

MONKLANDS ACCIDENT AND EMERGENCY REVIEW
PROCESS TO DATE, OPTION APPRAISAL AND OPPORTUNITY COST
ASSESSMENT
 September 2007

This paper provides information on the work completed to date on the review of Accident and Emergency Services in line with the process agreed with the Independent Scrutiny Panel and Scottish Government.

1. Development of Scenarios

Since the Cabinet Secretary announcement on 6 June 2007, NHS Lanarkshire has worked to develop a range of scenarios for the future delivery of Accident and Emergency services, taking account of the subsequent impact these would have on other aspects of service provision. The process undertaken to develop the scenarios is described below.

A meeting was held on 18 June 2007 with NHS Lanarkshire's clinical leads. At this meeting a range of high-level options were described, together with a list of information requirements needed to develop the options further.

A half-day meeting of a Wider Clinical Reference Group was held on 26 June 2007 with 37 clinicians and operational managers. At this event a presentation was provided on five high level options, how the options had been developed, the draft criteria to be considered and the information requirements highlighted at the earlier meeting. The attendees were split into smaller groups, with each group tasked with assessing each option against the criteria as well as identifying actions for the collation of evidence. The outcome of this workshop was a report setting out the debate in the workshop groups and an action plan for the collation of the evidence base. The action plan from this meeting is shown in Table 1 below:

Table 1: Action Plan for Collation of Evidence in July and August 2007

DEFINE THE SCENARIOS FURTHER	
1.1	Develop further detail on the alternative scenarios based on the discussion on 26 June. Produce a paper and a template for comments, which can be widely circulated (to be completed by 4 July).
1.2	Develop staffing models for each of the alternative scenarios (in hours and out of hours) including considering: <ul style="list-style-type: none"> • Determine the rotas required for each scenario • Identify the competencies and workforce requirements to deliver a safe, sustainable Hospital Emergency Care Team that is fit for purpose • Following the development of rota information consider the level of sub specialisation which could be supported under each scenario
1.3	Identify any new roles and training required for these against each scenario (e.g. RMO)
1.4	Review the provision of diagnostic services e.g. radiology and laboratory services in line with the different scenarios
1.5	Quantify the number of patients discharged after 24 and 48 hours in order to quantify the size of the short stay unit (for self referrals and all referrals)
QUALITY CRITERIA	
2.1	Collate evidence from other NHS Boards on their models of A&E
2.2	Get evidence on outcomes on small versus larger ITUs
2.3	Quantify the level of care that can be provided by the A&E consultants before intervention is required by specialist consultant
2.4	Collate research and local evidence on sub specialisation and submit to NHS A&A
SAFE AND SOUND	

3.1	Collate information on SAS transfers
3.2	Map out a range of patient pathways under the alternative scenarios and then work with information services to quantify number of patients
3.3	Review information on the impact of level of staffing on outcomes (expertise) from STAG (Scottish Trauma Audit Group)
3.4	Get information on the new SAS cardiology transfer service being developed in Glasgow
3.5	Clearly define the role of the Emergency Referral Centre
3.6	Identify what measures are available to measure A&E clinical outcomes
SUSTAINABLE CRITERIA	
4.1	Undertaken focus groups of newly recruited consultants and SPRs to consider recruitment and retention
4.2	Provide information on Monklands building and capital and logistics issues for each scenario
4.3	Collate information on current staff based at Monklands and assess the impact under each scenario
PATIENT CENTRED	
5.1	Review the patients who go through ITU, CCU and who require speciality advise and input
5.2	Review the bed modelling assumptions for all the acute hospitals for each scenario
5.3	Review the impact on cross boundary flow of the scenarios
VALUE FOR MONEY	
6.1	Develop a process to assess value for money and logistics impact
6.2	Develop a methodology to consider the opportunity costs of the scenarios
CONSISTENT WITH NATIONAL POLICY	
7.1	Outline the impact on Primary and Community Services of the alternative scenarios
OTHER	
8.1	Communicate to staff
8.2	Commission with NHS A&A external review of the clinical risk.
8.3	Commission with NHS A&A health economist input
8.4	Arrange a wider review group meeting for afternoon 13 August
8.5	Review original A PoH deprivation paper
8.6	Review original A PoH status quo paper

During July and August 2007, an extensive clinical engagement process was undertaken by the Medical Director and other members of the Corporate Management Team attending a wide range of Clinical and Professional Advisory Committee and Group meetings (listed in Table 2 below) and providing a standard presentation setting out the outputs of the 26 June. These Committees and Groups were asked to consider three questions:

- What are your views on each of the scenarios (benefits, risks, opportunity costs)?
- What evidence are you aware of to support these views?
- Do the scenarios have a particular impact on your speciality or professional group e.g. help or hinder sub specialisation?

Table 2: Clinical and Professional meetings attended

Clinical Speciality Groups	Date	CMT Presenter
General Surgery Clinical Group	23-Jul	A Graham
Urology Clinical Group	24-Jul	I Ross
Upper Gastrointestinal Surgery	26-Jul	R Lyness
Cardiology Steering Group	26-Jul	A Graham & I Ross
Gastroenterology Steering Group	27-Jul	A Graham
Infectious Diseases Steering Group	31-Jul	A Lawrie
Orthopaedics Clinical Group	01-Aug	A Graham
Vascular MCN/ Clinical Group	01-Aug	I Ross
Old Age Medicine Clinical Group	06-Aug	A Lawrie
Renal Steering Group	07-Aug	R Lyness
Ophthalmology Clinical Group	08-Aug	I Ross

Laboratory Core Group and Speciality Representatives	09-Aug	P Wilson
Ear Nose and Throat Clinical Group	15-Aug	S Goldsmith
Diabetes Steering Group	17-Aug	P Wilson
Colorectal Surgery Clinical Group	21-Aug	R. Lyness
Maternity/Gynaecology Clinical Group	21-Aug	A Graham
Radiology Clinical Group	21-Aug	R Lyness
Breast Services Clinical Group	23-Aug	A Graham
Critical Care Clinical Group	24-Aug	R Lyness, I Ross, A Graham, P Wilson
Cancer Steering Group	28-Aug	A Graham

Other meetings attended:

Primary Care Groups	Date	CMT Presenter
Lead GP Meeting	12-Jul	C Sloey
Strategic Implementation Development Group	16-Aug	C Sloey

Professional Advisory Groups	Date	CMT Presenter
Area Clinical Forum	12-Jul	I Ross
Area Nursing & Midwifery	27-Jul	A Graham, P Wilson
Area Partnership Forum	30-Jul	A Graham
Area Medical Committee	13-Aug	A Graham, R Lyness
Area Pharmaceutical Committee	22-Aug	S Goldsmith
GP Sub Committee	27-Aug	C Sloey, A Graham

In addition meetings were held with the Medical Staff Associations on the three acute sites. Meetings also took place with the Scottish Ambulance Services and neighbouring Health Boards. A template was also widely circulated in order to enable professionals and groups to submit views outside of the schedule of meetings.

The information collated at these meetings and through the template was used to inform the development of the scenarios and led to extension of the number of scenarios from five to seven. The scenarios developed were also informed by models of Accident and Emergency Service departments already operating within Scotland and visits were made to other Boards to collate information.

A further half-day meeting of the Wider Clinical Reference Group was held on 13 August 2007, which was attended by 34 clinical and professional leaders. At this workshop the range of evidence collated to date was outlined and it was highlighted that, in line with the application of the Treasury Green Book, an option appraisal would be undertaken. The participants were then asked in workshop groups to identify the benefits and risks of each of the scenarios.

The outcome of the above clinical and professional engagement and the evidence collated under the action plan in Table 2 have informed the September submission paper for the Independent Scrutiny Panel as well as its appendices.

In addition to the above, significant efforts have been made to inform and engage with staff throughout the planning process. The mechanisms used have included:

- Dissemination of Staff Briefing informing staff of the Cabinet Secretary's announcement – 6 June 2007
- Posting of Cabinet Secretary's announcement and letter to NHS Lanarkshire on NHSL Intranet and Internet – 6 June 2007

- Open staff meetings at Hairmyres, Monklands and Wishaw General Hospitals on 18/19 June 2007 to inform staff on the A&E services review, the initial planning process and timeline.
- Dissemination of Staff Briefing providing an update on the A&E services review, the initial planning process and timeline – 19 June 2007
- Posting of staff briefing on NHSL Intranet – 19 June 2007
- Posting of Board papers providing an update on the A&E services review on NHS Lanarkshire Internet – 27 June 2007 Board Papers
- Dissemination of Pulse staff newsletter providing a front page update on the A&E review of services setting out details of the process for developing proposals (July/August edition) – 6 July 2007
- Pulse posted on NHS Lanarkshire Intranet and Internet – 6 July 2007
- Dissemination of Staff Briefing providing details of the Independent Scrutiny Panel chair appointment – 25 July 2007
- Posting of staff briefing on NHSL intranet – 25 July 2007
- Posting of Board papers providing an update on the A&E services review on NHS Lanarkshire Internet – 25 July 2007 Board Papers
- Posting of Board papers providing an update on the A&E services review on NHS Lanarkshire Internet – 29 August 2007 Board Papers
- Open Staff meetings at Hairmyres, Monklands and Wishaw General Hospital on 3 September 2007 to update staff on the agreed planning process, timeline and progress on the review of A&E services.
- Dissemination of Staff Briefing providing an update on the agreed planning process, timeline and progress on the review of A&E services – 7 September 2007
- Posting of staff briefing on NHSL intranet – 7 September 2007
- Dissemination of Pulse staff newsletter providing a front page update on the timescales for submitting the proposals and the process for the decision-making (September/October edition) – 7 September 2007
- Pulse posted on NHS Lanarkshire Intranet and Internet – 7 September 2007
- Dissemination of Staff Briefing providing details of the appointment of the Independent Scrutiny Panel Members – 21 September 2007

2. Defining Criteria

Option Appraisal is a form of multi-criteria analysis. The option appraisal process comprises a number of specific stages that define objectives, identify options and measure costs and benefits. In any multi-criteria analysis, including option appraisal, benefits are measured by the extent to which each option meets those objectives specified at the outset.

The Cabinet Secretary specified that any new models of care for the delivery of Accident and Emergency Services should be:

Safe;
 Sustainable;
 High quality;
 Patient centred;
 Deliverable within existing resources;
 Value for money;
 Robust;
 Evidence-based;
 Consistent with clinical best practice; and
 Consistent with national policy.

The factors outlined above were used as a starting point in an iterative process, which involved representatives from NHS Ayrshire and Arran, NHS Lanarkshire, Trevor Sheldon

(External Independent Adviser) and the Independent Scrutiny Panel, to specify and define the criteria below:

Safe

Any proposal should provide a safe service¹. Any clinical risks associated with the proposal should be assessed, managed and minimised so that the provision of the service should do no harm and aim to avoid preventable adverse events.

Quality /Consistent with Clinical Best Practice

Care and treatment of service users should be clinically effective in terms of quality of health outcome for the service user. The proposal should fulfil the recommendations provided by professional clinical bodies and Royal Colleges.

Sustainability

The proposal should facilitate both retention and recruitment of high calibre staff both now and in the future. This should consider doctor's rotas, training and accreditation alongside training issues for other staff groups e.g. Emergency Care Practitioners (ECPs).

The proposal should be able to accommodate changes in patterns of care and the changing needs of the population and should enable optimal and efficient deployment of all types of resources including staff, facilities and equipment².

Patient Centredness³

Accessibility

The proposal should facilitate provision of A&E and unscheduled care services as close as possible to where services users are in need. Convenience of accessibility by public transport and the local road network for service users and their families should be considered.

Acceptability

The proposal should also provide satisfaction and promote a positive experience for users of A&E and unscheduled care services.

Availability

This should include patient satisfaction derived from the responsiveness of the service, for example taking account of waiting times⁴; treatment times; opening times; and the extent to

¹ Safe is identified as one of six aims to address quality in health. It is defined by the committee as, "avoiding injuries to patients from the care that is intended to help them". "Crossing the Quality Chasm: A New Health System for the 21st Century" Committee of Quality of Health Care in America, Institute of Medicine. 2001

² Efficient is identified as one of six aims to address quality in health. It is defined as, "avoiding waste, including waste of equipment, supplies, ideas and energy". "Crossing the Quality Chasm: A New Health System for the 21st Century" Committee of Quality of Health Care in America, Institute of Medicine. 2001

³ Patient-centred is identified as one of six aims to address quality in health. It is defined as, "providing care that is respectful of and responsive to individual patient preferences, needs and values and ensuring that patient values guide all clinical decisions". "Crossing the Quality Chasm: A New Health System for the 21st Century" Committee of Quality of Health Care in America, Institute of Medicine. 2001

⁴ Timely is identified as one of six aims to address quality in health. It is defined as, "reducing waits and sometimes harmful delays for both those who receive and those who give care". "Crossing the

which service is tailored to individual needs and preferences. The proposal should ensure appropriate pathways of care based on people's needs.

Consistent with National Policy

The proposals should be consistent with the principles of the Kerr report and developing national policy as described in 'Better Health, Better Care'. This includes the presumption against centralisation.

Not all of the factors specified by the Cabinet Secretary have been used directly as criteria, namely:

Deliverable within existing resources;

Value for money;

Robust; and

Evidence-based;

'Robust' and 'Evidence-based' are inherent to the decision making process specified and will not therefore be used to assess the benefits to be derived from the options.

The option appraisal process considers both the costs and benefits of any option. 'Value for money' can be demonstrated by the cost per benefit point and marginal analysis used in the option appraisal process and is therefore an integral part of the process. 'Deliverable within existing resources' will be considered as part of the opportunity cost and affordability analysis.

3. Accident and Emergency Option Appraisal

3.1 Process to Further Develop Analysis of Evidence

Further inspection of data from full text papers outlined in Appendix 2 will take place in order to extract illustrative examples that further demonstrate the relevance to the service options being considered. In some cases the research teams that conducted studies will also be contacted to request copies of original data sets in order that these can be examined. This is particularly important in relation to work where our raters have identified that researchers may not have taken into account variables, which, if examined, would lead to different conclusions and therefore impact upon the way in which the research relates to the service options. Data from clinical risk reporting and monitoring systems and the results of local clinical audit and effectiveness work will also be obtained and outlined in relation to the service options.

3.2 Process to Secure Stakeholder Involvement in Option Appraisal

A rationale was agreed within NHS Lanarkshire and submitted to the Independent Scrutiny Panel for the nominations for the optional appraisal weighting and scoring events. The number of nominations was kept to around a hundred participants in total. This total number was to maximise involvement but recognises that if the group becomes too large it is difficult for the facilitators to provide appropriate support to the participants. A balance of professional and public nominations has also been proposed.

List 1 – Clinical Representation (36)

This group is to ensure that the options are considered robustly from a clinical perspective. Clinical commitment is essential in order to support the implementation of the final proposal for Accident and Emergency services. Hence the review of the options against the criteria should involve a comprehensive range of clinical perspectives.

In order to ensure the robustness of the review by clinicians, Clinical Leaders across NHS Lanarkshire have been nominated. NHS Lanarkshire has an Acute Division and two Community Health Partnerships.

The Acute Division has a corporate function with a Medical Director and Nursing Director who have been included. The Head of Allied Health Professionals for NHS Lanarkshire has also been included.

There are three Clinical Divisions within the Acute Division. These are:

- Surgical and Critical Care
- Emergency and Medicine
- Women's, Cancer and Diagnostics

Within these Clinical Divisions there are Clinical Directorates. The Medical Clinical Directors of each of the Clinical Divisions have been included, as have the Associate Nursing Directors. The Clinical Directors of each of the Clinical Directorates within the Clinical Divisions have also been included. The inclusion of these medical and nursing leaders will provide a full range of acute clinical expertise.

It was felt that the above Acute Clinical Leaders should be supplemented by:

- Additional Accident and Emergency expertise given that this service is central to the option appraisal. The Accident and Emergency Clinical Lead is based at Hairmyres Hospital and it was felt she should be supplemented by consultant nominations from the Accident and Emergency departments at Monklands and Wishaw General Hospitals.
- Additional unscheduled care nursing expertise was included with the nomination of the lead nurse for unscheduled care and the Nurse Consultant for Critical Care
- Additional clinical nominations from Monklands Hospital - it was felt that as the impact of scenarios would be more directly on Monklands Hospital that additional clinical nominations should be sought from this hospital. Five further nominations were put forward by the Monklands Medical Staff Association and this included consultants who had been involved in planning to date and / or had expressed clear views challenging the work undertaken to date

Nominations were also sought from the Community Health Partnerships as primary care both refers patients to Accident and Emergency and forms part of the response to unscheduled care. The two Community Health Partnerships in Lanarkshire have a common corporate core and from this core were included the Medical Director, Nursing Director, Clinical Lead for Lanarkshire's Primary Care Out of Hours service and the Clinical Director for Mental Health. This was supplemented by nominations of Lead GPs from the localities within the Community Health Partnerships, with a nomination sought of one GP Lead for each of the acute hospital catchment areas.

The Chair of the Area Clinical Forum and Chair of the Area Medical Forum were also included.

List 2 – Senior Management (9)

This group is to ensure that the options are considered robustly from a corporate management perspective and include all the Executive Board Members except the Chief Executive. The Chief Executive will attend as an observer but was excluded as a scorer in order to allow him to receive the outcome of the option appraisal and to lead the full Board's response to it.

Non Executive Board Members have been invited as observers in order that they can take a view about the robustness of the process.

List 3 – Staff Side (2)

This group is to ensure that the options are considered robustly from a Staff Partnership perspective. Two nominations were sought from the Staff Side, the Employee Director and a second nomination.

List 4 – Scottish Ambulance Service (1)

The Scottish Ambulance Service is a key component in the delivery of the scenarios. A paper from the Scottish Ambulance Service will be included in the September submission and to recognise this key role, an officer who led in developing this paper was included.

List 5 – Partner Agencies (6)

The two Local Authorities in Lanarkshire are key partners in the provision and planning of health and social care with NHS Lanarkshire. In recognition of this, two nominations were requested from the Chief Executives of both North Lanarkshire Council and South Lanarkshire Council.

The scenarios being considered in the option appraisal will potentially have a differential impact on the risk of cross boundary flow of self presenting patients to both Greater Glasgow and Clyde and Forth Valley Health Services. In recognition of this a nomination was sought from each of these Health Boards.

List 6 – Public (54)

It is recognised that the Independent Scrutiny Panel has the lead role on public engagement and as part of this a lead on the nominations of public representatives for the option appraisal.

However, given the restricted timeframe a proposal was put forward by NHS Lanarkshire on where the nominations could be sought for public representatives. This was based on previous experience gained through A Picture of Health.

During the development of A Picture of Health, NHS Lanarkshire's Patient Partnership Forums (PPFs) were in development. These PPFs are now in place and provide the formal mechanisms for NHS Lanarkshire to seek nominations for involvement in planning. There is a North and a South PPF, which are coterminous with the Local Authorities. The PPFs have localities reflecting the townships and geographical areas. The North PPF has more localities than the South PPF and covers the catchment area for Monklands Hospital; as a consequence more nominations could be sought from the North PPF.

The PPFs include membership from the voluntary sector but not all voluntary sector groups in Lanarkshire are members of a PPF. Voluntary sector organisations are both health and social care service providers and provide a voice for service users and community groups. The Council of Voluntary Services has a development and support role to voluntary sector groups in their area and as a result provides a central resource for contacting local voluntary organisations to seek nominations. A spread of voluntary sector interests could be requested covering a range of interests. In addition liaison would be requested between the CVSs as some voluntary sector organisations operate across Lanarkshire.

Carers are a central interest group in relation to any changes in health services. There are two organisations which co-ordinate carers' interests in Lanarkshire, one in North Lanarkshire and one in South Lanarkshire. These organisations have been closely involved in A Picture of Health and usual route to gain nominations from them has been to contact them directly rather than to contact them via the CVSs.

Finally it is proposed that nominations are sought from the local Community Councils in order to access members of the public interested in changes to local services. Community Councils are established through the Local Authorities and provide a means to include active local people. There are 34 in South Lanarkshire in operation and 38 in North Lanarkshire. To supplement this South Lanarkshire has established a Citizens' Panel which is contacted mainly via questionnaires however there is currently no equivalent group in North Lanarkshire.

Nominations could not be sought from all 72 Community Councils and instead it is suggested a sample is selected. This was successfully undertaken for the previous A Picture of Health option appraisal. It is suggested that the Independent Scrutiny Panel could undertake this sampling and provide a list of Community Councils for NHS Lanarkshire to approach, with a list of reserves. Given Monklands Hospital is in North Lanarkshire it is suggested the nominations should be weighted to the north.

The Scottish Health Council would be invited as observers.

3.3 Option Appraisal Methodology

Since its first publication in 1982 the NHS in Scotland has been required to use option appraisal as outlined in Treasury Guidance (The Green Book⁵). This is a process for decision-making where significant capital expenditure is involved. Option Appraisal is a well established, practical technique employed in the public sector to set objectives and create and review options, analysing their relative benefits and costs. The results from the option appraisal analysis are used as an aid to decision-making.

The option appraisal process comprises a number of specific stages that define objectives, identify options and measure costs and benefits.

Defining the Problem

The first stage in the process is used to clearly outline the problem to be examined as well as the specific objectives that need to be addressed. These objectives are used to define the criteria upon which any assessment of alternative options is considered.

In this case the 'problem' to be examined is the policy direction of a presumption against centralisation, as described by the Cabinet Secretary, and therefore the requirement to maintain 3 Accident and Emergency departments within NHS Lanarkshire. The objectives and criteria that the options will be assessed against have been detailed in section 2 of this paper.

Generating Options and Shortlisting Options

This second stage involves the generation of potential ways of responding to the identified problem. In order to assess the potential costs and benefits of any change in care provision, a 'status quo' or 'do nothing' option is usually included, as recommended in UK Treasury Guidance. All possible options are included at this stage.

To be able to assess a manageable list of alternatives, some of the original options are eliminated to give a shortlist. Elimination can occur for a number of reasons, for example clearly excessive costs or the option may be unfeasible from the point of view of implementation. Options are eliminated only after full discussion, where agreement is reached and a rationale for elimination can be provided.

⁵ HM Treasury. The Green Book: Appraisal and Evaluation in Central Government. London TSO.

Identifying, Measuring and Valuing Benefits Associated with each Short-listed Option

Benefits in an option appraisal are measured by the extent to which each option meets those objectives specified at the outset. This is achieved by defining a range of criteria for assessment. The criteria are then weighted to reflect their relative importance to one another. After defining and weighting the criteria, evidence relating to the criteria for each option is reviewed. Individuals are then asked to assess each option against each criterion and give a score. A total weighted benefit score for each option is then derived using the weights and scores.

The weighting and scoring exercises will, where possible, be undertaken by the same group of people. Section 3.2 of this paper describes the balance of public, clinical, management and partner organisations that will be involved in the weighting and scoring processes.

The results of the weighting process will be presented showing the mean and median weights and the minimum and maximum weights for all participants. The mean weights will be used in the initial analysis. The impact of median weights will be explored in the sensitivity analysis. The list of public and professional representatives has been developed to allow an equal contribution from both groups to the weighting and scoring elements of the option appraisal process. Should attendance, and therefore the contribution to weighting not be balanced the mean weights themselves will be weighted to ensure that the public and professional representation gives an equal contribution.

When scoring participants are asked to make a relative judgement of the differences in consequences between options. They will review the evidence relating to the criteria for each option. Individuals are then asked to assess *each* option against *each* criterion and give a score out of 10, where 10 is the best possible score for an individual criterion in an individual option. No option will score perfectly against all criteria. Implicit in this is the necessity for participants to be rational and logical in their approach to scoring. A priori, it is difficult to identify clear evidence of 'gaming' in the scoring exercise however, where an individual gives a maximum or minimum score to an option this would be considered to be gaming. In that situation the analysis would be done twice, including and excluding the individual's scores to determine if there is an impact on the analysis. It is intended that any examples of gaming will be discussed with the Independent Scrutiny Panel.

Costing

Costs include both capital and revenue elements of necessary expenditure. Costs will require to be discounted over the 'lifetime' of the option as necessary according to UK Treasury guidelines.

Decision Analysis

Data on costs and benefits are then brought together and summarised using marginal analysis (with respect to the status quo/doing nothing).

The initial analysis will present the marginal analysis and preferred option (if there is one) using the mean weights and actual scores from all participants.

Dealing with Risk and Uncertainty

Any exercise of this nature requires that a number of assumptions are inherent in the analysis of the costs and benefits associated with each option. Key assumptions will be varied to assess the degree of certainty surrounding the selection of a preferred option. Exploring the information in this way improves the robustness of any estimates presented and any subsequent decision analysis.

Sensitivity analysis will explore the impact of:

- Median weights;

- Differences between groups e.g. the use of public only weights and scores or professional only weights scores;
- Any geographical bias within the public or professional groups;
- Threshold analysis for criteria weights and their influence on the preferred option; and
- Varying discount rates

It is intended that all analysis will be made available to the Independent Scrutiny Panel.

4. Opportunity Cost Assessment

Opportunity cost is an economic concept used to describe the sacrifice made by doing one thing, measured in terms of the benefits foregone by not pursuing something else. In the decision making process being outlined here opportunity cost can be described by the sacrifices made in terms of other projects that the NHS Lanarkshire might forego in order to pursue the delivery of the proposed options for Accident and Emergency services.

Indeed, in her letter to the Chair of NHS Lanarkshire on 6 June, the Cabinet Secretary stated *“I am also under no illusion that the work I have asked you to undertake will have some consequences for these [the original A Picture of Health] planned developments in terms of prioritising services and resources”*. It is therefore critical that the opportunity costs are identified and prioritised in an explicit and transparent way, which ensure that the potential benefits to the population of NHS Lanarkshire are maximised from available resources.

The NHS Lanarkshire has described a list of investments and initiatives that it intended to pursue. These have come from components of A Picture of Health and subsequent strategic developments and clinical developments that were not part of the original review process such as Regional developments. Excluded from this list are initiatives where there is no discretion for example increased costs of medications, staff pay increases, support to achieve waiting time guarantees. This list of potential future investment constitutes the alternative use of resources that may have to be foregone, dependent on the option for Accident and Emergency services that is chosen.

The aspects of A Picture of Health and other subsequent strategic developments and clinical developments that are not central to the delivery of the Cabinet Secretary’s commitment on Accident and Emergency services and could therefore be included in the opportunity cost list were identified as:

- Airdrie Resource Centre
- Bellshill Resource Centre
- Caird House
- Carluke Health Centre
- Clydesdale Hospital
- Coatbridge Primary Care & Dental Centre
- Coathill Hospital
- Corporate Headquarters
- Cumbernauld Casualty Unit
- East Kilbride Civic Development
- Hairmyres Mental Health
- Hamilton Resource Centre
- Kilsyth Health Centre
- Lanark Casualty Unit
- Larkhall Institute
- Learning Disability Assessment Centre
- Monklands Mental Health

- South Lanarkshire Dentistry (Biggar)
- Wishaw Resource Centre
- Care Management
- Carers Information Strategy
- Community Nursing Review
- Keep Well
- Long Term Conditions - Self Supported Care
- Long Term Conditions - TelehealthDiabetic Services in Primary Care Streamlined Point of Access/NHS 24
- Modernisation of Mental Health
- Palliative Care Strategy
- Vascular Services in Primary Care
- Palliative Care
- Primary PCI
- National and Regional Services
- Investment in Acute Services

The approach to Opportunity cost will use a process of weighting and scoring proposals against criteria to identify the expected benefit to be derived from each investment. The process will use the same criteria as those being utilised in the option appraisal process for the delivery of Accident and Emergency services in Lanarkshire.

NHS Lanarkshire Board members will weight the criteria for use in the opportunity cost process and the Corporate Management Team will score each of the potential investments against these criteria. This will ensure that scoring is conducted on the basis of detailed knowledge of the proposals and the local health economy.

Given the emphasis in A Picture of Health on the development of primary, community and mental health services a stakeholder meeting will be held on 3 October 2007 to engage a wide range of stakeholders including user and care representatives. This event will review the primary, community and mental health developments identified in A Picture of Health and provide information on these and their priority against the criteria for the Corporate Management Team scoring event.

The output of the Corporate Management Team scoring process will be a total weighted benefit score for each investment. This will enable a ranked list to be derived based on the expected benefits. Those proposals with the lowest level of expected benefit would be the first to not be pursued should the outcome of the option appraisal require additional investment.

To allow cost comparisons to be undertaken each potential opportunity cost will be expressed as a net present value (NPV) using HM Treasury guidance regarding discount rates.

The Opportunity Cost process uses a weighting and scoring exercise to prioritise the list of projects based on the perceived benefit that would be derived from each project. The process uses the same criteria and definitions as those used in the option appraisal. However, criteria weights are identified exclusively for use in the Opportunity Cost process. For each project, the associated capital and/or revenue cost is presented as a NPV lifetime cost.

For each Option Appraisal option the NPV lifetime cost can be equated to a NPV lifetime cost value of Opportunity Cost projects that cannot be undertaken as the Option Appraisal

option uses up the funds necessary to pursue the Opportunity Cost project. Taking the Opportunity Cost projects with the least perceived benefit off the prioritised list until the NPV lifetime cost of the Option Appraisal option has been met allows the identification of projects that will have to be foregone to allow the Option Appraisal option to go ahead.

5. Process to Formulate Recommendations for Implementation

The analytical plan is developed on the premise that there are three key components to the decision making process that NHS Lanarkshire is undertaking.

1. Option Appraisal
2. Opportunity Cost
3. Affordability

Each component has the potential to influence the outcome of the decision-making and therefore the interdependencies of these components should be recognised in any analysis. As such, none of the components will be analysed in isolation, rather the output from all three processes will be analysed and presented jointly.

Affordability

The Option Appraisal and Opportunity Cost stages above describe a method to compare lifetime costs of the options from the Option Appraisal with those other potential investments the NHS Board may pursue. However, these NPV costs are used to consider investment decisions over complex time horizons and inevitably mask the cost profile over each individual year and the potential impact on the NHS Board's income and expenditure.

Hence, the third stage of the analysis will consider the Option Appraisal, Opportunity Cost and affordability considerations simultaneously. A projected income flow for the NHS Board will be developed using a range of assumptions regarding potential uplifts that may result from the imminent Comprehensive Spending Review. Additionally a range of known and non-negotiable cost pressures will also be described e.g. new waiting times target expenditure, GP prescribing costs, expected pay uplifts etc. This will allow the identification of the level of income available for investment.

In addition the actual annual expenditure required for all of the options and those investments being considered within the opportunity cost process will also be described. Where there is income available for investment beyond the preferred option from the Option Appraisal this will be utilised for Opportunity Cost investments. This will continue through the Opportunity Cost investments until funds are exhausted. This will be explored for all options across different levels of uplift in the Board's annual income.