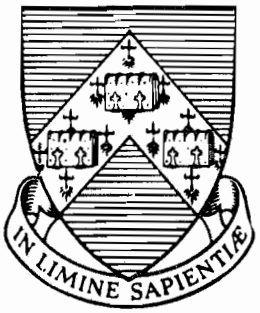

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Planning Hospital Services - an Option Appraisal of a Major Health Service Rationalisation

by

RON AKEHURST, *University of York*

January 1986

DISCUSSION PAPER 12

UNIVERSITY OF YORK
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PLANNING HOSPITAL SERVICES
- AN OPTION APPRAISAL OF A MAJOR HEALTH SERVICE RATIONALISATION

by

Ron Akehurst

January 1986

The Author

Ron Akehurst is a Senior Research Fellow attached to the Institute of Social and Economic Research, University of York.

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PREFACE

The preparation of Approval in Principle submissions is likely to be a once in a lifetime event for most health districts and is a rare event even for some regions. In consequence, many officers find preparing the major part of the submission, the Option Appraisal, to be an unfamiliar and daunting task. The guidance material written by the Treasury[1] and DHSS[2], while helpful, is not detailed enough to sort out many of the problems which arise. In these circumstances knowledge of how previous appraisals have been conducted can save much time and effort, and it is for this reason that this Discussion Paper has been published.

The appraisal set out in the pages which follow was conducted by a planning team to which this paper's author (RLA) acted as consultant. RLA was responsible for the writing up of the report but received very considerable support from both Regional and District officers.

The Approval in Principle document was meant to stand alone, in the sense that anyone picking it up should be able to understand the reasoning processes described therein. Nevertheless, some background is helpful on the reasons why steps were taken in the way they were, and the process involved. To this end short annotations have been added to the original report. They appear in the paper in italic script. The full table of contents of the original document is shown on pp.1-4. Some of the appendices shown are not in this published version where what they would contain is obvious. The district etc. names used here are fictitious.

The problem to which the appraisal was addressed is more complex than many, but not all, problems handled in formal option appraisals. There is no doubt that it will be familiar to both service and capital planners, confronting as it does many of the questions of determining service priorities wich inevitably arise in the strategic planning process.

Acknowledgement

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1. *H.M. Treasury Investment Appraisal in the Public Sector, 1984.*

2. *D.H.S.S. Appraisal of Development Options in the NHS, 1982.*

APPLICATION FOR APPROVAL IN PRINCIPLE

Contents of Report as it went to DHSS

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1. SUMMARY OF PROPOSAL

1.1 The Proposal

Approval in principle is sought to a proposal to provide, at a total cost of £17.54M, a major development at Crompton General Hospital providing 175 beds, 4 operating theatres, 5 X-ray rooms, 160/3 hours Accident and Emergency Departments. 153 Dr. session out-patients department, Pharmacy and H.S.D.U.

1.2 Discussion

Crompton Health Authority serves a resident population of about 151,000 and a catchment population of approximately 336,000. As a district it is characterised by severe problems of social deprivation with associated high mortality and morbidity. Its five hospitals provide a fragmented in-patient service which causes staffing problems and high costs. Many beds are provided in poor accommodation with little scope for upgrading and with poor clinical and functional relationships between and within departments.

In line with Regional policy the District has to achieve substantial reductions in beds and revenue expenditure by 1993. Capital developments will facilitate the achievement of these revenue savings as well as correcting deficiencies in services. The District is sufficiently confident of its ability to deliver savings to be prepared to fund the capital development from these. The objectives of the development are to:

A. Release revenue
B. Improve services to the elderly
C. Improve acute services
D. Improve Regional Specialty provision located in the District
E. Improve Accident and Emergency facilities
F. Improve Out-patient Services

Options to meet these objectives have been appraised. They range from a "do nothing" case to a "maximum build", and the solutions include a range of combinations, of sites, and packages of individual schemes. The financial comparison has been made on a basis of equivalent annual cost, and the non-financial performance has been assessed by a weighted scoring technique against performance criteria. The results are:-

	Annual Equivalent Cost of Capital and Revenue together (£ thousand)	Benefit Score
Option 1	38,425	702
Option 2	38,534	707
Option 3	38,600	688
Option 4	38,815	469
Option 5	38,559	675
"Do Nothing"	38,185	322

Option 6 (Do Nothing) has been rejected because of its unacceptably low benefit score. Option 1 has been selected as the preferred solution because it is the cheapest of the remaining options and has a benefit score close to the highest. Its service superiority is found to be sensitive only to changes in weighting of criteria which would be contrary to current strategy.

In addition to the major development which is the subject of this submission, Option 1 also includes support units for the out-patient department and an H.S.D.U. Other developments proposed for the hospital include a Mental Illness and E.S.M.I. unit, works and transport department, boiler house, kitchen, mortuary, and the upgrading of an existing ward block for geriatric patients.

In addition, two wards at Southside Hospital would be upgraded for geriatric beds, as would a further 28 beds elsewhere. One hospital would close completely.

2. STATEMENT OF NEED AND PRIORITY

2.1 District Profile

Crompton District includes within its boundaries the commercial and shopping centres of a large City, as well as the old industrial eastern fringe and half of the designated Inner City Area. The 1981 census indicated a resident population of 151,400, and the 1982 catchment population was 316,200 (Appendix 12).

The planning population used for the assessment of the target level of provision for acute services is based upon the shortest travel time by a weighted average of public transport and private transport including emergency services, whilst longer stay services are planned on a resident population basis.

Based upon the above, the populations are as follows:-

	All Ages '000s	65+ '000s
Adjusted 1981 based projected resident population 1993	134.9	22.7
1981 based 1993 Planning Population	220.00	31.1

Details of the planning population are given in Appendix 11.

The District has a revenue budget of £46 million and employs approximately 5,500 staff.

The District is characterised by severe problems of social deprivation and these are reflected in high mortality and morbidity. For example, in 1981, the standardised mortality ratio was 125 for all ages, compared with a Regional ratio of 111 (England and Wales 100). The population of men aged 16 or over who were temporarily or permanently ill on census night was 6.2% in Crompton compared with a regional figure of 4.2% and a national figure of 3.2%.

The following census variables give a further indication of the social deprivation in the District:-

	Crompton	Region	England
Children living with one adult (%)	9.4	6.9	6.1
Males 16-64 in Social Class V (%)	9.9	6.8	5.2
Economically Active Males Out of Work	21.2	13.8	11.1
Households containing at least one person below pensionable age without a car (%)	56.0	33.1	27.6
Persons in owner-occupied households (%)	39.9	60.9	60.4
Persons in households without exclusive use of bath and inside W.C. (%)	5.9	3.6	3.2
Persons in households with more than one person per room (%)	13.0	8.8	7.2
Pensioners living alone (%)	35.5	33.7	30.2

2.2 Hospital Provision

Crompton has five hospitals providing 2098 beds, 3 Accident and Emergency Departments, and Out-Patient Departments at each of the hospital sites plus Faith Hospital, which has no in-patient provision. Service provision and distribution of the capital stock are among the most fragmented within the Region. The beds are currently distributed as

follows:-

		Beds
Crompton General Hospital	Partly Acute	1263
Stones Hospital	Acute	133
Northern Hospital	Acute	100
Northside Children's Hospital	Children	220
Southside Hospital	Partly Acute	272
		2098

(i) Crompton General Hospital

This hospital is the designated District General Hospital site for the District with 1,263 beds and comprises three former Hospitals, which were built in 1866, 1869 and 1865 respectively.

One hospital was built originally as a Poor Law Infirmary, but the others were Work Houses. The latter two are now the location of the main Geriatric and Psychiatric (including Psychogeriatric) services within the District, with 215 and 425 beds respectively.

The hospital occupies a 79.75 acre site some two and a half miles from the City Centre and provides for all specialties except Mental Handicap. It is so situated that it serves part of the populations of two neighbouring Districts and will continue to do so in spite of major hospital builds in these Districts, since it will remain more accessible than these developments.

There is an Accident and Emergency Department, an Out-patient Department, the main Pathology Department, including a Mortuary, the District Laundry, the District C.S.S.D., the Postgraduate Medical Centre and the District Headquarters, all located on the site.

Whilst the site is quite large, the bulk of the vacant land remains unsuitable for building purposes. A total of 11 acres has been declared surplus to requirements by the Regional Health Authority.

The Regional Health Authority Capital Programme has made provision for a new 120 bed/160 day place Mental Illness Unit, a new boiler house, a 50 place day hospital for elderly severely mentally infirm patients, a 58 place day hospital for geriatrics, workshop and transport department, kitchen and mortuary.

(ii) Stones Hospital

This hospital is a former voluntary hospital in an inner city area and now houses the District Adult Orthopaedic and E.N.T. services.

There is an Accident and Emergency Department, and Out-patient Department at the hospital. The total hospital site area is 4.17 acres, and is extremely cramped with small inconveniently shaped wards.

(iii) Northside Hospital

This hospital is situated on a main road, leading to the City Centre.

The site is quite small, at 5.18 acres. However there is scope within the present site to expand the facilities. There are poor support facilities e.g. X-ray, Pharmacy, Theatres, Medical Records, Physiotherapy, but the acute wards are among the best within the District.

(iv) Southside Hospital

This hospital is the former isolation hospital for the city with traditional pavilion ward blocks and a number of two-storey ward blocks. The site houses the Regional Centre for Infectious and Tropical Diseases in fragmented and poor accommodation. The remainder of the beds are for the Chest, Dermatology and Geriatric Medicine specialties. One block has been condemned as structurally unsound.

The site at 40.35 acres is very large and is expensive to support due to the quality of the capital stock and the scattered distribution of facilities.

An upgrading scheme to two of the existing ward blocks, 14a and 14b, has recently been completed providing forty-six geriatric rehabilitation beds. This scheme has been funded from the Inner City Programme and R.H.A. Capital Programme.

(v) Gordon's Children's Hospital

This is a teaching hospital situated approximately two miles to the east of the DGH, on a site of 27 acres It provides children's services, except for infectious diseases, for both the District and a much wider catchment area. There are a number of regional specialities situated at Gordon's and their presence together with the development of special interests by Paediatricians based at the hospital adds to the patient flow which this hospital attracts. They include neurology, neurosurgery, plastic surgery, orthodontics and virology.

(vi) Faith Hospital

Agreement was reached during 1983 between the Secretary of State, Regional Health Authority and Community Health Council, for the in-patient accommodation (96 beds) at this hospital to be closed and the facilities sold. The site is cramped, occupying some 3.6 acres, and located in the centre of modern

small industrial developments, adjacent to a main trunk road. It is intended to retain the reasonably modern out-patient department and dispose of the remainder of the site. Work is progressing to provide the out-patient department with self-contained engineering services, and it is hoped that disposal of the in-patient accommodation will be completed by the beginning of financial year 1985/86.

Despite the high profile of morbidity and mortality in the District, the population of Crompton does not use hospital facilities at any greater rate than the average for the country as a whole. The table below shows the District hospitalisation rate as an index. An index value of 100 corresponds to the all England average.

Hospitalisation Index - Crompton

Specialty	Index
All specialties	99
All medical specialties (including geriatrics)	103
All surgical specialties (including gynaecology)	100
All Regional specialties	101
All specialties other than Regional	97

2.3 Deficiencies in Services

2.3.1 Acute Services

A report of a joint R.H.A./D.H.S.S. working party, published in July, 1981, highlighted the fact that Crompton Health Authority has an acute service which is much more fragmented than is the case in the Region generally. This pattern of acute services contributes to the District's higher than average unit cost and prevents the most efficient use being achieved of beds and available manpower. These factors have all been highlighted through the annual Review process especially with respect to:-

Bed performance
O.P.D. performance
Medical manpower
Nurse manpower
Unit costs
Admin. and Clerical manpower
Works manpower
Ancillary manpower

Apart from its fragmented nature, much of the existing acute services capital stock is old and of poor quality, inhibiting modern acute clinical practices. The recently completed estate survey confirms the poor standard of the accommodation available.

The City Strategy, Regional Strategy and Regional Review all require a large reduction in the number of acute beds in the District. This is in keeping with the regional planning philosophy of developing district acute services througout the region, taking beds and revenue away from the centre of the conurbation. Achieving this reduction in the face of opposition from staff and clinicians is likely to prove a very difficult task indeed, unless some offer of improvement can be made in the quality of stock, in order to compensate for the loss of quantity. It is partly for this reason that the appropriate method of funding that part of the development meeting district service requirements is seen as being via a bridging fund where savings in revenue pay for capital provided.

2.3.2 Accident and Emergency

There are three Accident and Emergency Departments (one of which is dedicated to children's services at Gordon's Hospital). The existing fragmented service is unsatisfactory in the configuration of clinical support it produces. Furthermore, once intended reductions in the numbers of beds are achieved, three A & E departments will no longer be viable. The natural improvement to make is to focus A & E services at the designated D.G.H., Crompton General Hospital (C.G.H.). This cannot be achieved without capital development, as the existing department (a makeshift adaptation of a former ward) is totally inadequate for the service given and is unsuitable for

expansion.

2.3.3 Out-patient Services

Out-patient services are provided at six hospital sites generally in poor capital stock, inadequate for modern clinical practices and client expectations. Capital resources are required to provide an adequate standard of accommodation and to facilitate a reduction in the number of sites.

2.3.4 Services for the Elderly

The R.H.A./D.H.S.S. Working Party Report to which reference was made earlier stated that the former workhouse, now part of the C.G.H. site, should be vacated and demolished as a matter of priority. Recent condition surveys have confirmed the wisdom of that recommendation. The configuration of wards, corridors etc., is such that upgrading could only lead to wards too small for sensible staffing while still falling short of acceptable standards of space. Of the geriatric beds elsewhere, some of those at Southside Hospital are in good accommodation, having recently been upgraded, while the remainder at Southside and elsewhere are in poor accommodation, falling short on both space standards and amenities.

It is the Region's policy to integrate geriatric acute and general acute specialties and provide a minimum of 36% of beds on the D.G.H. site. This is difficult given the current capital stock. Achieving the District aim of a higher figure is correspondingly even less feasible. Additional capital stock, provided to achieve the acute bed rationalisation would release accommodation for geriatrics on the D.G.H. site.

The District is currently heavily reliant on the use of contractual beds in private nursing homes. This is unsatisfactory for two reasons. First, the 55 beds at the Faith Home for the Aged, which are counted at present against the Crompton bed complement, although of very high standard, actually admit patients from the whole of the Region and even further afield. Second, the remaining contract beds are of poor quality. At Apostles which is located in a neighbouring

district and provides 23 female beds there is a lack of rehabilitation facilities and is in a poor location for visiting. At Holy Fathers 32 beds are provided for male patients, again with poor rehabilitation facilities. In considering the various options it has been assumed that the service will be brought up to an acceptable level, by employment of additional staff to provide rehabilitation facilities.

District policy is to develop community health services for the elderly and, if possible, to provide community based nursing homes. Plans are also being developed to provide suitable joint assessment facilities for the geriatricians and psycho-geriatricians.

2.3.5 Services for the Mentally Ill and the Elderly Mentally Infirm

The District in-patient and day patient services for the mentally ill are situated at Crompton General Hospital, the designated D.G.H. site. The bulk of the accommodation available to the Department of Psychiatry dates back to the mid-19th century and is a former workhouse. The accommodation also provides for the elderly severely mentally infirm. The present number of beds are as follows:-

Mental Illness	285
E.S.M.I.	140

	425

Whilst significant progress has been made over the past ten years in reducing the total number of beds within the old workhome there remains the problem of regional long stay patients occupying accommodation on this site. Assuming that the Care in the Community initiatives are fully realised then further progress will be made in reducing the present in-patient population over the next decade, in line with the Minister's requirements launched in the 1984 Regional Review.

Recent investigations coupled with the estates survey commissioned by the Regional Health Authority indicate the very high costs of upgrading existing accommodation, and a new 50 place day hospital is presently under construction. Assuming that the present

facilities were improved, the District would be up to target in beds but remain deficient in the number of day places available. It is envisaged that community initiatives currently being discussed will satisfy the deficit in the number of day places.

2.3.6. Regional Specialties

(i) Infectious Diseases

Crompton Health Authority provides the regional centre for infectious diseases and tropical medicine at Southside Hospital. The service provided covers the whole of the Region plus two neighbouring Districts in the Regions with a total population of 4,185,00. The 1981 report of the joint R.H.A./D.H.S.S. Working Party (op cit) favoured the transfer of the centre from the Southside site to the D.G.H. site within the District, to improve relationships with other acute specialties and to improve the utilisation of scarce support services such as pathology, x-ray and physiotherapy. Present facilities at Southside Hospital are of a very poor standard, and inappropriately designed for modern practices. The site formerly was that for the isolation hospital for the city and has traditional pavilion type wards, although there are a number of ward blocks which are more than a single storey. The infectious diseases provision occupies a strategic part of the Hospital, and if vacated would alow the disposal of a significant part of the site. The design and disposition of the wards are difficult to maintain and staff, particularly with appropriate qualified night nursing cover, and are deficient in facilities such as toilet and wash areas. Any upgrading of the wards would involve extending the existing buildings, and would be expensive. Improvements carried out internally would reduce the number of beds available and increase staffing costs.

(ii) Neurosciences

Both Neurology and Neurosurgery are provided as a sub-regional service from C.G.H. The area covered includes Crompton and five other Health Authorities, giving a total planning population of 1,005,000. There is no designated theatre for neuro-surgery, the wards are distant from the theatre and the main x-ray facilities and the

functional relationship between neurosurgery, in-patient, out-patient and support services, such as x-ray and theatres, is extremely poor. Whilst small improvement works are planned for 1985/86, major improvements can only be affected by more substantial changes.

It is the case that districts served by regional specialties located in Crompton are below R.A.W.P. target while Crompton almost achieves it. There might be thought to be a case, therefore, for moving some or all of the regional and sub-regional specialties to these other districts as a means of improving their position which is summarised below:-

District	Current allocation as % of R.A.W.P. target (currently under review)
Crompton	99.8
Deadham	91.7
Gamlington	90.8

The region has considered this possibility and has rejected it on the following grounds. First, other steps are being taken to improve the position of the below-target districts. In particular all of them are to gain through major capital schemes increasing district services over the next ten years with a major influx of revenue through the R.H.A.'s R.C.C.S allocations. Second, wholesale transfer of personnel and equipment to other districts would be expensive and would be opposed by the staff involved.

A consequence of the location of regional specialties in Crompton is, of course, a relatively high hospitalisation rate for those specialties within the host district and lower rates outside. At present the Region is considering a variety of ways in which the usage might be equalised including ensuring that services available are widely known; positive discrimination towards non-urgent admissions from more distant districts; and establishing peripheral consultant out-patient clinics.

2.3.7 Comment on Overall Priority

The deficiencies outlined above, while not unique in the Region make a capital development a high priority for this District.

In Regional terms the highest priority category given to schemes is those in which significant sums of revenue will be released by gains to be made in efficiency. The strategy quantifies this as applying to savings in excess of £100,000 p.a., and in the case of the proposed Crompton development the efficiency savings are £306,000 p.a. (Appendix 4), putting the scheme at the head of this category.

As explained in para. 2.3.1 above, however, a major redistribution of beds away from Crompton will also take place, amounting to a reduction from 1,878 to 1,219. Revenue savings of some £3.5M p.a. for the services involved will result, and the rapid and complete achievement of these will be greatly facilitated by the development now proposed.

The development is the major element of a twenty two stage rationalisation of services in the District, which, in particular will reduce the sites from which acute services will be provided.

The proposed developments in the District are calculated on the basis of target requirements and not on the service currently being provided. That there are also urgent needs in other (peripheral) Districts is recognised by the Regional Health Authority by the inclusion in the capital programme of major projects in those Districts too.

These developments will enable those Districts which at the present rely upon North Manchester to meet their own service targets.

2.3.8 Targets for Provision

Appendix 1 sets out the current distribution of the bed stock and the target provision. The methodology by which the targets have been calculated is that adopted in the Regional Strategy, and is explained in detail in Appendix 2.

Setting the Objectives of the Development

The objectives of the development followed naturally from two things. These were the Regional and District strategic planning processes and their resulting statements, and the deficiencies listed in section 2.

To say that they followed naturally does not mean that they were arrived at and agreed easily. On the one hand the planning team wanted to be comprehensive, while on the other hand, double counting was to be avoided. Further, it was accepted that bland statements of objectives such as, 'improve services to the elderly', would not be useful on their own. They had to be fleshed out in such a way as to indicate by what criteria success in achieving objectives would be judged.

3. APPRAISAL OF OPTIONS

3.1 Objectives of Development

Seven primary objectives were considered to arise from the District's need to improve services in the context of shrinking bed targets.

A. RELEASE REVENUE in order to bring the District to its targeted expenditure and allow developments for priority services.

B. IMPROVE SERVICES TO THE ELDERLY. In particular

B.1 Improve the facilities and standard of accommodation, including meeting deficiencies in both in-patient and day place units.

B.2 Integrate geriatric medicine with general acute specialties.

B.3 Improve support facilities to the elderly, especially rehabilitation.

B.4 Improve community health services by reducing the number of contract beds of poor quality and providing new facilities.

C. IMPROVE ACUTE SERVICES. In particular

C.1 Improve the configuration of acute services to make them more acceptable and to achieve desired throughput.

C.2 Improve the facilities available in both in-patient accommodation and clinical support services, including meeting deficiencies.

D. IMPROVE REGIONAL SPECIALTY PROVISION located in the District. In particular for Infectious Diseases

D.1 Improve the relationship between I.D. beds and the acute specialties for both adults and children. Where possible children should be located near other acute specialties.

D.2 Meet deficiencies in standards of accommodation for neurosciences.

D.3 Increase the level of provision of beds, theatres, x-ray, out-patient facilities and neurophysiology to that appropriate.

D.4 Improve the standard of I.D. accommodation.

D.5 Ensure appropriate relationships with support units.

E. IMPROVE ACCIDENT AND EMERGENCY FACILITIES. In particular

E.1 Improve accommodation.

E.2 Ensure availability of appropriate staff cover.

E.3 Ensure availability of appropriate beds and support services.

F. IMPROVE OUT-PATIENT SERVICES. In particular

F.1 Provide an appropriate number of sites to ensure availability of support services and easy access for patients.

F.2 Achieve efficiency in the use of staff time.

In addition to these particular objectives for improvements which were seen to arise from the Districts needs, four further considerations were regarded as important and provided criteria by which options were to be compared. There were:

G. ACCEPTABILITY

By this is meant the acceptability (and, therefore, the ease of implementation) of any particular option to the major groups affected. These were the public, as represented by the C.H.C.s; Trades Unions; Clinicians; the Region; and the District.

H. EASE OF STAFFING

This criterion encompasses recruitment, training and working arrangements.

I. ACCESSIBILITY

This covers the ease with which patients and visitors can reach particular configurations of facilities which consitute options for development.

J. OVERALL FLEXIBILITY

This covers the ease with which an option will cope with changed circumstances of resources, populations etc.

Generating options and choosing options to consider in detail

The means by which this was done is carefully explained within the report. All that need be added is that by generating options by a deliberate process many were identified for the first time, lessening the risk that a good option would be overlooked. In addition, the process of reducing the very large number of options initially identified forced both appraisal team members and officers outside the team to be quite clear about the grounds on which they objected to particular options. From a process of discussion of why options were disliked arose the set of constraints which were then formally identified and applied to all options.

3.2 Options Considered

The process by which options were generated requires a short description. Firstly, possible configurations of services were grouped according to whether there were 1, 2 ..... 5 hospital sites used. Within each grouping possible combinations of services were set out. The combinations included some non-hospital solutions, for example, community provision for the elderly. The full list is at Appendix 3. In all, this process generated some 208 discrete options. The advantages and disadvantages of these options were considered both within and outside the planning team. As a result of this consideration, a number of constraints were accepted as being appropriate and these were used to eliminate options from further consideration.

The constraints adopted were as follows:-

(i) Provision after the development should be consistent with the bed and service targets laid down by the Region.

(ii) Any capital development must be of acceptable size - that is be feasible in terms of timescale and cost.

(iii) The ex-workhouse currently housing elderly patients must be vacated to remove the very poor accommodation.

(iv) Crompton General Hospital is the designated D.G.H. and the centre for Accident and Emergency Services, consistent with the District Strategy and Regional Strategy.

(v) Gordon's Childrens' Hospital is retained in all options. (This hospital, apart from its possible use as a site for children's infectious disease beds, therefore, does not figure in the Option Appraisal).

This constraint is adopted in view of the fact that regional strategy with respect to children's hospitals is uncertain, and retention forecloses on no possibilities.

Minimum standards for the achievement of some of the objectives were laid down, and these provided further constraints. In particular, certain services must be provided at Crompton General Hospital, as follows:-

(vii) 102 geriatric beds, being the minimum acute element of the total provision, in line with regional policy.

(viii) All mental illness and E.S.M.I. in-patient and day facilities, in keeping with District Strategy.

(ix) Adult neurosurgery facilities in order to provide an acceptable relationship to other acute specialties and the A & E services.

(x) Gynaecology beds, to provide proximity to obstetrics and S.C.B.U.

Constraints (i) and (ii) effectively limited the choice to options which used 3 or more hospital sites. Application of the remainder of the constraints reduced the list of options to seven. Two to these differed only in the choice of hospital. Thus option 1 was adopted as representative of both those possibilities, and ultimately either the Northside Hospital or Stones could be the one to close. In addition, each main option had three variants depending on whether no further O.P.D. provision was made; new provision was made; or upgrading carried out.

3.2.1 Shortlisted Options

The options selected for detailed examination are set out below with accompanying bed tables.

SELECTED OPTIONS

OPTION 1

Option 1 is based on N.H.S. Hospitals at C.G.H., Southside, Stones and Gordons plus 44 contractual beds.

1. C.G.H.

C.G.H. will provide adult acute specialties plus mental illness, E.S.M.I., and 121 acute geriatric beds.

Developments will include the following:-

(i)	Major Development Phase I to provide	168 beds
		4 operating theatres
	(N.B. Beds include Neurosurgery and Infectious Diseases)	5 x-ray rooms
		110/3 hr. A&E dept.
(ii)	Geriatric Day Unit	58 place
(iii)	Out-patient Services - see options for improvement	
(iv)	Mental Illness Unit (already programmed)	120 beds
(v)	E.S.M.I. Day Unit (on site)	50 place
(vi)	E.S.M.I. Wards	56 beds
(vii)	H.S.D.U.	
(viii)	Boiler House (already programmed)	
(ix)	Works Department	
(x)	Demolition of Old Workhouse	
(xi)	Upgrade 1 ward to long stay geriatric patients	19 beds

The total number of beds on the site will reduce from 1,263 to 981.

2. Southside Hospital

Following the transfer of the Infectious Diseases beds from Southside to C.G.H. a large part of the site will be sold and only a small area will be retained to provide 89 Geriatric beds in Wards 14a and 14b which have been recently upgraded; plus wards 9 and 10 which will require upgrading.

3. Stones

Geriatrics, out-patient services, rehabilitation, plus minor acute services.

Developments will include:-

Upgrading of existing accommodation to provide 28 geriatric beds.

4. Gordons

Gordons will remain the children's hospital.

5. Closures

The following hospital will close.

Northside

OPTION 2

Option 2 is based upon the use of 4 N.H.S. hospitals, C.G.H., Northside, Southside and Gordons, plus 55 contractual beds.

1. C.G.H.

C.G.H. will provide the majority of the acute specialties plus, mental illness, E.S.M.I. and 102 acute geriatric beds. Developments will include the following:-

(i)	Major Development Phase I (N.B. Beds include Neurosurgery)	105 adult acute 7 operating theatres 4 x-ray rooms 110/3 hr. A&E dept.
(ii)	Geriatric Day Unit	30 places
(iii)	Out-patient services - see options for improvement	

(iv)	Mental Illness Unit	120 beds
	(already programmed)	160 day places
(v)	E.S.M.I. Day Unit (on site)	50 place
(vi)	E.S.M.I. Wards	56 beds
(vii)	H.S.D.U.	
(viii)	New Boiler House (already programmed)	
(ix)	Works Department	
(x)	Demolition of ex-workhouse.	

The total number of beds on the site will reduce from 1,263 to 910.

2. Northside

Northside Hospital will be retained to provide some general medical, general surgical and geriatric beds together with out-patient sessions. Developments will include the following:-

(i)	Upgrading existing accomodation to provide geriatric beds	46 beds
(ii)	Provision of Geriatric Day Unit	30 places

3. Southside

Southside Hospital will remain as the Centre for Infectious Diseases together with 80 geriatric beds.

Wards 9 and 10 will require upgrading to provide 34 geriatric beds.

4. Gordons

Gordons will remain the children's hospital.

5. Closures

The following hospital will close.

Stones

OPTION 3

Option 3 is based upon the use of 3 N.H.S. hospital sites, C.G.H., Southside and Gordons plus 28 contractual beds.

1. C.G.H.

C.G.H. will provide all specialties plus mental illness, E.S.M.I. and 142 acute geriatric beds. Developments will include the following:-

(i)	Major Development Phase I	263 adult acute beds
		8 operating theatres
	(N.B. Beds include Neurosurgery	4 x-ray rooms
	and Infectious Diseases)	110/3 hr A&E dept.
(ii)	Geriatric Day Unit	58 places
(iii)	Out-patient services - see options for improvement	
(iv)	Mental Illness Unit	120 beds
	(already programmed)	160 day places
(v)	E.S.M.I. Day Unit	50 place
(vi)	E.S.M.I. Wards	56 beds
(vii)	H.S.D.U.	
(viii)	Boiler House (already programmed)	
(ix)	Works Department	
(x)	Demolition of ex-workhouse	
(xi)	Upgrade 2 wards for long stay geriatric patients	40 beds

The total number of beds on the site will reduce from 1,263 to 1,077.

2. Southside

Following the transfer of the Infectious Diseases beds to C.G.H., a large part of the site will be sold, and a smaller area retained to provide 112 geriatric beds. 46 will be located in wards 14a and 14b which have recently been upgraded, however further upgrading will be required to provide a further 70 beds.

3. Gordon

Gordons will remain the children's hospital.

4. Closures

The following hospitals will close:-

Stones and Northside.

OPTION 4

Option 4 is based upon the use of 5 N.H.S. hospitals, C.G.H., Stones, Northside, Southside and Gordon's plus 55 contractual beds.

1. C.G.H.

C.G.H. will provide a large proportion of the acute specialties plus, mental illness, E.S.M.I. and 102 acute geriatric beds. Developments will include the following:-

(i)	Major Development Phase I	34 adult acute beds 4 operating theatres 4 x-ray rooms 110/3 hr A&E dept.
(ii)	Geriatric Day Unit	30 places
(iii)	Out-patient services - see options for improvement	
(iv)	Mental Illness Unit (already programmed)	120 beds 160 day places
(v)	E.S.M.I. Day Unit (on site)	50 place
(vi)	E.S.M.I. Wards	56 beds
(vii)	H.S.D.U.	
(viii)	Boiler House (already programmed)	
(ix)	Works Department	
(x)	Demolition of ex-workhouse	

The total number of beds on the site will reduce from 1,263 to 848.

2. Stones

Stones Hospital will be retained as an acute hospital to provide some general medical and surgical beds in existing accommodation.

3. Northside Hospital

Northside Hospital will be adapted to provide 79 long stay geriatric beds.

Other developments will include the provision of a 30 place geriatric day unit.

4. Southside Hospital

Southside Hospital will continue to provide Infectious Diseases beds for both children and adults, plus 46 geriatric beds in wards 14a and 14b, which have recently been upgraded.

5. Gordons

Gordons will remain the children's hospital.

6. Closures

No hospitals will close under this option.

OPTION 5

Option 5 is based upon the use of 3 N.H.S. hospital sites C.G.H., Stones and Gordons plus 110 contractual beds.

1. C.G.H.

C.G.H. will provide the majority of the acute specialties plus, mental illness, E.S.M.I. and 102 acute geriatric beds. Developments will include the following:-

(i)	Major Development Phase I	140 adult acute beds
	(N.B. Beds include adult	6 operating theatres
	infectious diseases	4 x-ray rooms
	and neuro-surgery)	110/3 hr A&E dept.
(ii)	Geriatric Day Unit	30 places
(iii)	Out-patient services - see options for improvement	
(iv)	Mental Illness Unit	120 beds
	(alread programmed)	160 day places
(v)	E.S.M.I. Day Unit	50 place
	(on site)	
(vi)	E.S.M.I. Wards	56 beds
(vii)	H.S.D.U.	
(viii)	Boiler House (already programmed)	
(ix)	Demolition of ex-workhouse	

The total number of beds on the site will reduce from 1,263 to 953.

2. Stones

Stones Hospital will provide some general medical, general surgical and long stay geriatric beds together with out-patient sessions. Developments will include the following:

(i)	Upgrading of wards to provide	70 geriatric beds
(ii)	Provision of a Geriatric Day Unit	30 places

3. Gordons

Gordons will remain the children's hospital. Developments will include:-

(i)	The provision of a children's Infectious Diseases Unit	34 beds

4. Closures

The following hospitals will close:-

Southside and Northside.

"DO NOTHING"

This option is based upon there being no new capital developments and assumes that it will be possible to rationalise existing services to bring the beds provided to the approved level of service.

	BED COMPLEMENT								
	TARGET	C.G.H.	SOUTHSIDE	STONES	NORTHSIDE	FAITH	GORDONS	COMMUNITY	TOTAL
GENERAL MEDICAL	188	172		10					182
C.C.U.		6							6
DERMATOLOGY	26	26							26
	214	204		10					214
GENERAL SURGERY	130	100		30					130
ORTHOPAEDIC	100	72		28					100
GYNAECOLOGY	50	50							50
E.N.T.	15	15							15
I.T.U.	11	8							8
	306	245		58					303
MATERNITY	75	81			C	C			81
S.C.B.U.	16	25							25
					L	L			
GERIATRIC									
ACUTE	138	121	89	28	O	O		44	282
COMMUNITY	144								
DAY PLACES	58	58			S	S			58
E.S.M.I.	68	68			E	E			68
DAY PLACES	68	50							50
					D	D			
MENTAL ILLNESS	100	120							120
DAY PLACES	120	160							160
TOTAL DISTRICT									
BEDS	1,045	855	89	96				44	1,084
DAY PLACES	246	268							268
REGIONAL SPECIALTIES:									
INFECTIOUS DISEASE - ADULT	34	34							34
CHILD	34	34							34
NEUROLOGY - ADULT	30	30							30
NEUROSURGERY - ADULT	27	28							28
	1,186	981	89	96	-	-		44	1,219

	BED COMPLEMENT								
	TARGET	C.G.H.	SOUTHSIDE	STONES	NORTHSIDE	FAITH	GORDONS	COMMUNITY	TOTAL
GENERAL MEDICAL	188	155			25				180
C.C.U.	6								6
DERMATOLOGY	26	26							26
	214	187			25				212
GENERAL SURGERY	130	105			25				130
ORTHOPAEDIC	100	100							100
GYNAECOLOGY	50	50							50
E.N.T.	15	15							15
I.T.U.	11	8							8
	306	278			25				303
MATERNITY	75	81							81
S.C.B.U.	16	25							25
GERIATRIC									
ACUTE	138	102	80	C	46	C		55	283
COMMUNITY	144								
DAY PLACES	58	30		L	30	L			60
E.S.M.I.	68	68		O		O			68
DAY PLACES	68	50							50
				S		S			
MENTAL ILLNESS	100	120							120
DAY PLACES	120	160		E		E			160
TOTAL DISTRICT				D		D			
BEDS	1,045	861	80		96			55	1,092
DAY PLACES	246	240			30				270
REGIONAL SPECIALTIES:									
INFECTIOUS DISEASE - ADULT	34	34							34
CHILD	34	34							34
NEUROLOGY - ADULT	30	30							30
NEUROSURGERY - ADULT	27	28							28
	1,186	919	148	-	96	-		55	1,218

	BED COMPLEMENT								
	TARGET	C.G.H.	SOUTHSIDE	STONES	NORTHSIDE	FAITH	GORDONS	COMMUNITY	TOTAL
GENERAL MEDICAL	188	155							180
C.C.U.		6							6
DERMATOLOGY	26	26							26
	214	187							212
GENERAL SURGERY	130	130							130
ORTHOPAEDIC	100	100							100
GYNAECOLOGY	50	50							50
E.N.T.	15	15							15
I.T.U.	11	8							8
	306	303							303
MATERNITY	75	81							81
S.C.B.U.	16	25							25
GERIATRIC									
ACUTE	138	142	112	C	C	C		28	282
COMMUNITY	144								
DAY PLACES	58	58		L	L	L			58
E.S.M.I.	68	68		O	O	O			68
DAY PLACES	68	50							50
				S	S	S			
MENTAL ILLNESS	100	120							120
DAY PLACES	120	160		E	E	E			160
TOTAL DISTRICT				D	D	D			
BEDS	1,045	951	112					28	1,091
DAY PLACES	246	268							268
REGIONAL SPECIALTIES:									
INFECTIOUS DISEASE - ADULT	34	34							34
CHILD	34	34							34
NEUROLOGY - ADULT	30	30							30
NEUROSURGERY - ADULT	28	28							28
	1,186	1,077	112	-	-	-		28	1,217

	BED COMPLEMENT								
	TARGET	C.G.H.	SOUTHSIDE	STONES	NORTHSIDE	FAITH	GORDONS	COMMUNITY	TOTAL
GENERAL MEDICAL	188	170		10					180
C.C.U.		6							6
DERMATOLOGY	26			26					26
	214	176		36					212
GENERAL SURGERY	130	130							130
ORTHOPAEDIC	100	30		70					100
GYNAECOLOGY	50	50							50
E.N.T.	15			15					15
I.T.U.	11	8							8
	306	218		85					303
MATERNITY	75	81							81
S.C.B.U.	16	25							25
GERIATRIC									
ACUTE	138	102	46		79	C		55	282
COMMUNITY	144								
DAY PLACES	58	30			30	L			60
E.S.M.I.	68	68				O			68
DAY PLACES	68	50							50
						S			
MENTAL ILLNESS	100	120							120
DAY PLACES	120	160				E			160
TOTAL DISTRICT						D			
BEDS	1,045	790	46	121	79			55	1,091
DAY PLACES	246	240			30				268
REGIONAL SPECIALTIES:									
INFECTIOUS DISEASE - ADULT	34	34							34
CHILD	34	34							34
NEUROLOGY - ADULT	30	30							30
NEUROSURGERY - ADULT	27	28							28
	1,186	848	114	121	79	-		55	1,217

	BED COMPLEMENT								
	TARGET	C.G.H.	SOUTHSIDE	STONES	NORTHSIDE	FAITH +	GORDONS	COMMUNITY	TOTAL
GENERAL MEDICAL	188	155		25					180
C.C.U.		6							6
DERMATOLOGY	26	26							26
	214	187		25					212
GENERAL SURGERY	130	105		25					130
ORTHOPAEDIC	100	100							100
GYNAECOLOGY	50	50							50
E.N.T.	15	15							15
I.T.U.	11	8							8
	306	278		25					303
			C		C	C			
MATERNITY	75	81							81
S.C.B.U.	16	25	L		L	L			25
			O		O	O			
GERIATRIC									
ACUTE	138	102		70				110	282
COMMUNITY	144		S		S	S			
DAY PLACES	58	30		30					60
			E		E	E			
E.S.M.I.	68	68							68
DAY PLACES	68	50	D		D	D			50
MENTAL ILLNESS	100	120							120
DAY PLACES	120	160							160
TOTAL DISTRICT									
BEDS	1,045	861		120				110	1,091
DAY PLACES	246	240		30					270
REGIONAL SPECIALTIES:									
INFECTIOUS DISEASE - ADULT	34	34					34		34
CHILD	34								34
NEUROLOGY - ADULT	30	30							30
NEUROSURGERY - ADULT	27	28							28
	1,186	953	-	120	-	-	34	110	1,217

	BED COMPLEMENT								
	TARGET	C.G.H.	SOUTHSIDE	STONES	NORTHSIDE	FAITH	GORDONS	COMMUNITY	TOTAL
GENERAL MEDICAL	188	180							180
C.C.U.		6							6
DERMATOLOGY	26	26							26
	214	212							212
GENERAL SURGERY	130	56			74				130
ORTHOPAEDIC	100	30		70					100
GYNAECOLOGY	50	50							50
E.N.T.	15			15					15
I.T.U.	11	8							8
	306	144		85	74				303
MATERNITY	75	81				C			81
S.C.B.U.	16	25							25
						L			
GERIATRIC									
ACUTE	138	35	89	48		O		110	282
COMMUNITY	144								
DAY PLACES	58	40				S			40
E.S.M.I.	68	68				E			68
DAY PLACES	68	50							50
						D			
MENTAL ILLNESS	100	120							120
DAY PLACES	120	160							160
TOTAL DISTRICT									
BEDS	1,045	659	89	133	74			110	1,091
DAY PLACES	246	200							250
REGIONAL SPECIALTIES:									
INFECTIOUS DISEASE - ADULT	34		34						34
CHILD	34		34						34
NEUROLOGY - ADULT	30	30							30
NEUROSURGERY - ADULT	27	28							28
	1,186	705	157	133	74	-		110	1,217

(DO NOTHING) OPTION 6

OUT-PATIENTS

Two development options plus a "do nothing" option are available for improving Out-patient Services and whichever is chosen will apply to each of the main options.

OPTION A

C.G.H.

Build a new Out-patients Department	135 Dr. Sessions
plus a new Pharmacy	1000 beds
new Medical Records Dept.	20 points
Community	13 Dr. Sessions

OPTION B

C.G.H.

Upgrade existing department	135 Dr. Sessions
Community	13 Dr. Sessions

Which of these options should be chosen is the subject of a sub-appraisal not shown here.

3.3 Costs

The table below brings together the capital and revenue costs. Full details of their calculations are set out in Appendices 4 and 5. In addition to the capital costs being expressed as a discounted value they are converted into an 'annual equivalent cost' which can be regarded as the mortgage payment that would have to be paid over 60 years to pay for the capital involved. This enables a direct comparison to be made with the revenue costs. The addition of the capital A.E.C. to the revenue cost gives a total annual equivalent cost which is a representation of the resource commitment each option implies.

CAPITAL AND REVENUE COSTS (£000'S) (5% Discount Rate)

Option	Undiscounted Capital	Discounted Capital	Annual Equivalent Costs £000's		Total Annual Equivalent Cost
			Capital	Revenue	
1	11,800	9,956	693	37,732	38,425
2	11,478	9,714	658	37,876	38,534
3	17,156	14,461	903	37,697	38,600
4	9,844	8,306	655	38,160	38,815
5	13,009	11,065	765	37,794	38,559
"Do Nothing"	488	395	241	37,944	38,185
Current revenue Costs				40,663	

It should be noted that the revenue costs quoted relate only to those services which are the subject of this submission and exclude, for example, children's and mental handicap services.

3.4 Performance of Options Against Service Objectives

Options were assessed for their performance in two stages. First, a brief description of the strengths and weaknesses of each option on each of the criteria was set down. The results of this exercise are displayed in Table 1. This detailed matrix was then used as a basis of a scoring where the descriptions were used to rate each option against each criterion on a scale of 1-10, with 10 representing optimal conditions. The criteria were then weighted against each other to reflect their relative importance. Weights and scores were then multiplied together and the resulting products summed to give an overall score for each option, which is a rough indication of the overall performance of the options on non-financial grounds. The results of this second process are shown in Table 2.*

An examination of the changes that would have to be made to the weightings in the scoring/weighting table to affect the results shows that a shift in priorities towards acute services and away from geriatrics would change rankings. The weightings used, however, reflect the importance of the client groups in priority services in that the service for the elderly attracts the highest weight, followed by acute and accident and emergency services which are related and meet service deficiencies, and finally Regional specialties.

TABLE 1

RELATIVE PERFORMANCE OF OPTIONS ON NON-FINANCIAL CRITERIA

OBJECTIVE	OPTIONS					
	1	2	3	4	5	DO NOTHING
IMPROVE SERVICES TO THE ELDERLY Standard of Accommodation	Improved relative to status quo. Uses good accommodation at Southside	Improved. Uses good accommodation at Southside & good upgraded accommodation at the Northside	Improved. Existing and upgraded accommodation at Southside good.	Improved. Uses existing upgraded beds at Southside but also 79 beds at the Northside of not such good standard.	Improved. Uses 70 beds at Stones which are not of such good quality as upgraded beds as those at Southside	Remains very poor.
Integrates Geriatric Med. with Gen. Acute.	43% of beds on D.G.H. site. Large single specialty hospital at Southside of 89 beds.	36% Has 80 isolated beds at Southside and small 3rd site.	50% 112 bed single specialty hospital at Southside	36% 79 bed single specialty hospital at the Northside	36% Balance of beds in a community hospital at Stones	12%
Improve Support Facilities especially Rehab.	Rehab. at both C.G.H. and Northside good.	Rehab. at Northside in day hospital. Fewer beds at C.G.H. .. than in 1 and less use of rehab. there.	Beds located with very good rehab. and other support facilities.	Large proportion of beds at Northside were rehab. is less good.	Large proportion of beds away from good back-up facilities.	Once bed reductions had taken place acute beds would be sited away from back-up facilities.
Improve community services and reduce contract beds.	Reduction of 66 in contract beds.	55	82	55	Nil.	Nil.

TABLE 1 (Cont'd)

RELATIVE PERFORMANCE OF OPTIONS ON NON-FINANCIAL CRITERIA

OBJECTIVE	OPTIONS					
	1	2	3	4	5	DO NOTHING
IMPROVE ACUTE SERVICES Configuration	84% at N.M.G.H. 28 orthopaedic beds at Stones not ideal but has advantages for cold surgery.	89% Provides a community hospital.	100% No community.	76% Unacceptable number of orthopaedic beds at Stones	89% Provides a community hospital.	68% Scattered accommodation very difficult to cover.
Improve in-patient accommodation and clinical support services.	Poor accommodation at Stones Adequate support.	Good accommodation. Support facilities good.	Good accommodation. Support very good.	Poor accommodation at Stones Support adequate.	Community wards at Stones poor. Support good.	Much poor accommodation. Support poor in places.
IMPROVE REGIONAL SPECIALTY PROVISION Infectious Diseases	Both children and adults at N.M.G.H.	Both at Southside	Both at C.G.H.	Both at Southside	Adult is at C.G.H. Children's is at Gordons	As 4.
	Accommodation improved.	No Improvement in accommodation.	Accommodation improved.	No improvement in accommodation.	Accommodation improved.	As 2
Neurosciences.	NO DIFFERENCES BETWEEN OPTIONS: ALL MEET OBJECTIVE EXCEPT "DO NOTHING"					

TABLE 1 (Cont'd)

RELATIVE PERFORMANCE OF OPTIONS ON NON-FINANCIAL CRITERIA

OBJECTIVE	OPTIONS					
	1	2	3	4	5	DO NOTHING
IMPROVE A & E. FACILITIES. Staff cover. Appropriate beds. Support services.	Beds are sufficient but there might be some staffing cover problems in orthopaedics.	All relevant beds on C.G.H. site. May be some staffing problems with medical beds off-site. Fewer beds off site than in Option 1.	As 2.	Too many orthopaedic beds away from A.& E. (70).	As 2.	70 orthopaedic beds and 74 surgical beds off site. Retains 2 A & Es.
IMPROVE OUT-PATIENT SERVICES	THIS IS A SUB OPTION IN EACH MAIN OPTION AND IS NOT RELEVANT TO THIS TABLE					
ACCEPTABILITY (See Appendix 6) Rank of ease of achieving closures. (1 is highest rank).	1	2	3	5	Adult is at C.G.H. 4	6
EASE OF STAFFING	Single specialty hospital difficult to staff with paramedics. Possible difficulties with medical staffing.	Possibly difficulties over paramedics.	Ideal on staffing acute beds. Single specialty hospital difficult for paramedics.	4 site solution may cause problems with both medical staff and paramedics.	Two geriatric day hospitals may lead to problems with paramedical staffing.	As 2

TABLE 1 (Cont'd)

RELATIVE PERFORMANCE OF OPTIONS ON NON-FINANCIAL CRITERIA

OBJECTIVE	OPTIONS					
	1	2	3	4	5	DO NOTHING
ACCESSIBILITY						
Private Transport. (See Appendix 7)	85% of population within 6 minutes of at least one retained hospital	77%	77%	85%	71%	85%
Public Transport.	Moderate.	Fair.	Poor.	Fair/Good.	Moderate.	Fair/Good.
FLEXIBILITY						
The main flexibility issues relate to infectious diseases and geriatrics. For the latter, the fewer the sites, the less flexibility there is if norms increase. For ID, Southside is the most flexible and C.G.H. the least.	Moderately flexible for geriatrics. Most flexible for ID.	As 1 for geriatrics. As 1 for ID.	Least flexible for geriatrics. Least flexible for ID.	Most flexible for geriatrics. Most flexible for ID.	Less flexible than 1 & 2 for geriatrics. Moderately flexible for ID.	As 4 for geriatrics and ID

TABLE 2

WEIGHTING AND SCORING OF NON-FINANCIAL CRITERIA

OBJECTIVE	OPTIONS											
	WT	1		2		3		4		5		DO NOTHING
SERVICES TO THE ELDERLY	25	8	(200)	6	(175)	9	(225)	7	(175)	6	(150)	5 (125)
ACUTE SERVICES	22	6	(132)	8	(176)	7	(154)	2	(44)	7	(154)	1 (22)
REGIONAL SPEC.	9	6	(54)	3	(27)	6	(54)	3	(27)	9	(81)	3 (27)
A & E.	13	8	(104)	9	(117)	9	(117)	4	(52)	9	(117)	1 (22)
EASE OF STAFFING	9	6	(54)	7	(63)	7	(63)	4	(36)	7	(63)	1 (9)
ACCESSIBILITY	9	7	(63)	7	(63)	3	(27)	8	(72)	6	(54)	8 (72)
ACCEPTABILITY	9	7	(63)	6	(54)	4	(36)	3	(27)	4	(36)	1 (9)
FLEXIBILITY	4	8	(32)	8	(32)	3	(12)	9	(36)	5	(20)	9 (36)
TOTAL WEIGHTED SCORE (OUT OF 1000)			702		707		688		469		675	322

3.5 Overall Comparison of Options

Table 3 below sets out in summary form the costs and benefits of the various options, fuller details being given in Appendices 4 & 5.

	OPTIONS					
£000's	1	2	3	4	5	Do Nothing
Capital Cost (minus sales)	11,800	11,478	17,156	9,844	13,009	488
Revenue Cost in "Steady State"	36,854	37,062	36,804	37,470	36,943	37,160
Saving of Revenue Relative to Status Quo	3,809	3,601	3,859	3,193	3,720	3,503
Efficiency saving included in Revenue savings	306	98	356	+310*	217	-
Total "Annual Equivalent Cost"	38,425	38,534	38,600	38,815	38,559	38,185
Scores on Non-Financial Criteria	702	707	688	469	675	322

* decreased efficiency

It should be noted that the differences in revenue costs are small in general, and errors in estimation would account for a good part of the differences. In addition, the differences are very small in comparison to the total savings in revenue that all options would be expected to achieve

in their "steady state". When the AEC's (of capital and revenuetogether) are considered the "Do Nothing" option is shown as the least expensive but because of the very poor service provided (reflected in the benefit score of 322) this option is considered to be most undesirable. In particular the "Do Nothing" option fails to meet several of the objectives of the appraisal set out in para. 3.1, as follows:-

(i) Improve services to the elderly: the acute geriatric service would be fragmented and located on 3 sites resulting in only 35 beds provided at the DGH. A large proportion of the accommodation would be of a poor standard and the District would continue to rely on a large number of contractual beds.

(ii) Improve acute services: the service would continue to be fragmented on 3 sites resulting in problems of staffing, increased cost and the non-viability of small units. It would also result in poor relationships between specialties making the achievement of the required throughput difficult.

(iii) Improve Regional Specialties: the option would result in there being little or no improvements in the provision for both infectious diseases and the neuroservices particularly as regards relationship with other services and quality of accommodation.

(iv) Improve Accident and Emergency Services: the present pattern of two centres for adult patients in the District would continue resulting in difficulties of staffing and high cost.

A further point that should be made is that whilst the 'Do Nothing' option assumes that it will be possible to rationalise the service to attain the required target level of beds and reduction in revenue costs, the District Health Authority is of the opinion that without a major capital development such rationalisation will be more difficult to implement.

An examination of the remaining options shows that on non-financial criteria option 2 is slightly superior to option 1, but it is considerably more expensive in both capital and revenue costs.Option 1 dominates all

other options in that it has a higher non-financial score and lower AEC Option 3 is marginally cheaper in revenue (£50,000) but this is more than offset by its considerably greater capital cost and poorer benefit score. Option 1 meets the required revenue savings and will provide the most acceptable service at the lowest cost and is, therefore, the preferred option.

4. THE PREFERRED OPTION

4.1 Statement of Functional Content

(a) Covered by the option appraisal:-

Beds

Adult General Acute	112
Adult Infectious Diseases	32
Children's Infectious Diseases	31
	175

Accident & Emergency Department	160 pats/3hr. peak
Orthopaedic and Fracture Clinic	27 Dr. Sessions

Operating Facilities

Operating Suites	4
X-ray	5 rooms incl. scanner

(b) Also included in the major development will be:-

Out-patients	151 Dr. Sessions
E.N.T.	1 Suite
Medical Records	24 pts.
Pharmacy	1,200 beds
H.S.D.U.	1
General Support Accommodation	

4.2 Location and Site

Appendix 9 shows the site in relation to the existing hospital and Appendix 10(i) and (ii) are maps of the District showing both the hospitals and the catchment area in relation to public transport.

4.3 Expected Capital Cost and Type of Construction

The total capital cost will be £17,541,000 and details are given in Appendix 5.

4.4 Expected Revenue Costs

The proposed development will lead to a net reduction of 282 beds at the C.G.H. the closure of the Northside and the reduction of contractual beds from 110 to 44. The beds at C.G.H. will be reduced by 359. The R.C.C.S. for the scheme will, therefore, be zero since the detailed calculations in Appendix 4 show a total saving of £3.8 million.

4.5 Expected Timetable for Developments

Timetable

To obtain the maximum benefit from the revenue savings identified as a result of this development the management control plan has been set up to achieve a start on site date of April 1987. The contract will not exceed three years.

This 'fast track' programme is achievable only if the planning proceeds without awaiting formal approvals, though it must be stressed that Capricode will be adhered to. In anticipation of the acceptance of the Approval in Principle submission in August 1985, a Budget Cost will be submitted to the department in September 1985. Further programme details for the Enabling Scheme and the Acute Services Development follow in Tables 1 and 2.

Table 1

Enabling Scheme

Budget Costs	January 85
Design Cost Estimate	April 85
Pre-Tender Estimate	September 85
Out to Tender	October 85
Start on Site	March 1986
Practical Completion	March 87

Table 2

Acute Services Development

Budget Cost	September 85
Design Cost Estimate	January 86
Pre-Tender Estimate	October 86
Out of Tender	December 86
Start on Site	June 87
Practical Completion	June 90

4.6 Effect on Present Services in District

The District is committed to rationalise hospital services in Crompton and the provision of Phase I will facilitate removal of the current over provision of both adult acute and geriatric beds to target levels.

A. CROMPTON GENERAL HOSPITAL

(i) Beds

The provision of 112 new adult acute beds including 28 Neuro-surgery will enable existing accommodation to be made available to accommodate acute geriatric patients and thus facilitate the closure and demolition of the old workhouse.

(ii) Theatres and X-ray

In order to rationalise these acute beds the District's strategy is to provide the majority of the medical and surgical specialties at the C.G.H. The provision of 4 additional theatres and 5 R.D. rooms, including a scanner will make this possible. One of the theatres will be designated for neuro-surgery, thus providing an integrated unit with x-ray and the neuro-surgical ward.

(iii) Accident and Emergency

The provision of a new A&E Department will result in the closure of the department at Stones Hospital as a major Accident and Emergency Centre and facilities will be given to the retention of services there for minor daytime injuries. The existing department of C.G.H. will be vacated and consideration is currently being given to the adaptation of this area to provide additional support services.

B. SOUTHSIDE HOSPITAL

Following the transfer of the infectious diseases beds to the C.G.H. two thirds of the site will be closed and sold. The rest of the site will be retained to provide 89 geriatric beds. 46 beds will be located in Wards 14a and 14b which have recently been upgraded and provided with rehabilitation facilities. The remaining 43 beds will be in Wards 9 and 10 which will be upgraded.

C. STONES HOSPITAL

Stones Hospital will be retained to provide general medical, general surgical and geriatric beds, plus out-patient services.

D. CLOSURES

On completion of Phase I of the acute services development Northside Hospital will close and the site will be sold.

4.7 Any Expected Teaching Components

A teaching component is included in the accommodation for infectious diseases, which is the centre used by the University in teaching undergraduates. The remainder of the scheme is to be designed not to prejudice any further decision to provide a fourth teaching hospital in the city.

4.8 Future Intentions on the Site

Phase I will be designed as the first stage in the redevelopment of the C.G.H. However, no other phases have been included in the present capital programme, and the on-costs include monies relating to later developments.

4.9 Departures from National Policy

All the ward units in this development will be based upon the Nucleus-related standard plan in a 'nucleus' cruciform arrangement. Certain support departments will be one off designes due to the planning constraints of the site.

4.10 Consultation

Consultation is currently taking place with Community Health Councils, Trade Unions and other interested bodies.

APPENDIX 4

METHODOLOGY FOR REVENUE COST CALCULATION

1. Establishing a Baseline

As a baseline a revenue spend has been calculated by using the beds and cases detailed in each of the options and multiplying these by the cost per unit outlined in the 1993 calculations in the SASP tables in the Technical Appendix to the Outline Regional Strategy. These costs were enhanced to reflect pressure on nursing, direct treatment costs and community care arising from more intensive use of facilities.

This provides a basis by indicating what the anticipated revenue spend in the Authority will be under each option.

For all options in years 1-7 the revenue costs have been assumed to be similar in that they are based upon the Districts proposals for the rationalisation of services in accordance with its strategy and it is in year 8 that differences would be apparent due to different proposals forming part of the various options listed.

2. Determining Cost Differences

Incorporated in this, cost differences in the provision of medical, nursing and non-patient, related support services have been calculated. These arise because of the distribution and location of the services and the use of different and somtimes inefficient building stock.

(a) Non-Patient Related Support Services

Using the 1983/84 Cost Accounts the cost of support services has been analysed between variable, semi-variable and fixed costs. Using these, taking account of the nature of the sites and making due allowance for economies of scale, cost differences for each option have been arrived at and these are shown below. Option 1 is used as base and other options are used as variances from it.

(b) Medical Staffing

An estimate of the additional medical manpower implication has been made for the options where split site specialties occur. Additional staff at the rate of 1 S.H.O. per split site specialty have been allowed. The results appear below, once again using Option 1 as a base.

(c) Nurse Staffing

Additional manpower implications arise from four main sources, the are:-

(i) Establishment of additional theatre staff where surgical specialties occur on more than one site.

(ii) Additional nurse staffing arising from the splitting of ID in Option 5.

(iii) Additional nursing and therapeutic cover arising from a split Geriatric Day provision.

(iv) The additional nursing cover required to staff Stones because of the size and structure of the wards.

The results appear below as variances from a base of Option 1.

SUMMARY OF COST VARIANCES (£000s per annum)

	OPTIONS					
	1 £	2 £	3 £	4 £	5 £	Do Nothing
(i) Cost variances - Support Services	-	+235	+33	+562	+98	+442
(ii) Cost variances - Medical Staffing	-	-	-33	+22	+11	-
(iii) Cost variances - Nurse Staffing	-	+24	-28	+94	+136	+70
TOTAL COST VARIANCES	-	+259	-28	+678	+245	+512
ROUNDED TOTAL		+260	-30	+680	+250	+510

3. Cost Per Annum on Completion of Development

As stated, the cost variances are incorporated into the table of costs arising from beds and cases under each Option.

The results at the foot of the table can be regarded as the revenue costs on completion of development.

4. A.E.C. Discounting Methodology

The A.E.C. for each option was calculated by discounting (using a test discount rate of 5%) over a period of 67 years (60 years from completion of building) for those parts of the scheme using new buildings and over 35 years (30 years from completion of the building) for those parts only involving the upgrading of existing facilities.

Table 1 Bed and day place profiles
Table 2 Revenue costs for options
Table 3 Revenue statement - cost discounted.

APPENDIX 4
~~(Table 1)~~

BED PROFILES - 1993 UNIT COST/BED at 1983/84 CASH LEVELS

SPECIALTY	COST PER BED £000s	NO OF BEDS AND DAY PLACES PROVIDED					
		OPTION 1	OPTION 2	OPTION 3	OPTION 4	OPTION 5	DO NOTHING
GENERAL MEDICAL	24.16	182	180	180	180	180	180
C.C.U	24.16	6	6	6	6	6	6
DERMATOLOGY	15.00	26	26	26	26	26	26
GENERAL SURGERY	25.99	130	130	130	130	130	130
ORTHOPAEDIC	23.15	100	100	100	100	100	100
GYNAECOLOGY	24.75	50	50	50	50	50	50
E.N.T.	21.40	15	15	15	15	15	15
I.T.U.	23.12	8	8	8	8	8	8
MATERNITY	16.11	81	81	81	81	81	81
S.C.B.U.	10.15	25	25	25	25	25	25
GERIATRIC (HOSPITAL)	12.26	268	228	254	227	172	172
GERIATRIC (CONTRACT)	10.49	44	55	28	55	110	110
GERIATRIC DAY PLACES	2.13	58	60	58	60	60	40
E.S.M.I.	11.07	68	68	68	68	68	68
E.S.M.I. DAY PLACES	3.50	50	50	50	50	50	50
MENTAL ILLNESS	11.07	120	120	120	120	120	120
MENTAL ILLNESS DAY PL	3.50	160	160	160	160	160	160
INFECTIOUS DISEASES	16.06	68	68	68	68	68	68
NEUROLOGY	48.76	30	30	30	30	30	30
NEUROSURGERY	31.18	28	28	28	28	28	28
TOTAL DAY PLACES		268	270	268	270	270	200
TOTAL BEDS		1219	1218	1217	1217	1217	1267

APPENDIX 4
(Table 2)

REVENUE COST PER ANNUM OF OPTIONS
(FOLLOWING COMPLETION OF DEVELOPMENT)

SPECIALTY	ESTIMATED COST OF EACH OPTION (£,000's)					
	OPTION 1	OPTION 2	OPTION 3	OPTION 4	OPTION 5	DO NOTHING
GENERAL MEDICAL	4397.67	4349.34	4349.34	4349.34	4349.34	4349.34
C.C.U.	144.98	144.98	144.98	144.98	144.98	144.98
DERMATOLOGY	390.00	390.00	390.00	390.00	390.00	390.00
GENERAL SURGERY	3378.05	3378.05	3378.05	3378.05	3378.05	3378.05
ORTHOPAEDIC	2315.30	2315.30	2315.30	2315.30	2315.30	2315.30
GYNAECOLOGY	1236.45	1236.45	1236.45	1236.45	1236.45	1236.45
E.N.T.	321.00	321.00	321.00	321.00	321.00	321.00
I.T.U.	184.93	184.93	184.93	184.93	184.93	184.93
MATERNITY	1304.99	1304.99	1304.99	1304.99	1304.99	1304.99
S.C.B.U.	253.75	253.75	253.75	253.75	253.75	253.75
GERIATRICS						
ACUTE	2916.93	2794.37	3113.02	2782.11	2108.03	2108.03
CONTRACTUAL	461.56	576.95	293.72	576.95	1153.75	1153.75
DAY PLACES	123.54	127.80	123.54	127.80	127.80	85.20
E.S.M.I. BEDS	752.62	752.62	752.62	752.62	752.62	752.62
DAY PLACES	124.80	124.80	124.80	124.80	124.80	124.80
MENTAL ILLNESS	1328.16	1328.16	1328.16	1328.16	1328.16	1328.16
DAY PLACES	399.36	399.36	399.36	399.36	399.36	399.36
REGIONAL SPECIALTIES						
INFECTIOUS DISEASES	1092.01	1092.01	1092.01	1092.01	1092.01	1092.01
NEUROLOGY	1462.74	1462.74	1462.74	1462.74	1462.74	1462.74
NEUROSURGERY	872.90	872.90	872.90	872.90	872.90	872.90
TOTAL DAY PLACES	647.70	651.96	647.70	651.96	651.96	609.36
TOTAL BEDS	22814.07	22750.64	22793.96	22746.33	22649.05	22649.05
PLUS DIFFERENTIAL	0.00	260.00	-30.00	680.00	250.00	510.00
TOTAL COST OUT-PATIENTS	23461.77	23760.60	23411.66	24078.29	23551.01	23768.41
ACUTE	2735.00	2735.00	2735.00	2735.00	2735.00	2735.00
MATERNITY	523.00	523.00	523.00	523.00	523.00	523.00
GERIATRIC	39.00	39.00	39.00	39.00	39.00	39.00
MENTAL ILLNESS	248.00	248.00	248.00	248.00	248.00	248.00
MENTAL HANDICAP						
SIFT	871.00	871.00	871.00	871.00	871.00	871.00
DIAGNOSTIC REG. SPECS.	3130.00	3130.00	3130.00	3130.00	3130.00	3130.00
A.& E.	1149.00	1149.00	1149.00	1149.00	1149.00	1149.00
OTHER HOSP. SERVS.	549.00	549.00	549.00	549.00	549.00	549.00
COMMUNITY						
GENERAL COMMUNITY	3562.00	3562.00	3562.00	3562.00	3562.00	3562.00
MENTAL HANDICAP	127.00	127.00	127.00	127.00	127.00	127.00
MENTAL ILLNESS	250.00	250.00	250.00	250.00	250.00	250.00
MATERNITY	209.00	209.00	209.00	209.00	209.00	209.00
TOTAL RELEVANT COST	36853.77	37152.60	36803.66	37470.29	36943.01	37160.41

APPENDIX 4
(Table 3)

CROMPTON MAJOR DEVELOPMENT
EFFECT OF THE GROSS REVENUE COSTS OVER 60 YEARS

£'000

Year	Discount Factor at 5%	OPTIONS											
		1		2		3		4		5		DO NOTHING	
		Revenue Cost	Discontinued Revenue	RC	DR	RC	DR	RC	DR	RC	DR	RC	DR
1	1.0000	40,663	40,663										
2	.9524	40,193	38,280										
3	.9070	39,396	35,732										
4	.8638	39,406	34,039		241,403		241,403		241,403		241,403		241,403
5	.8227	39,406	32,419										
6	.7835	39,559	30,994										
7	.7462	39,233	29,276										
8	.7107	36,854	26,192	37,062	26,340	36,804	26,157	37,470	26,603	36,943	26,255	37,160	26,419
9	.6768	36,854	24,942	37,153	25,145	36,804	24,909	37,470	25,360	36,943	25,003	37,160	25,150
Years 1-9			292,538		292,827		292,469		293,393		292,661		292,963
10-60			459,418		462,011		458,795		467,097		460,528		463,233
Total			751,956		754,838		751,264		760,490		753,189		756,196
Annuity Factor for 60 years	19.929												
A.E.C.			37,732		37,876		37,697		38,160		37,794		37,944

APPENDIX 5

CAPITAL COSTS OF MAIN OPTIONS

Capital Costs

These costs have been prepared as a guide to the order of comparative costs. The basis of costings is:-

1. Where new building is involved, costs are calculated using DCA functional units allowances plus on-costs on an assessment as to whether they are likely to be low, normal or high, depending upon site factors as they are known to exist at present. The benefit of closure and selling sites relates only to the probable market value of the site as provided by the District Valuer.

2. Where conversions are involved costs are calculated using DCA allowances reducedin accordance with the best information available. The work automatically includes bringing the accommodation up to condition B. On costs are dealt with as in 1 above.

In some instances where it is known that up-gradings have recently taken place allowance has been made by means of a deduction in costs.

3. Up-gradings to category B. This is an allowance for the up-grading of existing buildings on the site to remove shortcomings in quality which could affect the use of the buildings for a 10 year remaining life. These costs are taken from assessments in the condition surveys adjusted after consultation with District Works Officers.

Following Tables Attached:-

Table 1 Forecast of expenditure (contracts not yet on site).
Table 2 Capital costs (new buildings and sales).
Table 3 Capital cost (conversion of existing buildings).
Table 4 Capital cost (out-patient department options)
Table 5 Capital cost (upgrading to Condition B).
Table 6 Summary of costs.

FORECAST OF EXPENDITURE (CONTRACTS NOT YET ON SITE) Assessment Date 11 OCT 1984

	Start	Cont Pd. (wks)		Total	Pre 84/85	84/85	85/86	86/87	87/88	88/89	89/90	90/91	91/92	92/93	93/94	Post 93/94
CGH ROADWORKS ALL OPTIONS	JAN 86	52	B&E	525		0	80	445	0	0	0	0	0	0	0	
			FEE	105	7	31	45	22	0	0	0	0	0	0	0	
			F&E	0		0	0	0	0	0	0	0	0	0	0	
				630	7	31	125	467	0	0	0	0	0	0	0	
OPTION 1 CGH NEW BUILD	APR 87	156	B&E	7738		0	0	0	1829	3608	2281	20	0	0	0	
			FEE	1393	152	205	292	378	100	162	103	1	0	0	0	
			F&E	884		0	0	0	0	0	221	663	0	0	0	
				10015	152	205	292	378	1929	3770	2605	684	0	0	0	
OPTION 1 CGH UPGRADE	APR 87	84	B&E	327		0	0	0	228	99	0	0	0	0	0	
			FEE	82		0	10	49	17	6	0	0	0	0	0	
			F&E	61		0	0	0	0	61	0	0	0	0	0	
				470		0	10	49	245	166	0	0	0	0	0	
OPTION 1 SOUTHSIDE UPGRADE	APR 87	84	B&E	725		0	0	0	494	231	0	0	0	0	0	
			FEE	181		6	42	84	35	14	0	0	0	0	0	
			F&E	135		0	0	0	0	135	0	0	0	0	0	
				1041		6	42	84	529	380	0	0	0	0	0	
TOTAL				12156	159	242	469	978	2703	4316	2605	684	0	0	0	
Sub-totals			B&E	9315		0	80	445	2551	3938	2281	20	0	0	0	
			FEE	1761	159	242	389	533	152	182	103	1	0	0	0	
			F&E	1080		0	0	0	0	196	221	663	0	0	0	

FORECAST OF EXPENDITURE (CONTRACTS NOT YET ON SITE) Assessment Date 11 OCT 1984

	Start	Cont Pd. (wks)		Total	Pre 84/85	84/85	85/86	86/87	87/88	88/89	89/90	90/91	91/92	92/93	93/94	Post 93/94
CGH ROADWORKS ALL OPTIONS	JAN 86	52	B&E	525		0	80	445	0	0	0	0	0	0	0	
			FEE	105	7	31	45	22	0	0	0	0	0	0	0	
			F&E	0		0	0	0	0	0	0	0	0	0	0	
				630	7	31	125	467	0	0	0	0	0	0	0	
OPTION 2 CGH NEW BUILD	APR 87	144	B&E	6442		0	0	0	1661	3161	1620	0	0	0	0	
			FEE	1160	70	165	261	357	92	142	73	0	0	0	0	
			F&E	736		0	0	0	0	0	736	0	0	0	0	
				8338	70	165	261	357	1753	3303	2429	0	0	0	0	
OPTION 2 SOUTHSIDE UPGRADE	APR 87	84	B&E	576		0	0	0	393	183	0	0	0	0	0	
			FEE	144		5	33	66	29	11	0	0	0	0	0	
			F&E	107		0	0	0	0	107	0	0	0	0	0	
				827		5	33	66	422	301	0	0	0	0	0	
OPTION 2 NORTH SIDE UPGRADE	APR 87	84	B&E	775		0	0	0	528	247	0	0	0	0	0	
			FEE	194		6	46	89	38	15	0	0	0	0	0	
			F&E	144		0	0	0	0	144	0	0	0	0	0	
				1113		6	46	89	566	406	0	0	0	0	0	
OPTION 2 NORTHSIDE NEW BUILD	APR 87	84	B&E	618		0	0	0	421	197	0	0	0	0	0	
			FEE	124		4	29	57	24	10	0	0	0	0	0	
			F&E	71		0	0	0	0	71	0	0	0	0	0	
				813		4	29	57	445	278	0	0	0	0	0	
TOTAL				11721	77	211	494	1036	3186	4208	2429	0	0	0	0	
Sub-totals			B&E	8936		0	80	445	3003	3788	1620	0	0	0	0	
			FEE	1727	77	211	414	591	183	178	73	0	0	0	0	
			F&E	1058		0	0	0	0	322	736	0	0	0	0	

APPENDIX 5
TABLE 1.3)

FORECAST OF EXPENDITURE (CONTRACTS NOT YET ON SITE) Assessment Date 11 OCT 1984

	Start	Cont Pd. (wks)		Total	Pre 84/85	84/85	85/86	86/87	87/88	88/89	89/90	90/91	91/92	92/93	93/94	Post 93/94
CGH ROADWORKS ALL OPTIONS	JAN 86	52	B&E	525		0	80	445	0	0	0	0	0	0	0	
			FEE	105	7	31	45	22	0	0	0	0	0	0	0	
			F&E	0		0	0	0	0	0	0	0	0	0	0	
				630	7	31	125	467	0	0	0	0	0	0	0	
OPTION 3 CGH NEW BUILD	APR 87	156	B&E	10325		0	0	0	2574	4926	2819	6	0	0	0	
			FEE	1858	203	274	389	504	140	221	127	0	0	0	0	
			F&E	1180		0	0	0	0	0	295	885	0	0	0	
				13363	203	274	389	504	2714	5147	3241	891	0	0	0	
OPTION 3 CGH UPGRADE	APR 87	84	B&E	676		0	0	0	461	215	0	0	0	0	0	
			FEE	169		6	39	78	33	13	0	0	0	0	0	
			F&E	126		0	0	0	0	126	0	0	0	0	0	
				971		6	39	78	494	354	0	0	0	0	0	
OPTION 3 SOUTHSIDE UPGRADE	APR 87	104	B&E	1889		0	0	0	957	929	3	0	0	0	0	
			FEE	472		36	115	193	70	58	0	0	0	0	0	
			F&E	352		0	0	0	0	88	264	0	0	0	0	
				2713		36	115	193	1027	1075	267	0	0	0	0	
TOTAL				17677	210	347	668	1242	4235	6576	3508	891	0	0	0	
Sub-totals			B&E	13415		0	80	445	3992	6070	2822	6	0	0	0	
			FEE	2604	210	347	588	797	243	292	127	0	0	0	0	
			F&E	1658		0	0	0	0	214	559	885	0	0	0	

FORECAST OF EXPENDITURE (CONTRACTS NOT YET ON SITE) Assessment Date 11 OCT 1984

	Start	Cont Pd. (wks)		Total	Pre 84/85	84/85	85/86	86/87	87/88	88/89	89/90	90/91	91/92	92/93	93/94	Post 93/94
CGH ROADWORKS ALL OPTIONS	JAN 86	52	B&E	525		0	80	445	0	0	0	0	0	0	0	
			FEE	105	7	31	45	22	0	0	0	0	0	0	0	
			F&E	0		0	0	0	0	0	0	0	0	0	0	
				630	7	31	125	467	0	0	0	0	0	0	0	
OPTION 4 CGH NEW BUILD	APR 87	144	B&E	4683		0	0	0	1272	2264	1147	0	0	0	0	
			FEE	843	51	120	189	259	70	102	52	0	0	0	0	
			F&E	535		0	0	0	0	0	535	0	0	0	0	
				6061	51	120	189	259	1342	2366	1734	0	0	0	0	
OPTION 4 NORTHSIDE NEW BUILD	APR 87	84	B&E	618		0	0	0	421	197	0	0	0	0	0	
			FEE	124		4	29	57	24	10	0	0	0	0	0	
			F&E	71		0	0	0	0	71	0	0	0	0	0	
				813		4	29	57	445	278	0	0	0	0	0	
OPTION 4 NORTHSIDE UPGRADE	APR 87	104	B&E	1341		0	0	0	679	660	2	0	0	0	0	
			FEE	335		26	81	137	50	41	0	0	0	0	0	
			F&E	250		0	0	0	0	63	187	0	0	0	0	
				1926		26	81	137	729	764	189	0	0	0	0	
TOTAL				9430	58	181	424	920	2516	3408	1923	0	0	0	0	
Sub-totals			B&E	7167		0	80	445	2372	3121	1149	0	0	0	0	
			FEE	1407	58	181	344	475	144	153	52	0	0	0	0	
			F&E	856		0	0	0	0	134	722	0	0	0	0	

APPENDIX 5
TABLE 1.4)

FORECAST OF EXPENDITURE (CONTRACTS NOT YET ON SITE) Assessment Date 11 OCT 1984

	Start	Cont Pd. (wks)		Total	Pre 84/85	84/85	85/86	86/87	87/88	88/89	89/90	90/91	91/92	92/93	93/94	Post 93/94
CGH ROADWORKS	JAN 86	52	B&E	525		0	80	445	0	0	0	0	0	0	0	
ALL OPTIONS			FEE	105	7	31	45	22	0	0	0	0	0	0	0	
			F&E	0		0	0	0	0	0	0	0	0	0	0	
				630	7	31	125	467	0	0	0	0	0	0	0	
OPTION 5	APR 87	144	B&E	7232		0	0	0	1864	3550	1818	0	0	0	0	
CGH NEW BUILD			FEE	1302	142	192	273	353	101	160	81	0	0	0	0	
			F&E	827		0	0	0	0	0	827	0	0	0	0	
				9361	142	192	273	353	1965	3710	2726	0	0	0	0	
OPTION 5	APR 87	104	B&E	1595		0	0	0	808	785	2	0	0	0	0	
STONES UPGRADE			FEE	399		31	96	164	59	49	0	0	0	0	0	
			F&E	297		0	0	0	0	74	223	0	0	0	0	
				2291		31	96	164	867	908	225	0	0	0	0	
OPTION 5	APR 87	84	B&E	754		0	0	0	514	240	0	0	0	0	0	
GORDONS UPGRADE			FEE	189		6	45	86	37	15	0	0	0	0	0	
			F&E	140		0	0	0	0	140	0	0	0	0	0	
				1083		6	45	86	551	395	0	0	0	0	0	
TOTAL				13365	149	260	539	1070	3380	5013	2951	0	0	0	0	
Sub-totals			B&E	10106		0	80	445	3186	4575	1820	0	0	0	0	
			FEE	1995	149	260	459	625	197	224	81	0	0	0	0	
			F&E	1264		0	0	0	0	214	1050	0	0	0	0	

FORECAST OF EXPENDITURE (CONTRACTS NOT YET ON SITE) Assessment Date 11 OCT 1984

	Start	Cont Pd. (wks)		Total	Pre 84/85	84/85	85/86	86/87	87/88	88/89	89/90	90/91	91/92	92/93	93/94	Post 93/94
CGH NEW BUILD O.P.D. ALL OPTIONS 'A'	APR 87	104	B&E	1374		0	0	0	696	676	2	0	0	0	0	
			FEE	247		19	60	101	36	30	1	0	0	0	0	
			F&E	157		0	0	0	0	39	118	0	0	0	0	
				1778		19	60	101	732	745	121	0	0	0	0	
TOTAL				1778		19	60	101	732	745	121	0	0	0	0	
Sub-totals			B&E	1374		0	0	0	696	676	2	0	0	0	0	
			FEE	247		19	60	101	36	30	1	0	0	0	0	
			F&E	157		0	0	0	0	39	118	0	0	0	0	

APPENDIX 5

TABLE 1.7

FORECAST OF EXPENDITURE (CONTRACTS NOT YET ON SITE) Assessment Date 11 OCT 1984

	Start	Cont Pd. (wks)		Total	Pre 84/85	84/85	85/86	86/87	87/88	88/89	89/90	90/91	91/92	92/93	93/94	Post 93/94
COMMUNITY NEW BUILD O.P.D. ALL OPTIONS 'A' & 'B'	APR 87	78	B&E	210		0	0	0	155	55	0	0	0	0	0	
			FEE	42		0	5	25	9	3	0	0	0	0	0	
			F&E	24		0	0	0	0	24	0	0	0	0	0	
				276		0	5	25	164	82	0	0	0	0	0	
TOTAL				276		0	5	25	164	82	0	0	0	0	0	
Sub-totals			B&E	210		0	0	0	155	55	0	0	0	0	0	
			FEE	42		0	5	25	9	3	0	0	0	0	0	
			F&E	24		0	0	0	0	24	0	0	0	0	0	

FORECAST OF EXPENDITURE (CONTRACTS NOT YET ON SITE) Assessment Date 11 OCT 1984

	Start	Cont Pd. (wks)		Total	Pre 84/85	84/85	85/86	86/87	87/88	88/89	89/90	90/91	91/92	92/93	93/94	Post 93/94
CGH UPGRADE O.P.D. ALL OPTIONS 'B'	APR 87	84	B&E	611		0	0	0	417	194	0	0	0	0	0	
			FEE	153		5	36	70	30	12	0	0	0	0	0	
			F&E	116		0	0	0	0	116	0	0	0	0	0	
				880		5	36	70	447	322	0	0	0	0	0	
TOTAL				880		5	36	70	447	322	0	0	0	0	0	
Sub-totals			B&E	611		0	0	0	417	194	0	0	0	0	0	
			FEE	153		5	36	70	30	12	0	0	0	0	0	
			F&E	116		0	0	0	0	116	0	0	0	0	0	

CROMPTON - MAJOR DEVELOPMENT

EFFECT OF THE CAPITAL COSTS, NEW BUILDING AND SALES PROCEEDS

£'000

Year	Discount Factor at 5%	OPTIONS 1 Capital Cost	1 Discounted Cost	2 C.C.	2 D.C.	3 C.C.	3 D.C.	4 C.C.	4 D.C.	5 C.C.	5 D.C.	
1	1.0000	395	395	277	277	515	515	213	213	372	372	
2	.9524	417	397	415	395	514	490	343	327	398	379	
3	.9070	845	766	881	799	971	881	783	710	820	744	
4	.8638	1,929	1,666	2,198	1,899	2,714	2,344	1,787	1,544	1,965	1,697	
5	.8227	3,770	3,102	3,581	2,946	5,147	4,234	2,644	2,175	3,710	3,052	
6	.7835	2,605	2,041	2,429	1,903	3,241	2,539	1,734	1,359	2,726	2,136	
7	.7462	614	458	(70)	(52)	821	613	(70)	(52)	(70)	(52)	
8	.7107	(682)	(485)	(611)	(434)	(766)	(544)			(682)	(485)	
		9,893	8,340	9,199	7,773	13,157	11,072	7,434	6,276	9,239	7,843	
Annuity Factor for 60 years	19.929		418		388		556		315		394	
A.E.C.												

CROMPTON:- MAJOR DEVELOPMENT

EFFECT OF THE CAPITAL COSTS - CONVERSION OF EXISTING BUILDINGS

£'000

Year	Discount Factor at 5%	OPTIONS													
		1		2		3		4		5					
		Capital Cost	Discounted Cost	C.C.	D.C.	C.C.	D.C.	C.C.	D.C.	C.C.	D.C.				
1	1.0000	6	6	11	11	42	42	26	26	37	37				
2	.9524	52	50	79	75	154	147	81	77	141	134				
3	.9070	133	121	155	141	271	246	137	124	250	227				
4	.8638	774	669	988	853	1,521	1,314	729	630	1,418	1,225				
5	.8227	546	449	707	582	1,429	1,176	764	629	1,303	1,072				
6	.7835					267	209	189	148	225	176				
		1,511	1,295	1,940	1,662	3,684	3,134	1,926	1,634	3,374	2,871				
Annuity Factor for 30 years	16.372		79		102		191		100		175				
A.E.C.															

APPENDIX 5
(Table 4)

CROMPTON: MAJOR DEVELOPMENT
EFFECT OF CAPITAL COSTS

£'000

	Discount Year Factor at 5%	OPTIONS							
		C.G.H. New Building O.P.D.		Community New Building O.P.D.		C.G.H. Upgrade O.P.D.			
		A		A & B		B			
		Capital Cost	Discounted Cost	C.C.	D.C.	C.C.	D.C.		
1	1.0000	19	19	-	-	5	5		
2	.9524	50	19	-	-	36	34		
3	.9070	101	57	5	4	70	63		
4	.8638	732	632	25	22	447	386		
5	.8227	745	613	164	135	322	265		
6	.7835	121	95	82	64	-	-		
	1,778	1,508	276	225	880	753			
Annuity Factor for 60 years	19.929								
Annuity Factor for 30 years	16.372								
A.E.C.		76		11		46		5	

APPENDIX 5
(Table 5.1)

CROMPTON MAJOR DEVELOPMENT
COST OF UPGRADING TO ATTAIN CATEGORY 'B'

	OPTION					
	1	2	3	4	5	Do Nothing
Northside		24,000		24,000		24,000
Stones	81,000			81,000	81,000	82,000
Crompton General	155,000	155,000	155,000	155,000	155,000	158,000
Southside	40,000	40,000	40,000	104,000	40,000	104,000
Gordons	120,000	120,000	120,000	120,000	120,000	120,000
	396,000	339,000	315,000	484,000	396,000	488,000

CROMPTON MAJOR DEVELOPMENT
COST OF UPGRADING TO CATEGORY 'B'

£'000

Year	Discount Factor at 5%	OPTIONS 1 Up-grading Cost	1 Dis-counted Cost	2 U.C.	2 D.C.	3 U.C.	3 D.C.	4 U.C.	4 D.C.	5 U.C.	5 D.C.	Do Nothing U.C.	Do Nothing D.C.
1	1.0000	396	3,211	339	2,749	315	2,554	484	3,924	396	3,211	488	3,952
2	.9524												
3	.9070												
4	.8638												
5	.8227												
6	.7835												
7	.7462												
8	.7107												
9	.6768												
10	.6446												
				FOR 10 YEARS									
Annuity Factor for 30 years	16.372												
A.E.C.			196		168		156		240		196		241

APPENDIX 5
(Table 6)

SUMMARY OF COSTS

CROMPTON MAJOR DEVELOPMENT COMPARISON OF A.E.C. FOR EACH OPTION								
Options	New Building and Sales Proceeds	C.G.H. New Building O.P.D.	Community New Building O.P.D.	C.G.H.. Upgrade O.P.D.	Conver-sion	Upgrading to Category 'B'	Revenue	TOTAL £'000
1	418				79	196	37,825	38,518
2	388				102	168	38,002	38,680
3	556				191	156	37,792	38,695
4	315				100	240	38,231	38,886
5	394				175	196	37,883	38,648
Do Nothing					241		38,027	38,268
OPD A		76	11					88
B			11	46				57

APPENDIX 6

1 Southside Hospital

The intention has never been to close Southside Hospital entirely but to significantly change its use whilst at the same time making a significant reduction in the bed complement there. It is not believed that this will cause a great deal of unrest, providing that the transfer of such things as the Regional Infectious Diseases Centre is to new accomodation and that the balance of geriatric beds remaining at Southside Hospital have the appropriate staffing levels and access to the necessary support services. The distribution of services as recommended in Option 1 as they relate to Southside Hospital will prove acceptable to the Community Health Council but will obviously meet some resistance from local trade unions, particularly as these changes affect ancillary grades. There is a history of strong trade union activities at this hospital.

2. Stones Hospital

The Community Health Council is keen to maintain a health presence on the east side of the city and have never advocated a reduction of the present specialty mix. Clearly some health presence would be needed in this part of the city which is extremely socially deprived and suffers from poor access to our remaining sites although their access to other central locations is reasonably good. Stones Hospital has a very long history and its closure will clearly meet significant resistance both from the local community and the trade union movement. Dependent upon the proposed service provision elsewhere and the service on offer, a proper accident/emergency department and out-patient suiting arrangements, it would be possible to reach agreement with the Consultant and Nursing staff for moving the activity of this hospital elsewhere. The hospital itself has an extremely good spirit amongst the staff and this would be a factor in any proposed change.

3. Northside Hospital

Closure here would be met with strong local resistance from both the local community and the trade union movement but again, assuming that a reasonable service package was put forward, agreement should be possible within the Consultant and Nursing ranks.

APPENDIX 7

NUMBERS AND PERCENTAGES OF DISTRICT POPULATION WHO ARE WITHIN 3 MINS. AND 10 MINS. TRAVEL TIME TO A HOSPITAL IN NORTH MANCHESTER DISTRICT

		3 mins	6 mins
(A)	Crompton and Southside	*33,900	109,100
		23/8%	76.7%
(B)	Crompton and Northside	25,500	75.900
		17.9%	53.4%
(C)	Crompton, Southside and Northside	43,600	109,800
		30.7%	77.2%
(D)	Crompton, Stones and Northside	39,300	100,600
		27.6%	70.7%
(E)	Crompton, Stones and Northside	47,500	120,300
		33.4%	84.5%
(F)	Crompton, Southside, Northside and Stones	57,200	120,300
		40.2%	84.6%

* Population rounded to nearest 100.

APPENDIX 8

A.I.P. SUBMISSION-FOR NORTH MANCHESTER HEALTH AUTHORITY
NURSE MANPOWER IMPLICATIONS

It has been necessary to use Regional Nurse staffing norms of staff to beds, to identify differentials in staffing needs between the existing provision of beds at 31/12/83 and proposed beds as defined in the preferred option. This is because of the limitation on time and subsequent bed rationalisations.

Specialty Provision	Existing 31/12/83 Bed Numbers	Normative Staffing W.T.E.	Option Bed Numbers	Staff Required W.T.E.	Staff Surplus or Deficient W.T.E.
General Medicine	189	134.04	182	129.08	+4.96
Coronary Care	6	-	-	-	-
Dermatology	23	16.31	26	18.44	-2.13
General Surgery	166	117.73	130	92.20	+25.53
Orthopaedic	121	85.82	100	70.92	+14.90
Gynaecology	60	42.55	50	35.46	+7.09
E.N.T.	28	19.85	15	10.64	+9.22
I.T.U.	8	-	8	-	-
Geriatrics	326	276.27	238	201.70	+74.57
Geriatric Day Places	40	5.31	58	7.70	-2.39
Geriatric Community Beds	110	93.22	44	37.29	+55.93
Regional Specialties					
I.D. Adult/Children	81	57.45	68	48.23	+9.22
Neurology	24	17.02	30	21.28	-4.26
Neuro-surgery	22	27.50	28	35.00	-7.50
SUB-TOTAL STAFF SAVING					+185.14

Comment

- I.D. beds are based on acute bed norms i.e. 1-1.41. Changing paterns of care suggest I.D. bed norms should be used i.e. 2.76 nurses to one bed.

Theatres

- 2 theatres transfered from Northside
  3 theatres transferred from Faith

Therefore, the 5 new theatres proposed should be able to be staffed from rationalised staff.

Recovery

- 5 theatres at 1.5 beds = 8 beds.

Staff for 2 beds at Northside and 2 beds at Faith transferred.

Staffing for 4 recovery beds needed at 1-1.22. -3.27

A&E/O..P.D.

- Staffing levels are difficult to estimate as decisions to the service to be provided are uncertain.

ESTIMATED STAFF SAVING +181.87

Nucleus Design

- It is felt that increased staffing levels will be required to run nucleus blocks effectively but as of yet no formular exists. These increased staffing requirements should be kept in mind.

Geriatric Community Beds

- These are based on hospital norms 1-1.18.