal product does not change over time and the value of marginal product per unit of time is shown by:

$$Y(P_t)$$

and $P_t \geq 0$

where:

P_t = Agent's 'performance' in the t^{th} period (which is of length γ)

We further assume that:

$Y(P_t)$ is twice differentiable and is non decreasing and concave (when $P_t > 0$)

bounded above and below with $Y(0) = 0, \lim_{P_t \rightarrow 0} Y(P_t) = -K < 0$ and $\lim_{P_t \rightarrow 0} Y'(P_t) > 0$

$$Y'(P_t) > 0$$

i.e. if a Principal does not give an Agent work the Principal will get no revenue from employing the Agent but if an employee is used fixed costs are incurred of $K > 0$. If we assume that output is then 'sold' at the end of each period g and since Y is measured over time, then the marginal revenue product of employing an additional worker for the t^{th} period (of length γ) is:

⁴¹ based on the MacLeod & Malcolmson model (1985) which took account of adverse selection

⁴² see MacLeod & Malcolmson (1985) for proof of a minimum contract length

$$\gamma Y(P_t)$$

If the worker is paid a wage:

$$\gamma W_t$$

then the present discounted value of the Principal's profit from employing an extra worker (from period T onwards) is

$$\pi^T = \sum_{t=T}^{\infty} \gamma [Y(P_t) - W_t] \beta^{t+1}$$

and $\beta \leq 1$

where β is the Principal's discount factor and exponent is $t+1$ since payments are made at the end of the period. However, an Agent's performance depends not only on effort, but also ability, and ability is denoted by θ

where:

$$\theta \in (\theta^-, \theta^+)$$

and assuming the density function for θ is positive for all $\theta \in (\theta^-, \theta^+)$. We also assume that θ is known to the Agent but not to the Principal at the time of 'hiring'

This means the Agent's utility is a function of:

- income
- performance
- ability

N.B. we assume the probability of leaving the labour force is constant over time (for simplicity) and so is part of the constant rate of time preference, $\rho > 0$

so an Agent with ability $\theta \in (\theta^-, \theta^+)$ will have a lifetime expected utility from period T of:

$$V^T = \sum_{t=T}^{\infty} \gamma U(W_t, P_t, \theta) \gamma^{t+1}$$

where:

$\gamma = \exp(-\gamma\rho) < 1$ is the time preference factor

and $U(W_t, P_t, \theta) = U(W_t) - V(P_t, \theta)$

We further assume that:

- $U(W_t)$ is increasing, twice continuously differentiable, concave and normalised with

$$U(0) = 0$$

- $V(P_t, 1)$ is twice continuously differentiable, convex in P_t for given θ with $V(0, \theta) =$

$$0$$

$$\lim_{P_t \rightarrow \infty} V(.) = \infty$$

$$V_P(0, \theta) = 0$$

$$V_P(.) > 0$$

$$V_\theta(.) < 0$$

$$V_{P\theta} < 0$$

for $P_t > 0$, all $\theta \in (\theta^-, \theta^+)$

Note that $U(W_t, P_t, \theta)$ is measured at an average rate per unit of time of the period g and discounted to the end of the period⁴³.

Also $U^0 \geq 0$ is the default utility per period of time if an Agent is not employed

and Principals are assumed to know the utility function for each type. Therefore, if there was no moral hazard (i.e. performance is known) then we could use a piece rate contract $W_t = Y(P_t) - c$

where c is a lump sum transfer so that Agents with ability θ would choose the efficient performance level $P^*(\theta)$ where

$$P^*(\theta) = \operatorname{argmax}_{P_t \geq 0} \{U[Y(P_t), P_t, \theta]\}$$

who would receive the amount

$$W^*(\theta) = Y[P^*(\theta)] - c$$

⁴³ see MacLeod & Malcolmson (1985 b) for proof

Equilibrium Hierarchy

If the Principal knows the utility function for each θ and the contracts offered, then he/she can also draw conclusions about each Agent's abilities by observing their performances. Should an Agent be employed for long enough, the Principal will eventually discover the Agent's exact ability (or narrow the range to the lowest possible). We shall now consider the equilibrium structure that must exist under a system of termination contracts, when we reach the point where the Agent's ability has been deduced.

A termination contract is here defined as a wage-performance pair (w, p)

where:

w = wage (independent of performance)

p = performance below which an Agent is dismissed

let:

R = number of limiting wage-performance pairs (for different θ). These are called

ranks and rank 0 is the unemployed with $p^0 = 0$ and $w^0 = U^{-1}(U_0)$, while rank 1

is the lowest performance level.

Therefore, the wage-performance pair associated with rank r are shown by (w^r, p^r)

where $p^r > p^{r-1}$ for all $r=1, \dots, R$ and since we have proved already from

$$V^T = \sum_{t=T}^{\infty} \gamma^t U(W_t, P_t, \theta)$$

leading to:

$$P^*(\theta) = \operatorname{argmax} \{U[Y(P_t), P_t, \theta]\}$$

$$P_t \geq 0$$

and:

$$W^*(\theta) = Y [P^*(\theta)] - c$$

we know that $P^*(\theta)$ and $W^*(\theta)$ are increasing with θ , so we expect that $w^r > w^{r-1}$ and employees with higher ability will be assigned to higher ranks.

This means we can define θ^r so that employees with ability $\theta \in (\theta^r, \theta^{r+1})$ are assigned to rank r in the limit.

Also let $\theta^0 = \theta^-$ and $\theta^{R+1} = \theta^+$

This means that we have a hierarchy of ranks shown by

$$H = [(w^r, p^r, \theta^r) \mid r=1, \dots, R]$$

where (w^r, p^r) is the termination contract for Agents with ability $\theta \in (\theta^r, \theta^{r+1})$

For the termination contract for rank r to be the equilibrium contract it must provide the Principal with the incentive to continue to employ the Agent providing his/her performance is at the level p^r or higher and that the Agent will perform at p^r as long as the Principal will pay w^r .

$$\therefore w^r \leq Y(p^r) \text{ [for the Principal]}$$

since

if $w^r \geq Y(p^r)$ the Principal's π would be increased by sacking the Agent and the Principal must pay w^r , regardless of effort under a termination contract to avoid moral hazard and:

$$\gamma U(w^r, p^r, \theta)/(1-\delta) \geq \gamma U(w^r) + \delta \gamma V^r(\theta) \quad \text{[for the Agent]}$$

where:

$\gamma V^r(\theta)$ is the remaining lifetime expected utility of an employee of type θ in rank r who is dismissed, so that the left hand side of the previous equation above is the remaining lifetime expected utility, discounted to the end of the current period, of an

Agent who is performing at a level p^r and receiving w^r for the rest of his/her working life. The right hand side is the remaining lifetime expected utility discounted to the end of the current period of doing no work ($p=0$) but still being paid w until the termination of the contract.

It is this last equation that shows how reputation can affect the market. If there were to be no reputation effects and no costs involved in switching jobs the equation;

$$\gamma U(w^r, p^r, \theta) / (1 - \delta) \geq \gamma U(w^r) + \delta \gamma V^r(\theta)$$

would not be satisfied unless there was involuntary unemployment in existence since;

$$V^r(\theta) \geq U(w^r, p^r, \theta) / (1 - \delta)$$

as shown by Shapiro & Stiglitz (1984); that is to say that an offer an employee would accept would also encourage shirking, but with adverse selection, the termination of the contract would provide an indication to prospective employers of the Agent's ability and so dismissal may involve a cost to the Agent in terms of lost reputation.

To formally outline how reputation can affect the model is difficult, since the model has no random variables, so that in equilibrium, no one would be dismissed; this means that we must make our outline away from the equilibrium path.

We shall assume an Agent in rank r with ability $\theta \in (\theta^r, \theta^{r+1})$. We then assume that a Principal can only observe performance with error (so that even in equilibrium there is still a chance of an employee being dismissed due to bad luck, or being classed in too high a rank and failing to achieve adequate performance).

\therefore potential employers will believe that an employee dismissed from rank r by another Principal will have the ability:

$$\theta \in (\theta^{r-1}, \theta^r)$$

and would place such an Agent in rank $r-1$. We would expect such an Agent to stay in this rank thereafter. This means that the default utility of an employee dismissed from

rank r is:

$$V^r(\theta) = U(w^{r-1}, p^{r-1}, \theta) / (1 - \delta)$$

For the hierarchy to be an equilibrium, it must satisfy not only the incentive compatibility conditions already outlined earlier in the chapter, but must also not allow the Principal to make a π by offering additional contracts or a different ranking system.

So given that:

U^0 = utility of unemployment and:

$$W^0 = U^{-1}(U^0)$$

The equilibrium hierarchy is that set of ranks:

$$\{w^r, p^r, \theta^r\}_{r=1}^R$$

ordered with $p^{r+1} > p^r, r = 0, 1, \dots, R-1$

such that $w^r \leq Y(p^r)$ and:

$$U(w^r, p^r, \theta) / (1 - \delta) \geq \gamma U(w^{r-1}, p^{r-1}, \theta) / (1 - \delta) \text{ for } \theta \in (\theta^r, \theta^{r+1}), r=1, 2, \dots, R-1$$

and $\theta \in (\theta^R, \theta^+)$ for $r=R$

Also if there is a rank $r=0, 1, \dots, R$, a $\theta \in (\theta^r, \theta^{r+1})$ or $\theta \in (\theta^R, \theta^+)$ if $r=R$ and a contract (w, p) satisfying $w \leq Y(p)$ then:

$$U(w, p, q) / (1 - \delta) \geq U(w) + \gamma U(w^r, p^r, \theta) / (1 - \delta) \text{ and:}$$

$$U(w, p, q) \leq U(w^r, p^r, \theta)$$

Then to ensure a non trivial equilibrium hierarchy we must satisfy the following inequality:

$$\max_{p \geq 0} (U[Y(p)] - V(p, \theta^-) / \delta) < U^0 < \max_{p \geq 0} \{U[Y(p)] - V(p, \theta^+) / \delta\}$$

$p \geq 0$

$p \geq 0$

The unique hierarchy exists such that:

$$H^* = \{w^r, p^r, \theta^r\}_{r=1}^R$$

This H^* satisfies (for $r=1, 2, \dots, R$);

$$W^r = Y(p^r)$$

and:

$$U[Y(p^r)] - V(p^r, \theta^r)/\delta = \begin{cases} U_0, & \text{for } r=1 \end{cases}$$

$$U[Y(p^{r-1})] - V(p^{r-1}, \theta^r) \text{ for } r=2, \dots, R$$

and:

$$p^r = \operatorname{argmax}_{p \geq 0} \{U[Y(p)] - V(p, \theta^r)/\delta\}$$

$$p \geq 0$$

if we now let:

$$X(p) = U[Y(p)]$$

and let

$$p^0(\theta) = \operatorname{argmax}_{p \geq 0} [X(p) - V(p, \theta)/\delta]$$

$$p \geq 0$$

we know from our earlier assumptions that this is twice differentiable and concave in

p . as p tends to 0 it has a positive slope and as p tends to ∞ it has a limit of $-\infty$ for all

$\theta \in (\theta^-, \theta^+) \therefore p^0$ is unique, finite and differentiable for all θ

We can use $p^0(\theta)$ to define the function:

$$X(\theta^1, \theta^2) = X[p^0(\theta^1)] - V[p^0(\theta^1), \theta^2]/\delta$$

and it follows that:

$$\delta X(\theta^1, \theta^1)/\delta \theta^1 = 0 \text{ for } \theta^1 \in (\theta^-, \theta^+)$$

$$\delta X(\theta^1, \theta^2)/\delta \theta^2 > 0 \text{ for } \theta^1, \theta^2 \in (\theta^-, \theta^+)$$

and $X(\theta^-, \theta^-) < V^0 < X(\theta^+, \theta^+)$

∴ there must be a unique θ^1 which satisfies the condition;

$$X(\theta^1, \theta^1) = U^0$$

which means we can uniquely define rank 1 by:

$$\{w^1, p^1, \theta^1\} = \{Y[p^0(\theta^1)], p^0(\theta^1), \theta^1\}$$

and $X(p^1) - V(p^1, q^1)/d \geq U^0$ ⁴⁴.

This has shown that the combination of moral hazard and adverse selection in a competitive market leads to a hierarchical wage structure.

Promotion

So far we have only considered the equilibrium hierarchy, in which Agents have been employed for long enough for their ability to have been judged and have, therefore, been allocated to the appropriate rank.

Problems arise initially because the Agents ability is unknown to the Principal and so he/she cannot place them in the correct rank and the employees cannot choose a rank because they would select the highest paid rank.

This means that some form of selection process is needed to overcome these problems. The simplest form requires that all newly hired agents start off in rank 1 (the lowest).

These Agents will be employed as long as they perform at the level p^1 or above. They will receive a wage of w^\dagger (which need not be the same as w^1 , which is the wage paid at rank 1 in the equilibrium hierarchy). Agents can only achieve the appropriate rank by being promoted through the ranks. The promotion structure should mean that any employee in rank 1 who performs sufficiently well will be promoted to rank 2 next period, and so on. Agents can only be promoted by one rank at a time and those who

⁴⁴ see MacLeod & Malcolmson (1985 b) pp 20-22 for proof that each solution is unique

are not promoted at the end of a period will never be promoted in the future. The wage will be w^r for any employee in rank r , although, as already stated above, initially, the Agent will be paid w^1 which is not always equal to w^1 .

The structure must follow such a form because of the incentives and penalties that are part of the hierarchy.

Any employees in rank r who will not be promoted above that rank will not perform at a level above p^r . Since they are paid w^r , which, as we have already shown, is equal to $Y(p^r)$ then the Principal will make zero profit (this is true of any Agent at their equilibrium point within the hierarchy).

If the employee performs at a level above p^r then he/she will be promoted to level $r+1$. The Principal will only promote by one rank at a time, since this is how he/she makes a profit from the Agent. Agents can ensure that the promotion process is observed by either working at the minimum performance level for their rank, ensuring that the Principal get no profit from them, or alternatively, leaving voluntarily to work for others (this does not harm their reputation)⁴⁵

⁴⁵ see MacLeod & Malcolmson (1985 b) for mathematical proof of the correct structures operation

APPENDIX C
OPTIMAL CONTRACT DESIGN

Algebraic notation⁴⁶

- **Fixed price contract**

T = Principals payment

b = Agents bid

$$\therefore T = b$$

- **Cost plus contract**

c = Agent's costs (including opportunity costs)

θ = Profit rate

$$\therefore T = c + \theta b \quad \text{or} \quad T = (1+\theta)c$$

The Left hand equation is called a “cost plus fixed fee” contract in which the Agent's profit is not related to costs. The right hand equation is a “cost plus percentage fee” contract where the Agent's profits increase with costs.

N.B. The difference between the two is largely immaterial for the purposes of this discussion, since I shall prove that no cost plus contract is optimal from the Principal's point of view.

- **Incentive contracts**

α = cost share parameter

$$T = b + \alpha (c-b)$$

N.B. if $\alpha = 0$ the contract is essentially fixed price and if $\alpha = 1$ the contract becomes cost plus.

It follows from this that the Principal must design a contract that will deal with the problems of adverse selection (the Principal is not as well informed as the Agent about costs), moral hazard (the difficulty of monitoring the selected Agent's effort) and possibly risk aversion.

As the above has shown, the forms of contract are a linear function of either costs

⁴⁶ based on McAfee & McMillan (1986a)

and/or bid.

If we assume that there are n Agents ($n > 1$) and that Agent i is chosen, his/her cost function will be as shown below:

$$c_i = c_i^* + W - \epsilon$$

where:

c_i^* = Agent's expected cost (including opportunity cost), that is to show his/her efficiency in the task.

W = random factor, this represents unforeseen changes, such as an increase in input costs.

ϵ = extent of cost reduction due to Agent's efforts.

We then assume that the value of c_i^* is known only to the Agent, not to the Principal or other Agents.

Let:

c_i^* be part of a distribution $G(c_i^*)$

$$g = G^1$$

c_i = lowest possible cost

c_L = highest possible cost

and assume $c_L > c_i$

All Agents face the same distribution of random costs shown by $F(W)$

Let:

$$f = F^1$$

and assume that the expected value of W is zero.

Let:

$h(\epsilon)$ = cost of cost reduction

We assume that these costs cannot be charged to the project being tendered for otherwise they would be part of c_i^*

Further assume that:

$h'' < 0$ *i.e.* decreasing returns

If we assume that the Principal is risk neutral, then we would expect him/her to design a contract that will minimise the cost to himself/herself (*i.e.* payment to the Agent)

Let:

P = size of payment

b = Agent's bid

c = cost

γ = a fixed sum payment

$$P = \alpha c + \beta b + \gamma$$

If $\alpha = 0$ and $\beta = 1$ and $\gamma = 0$ then the contract is fixed price.

If $\alpha = 1$ and $\beta = 0$ then the contract is cost plus and γ represents profit.

If $0 < \alpha < 1$ and $\beta = 1 - \alpha$ and $\gamma = 0$ then the contract is an incentive contract.

The cost share parameter, α , is the most important from the Principal's viewpoint. If $\alpha < 1$ then the Agent will have to cover some of the costs, therefore the higher the costs the Agent expects, the higher the bid he/she will put in. This means that the bids reveal relative costs and so the principal can select the most efficient Agent simply by choosing the lowest bid. If $\alpha = 1$ the Agent with high costs need not bid lower than the Agent with low costs and so for any case with more than two bidders, a cost plus contract cannot be optimal since the principal is most unlikely to select the Agent with the lowest costs (in fact the probability is $1 - (n-1)/n$).

The parameter γ will, even if set at a positive value, result in the same end payment (providing there are two or more bidders) since it will allow Agents to reduce their

bids by an amount equal to γ . The same reasoning applies to the parameter β (as long as β is positive).

This allows us to set $\gamma = 0$ and $\beta = (1 - \alpha)$

therefore:

$$P = b + \alpha(c - b)$$

We must now calculate the Agent's utility maximising choice of b and ϵ because the principal will consider this in choosing the optimal contract that will minimise his/her payment.

We assume the agents may be risk averse, and, have identical utility functions.

Let U = utility function

Assume that Agent i , if selected, will select the level of effort (ϵ) that will maximise the expected utility of profit ($EU\pi_i$) is taken over W .

Profit can be shown as:

$$\pi_i = \alpha c_i + (1 - \alpha)b_i - c_i - h(\epsilon_i)$$

Let:

$$K_i = (1 - \alpha)\epsilon_i - h(\epsilon_i)$$

$$\pi_i = (1 - \alpha)(b_i - c_i^* - W) + K_i$$

The Agent does not select the level of ϵ until he/she has won the contract. It will be chosen to satisfy the condition;

$$0 = EU^1(\pi_i)(1 - \alpha - h^1(\epsilon_i))$$

from which we can derive

$$\epsilon_i = h^1 \text{ minus } 1(1 - \alpha)$$

so from this analysis we can see that the Principal's choice of the cost share parameter value (α) will determine the Agent's choice of effort in cost reduction. We can also

discover that the higher the value of α , the lower the level of effort (the moral hazard effect); this can be traded off to some extent by the bidding competition effect which suggests that the higher the value of α , the greater the amount of bidding competition induced (since Agent's costs matter less in selecting a bid value) and so the lower the Principals payment.

The potential Agents choose their bids

B = bid function

We assume that all Agents other than i follow the bid strategy:

$$b_j = B(c_j^*)$$

We assume that Agent i bids:

$$b_i = B(c_i^*)$$

This gives us a Nash equilibrium (each Agent is doing his/her best given everyone else's actions).

If we assume that B is strictly monotonic then the probability that Agent i bids the lowest and wins the contract is given by:

$$[1 - G(B^{-1}(b_i))]^{n-1}$$

\therefore Agent i 's *ex ante* expected utility of profits is

$$EAU = [EU((1 - \alpha)(b_i - c_i^* - W) + K_i(\alpha))] [1 - G(B^{-1}(b_i))]^{n-1} \quad \text{EQN 1}$$

where

$$K_i(\alpha) = (1 - \alpha)h^{1-\alpha} - h^{1-\alpha}(1 - \alpha) - h^{1-\alpha}(1 - \alpha)$$

Agent i must select the bid b_i that will maximise expected utility (which if B is a Nash equilibrium bidding strategy is $b_i = B(c_i^*)$)

If we then substitute this into the first order condition derived from equation 1 we get

$$(1 - \alpha)EU^1 B^1(c_i^*) = (n - 1)g(c_i^*) \quad \text{for } i = 1..n \quad \text{EQN 2}$$

$$EU \quad 1 - G(c_i^*)$$

N.B. EU^1 is the expected value of U^1 over W

The model then assumes constant absolute risk aversion

$$U(x) = (1 - e^{-\lambda x})/\lambda \quad \text{for some } \lambda \geq 0$$

this allows equation 2 to be solved. It also means that the Agent's maximum expected profit is

$$E\pi_i(c_i^*) = -1/\lambda [\log(n-1) - (n-1)\log(1-G(c_i^*)) - \log \int_{-\infty}^{\infty} e^{\lambda(1-\alpha)W} f(W) dW + \int_{c_i^*}^{\infty} e^{-\lambda(1-\alpha)(c-c_i^*)}(1-G(c))^{n-2}g(c) dc]$$

dc]

And if the expected utility is:

$$EU(c_i^*) = [1-G(c_i^*)]^{-(n-1)} e^{\lambda(1-\alpha)c_i^*} (1-\alpha) \int_{c_i^*}^{\infty} [1-G(c)]^{n-1} e^{-\lambda(1-\alpha)c} dc^{47}$$

The Principal will consider each potential Agent's response when designing a contract that will minimise his/her expected payment (in effect selecting the optimal value of the cost share parameter α).

If the cost of the Agent with the lowest bid is c^* then the Principal's expected payment function will look like:

$$T(c^*) = e((1 - \alpha)B(c^*) + \alpha c)$$

\therefore total payment will, on average, be:

$$\tau = n \int_{c^*}^{\infty} T(c^*) [1-G(c^*)]^{n-1} g(c^*) dc^*$$

If the potential Agents are risk averse then the Principal can minimise his total payments by selecting a value of α that will satisfy

⁴⁷ for proof see Appendix McMillan & McAfee (1986 a)

$$0 = \alpha - \int_{-\infty}^{\infty} W e^{\lambda(1-\alpha)W} f(W) dW -$$

$$\frac{h11(h1 \text{ minus } 1(1-\alpha))}{\int_{-\infty}^{\infty} e^{\lambda(1-\alpha)W} f(W) dW}$$

$$c^* \int_{ch} e^{-\lambda(1-\alpha)(c-c^*)} [1-G(c)]^{n-2} g(c) dc$$

$$n \int_{ci}^{ch} \frac{1}{[1-G(c^*)]^{n-1} g(c^*)} dc^* \text{ EQN 3}$$

$$c^* \int_{ch} e^{-\lambda(1-\alpha)(c-c^*)} [1-G(c)]^{n-2} g(c) dc$$

If the potential Agents are risk neutral, then the value of α chosen must satisfy

$$0 = \alpha - \frac{h11(h1 \text{ minus } 1(1-\alpha))}{\int_{-\infty}^{\infty} e^{\lambda(1-\alpha)W} f(W) dW} - n \int_{ci}^{ch} c^* \int_{ch} [1-G(c)]^{n-1} dc G(c^*) dc^*_{48}$$

What we can see from this, is that the three terms in equation 3 that determine the optimal value of α do, in fact, demonstrate the three effects of α on the Agent, which we have mentioned earlier.

- **The risk sharing effect**

The greater the risk the principal imposes on a risk averse Agent, the higher the profits the Agent must be allowed to earn, or they will not accept the contract. Under an incentive contract, the larger the value of α , the lower the Principal's payment (since he/she is taking risk from the Agent). This will reinforce the second effect; the bidding competition effect.

- **The bidding competition effect**

The higher the value of α under an incentive contract, the smaller the relationship need be between Agents cost's and their bids and so this will induce greater

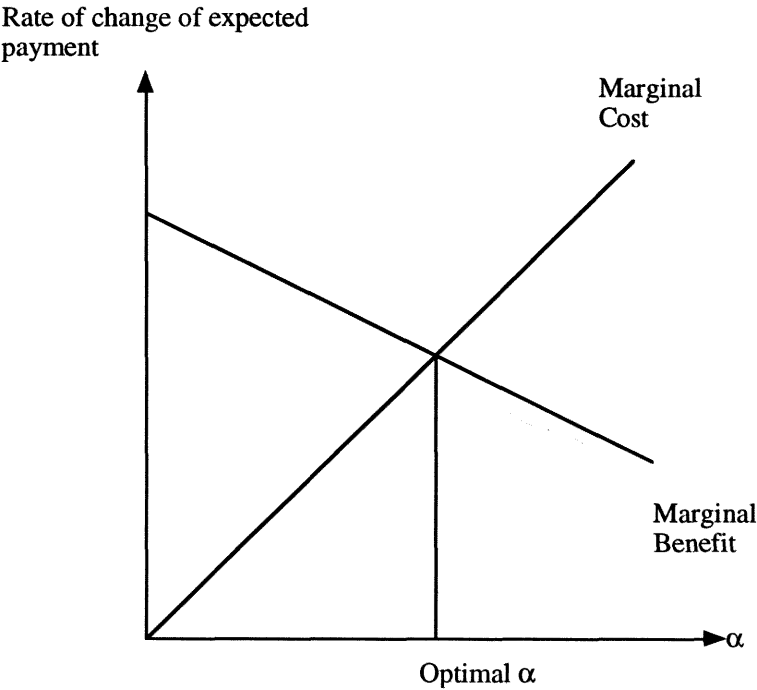
⁴⁸ for proof see McMillan & McAfee (1986 b) p 330

competition for the contract and reduce the amount that the Principal must pay.

• **The moral hazard effect**

In this case, an high value of α will discourage the Agent from indulging in cost reducing activities, since he/she will receive only a very small benefit from it.

Therefore equation 3 simply combines the marginal benefits of the first two effects caused by an increase in α with the marginal cost caused by the 3rd effect. This can be shown graphically:



If the concept of an optimal value of α is to be useful, then equation 3 needs to be simplified for everyday use.

Assume:

$G(c^*)$ is exponential since this means that all Agents can have equal expected profits if

they are awarded the contract:

$$G(c^*) = 1 - e^{-\mu (c^* - c_L)} \quad \text{where } \mu > 0$$

Therefore, the Agents expected profit on being selected is:

$$E\pi = 1/\lambda \log (\psi(1+\lambda(1-\alpha)))$$

$$\mu(n-1)$$

Expected utility is

$$EU = (1-a)$$

$$\lambda(1-\alpha)+(n-1)\mu$$

\therefore expected profit and utility decrease with n, α and μ and expected utility increases with the risk aversion parameter, λ

This means that the Principal can expect his/her payment to be:

$$\tau = (c_i + 1/\mu) + h(h^1 \text{ minus } 1(1-\alpha)) - h^1 \text{ minus } 1(1-\alpha) + 1/\lambda \log \psi + 1/\lambda \log [1+\lambda(1-\alpha)]$$

$$\mu(n-1)$$

\therefore The Principal's expected payment falls, as n (number of bidders) increases but increases with $1/\mu$ (the variance of costs).

If we assume that W is normally distributed with a mean of zero and a variance of σ^2

we can rewrite the second term of equation 3 to look like:

$$\rho(\alpha) = 1(1 - \alpha)\sigma^2$$

A further simplification is to assume that function h is quadratic:

$$\text{Let } h^1 = h_0$$

It follows from:

$$c_i = c_i^* + W - \varepsilon$$

and $\varepsilon_i = h^1 \text{ minus } 1(1-\alpha)$.

The difference between expected cost, under a fixed price contract and that under a cost plus project, is $1/h_0$

$\therefore h_0$ measures the moral hazard effect

By making these assumptions equation 3 has now become:

$$0 = \alpha/h_0 - 1(1-\alpha)\sigma^2 - 1/\lambda(1-\alpha)+\mu(n-1)$$

APPENDIX D
**NATIONAL MAP OF U.K. REGIONAL
AND DISTRICT HEALTH AUTHORITIES**

COMPILED IN CONSULTATION WITH HEALTH AUTHORITIES



Notes:

Figure 1. The effect of the concentration of the *Agrobacterium* suspension on the transformation efficiency of *Agrobacterium* strains.

[illegible]

Supplement 11: vehicle details used for different statistical analyses to create a base of reference records.

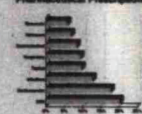
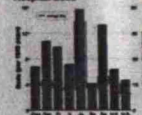
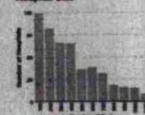
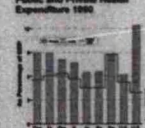
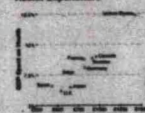
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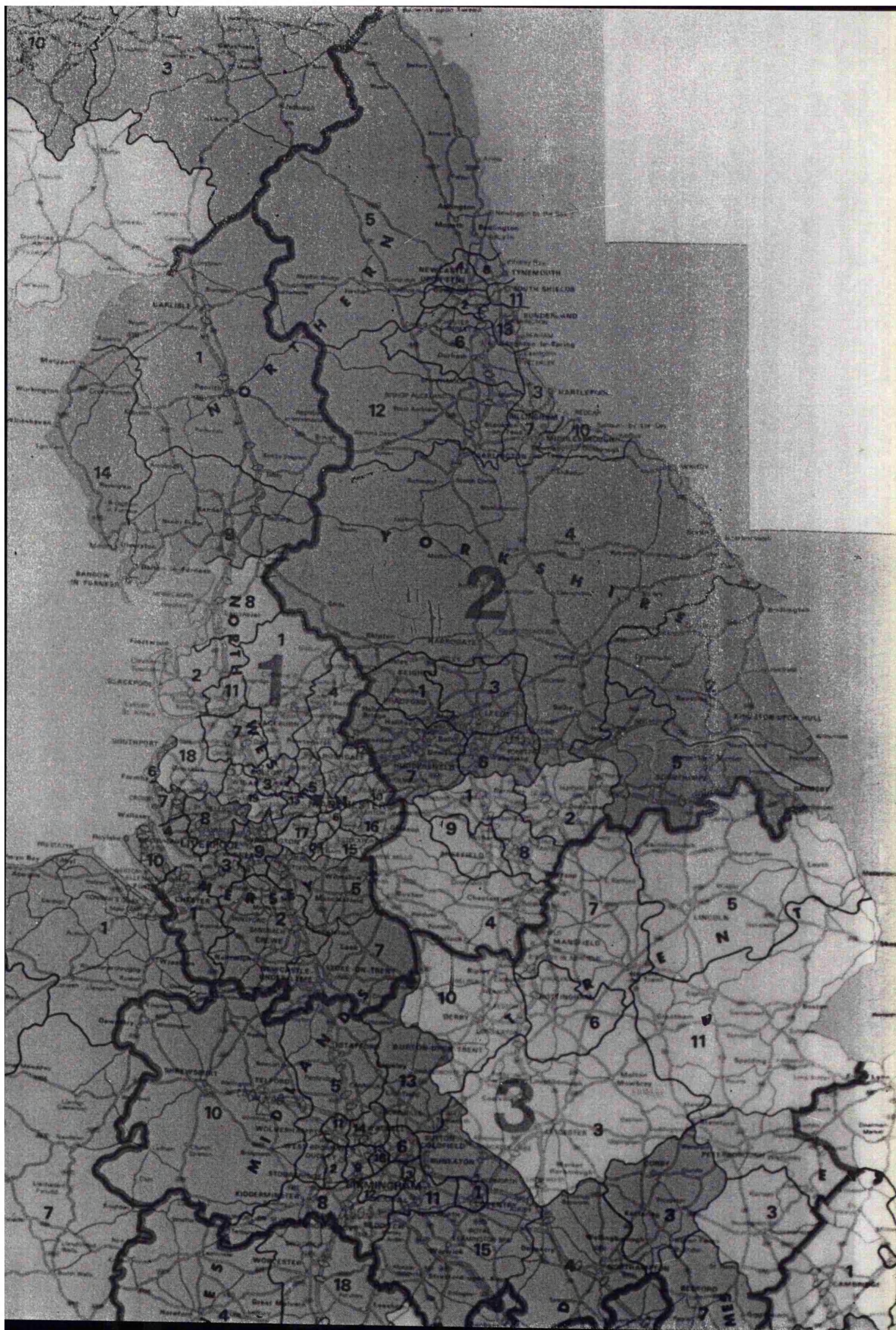
1 North West 4 North Thompson Angle
 2 North East 5 South and West
 3 Central 6 South East

20 10 0 10 20 20 kilometers
 10 0 10 20 miles



APPENDIX E

**MAP TO SHOW NORTH WESTERN REGIONAL HEALTH AUTHORITY
AND SURROUNDING AREAS**



APPENDIX F
GENERAL CONTRACT BASIC

*General basic form
which a specific agreement
is derived.*

GENERAL PRACTITIONER FUNDHOLDER MANAGEMENT AGREEMENT - 1993/94

1 PURPOSE

To specify arrangements between the GP Fundholding(GPFH) Practice and the Trust for the provision of services.

2 SERVICE SUMMARY

The Trust will continue to provide services to patients of the GPFH practice who are presently waiting for consultation/treatment, and receive new referrals and requests for direct access to specified laboratory, radiology and therapeutic services. The GPFH Practice accepts that they will be required to pay for certain of these items of services.

The following items of service will be charged to the GPFH Practice:-

all outpatient clinic attendances (see schedule 1), excluding:

- a) GUM clinic referrals;
- b) antenatal and postnatal clinic attendances;
- c) self referrals, and referrals made directly to Clinical Medical Officers;
- d) DNAs;
- e) A&E attendances;
- f) non-consultant led outpatient clinic attendances;
- g) oral medicine, restorative dentistry, paediatric Dentistry and orthodontic attendances.

all chargeable procedures (see schedule 1), excluding:

- a) non-elective admissions;

direct access to laboratory and radiology and therapy services excluding;

- a) the cost of hearing aids.

The GPFH Practice will be invoiced for any chargeable item of service provided to patients presently on the waiting list, and who are treated after 1st April 1993.

Where a patient changes their GP during a course of treatment, the GPFH Practice will be responsible for payment until three months after the patient has left the practice.

Where a patient has episodes of inpatient treatment not chargeable to the fund, but requires outpatient treatment on a regular basis, all subsequent outpatient attendances will be chargeable to the GPFH Practice. The GPFH Practice will be charged for each outpatient attendance following episodes of inpatient treatment that are chargeable to the fund.

3 PERIOD

This agreement will operate from 1st April 1993 to 31st March 1994.

4 VOLUMES AND PRICES

The Trust will maintain services at price levels which are fixed for the period 1993/94 (see schedule 1), subject to variations set out in section 12. In turn, the GPFH Practice will make the necessary arrangements to reimburse the Trust for services at the price quoted.

5 TYPE OF CONTRACT

Inpatient/Day case

Cost per case/item of service
Block

Outpatients

Cost per case/item of service
Block

Cost and Volume contracts can be negotiated either for total services or certain procedures which would create a cost benefit for the GPFH Practice.

6 PAYMENT TERMS

The GPFH Practice will arrange for payments to be made upon receipt of a satisfactory invoice for items of service.

- invoices and claims for payment will be raised once a month but will not be sent to the GPFH Practice until at least 10 working days after the end of that month.
- all claims for payment will quote contract numbers.
- the GPFH Practice will authorise payment within 3 weeks of receipt of an invoice.
- queries must be brought to the attention of the Trust before the agreed settlement date.
- invoices should be paid in part if certain items of service are still under query by the agreed settlement date.

7 INFORMATION

The Trust will make available to the GPFH Practice, the necessary information for the operation of the contract. This will include:

Prior to the first attendance: the date of the appointment. Any subsequent change to these arrangements will be made known to the GPFH Practice;

After the first attendance: details of the outcome of the attendance including proposed future management of the patient.
Where patients attend for private outpatient appointments and are

subsequently listed for treatment under the NHS, the Trust undertakes to notify the GPFH Practice prior to admission;

After discharge: details of the outcome of admission will be included in the discharge letter.

Quarterly: waiting list census information by specialty and waiting lists events data.

8 QUALITY AND PERFORMANCE MEASURES

The Trust will develop programmes to improve the quality of care, outcomes, access and administration for patients in consultation with the Progress will be monitored by the and where appropriate corrective action will be agreed.

9 STATUTORY AND CLINICAL REQUIREMENTS

The Trust agrees to abide by all the relevant statutory/legal regulations currently in force. In the event of the Trust being unable to meet any such regulations it will discuss and agree remedial action with the and this will be notified to the GPFH Practice.

10 SUB CONTRACTING

In cases where the Trust needs to obtain services outside the terms specified in the Management Agreement, it will consult the GPFH Practice.

11 REFERRALS

All referral letters from GPFHs to the Trust should contain the following data:

- i) Consultant and/or Department and/or clinic referred to
- ii) Referring Doctors name and code (and registered doctors name and code where different).
- iii) Partners code if a locum refers.
- iv) Practice address and postcode.
- v) Code of GPFH Partnership.
- vi) Practice telephone number.
- vii) Patients name.
- viii) Patients NHS number.
- ix) Patients address and postcode.
- x) Patients date of birth (in preference to age).
- xi) Patients Sex.
- xii) Indication if the patient is a temporary resident or an overseas visitor.
- xiii) Date of referral.
- xiv) Contract Identifier(see schedule 4).

12 VARIATION

The GPFH Practice and Trust agree to inform each other of any situation which could materially affect the provision of services or the operation of this Management Agreement, including those of funding, statutory regulations, staffing, service provision and clinical treatment. Both parties will discuss and jointly agree any appropriate corrective action.

13 ARBITRATION

Both parties agree to implement this agreement and abide by its terms and conditions. It will be the aim of both parties to work together to resolve difficulties and define solutions to problems which arise. In those cases where agreement cannot be reached it will be the right of either party to request binding arbitration under the direction of the Secretary of State.

14 MANAGEMENT AGREEMENT

I/we hereby agree to abide by the above Management Agreement.

SIGNATURE ON BEHALF OF THE TRUST

NAME _____

TITLE _____

SIGNATURE _____

DATE _____

SIGNATURES ON BEHALF OF THE PRACTICE. NB: ALL PARTNERS MUST SIGN

NAME	SIGNATURE	DATE
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____

OTHER REPRESENTATIVES OF THE PRACTICE, WHO MAY REFER PATIENTS ON THEIR BEHALF

NAME	SIGNATURE	DATE
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____

APPENDIX G
A CONTRACT

Name

TRUST

Contract for the Provision of Services to Patients from

← Name of Practice

i PARTIES

Purchaser: Nam
Provider: Nam

ii CONTACT NAMES

Purchaser: , Business Manager
Provider: , Director of Business Development

iii PERIOD

This agreement will operate from 1st April 1993 to 31st March 1994.

iv SERVICES TO BE COVERED

All Inpatients/Day Cases and Outpatients seen and treated during the period, Direct Access services, Radiology, Pathology and Domiciliary Visits. (ie the contract does not cover patients referred at the end of the period but not seen or treated until after 31st March 1994)

v TYPE OF CONTRACT/CONTRACT VALUE

The Contract will be managed in two parts, the first part will be a cost and volume contract managed to a cash limit of £353,883. Indicative specialty costs and activity levels are detailed below. Each treatment and outpatient attendance will accrue a cost against the cash limit per the providers tariff, which is attached (appendix A). The Direct Access Services are fixed prices.

On the presentation of a monthly invoice by the Provider the Purchaser will pay 1/12th of the cash limit each month, ie £29,490.

PART 1 - COST AND VOLUME CONTRACT

SPECIALTY	£	ACTIVITY (FCEs)
-----------	---	-----------------

Inpatients

ENT	9,423	11
Thoracic/Cardiovascular	10,486	5
General Surgery	51,530	39
Urology	15,941	24
Gynaecology	12,766	15
Trauma & Orthopaedics	2,974	7
Ophthalmology	32,489	39
TOTAL	135,609	140

Day Cases

Thoracic/Cardiovascular	593	2
General Surgery	9,029	31
Urology	3,433	13
Gynaecology	13,108	36
Orthopaedics	597	2
Ophthalmology	8,903	11
TOTAL	35,663	95

Outpatients	147,000	3666(appts)
-------------	---------	-------------

Direct Access

Physiotherapy	3,956
Chiropody	1,655
Dietetics	7,228
Clinical Psychology	1,573

Radiology	1,976
ECG	79
Pathology	17,000
Domiciliary Visits	2,146

GRAND TOTAL	353,883
-------------	---------

PART 2 - COST PER ITEM CONTRACT

The second part of the Contract will be managed on a cost per item basis in accordance with the prices detailed below. Estimated activity against this part of the Contract is also shown. The Purchaser will pay the Provider on the presentation of individual FCE per item invoices.

SPECIALTY	STATUS	£	ACTIVITY (estimate)
Ophthalmology	Inpatient	650	1
	Day Cases	500	10
ENT	Inpatients	400	37
	Day Cases	250	7
*Cardiothoracic	Inpatients (Band A)	400	2
	Inpatients (Band B)	1200	2
	Day Cases	290	2
General Surgery	Inpatients	550	48
	Day Cases	190	80
Urology	Inpatients	400	22
	Day Cases	200	12
Gynaecology	Inpatients	400	21
	Day Cases	260	22
Orthopaedics	Inpatients	1,000	12
	Day Cases	260	8

All Outpatient attendances within this part of the Contract will be charged at:-

New Referrals	£40
Follow-up Attendances	£25

*The procedures included within each Band are detailed in Appendix B. Open Heart Surgery and Angioplasties will be priced per the Tariff in Appendix A.

vi ARRANGEMENTS FOR REFERRING PATIENTS

- Patients on waiting lists at other hospitals will be referred to the Trust if the patients are agreeable.
- The contract will also cover new referrals (ie excluding those identified above), existing referrals made to the Trust prior to April 1993 and patients on existing waiting lists at the Trust.
- Referral details should be sent to the relevant Consultant at The Trust.

vii CONTRACT TERMS

- a) Waiting times for an outpatient assessment will be within one month of the date of the referral letter, except for non urgent Gynaecology referrals which will be seen within two months. Orthopaedic referrals will be seen based on clinical need
- b) Waiting times for inpatient treatment will be within two months of the date of the outpatient assessment, with the exception of the Orthopaedic Specialty.
- c) The Trust will make available to the Practice, the information necessary for operation of the contract. This will include:-
 - i) details of the outcome of all outpatient consultations including the future management of the patient if appropriate
 - ii) details of the outcome of admission
 - iii) details of patients who DNA.

viii ARRANGEMENTS FOR INVOICING

- a) Invoices and Claims for Payment will be submitted to the Practice once a month (see item v)
- b) The Practice will authorise payment within 3 weeks of receipt of the invoice (see item v)
- c) Queries regarding the operation of the contract should be directed, in the first instance, to Senior Contracts Assistant,

ix QUALITY OF CARE

Quality standards have been agreed with our Principal Purchaser who is responsible for monitoring these standards. We the Provider agree to adhere to the terms as laid down in the Purchasers quality document.

x STATUTORY AND CLINICAL REQUIREMENTS

The Trust agrees to abide by all relevant statutory/legal regulation currently in force. In the event of the trust being unable to meet any such regulations it will discuss and agree remedial action with our Principal Purchaser and this will be notified to

xi VARIATION

Trust & *Provider* agree to inform each other of any situation which could affect the operation of the contract, including those of funding, statutory regulations, staffing, service provision and clinical treatment. Both parties will discuss and jointly agree any appropriate action.

CONTRACT ADDENDUM

Parties Contracted:-

and

Period 1.7.93 to 30.6.96

The following additional services will be provided by _____ to the _____

i) Chiropody

One additional staffed Chiropody session will be provided every fortnight for _____
The price includes staff costs, consumables and the provision of Chiropody chair, equipment and other accessories as agreed between the two parties. Cost for 1993/94 £2330

If this element of the contract is terminated before 30th June 1996, _____ will pay to the Trust the following amounts in respect of equipment residual values if the Group does not wish to keep the equipment:-

Chair and Accessories	£300
Other Equipment (see Attached)	£500

The _____ will, however, be offered the chance to purchase the equipment rather than pay the residual amounts, the purchase price will be the total hire charges built in to the overall contract price for the three year period, less payments made up to the termination date. ie:-

Chair and Accessories	£420 pa x 3 years = £1260
Other Equipment (see attached)	£776 pa x 3 years = <u>£2328</u>
<u>Total Hire Charges</u>	<u>£3588</u>

If terminated after 12 months, payment for purchase = £2392
ie, 3588 x 24 remaining months

36

ii) Physiotherapy

An additional six hours per week of Physiotherapy will be provided by _____ for 44 weeks per annum. The costs will include staff time and general consumables. This cost will not include the cost of collars and braces which will be charged at cost by _____ to _____

Contract Cost = £4465 per annum or £101.50 per six hour/week.

Additional to this cost will be the hire of new Ultrasound equipment at £35 per month or £420 per annum.

If the contract is terminated early, there will be no residual value charge made on _____

Signed

Signed

xii CONTRACT

SIGNED ON BEHALF OF THE PURCHASER _____

DESIGNATION _____

DATE _____

SIGNED ON BEHALF OF THE PROVIDER _____

DESIGNATION _____

Director of General Development

DATE _____

APPENDIX H
SAMPLE PRICE LIST

Schedule 1

CENTRAL MANCHESTER HEALTHCARE TRUST

**GP Fundholder
Outpatient, Inpatient and Direct Access Services Prices**

1993/94

**CENTRAL MANCHESTER HEALTHCARE TRUST
GP FUNDHOLDER - OUTPATIENT PRICES**

SPECIALTY	COST PER ATTENDANCE/CONTACT £
Ophthalmology	31
ENT - Audiological Medicine	77
- ENT	31
Cardiothoracic Surgery	99
General Surgery	31
Gynaecology	31
Orthopaedics	34
Urology	38
Oral Surgery	51
Restorative Dentistry	51
Paediatric Dentistry	51
Orthodontics	51
Neurosurgery	97
Plastic Surgery	31
Paediatric Surgery	31
Anaesthetics/Pain Relief	31
General Medicine	31
Gastroenterology	31
Endocrinology	31
Haematology	86
Anticoagulant Tests	15
Clinical Genetics	184
Clinical Genetics - Molecular Genetics	184
Clinical Immunology	39
Rehabilitation Medicine	31
Cardiology	99
Dermatology	31
Thoracic Medicine	65
Infectious Diseases	31
Nephrology	65
Neurology	38
Clinical Neurophysiology	38
Rheumatology	31
Paediatrics	31
Geriatrics	31
Dental Medicine	31
Oral Medicine	31
Mental Illness - Psychiatry	110
Child & Adolescent Psychiatry	139
Psychotherapy	55
Psychogeriatrics	110
Physiotherapy	31
Physiotherapy DV	31
Speech Therapy	36
Occupational Therapy	31
Chiropody - Initial	15.04
Chiropody - Follow-up	13.10
Dietetics	35
Audiology Clinics	31
Mental Illness Team	527
Community Psychiatric Nursing	21.72
Clinical Psychology	87.37

CENTRAL MANCHESTER HEALTHCARE TRUST

GP FUNDHOLDER PROCEDURE PRICE LIST

OPHTHALMOLOGY PROCEDURES	INPATIENT PRICE £	DAY CASE PRICE £
Operations for Squint	688	
Chalazion Operation	341	
Pterygium Operation	406	
Operations for Ectropion, Entropion and Ptosis	535	
Operations for Glaucoma	1,319	
Operations for Obstruction of the Nasolacrimal Duct	644	
Extraction of Cataract with or without Intraocular Implant - Single	856	
Extraction of Cataract with or without Intraocular Implant - double	1,100	
Corneal Graft	1,750	
laser Treatment for Vascular Retinopathies	409	

ENT PROCEDURES	INPATIENT PRICE £	DAY CASE PRICE £
Myringotomy	439	388
Insertion of Grommet	439	388
Mastoidectomies	2,412	
Stapedectomy	1,645	
Tympanoplasty	1,697	
Labyrinthectomy	3,189	
Septoplasty	603	
Sub-mucous Resection of Septum	654	
Polypectomy	613	
Ethmoidectomies	1,426	
Turbinectomy	613	
Cautery of Lesion of Nasal Mucosa	358	307
Puncture of Maxillary Antrum with Wash-out	337	
Drainage of Maxillary Sinus	1,461	
Exploration of Frontal Sinus	1,799	
Tonsillectomy	756	
Adenoidectomy	480	
Pharyngoscopy	572	521
Laryngoscopy	787	736
Laryngectomy	4,149	
Block Dissection	3,383	


THORACIC PROCEDURES	INPATIENT PRICE £	DAY CASE PRICE £
Bronchoscopy with or without Biopsy	613	296
Biopsy/Excision of Lesions of Lung or Bronchus	2,708	
Lobectomy/Pneumonectomy	2,075	

CENTRAL MANCHESTER HEALTHCARE TRUST

GP FUNDHOLDER PROCEDURE PRICE LIST (Continued)

THE CARDIOVASCULAR SYSTEM PROCEDURES	INPATIENT PRICE £	DAY CASE PRICE £
Operations for Valvular or Ischaemic Heart Disease	6,592	
Angioplasty	2,450	

GENERAL SURGERY PROCEDURES	INPATIENT PRICE £	DAY CASE PRICE £
Partial Thyroidectomy	1,378	
Total Thyroidectomy	1,632	
Thyroidectomy of Aberrant Thyroid Gland	1,378	
Operation on Salivary Gland & Ducts	1,160	291
Operations on Parathyroid Glands	1,785	
Oesophagoscopy with or without Endoscopic Procedures	1,160	291
Dilation of Oesophagus	1,160	291
Operation on Varices of the Oesophagus	2,601	291
Gastrectomy Partial or Total	4,360	
Vagotomy with or without Other Operative Procedures	2,597	
Endoscopy with or without Endoscopic Procedures	467	291
Laparoscopy with or without Biopsy	525	291
Excision of Lesion of Small Intestine	1,505	
Partial Colectomy	2,952	
Total Colectomy	3,204	
Sigmoidoscopy with or without Biopsy/Polypectomy	794	291
Colonoscopy with or without Biopsy/Polypectomy	794	291
Exteriorisation of Bowel	872	
Repair of Prolapsed Rectum	1,737	
Operations for Anal Fissure and Fistula	978	291
Excision of Rectum	3,249	
Pilonidal Sinus Excision	762	291
Dilation of Anal Sphincter	414	291
Haemorrhoidectomy	719	
Operations of the Gall Bladder	1,406	
Operations on the Bile Ducts	1,406	
Mastectomy	1,596	
Excision/Biopsy of Breast Lesion	579	291
Repair of Inguinal Hernia	827	291
Repair of Femoral Hernia	827	291
Repair of Incisional Hernia	1,473	
Varicose Veins Stripping/Ligation (including injections)	786	291
Surgical Treatment of Ingrowing Toenail	381	291
Excision/Biopsy of Skin or Subcutaneous Tissue	407	291
Lymph Node Excision Biopsy	729	291



CENTRAL MANCHESTER HEALTHCARE TRUST

DIAGNOSTIC TESTS, X-RAYS AND DOMICILIARY VISITS

Prices for Diagnostic Tests, X-rays and Domiciliary Visits are available on request

CENTRAL MANCHESTER HEALTHCARE TRUST

GP FUNDHOLDER PROCEDURE PRICE LIST (Continued)

ORTHOPAEDIC PROCEDURES	INPATIENT PRICE £	DAY CASE PRICE £
Operation of Intervertebral Discs	2,208	
Upper Tibial Osteotomy	1,226	
Therapeutic lumbar Epidural Injection	333	
Total Prosthetic Replacement of Hip Joint	3,014	
Total Prosthetic Replacement of Knee Joint	3,169	
Prosthetic Replacement of Head of Femur	3,014	
Removal of Implanted Substance from Bone	420	
Arthroscopy with or without Other Intra-articular Procedures	485	
Intra-articular injections/aspiration	535	188
Meniscectomy	638	
Osteotomy for Hallus Valgus/Rigidus	420	
Correction of Hammer Toe	340	
Dupuytren's Contracture	645	
Carpal Tunnel Decompression	333	264
Release of Trigger Finger	333	
Intra-articular injections/aspiration	535	188
Meniscectomy	638	
Osteotomy for Hallus Valgus/Rigidus	420	
Correction of Hammer Toe	340	
Dupuytren's Contracture	645	
Carpal Tunnel Decompression	333	264
Excision of Ganglion	333	
Aspiration/Excision of Bursa	333	

CENTRAL MANCHESTER HEALTHCARE TRUST

GP FUNDHOLDER PROCEDURE PRICE LIST (Continued)

UROLOGY PROCEDURES	INPATIENT PRICE £	DAY CASE PRICE £
Cystoscopy with or without destruction of Lesion of Bladder	269	
Dilation of Urethra/Urethrotomy	361	
Urethroplasty	2,126	
Open Repair	2,126	
Prostatectomy Open or TUR	1,189	
Operation on Hydrocele	337	
Orchidopexy	303	
Male Sterilisation	275	194
Circumcision	250	170
Varicocele	250	170
Removal of Ureteric or Renal Calculus	1,966	
Lithotripsy	282	
Nephrectomy	1,866	

GYNAECOLOGY PROCEDURES	INPATIENT PRICE £	DAY CASE PRICE £
Oophorectomy/Salpingo-oophorectomy	1,439	
Ovarian Cystectomy	1,122	
Wedge Resection of Ovary	1,228	
Diagnostic Laparoscopy with or without Biopsy	299	
Female Sterilisation	401	
Patency Tests of Fallopian Tubes	388	
Hysterectomy Abdominal/Vaginal	1,443	
Myomectomy	1,276	
D and C with or without Polypectomy	304	
EUA	281	
Hysteroscopy/Endometrial Resection	308	
Cone Biopsy	507	
Colposcopy with or without Biopsy of Cervix	377	
Anterior or Posterior Repair	1,175	
Vulvectomy/Partial Vulvectomy/Vulval Biopsy	1,046	
Marsupialisation of Bartholin's Cyst/Abscess	328	

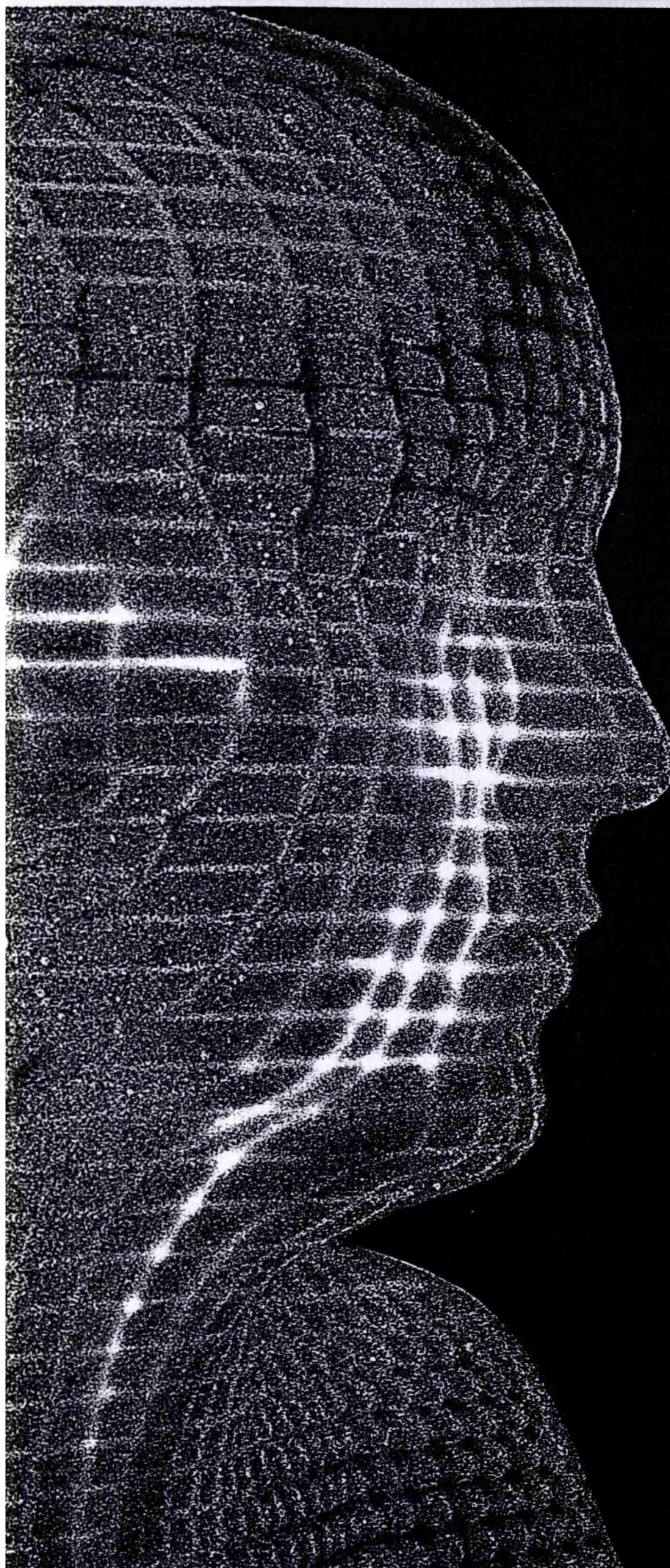


CENTRAL MANCHESTER HEALTHCARE TRUST

DIAGNOSTIC TESTS, X-RAYS AND DOMICILIARY VISITS

Prices for Diagnostic Tests, X-rays and Domiciliary Visits are available on request

APPENDIX I
PROMOTIONAL BROCHURE



*Manchester Central
Hospitals Trust*

**MANCHESTER
ROYAL INFIRMARY
UNIVERSITY DEPARTMENT
OF OTOLARYNGOLOGY
AND HEAD & NECK
SURGERY**



VOICE CLINIC

The Department has been running a specialist Voice Clinic since 1982. This is run by the Laryngologist and Senior Speech Therapist using the latest fiberoptic audiovisual techniques for diagnosis and treatment.

TINNITUS CLINIC

This department has been running a Tinnitus Clinic since 1980. It is run by an Otolaryngologist, an Audiological Scientist and a Hearing Therapist. Full assessment of possible aetiological factors are pursued and a management policy and counselling programme is adopted.

RHINOLOGY CLINIC

Since 1978 there has been a Nasal Allergy Clinic run by an Otolaryngologist with back up services in which a full allergy profile on each patient is performed. This clinic is about to change in character into a combined rhinology, nasal allergy and respiratory clinic which will be run by an Otolaryngologist and Chest Physician with full investigations being carried out, and dealing particularly with sleep apnoea.

AUDIOLOGICAL MEDICINE

Two Consultants in Audiological Medicine undertake clinics within the department as well as at the University Centre for Audiology and Education of the Deaf.

AUDIOMETRY AND HEARING AID PROVISION

Conventional audiometry is carried out by a team of Audiometricians under the supervision of an Audiological Scientist. Hearing aid fitting is supplemented by a counselling service provided by a Hearing Therapist. A direct referral facility to the Audiological Scientist is available for hearing aids.

EVOKED RESPONSE AUDIOMETRY

This facility has been developed over the past fifteen years and considerable experience has been gained in the use of Transtympanic Electrocochleography and the Auditory Brain Stem Response, both in Neuro-otological diagnosis and in threshold estimation. The latter is of great assistance in the evaluation of medico-legal aid and compensation cases, as well as the testing of the very young or handicapped children. The ERA service is run by an Audiological Scientist and Audiological Physician.

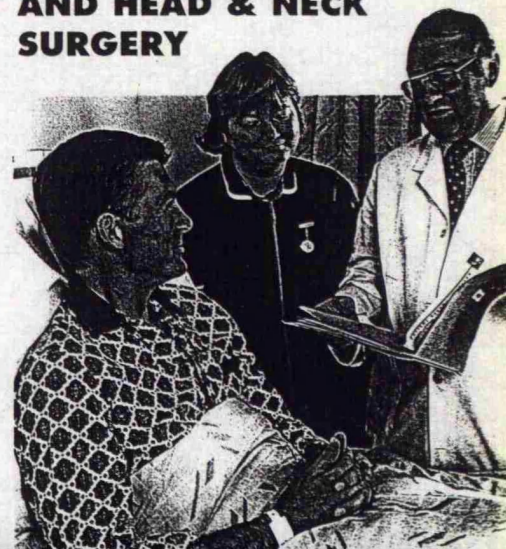
SPEECH THERAPY

In addition to the services described above, the department has a dedicated Speech Therapist.



Manchester Central
Hospitals Trust

MANCHESTER ROYAL INFIRMARY UNIVERSITY DEPARTMENT OF OTOLARYNGOLOGY AND HEAD & NECK SURGERY



NEURO-OTOLOGICAL AND SKULL BASE SURGERY

As a result of many years co-operation with the Departments of Neurosurgery and Neuroradiology, Manchester Royal Infirmary has become a national centre for the diagnosis and surgery of Acoustic Neuromas and other complex lesions of the temporal bone and skull base. The work also embraces the surgical treatment of disorders of the vestibular system. The reputation of the Department is recognised internationally and regular courses in the surgery of the skull base are held in Manchester.

COCHLEAR IMPLANT SURGERY

The Department of Otolaryngology was the first in the United Kingdom to establish, in 1988, a multichannel Cochlear Implant programme for the rehabilitation of the totally deaf, and the efforts of our team were a major factor in the eventual Department of Health support for the technique. On average one adult patient per month receives an implant, and in addition a children's programme has recently commenced. An Audiological Scientist, a Hearing Therapist, a Speech & Language Therapist and a Paediatric Habilitative Audiologist are employed solely for the Cochlear Implant Surgery programme, with additional support from other disciplines. Expansion of the children's programme and the development of a residential unit where mother and child live during the period of rehabilitation and teaching is ongoing.

LASER SURGERY

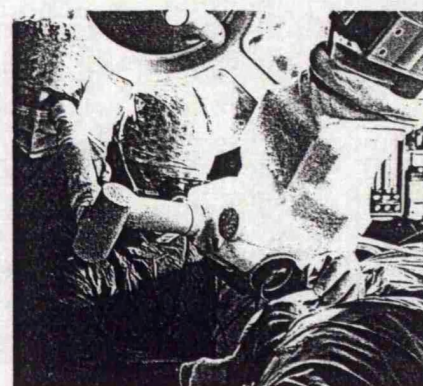
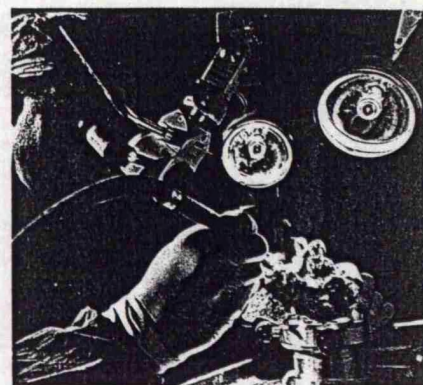
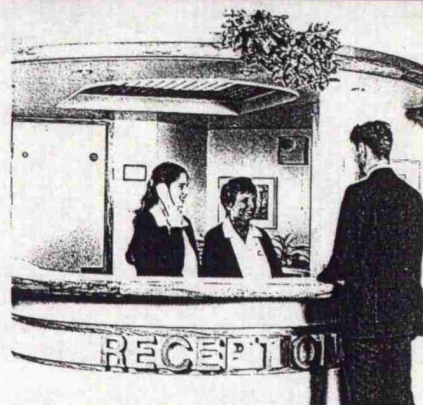
The Department possesses the latest CO₂ technology enabling us to undertake all aspects of upper airway and bronchoscopic laser surgery. Over the years the Department has specialised in the treatment of recurrent respiratory papilloma with probably the largest U.K. series of patients.

HEAD AND NECK ONCOLOGY

The Department provides a specialist service for all forms of head and neck cancer in conjunction with our sub-department at the Christie Hospital. Facilities exist for the diagnosis and surgical management of such cases at Manchester Royal Infirmary.

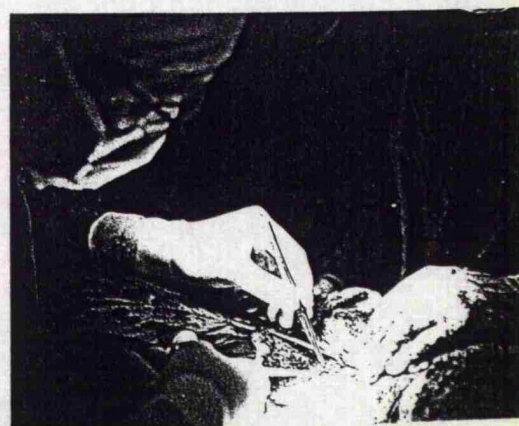
OSSEO-INTEGRATION TECHNIQUES

Osseo-integration techniques both for the fitting of prostheses and bone-anchored hearing aids are readily available. Bone anchored hearing aids can be of immense value to patients suffering from bilateral chronic otitis media.



Manchester Central
Hospitals Trust

MANCHESTER ROYAL INFIRMARY UNIVERSITY DEPARTMENT OF OTOLARYNGOLOGY AND HEAD & NECK SURGERY



*Manchester Central
Hospitals Trust*

**MANCHESTER
ROYAL INFIRMARY
UNIVERSITY DEPARTMENT
OF OTOLARYNGOLOGY
AND HEAD & NECK
SURGERY**

TREVOR FARRINGTON *FRCS*



SPECIAL INTERESTS

*Head and neck surgery,
voice problems and reconstructive
mastoid surgery.*

RICHARD RAMSDEN *FRCS*



SPECIAL INTERESTS

*Otoneurology, skull base surgery
and cochlear implantation.*

PETER CANTY *FRCS*



SPECIAL INTERESTS

*Rhinology, paediatric
otolaryngology and tinnitus.*

CONTACT DETAILS

MRI SWITCHBOARD *(for paging)*

Telephone: 061 276 1234

ENT ADULT WARD *(Ward 8)*

Telephone: 061 276 4816

ENT CHILDREN'S WARD

Telephone: 061 276 6112

PETER CANTY

Telephone: 061 276 4302 (Secretary)

TREVOR FARRINGTON

Telephone: 061 276 4426 (Secretary)

RICHARD RAMSDEN

Telephone: 061 276 4639 (Secretary)

NURSE/BUSINESS MANAGER (MRS J BIRCHENHALL)

Telephone: 061 276 4817

AUDIOLOGICAL SCIENTISTS

Telephone: 061 276 8648

AUDIOLOGICAL PHYSICIAN (DR V K DAS/DR V E NEWTON)

Telephone: 061 276 8510 (Secretary)

COCHLEAR IMPLANT PROGRAMME

Telephone: 061 276 4417 (Secretary)

ENT DEPT FAX

Telephone: 061 276 8511

WAITING LIST ENQUIRIES *(ENT only)*

Telephone: 061 276 8511

ACCIDENT & EMERGENCY DEPT

Telephone: 061 276 4073

*For emergency referrals
and non-routine out-patient
appointments contact either
the on-call registrar via
switchboard or the appropriate
consultant's secretary.*

*Manchester Central
Hospitals Trust*

**MANCHESTER
ROYAL INFIRMARY
UNIVERSITY DEPARTMENT
OF OTOLARYNGOLOGY
AND HEAD & NECK
SURGERY**

*Manchester Royal Infirmary
Oxford Road
Manchester M13 9WL*



University of Manchester



Manchester Central Hospitals Trust

APPENDIX J
THE PATIENTS CHARTER

The Patient's Charter



RAISING THE STANDARD

Approved by the Department of Health
and printed in the UK for HMSO



Foreword	4
How this affects you	6
The Patient's Charter Rights	8
National Charter Standards	12
Local Charter Standards	16
Tell us what you think	18
Performance and progress	19
Better information about services	20
Chartermark	21
How you can help	22
Summary	23
Where to send your comments on The Patient's Charter	23

■ The rights and standards set out in this document form The Patient's Charter, a central part of the Government's programme to improve and modernise the delivery of the service to the public whilst continuing to reaffirm the fundamental principles of the NHS. The Patient's Charter puts the Government's Citizen's Charter initiative into practice in the NHS.

■ Since it was set up in 1948, the National Health Service has been the envy of the world. Since then, it has grown immensely in capability. Every day, the doctors, nurses and other staff, who are the NHS, save lives and help patients overcome disabling conditions, in ways that would have been impossible forty years ago.

■ The Government believes that there must be no change to the fundamental principles on which it was founded and on which it has continued ever since, namely that services should be available to *every citizen* on the basis of clinical need, regardless of ability to pay, and that the service should in the future, as in the past, mainly be paid for out of general taxation.

■ The Government is also firmly committed to improving the Service – *to creating a better National Health Service.*

This means a Service that:

- always puts the patient first, providing services that meet clearly defined national and local standards, in ways responsive to people's views and needs. The Patient's Charter is a central part of achieving this objective by seeking to ensure everywhere the high standards of the best;
- provides services that produce clear, measurable benefits to people's health, with more emphasis than in the past on health promotion and prevention. The consultative document "Health of the Nation", which you can obtain from your local library, suggests explicit targets for improvements in health for the first time in England;
- is highly efficient, representing really good value for money, achieved through better management following the implementation of the proposals in the White Papers "Working for Patients" and "Caring for People";
- respects and values the immense resource of skill and dedication which is to be found amongst those who work for and with the National Health Service.

William Waldegrave

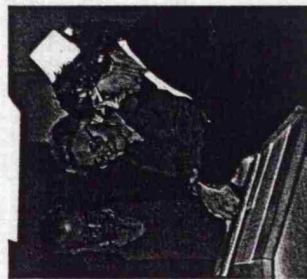
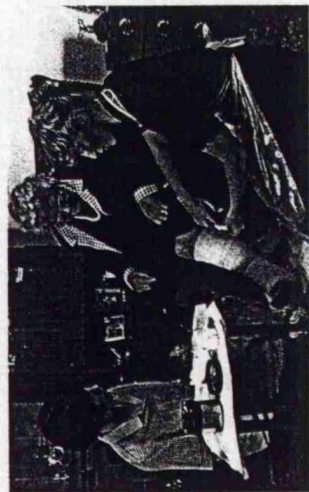
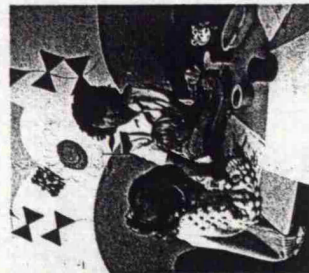
William Waldegrave

SECRETARY OF STATE FOR HEALTH

The Patient's Charter sets out clearly for the first time your rights to care in the National Health Service and the National and Local Charter Standards which the Government intends to see achieved.

In addition to seven well-established rights, the Government is introducing three important new rights for you from 1 April 1992. These are set out on pages ten and eleven.

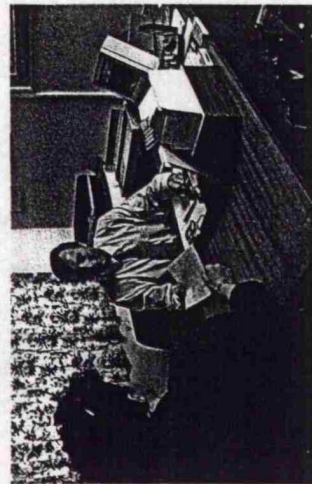
The Government is also introducing National Charter Standards in nine key areas. These are not legal rights but major and specific standards which the Government looks to the NHS to achieve, as circumstances and resources allow. They are set out on pages twelve to fifteen.



The Government will be ensuring the collection and publication of information on the achievement of these Standards at national and local level. Where performance is unsatisfactory, the Secretary of State will require the Chief Executive of the NHS to take action to put things right.

The Government would welcome your views on what additional National Charter Standards there should be. Details of where to send suggestions are given on page twenty-three.

National Charter Standards are essential in the nine key areas. The Government believes that other Standards are better set at local level where they can more accurately reflect differing local circumstances. The Government will require health authorities to develop and publish their own Local Charter Standards from 1 April 1992. More information is given on pages sixteen and seventeen.



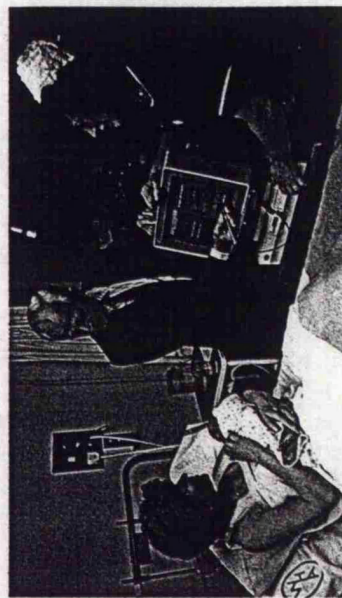
Seven existing rights

Every citizen has the following established National Health Service rights:

- 1 to receive health care on the basis of clinical need, regardless of ability to pay;
- 2 to be registered with a GP;
- 3 to receive emergency medical care at any time, through your GP or the emergency ambulance service and hospital accident and emergency departments;



- 4 to be referred to a consultant, acceptable to you, when your GP thinks it necessary, and to be referred for a second opinion if you and your GP agree this is desirable;
- 5 to be given a clear explanation of any treatment proposed, including any risks and any alternatives, before you decide whether you will agree to the treatment;
- 6 to have access to your health records, and to know that those working for the NHS are under a legal duty to keep their contents confidential;
- 7 to choose whether or not you wish to take part in medical research or medical student training.



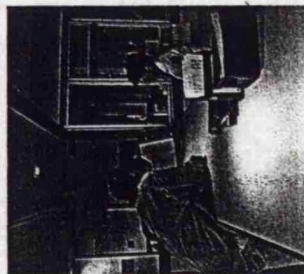
Three new rights from 1 April 1992

From 1 April 1992, the Government will introduce three important new rights:

To be given detailed information on local health services, including quality standards and maximum waiting times. Your district health authority and, in some cases, GP, are now arranging services from hospitals and community services. They must make information about these services and National and Local Charter Standards available to you. You will be able to get this information from your health authority, your GP or your local Community Health Council. Your health authority will make sure that all local NHS hospitals publicise current maximum admission times for each speciality;

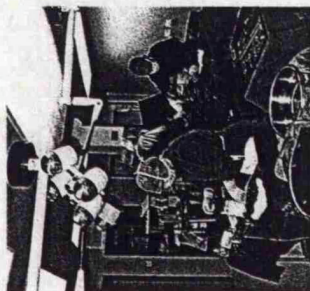
To be guaranteed admission for treatment by a specific date no later than two years from the day when your consultant places you on a waiting list.

The great majority of patients will be admitted well before their guaranteed date. Currently, of patients admitted from waiting lists, half come in within five weeks and 90% are admitted within a year. Exceptionally for some treatments it may be necessary to set a date more than two years away. Your health authority (or GP) will be responsible for ensuring that the guaranteed times are met, if necessary by offering you treatment in an alternative hospital;



To have any complaint about NHS services – whoever provides them – investigated and to receive a full and prompt written reply from the chief executive or general manager. From 1 April 1992, health authorities and NHS hospitals will have to publish details regularly of both the number of complaints received and how long it has taken to deal with them. If you are still unhappy with the way your complaint about the administration of an NHS service has been handled, you have the right to take the matter up with the Health Service Commissioner.

On page nineteen we tell you what you can do if you think you are not being given one of the National Charter Rights.



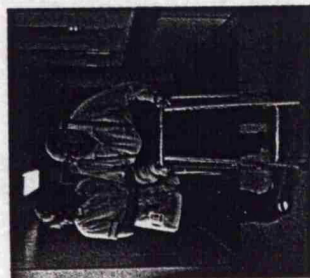
The first nine National Charter Standards

These are the standards of service we are aiming to provide for you in the first nine National Charter Standards.

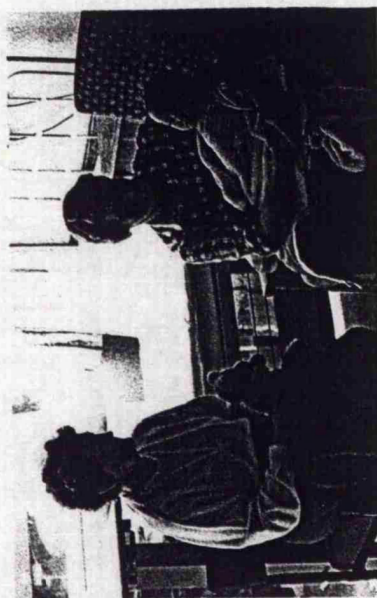
1 *Respect for privacy, dignity and religious and cultural beliefs.* The Charter Standard is that all health services should make provision so that proper personal consideration is shown to you, for example by ensuring that your privacy, dignity and religious and cultural beliefs are respected. Practical arrangements should include meals to suit all dietary requirements, and private rooms for confidential discussions with relatives.



2 *Arrangements to ensure everyone, including people with special needs, can use services.* The Charter Standard is that all health authorities should ensure that the services they arrange can be used by everyone, including children and people with special needs such as those with physical and mental disabilities, for example, by ensuring that buildings can be used by people in wheelchairs.



3 *Information to relatives and friends.* The Charter Standard is that health authorities should ensure that there are arrangements to inform your relatives and friends about the progress of your treatment subject, of course, to your wishes.



2 *Waiting time for an ambulance service.* The Charter Standard is that when you call an emergency ambulance it should arrive within fourteen minutes if you live in an urban area, or nineteen minutes if you live in a rural area.

3 *Waiting time for initial assessment in accident and emergency departments.* The Charter Standard is that you will be seen immediately and your need for treatment assessed.

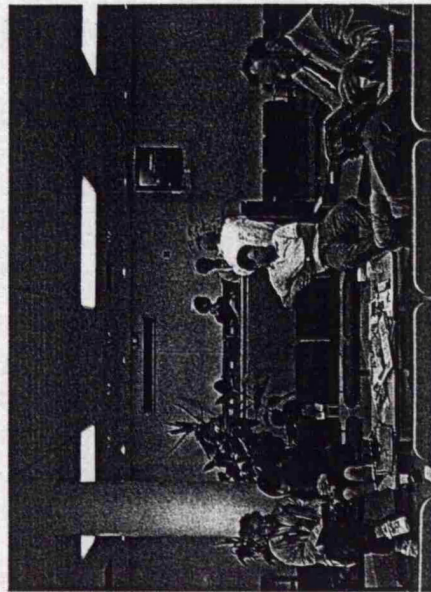
3 *Waiting time in outpatient clinics.* The Charter Standard is that you will be given a specific appointment time and be seen within thirty minutes of that time.

7 *Cancellation of operations.* The Charter Standard is that your operation should not be cancelled on the day you are due to arrive in hospital. However, this could happen because of emergencies or staff sickness. If, exceptionally, your operation has to be postponed twice you will be admitted to hospital within one month of the date of the second cancelled operation.



3 *A named qualified nurse, midwife or health visitor responsible for each patient.* The Charter Standard is that you should have a named, qualified nurse, midwife or health visitor who will be responsible for your nursing or midwifery care.

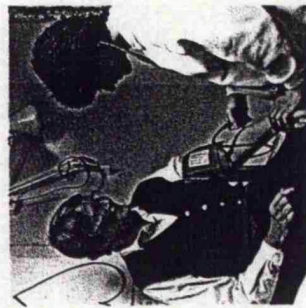
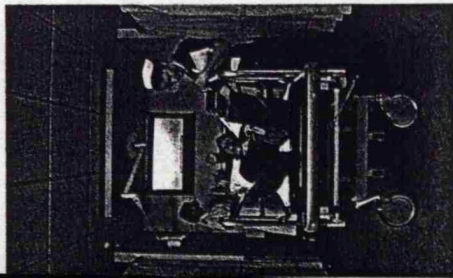
3 *Discharge of patients from hospital.* The Charter Standard is that before you are discharged from hospital a decision should be made about any continuing health or social care needs you may have. Your hospital will agree arrangements for meeting these needs with agencies such as community nursing services and local authority social services departments before you are discharged. You and, with your agreement, your carers will be consulted and informed at all stages.



In addition to the National Charter Standards, there are many other aspects of service which are important to you and which your health authority therefore needs to consider.

From 1 April 1992, authorities will increasingly set and publicise clear Local Charter Standards on these matters, including:

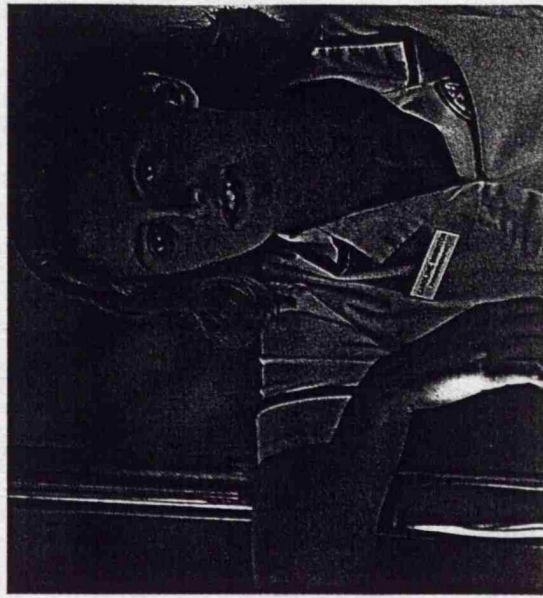
- waiting time for first outpatient appointments;
- waiting times in accident and emergency departments, after your need for treatment has been assessed;
- waiting times for taking you home after you have been treated, where your doctor says you have a medical need for NHS transport;



- enabling you and your visitors to find your way around hospitals, through enquiry points and better signposting;

- ensuring that the staff you meet face to face wear name badges.

Your health authority will also publicise the name of the person you should contact if you want more information about the Local Charter Standards they have set.



■ We want to know your views so that we can take them into account as we develop and introduce new Charter Standards.

■ We know from experience that it is not always easy to get patients' real views. For example:

— some people have told us that they fear a 'come-back'; they worry that if they tell a doctor or hospital their real views they will be labelled as 'awkward';

— people may not feel that it is worth taking the trouble to tell us their views.

■ We will be encouraging health authorities to continue and expand their use of questionnaires and surveys to find out what you think of the current services and to get your suggestions of how things could be done better.

■ *Charter Rights.* These are guaranteed. If you think that you are being or are likely to be denied one of the National Charter Rights you should write to Duncan Nichol, Chief Executive of the NHS, Department of Health, Richmond House, 79 Whitehall, London SW1A 2NS. Mr Nichol will investigate the matter and if you have been denied a right he will take action to ensure that this is corrected.

■ *National Charter Standards.* Your health authority will publish information about performance against the Standards annually, with the name of the person to whom you should write with any comments. Every year the Secretary of State will discuss performance with the Chief Executive, who will take action where this has been unsatisfactory. The Department of Health will publish details of this action.

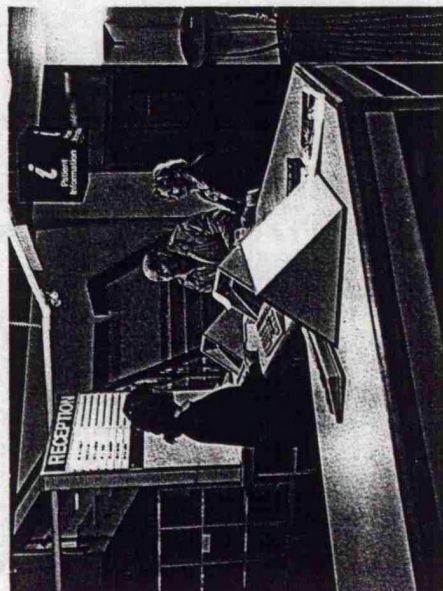
■ *Local Charter Standards.* Your district health authority will publish an annual report of achievement against its local standards, and the name of the person to whom you should write with any comments. In the following year's report, the authority will say what action has been taken where necessary to improve its performance.



■ The Government wants you to know what services are available. From 1 April 1992, the Government will require regional and district health authorities to publish information about the services they provide and their performance in relation to Local and National Charter Standards, to help you to make informed choices about care and treatment.

■ Your health authority must provide information about the specific services it has arranged. In addition, your health authority will set up more general information services to help people to find their way around the NHS and to understand what is available. From 1 April 1992, you will be able to get information about:

- Local Charter Standards;
- the services your health authority has arranged;



- waiting times for outpatient, day case and inpatient treatment by hospital, speciality and individual consultant, set out in a standard way;
- common diseases, conditions and treatments;
- how to complain about NHS services;
- how to maintain and improve your own health.

From 1 April 1993, you will be able to find how successful your health authority has been in relation to the National and Local Charter Standards.

Chartermark

■ The new rights and standards in this Charter are designed to meet the commitments in the Citizen's Charter. The NHS will play a full part in the Chartermark scheme when it is launched.

Did you know that:

Many appointments are missed by patients without warning staff:

- with around 40 million outpatient appointments each year, this is a problem even if only a small proportion of patients do not let the hospital know if they cannot attend.

Organs such as kidneys are urgently needed:

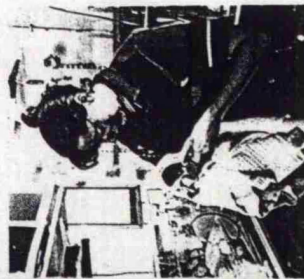
- between 1978 and 1990 the number of kidney transplants more than doubled. We could do even more if we had more donor organs.

The NHS needs more blood donors:

- on average, hospitals use 6 units of blood a minute;
- this requires 9000 blood donors a day;
- less than 10% of people who could give blood do so.

There is an enormous need for voluntary helpers, for example in hospital shops.

You can help your NHS locally on all these - by keeping appointments, by checking whether volunteers are needed locally, by giving blood (if you want to give blood, you can ring 0800 300 333) and by filling in and always carrying your organ donor card and telling your relatives your wishes (donor cards can be obtained by ringing 0800 555 777).

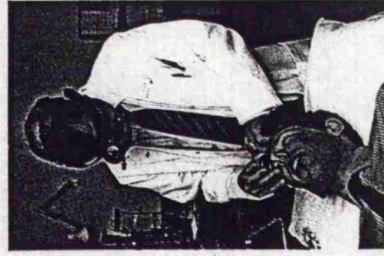


On 1 April 1992, the Government will:

- create three important National Health Service rights to add to the seven existing ones;
- introduce the first nine National Charter Standards. Information about performance against the Standards will be published regularly;
- require each health authority to introduce and publish Local Charter Standards. Information about performance will be published regularly.

The Government would welcome suggestions for additional National Charter Standards.

From 1 April 1992, health authorities will publish information about services. This will be updated annually.



Where to send your comments on The Patient's Charter

We would welcome your views on The Patient's Charter and proposals for new standards. Please send your comments or proposals for new National Charter Standards to: John Richardson, Department of Health, Richmond House, 79 Whitehall, London SW1A 2NS.



APPENDIX K
INTERVIEWS WITH N.H.S. STAFF

INTERVIEW WITH A SENIOR MANAGER IN THE N.H.S.

Q: I want to ask you, as a senior manager, your general reaction to the N.H.S. reforms ?

A: Overall my feelings are positive. The separation of provision from purchase is an immensely powerful framework which generates all sorts of incentives to improve performance that frankly were just missing before and, to that extent, trust status, G.P.F.H.s and all the rest are subordinate spin offs from that fundamental step.

Operating in the internal market requires us to provide services under the auspices of a business plan and thus engage in far more extensive planning and control at the unit level that this implies. The introduction of these internal disciplines has been welcomed by our managers as they force people to focus on fundamental issues, on those things that serve to clarify the hospitals objectives. This make their managerial task much more focussed and, in that sense, straightforward. Although the environment has become infinitely complex and difficult, the fact that we are running things ourselves in terms of generating an income stream as well as focusing on managing the expenditure side has been appreciated by managers.

That said, there is still a lot of worry and concern about whether we have the systems in place and the data available to be able to operate effectively in the new environment. In particular, there is a real anxiety that we don't have a sufficient handle on how our costs behave at different levels of output, something that we need to know to be able to manage and compete effectively.

Q: What, in your opinion, is the thinking behind the internal market in health care ?

A: The government has pursued a policy of trying to separate purchasing from the

provision of public services generally...it has created incentives throughout the system for people to do better. We have by no means the free-for-all market which conceivably could have been created. Going that far would not have been the optimal way of proceeding.

Q: Even though the policy aim may indeed not have been an unregulated market, has implementation produced any unanticipated, even unwelcome, results, at this early stage and here in London ?

A: Yes, the situation is becoming less regulated in some ways and often this doesn't make a great deal of sense from a strategic point of view. For instance, there aren't many unemployed cardiac surgeons in south east London at the moment: they are being employed like there is no tomorrow. In this part of the capital there have been three new cardiac surgery appointments at the three different cardiac centres, including our own, over the first few months of 1992. Everybody is tooling up to do everybody out of business. This hardly makes a great deal of sense. The leverage and the wider planning capacity that used to exist at Regional level are fragmenting as a result of the devolvement of purchasing responsibilities to D.H.A.s and G.P.F.H.s.

Frankly, this part of the new policy hasn't been fully thought through. What it has done is to create a climate where a shake out is a possibility but this is likely to occur in a messy, rather than in a planned, manner. I cannot imagine in 10 years time there will be three thriving cardiac surgery centres in south east London. And yet today each hospital concerned is absolutely determined that whoever gives up cardiac surgery it will not be the one. Each of us has rationalised, in our own terms, why it is absolutely justifiable for us to proceed in this way. That is just one example.

Q: What about the private sector ? How do you see that developing within the internal

market ?

A: There is clearly a theoretical opportunity for it because contracts are up for grabs. There has even been the occasional G.P.F.H. signing a contract with the private sector. The fundamental problem with private sector health care in the UK is that it can't look after sick people! That's a pretty important inhibitor on what it can do. I firmly believe that, in the London context, we could blow the private sector out of the water if we bothered to.

Q: What about Trusts ? Does the internal market require Trusts in order to work effectively ?

A: I think being a Trust is becoming more and more inevitable. Apart from any deliberate political push in a particular direction, as the purchaser/provider split becomes more and more part of the culture of the service as a whole, it's going to be very difficult indeed, within the compass of one organisation, to reconcile those things.

Q: Do you have what we might call a contracting strategy, a set of policies about contracting ?

A: No, not if you mean a contracting strategy that drives other things. It is the other way about; these other things drive the strategy. You start with a determination of the business you want to be in, then an analysis of what you are doing at the moment against market conditions. From this come the contracting strategy. Let me elaborate as the process can be quite complex. We adopted a 'star chamber approach' to review all our clinical specialities. An outside assessor, a senior academic, came in and chaired the group conducting the evaluation. That SWOT evaluation, specialty by specialty,

was a fairly formal examination of how each medical specialism rated in terms of such things as academic excellence, ability to attract contracts, the demand in the community, the view of G.P.s, the ability to attract and retain staff of the highest calibre and the like.

Q: What sort of access do purchasers have to your hospital and its information systems to check contract compliance ?

A: We have prided ourselves in being able to give G.P.F.H.s what is regular contract monitoring information for their own purposes. We treat them as autonomous customers and give them their own data sets indicating the number of patients that we are treating against the contract levels they have agreed with us under our block contracts. We currently have such agreements with three G.P.F.H.s We usually have regular quarterly meetings with each and go through all the issues including quality matters such as access and speed of referral.

Q: What non price factors are reflected in contracts ?

A: Quality...lets take one clinical directorate or, in our terms, care group within the hospital to show the quantity and quality of information produced for our purchasers. This includes information on customer satisfaction, complaints, data about waiting times in out-patients, the number of cancelled out-patient clinics, response time to G.P. referrals, notes' availability, infection control procedures, the length of waiting lists, admission times, cancelled admissions and so on.

Each of these is reported on in detail. Take two areas, complaints and waiting lists. In the complaints sphere we produce flow charts to show how we deal with written complaints and what are complaints procedures are. So, for example, there is a

briefing note about accident and emergency (A & E) and what happening about improving these services, certainly an issue of high public profile. We compile detailed complaints returns showing the number of complaints logged in each area of the hospital, the number that have been dealt with and those still outstanding. In the waiting list area we assemble information on such matters as the length of time it takes in all our clinics to get a routine or urgent case across the institution, and a detailed breakdown by District of residence showing the number of patients waiting for each speciality and for how long.

We have been very keen to ensure, however, that all this monitoring does not become a cottage industry for the benefit of our purchasers alone; we need this information too to manage effectively.

Q: 'Managed competition' requires other sorts of information to work, in particular, the costing of procedures and specialities. How far do you feel you have got in this very large undertaking ?

A: It's an enormous undertaking and we are still at a pretty rudimentary stage, although less so in multi-district specialties like cardiac surgery and renal services where we have in effect had cost and volume agreements running with the R.H.A. since before the current reforms. For these regional specialties we are certainly further down the track in terms of costing and separating these costs into their fixed and variable components than the rest of our provision. You can't really run cost and volume contracts effectively unless you have got a very clear idea not only on each specialty's bottom line costs but also on how these costs behave for different case loads. But beyond our regional specialties we are still running most of our services against block contracts and our goal for this year is the rather limited one of simply ensuring costs to the institution are covered by income.

Q: The original image, certainly the media image, of the internal market was one of G.P.F.H.s looking at their computer screens in, say, London and finding a good deal in, for instance, Aberdeen, and patients going there. In reality virtually every party - patients, G.P.s, purchasers and providers - has been entirely resistant to such large scale alterations and uncertainty surrounding referral patterns. Am I right to think that, even in London, the changes in referrals will not be great ?

A: There is not wholesale change. No, we are still talking about changes at the edges but, for us at least here in south London, these changes are significant changes at the edges. This year we already know, for instance, we are going to be doing a materially different amount of ophthalmology because we have attracted extra income and extra contracts. We are working hard to see some relatively major shifts in cardiac surgery, again as part of an explicit strategy of expanding the speciality to ensure it survives.

Q: Clearly a very high percentage of your work load come from London. In time do you see yourselves winning some extra out of London contracts or will most of these commissioners stay with their local provider ?

A: At the moment the signs are that it is going the other way. Thus, as money gets taken away from central London authorities, local purchasers are wanting to concentrate more and more on obtaining contracts locally. Furthermore, if there is a squeeze on budgets and you lose 2-3% of your allocation, that 2-3% is going to be withdrawn from your more distant providers.

Q: How have your doctors and clinical staff reacted to the internal market ?

A: Frankly, its been widely variable. At the leading edge, particularly among those with multi district specialties who have been used to the contract environment for some time, they've taken to it very well and are entrepreneurial and actively involved in leading the process.

At the other end of the scale there are people who even now have not bothered to understand what the process is and what it involves... They still find it very difficult to understand how the values they have grown up with, in terms of developing their specialties, are being turned on their head by new imperatives in the system that force people to look at things in a different way. They are beginning to change their view but, for them, this is a painful exercise.

Q: Which are the majority, the enthusiasts or the doubters ?

A: I would say that there is a significant minority, it could even be a majority, of people working in clinical roles - doctors, nurses and paramedical staff - who are not consciously aware of the changes or of really operating in a market environment.

It is useful to see these in two categories. First, there are those who know about the reforms including the internal market, and are interested and informed about such things but whose daily work lives have not been affected by the changes. The activities of a physiotherapist or a staff nurse in a ward have not been directly affected by the contracting environment but, none the less, quite often these are the people who have always taken seriously initiatives to improve quality, to improve their responsiveness to customers - who see that as important in professional terms, in their own personal view of their job. Now for quite different reasons, market reasons, great emphasis has been put on such matters and so they just continue on. It makes no sense to call such people 'doubters'.

There is, however, a second group of people who don't understand the reforms,

who have either had them explained but haven't made the intellectual jump to get their mind around them or have been alienated at some early stage of the process and since then have switched off, kept away from them deliberately and have taken refuge in their day to day work - looking after the patient - consciously switching off whenever anyone comes and talks to them about what needs to be done and why. This is a rapidly diminishing minority.

INTERVIEW WITH A PURCHASER FROM A D.H.A.⁴⁹

Q: I would like to hear your view on the reforms and the internal market, their advantages and disadvantages.

A: The internal market has forced us to be more outward looking in our orientation...This is certainly good not only in terms of planning the service but also in delivering to patients and additionally, what information and interchange of ideas they give to G.P.s.

The essential point is that each of the different components of the current policy contain with it both risks and opportunities depending on where one is standing...Decisions taken by individual NHS purchasers and providers may contain an opportunity for one decision maker and likely threats for others...a small case study relating to the multi district alcohol and drugs service organised by a neighbouring provider, Bexley Hospital. It only needed one of the purchasing agents, in this case the S.E.L.C.A. (South East London Commissioning Agency) to say they were withdrawing from Bexley's alcohol service in order to develop their own - something that makes perfect sense from S.E.L.C.A.'s viewpoint - and the Bexley service is suddenly not viable. That meant we in Greenwich who were also using the service, had a problem that required solving very quickly.

Another example but one where Greenwich can secure an advantage concerns the Ophthalmology service at Greenwich District Hospital which has had long waiting lists. Consequently, large numbers of Greenwich residents were referred to Moorfields. Having greater control of our own resources now, we can put more funds into ophthalmology locally to improve their service.

⁴⁹ Based on an interview in Tilley (1993)

My last case study concerns my D.H.A. and a contiguous one, Bexley , and the 3 acute hospitals serving these two areas. The first hospital involved is Greenwich District Hospital...the second is the Brook General Hospital...the third hospital Queen Mary's ...is a relatively new, but under used, hospital is the only NHS acute hospital in the Bexley HA. Previously they were in a catch 22 situation because D.H.A.s were allocated money according to the historic use made of their hospitals...they could only obtain extra funding when they got the extra patients in but they couldn't get them in until they had the money to do the work!

The new system can free this up due to the change in funding on a weighted capitation basis rather than on the use made of one's hospitals. As Bexley HA is now controlling the pot of money for its Bexley residents there is now the means of transferring work into Queen Mary's. But there is another side to this. Resources are finite and there are limits to the extent one can make efficiency improvements. So where is this hospital getting its extra patients from ? The answer is clearly they're going to be taking in patients from other Units. In other words the market creates challenges and they've got to be managed. If work starts transferring from the Brook to Queen Mary's the latter may get cheaper than the former as its fixed costs are spread over a larger workload. For the opposite reason the Brook is going to become more expensive. There is a need for regulators who could exert some wider influence and restrict decisions that may be optimal in economic terms for one part of the NHS but sub optimal in various ways for the whole service.

Q: There seems to be pressure in quite a few parts of the NHS to move from block contracts to ones of the cost and volume and per case variety. Is that your experience at Greenwich?

A: Presently they are still largely block contracts but they're becoming more hybrid in

that they may have trigger points. This may mean no more than stating “once you have delivered x episodes, we’ll talk again”. There are a couple of smaller specialist contracts that are more cost and volume. However in terms of resources the great majority of our contracts remain of the block variety.

Q: What about E.C.R.’s ? They seem likely to make your planning activities rather more difficult.

A: E.C.R.s are just over 1% of our total spend but more than 5% of our administrative costs. They are a complication because they’re costly to administer as well as making our planning more complex. My impression is that, for most D.H.A.s in the first year of contracts E.C.R.s were a bit of a lottery in as much as the information we had about the previous years experience was going to be limited. Nevertheless from that information we had planned for around 2/3 of our E.C.R.s being emergency cases. That meant they would be carried out and we would simply be told about them later. All we had to do was make sure that the invoice was for a Greenwich resident and pay up. In the case of elective E.C.R.s the Unit expecting to do the work needs to contact us, obtain our agreement first before they do the work, thus giving us much more control over things, including price, than for the emergency cases....one thing is clear; planning for E.C.R.s is complex and for the moment we lack adequate models and data.

Q: How important is price in deciding who gets the contract ? And when you have made that choice, how do you persuade GPs, whom you write the contracts for, to accept your decision and refer there ?

A: Price is certainly a consideration but it isn’t the only one and that’s a major point in

my opinion. We have to carry GPs; they make the referrals.

In situations where our GPs don't want to refer to a particular provider, we are led in these circumstances into a debate with them as to why they don't want to refer there. It might well be the GPs have no idea of the the detailed costs of the various procedures and, when they are told, are likely to be responsive...if quality of care is comparable at the 2 units most seem willing to support the cheaper option as they can see how much it will benefit the generality of the population, including their own patients. It might also encourage the higher priced supplier to regulate its' costs better.

Each of our providers needs to give us a price for each speciality they offer. This reflects their particular cost structure, their fixed, variable, and semi variable costs. Now the first cause for substantial price variation can arise because of the assumptions each Unit is making about the level of contracts they will secure in the coming year. Naturally enough, if they overestimate work load, the fixed component of their costs - itself a high percentage of overall costs - will eventually be spread over the lower than expected contract throughput, and cost per episode, and thence the price could well rise dramatically. The opposite is true if they underestimate.

A second major reason for variability is the location of the hospital, the age of its fabric and the type of hospital. Greenwich District Hospital has a cost advantage over Guy's or St. Thomas's as, being on the fringes of London it isn't going to attract as high a London weighting for staff as do those two inner London hospitals. But Greenwich will be at a cost disadvantage to other possible providers, in Dartford or Medway, say.

In relation to buildings and other large capital assets, Greenwich District is relatively new. It may have lower costs than a Unit whose fabric is much newer - and therefore more highly valued and thereby attracting higher capital charges - or a Unit whose buildings are older and less well planned, so that they have to employ more staff.

A third source on Unit cost and price dispersion relates to the vagaries of management accounting, the ease with which accountants can assign various costs in different ways. This arises because they are able to use different cost-allocation principles and this can produce wide variation in the figures. This is particularly obvious in E.C.R. prices. Particular specialities, often the smaller specialities, are extremely expensive in one Unit and very cheap in another. The difference is usually a mixture of the factors we have been talking about, one of which could well be the ways in which overhead costs have been assigned.

Overall two aspects of price variability seem really significant. First, it is important to remember that, for reasons outlined, price dispersion can't be entirely eliminated. But it will reduce as we all get a better handle on financial planning under the new regime. Second 'steady state' is now off on most things. Units will have to look more carefully at questions of workload, cost behaviour and contract prices.

Q: How do you deal with non-price aspects of contracts - quality and waiting times, for example ?

A: We have set up a quality assurance task team which covers Greenwich and Bexley H.A.s and F.H.S.A.s. These non price aspects are fully operationalised in our purchasing specifications. These are then discussed with our providers.

Next our Quality Assurance Officer makes regular visits to the local hospitals to monitor performance...further the non-executive board members of our D.H.A. and the Community Health Council are visiting too. All this information is pooled.

The non-price factors are a crucial part of D.H.A. commissioning.

INTERVIEW WITH A PROVIDER IN AN N.H.S.T.

Q: How does the contacting process take place ?

A: The GP wishing to become a fund-holder must apply to his D.H.A. one year in advance. They then receive a budget for outpatient and elective care based upon the number of cases they had seen in hospitals in the preceding year. This budget is no longer available to the D.H.A. who contract with us on behalf of non fund-holders.

The main concern is "what are our waiting lists and prices ? " ⁵⁰ .

Q: Can either party dictate the terms of the contract ? ⁵¹

A: The G.P.F.H. can to a greater degree; normally they want conditions on waiting times and quality; for example, many specify that they expect each patient to receive a weeks supply of any drugs we prescribe. We may offer discounts on some specialisms.

Q: Why do you charge the G.P.F.H./D.H.A. a set amount per month - why not simply bill them for whatever work is done in that month ?

A: This is for two reasons; firstly for ease of administration for both parties and secondly because it does provide us with a guaranteed income each month.

Q: Are there incentives for GPs to over-refer and exceed their agreements ?

A: Not particularly, G.P.F.H.s must warn us if they are about to exhaust their budget,

⁵⁰ See Appendix H

⁵¹ See Appendices F/G for examples of contract

in which case we normally treat only emergency referrals from that practice. If the situation is serious, the F.H.S.A. may bale them out and allow them to carry on referring but they may act to have their fundholding status withdrawn in future. In practice we haven't found this to be a significant problem.

Q: What happens if you do less work then you are contracted for because the GP does not make as many referrals as he was expecting ?

A: In this case they receive a refund. Normally, they receive the marginal cost per case multiplied by the number of unused cases, whilst we are concerned to cover our fixed costs.

Q: How do you attract fund-holders ?

A: At present we have not needed to market ourselves to a large degree, because most of our competitors are not trusts, but we use a variety of methods⁵² - meetings with GPs, presentations, invites to G.P.s to visit the Trust. At present most of our fundholders are local - about 90% are within Greater Manchester and Macclesfield.

Q: What happens if G.P.F.H.s default on payment ?

A: Providing we have followed our side of the agreement then the case goes for arbitration at the R.H.A.. However, we have had some problems in the past, with up to half a million pounds outstanding and this has implications for our costs.

Q: Do you think the reforms have been a good idea ?

⁵² See Appendix I for an example of promotional literature

A: Allowing G.P.F.H.s has been a good idea and is forcing an improvement in quality. The reforms to D.H.A.s have not been so good - eventually I expect the system to be all N.H.S.T.s and G.P.F.H.s which will in effect put us back to square one.

Q: Does the system now encourage health promotion ?

A: Referrals aren't down, but there could be implications in the future as G.P.s try to improve primary care and they are making more use of services, such as dietetics.

Q: Does the system prevent the old and the sick from finding G.P.s ?

A: This should not be a problem, since the G.P.F.H. tends to pay only for outpatient services.

Q: How can G.P.F.H.s monitor quality ?

A: Most do it from feedback from patients, but also by visiting our clinicians. They are mainly concerned with waiting times⁵³ ; as yet the "hotel issues" have not been raised - we are spending money on improving our environment and we do try to monitor patient response.

Q: What incentives does the system give you to minimise costs ?

A: To a large extent the C.I.P. (Cost Improvement Programme) provided pressure since we must reduce costs by 1% per year and this existed before the reforms, but it

⁵³ See Appendix J for the Patients Charter setting out some statutory obligations

does add pressure to be more efficient if we do need to employ more nurses, for example.

Q: Will you use the opportunity to re-negotiate wages to force costs down ?

A: No, although that is really question to be answered by the Director of Personnel - as far as I am aware there are no such plans.

INTERVIEW WITH A G.P.F.H.

Q: Tell me about the budget for your particular practice

A: As a G.P.F.H. we effectively have four budgets - these cover; hospital services, community services, prescribing and staff.

Q: Can money be shifted between these budgets ?

A: Yes, our practice has a total budget of £1.5 million which is held on our behalf by the local F.H.S.A. They pay all our bills as we receive them.

Q: Your particular role in the practice is with the mentally ill, what mental health services can you buy from your budgets ?

A: From the hospital budget we can purchase out patient care (normally an appointment or an assessment by a consultant psychiatrist or their clinical assistant) and specialist services such as anorexia counselling. From the community budget we can purchase the services of the local C.M.H.T.s and from the staff budget we can employ specialist staff within the practice. In my practice we have employed a care

manager since 1987 to deal specifically with mental health issues.

Q: What services can't you buy ?

A: We can't buy in patient care, social services or voluntary services.

Q: Would you like to be able to buy such services ?

A: Yes, the mentally ill need to have coordinated care from all the services - you can't achieve that with fundholding G.P.s.

Q: Do you think fundholding works to the disadvantage of the mentally ill ?

A: Yes, especially the long term mentally ill. I personally was against becoming a fundholding practice but my colleagues were strongly in favour.

Q: Will the existence of G.P.F.H. lead to the fragmentation of mental health care ?

A: No I don't think so - we are unlikely to simply buy the services of a C.P.N. for example to sit in our surgery to deal solely with the long term and seriously mentally ill, the C.M.H.T. provides a range of services for all our mentally ill clients and this is what we really want, care for all our ill patients.

Q: Are G.P.s constrained in buying mental health services, for example must you purchase the C.P.A./supervision approach ?

A: No, but we do buy such services, if all I bought was counselling then I would be

left to look after the long term mentally ill myself ! We want to buy such services !

Q: The D.H.A. will purchase some services on your behalf - are you happy with the care they procure ?

A: No, in many cases not. We have had instances of clients sent to hospitals that do not provide clean bed linen or pillowcases for example. I would prefer to be able to buy in patient care myself where I know I can get a good service. The same applies to social services, I want to be able to use my budget to influence and improve care.

Q: Moving on to contracting, what problems do you have in contracting for services for the mentally ill ?

A: I see two major tensions in contracting care for the mentally ill. Firstly there is the conflict between caring for the long term and the short term mentally ill (and associated with that the need to educate people away from the reliance on drug therapy as the only form of treatment) and, secondly, the difficulties of measuring the cost of an acute episode against the costs of continuing chronic care.

Q: What type of contracts do you use ?

A: Block contracts. Irrespective of the amount of work done the G.P.F.H. pays the same. Our providers could see all the people on our list or they could see none.

Q: You mentioned the problem in identifying costs of care - how do you do it ?

A: You tell me ! The costs of such care are difficult to calculate, the costs of surgery are clear but how much does it cost to care for a schizophrenic who is fine for six months at a time and then goes into crisis ?

Q: The other problem you mentioned is the conflict between long term and short term mentally ill. What difficulties do you have in this area ?

A: The biggest problem is identifying 'who are the long term mentally ill ?'. My practice has developed a five point method that we feel identifies ninety five to ninety seven percent of the long term mentally ill that we see, although I believe that between twenty five and fifty percent of the long term mentally ill never have any contact with any mental illness services. The first point we look for is what we call definition - the client must be; between the ages of eighteen and sixty five, be psychotic (ICD 9 cats: 295,296,299 of more than two years duration) or be suffering from severe depression, phobia or OCD of more than two years and being treated with psychotropic medication. The second is to use the surgery computers disease register, this is where we can search our client list by diagnosis. The third is again to use the computer but this time to search by prescription. The final two methods rely on the knowledge of the primary care team or the local C.M.H.T.s who may treat clients without the G.P. knowing about it. However having identified the long term mentally ill and brought in services to help them the G.P. still has an important care role, we can't just pass them on to another service.

Q: What is this role ?

A: To tackle the physical problems associated with mental illness. Between thirty three

and fifty percent of the long term mentally ill have physical problems. They also have double the mortality rate of the non mentally ill (the main causes being suicide, respiratory and cardiovascular) and also suffer from iatrogenic drug effects⁵⁴

Q: How do you fulfil this role ?

A: We aim to improve physical care of the sick and we use a three level pro-active approach. At a primary level we can give them advice on smoking, diet, obesity and do simple but important things such as testing blood pressure and taking urine samples for analysis (to identify diabetics). At the secondary level we can send people for full clinical examination, blood counts, X-Rays, E.C.G.s, vision and hearing tests and tests of thyroid function (for lithium reaction).⁵⁵ At the tertiary level we must tackle the side effects of drugs such as Parkinsonism, Akathisia and Tardive Dyskinesia.

Q: Has fundholding given you any incentive to prioritise or favour any particular group of patients ?

A: No, since it has no real impact on my income. Fifty percent of my income depends purely on my list size and a further ten to fifteen percent on the services I provide such as vaccination. We are also reimbursed for the cost of our premises and get seventy percent of the staff costs returned and one hundred percent of their national insurance contributions returned. So really there are no incentives to prioritise.

⁵⁴ more commonly called 'side effects'

⁵⁵ Lithium salts are used in the treatment and prophylaxis of mania, in the prophylaxis of manic depressive illness (bipolar illness or bipolar depression) and in the prophylaxis of recurrent depression (unipolar illness or unipolar depression).

INTERVIEW WITH A PROVIDER IN AN N.H.S.T.

Q: Do you contract with G.P.F.H.s for mental health services ?

A: Yes, but this is a much smaller part of our business than other services, for example, hospital based services. It forms only 3-4% of our business currently.

Q: What types of contract do you use ?

A: Solely block contracts for mental health

Q: Do G.P.F.H.s have the power to dictate any terms in the contract ?

A: They will tend to be very interested in our quality specifications such as waiting list times for out patient clinics, length of time between referring a client and allocating a keyworker and they are keen to write quality specifications into the contract.

Q: Can you as the provider dictate any terms of the contract ?

A: We could because we service a mainly rural area and so patient immobility is a big problem for G.P.s. They could contract with neighbouring areas to bring the staff to the clients to try and get around this problem but the costs of funding staff travel mean that it would not be worthwhile, so effectively we face no competition. We could exploit this advantage but we don't.

Q: What are the difficulties involved in contracting for mental health services ?

A: There are several; firstly the purchasers are not normally very knowledgeable about mental illness (since most G.P.s do not specialise in its treatment) and as a consequence are not aware of all the services that are included in our costings and so want to know why they are charged for certain items. Secondly they tend to try and weigh our quality specifications against our costs and we do not regard them as directly comparable and thirdly there is a general lack of information on costing

anyway in this area which means that it is difficult to contract with G.P.F.H.s because we know little about the type of clients that they tend to refer (e.g. do they deal with a certain proportion themselves and then refer on those who are most serious and would be expected to be most costly or do they send as mix of clients?). We would certainly like more information which would allow us to contract services for this particular group of clients in ways other than block contracts in the future.

Q: Would you foresee a shift away from block contracting in the future ?

A: We would certainly like to move in that direction but we are aware that the process would bring greater administrations costs. This is where I think the new system has failed, it has given more local control over services but imposed costs. This is not so true in urban areas where units have been taken over and administration centralised but this hasn't happened in our type of area (rural).

APPENDIX L
MANCHESTER HEALTH COMMISSION CONTRACTS

CONTRACTS GUIDE

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