

SCOTTISH PARLIAMENT LIBRARY

PUBLIC COPY

NHS GREATER GLASGOW & CLYDE

FULL BUSINESS CASE

MATERNITY STRATEGY

**TITLE: MODERNISATION AND UPGRADING OF
ACCOMMODATION INCLUDING A NEW BUILD
FACILITY
AT THE MATERNITY UNIT
SOUTHERN GENERAL HOSPITAL
GLASGOW**

DESIGN AND BUILD CAPITAL PROJECT

JUNE 2008

EXECUTIVE SUMMARY.....	4
1 TITLE OF PROJECT.....	6
2 INTRODUCTION AND STRATEGIC CONTEXT.....	6
2.1 THE STRATEGIC CONTEXT.....	6
2.2 THE CALDER RECOMMENDATIONS.....	8
2.3 MODELS OF SERVICE AND REDESIGN PROGRAMME.....	8
3 SUMMARY OF CHANGES FROM OBC TO FBC	11
3.1 SURGICAL INTENSIVE CARE COTS	11
3.2 NEW BUILD AND REFURBISHMENT PROGRAMMES.....	11
3.3 MOVEMENT ANALYSIS FOR PREFERRED OPTION FROM OBC TO FBC	11
4 DESCRIPTION OF CAPITAL SCHEME SOLUTION.....	12
4.1 CAPITAL PROGRAMME REVIEW.....	12
4.2 DESIGN AND QUALITY.....	12
4.3 CAPITAL OPTIONS	13
4.4 REFURBISHMENT PLAN.....	13
5 AFFORDABILITY ANALYSIS/REVENUE FUNDING STRATEGY	14
6 VALUE FOR MONEY ANALYSIS.....	17
7 RISK MANAGEMENT	19
8 SENSITIVITY ANALYSIS.....	20
9 BENEFITS ASSESSMENT	21
9.1 NON-FINANCIAL APPRAISAL OF CAPITAL OPTIONS.....	21
9.2 NON-FINANCIAL APPRAISAL OUTCOME – PREFERRED OPTION.....	21
9.3 CALDER RECOMMENDATIONS	22
10 BENEFITS REALISATION PLAN.....	23
11 PROCUREMENT PROCESS.....	24
11.1 SUITABILITY ASSESSMENT	24
11.2 PROCUREMENT ROUTE	24
11.3 CONTRACTUAL ARRANGEMENTS.....	24
11.4 OUTLINE PROGRAMME	25
11.5 SITE DEVELOPMENT PLAN	25
12 CAPITAL AVAILABILITY	26
13 EQUIPMENT	27
14 STAKEHOLDER SUPPORT.....	28
14.1 CONSULTATION WITH PUBLIC AND USER STAKEHOLDERS	28
14.2 SERVICE RE-DESIGN AND THE MATERNITY STRATEGY	29
14.3 CAPITAL DEVELOPMENT AT THE SOUTHERN GENERAL HOSPITAL.....	30
14.4 FUTURE ENGAGEMENT WITH MATERNITY USERS.....	31
15 APPROVAL PROCESSES	33
16 PROJECT MANAGEMENT.....	34

16.1	PLANNING AND IMPLEMENTATION OF THE STRATEGY	34
16.2	CAPITAL AND FINANCE PROJECT BOARD	34
16.3	ROLE AND REMIT	35
16.4	GOVERNANCE AND REPORTING ARRANGEMENTS	35
16.5	CORE MEMBERSHIP OF THE PROJECT BOARD	35
16.6	PROJECT DIRECTOR.....	36
16.7	PROJECT SPONSOR	36
16.8	PROJECT MANAGER.....	36
16.9	ART AND DESIGN	36
17	POST PROJECT EVALUATION.....	37
17.1	THE ROLE OF THE MSISG	37
17.2	THE ROLE OF THE CAPITAL & FINANCE PROJECT BOARD.....	37
17.3	THE ROLE OF PROJECT MANAGEMENT	37
19	HEALTH INFORMATION MANAGEMENT & TECHNOLOGY ERROR! BOOKMARK NOT DEFINED.	
18	HEALTH INFORMATION MANAGEMENT & TECHNOLOGY.....	38
19	HUMAN RESOURCE ISSUES.....	39
19.1	HUMAN RESOURCES ISSUES	39
19.2	WORKFORCE ISSUES.....	40
20	APPENDICES	41

EXECUTIVE SUMMARY

Following approval of the NHS Greater Glasgow & Clyde (NHSGGC) Outline Business Case (OBC) by the Scottish Government Health Directorate's Capital Investment Group in March 2007, this Full Business Case (FBC) has been developed by NHSGGC's Maternity Strategy Implementation Steering Group (MSISG) for submission of approval to the Capital Investment Group (C.I.G.), seeking to proceed with the refurbishment and building programme to support delivery of the NHSGGC maternity strategy.

The title of the FBC is "***Modernisation and upgrading of accommodation and a new build facility at the maternity unit at the Southern General Hospital (SGH), Glasgow***".

The FBC reaffirms the strategic direction outlined in the OBC for delivery of Glasgow's maternity services. This is underpinned by the principles of A Framework for Maternity Services in Scotland (Scottish Executive, February 2001), the Expert Working Group on Acute Maternity Services (EGAMS 2002), and the direction for services outlined in the Calder Group recommendations (March 2006) (see FBC section 2.2 and Appendix 1) that concluded, "*the achievement of triple co-location of adult, children's and maternity services on the site represented the gold standard, and therefore was the only option to offer the potential for close integration while retaining flexibility in planning and development*".

The Board's MSISG undertook detailed work with clinicians and managers and maternity service users to review requirements for building and upgrading works at the SGH maternity unit, including reviewing clinical service requirements, key clinical adjacencies and capital and revenue consequences. As a consequence of that work and in order to implement a best-fit clinical configuration of accommodation and facilities three options were evaluated as part of the OBC processes. The evaluation culminated in the recommendation of a preferred option, i.e. a capital solution to fully support the modernisation of Glasgow's maternity facilities. This was achieved by carrying out a qualitative analysis by weighting and scoring the three options in December 2006. A financial evaluation of the three options was separately undertaken in January 2007, to evaluate the financial consequences and the affordability of the preferred option. Option 3 was chosen as the option with the greatest benefit, lowest risk, most favourable recurrent savings and best economic profile. The preferred option was therefore Option 3.

Option 3 was recommended because it will provide mainly new facilities with minimum refurbishment, achieve the optimum clinical adjacencies, would meet the Calder Report recommendations, and for integration with the New Children's Hospital. It had the lowest risks, including being least disruptive to services and will meet the timescales required by allowing the transfer of maternity services from the Queen Mother's Hospital between 2007 and 2009.

The option appraisal was assessed using the following criteria:

- What option has the greatest benefits?
- What option has the least risk?
- What option is the most financially viable over the life of the project and
- What option is the most financially viable in terms of affordability?

The preferred option was fully supported and recommended as the preferred solution by the Board of NHS Greater Glasgow & Clyde in February 2007. The OBC also obtained the approval of the C.I.G. in March 2007. Thereafter, the FBC was submitted to the NHS Board's Performance Review Group on 18th March 2008, when it was approved for submission to the C.I.G. on 8th April 2008. The FBC was approved by the C.I.G. and is fully supported by the Board of NHS Greater Glasgow & Clyde.

On 14th May 2008 the Chief Executive for NHSScotland wrote to the NHS Board indicating approval of the FBC and giving authority to proceed to implementation.

A NHSGGC maternity strategy document is currently being finalised, that will bring together the separate Greater Glasgow and Clyde strategic documents for maternity services, thereby providing a single-system strategic direction for the modernisation and redesign of maternity services for NHS Greater Glasgow and Clyde. The strategy document will be set in the context of *A Framework for Maternity Services in Scotland (Scottish Executive, February 2001)*, and the *Expert Working Group on Acute Maternity Services (EGAMS 2002)*. The strategy will also take account of the recommendations of the Calder Group Report, chaired by Professor Andrew Calder, published in March 2006.

1 TITLE OF PROJECT

The title of the Full Business Case (FBC) is “**Modernisation and upgrading of accommodation and a new build facility at the maternity unit of the Southern General Hospital, Glasgow**”.

2 INTRODUCTION AND STRATEGIC CONTEXT

The following section summarises the background to the plans for modernisation of maternity services in Glasgow. It provides the strategic context, workforce drivers, the redesign programme and models of service, and the planning and implementation work that is being undertaken in the delivery of the NHSGGC maternity strategy. The overall strategic fit of maternity services is more fully reflected in the Acute Plan (2006) and the updated edition of NHSGGC’s Clinical Strategy for Greater Glasgow (2006) (both documents are available on request).

2.1 The Strategic Context

The NHS Greater Glasgow (NHSGG) Acute Services Review (ASR) planning process has been ongoing since the 1990s to deliver an agreed, affordable, City-wide plan for the major redevelopment of acute hospitals, including its maternity services, essential to the provision of 21st Century healthcare.

In 1999, following widespread consultation with women’s groups and medical professionals, it was agreed that two maternity units should serve Glasgow. Pressures on the midwifery, obstetric, neonatal and anaesthetic workforces were such that change was essential. There had been a strong clinical consensus about the need to move from three to two maternity delivery units in Glasgow, because the continuing reduction in birth rate meant that the operation of three units was inefficient; the level of medical cover required to sustain three units could not be maintained long term; and that two maternity units could meet future requirements for deliveries in a more sufficient, sustainable and high quality service arrangement. No decision was taken at that point about whether the Queen Mother’s Hospital (QMH) or the Southern General Hospital (SGH) maternity unit should be the second site from which maternity services would be delivered in future.

The Board’s primary responsibility was therefore to move to a decision about which unit to close and to make that decision based on the clearest and most objective appraisal of the best services for women and their babies. The Princess Royal Maternity (PRM) was a new facility serving the City, and therefore the choices facing the organisation were that either the SGH maternity unit or the QMH should close.

The Board therefore returned to consideration of this strategy in 2003 and launched a fresh consultation exercise. As part of its pre-consultation process, the Board established the Maternity Services Modernisation Working Group. This Group sat for five months and took evidence from a broad range of stakeholders: this included nine clinical experts nominated by the Royal Colleges. The Group’s report was submitted to the Board at a Special Board meeting on 7th October 2003 and midwives and representatives from the Maternity Services Users Network (MatNet) also submitted reports.

On 21st October 2003 NHSGGC’s Board agreed to consult with the public on the Working Group’s Report, which recommended the closure of the QMH. The consultation commenced in November 2003 for 3 months.

In April 2004 the NHSGG considered the outcomes of the formal consultation and the three reports supporting proposals for the modernisation of maternity services. It was agreed that maternity services should be provided from two sites, i.e. from the maternity unit at the SGH and from the PRM. The QMH would therefore close. Capital funding was identified in the NHS Board's capital plan for refurbishment of the maternity unit at the SGH.

On reviewing the NHS Board's decision, in September 2004 the then Minister for Health and Community Care accepted the rationale for moving to two maternity units and in addition accepted the Board's recommendation that the QMH should close.

The Minister also took account of the views expressed by several consultees that the "gold standard" in delivering care in the future would be achieved by providing adult acute services, maternity services and specialist children's hospital services together on a single site. As part of his decision on maternity services, the Minister announced the provision of a New Children's Hospital for Glasgow and a commitment to make available £100 million of Public capital to fund this. This was subsequently raised to £130m in 2007. The Minister also announced that an Expert Advisory Group would be established.

The Expert Advisory Group was established as a Clinical Advisory Group on Glasgow Children's and Maternity Services (the Calder Group) in June 2005 by the then Minister for Health and Community Care, to advise him and NHS Greater Glasgow on the implementation of the decision (announced by the previous Minister in September 2004) to provide a new children's hospital in the city co-located with adult and acute maternity services. The remit of the Calder Group was:

- to advise NHS Greater Glasgow on maintaining the quality of care at the Queen Mother's Hospital until the new facility is commissioned;
- to work with NHS Greater Glasgow to identify the most appropriate site for a new children's hospital alongside adult and maternity services;
- to monitor NHS Greater Glasgow's processes for service planning, stakeholder engagement and involvement and public consultation for the co-location of paediatric, maternity and adult clinical services;
- to consider and take account of the existing work of the National Framework Review and by the Child Health Support Group;
- to submit reports to the then Health Minister at key stages of the development of the project.

In the second half of 2005/06, NHS Greater Glasgow launched a process of option appraisal and thereafter consultation in order to determine the location of the new children's hospital. The option appraisal process was agreed with Professor Calder's Group in advance, and the outcome of the process was considered and approved by the Calder Group.

The Calder Group reported to the Minister in March 2006, and recommended that the New Children's Hospital should be based on the SGH campus.

In addition, a NHSGGC maternity strategy document is currently being finalised which brings together the separate strategic documents of Greater Glasgow and Clyde for maternity services, providing a single-system strategic direction for modernisation and redesign of maternity services.

2.2 The Calder Recommendations

As stated above, the Calder Group was tasked with “advising NHS Greater Glasgow on maximising the quality of care at the QMH until the New Children’s Hospital is commissioned”.

In response, the three main recommendations proposed by the Calder Group were as follows:

“The site for the new children’s hospital in Glasgow should be on the Southern General campus adjacent to the, soon to be constructed South Glasgow Hospital and the existing Maternity (and Gynaecological) unit.

The planned programme of refurbishment and upgrading of the existing facilities at the SGH maternity (including new neonatal and labour ward provision) should be examined in the light of the adjacent construction of the children’s hospital. Specifically, the opportunity should be explored of constructing an interface that would ultimately link the maternity and children’s hospital and house the most acute critical facilities of operating theatres, intensive care for neonates and older children, and a new state of the art labour ward all functionally integrated.

During the interim period until the full triple co-location of services is achieved, the arrangements whereby maternity services move towards reconfiguration from three units to two should be carefully planned on a city wide, single-system basis, led by the respective lead clinicians in obstetrics, paediatrics, neonatology and anaesthetics. The advantage of the current adjacency of the QMH maternity service to the RHSC (Royal Hospital for Sick Children) should be preserved as long as it is appropriate and feasible but ultimately it must be seen as subordinate to critical issues of maternal safety. We expect that the move to 2 sites will have to take place between 2007 and 2009”.

The Calder report also recommended, “that for however long the Queen Mother’s Hospital continues to function during the interim period to the commissioning of the new Children’s Hospital, where there are clear fetal issues requiring specialist neonatal care, these mothers should continue to deliver in the Queen Mother’s Hospital. Mothers at risk of major obstetric haemorrhage, severe pre-eclampsia or with significant medical co-morbidity should deliver at a site where specialist medical, surgical and intensive therapy facilities are provided as recommended by the NHS QIS Maternity Standards (2005)”.

In addition, the Group recommended that NHS Greater Glasgow should keep current services under close review so that orderly planning for change can take place and any risk of service deterioration through workforce pressure can be avoided.

2.3 Models of Service and Redesign Programme

- **Service Models (2004)**

In 2004, following agreement to move from three to two inpatient Obstetric sites, Glasgow’s planning assumptions proposed that the redesigned Glasgow service would plan for 11,250 births: 5,000 at SGH and 6,250 at PRM from 196 obstetric beds: 78 at SGH and 118 at PRM, i.e. an average of 55-60 births per bed.

The planning assumptions for the neonatal service suggested that a similar number of cots would be required, with 81 in total compared with the existing 82. 44 physical cot spaces are already available at PRM, suggesting a further 37 would be required at SGH. At this time, it was anticipated that the Interventional Fetal Medicine service would be provided at PRM.

- **Service Models (Post Calder and as per OBC)**

Following a review, the Calder Group reported in March 2006, recommending changes to the service that would not have been considered in 2004. In addition the number of births in Glasgow had increased beyond the original planning assumptions of 11,250. These changes required NHSGGC to review how and where the obstetric and neonatal services should be provided in the future.

Obstetric services in Glasgow will be provided from two maternity units, i.e. PRM and SGH. It was anticipated that the number of births across Greater Glasgow would remain at approximately the 2005 levels, i.e. 12,000 births per annum. The expected flow is 6,800 births to PRM and 5,200 births to SGH. See also Service Models 2007 and beyond later in this section.

The new service model will provide a triage system in both of the new units, which will streamline the number of patients requiring admission to inpatient beds. This will enable a reduction in the overall number of antenatal and postnatal beds from 196 beds as planned in 2004 to 179 beds i.e. 65-70 births per bed.

In line with the Calder recommendations, the Interventional Fetal Medicine service will move to the SGH and be closely aligned to neonatal critical care facilities; the diagnostic fetal medicine service continuing to be provided from both PRM and SGH. In light of the physical adjacency with the New Children’s Hospital, the SGH neonatal unit will also become the receiving centre for children requiring treatment under national contracts. Both the PRM and SGH will provide secondary and tertiary neonatal services.

As recommended by Calder, medical neonatal services are being integrated with the Surgical Intensive Care unit (currently within the RHSC) to provide an integrated intensive care facility that will link directly into the paediatric intensive care unit within the New Children’s Hospital, therefore providing appropriate suggested adjacencies.

Antenatal services will continue to be provided locally, and options for appropriate locally accessible accommodation are currently being sought from which to provide the service, both in the interim and long term. In summary, the hospital services model is as follows:

NHS Greater Glasgow April 2004	Post Calder March 2006 (OBC)
<p>Two maternity sites: SGH and PRM 11,250 births across Glasgow (5,000 SGH/ 6,250 PRM) 196 Obstetric beds 55-60 deliveries per bed (57) 81 Neonatal cots</p> <p>Interventional Fetal Medicine at PRM</p>	<p>Two maternity sites: SGH PRM 12,000 births across Glasgow (5,200 SGH/ 6,800 PRM) 179 obstetric beds 65-70 deliveries per bed (67) 81 Neonatal cots <i>(plus 12 additional RHSC SICU cots integrated into the SGH maternity unit + four in the NCH) See Section 3.1</i></p> <p>Interventional Fetal Medicine at SGH</p>

- **Service Models (2007 and beyond)**

The birth numbers from the three Glasgow hospitals exceeded 12,000 in 2006/07 and look likely to reach 12,500 in 2007/08. It is not yet clear whether this increase will be an ongoing upward trend or whether it is a temporary increase in the numbers. A report on the national position is due in 2008, which will confirm if this increase is specific to Glasgow or if it is a national trend. However, flexibility has been built into the two-site model to allow for an increase in births beyond 65-70 births per bed. Birth trends will continue to be monitored.

- **Service Redesign Programme**

To underpin the capital programme for maternity and children's services, the Women & Children's Directorate of the NHSGGC Acute Services Division launched a clinician-led redesign programme in February 2007. A key aspect of this redesign programme has been a substantial and pro-active commitment to engage with maternity service users, key partner organisations and community interests.

The redesign themes that are being taken forward across maternity and children's services are being developed in line with the current strategic direction of the organisation for its maternity services. For appropriate governance of the redesign programme, and in order to put systems in place to monitor and review the delivery of redesign of services, the Women & Children's Directorate established a Directorate Redesign Steering Group in September 2007.

A Pregnancy Pathway sub-group of the MSISG is taking forward development of a proposal to redesign midwifery services; which will normalise the pregnancy pathway for women. This will be achieved by standardising the services currently provided across three maternity sites in Glasgow; providing a midwife-led managed care service throughout a pregnancy year. The group's action plan outlines proposals that will align with the National Framework for Maternity Services (2001), inform the national maternity agenda, and align with the EGAMS Report (2003). The work of the sub-group incorporates the management of care pathways and services for antenatal, and obstetric services including high-risk mothers, and complies with the guidance issued by the Chief Nursing Officer/Interim Director for Workforce, to Boards in December 2006, reinforcing the aims of developing woman focused maternity care models, and pathways to support Keeping Childbirth Natural and Dynamic.

The move from three to two maternity units will support the Women & Children's directorate in ensuring equity of access to services for women and their families to all levels of care. Consolidation of resources, especially in the antenatal community service will enable more women to have direct access to a Midwife. Staffing resource within the high-risk areas of the labour suite and neonatal unit will also benefit from consolidation and more flexibility of staff to respond to workload demands.

The introduction of the Triage system has reduced the number of antenatal admissions and provided opportunities of shared working between areas such as scanning and Early Pregnancy Assessment. Once again consolidation of staff on two sites will help facilitate the move from 5-day to 7-day access for women, to both scanning and Early Pregnancy Services as recommended by Quality Improvement Scotland (QIS) Maternity Standards. The two maternity units will work with shared guidelines and policies, again recommended by QIS Standards. Staff will have the opportunity to move between units, giving more flexibility of resources and access to training opportunities particularly within the surgical neonatal unit of the new children's hospital, which will be integrated with the medical ITU cots within the new build at the Southern General Hospital. Most obstetric units across Scotland have been involved in the introduction of training of Maternity Care Assistants (MCAs).

3 SUMMARY OF CHANGES FROM OBC TO FBC

3.1 Surgical Intensive Care Cots

In the Outline Business Case, it was anticipated that 16 surgical intensive care cots would be integrated with the medical intensive care cots. It has since been agreed 12 surgical intensive care cots will form part of the integrated intensive care unit and the other four cots will be within the new children's hospital.

3.2 New Build and Refurbishment Programmes

The new build project is the establishment of an additional building adjacent to the existing maternity unit property based at the Southern General Hospital campus. The overall project has been phased to take account of operational constraints and to reduce the disruption to services as far as possible, i.e. requiring the new build to be completed as a first phase to enable transfer of maternity and neonatal services to be commissioned in the new facility by end December 2009, and thereafter refurbishment of the existing maternity unit to be completed.

3.3 Movement Analysis for Preferred Option from OBC to FBC

Capital costs will be approximately £27,865,000. This takes account of the construction cost, both for the new building and the refurbished elements, all fees, an allowance for equipment and IT, VAT, and an estimate of Optimism bias.

The allowance for fees is based on the likely cost for consultancy and professional fees for the duration of the project based on previous experience of projects of this size. Equipment costs are based on an estimate of the level required. This includes an element for IT. This allocation has been verified by a review of the inventories for the current service.

Tenders were received for the project on 29th February 2008, and following analysis demonstrate that the capital scheme will cost £27.865m with a capital charge of £1.681m. Revenue savings are now forecast at £1,213,000 for this FBC. The movements, in revenue terms, are fairly modest, and essentially relate to a recalculation of capital charges based on the latest capital expenditure profile.

An assessment of optimism bias was carried out on this option using the format prescribed within HM Treasury guidance. The resulting optimism bias adjustments have been applied to the capital costs for the purpose of calculating capital charges and in evaluating the economic appraisal.

4 DESCRIPTION OF CAPITAL SCHEME SOLUTION

4.1 Capital Programme Review

In order to ensure that the planned programme of work at the SGH maternity unit would adequately address strategy implementation, including the Calder recommendations, the requirements for building and refurbishment works at the SGH maternity unit were reviewed by the MSISG in 2006.

The review included checking clinical service requirements, key clinical adjacencies and capital and revenue financial consequences against the current environment, the recommendations of the Calder Group and to align service requirements in advance of the closure of the RHSC, and the transfer of services to the SGH. These included the following:

- links into critical care in the new children's hospital were recommended, which meant that the location of the new integrated neonatal unit on the SGH site was critical and needed to be re-located within the maternity building to give better adjacencies with the new children's hospital;
- the provision of an Interventional Fetal Medicine service at SGH instead of PRM would require additional space on the SGH site. This was not in the original capital plan;
- the recommended integration of the medical and surgical neonatal service meant that the plans to extend the existing neonatal unit would no longer be feasible as more space and better adjacencies were required;
- the original plans to extend the existing labour suite were no longer valid as a state of the art labour suite had been recommended, again requiring more space;
- a unit sized to undertake the additional planned increased birth activity, increased neonatal cots for the shift of surgical ITU from the children's hospital to the maternity unit and for fetal medicine.

4.2 Design and Quality

To ensure that the best design and quality concepts are embedded into plans for upgrading premises and for new building projects, in October 2006 the Scottish Executive Health Department (SEHD) issued circular HDL (2006) 58, entitled "A Policy on Design Quality for NHS Scotland", which sets out the principles of good design: *"good design is not merely a question of visual style or personal perception but arises from the careful synthesis of many interrelated factors including architectural vision, functionality and efficiency, structural integrity and build quality, security, sustainability, lifetime costing and flexibility in use and sense of space in the community"*

Building on a number of UK and Scottish initiatives to ensure design quality is embedded within the healthcare building procurement process, the HDL sets out a number of mandatory requirements including the need for a clear articulated policy on design quality – a design Action Plan and to appoint a member of the Board to act as Design Champion, with support from a Senior Officer to act as a support to the Design Champion at a technical level. Both "post holders" are members of the MSISG and have endeavoured to ensure the spirit and principles of the HDL are captured in the capital planning for the implementation of the maternity strategy. Work is currently underway with representation from the NHSGGC Design Steering Group to ensure that the external and internal environment of the new building meets good design standards. For consistency of style, this work will be co-ordinated with the initial planning and design of the New Children's Hospital.

4.3 Capital Options

Since 2006, work has been ongoing by MSISG clinical and non-clinical sub-groups to plan for the transfer of obstetric and neonatal services from QMH to PRM and the SGH, with multi-disciplinary staff continuing to be involved in the work of the sub-groups. A major focus of the work of the sub-groups included involvement in the design of capital options that could provide key adjacencies, as recommended in the Calder Report, for an effective operation of clinical services. Taking into account the Calder Report recommendations and the building of a New Children's Hospital, three capital options were considered and a formal option appraisal was completed.

• **OPTION 3 (The Preferred Option)**

Option 3 takes all of the recommendations in the Calder report and provides mainly new facilities with some refurbishment giving the adjacencies required. This option meets target timescales and provides a state of the art neonatal and labour suite facility with a much longer life:

- construction of a new 3 storey facility - 2 storeys for the neonatal service including provision for integrating medical and surgical intensive care cots (currently in RHSC) and new labour suite and obstetric theatres;
- new single storey interventional fetal medicine unit;
- refurbishment of the existing labour ward as day care, triage and EPAS.

Technical Considerations in Option 3, where for the majority of this development is new build and the capital works can be contained, therefore minimising the disruption to existing services:

The timescale for the new build facility has a completion date of Autumn 2009, which is part of the phased 4-year programme that includes refurbishment to be completed by end 2010;

The new build can be completed within the timescale required by end 2009 (to allow closure of QMH). The capital project meets the Calder recommendations:

- new interventional fetal medicine service;
- integrated medical and surgical neonatal services;
- state of the art labour suite;
- integration with the new children's hospital
- minimal disruption to services once the refurbishment beyond 2009 commences;
- lifetime of the development is anticipated to be 60 years for the new build and 22 years for the refurbishment (life of the existing build).

4.4 Refurbishment Plan

A number of projects to upgrade existing maternity facilities on the Southern General Hospital site have already been completed, including creating a modern new reception area. An additional refurbishment programme will be undertaken and completed by 2010, which will bring further improvements and modernise existing facilities. This part of the maternity capital programme will be commissioned separately from the new build project because of the need to maintain operational services with minimum disruption to patients and staff as far as possible, i.e. requiring the new build to be completed as a first phase to enable transfer of maternity and neonatal services to be commissioned in the new facility by end December 2009, and thereafter refurbishment of the existing maternity unit to be completed.

5 AFFORDABILITY ANALYSIS/REVENUE FUNDING STRATEGY

5.1 Capital

The affordability analysis assesses the net impact of the scheme on the Board's income and expenditure account and whether there is a need for additional funding to service any increased cost.

The preferred option takes all the recommendations in the Calder report and provides mainly new facilities with some refurbishment giving the adjacencies required

The project timescale would provide completion of the new facilities by the end of 2009.

Assumptions

Capital Cost	Hypostyle architects
Optimism Bias percentage	Optimism Bias proforma
Lifecycle costs prepared by	Doig & Smith
New build depreciation	60 years
Refurbishment depreciation	22 years
Equipment depreciation	10 years

Capital costs, outlined in total in the table below, will be £27,865,000. This takes account of the construction cost, both for the new building and the refurbished elements, all fees, an allowance for equipment and IT, VAT, and an estimate of Optimism bias.

The allowance for fees is based on the likely cost for consultancy and professional fees for the duration of the project based on previous experience of projects of this size.

Equipment costs are based on an estimate of the level required. This includes an element for IT. This allocation has been verified by a review of the inventories for the current service.

An assessment of optimism bias was carried out on this option using the format prescribed within HM Treasury guidance. The resulting optimism bias adjustments have been applied to the capital costs for the purpose of calculating capital charges and in evaluating the economic appraisal.

Capital Profile

Description	OBC £000s	FBC £000s
Building: New/Refurbishment	22,752	24,972
Optimism Bias	3,413	1,123
Equipment (including IT)	1,700	1,770
Total	27,865	27,865

5.2 Revenue

Revenue savings, outlined in the table, below, are now forecast to increase from the £1,159,000 estimated at the time of the OBC to £1,213,000 for this FBC. The movements, in revenue terms, are fairly modest, and essentially relate to a recalculation of capital charges based on the latest capital expenditure profile.

Revenue Profile

Description	OBC £000s	FBC £000s
Additional costs:		
New Capital Charges	1,758	1,681
Savings:		
Capital Charge Savings:		
Queen Mother's Hospital	(709)	(686)
Ward 40, Southern General Hospital	(61)	(61)
Service Savings:	(2,147)	(2,147)
Net Movement in Costs / (Savings)	(1,159)	(1,213)

5.3 Capital Charges

In terms of revenue costs, the full year effect of the additional Capital Charges will be £1,681,000. This will first be realised in 2011/12 once the scheme is complete and the building is fully operational and will continue in every year thereafter.

Capital Charge savings, £686,000, will be saved when the move from the existing Queen Mother's site takes place. A further £61,000 will be saved on the demolition of Ward 40 at the Southern General. Savings will also be achieved resulting from a review of the services in the facility.

5.4 Nursing

The move from three to two Maternity Units will allow for a reduction in the number midwifery trained posts due to the planned reduction of inpatient beds, economies of scale and service redesign. This will be achieved through natural staff turnover and vacancy management. Human Resource processes will support all aspects of the Maternity Strategy implementation.

In addition to a minimal reduction of posts, there is the opportunity to review the skill mix within the trained staff cohort. This can be achieved with no reduction to establishment. The move from three to two maternity units will also support the Women & Children's Directorate in ensuring equity of access to services for women and their families to all levels of care.

Consolidation of resources, especially in the antenatal community service will enable more women to have direct access to a Midwife. Staffing resource with the high-risk areas of the labour suite and neonatal unit will also benefit from consolidation and more flexibility of staff to respond to workload demands.

The introduction of the Triage system has reduced the number of antenatal admissions and provided opportunities of shared working between areas such as scanning and Early Pregnancy Assessment. Once again consolidation of staff on two sites will help facilitate the move to 7 day access for women, to both scanning and Early Pregnancy Services as recommended by Quality Improvement Scotland (QIS) Maternity Standards. The two maternity units will work with shared guidelines and policies, again recommended by QIS Standards. Staff will have the opportunity to move between units, giving more flexibility of resources and access to training opportunities particularly within the surgical neonatal unit of the new children’s hospital, which will be co-located with the medical ITU cots within the new build at the Southern General Hospital.

5.5 Medical

As with nursing, the reduction in the number of sites is expected to be the major effect on medical costs. This will affect both junior grades and consultant staff in obstetrics, gynaecology, neonatology and anaesthetics.

5.6 Other Staff

The reduction in the number of sites will also have an impact on administration, allied health professionals and facilities staffing.

5.7 Impact of Asset Write Off

The impact of the accelerated depreciation on the existing Queen Mother’s Hospital building at Yorkhill and Ward 40 at the Southern General is shown on the table below. It is important to note that the revenue impact of this has not been included in the financial section within this business case and is only highlighted in this section. The assumption being that the revenue consequence resulting from accelerated depreciation will be met on a non-recurring basis, year on year, by the Scottish Government.

Description	£000s
Difference due to accelerated depreciation in 07/08	2,794
Difference due to accelerated depreciation in 08/09	1,513
Difference due to accelerated depreciation in 09/10	1,513
Difference due to accelerated depreciation in 10/11	1,513
Total	7,333

6 VALUE FOR MONEY ANALYSIS

6.1 This section covers the economic appraisal of the value for money of the project. Value for Money has been appraised with reference to the relevant HM Treasury and Scottish Government guidance.

6.2 A quantitative assessment of value for money is made using a Net Present Value (NPV) analysis. The NPV of an option looks at the total life cycle cost of that option over a defined period, recognising the time value of money. The recognition of the time value of money is achieved by using a “discount rate” so that all costs and revenues in the future are discounted by a set percentage to recognise that they are not as valuable to the Board as costs or revenues incurred or received today. The discount factor applied to future costs and revenues is defined centrally by HM Treasury – currently 3.5% for the first 30 years and 3% thereafter.

6.3 A revenue and capital profile over a five year period has been completed and tabulated below for the preferred option. This takes into account the capital spend including optimism bias, capital charges, service savings and facility savings.

	2008/09	2009/10	2010/11	2011/12	2012/13
Capital Profile					
Building – New & Refurb	10,690	10,292	3,990	0	0
Optimism Bias	310	362	451	0	0
Equipment (including IT)	0	1,346	424	0	0
Total	11,000	12,000	4,865	0	0
Revenue Profile					
New Capital Charges	193	812	1,441	1,681	1,681
Savings:					
Capital Charge Savings:					
Queen Mother’s Hospital	0	0	0	(686)	(686)
Ward 40, Southern General Hospital	(61)	(61)	(61)	(61)	(61)
Service Implications:	0	(536)	(2147)	(2147)	(2147)
Net Movement in Costs / (Savings)	132	215	(767)	(1,213)	(1,213)

All figures £000s

6.4 The building work on the new building will commence in 2008/09 and complete in 2009/10. Work on the refurbished area will start later in 2009/10 and finish in 2010/11. Optimism bias is a factor of the capital cost and will follow the forecast capital spend profile. The purchase of equipment and IT would also take place towards the end of the programmed timetable in 2009/10 and 2010/11.

6.5 In terms of revenue costs, Capital Charges on the capital spend would start to be incurred in 08/09. This would rise to a total of £1,681,000 in 2011/12 once the scheme is complete and the building is fully operational.

6.6 Capital Charge savings would be made on the existing estate being used. £686,000 will be saved when the move from the existing Queen Mother's site takes place. A further £61,000 will be saved on the demolition of Ward 40 at the Southern General. The savings on ward 40 will first be recognised in 2008/09, the savings on the Queen Mother's will occur starting in 2011/12. In addition, service rationalisation will make a significant contribution to the overall implementation costs of the Board's maternity Strategy and Acute Services plans.

6.7 The service savings will build up slowly, but the full savings will be in place for all disciplines by 2011/12.

6.8 An economic evaluation has also been completed for this option. This takes account of the costs included in the revenue and capital profile above, but also includes the life cycle costs of maintaining the facility for 60 years.

A negative NPV of £21,026,000 confirms that over a 60 year life, the project will result in a net reduction in costs. This NPV is equivalent to an annual cost reduction over the 60 years of £797,000 per annum.

6.9 Overall, this will deliver net revenue saving of £1,213,000 in 2011/12 and for each year thereafter. On the basis of the assessment above, the Board is confident that the project has been fully appraised in terms of projected revenue and capital costs and demonstrates the required characteristics of value for money.

7 RISK MANAGEMENT

7.1 The aim of risk management is to ensure that the risks are identified at project inception; their potential impacts allowed for and, where possible, the risks or their impacts minimised. Risk management is a planned and systematic process consisting of:

Identification: to determine what the risks are

Assessment: to determine the likelihood of the risks occurring and their potential impacts

Monitoring and Control: to identify options for dealing with risks or their impacts and monitor implementation of the preferred options

7.2 Although a risk analysis has been developed at this stage, the risk identification and analysis will remain 'live' documents and continue to be updated and developed as the project evolves.

Risk	Description of Risk	Consequence of Occurrence	Risk Management Policy
Capital cost estimates are incorrect	Costs incurred to complete the project may be different from that estimated. E.g. Market prices differ from surveyor estimate.	Cost of the project increases.	Cost estimates from Quantity Surveyor have been confirmed through independent checks. Account has also been taken of potential inflation and the "Olympic" effect.
Timetable – the project will be deliverable within acceptable timescales	The project is delayed with failure to close the QMH within the planned target timetable.	The new building is not constructed and commissioned within stated timescale adding to the cost.	Careful monitoring of project timetable against progress will be needed. This will allow early corrective action to be taken.
Equipment costs	Risk that equipment costs are greater than anticipated.	The cost of the project increases.	Procurement has been involved in the project and costings from an early stage and will have an ongoing input thus reducing the risk of an underestimation of costs.
Revenue costs / savings are incorrect	The revenue costs and savings are unrealistic.	The actual revenue savings are lower than anticipated.	A vigorous review of savings will be carried out to ensure that these are achieved.
Additional cots for West of Scotland Boards.	The case includes 10 spaces for West of Scotland cots. West of Scotland Boards has still to formally "sign up" to this increase.	NHS Greater Glasgow and Clyde will have to find the additional capital funding for this part of the build.	The Board continues to work with the West of Scotland Boards to get agreement to fund this additional work.

8 SENSITIVITY ANALYSIS

8.1 The results of the affordability appraisal have been subject to a sensitivity analysis to examine whether the changes in either initial capital costs or revenue costs made the scheme unaffordable. The results are summarised below:

Sensitivity Test	Impact on Capital	Impact on Revenue	Affordability
Increase of Capital Costs by 10%	+£2,787,000	+£150,000	<input checked="" type="checkbox"/>
Increase of Capital Costs by 20%	+£5,573,000	+£300,000	<input checked="" type="checkbox"/>
Increase of Capital Costs by 40%	+£11,146,000	+£600,000	<input checked="" type="checkbox"/>
Reduction in Revenue Savings of 10%	£NIL	+£215,000	<input checked="" type="checkbox"/>
Reduction in Revenue Savings of 20%	£NIL	+£429,000	<input checked="" type="checkbox"/>
Reduction in Revenue Savings of 40%	£NIL	+£859,000	<input checked="" type="checkbox"/>
Increase in Capital Costs by 10%; Reduction in Rev Savings of 10%	+£2,787,000	+£365,000	<input checked="" type="checkbox"/>
Increase in Capital Costs by 20%; Reduction in Rev Savings of 20%	+£5,573,000	+£729,000	<input checked="" type="checkbox"/>
Increase in Capital Costs by 40%; Reduction in Rev Savings of 40%	+£11,146,000	+£1,459,000	<input checked="" type="checkbox"/>

8.2 The initial capital cost estimates and the level of revenue savings are the principal drivers in defining whether the scheme is affordable or not. A switching analysis has been carried out to identify the percentage that both parameters must change in order for the scheme to be unaffordable. The percentage uplift required is approximately 30%.

8.3 As can be seen from the above, the affordability of the scheme is unchanged unless the sensitivities applied are above 30 % for both capital and revenue.

9 BENEFITS ASSESSMENT

9.1 Non-Financial Appraisal of Capital Options

- Benefits Appraisal

At its 6th December 2006 meeting, the MSISG reviewed a number of issues relating to the capital programme to support of the maternity strategy implementation. These issues highlighted implications for the configuration of accommodation for service delivery and consequential impacts for capital and revenue funding. To ensure that the planned programme of work at the SGH maternity unit would adequately address the recommendations of the Calder Group Report a number of options were considered. It was agreed that a review should include a benefits analysis, including a risk analysis, for clinical service requirements and key clinical adjacencies. It was agreed that capital and revenue financial consequences would be separately evaluated for affordability.

- Benefits Appraisal Process

The MSISG Group considered the current Scottish Government Health Department's (SGHD) Business Case Preparation Guidance to ensure that the planned appraisal process would meet those requirements. On 18th December 2006, a meeting of clinicians, multi-disciplinary clinical staff and managers was organised to obtain clinical opinion in order to inform a set of benefits criteria to support analysis at a benefits option appraisal. An option appraisal event took place on Tuesday 19th December 2006, when a qualitative analysis was undertaken by weighting and scoring three options. A Consultant in Public Health Medicine facilitated the event. The planning directorate's health economist subsequently appraised the work.

- Methodology

Three options were defined prior to the option appraisal meeting held on 19 December. All 25 people present at the meeting completed scoring sheets for each part of the process and scores were later averaged. The three options were first evaluated in terms of their relative benefits. A set of 14 benefit criteria was prepared in advance of the scoring meeting following discussion with a large group of clinicians involved in delivering the maternity service. The benefit criteria included the clinical arguments regarding clinical access and ability to improve clinician and patient experience, improving the estate asset base and flexibility of accommodation. The criteria were agreed, weighted and scored at the scoring meeting (Appendix 5).

9.2 Non-Financial Appraisal Outcome – Preferred Option

Option 3 scored highest in achieving the greatest clinical adjacencies including meeting the Calder recommendations, had the lowest risks including being least disruptive to the service and met the timescales required by allowing the QMH to close between 2007 and 2009.

This option provides mainly new build facilities for the labour suite, obstetric theatres and medical and surgical neonatal cots and some refurbishment of existing facilities. It will provide a link into paediatric intensive care facilities in the New Children's Hospital.

9.3 Calder Recommendations

In meeting the Calder recommendations, the options scored as follows:

Options	1	2	3
Interventional Fetal Medicine unit on SGH site	√	√	√
Integrated ICU for medical and surgical neonates	X	√	√
Interface intensive care with New Children's Hospital	X	√	√
State of the art labour ward	X	√	√
Timeline – 2007-2009	X	X	√
Least disruption to clinical services	X	X	√

Option 3 was the preferred option.

10 BENEFITS REALISATION PLAN

The following table summarises the main benefits of the project, and the measures to check outcomes:

Baseline	Benefit	Measures	Leads
<ul style="list-style-type: none"> • Three maternity units across Glasgow with different service models • Three sites (i) is a new build; (ii) has been recently refurbished; (iii) is not fit for purpose • Three separate medical intensive care units (ICU) & one surgical ICU 	<ul style="list-style-type: none"> • Triple co-location of adult, children's and maternity services • Improved environment and accommodation for patients and staff • Successfully implemented integrated neonatal medical & surgical ICU on SGH site and one medical ICU at PRM 	<ul style="list-style-type: none"> • Meets Calder Group Recommendations • National Maternity Framework • Reduction in complaints • Improved recruitment and retention rates • Better access to NHSGGC tertiary neonatal centres • EWTD compliant rotas for junior medical staff • More efficient use of trained nursing staff across Glasgow on a rotational basis 	General Manager
<ul style="list-style-type: none"> • Only one of the three sites has a triage facility • All sites have EPAS facilities, but only 5 days per week 	<ul style="list-style-type: none"> • Improved care for obstetric patients • Improved patient experience • Equity of access across Glasgow • Improved access to services • Reduction in the number of antenatal admissions 	<ul style="list-style-type: none"> • Triage available on each site • EPAS available 7 days per week • Meets QIS standards 	General Manager
<ul style="list-style-type: none"> • Not all clinical protocols and guidelines are consistent across the three sites 	<ul style="list-style-type: none"> • Improved Clinical Effectiveness 	<ul style="list-style-type: none"> • Glasgow-wide protocols and guidelines 	Clinical Directors
<ul style="list-style-type: none"> • Births per bed differ across the three sites • Models of care differ across the three sites 	<ul style="list-style-type: none"> • Effective Use of Resources 	<ul style="list-style-type: none"> • Increased average births per bed to 65-70 • Reduction in bed numbers • More efficient use of staff across Glasgow on a rotational basis 	General Manager

11 PROCUREMENT PROCESS

11.1 Suitability Assessment

The sponsors of the project are able to confirm:

- The development fits with the objectives of the Board.
- The costs for the proposed development have been built in to the Board's Five Year Capital Programme
- An appraisal of a full range of options has been considered and evaluated, considering costs, benefits and risks.
- A plan for implementing, managing and evaluating the project has been drawn up
- The proposed development is consistent with the Board's Property Strategy.
- Having regard for the service objectives of the proposal no better use could be made of the existing estate.

11.2 Procurement Route

Procurement of the capital building project has been actioned through the Traditional Procurement route of Competitive Tendering and is supported by Public capital funding.

11.3 Contractual Arrangements

A Design Team was appointed by the Board in March 2007, in accordance with European Legislation and consists of an Architect as Lead Consultant, Quantity Surveyor, Structural Engineer, M&E Engineer, Clerk of Works, Project Safety Consultant and any Specialists required.

The key stages of procurement followed were:

- a) Issue OJEU,
- b) Issue PQQ,
- c) Evaluate Responses,
- d) Shortleed applicants for Interview,
- e) Issue ITT,
- f) Interview and Evaluate shortleeted applicants,
- g) Appoint Design Team.

The Design Team has developed the Project through the key stages of Outline Scheme Design, Scheme Design and Detailed Design with a cost check implemented at each stage. Full tender documentation has been prepared and issued to building contractors that have been selected in accordance with European Legislation. It is planned to award the contract in April 2008 with a completion date of October 2009. Thereafter, commissioning will take two months with service re-location by end December 2009.

11.4 Outline Programme

Endorse Strategy	January	2007
Capital investment Group OBC approval	March	2007
Design Team Appointed	March	2007
Tender Documents issued	January	2008
Tender Returns	February	2008
NHS Board Performance Review Group Approval	March	2008
Capital Investment Group Approval	April	2008
Award Contract	April	2008
Construction Start	May	2008
Completion Date	October	2009
Commissioning Complete	November	2009
Service Relocation into New Build	December	2009
Overall Completion (incl. refurbishment)	December	2010

11.5 Site Development Plan

The Southern General Hospital campus is to be fully re-developed over the forthcoming 6-7 years. The major developments are the new children's hospital and a new South Glasgow adult hospital that are programmed to start on site in late 2009. It is vital that the new neo-natal unit is completed prior to that date to minimise disruption to the delivery of hospital services and to maximise the site to available status for the building of the new hospitals' contracts.

A Campus Development Plan was progressed in conjunction with Glasgow City Council (GCC) Planning Authority and was submitted in December 2006 to GCC. An Outline Planning Application was lodged in March 2007 highlighting all key developments on the SGH Site. As part of this process a full Traffic Impact Assessment, a Framework Green Travel Plan and a full Environmental Impact Assessment will all be carried out.

The Board's Capital Planning Department have monthly meetings with the GCC Planning Department to ensure that any key issues that arise are discussed and resolved timeously. The neo-natal development that will be fully integrated with the existing SGH maternity unit and with the new children's hospital will be the first major project on-site at the South Campus and is key to the site development discussions with the planners.

In January 2008, GCC granted outline planning permission in principle for the proposed capital schemes to build a new children's hospital and a new adult hospital on the Southern General Campus. The OBCs for these major capital schemes were approved by the Scottish Government in April 2008.

12 CAPITAL AVAILABILITY

12.1 The Board has ring-fenced a sum of £27.865m within its 3 year capital plan to take forward this key element of its Acute Services Review.

13 EQUIPMENT

13.1 The closure of the Queen Mothers Hospital in 2009 will allow Glasgow to focus maternity care provision on 2 sites, namely the Princess Royal Maternity and the Southern General Hospital. By adopting this model there will be the potential for savings to be made when managing equipment needs in the longer term.

13.2 For the purpose of the redevelopment of maternity services it is recognised however that significant investment in medical equipment at this time is required to enable clinicians to provide a first class standard of care. The Women & Children's Directorate plans for the provision and management of equipment within the 2 units are:

- Group 1 medical equipment has been included within capital build costs. Specifications for this equipment have been made involving clinicians and installation will be undertaken by the appointed contractors;
- With the assistance of clinicians a detailed city wide equipment inventory has been compiled indicating the medical equipment requirements for a 2 site maternity model;
- The existing equipment replacement programmes will continue to run up to and beyond the transfer of services from QMH and therefore will continue to inform the requirement for any new medical equipment purchases;
- Equipment recorded as being > 10 years old will be assessed prior to the transfer date as to its suitability for transfer. Where it is identified that equipment falling into this age category is still fit for purpose, is compatible with other systems in use, and can be maintained appropriately, it will be noted as transferable equipment. Consequently an extensive amount of equipment throughout the city is anticipated to be suitable for transfer;
- Prior to the transfer of medical equipment, all areas will be risk assessed to ensure use of equipment in the most appropriate areas;
- The purchase of any required additional medical equipment will be carried out using the usual procurement procedures prior to the transfer of services and will be available for clinical use on opening of the new service.

14 STAKEHOLDER SUPPORT

14.1 Consultation with Public and User Stakeholders

NHS Greater Glasgow and Clyde is committed to ensuring that women, their families and representative groups are central to the planning and development of maternity services. In order to ensure that all community stakeholders have an opportunity to participate in the Maternity Strategy a Community Engagement agenda has been implemented. This has been developed to maximise the input of communities of interest in the strategy and to ensure that the information gathered from users and external interests is fed into the appropriate decision-making processes of maternity services.

The community engagement agenda is integrated with the development and service re-design processes of the Women & Children's Directorate and supported by a dedicated Community Engagement/Information Officer – Maternity. This officer leads the community engagement agenda for the Maternity Strategy working with colleagues to ensure effective communication with and involvement for new mothers, parents and community interests; promoting the position, in line with Partnership for Care, that user's needs are placed at the centre of service redesign and fostering effective relationships between the Women and Children's Directorate and communities to ensure that that services and facilities are responsive to the needs of users and communities.

The Community Engagement/Information Officer – Maternity ensures that the community engagement processes meet SE guidance and legislation. This includes delivering on the Patient Focus and Public Involvement agenda, Planning Guidance on Community Engagement and ensuring compliance the diversity agenda.

The community engagement strategy has provided opportunities for users of maternity services to participate in the work of the Maternity Strategy Implementation Steering Group and its sub-groups. A key principle of the strategy is to ensure that user participation is representative of the women who use maternity services. Community engagement has been organised around pro-active engagement with community projects and initiatives from across the city but has a particular focus on areas of deprivation and groups traditionally regarded as hard-to-reach. This has facilitated the active participation of those groups of women who are less likely to engage with health service decision-making processes because of issues such as communication or literacy difficulties, lack of confidence or a perceived lack of entitlement. Robust mechanisms to support user participation, for example, through providing transport, child care or help with understanding agendas and papers has been provided to facilitate diverse participation.

There have been two major programmes of work that have contributed to the implementation of the Maternity Strategy. The first is a programme of outreach work in the community to provide the opportunity for women, carers and families to be informed of and contribute to the discussions around the principles of and service re-design aspects of the Maternity Strategy. The second programme has engaged users in more detailed feedback on the plans for the capital development at the Southern General Hospital. The outcomes of both these programmes are discussed below.

14.2 Service Re-design and the Maternity Strategy

Community Engagement provided a comprehensive range of opportunities for women and their families to contribute to the re-design elements of the Maternity Strategy. The user experience is a dimension of planning that is important to planners, managers and health professionals because it determines how people use services and the benefits they derive from them. The user perspective can help in service review and re-design by providing information on, for example, the user's journey, and access to services, information and communication.

The focus of this programme was outreach work within the community. This addressed several key aspects of the service re-design implications of the Maternity Strategy, namely women's experience of midwife-led care, their expectations of antenatal care and views of the proposed care pathways for maternity. These issues were discussed in 16 meetings held in community settings such as nurseries, play schemes and breast feeding support groups around the Greater Glasgow area. They involved 208 women and 9 men.

The feedback from users was overwhelmingly supportive of the principles of the Maternity Strategy and endorsed the approach being proposed by NHS Greater Glasgow and Clyde. There were a number of key findings that are of particular relevance to the underpinning principles of the Maternity Strategy.

- Users were highly supportive of the concept of midwife-led care for 'normal' or low risk births. They reported a high degree of confidence in midwives and were happy, in most cases, to have their care led by them. A relatively large number of the women engaged had experienced high-risk births but they also supported the idea of a 'normal' birth.
- Where women already had access to community-based antenatal care they reported that this was highly valued. Users reported that they were very supportive of the provision of routine antenatal care, physiotherapy, scanning, breast feeding support, post-natal support and antenatal classes in a community-based service run by midwives. They and their partners felt that these services were expert and supportive and that the benefits they gained from shorter travel times and easier access were substantial.
- Users demonstrated a sophisticated understanding of the pathways for maternity care and were able to distinguish between those elements of the service that they would prefer to see delivered in community settings and those that should be provided in an obstetric-led, hospital setting. Women's expressed preference was for low risk care to be delivered in a community setting while medium or high risk care is delivered from a specialised, central unit. Whilst routine care for normal births could be provided in a community-setting, women thought that some parts of maternity care should be in a hospital and where they had a history of miscarriage or difficult pregnancies women wanted the option of attending the Princess Royal or Southern General Maternity units for ante-natal care.

These findings have helped to shape the implementation of the Maternity Strategy and to guide the development of further engagement with women in the process of service re-design. An on-going programme of community engagement will ensure that users, families and other interested stakeholders in maternity services continue to have the opportunity to inform the development of these proposals.

14.3 Capital Development at the Southern General Hospital

The second programme of work addressed the interests of maternity users in South Glasgow in the physical environment and facilities of the new capital development at the Southern General Hospital (SGH). This programme consisted of group meetings for community projects working with women's, children's or mother's issues to discuss the development of the new facilities and a survey of SGH maternity service users, partners, families and visitors on their views of the design for the new facilities.

This was undertaken via a series of interviews conducted within the wards and outpatient departments of the current SGH maternity department. In total, 128 users were involved in the focus groups, interviews and questionnaire. Demographic information collected revealed that:

- 76% were female, 22% male, 2% missing
- 72% were patients, 21% partners, 3% visitors, 4% missing
- 74% were White Scottish, British or Irish, 22% Asian, Asian Scottish or Asian British, 4% missing
- 27% were aged 16-24, 65% aged 25-40, 3% aged 41-60, 1% aged 61+, 4% missing
- 2% described themselves as disabled

The feedback from this programme was fed back into the appropriate decision-making processes of the Maternity Strategy and used in the development of the plans for the new building and facilities. The key findings again endorsed the approach and plans outlined in the Maternity Strategy and are outlined below.

- Users, partners, families and visitors all approved of the provision of a mix of single rooms and 4-bed ward areas. Users demonstrated a sophisticated understanding of the decision-making processes behind the allocation of rooms describing single rooms as an important option for women who were unwell, whose baby was ill or who required an exceptional level of privacy. There was little demand for single rooms as a personal preference (14%) with the overwhelming majority of women (86%) describing how the 4-bed areas allowed them to mix with other new mothers offering them support, information and reassurance.
- There was a high degree of support for the provision of a number of designated 'quiet rooms' (89%). It was recognised that ward areas should seek to ensure patient confidentiality and privacy is respected but the current situation makes it difficult for patient/ doctor dialogue to be entirely confidential. Users supported the development of quiet rooms as these offered a space where women and their partners could consult with clinicians, spend time with a large family or meet with specialist maternity or children's organisations on difficult issues such as miscarriage etc.
- Women reported that they wish access to spiritual care (62%) and cafeteria amenities (95%) but there was little demand for dedicated facilities within the maternity unit. The existing facilities were highly valued and felt to be appropriate for the needs of maternity users.

- There was little demand for a garden or outside space (37%) but a view and an open outlook from the ward areas were highly valued (81%).
- Women reported that they did not value separate rooms for visiting, preferring to have visitors come to their bedside. However, there was a demand for additional space to facilitate this (31%).
- Overall, it was reported that the current space and size of rooms was adequate (59%) but some women felt that additional bed spacing would be beneficial. Bedside facilities were not identified as a concern and there was very little demand for additional or secure storage space (3%).
- In terms of adjacencies, users reported that they required the most immediate access to bathrooms, toilets and showers (42%). There were no further requests for co-located facilities with most women describing these as their only requirements.
- Women welcomed the provision of an additional birthing pool (7%), reporting the alternative pain relief and therapeutic techniques available at the current SGH as highly valued.
- Overall all users described the existing facilities at the SGH as satisfactory but car parking and vehicular access was a concern (47%) with hospital layouts confounding the issue (4%). Although the Southern was seen as having good parking provision relative to other sites, there were still significant issues in terms of the management and provision of protected parking spaces for pregnant women close to the hospital main entry point and the use of designated drop off-pick up points.
- Users felt that the building design should aim to create a sense of space in a modern and bright environment with the imaginative use of colour and innovative décor were appropriate.

These findings summarise the views and aspirations of 128 individual patients, carers or visitors who shared their views and aspirations for the New South Glasgow Maternity Project, either through participation in a discussion group or through completing a questionnaire.

It is important that these views are considered in developing the business case for the new development. However, it should be noted that this is only the beginning of a longer process and every effort will be made to ensure that the work involved in this project is built upon and developed further. There will be opportunities as the project develops to engage a wider constituency of patients and carers in key aspects of the building design that will move beyond the broad concepts and aspirations outlined here, and will progress into more substantive and tangible outputs.

14.4 Future Engagement with Maternity Users

The community engagement process has helped establish the foundations for long term and meaningful engagement structures to ensure the continued engagement of stakeholders and communities throughout the development, build and re-design phases of the Maternity Strategy. The on-going participation of a range of user, carer and stakeholder interests is recognized within both the Maternity Strategy Implementation Steering Group and the Maternity Services Liaison Committee.

This ensures that the needs and concerns of users and the wider community systematically inform and influence both local and national policies and practice that relates to maternity services providing service users with a proactive and positive role in the development of maternity services in Glasgow.

Through an on-going outreach programme of pro-active community briefings, seminars and communication resources and the fostering of relationships with a range of external interests the community engagement programme will continue to facilitate user participation and influence in the Maternity Strategy.

15 APPROVAL PROCESSES

- 15.1 The NHS Board's Performance Review Group (PRG) approved the FBC at its 18th March 2008 meeting, and recommended submission of the FBC to the Scottish Government Health Directorate's Capital Investment Group for consideration in April 2008.
- 15.2 The Capital Investment Group considered the FBC on 8th April 2008, when it recommended approval of the FBC to the Chief Executive NHSScotland. On 14th May 2008, the Chief Executive for NHSScotland, wrote to the NHSDB, indicating approval of the FBC and that the FBC for the capital programme could be implemented.

16 PROJECT MANAGEMENT

16.1 Planning and Implementation of the Strategy

In June 2006, a Maternity Strategy Implementation Steering Group (MSISG) was established to take forward implementation of the strategy, including responsibility for governance and delivery of a strategy implementation plan. The MSISG currently oversees the work programmes of 4 clinical sub-groups; comprising obstetrics, pregnancy pathway, antenatal, neonatal services and 2 non-clinical sub-groups; the Capital & Finance Project Board (CFPB) which covers capital and finance, and a human resources/communications sub-group. A typical monthly MSISG monitoring agenda is provided as Appendix 2. The MSISG reports directly to the Acute Services Review Programme Board and to other Committees of the Board as required.

A key component of the first phase of implementation was completed on 30th October 2006, when the service for high-risk mothers was successfully transferred from the QMH and commissioned at the PRM, coupled with closure of beds in the QMH and the opening of beds at the PRM. Other key strands of the MSISG's work programme include the undertaking of detailed work by sub-groups to design models of services, including the location of suitable premises for antenatal service provision in West Glasgow.

The outcomes of the Calder Report highlighted that an entirely new capital brief would be required for the SGH maternity unit, in order to take into account the recommendations of the report, including aligning service requirements with the closure of the Royal Hospital for Sick Children (RHSC) and the transfer of services to a New Children's Hospital, coupled with co-location with adult services on the SGH campus. A major component of the MSISG's work programme has been to prepare a capital brief that aligns with the Calder Report recommendations for the modernisation of maternity services, including providing best-fit accommodation and facilities to deliver services.

16.2 Capital and Finance Project Board

Following approval of the OBC, a Capital & Finance Sub-Group of the MSISG was convened as a Project Board (CFPB) to direct and monitor implementation of the maternity capital programme to support delivery of the organisation's maternity strategy. The Project Board is Chaired by an Executive Director of the NHS Board. The CFPB remit includes the review of the project plan, the evaluation of risks, and analysis and management of the financial and capital elements of the maternity strategy, ensuring financial information and analysis are proactively and routinely provided to inform the effective implementation of the capital project. A sample agenda is provided at Appendix 3.

The Director of Woman's and Children's Services assumes the role of Project Director to manage and oversee the project as a whole. Specific tasks include managing stakeholders' interests in the project, providing decisions and direction on their behalf, and overseeing the appointment of advisers and contractors to undertake the work within the project budget.

To support the Project Director the Head of Capital Planning & Finance is appointed as Project Manager to take forward the project and implement a regime of sound project management controls. Specific tasks include authorising the project plan, advising the project management team of progress; monitoring against the project execution plan and ensuring corrective action is taken if needed. The Project Manager is supported by a project team sourced through Capital Planning and the Design team.

The CFPB routinely reports to the MSISG, and takes responsibility for decision-making, and authorising actions of all stages of the capital project. In its deliberations, the Project Board also takes into account the proposed co-location of the two new hospital building programmes on the Southern General Hospital campus and any impacts of adjacencies of services for the implementation of the maternity strategy, including estates and capital works required at the Princess Royal Maternity, Glasgow Royal Infirmary. The Project Board is also kept apprised of the capital programme for Clyde's maternity services.

16.3 Role and Remit

The Capital & Finance Project Board of the MSISG:

- Directs, oversees and approves the implementation of the capital project plan for the maternity strategy, including evaluating and monitoring project risks
- is leading the development and completion of a Full Business Case for the capital project
- Develops and maintains a capital and financial framework that facilitates the achievement of the maternity strategy and within target deadlines, including optimising capital assets
- Formulates and evaluates recurring and non-recurring financial plans
- Makes recommendations to the MSISG about allocations of capital funding
- Informs the organisation's financial and capital planning processes for business case developments
- Networks with other MSISG sub-groups, other departments, and seeks expertise, as required, to deliver the maternity strategy objectives
- Identifies and manages risks, taking appropriate action to mitigate risks.
- Routinely provides a performance and risk assessment report to the Maternity Strategy Implementation Steering Group (MSISG).

16.4 Governance and Reporting Arrangements

The Capital & Finance Project Board meets monthly, and as required, to deliver the project, providing routine performance and progress monitoring reports to each meeting of the NHSGGC MSISG. The Project Board draws up agenda for meetings and ensures appropriate records of meetings are maintained. PRINCE2 project management principles and processes underpin the work programme of the Project Board. A sample agenda is attached as Appendix 6.

16.5 Core Membership of the Project Board

- The Director of Women Children's Services (Chair) (NHS Board Nurse Director)
- Head of Capital Planning and Procurement (Co-Chair) (Project manager)
- General Manager, Obstetrics & Gynaecology, Women & Children's Directorate
- Associate Medical Director, Women & Children's Directorate
- Planning Manager, Women's & Children's Acute Services
- Supporting Lead Project Manager Capital/Estates Department
- Capital Planning Finance Representative
- Head of Finance, Women & Children's Directorate
- Health Information and Technology Representative
- Community Engagement
- Design Team Lead (Attends first part of meeting only – to present for Project Report)
- The input of other staff and/or expertise is sought as required:

16.6 Project Director

The Director of Women and Children's Services is the Project Director who:

- Provides overall leadership of the Project through implementation to operational use.
- Works with all other NHS Greater Glasgow and Clyde Board Directors, Clinical and Non-Clinical Services to deliver and realise the Project benefits.
- Provides a focal point for external interest in the Project.
- Manages the relationship between the Board of NHS Greater Glasgow and Clyde and the Design Teams and Contractors appointed.

16.7 Project Sponsor

The Head of Capital Planning and Procurement is the Project Sponsor who:

- Acts as the Client's representative and is the focal point for all contact between NHS Greater Glasgow and Clyde and its appointed Consultants and Contractors.
- Effects and maintains suitable arrangements to ensure that NHS Greater Glasgow and Clyde is being adequately served by the appointed Consultants

16.8 Project Manager

A Senior Project Manager has been identified as the NHS Greater Glasgow and Clyde Project Manager who:

- Prepares and maintains a master delivery programme and work with the various relevant NHS Greater Glasgow and Clyde groups and teams to ensure an effective framework is in place to deliver the Project.
- Monitors progress against plan and reports variances with appropriate action plans.
- Works across all relevant groups to ensure their work plans are continually congruent with the overall project plan.
- Ensures decisions on issues during construction are made timeously.
- Leads the commissioning process for the new development.

In addition, an Operational Project Manager has been appointed to work with the Capital Project Manager to ensure close working relationships are established and maintained between the capital works and the operational aspects of the service. Project implementation meetings take place monthly, and as required. These include representatives from the project management team, estates, site management and operational managers, clinicians and staff disciplines, and the meetings manage and monitor the capital development to ensure existing service provision is sustained throughout the change programme.

16.9 Art and Design

In liaison with the NHS Board's Art & Design Steering Group, a programme of work is underway to incorporate art and design dimensions into the capital scheme, including for internal colour schemes, signage and other staff and patient areas (See Section 4.2). As part of the project implementation arrangements, an art and design sub-group is to be created to lead the delivery of the art and design dimension of the capital programme.

17 POST PROJECT EVALUATION

17.1 The Role of the MSISG

The MSISG will continue to function as a Maternity Strategy Implementation Steering Group to oversee the implementation and commissioning of the capital programme as well as its wider role of maternity strategy service redesign development and implementation. The membership and remit of the group will be reviewed and revised to appropriately reflect its Project Evaluation role. The MSISG provides regular and routine performance monitoring and progress reports through the Board's formal committee structure. (See Section 17.4)

17.2 The Role of the Capital & Finance Project Board

The capital programme will be managed and organised by the Capital and Finance Project Board (CFPB), which is a sub-group of the MSISG. The CFPB will continue in its overseeing and management role until the project is implemented and formally transferred to the operational service, following a commissioning period for the new build. The CFPB will continue to function until all aspects of the capital and refurbishment programmes are met. The role and membership of the CFPB will be reviewed from time to time by the MSISG to ensure that its function and membership continues to appropriately reflect the capital new build and refurbishment programmes that support delivery of the maternity strategy.

17.3 The Role of Project Management

The Project Director will ensure that the Project Management Team shall monitor and maintain sufficient records of decisions made and actions taken to contribute appropriately to effective Post Project Evaluation.

An evaluation of the Project shall be planned in terms of the Project objectives indicated within the Business Plan and the planned construction process. An Evaluation Team including representatives from Maternity, Finance and Estates, shall be created to monitor progress and carry out a Post Project Evaluation. The evaluation will be carried out after the Project is completed and the facility has been commissioned. The purpose of this is to review the construction record and functional suitability of the facility created. This review will consider:

- Actual time taken against planned programme
- Actual costs incurred against budgets
- Recommendations to prevent any problems recurring in future Projects
- Functional Suitability
- Functional relationships of key services

Once the new facility has been operational for 6 –12 months the Project will also be reviewed in terms of the original project objectives against actual measurable outcomes.

17.4 Revised Governance Arrangements

Since the approval of the FBC in May 2008, the governance arrangements have been revised and updated to reflect approval and implementation of the FBC. The new governance arrangements came into force in June 2008. A diagram which provides an illustration of the revised structure is attached as Appendix 4.

18 HEALTH INFORMATION MANAGEMENT & TECHNOLOGY

18.1 Clinical service provision is increasingly underpinned by technology and systems as we move towards having an electronic health record (EHR). The provision of clinical services after the service migration will therefore require fully functioning Health Information and Technology systems to operate effectively and efficiently. As the Southern General, Princess Royal Maternity and Yorkhill sites were until recently within different Trusts/Divisions, the technology and systems that support their clinical services are not standard across the sites. The successful migration of clinical services from the Yorkhill site to the Southern General and Princess Royal Maternity therefore requires the development and delivery of a Health Information and Technology Strategy to ensure:

- The new services are fully integrated into the Southern General and Princess Royal Maternity sites
- Optimal systems solutions are selected and implemented ensuring that applications used outwith target locations (e.g. at Princess Royal Maternity or within Clyde) are considered. This work is already underway and draft recommendations will be available by end of January 2008.
- New working practices are identified and supported by the strategy
- *New national and NHSGGC strategic systems and technology solutions are reviewed to determine the benefits they can deliver to this programme.*
- *Solutions and learning from the other new build and service redesign projects such as the ACHs (Ambulatory Care Hospitals) will also be considered.*

The strategy will address key areas of the EHR including:

- PAS/HISS systems
- Diagnostics – Imaging and Labs
- Clinical systems
- Pharmacy
- Order Comms
- Health Records Management – paper or electronic
- Data migration
- Information reporting

18.2 The strategy will include an applications and technical infrastructure roadmap from which detailed plans and projects can be developed and subsequently implemented in a phased manner. The programme of projects will be delivered using the NHSGGC approved project management methodology (ELMP) with business sponsorship from within the Women’s and Children’s Directorate. Risk management will be a key focus of the plans. Detailed migration plans for equipment, waiting lists and systems will be developed prior to the migration of the services. The Women’s and Children’s Directorate Strategy includes the relocation of services from (a) the Queen Mother’s Maternity Hospital by end 2009, and (b) the Royal Hospital for Sick Children by end 2012. Key Milestones are:

Activity	Delivered by
Draft HI&T Roadmap	End January 2008
Costed HI&T Strategy	End April 2008
Phased delivery of maternity projects	End December 2009
Maternity migration	End March 2010
Phased delivery of paediatric projects	End December 2012
Paediatric migration	End March 2013

19 HUMAN RESOURCE ISSUES

19.1 Human Resources Issues

In accordance with the NHS Greater Glasgow & Clyde “Policy on Managing Workforce Change”, the organisation will continue to consult with the Trade Unions/Staff Side Organisations on all matters relating to staff issues. The Board continues to develop its commitment to an open and transparent approach to service development recognising that those affected by service change need to be involved in the decision making process. Given the proposed changes which arise from implementation of the maternity strategy, and in particular the recommendations of the Calder Report, it is acknowledged that partnership with staff is critical to successful delivery of the strategy. Implementation of the maternity strategy is therefore being taken forward in partnership and with the full involvement of staff and their representatives, to ensure that any member of staff affected by change will be properly involved and allowed to influence the reshaping of services.

The MSISG and its Human Resources & Communications Sub-Group, operates in partnership with staff and through successful partnership, staff transfers have already been achieved from the QMH to the PRM in line with the transfer of services for high-risk mothers. This transfer was successfully completed in October 2006. The HR and Communications Sub Group continue to promote and establish good partnership relationships and identify ways in which communications with staff can be improved. This will be crucial in the months leading up to the closure of the QMH and the redeployment of large numbers of staff to the other acute units at the SGH and PRM and/or into community services.

Channels of communication will include presentations on the service changes, group meetings, drop-in clinics, Question and Answer sessions, newsletters and electronic updates. One to one meetings will be held to address specific or individual concerns staff may have about their personal situation. Communication will be carried out in partnership and the aim is to deliver key messages and information jointly with staff side colleagues fully involved in presenting face to face communications and contributing to any written briefings and newsletters. In keeping with the “Policy in Managing Workforce Change”, redeployment opportunities will be sought and every effort will be made to find alternative posts comparable to those held prior to re-organisation. Temporary appointments may be made, where necessary, until substantive posts become available. The Women and Children’s Directorate has started and will continue to adopt robust vacancy management. In this respect fixed term appointments will be considered and used appropriately to protect the interests of permanent staff displaced because of the closure of the QMH and reduction of maternity units from 3 to 2. Opportunities for training and retraining will be identified and where appropriate be accessed for affected staff.

All staff will be entitled to protection of terms and conditions in accordance with the Boards local Managing Change Policy arrangements following redeployment necessitated by the implementation of the Maternity Strategy. In addition, staff are invited to directly participate in the programmes of work being taken forward by the NHSGGC Women & Children’s Directorate, which will underpin delivery of the redesign of services and the design of models of care. This involvement will continue throughout implementation of redesign, including through joint working with the Area Partnership Forum of the NHS Board.

19.2 Workforce Issues

The Maternity Strategy, approved by the Minister for Health and Community Care in September 2004, included a major section on workforce issues. These are also highlighted in the comprehensive “clinical strategy for acute services”, which NHS Greater Glasgow & Clyde has previously submitted to the Health Department in advance of submission of a series of individual business cases which require to be prepared. That detail is not therefore repeated in this FBC.

20 APPENDICES

Appendix 1 The Calder Report

<http://www.scotland.gov.uk/Resource/Doc/1093/0023297.pdf>

Appendix 2 Sample Maternity Strategy Implementation Steering Group Agenda

Appendix 3 Sample MSISG/Capital & Finance Project Board Agenda

Appendix 4 Outline Draft Governance Framework – Strategy and Capital Project

Appendix 5 2006 Option Appraisal Scores

Maternity Strategy Implementation Steering Group

The Next Meeting of the MSISG will take place on Wednesday 20 February 2008
from 2.00 p.m. to 4.00 p.m. in the Boardroom 1
Dalian House - NHS Greater Glasgow & Clyde, Glasgow

A G E N D A

- | | | | |
|---|---|-------------|-----------|
| 1 | Apologies | | |
| 2 | Notes of MSISG Meeting held on 16/1/08 | (attached) | (All) |
| 3 | Matters Arising: | | |
| | • WoS Gynaecology Oncology Services | (attached) | (DC/LMcl) |
| | • Draft FBC Status and Approval Processes | (oral) | (DC) |
| | • Scoping Work: Nursery Provision NHSGGC | (to follow) | (MMcA) |
-
- | | | | |
|-----|---|-------------|---------|
| 4 | Performance Framework | | |
| 4.1 | Progress Monitoring Reports | | |
| | (a) Capital and Finance Project Board | (to follow) | (RC/TC) |
| | (b) Pregnancy Pathway Sub Group | (attached) | (AH) |
| | (c) Neonatal Sub-Group | (attached) | (JC) |
| | (d) HR and Staff Communications Sub-Group | (oral) | (AMacP) |
| 4.2 | Updates | | |
| | (a) Maternity Strategy OD Plan | (oral) | (AC) |
| | (b) Clyde Maternity Review | (attached) | (CMacG) |
| | (c) Community Engagement | (attached) | (KM) |
| | (d) New Children's Hospital | (attached) | (MMcL) |
-
- | | | | |
|---|---|--------|-----|
| 5 | Key Messages from the MSISG | (oral) | All |
| 6 | Any Other Business: | | |
| 7 | Date and Time of Next Meeting - The Next Meeting of the MSISG will take place on Wednesday 19 March 2008 from 2 p.m. to 4 p.m. in Boardroom 1, Dalian House, NHSGGC. | | |

Capital & Finance Project Board

The Next Meeting of the Capital & Finance Sub-Group will be held on
Thursday 2nd August 2007 at 2.00 p.m. in the Estates Office
Gartnavel Hospital, Glasgow

A G E N D A

1 Apologies

2 Design Team Programme Report (attached)

- Project Plan (attached)

3 Project Manager's Report

- Key Issues Log (attached)
 - Risk Log (attached)
 - Stakeholder Participation
 - Link to New Children's Hospital
 - Progress/Performance Monitoring Report to MSISG 4/07/07 (attached)
-

4 Notes of Previous Meeting 2nd July 2007 (attached)

5 Matters Arising:

- Revised Terms of Reference and Membership (attached)
- Completion of Schedules of Accommodation
- Neonatal Cots: Building Note Space Requirements
- Neonatal Cots – Space Requirements
- IT Information & Equipment Requirements
- Antenatal Accommodation
- SGH/Out-Patient Development
- Assisted Conception Services
- Cardiology/Beatson – Golden Jubilee Hospital
- Clyde Maternity Capital Programme

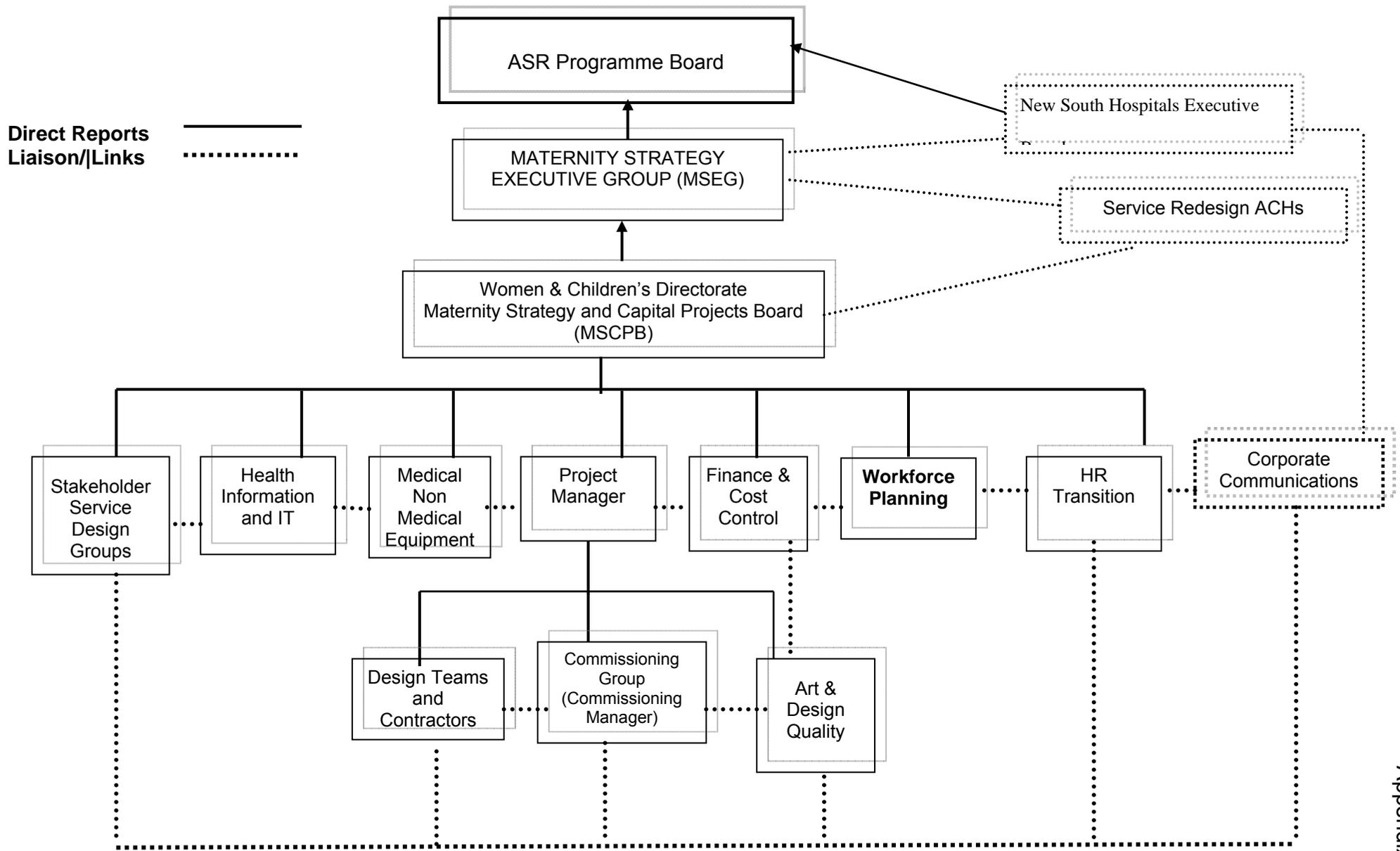
6 Project and Administrative Support

7 Full Business Case Preparation and Timetable

8 Key Messages for MSISG

9 Any Other Business

**10 Date and Time of Next Meeting: Wednesday 29th August 2007, 2 p.m., Estates Office,
Gartnavel General Hospital**



CHILDREN'S AND MATERNITY SERVICES IN GLASGOW

Report of the Clinical Advisory Group appointed by the Minister for Health and Community Care

Group Membership

Professor Andrew Calder (Chairman)
Dr John McClure
Brenda Thorpe
Dr Phil Booth
Angela Horsley
Mr John Orr
Professor Tony Wells
Professor David Barlow

MARCH 2006

CONTENTS

	Page
1. Executive Summary	3
2. Background and Context	10
3. Strategy for Acute Hospitals in Greater Glasgow	15
4. Children's and Maternity Services in Greater Glasgow	17
5. Mode of Working of the Advisory Group	21
6. Existing Hospital Sites	24
7. Choice of Site	29
8. Maximising the Benefits of Triple Co-location	31
9. Maintaining Clinical Care at QMH in the Interim Period	33
10. Clinical Risk and Safety Issues	34
11. Recommendations	42
12. Acknowledgments	43
13. Addendum I – Minimising impact of splitting Maternity and Fetal from Paediatric Specialist Services	45
14. Addendum II - Observations regarding the opportunities for design and integration of children's and maternity facilities at the new South Glasgow Hospital	47
15. Addendum III- Medical Staffing Professional and Academic Issues	51
16. Appendices	
A - Timelines in Acute Services Developments	55
B - Acute Services Configuration	56
C - Clinical Staffing Pressures (Prepared by Dr B Cowan)	58
D - The Reid Group Report	61
E - Transport Issues (Supplied by Strathclyde Passenger Transport Executive)	66
F - Timetable and Records of Plenary Meetings of the Clinical Advisory Group	68

CHILDREN'S AND MATERNITY SERVICES IN GLASGOW

Executive Summary

1. The Clinical Advisory Group on Glasgow Children's and Maternity Services was appointed in June 2005 by the Minister for Health and Community Care to advise him and NHS Greater Glasgow on the implementation of the decision – announced by the previous Minister in September 2004 - to provide a new children's hospital in the city co-located with adult and acute maternity services. The remit of the advisory group is as follows:

The Remit

1. To advise NHS Greater Glasgow on maintaining the quality of care at the Queen Mother's Hospital until the new facility is commissioned.
2. To work with NHS Greater Glasgow to identify the most appropriate site for a new children's hospital alongside adult and maternity services.
3. To monitor NHS Greater Glasgow's processes for service planning, stakeholder engagement and involvement and public consultation for the co-location of paediatric, maternity and adult clinical services.
4. To consider and take account of the existing work of the National Framework Review and by the Child Health Support Group.

5. To submit reports to the Health Minister at key stages of the development of the project.

2. This report provides the Group's response to the first two aspects of our remit, and reflects the fourth and fifth. We will discuss further with the Minister how best to continue to discharge the third aspect of our remit, in light of the establishment of the Scottish Health Council which has expertise in matters relating to stakeholder engagement and public involvement.

3. The Group addressed the issue of site selection for the new Children's Hospital first. We were clear that the task of option appraisal fell to NHS Greater Glasgow. Our role was to review the option appraisal, and by challenging and probing it to ensure that it provided the best answer to the location question. Our Group has reviewed the option appraisal undertaken by NHS Greater Glasgow. We have also conducted our own process of site visits and information gathering which has included detailed consultations with the public and interested parties, health service staff and staff of NHS Greater Glasgow. Our conclusion is that the appraisal was conducted appropriately; took account of and gave appropriate weight to the relevant factors including clinical, logistical, access, and public transport issues; and considered aspects of service planning, stakeholder and public consultation within the limited time available.

4. We therefore agree with the conclusion reached by NHS Greater Glasgow that the Southern General Hospital represents the most suitable, and the only practicable, site on which to provide a new Glasgow Children's Hospital that achieves triple co-location of adult, children's and maternity services. Apart from the physical feasibility of this location it is the

only one to offer the potential for close integration while retaining flexibility in planning and development.

5. Our advice to the Minister that the Southern General location is the most appropriate one enables NHS Greater Glasgow to move ahead with the detailed planning process required to achieve the best possible facilities for the women and children of Glasgow and indeed of the West of Scotland.

6. The group recognise the intention that the new Children's Hospital should be built within the capital budget of £100 million announced by the Minister, and that it should be affordable in operation. These are matters for NHS Greater Glasgow, which has responsibility for planning future services and for preparing cost estimates etc. Within these constraints, we strongly recommend that the Board should explore thoroughly the opportunities provided by a new build Children's Hospital at the Southern General site to maximise integration and sharing of facilities and services with the aim of promoting clinical excellence and efficient operation. While the design of and relationship between the different facilities and services provided in a triple co-location project are not strictly included in our remit, we believe the potential for enhanced integration should be fully explored and maximised. We have annexed to our main report some observations on what we believe the opportunities are and what the clinical and operational benefits would be (Addendum II).

7. In addition to exploring the opportunities for maximum integration of facilities, we also wish to encourage NHS Greater Glasgow to ensure that the relevant lead clinicians and the medical school are engaged in planning a forward looking programme of clinical service, research and development. In future Glasgow will have two major acute maternity units, one

integrated with the new children's hospital. The Board will want to give careful consideration to what each will contribute to the city-wide pattern of care especially for those pregnancies presenting complex problems to the mother, fetus or the neonate. While recognising that these are service planning issues that are outside our strict remit, the Group observes that optimum care is likely to be achieved by aligning the most highly developed clinical expertise to the obstetric unit which is integrated with the most specialised paediatric and neonatal facilities. With this in view, the Group welcomes the appointment of city-wide lead clinicians who will have a critical role and should be closely involved in exploring the opportunity of a well-developed clinical network embracing the whole of the City in single system working. These aspects are addressed in Addendum III

8. As far as children's services are concerned it is recognised that planning of facilities and services in Glasgow cannot sensibly be taken forward to a detailed level without regard to Scotland wide paediatric issues, especially specialist paediatric services. The Children and Young People's Health Support Group have a key role in ensuring that Scotland-wide issues are addressed and decisions made about national and regional services in sufficient time to enable detailed planning of the new Glasgow Children's Hospital to go ahead without delay.

9. Reprovision of a number of specific components of the Yorkhill site remain to be addressed including the Duncan Guthrie Institute of Medical Genetics, the Ian Donald Fetal Medicine Suite and Ronald Macdonald House which provides free accommodation for the families of children who are patients at Yorkhill. A further positive feature of the Southern General Hospital site is that there is room on the site or on adjacent land for facilities of this kind, and we understand that NHS Greater Glasgow is already exploring the possibilities for family accommodation.

10. The Group notes that in Glasgow as elsewhere the public is often willing to support the best possible environment for children's healthcare through charitable giving and fundraising generally. The Group hopes that this goodwill will be harnessed to the new Children's Hospital project in good time for the expected delivery of the building during 2010-11. The Yorkhill Trust has a fine track record of fundraising and have indicated an enthusiasm to engage in this process.

11. The final configuration of facilities will fulfil the long recognised need to move from three to two maternity units in Glasgow. External pressures particularly on clinical staffing may dictate the timing of such a change, but we have been conscious of the sensitivity of earlier recourse to this which would sever the current obstetric/paediatric link at Yorkhill until the new facilities at the Southern General site are commissioned . On the other hand, we have heard that the lack of on-site adult critical care facilities at QMH means that mothers requiring emergency care have to be transported by ambulance to other hospitals in Glasgow. Weighing up the relative clinical risks is a difficult and sensitive task.

12. The Group was tasked with "advising NHS Greater Glasgow on maintaining the quality of care at the Queen Mother's Hospital until the new Children's Hospital is commissioned". This implies a desire to explore ways of minimising the time during which maternity and fetal services will not be co-located with specialist paediatric services. We have heard a great deal of evidence from clinicians and a wide range of other stakeholders on this topic. Against the background of a triple co-located Children's Hospital at the Southern General site by 2010/11, and of staffing pressures that are likely to force a move to a 2-site disposition of acute maternity services at PRMH and SGH between 2007 and 2009, we recommend that NHS Greater Glasgow should keep current services under close review so

that orderly planning for the change can take place and any risk of service deterioration through workforce pressures can be avoided. We have recommended an option for the disposition of maternity services in the interim period between closure of QMH and the commissioning of the new Children's Hospital that minimises interim moves of services, although we note that SGH maternity facilities would have to be upgraded and expanded while in active use and this will require careful planning.

13. We have also given thought to what could be done to minimise the impact of splitting maternity and paediatric / fetal specialist services in the interim period. Our thinking is set out in Addendum I. We commend this thinking to NHS Greater Glasgow.

For however long the Queen Mother's Hospital continues to function during the interim period to the commissioning of the new Children's Hospital, where there are clear fetal issues requiring specialist neonatal care, these mothers should continue to deliver in the Queen Mother's Hospital. Mothers at risk of major obstetric haemorrhage, severe pre-eclampsia or with significant medical co-morbidity should deliver at a site where specialist adult medical, surgical and intensive therapy facilities are provided as recommended by the NHS QIS Maternity Standards (2005).

14. **Recommendations**

Our principal recommendations are therefore as follows:

- The site for the new children's hospital in Glasgow should be on the Southern General campus adjacent to the, soon to be constructed, South Glasgow Hospital and the existing Maternity (and Gynaecology) unit.

- The planned programme of refurbishment and upgrading of the existing facilities in the SGH maternity unit (including new neonatal and labour ward provision) should be examined in the light of the adjacent construction of the children's hospital. Specifically the opportunity should be explored of constructing an interface that would ultimately link the maternity and children's hospital and house the most acute, critical facilities of operating theatres, intensive care for neonates and older children, and a new state of the art labour ward all functionally integrated.
- During the interim period until the full triple co-location of services is achieved, the arrangements whereby maternity services move towards reconfiguration from the three units to two should be carefully planned on a city wide, single system basis, led by the respective lead clinicians in obstetrics, paediatrics, neonatology and anaesthetics. The advantage of the current adjacency of the QMH maternity service to the RHSC should be preserved as long as it is appropriate and feasible but ultimately it must be seen as subordinate to critical issues of maternal safety. We expect that the move to 2 sites will have to take place between 2007 and 2009.

MAIN REPORT OF CLINICAL ADVISORY GROUP

Background and Context

The review group was appointed by the Minister for Health and Community Care of the Scottish Executive, Andy Kerr MSP, with the following remit and membership:

The Remit

1. To advise NHS Greater Glasgow on maintaining the quality of care at the Queen Mother's Hospital until the new facility is commissioned.
2. To work with NHS Greater Glasgow to identify the most appropriate site for a new children's hospital alongside adult and maternity services.
3. To monitor NHS Greater Glasgow's processes for service planning, stakeholder engagement and involvement and public consultation for the co-location of paediatric, maternity and adult clinical services.
4. To consider and take account of the existing work of the National Framework Review and by the Child Health Support Group.
5. To submit reports to the Health Minister at key stages of the development of the project.

Membership

The membership of the Group is as follows:

Professor Andrew Calder, Professor of Obstetrics and Gynaecology, Edinburgh (Chairman)

Dr John McClure, Consultant Anaesthetist, Royal Infirmary of Edinburgh

Brenda Thorpe, Head of Midwifery, Dumfries and Galloway Royal Infirmary

Dr Phil Booth, Consultant Neonatologist and Clinical Director of Obstetrics, Gynaecology and Neonatology, Aberdeen Maternity Hospital

Angela Horsley, Assistant Director of Nursing and Paediatric Nurse, NHS Grampian

Mr John Orr, Consultant Paediatric Surgeon / Associate Medical Director for Women Children and Associated Services, Royal Hospital for Sick Children, Edinburgh

Professor Tony Wells, Chief Executive NHS Tayside

Professor David Barlow, Executive Dean of Medicine Glasgow University

The Minister's decision to appoint the Group followed an announcement that £100 million would be provided to enable a new Children's Hospital to be built in Glasgow as soon as reasonably possible which would achieve triple co-location of adult, children's and acute maternity services. This followed difficulty in reaching a decision on earlier proposals, which we rehearse below, for the future configuration of acute maternity services in Glasgow, in which the location of specialist paediatric services was a key issue.

The Royal Hospital for Sick Children in Glasgow (RHSC) has a long and proud history. It has occupied the site at Yorkhill throughout the 20th century. The original Victorian Yorkhill hospital required to be rebuilt in the late 1960s when the existing building had been deemed unsafe and required to be demolished. It was replaced with a new building which quickly

proved unsatisfactory because of sub-standard materials and was itself substantially rebuilt after only a few years. The present Royal Hospital for Sick Children has served the needs of the children of Glasgow and beyond for more than 30 years. It houses the academic department of Child Health and Nutrition.

The Queen Mother's Hospital opened in 1964 adjacent to the RHSC at Yorkhill to which it is now linked by an elevated walkway. It was the brainchild of Professor Ian Donald, Regius Professor of Midwifery and the pioneer of diagnostic ultrasound. At its inception Professor Donald moved his academic unit from the Royal Maternity Hospital at Rottenrow where the Muirhead Chair of Obstetrics and Gynaecology remained so that there were two separate departments one based at the Queen Mother's Hospital and the relatively close Western Infirmary and the other at the Royal Maternity Hospital and (at a similar distance) the Royal Infirmary. This duplication of academic departments mirrored the arrangement in medicine and surgery although within the past six years there has been only one academic department of Obstetrics and Gynaecology. This is based at the Royal Infirmary (GRI) site where the Royal Maternity Hospital has been replaced by the Princess Royal Maternity Unit (the Muirhead Chair remaining unfilled since then).

The provision of maternity services in Glasgow has seen a marked change in the past three decades with the closure of small maternity units at the Belvidere, Robroyston, Duke Street, Stobhill and Redlands Hospitals and new build units at the Southern General Hospital and Rutherglen Maternity Hospital (the latter having recently closed after less than 30 years). The current in-patient services for maternity care are thus provided by the Queen Mother's Hospital (QMH), physically linked to the Royal Hospital for Sick Children, the Princess Royal Maternity Unit (PRM) integrated within the Royal Infirmary, and the Southern General

Hospital Maternity Unit (SGH) built in the early 1970s as a free standing building on the site of a general hospital.

These changes in the pattern of acute maternity care in Glasgow reflect a general pattern across Scotland and indeed the UK. They coincide with major strides in reducing perinatal death rates to the present extremely low levels. Although the design of antenatal and postnatal maternity services has evolved to provide as much care as possible close to where expectant mothers live, acute or intrapartum care has had to become more concentrated because of increasing pressures on maintaining 24-hour cover from acute obstetric, anaesthetic and paediatric staff. This pressure has made it increasingly difficult to sustain the previous number of specialist acute units. These have already reduced from more than 30 consultant-led units across Scotland in the 1970s to fewer than 20 now and further reductions seem inevitable. Not all of these reductions have led to complete closure of maternity units, some of which (e.g. Inverclyde, the Vale of Leven and Perth Royal Infirmary) have been reconfigured as community maternity units.

Historically maternity hospitals were developed as free standing buildings remote from other hospital facilities partly because they arose as charitable institutions with separate management arrangements but also at least in part because of fears of the contagiousness of puerperal sepsis which was rife in maternity units until as recently as 60 years ago. An obvious drawback of this has been the absence on site not only of adult intensive care services but also of specialists in branches of medicine such as cardiology, nephrology, endocrinology and other medical specialties as well as specialist surgical expertise. The general trend across the UK when maternity hospitals reach the end of their building life or have to be rebuilt for other reasons is to locate them with or within general acute hospitals.

Recent examples in Scotland are the provision of a major new maternity unit within the new Royal Infirmary of Edinburgh capable of 6000 deliveries a year and the closure of the Simpson Maternity Pavilion; and the construction of a new maternity unit at Crosshouse Hospital, Kilmarnock and the planned closure (when the new unit becomes operational in 2007) of the isolated Ayrshire Central Hospital at Irvine where around 3500 births a year take place.

A further observation which is pertinent to the present exercise is that a view is widely held that children's hospitals such as those in Glasgow and Edinburgh which are also remote from general hospitals have suffered because their medical staff have not enjoyed regular professional contact with colleagues in related adult disciplines to the detriment of paediatric medicine and surgery. Again, there is a general trend across the UK, when children's hospitals come to be rebuilt, to provide the service close to or as part of an existing or new adult acute hospital. Recent examples include the new Aberdeen Children's Hospital on the Aberdeen Royal Infirmary campus and the new Royal Hospital for Children in Bristol.

Strategy for Acute Hospital Services in Greater Glasgow

The task of developing and maintaining a modern health service in the face of ever increasing public expectations, medical and scientific capabilities, and workforce issues is a difficult and complex one. Nowhere is this more severe than in the acute sector where the physical facilities necessary to provide in-patient care rapidly become outdated. This is particularly challenging in Glasgow, where six general hospitals serve the needs of a city of around 800,000 people (and also provide important regional services for the wider population of the area). Many of the facilities date back to the 19th century and are no longer fit for purpose, although substantial investment has been made in modern facilities of which the Princess Royal Maternity Hospital on the GRI site is a good recent example.

In order to meet these challenges NHS Greater Glasgow undertook a major acute services review and consulted on proposals arising from this review in 2002-03. In essence, the review proposed concentration of acute in-patient hospital services on three sites – GRI, the Southern General Hospital (SGH), and Gartnavel General Hospital (GGH), all of which would be substantially rebuilt to accommodate modern services and two of which (GRI and SGH) would accommodate full “blue light” Accident and Emergency services; provision of a major new regional cancer centre (the Beatson Oncology Centre) at GGH; and provision of two new “ambulatory care” hospitals (where patients would undergo diagnostic and straightforward surgical procedures) at Stobhill and the Victoria Infirmary. An extensive timetable for undertaking all of this work, stretching from 2003 (when work began on the new Beatson Oncology Centre) through to 2013 (when the rebuilding of facilities at SGH for acute services is forecast to be completed) was set out by NHS Greater Glasgow.

Following public consultation on these proposals the Minister for Health and Community Care announced his agreement to the strategy in 2002. The current position is that work is underway on the new Beatson Oncology Centre at Gartnavel, and contracts are about to be set in place for the construction of the new ambulatory care hospitals. Next stages in the timetable are for major rebuilding work at the SGH (due for completion by 2010) at GRI (by 2011) and at Gartnavel General (by 2013). The Minister has made it clear that, for the good of patients across Glasgow and the West of Scotland who have had to put up with healthcare delivered from elderly and substandard buildings for a long time, work on implementing the agreed Glasgow acute services strategy must go ahead to timetable. In view of that it is important that further decisions about acute care arrangements in the Greater Glasgow area are consistent with the strategy. We have included at Appendix A an outline timetable for the strategy and at Appendix B a list of key services to be delivered at each acute inpatient site.

Children's and Maternity Services in Greater Glasgow

Following Ministerial agreement to the Board's acute services strategy, NHS Greater Glasgow embarked on a further round of service planning and consultation on future maternity and children's services across the city. The key issue for the Board to address was the difficulty of sustaining three acute, consultant led obstetric (maternity) services within a few miles of each other. The background to this issue in terms of clinical staffing numbers, medical training arrangements, the new consultants' contract of employment, and the reduction in doctors' working hours is set out in Appendix C.

In the light of service wide increases in pressures on the sustainability of acute units from issues of medical manpower and employment law, the clinical community in Glasgow had long recognised and accepted that high quality sustainable care for mothers and babies cannot continue to be delivered from the three current maternity units (The Princess Royal Maternity Unit - PRM, The Southern General Hospital Maternity Unit - SGH, and The Queen Mother's Hospital - QMH). However there was not the same consensus as to how this might best be accomplished in terms of closure or reconfiguration of one of the existing units. Against this background, NHS Greater Glasgow attempted to find a clinical consensus on which they could base proposals for consultation by asking Professor Margaret Reid to lead a group to review the current patterns of maternity provision in the city in the light of current best practice and expert guidance and to make recommendations for future patterns of care. Professor Reid's report was published in October 2003. The relevant components of this are attached as Appendix D.

The Reid Group's report recommended closure of the Queen Mother's Hospital (a specialist maternity unit, adjacent to the Royal Hospital for Sick Children but remote from a hospital providing adult intensive care facilities and without ready access to adult medical and surgical expertise). The Group proposed that the case load of QMH should be divided between the other two maternity units. The obstetric consultants would transfer to the SGH except those who provide the highly specialised fetal expertise (servicing patients from the whole of Scotland and beyond) who would transfer to PRM (which provides specialist expertise in complex maternal conditions and complications). Under such an arrangement, all the highest level expertise for the management of complex maternal and fetal complications would be concentrated on the one site with the principal neonatal service to support it while the unit at SGH would be expanded and would provide a service for cases other than those with such complications.

We are anxious to acknowledge the thoroughness and quality of the Reid Report and the validity of its conclusions and recommendations which were based on the consultations and assessments conducted at that time.

In the light of these proposals the NHSGG Maternity Planning Group, chaired by the Board's Medical Director and with representations from the three Trusts affected, produced a detailed report ("Maternity Planning Group: Final Report") which described in detail how specialist Paediatric and Maternity Services would operate when no obstetric unit remained adjacent to RHSC. These proposals were seen as workable, affordable and capable of solving the immediate difficulties of staffing three consultant obstetric units and the issues of concern regarding maternal safety at the Queen Mother's Hospital. However, they were greeted with widespread public concern about the prospect of fracturing the long established direct link

and co-location between the maternity unit dealing with the most difficult fetal complications and the highly specialised medical and surgical paediatric expertise in the Royal Hospital for Sick Children, a situation which appeared likely to prevail for around 10 years until rebuilding of RHSC.

NHS Greater Glasgow decided to consult publicly on the basis of the Reid Group's recommendations. The public consultation ran from January to March 2004. The clinical community was unable to offer a single view. While as noted there was consensus about the need to move from three acute maternity units to two, one of which would logically be the new PRM, there were divided views over whether the second unit should be co-located with specialist paediatric services at Yorkhill or adult acute services at SGH.

Once the public consultation was complete, the Board of NHS Greater Glasgow met to consider their response. They heard a number of presentations from a range of experts, as well as considering the public's response to the consultation. The Board noted the divergence in clinical opinion. It however concluded that it was necessary to plan for a move to two acute maternity units. It therefore decided to press ahead with the original proposals on which it had consulted, involving the closure of QMH. At the same time the Board noted that the RHSC would be likely to continue on its present site at Yorkhill until about 2015 when a decision would be required on the location of a replacement hospital, probably co-located with an adult acute hospital. The Board submitted its proposals to the Scottish Executive in April 2004. The proposals were the subject of significant public debate over that summer and representations were made to the Minister for Health and Community Care about the desirability of retaining maternity services at QMH.

At the end of September 2004, the Minister for Health announced that the Executive had accepted NHS Greater Glasgow's proposal for moving from three acute maternity units in the city to two, but that it shared public and some clinical concern about breaking the physical link between maternity and specialist children's services and wanted to retain this link. The Executive therefore at the same time announced that it would provide £100 million to enable a new Children's Hospital to be built in Glasgow by 2010. The new hospital would form part of a "triple co-location of services", meaning that children's, maternity and adult acute services would be provided on the same site to allow patients in one part of the hospital ready access to services in the other parts. This was widely welcomed as preserving the current link between specialised children's services and acute maternity services, while adding another benefit – that of proximity to an adult acute hospital so that the best possible care could be given immediately to very ill mothers.

Alongside his announcement of new funding to enable triple co-location to take place, the Minister for Health indicated that he intended to appoint a Clinical Advisory Group to provide support and advice to him and NHS Greater Glasgow on two key issues - the location of the new children's hospital (and therefore by implication one of the two continuing maternity units in Glasgow), and how quality clinical services at QMH might be maintained until the new children's hospital was ready.

Mode of Working of the Advisory Group

The Group took the view that our first task was to work alongside NHS Greater Glasgow and the Minister for Health in reaching an independent view on the optimum location for the new children's hospital. Without a decision on this key issue, no progress could be made with planning either new maternity or children's services. We also interpreted our remit to mean that the task of site option appraisal fell to NHS Greater Glasgow, and that our role was to review the Board's work and, by challenging and probing it, to ensure that together we reached the best answer to the location question.

With this objective the review group met on a number of occasions in the autumn of 2005 and early 2006 and made visits to the existing hospital facilities at Yorkhill as well as to the perceived potential sites for the new development, namely the Royal Infirmary, the Southern General Hospital and Gartnavel General Hospital. The opportunity was taken by members of the group to visit newly developed children's hospitals in Aberdeen, Bristol, St Thomas' and Guy's Hospitals in London. The Group also met on several occasions with representatives of NHS Greater Glasgow, key clinical staff of the service and other interested parties. In the course of two public meetings the opportunity was provided for representations from all interested parties who wished to make any. In addition, the review group invited written submissions from any who wished to make them. The deliberations of the group have been carefully recorded and are in the public domain on the review group's web site. The dates of the Group's plenary meetings and the records of our consultations and deliberations are attached as Appendix F.

It was made clear at the outset that the capital funding allocated by the Minister was designed to cover the cost of providing a new children's hospital in Glasgow, that the Department could not offer additional funding, and that no central financial provision had been made for a new build maternity unit.

We discussed the timetable that would have to be followed if the Minister's timetable of delivering a new children's hospital by 2010 was to be adhered to. We were advised by NHS Greater Glasgow that this was as follows:

- Outline business case by September 2006
- Full business case by April 2007
- Design and build from November 2007 – November 2009
- Commissioning and hand over November 2010

We also reviewed the agreed timelines and phasing for implementing the acute services strategy (see outline at Appendix A).

NHS Greater Glasgow embarked on a new option appraisal exercise. The review group was responsible for overseeing this process and for satisfying itself that it was conducted rigorously and fairly. The requirement for finding a site for the new children's hospital was clear. There required to be physical space to accommodate a new build children's hospital co-located with adult and maternity services. The space requirement for the former had been quantified, for planning purposes, by GGHB as 40,000 sqm which approximately corresponds to the existing space at RHSC.

The Group gathered information about the existing Yorkhill facilities and on the three main hospital sites which, under the acute services strategy, would provide acute services namely the Royal Infirmary, Gartnavel and Southern General Hospital. The Group decided to include Gartnavel General Hospital in its review because we understood there was a degree of public support for such an option, although to achieve triple co-location at Gartnavel would require the construction of a maternity unit as well as a children's hospital since there are no acute maternity services on the site at present.

A widely expressed view and aspiration conveyed to the Group was that the ideal solution would be a combined and fully integrated new build maternity and children's hospital on a general hospital site. An even more ambitious "blue sky" proposal was that a single specialist unit catering for all Glasgow's obstetric population would overcome much of the difficulty faced currently and in the future. While the Group could see the attractions in both solutions we regretfully concluded that neither is realistic within the current circumstances and constraints in Greater Glasgow.

The background to the work we were asked to undertake was therefore that acute hospital services in Glasgow would in future be provided on 3 sites – at GRI, SGH and GGH, with – under the Board's proposals - acute maternity services at GRI (PRM) and SGH. Against this background we examined the range of potential sites for a new children's hospital.

Existing Hospital Sites

The information gathered by the review group concerning the existing sites is summarised as follows:

1. Yorkhill site

Currently QMH provides a general maternity and obstetric service and a supra-regional service for complex fetal medicine the focus for which is the Ian Donald Fetal Medicine Suite. Neonatal special and intensive care is provided at QMH and there is also neonatal input to RHSC services on the same campus. There are no specialist adult services on site, and in particular there are no intensive care or specialist medical or surgical services or gynaecology. The current extent of integration of the children's hospital and the maternity unit consists of physical linkage via an elevated corridor between the two hospitals. The two sets of services are otherwise separate from each other. The site also houses the Duncan Guthrie Institute of Medical Genetics and Ronald McDonald House.

2. Glasgow Royal Infirmary / Princess Royal Maternity Unit

The maternity unit at GRI was planned to cope with up to 6500 deliveries per annum. It is currently catering for approximately 5500. The 12 cot neonatal intensive care facility is currently functioning at capacity. However, there is a maternity ward and neonatal transitional ward currently mothballed. The unit was commissioned within the past five years and is acknowledged as a state-of-the-art facility.

Currently the academic department of obstetrics and gynaecology and the laboratory research facilities are on site at GRI. This hospital enjoys good access to the M8 motorway and to

trains and buses. However, there is little developable land on the site and the potential for additional building is limited. In the view of the Health Board, siting a new children's hospital on the GRI site would require additional floors to be added to the currently proposed acute services new building in the centre of the site. To provide the required 40,000 sqm would, by NHS Greater Glasgow's calculation, require an additional 10 storeys to be added to the presently planned 7 storey building. The advice the Board have obtained from external planning advisers is that planning consent for such a development would be highly unlikely to be granted. Furthermore, it would prove difficult to present a children's hospital with a discreet identity and with a children friendly environment. In addition, location of a children's hospital at GRI would require a major revision of the current acute services plan, leading to a likely delay in modernising hospital services across Glasgow. Furthermore, a new children's hospital added to the planned new build project would be at a considerable distance from the PRM Unit and would not provide the adjacency of paediatric and neonatal services which is required for the triple co-location to meet its objectives. The services currently proposed to be delivered at GRI are general surgery, plastic surgery, upper GI surgery, care of the elderly, orthopaedic and trauma, burns, colorectal surgery, various medical specialties, acute rehabilitation, gynaecology, obstetrics, neonatology and the regional neonatal transport service.

There would be limited land site flexibility for future proofing. A further key limitation is that there would be virtually no facility for providing family accommodation near the new hospital, a feature of RHSC at Yorkhill which is particularly warmly supported by parents.

3. Gartnavel Site

There is developable land in a virtual green field segment on the south aspect of the site, but this is almost a quarter of a mile from the adult acute hospital facilities from which it would physically be separated by the Gartnavel Royal (mental) Hospital. The services planned on the Gartnavel site include a GP medical and surgical receiving unit, adult high dependency unit (but not intensive care), breast surgery, ophthalmology, post-acute rehabilitation, the West of Scotland Oncology Service (Beatson Development), care of the elderly and adult psychiatry. They do not include adult intensive care, specialist medical and surgical services, gynaecology, obstetrics or neonatology. The fact that there is no maternity facility either in existence or planned means that to locate a children's hospital on this site with the benefits of triple co-location would require a new maternity hospital to be built. Even then, the necessary range of specialist adult services including intensive care and specialist medical services would be lacking. We heard no convincing arguments for why not only a new children's hospital but also a new maternity unit and a range of specialised adult services should be provided at GGH.

4. The Southern General Hospital Site

The SGH site has extensive available developable land extending to 67 acres on a flexible site with potential for expansion and therefore a degree of future proofing. There is good access to the M8 motorway, the Clyde Tunnel and bus/rail transport. It is also close to Glasgow airport and has its own helipad. NHS Greater Glasgow furnished the Group with information provided by Strathclyde Passenger Transport Executive (Appendix E) concerning public transport journey times. This illustrated that SGH is more accessible than GRI and Yorkhill from some parts of the city, and less accessible from other parts, with the

balance weighted by population suggesting that SGH is the most accessible of these three sites.

The SGH maternity unit is more than 30 years old. NHS Greater Glasgow intend to upgrade the facilities in a project costing about £8 million. There is a widely and strongly expressed feeling that even following upgrading, the building would remain inferior to the facilities provided at PRM. However the proposed new South Glasgow Hospital incorporating a new children's hospital and an upgraded obstetrics and gynaecology unit will for the next few decades provide a very substantial new facility with a range of city wide, regional and national services including gynaecology, obstetrics and neonatology as well as adult intensive care and a full range of medical and surgical specialties. This carries the prospect of being one of the leading teaching hospitals in the land. There are no significant physical constraints on the site.

We have discussed the planned upgrading of the maternity unit at SGH with NHS Greater Glasgow. The Board have indicated that after upgrading the facility will exceed the building standards set by the Scottish Health Service and that estimated upgrade costs are consistent with other projects of this kind. Under the plans outlined by the Health Board, the upgraded maternity unit would only provide a physical link bridge to the new children's hospital similar to the current arrangement at Yorkhill. Adult specialist services would be co-located on site, but without corridor access, and at a variable physical distance. The current plan envisages a maternity facility capable of dealing with 5500 deliveries per year which would incorporate a regional neonatal intensive care centre and a national / regional fetal medicine centre. The Health Board's plans for the upgraded maternity facility are based on carrying out the work within a year while the unit continues to function. The envisaged upgrade includes:

- Four upgraded maternity wards (this work is already in progress)
- Five additional labour rooms (bringing the total to fourteen)
- A new build neonatal unit with 12 neonatal intensive care cots
- A comprehensive gynaecology service (as at present)
- A comprehensive early pregnancy assessment unit (as at present)
- Re-cladding of the outside of the unit to provide coherence with the new build children's hospital

Choice of Site

The option appraisal exercise conducted by NHS Greater Glasgow reached the conclusion that the SGH site was the only one which would satisfy the criteria of achieving triple co-location of adult acute and maternity services with a new children's hospital, within the resources offered by the Scottish Executive. In line with our view of our remit, the Group believed that it should give careful consideration to all possible options. Our views are set out below.

1. **Gartnavel General Hospital** – the review group agree with the view of NHS Greater Glasgow that, while there is building space available at the Gartnavel site, this choice is clearly less desirable than others because there are currently no acute maternity services on the site; the range of adult acute services is limited and would not provide significant clinical benefit particularly in the management of very ill mothers; and the developable land is widely separated from the planned site of the new adult acute hospital further reducing the benefits of triple co-location.
2. **Glasgow Royal Infirmary** –the Royal Infirmary site appears to represent an attractive option for a new children's hospital because of the prominence of the hospital in frontline acute services, the presence on site of a very modern, state-of-the-art maternity unit (the Princess Royal Maternity Unit) and undoubted expertise in maternal medicine as well as adult intensive care, medical and surgical services. However, the building constraints on the site are significant. We accept the argument that, on current plans, a new children's hospital could be provided only by adding a number of extra storeys to, or radically rethinking the layout and purpose of, the

planned new acute services building on the GRI site. Were this to be done, however, the new children's hospital would be sited in the middle of the GRI campus at a considerable distance from PRM. Close integration with the children's hospital would not be feasible. The potential benefits of triple co-location would therefore not be achieved.

3. **Southern General Hospital** – the Group finds no reason to dispute the conclusion reached by the option appraisal exercise conducted by NHS Greater Glasgow. The site offers the opportunity to construct a state of the art children's hospital not only co-located with adult and maternity services but with the potential of close functional integration with these. Such an arrangement offers the prospect of enhanced clinical services within the most efficient and cost effective configurations.

Consequently the review group are able to recommend to the Minister that the Southern General Hospital is the best available site on which a new build children's hospital could be provided, fulfilling the potential benefits of triple co-location.

Maximising the Benefits of Triple Co-location

The Group believes that the maximum benefit of triple co-location will be achieved if the relevant clinicians are closely involved in reviewing options for the design of services and in carrying these through to implementation. We recommend that once the Minister has made a decision on the site for the new children's hospital, NHS Greater Glasgow moves forward as quickly as possible, in collaboration with clinicians, to develop service and design options for the new facility and to make decisions about these that maintain clinical flexibility and maximise patient benefits.

It is particularly important that the Board does not simply seek to recreate the facilities currently provided in RHSC on a new site co-located with adult and maternity services, but should think innovatively about options for configuring services and providing facilities that will support current and emerging clinical practice for the benefit of patients in future. The Group has formed some views on options for co-locating and as far as possible integrating specialist facilities between the new children's hospital and the maternity unit at SGH. We realise that these issues go somewhat beyond our strict remit. Nevertheless we believe that they have an important contribution to make to the overall success of the project. The review group would therefore wish strongly to encourage NHS Greater Glasgow to embrace imaginative solutions to the challenge currently presented. The current situation represents a once in a lifetime opportunity to provide the finest possible configuration of services. Clearly a range of configurations is possible and the project offers architects and planners scope for an imaginative solution. While recognising the imperative of ensuring highest quality of care within the most cost-effective arrangements, we have outlined one possible model for consideration by NHS Greater Glasgow (Addendum II). We believe this could offer

important opportunities to rationalise the organisation of the most acute elements of the obstetric and paediatric service (operating theatres, intensive care facilities and principal labour ward) bringing significant advantages and enhanced efficiencies in the utilisation of facilities and staff as well as a modern, forward looking clinical environment.

It is also imperative that the acknowledged expertise in fetal medicine is supported by appropriate re-provision of the facilities provided by the Ian Donald Fetal Medicine Suite with patient sensitive waiting, counselling, imaging and operative accommodation.

NHS Greater Glasgow will have to design services and facilities at the new children's hospital in the light of the broader national picture. The group recognise that the Scottish Executive Health Department commissioned a review of specialist children's services in 2003 and that four clinical areas (cancer, respiratory, gastroenterology and neurology) were chosen to pilot this process. The Kerr report addressed a number of the relevant issues and the Children and Young People's Health Support Group are currently charged with taking these issues forward. It is important that these national issues are addressed quickly enough to avoid holding up planning decisions in relation to services to be provided from the new children's hospital. We also recognise that some issues, for example relating to the designation and location of highly-specialised national paediatric services, are highly sensitive and need to be handled with demonstrable objectivity and great care. This is an issue for the Scottish Executive to consider.

Maintaining Clinical Care at QMH in the Interim Period

We turn now to the first point of our remit:

- To advise NHS Greater Glasgow on maintaining the quality of care at the Queen Mother's Hospital until the new facility is commissioned.

We understand the desire on the part of many interested parties that services at QMH should be maintained for as long as is feasible, and if possible until the new triple-located children's hospital is in place. The difficulties in doing this should not be underestimated. The position appears to us to be as follows. The existing maternity units at SGH, QMH and PRM have capacity to handle a number of births well in excess of current and predicted levels in Glasgow city. All three units are staffed by consultant obstetricians, midwives and nurses, neonatologists and anaesthetists. All three also have neonatal intensive care facilities, staffed by specialist nurses. Some very sick neonates, or fetuses requiring complex care or intra-uterine interventions, are brought to QMH (if they or their mothers are not already there) to take advantage of the skills of fetal medicine specialists there and medical and surgical expertise at RHSC. Very sick mothers will be taken to GRI or to SGH for adult specialist treatment. There is already agreement that the present 3 maternity unit model of services will move to a 2-unit model, and our view that the new Children's Hospital should be sited at SGH means that these maternity units will be located at SGH and GRI. The issue is what arrangements should exist in the interim period before the move from 3 to 2 units takes place.

Clinical Risk and Safety Issues

In attempting to advise on how maternity services should be arranged in this interim period, it is important to understand the clinical risks and safety issues. Judgements on clinical risks and safety are not straightforward and inevitably involve balancing different risks. There may be little objective data to underpin these assessments of risk, but it is still necessary for an assessment to be made that will support the necessary decisions.

The location of maternity services in the interim period relates to patient safety in two possible ways. Co-location of maternity and specialised neonatal / fetal and paediatric services (as at QMH and RHSC) should minimise risks to sick neonates and fetuses because specialised services are immediately available without the need for movement off-site. However arrangements exist to move neonates in transportable intensive care cots safely from other maternity units (within and beyond Glasgow) to RHSC where necessary. Co-location of maternity and adult acute services, including intensive care, should minimise risk to mothers who may develop life-threatening conditions. At present, all three maternity units in Glasgow provide neonatal intensive care facilities although only the QMH/RHSC complex provides specialist fetal and medical and surgical paediatric services. Only SGH and PRM provide adult acute care and intensive care facilities on site. Consequently very ill mothers require to be transported from time to time from QMH by ambulance to adult intensive care units elsewhere in Glasgow.

In practice it is extremely difficult to compare the relative risks to mothers and fetuses under different location options. It may make more sense to compare the relative difficulty in managing the different clinical risks. In general, risks to neonates are more easily managed,

through the use of specialised neonatal intensive care cots and dedicated inter-hospital transfer services, than risks to mothers where adult intensive care is not available on-site and transfer by ambulance is required to a site where intensive care and other medical back-up is available. We emphasise that this is not to say that deliveries at QMH are currently unsafe for mothers. However it does mean that mothers who are assessed before delivery as being at risk of complications or who develop complications should be directed to PRM or to SGH for delivery.

Risk is a subject much discussed in the NHS. It is important to emphasise that it can never be wholly eliminated. What is required is service provision designed to minimise it. In obstetrics this calls for careful planning of clinical provision tailored to the assessed special needs of individual mothers and their babies. The co-location of maternity, adult and paediatric / fetal services at the SGH site from 2010 will finally resolve this particular issue. The challenge in the current interim circumstances is to make the arrangements which will most effectively reduce unnecessary or avoidable risks until the new facilities are commissioned. In the light of pressures from a lack of skilled staff and trainees and the current hospital configuration, compromises during that period are inevitably required.

In assessing the conflicting demands of mothers and neonates for intensive care, medical and surgical support it is evident to the Group that (as noted above) the fundamental difference between the SGH and PRM units and the QMH is that while all three have on-site intensive care facilities for neonates, only the QMH lacks high level maternal support. The particular advantage deriving from the adjacency of QMH to RHSC accrues to the relatively small number of babies who it can be argued benefit from being delivered next door to RHSC. These represent a minority of the babies who require to be treated within RHSC, the majority

coming as transfers from other maternity units elsewhere in Glasgow and further afield. It should be pointed out that the arrangements in most cities in the UK are that all babies who require treatment in a children's hospital are transferred there from maternity units which are rarely adjacent. This state of affairs is changing as new children's hospitals are built on general hospital sites but for the time being such arrangements are workable and are seen to be much less of a problem than the physical separation of maternity units from specialist maternal support and adult intensive care facilities. It is pertinent that during the first 18 months of the operation of the obstetric unit at the new Royal Infirmary of Edinburgh when it was the first component on-site and awaited the transfer of other adult services including intensive care, the need to transfer sick mothers back to the intensive therapy facilities at the old Royal Infirmary proved particularly problematic.

There is no dispute that severe staffing pressures will impact on services in Glasgow as elsewhere, as a result of several factors (summarised in Appendix C): increasing difficulty in recruiting and retaining skilled personnel in all specialties; shorter working hours for junior doctors as a result of the full implementation of the European Working Time Directive; shorter working hours for consultants as the full effects of the new consultant's contract are felt and reduced medical resources as a result of doctors in training no longer providing significant direct patient care once the revised approach to medical training set out in *Modernising Medical Careers* (MMC) is implemented.

We are therefore clear that Glasgow needs to plan actively for the provision of a city-wide acute maternity service on two sites, at PRM and SGH. The question is what arrangements should be put in place in the interim, and what are the factors bearing on the timing of the required changes.

On timing, we believe that the critical factor will be the impact of Modernising Medical Careers. Effectively, full implementation of MMC will remove most of the service capacity currently provided by doctors in training (including Senior House Officers and Specialist Registrars) and it will become impossible at that point to sustain safe medical staff rotas on all three sites. There is uncertainty about precisely when MMC will be fully implemented. The new approach to training will be partially implemented from 2007, and present plans will be fully implemented by 2009. However these dates could alter and if so they are more likely to move back than forward. We note here that detailed planning for the service changes required to move safely and securely from three sites to two must begin a year before the changes are effected.

In our view, the optimal time for change will lie between 2007 and 2009. Given the difficulty in establishing a clear rank order in terms of clinical risk, we believe that the NHS Board should be free to make a decision on timing, between 2007 and 2009, based on factors including the likely impact of construction work at the SGH maternity unit on services there and the time required to develop and implement city-wide services.

We are aware that the Board is monitoring closely the planning and implementation of MMC so that the effects of the programme are anticipated accurately. This will allow planning for service changes to begin a year in advance of the point at which change becomes essential as hospitals lose the service delivery resource currently provided by doctors in training. We expect that this point will arrive no later than 2009, requiring service change planning to begin in detail in 2008 at the latest, but the effects of MMC may reduce substantially the service delivery capacity of doctors in training as early as 2007. If so, planning for a move to two acute maternity sites should begin this year. As noted above, we believe that these

decisions about the timing of changes to services are ultimately a matter for the Board, which should keep the position under review to ensure the continued clinical safety and quality of current services. The challenge for the Board will be to reconcile the competing demands to maintain the highest levels of quality and safety overall.

We come now to the question of what arrangements should be made in the interim period.

The options would appear to be as follows:

1. Maintain QMH until it becomes necessary to close it for the reasons set out above. Its workload should then be distributed to PRM and SGH. This would entail bringing into use currently unused facilities at PRM (capable of supporting at least 1000 births a year), and refurbishing and expanding facilities at SGH to take another 2000 or so births a year, both in time for closure of QMH. We believe that this option is feasible. It would entail SGH maternity reaching its post-triple co-location capacity before construction of the new children's hospital was complete. The upside is that interim moves of services would be minimised, and on-site adult intensive care facilities would be available to all mothers in Glasgow from that date. The downsides are that SGH maternity facilities would have to be upgraded and expanded while in active use; and the loss between that date and 2010 of the current co-location of services between QMH and the RHSC at Yorkhill.
2. Maintain current maternity services at QMH until the new children's hospital is complete and ready to take patients. Expand PRM capacity to take an additional 1000 births as discussed above. When it becomes impossible to sustain three acute maternity services in Glasgow, close the maternity unit at SGH and carry out upgrading and expansion work there. Divert the workload from the south west of the

city to PRM, Royal Alexandra Hospital, Paisley, and wherever else capacity could be found. The upsides are that the QMH / RHSC link would be maintained through to the commissioning of the new children's hospital at SGH, and the refurbishment and expansion of maternity facilities at SGH could be carried out without affecting patient care. The downsides are that the absence of adult support at QMH would be perpetuated, the number of mothers giving birth at sites without adult intensive care facilities would remain at present levels, there might not be enough capacity between PRM, QMH, RAH and other maternity units in the west of Scotland to cope with births during the period, and also a significant number of patients from the South West of the city would require to be redirected to hospitals elsewhere. (We believe it is important to challenge the assumption of the capacity of individual units to manage maternity workload based solely on bed numbers. The newer units in Scotland have substantially fewer inpatient beds than have been the norm in the past).

3. Maintain current maternity services at QMH until the new children's hospital is complete and ready to take patients. Expand PRM capacity to take an additional 1000 births as discussed above. Reconfigure the current maternity facility at the Southern General Hospital as a low risk midwifery-led facility in anticipation of the proposals we have outlined in the previous section with high risk cases during the interim being redirected to the Royal Infirmary and the Queen Mother's Hospital without increasing the overall workload of the latter. The change could be introduced at an appropriate point before the current service on three acute sites became unsustainable. This would allow the cases most appropriately delivered in close proximity to the children's hospital to continue to be so *pro tem*. The upsides of this option are that the QMH / RHSC link would be maintained as near as possible to the commissioning

of the new children's hospital at SGH, and that the expansion / refurbishment of maternity facilities at SGH would not take place when the unit is having to function at full capacity. The downside is that mothers might choose not to use a midwife-led facility when there are consultant-led facilities within a few miles, resulting in unsustainable pressures on the consultant-led services. This option entails the most uncertainties.

We recognise that unpredictable changes and circumstances and pressures may dictate re-thinking of planning assumptions at any point during this exercise. We believe that interim arrangements will have to be implemented at some time between 2007 and 2009, because of workforce pressures. We note that upgrading the SGH maternity unit while continuing to operate it to the required capacity will present operational challenges to NHS Greater Glasgow. We think that the clinical risk arguments for maintaining the link between services at QMH and RHSC for as long as possible are balanced by maternal risk arguments, relating to the need to transport from QMH mothers with an emergency need for critical care. We recognise that events relating to staffing pressures in particular may overtake planning and make inescapable the move to two maternity units sooner rather than later. However long or short the QMH is kept functioning it is essential that mothers with pre-existing or developing features which place them at increased risk likely to require specialist medical, surgical or intensive care support are re-directed for confinement at PRM. The appointment of a lead obstetrician for Glasgow offers an opportunity to enhance the integration of the obstetric services during this period in order to put in place clinical practices appropriate to the needs of the population.

We believe that under all three options outlined above, clinical quality and safety can be maintained. After due consideration of these options however, we favour the first.

The role of the city-wide lead clinicians throughout this process will be crucial. We have also given thought to what could be done to minimise the impact of splitting maternity and fetal from specialist paediatric services in the interim period. Our thinking is set out in Addendum I. We commend this thinking to NHS Greater Glasgow.

As noted, the timing of the move to two units involves a number of related factors that NHS Greater Glasgow will have to take into account, probably within parameters of moving between 2007 and 2009.

Recommendations

Our principal recommendations are therefore as follows:

- The site for the new children's hospital in Glasgow should be on the Southern General campus adjacent to the, soon to be constructed, South Glasgow Hospital and the existing Maternity (and Gynaecology) unit.
- The planned programme of refurbishment and upgrading of the existing facilities in the SGH maternity unit (including new neonatal and labour ward provision) should be examined in the light of the adjacent construction of the children's hospital. Specifically the opportunity should be explored of constructing an interface that would ultimately link the maternity and children's hospital and house the most acute, critical facilities of operating theatres, intensive care for neonates and older children, and a new state of the art labour ward all functionally integrated.
- During the interim period until the full triple co-location of services is achieved, the arrangements whereby maternity services move towards reconfiguration from the three units to two should be carefully planned on a city wide, single system basis, led by the respective lead clinicians in obstetrics, paediatrics, neonatology and anaesthetics. The advantage of the current adjacency of the QMH maternity service to the RHSC should be preserved as long as it is appropriate and feasible but ultimately it must be seen as subordinate to critical issues of maternal safety. We expect that the move to 2 sites will have to take place between 2007 and 2009.

Acknowledgements

The Clinical Advisory Group acknowledge with gratitude the assistance we have received from a wide variety of organisations and individuals in undertaking this task and in the preparation of this report.

Although we have been at pains to maintain and emphasise our independence we have received valuable help and guidance from the Scottish Executive Health Department and from NHS Greater Glasgow. The wide range of professional health care workers, managers and individuals who assisted with our hospital visits and who attended the Group's meetings by invitation were uniformly helpful and courteous.

We are grateful to those who accepted the invitation to attend and contribute to our public sessions and to those individuals who submitted written evidence and opinions. In particular, we had help from senior nursing and midwifery staff; from clinical directors and other clinical leads; from representatives of Greater Glasgow's Area Partnership Forum; and from local and national politicians.

Written views were submitted by Dagmar Kerr on behalf of Action for Sick Children, Scotland and by David Watson of Ronald McDonald house as well as by 82 individuals on behalf of either themselves or local organisations. All these views were digested by the Group.

Specific thanks are due to Alistair Brown and Ian Bashford of the Scottish Executive Health Department and to John Brown who advised on media and public relations aspects.

Very special thanks are due to Shirley Gordon of NHS Greater Glasgow for her meticulous recording of the Group's deliberations and to Karen Witherspoon of the Division of Reproductive and Developmental Sciences, University of Edinburgh, for her painstaking preparation and marshalling of our documentation and drafting of this report.

MINIMISING IMPACT OF SPLITTING MATERNITY AND FETAL FROM PAEDIATRIC SPECIALIST SERVICES

Against the background of a triple co-located Children's Hospital at the Southern General site by 2010/11, we recommend that NHS Greater Glasgow should give consideration to the following two-phase development:

Phase 1

- a) The spare physical capacity at the PRM unit should be commissioned and fully utilised.

- b) The Queen Mother's Hospital should continue to function alongside RHSC for as long as practically feasible, providing its existing range of general and specialist maternity services, but without increased capacity. When there are clear fetal issues requiring specialist neonatal care, those mothers should continue to deliver in the Queen Mother's Hospital *pro tem*. Mothers at risk of major obstetric haemorrhage, severe pre-eclampsia or with significant medical co-morbidity should deliver at a unit where specialist adult medical, surgical and intensive therapy facilities are provided as recommended by the NHS QIS Maternity Standards (2005).

- c) During the necessary upgrading and new facilities to be developed within the existing Southern General Maternity Unit, we invite NHSGG to consider locating those elements of the maternity unit which will provide specialist critical care (neonatal

intensive care, operating theatres and front line labour ward) where they can interface and integrate with the new children's hospital the design of which would locate its equivalent critical facilities (operating theatres and intensive care) at that integrated interface. Thus all critical care services to neonates, children undergoing complex surgery (incl. cardiac), ECMO and paediatric intensive care would be located alongside a state of the art consultant led labour ward and theatre complex. (Such an option is described in Addendum II).

Phase II

After the necessary modifications to the existing Southern General Maternity Block (including if deemed appropriate the construction of the interface between it and the new children's hospital which we propose would provide the key facilities most appropriately sited between the obstetric and paediatric accommodation – operating theatres, intensive care facilities for neonates, medical and surgical cases and a new high technology labour ward) the fully operational obstetric component of an integrated children's and maternity complex could be ready to be commissioned by the time it becomes necessary to close the Queen Mother's Hospital. By adopting such a strategy we believe it will be possible to maintain the highest quality of clinical services, consistent with safety, and meeting as far as is possible the objective outlined in our remit.

OBSERVATIONS REGARDING THE OPPORTUNITIES FOR DESIGN AND INTEGRATION OF CHILDREN'S AND MATERNITY FACILITIES AT THE NEW SOUTH GLASGOW HOSPITAL

While recognising that the detailed design and integration of the new facilities are strictly outside our specific remit, the clinical advisory group believe that there is a golden opportunity, within the funding available for upgrading the SGH maternity unit and for building a new children's hospital, to provide a much higher level of integration of services than currently exists on the Yorkhill / QMH campus or indeed anywhere else in Scotland. Services should be configured to suit future practices, and not to reflect existing 20th century concepts. In particular, we believe that the funding earmarked for upgrading the current SGH neonatal unit and obstetric unit should be used to facilitate the physical integration of the SGH unit with the new children's hospital. Each would retain its separate entrance and identity but the two would be functionally linked at the most critical area of each. While accepting that the Board is responsible for prioritising the many competing demands on NHS resources in Glasgow, we believe that it may be possible to achieve such a configuration within the resources allocated, particularly since no substantial additional facilities are proposed, simply their appropriate adjacencies. Even if it were necessary to identify additional funding from the Board's own resources to provide additional new integrated facilities then there would be clinical and consequently patient benefit.

Children's hospitals have traditionally striven to provide an ambience aimed at minimising the austerity often encountered in adult hospitals by creating a special atmosphere sensitive to the needs of children. Some recently constructed examples have been commended for these features and the new Glasgow Children's Hospital must emulate these. The opportunity for

raising additional funds from the private and charitable sector for a project of this sort should not be underestimated.

In our view there is a major opportunity to provide a world class integrated Women and Children's Hospital in Glasgow which will surpass the quality of care currently provided at Yorkhill. The opportunity exists to integrate critical care services to neonates, children undergoing complex surgery (incl. cardiac), ECMO and paediatric intensive care alongside a state of the art labour ward and theatre complex. These services have been developed piecemeal over many years at Yorkhill. A single new site at SGH offers the opportunity to introduce truly cohesive working. The adjacency of clinicians and highly skilled nurses and technicians is likely to improve efficiency and may realise some cost saving as services develop in the future.

Future proofing is also crucial in the development of the new integrated service, as new treatments are developed e.g. fetal surgery.

We therefore recommend that NHS Greater Glasgow should review its current plans for numbers of labour rooms at the refurbished SGH maternity unit, in light of latest caseload projections and of experience elsewhere (for example the new Royal Infirmary of Edinburgh has 20 labour rooms -12 LDRP & 8 conventional labour rooms - for around 6000 deliveries). In our view it is desirable to review current planning assumptions to ensure maximum flexibility and to provide resilience in the face of changing workloads. In particular consideration should be given to building a new conventional labour ward which would deal with complex and high risk cases (perhaps 10 labour rooms) and a new obstetric theatre suite of 3 theatres (one elective and 2 for emergencies) as part of an integrated build linking the

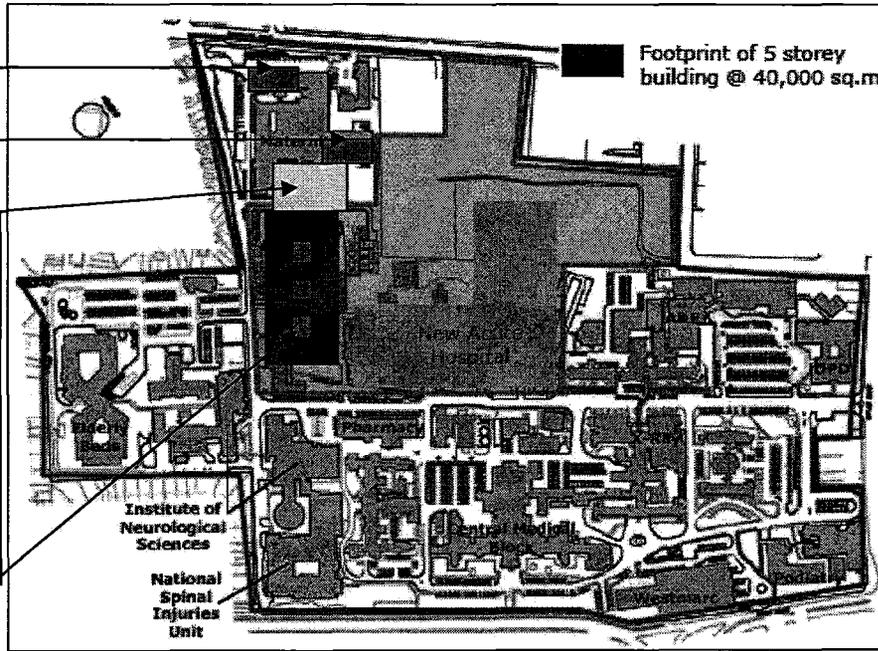
current SGH women's hospital to the new paediatric hospital. These obstetric theatres should be adjacent to the paediatric theatres thereby affording organisational advantages for staff (especially anaesthetic and nursing), equipment and supplies (see diagram attached).

We also recommend that NHS Greater Glasgow should review the desirability of designing the maternity facilities at SGH to allow the development of a separate midwifery managed labour unit. This could consist of the existing labour suite (suitably upgraded) and provide mothers who had been assessed as presenting low risk with the option of giving birth other than in the consultant-led facility should they wish. Whether or not such a facility should be separate from or integrated within a conventional labour ward will be an issue for the planning process in upgrading the maternity unit but we are pleased to note that NHS Greater Glasgow recognise the need for women to be given the opportunity of delivering with midwife-led care. Such developments in other parts of Scotland have been popular and accord with current national guidance on maternity services.

Development Land at 2007

Current proposed new labour ward extension & neonatal suite not pursued

Phase 1:
Clinical Advisory Group's new proposal of integrated neonatal/paed critical care facility linking maternity with paediatrics.



Proposed New Children's Hospital - Glasgow

Site Option Appraisal - 2005

MEDICAL STAFFING PROFESSIONAL AND ACADEMIC ISSUES

The review group recognise that the facilities at the Princess Royal Maternity Unit are “state-of-the-art” and that the clinicians working there are acknowledged as the most highly specialised in respect of maternal disorders in pregnancy. It is also recognised that the move from the old Royal Maternity Hospital to the new facility has significantly enhanced the quality of care because of ready access to adult intensive care and specialist medical and surgical expertise as well as interventional radiology which is increasingly seen as crucial to high quality obstetric care. By contrast the Queen Mother’s Hospital provides the highest level of fetal expertise (including intravascular fetal transfusion) but enjoys less support for the mothers.

For clinical and academic reasons there is a strong case to be made for concentrating the clinical expertise at the highest level in one unit and this would logically be the new integrated women and children’s hospital at SGH. These considerations represent a challenge not only to the lead clinicians and planners but also to the University and the clinical academic leaders. The review group do not feel it appropriate to recommend how this issue should be resolved but we do feel that those charged with planning the clinical and academic facilities should see this as an opportunity to improve team working and maximise the excellence of clinical care.

The changes to maternity and paediatric services in Glasgow are likely to affect the organisation of the relevant academic disciplines. These are led from the academic units of

Child Health and Nutrition and Clinical Genetics at Yorkhill and Obstetrics and Gynaecology at the Royal Infirmary. Medical undergraduate teaching takes place across all clinical units in the city but the research focus is at Yorkhill/QMH and the Royal Infirmary. The clinical academic staff contribute significantly to the specialised clinical services provided at Yorkhill and GRI. With respect to Child Health and Nutrition the co-location with the NHS Units from Yorkhill is clearly the most sensible option for the delivery of academic and clinical excellence. The co-location of the academic Clinical Genetics Unit with NHS Clinical Genetics is preferred and their co-location with the children's hospital, as at present, is preferred. It is appreciated that Clinical Genetics serves the full range of patient age groups but with a particular focus on children and pregnancy. If the Health Board were to relocate NHS Clinical Genetics to a different site from the new Yorkhill Unit then the University would have to reconsider the matter.

With respect to academic obstetrics there are two viable options .

- a) One option for academic obstetrics would involve co-locating all of the academic units under consideration in a single site. This would facilitate the interface between the specialties involved and would largely focus all specialist research in Child Health and Maternity Care on a single site at SGH. It would achieve co-location of the obstetric sub-specialties of fetal medicine (currently focussed at Yorkhill and delivered by NHS employed honorary academic staff) and maternal medicine (currently focussed at GRI and delivered by academic and NHS staff). Such co-location could lead to new collaborations and opportunities. If the Health Board decides that all of the most specialised services within Obstetrics are to be focussed at SGH with the

maternity unit at GRI delivering a more routine clinical case load then the argument in favour of this scenario becomes strong.

- b) Another option for academic obstetrics is to recognise that the two obstetric subspecialties (Fetal and Maternal Medicine) are complementary but that their co-location is not essential since the key issue is that fetal medicine (currently at Yorkhill) and Child Health (currently at Yorkhill) maintain their close interface. Maternal Medicine has important adjacencies with a number of adult services currently located at GRI and there may be value in terms of clinical care and research in maintaining those links. If maternal medicine were to be relocated to SGH then equivalent clinical and research links would need to be set up. If the academic Unit of Obstetrics were to remain at GRI then the current links will not be affected. This scenario is dependent on the Health Board opting for GRI to continue to provide high level specialised obstetric services. A point in favour of this second scenario is that academic Gynaecology and its infrastructure is located at GRI and a move of academic Obstetrics to SGH, whilst unifying Child Health, Fetal and Maternal Medicine would separate academic Obstetrics from Gynaecology unless there were to be significant investment to relocate academic gynaecology to SGH. The choice between these two options will be influenced by academic and clinical adjacencies, by the financial implications as well as the resources available, and by the decisions of the Health Board concerning the nature of the maternity service to be provided at the Royal Infirmary.

The appointment of a lead Obstetrician for Glasgow as a whole offers an opportunity to enhance the integration of the obstetric services but short of acknowledging the primacy of one obstetric unit there would remain potential conflict and confusion. We feel it important to highlight the unsatisfactory prospect of an obstetric service in Glasgow in which the most vital clinical support for mothers is found at one location and that for the fetus/neonate at the other. A potential solution to this anomaly, short of bringing all the finest expertise together on the one site may be in developing a much more integrated clinical network of clinicians across Glasgow in a process of single system working and a reduction in territorial demarcations.

GREATER GLASGOW ACUTE SERVICES STRATEGY - TIMELINE

Phase I (by July 2007)

The West of Scotland Cancer Centre at Gartnavel and the new ambulatory care hospitals at the Stobhill and Victoria sites.

Phase II (by September 2010)

Construction of the new South Glasgow hospital on the Southern General Hospital site.

Completion of the upgrade of the Southern General Hospital Maternity Unit and modernisation of the Southern General Hospital Neurosciences and Care of the Elderly facilities.

Phase III (by October 2011)

The new build at the Glasgow Royal Infirmary site.

Phase IV (by 2013)

The new build of Gartnavel Hospital

**THE PLANNED CONFIGURATION OF SERVICES UPON IMPLEMENTATION OF
THE NHS GREATER GLASGOW ACUTE SERVICES STRATEGY**

1. Glasgow Royal Infirmary/Princess Royal Maternity Hospital

A&E
General Surgery [DN?]
Plastic Surgery
Upper GI Surgery
Care of the Elderly
Obstetrics
Neonatology
Orthopaedic and Trauma
Burns
Colorectal Surgery
Medical Specialties (unidentified)
Acute Rehabilitation
Gynaecology
Regional Neonatal Transport Service

2. The Gartnavel Site

GP medical and surgical receiving
Adult HDU
Breast surgery
Ophthalmology
Post acute rehabilitation
West of Scotland oncology service (The Beatson)
Care of the elderly
Adult and adolescent psychiatry

The following services will not be on site:

Gynaecology
Adult Intensive Care
Specialist medical and surgical services
Obstetrics
Neonatology

3. The Southern General Hospital Site

A&E
National¹, Regional², accident and trauma centre
Medical specialties:
Receiving medicine
General medicine
CCU and cardiology

Respiratory medicine
Neurology/neurosciences²
ITU/HDU^{2,3}
Renal medicine³
Dermatology³
Infectious diseases³
Rehabilitation and assessment
Care of the elderly
Acute psychiatry adult and child
Perinatal mental health²
Surgical specialties:
Surgical receiving
GI surgery
Colorectal surgery
Orthopaedics and trauma
Vascular³
Urology(?)
ENT³
Spinal surgery²
Spinal injuries unit²
Neurosurgery²
Oral and maxillary facial surgery²
Head and neck cancer²
Renal transplant²

Gynaecology
Obstetrics/maternity
Neonatology

Some services are: National Services¹
 Regional Services²
 City Wide Services³

SUSTAINABILITY OF MATERNITY SERVICES IN GLASGOW

INTRODUCTION

The current configuration of maternity provision in Glasgow includes three in-patient sites each supported by a neonatal intensive care unit. Each of these sites requires 24 hours on-call site cover from obstetrics, anaesthesia and neonatology.

The Board has received advice from the Advisory Sub-committees of these three specialities, that safe and effective clinical services cannot be sustained on three sites in the city in future. This advice has been consistent and repeated over a number of years.

Any discussion on sustainability should review it under two main headings:

- Staffing
- Safety and Quality

STAFFING

Medical staffing has been critically affected by:-

- New contracts for consultant and junior staff
- European Working Time Directive
- The advent of Modernising Medical Careers
- The upward push of duties and responsibility

CONSULTANTS

- Virtually all consultants in these three critical specialities are on 12 Pas. This means they are already at the limit of the European Working Time Directive of 48 hours actual contracted work.
- Change in work pattern. There has been a significant change in consultant work pattern over the last 10 years with consultants having to spend more time when on-call in the labour suite in some instances choosing to sleep in the unit overnight to support more junior staff and less experienced middle grade staff.
- Upward push of work and responsibility. With the advent of the New deal for junior doctors and the consequent reduction in working hours for junior staff, some of the work done previously by juniors has moved to both midwives and consultants.
- Changes in middle grade cover. SpRs in the West of Scotland are distributed throughout the area and not concentrated in major units within Glasgow, the quality of middle grade cover has deteriorated over recent years and that combined with the medico legal environment has meant consultants are carrying out tasks previously performed by middle grade staff. This has added greatly to the burden of labour ward

work and currently we are unable to complete this round of job plan negotiations with one group of obstetricians in the city.

JUNIOR STAFF

a) European Working Time Directive

In 2007, the number of working hours will be limited to 56 for junior staff. Most of our rotas will meet this.

In 2009, the maximum number of hours will reduce to 48, and currently of our 22 rotas in anaesthesia, neonatal paediatrics and obstetrics, only five can be made compliant in 2009.

b) Training

In all three specialities the junior staff spend too high a proportion of time on emergency work and do not get enough exposure to elective work. A recent College inspection of our anaesthetic training highlighted this issue.

IMPACT OF MODERNISING MEDICAL CAREERS

Modernising Medical Careers is intended to produce seamless training from graduation through to completion of CCT allowing the doctor to become an accredited specialist.

The first Foundation year of this training was introduced in August 2005 and the second Foundation Year will be introduced in August 2006. Run-through training (to replace senior SHOs and Registrars) will commence in August 2007.

For the training to be truly seamless, the number of SHOs and SpR posts should match. In the West of Scotland we have more SHOs relative to the number of SpRs than any other area in the UK.

The implications of the full implementation of MMC will therefore be:-

- Reduction in junior doctor numbers in the West of Scotland
- Reduction in the length of training
- The implementation of more strictly monitored training programmes
- Increased time for formal teaching

The cumulative effect will be to make significantly less time available from trainee and trainer (consultant) for service provision.

There will obviously be a transition period from August 2007, but the details of transition are not known and any posts which are identified merely as service posts and are not seen as training posts will be very unattractive. Glasgow will be particularly vulnerable with its multiplicity of sites and rotas.

QUALITY AND SAFETY

By continuing to run three maternity units rather than reducing to two, we have the following problems:-

- One of our major units is not co-located with adult services
- Two of our units do not have specialist obstetric anaesthetic cover out of hours and at weekends
- Every weekend, two of our neonatal units are covered a single consultant rota running the risk of double jeopardy
- We cannot guarantee consultant presence for elective caesarean section lists
- Only one of our units provides adequate anaesthetic assistance
- Juniors are not receiving enough exposure to elective work and therefore there are issues with their teaching and training
- In order to provide daytime cover by consultant obstetric anaesthetists for all three units, we are placing a strain on anaesthetic cover elsewhere and there has been an increase in cancellations in North Glasgow because of lack of consultant anaesthetist availability.
- Support service disparity between sites

These issues are immediately pressing and, if we were able to concentrate our resources on two units rather than three, then they could be addressed effectively.

Dr BN Cowan
Board Medical Director
October 2005

KEY ISSUES AND MAIN RECOMMENDATIONS OF THE REID GROUP

Key issues

The Working Group received a substantial volume of evidence, both written and oral, about the services. The Group also met with expert advisors with whom they discussed critical issues to be considered when planning the future services. The report and the recommendations derive from these sources, as well as from national sources of professional guidance.

Maternal safety: Although maternal mortality from childbirth is now very low, nevertheless the services are organised to ensure minimum risk to the mother giving birth. National and professional documents support the decision of locating a maternity hospital on-site with a hospital with adult ITU services.

The trend of maternity hospitals in Scotland has been towards relocation to an adult hospital with on-site adult ITU facilities with 19/20 hospitals now moved to, or moving to, a site co-located with adult services. QMH will remain as the only maternity hospital without adult ITU on-site.

Expert advice as well as research evidence suggests that transfer of mothers in an emergency condition is time-critical and that mothers do not transport well. Locating maternity services (for low and high risk mothers) with on-site ITU facilities allows a rapid transfer of the woman if there are complications during labour or delivery.

As well as stressing the importance of transfers, many acknowledged the importance of providing access of expertise from an on-site adult ITU to the mother in an emergency situation; QMH does not have rapid access to adult health services which is seen as a vital component when planning maternity services for the future.

Maternal emergencies were seen as less predictable than neonatal emergencies. This would increasingly be the case if the Glasgow maternity hospitals adopted a 20 week routine anomaly scan which would provide greater likelihood of predicting the need for neonatal surgery.

Very small numbers of critically ill women will be transferred from any hospital in one year. Experience of junior medical (obstetric and anaesthetic staff and midwives) of managing life-threatening emergency situations in the mother is therefore likely to be very limited. Staff on an adult site (notably medical, anaesthetic, and gynaecological specialties) have more routine exposure to adult emergencies and hence more experience.

National guidance for women who might be categorised as 'high risk', (eg from areas of deprivation, older mothers, multiple pregnancies and/or who have existing medical

conditions) is that they should give birth to a hospital with on-site ITU facilities. Statistics relating to Glasgow women suggest that a significant proportion will fall into a high risk category.

Neonatal safety: It was generally agreed that although staffing of the NICUs in Glasgow was part of a national shortage, the NICUs were thought of as appropriate in their standard of care.

Neonatal transport within Glasgow is now organised to offer an appropriate standard to provide safe transport to neonates who require transporting across the city.

Neonates can be safely transported to and from RHSC before and after surgery from other hospitals; it was stressed that such transport takes place elsewhere in the UK on a daily basis.

Service organisation: It was noted that the units worked to different protocols and practices. Services across the three units were not equitable. Experts stressed the importance of the development of midwife-led care where appropriate.

Research: It is clear that research in this broad area is strong and that any changes to the service should ensure that research strengths are maintained.

Estates: The study undertaken by Keppie Design and Currie and Brown into the capital costs associated with the various options at both QMH and SGH offered substantially different costs associated with refurbishment. The report concluded that in the medium term the QMH might not be able to provide maternity services while substantial refurbishments were being made to the building.

Transport: Transport issues were seen to affect both patients and staff. We were asked to make strong recommendations to ensure good transport provision in any future services

Recommendations for modernising the maternity services in Glasgow

Recommendation 1

Transfer maternity services from Queen Mother's Hospital to the Southern General Hospital site, with the exception of the QMH Fetal Medicine Unit.

- It is important that following the formal consultation process and once agreement has been reached about the shape and form of the future services, implementation should be carried out quickly, with a Steering Group established to oversee the process.
- Closure of the QMH would result in additional neonatal transfers to RHSC; the Working Group strongly suggests that the service requirements of the transfer services are considered as a priority.

- the proposed changes would mean that the SGH NICU would require additional resourcing in terms of staffing and equipment. The rationalisation of the services should facilitate this process.
- While it is not evident that the RHSC would require a substantial NICU on-site, the staffing complement should be considered to ensure that there is sufficient staff with NICU experience.
- The decision to transfer maternity services to SGH site was supported by the majority of the expert advisors.

Recommendation 2

Maternity services should be organised as single integrated system across Greater Glasgow using agreed protocols and an agreed model of care for the two delivery units and community services.

- Establishment of a single integrated system for maternity services would facilitate cross hospital working, integrate rotas for junior hospital doctors and unify models of care.
- Visible clinical leadership would be essential to drive forward the change management process needed to achieve an integrated maternity service, which has the ultimate aim of improving services for patients and their families and improving the working environment and conditions for staff.
- The reorganisation should include a city-wide workforce plan which would incorporate training and development.
- We received a proposal for a Maternal and Child Operating Division in Greater Glasgow, responsible for developing a single integrated system addressing issues of equitable provision of care, funding and enhanced community services. The Working Group saw merit in this proposal if consistent with the other recommendations within this report.

Recommendation 3

Existing quality services as provided are sustained and be made available across Greater Glasgow

- It is important that changes maintain the excellence of Glasgow maternity services; this includes the many examples of good practice which are evident in the existing clinical services in one hospital/location but which at present are not always available on a city-wide basis. The implementation team should treat this as a priority.
- The examples of good support services should be equally sustained and made available on a city-wide basis where appropriate.

Recommendation 4

Accessible antenatal and daycare services for the population of Glasgow should be enhanced.

- *Accessible antenatal and daycare facilities should be provided for all women within Glasgow and care is required to ensure that the closure of QMH does not reduce women's access to services. Women in socially deprived areas and women from ethnic backgrounds, in particular, need every opportunity to ensure easy access to care.*
- *The Working Group believes that a Maternity Care Centre facility should be considered for mothers in the West End.*
- *There were examples of good practice where midwives were expanding their role and offering broader range of support to women and this should be enhanced by developing the public health role of midwives.*

Recommendation 5

Existing midwifery service within the PRMH is encouraged and that midwifery delivery beds within SGH are developed, along with the relevant 'ethos' of a midwifery based unit.

- *Midwifery Unit at PRMH is utilized fully, and that midwifery delivery beds are developed at the SGH, staffed by appropriately trained midwives. Such a service should be aimed at low risk women, and should facilitate a midwifery ethos to birthing.*

Recommendation 6

The Fetal Medicine Unit should be transferred to PRMH

- The Fetal Medicine Unit is recognised to be of international excellence and the Board, in bringing about changes to the service, should do their utmost to ensure that excellence in this area is built upon and developed.
- Staff should be offered every support for their research and the opportunity to build on their research strengths should be given high priority.

Recommendation 7

That Greater Glasgow NHS Board, in its deliberations over transport issues as a result of the Acute Services review, should include a consideration of the impact on public/patients as a consequence of the proposed transfer of services from QMH to SGH.

- *The Working Group is aware of on-going work by an NHS Greater Glasgow sub-committee on transport issues. We ask that this committee consider this proposed service change as part of its remit.*

Recommendation 8

In coming to a decision about the future location of maternity services, Greater Glasgow NHS Board should also consider the long-term relocation of RHSC to the SGH site, taking into account the regional and national role of services provided by the RHSC.

- *It is acknowledged that any decision relating to RHSC would require appropriate consultation and be commensurate with the Board's overall strategic and financial plan.*

STRATHCLYDE LOCAL AUTHORITY TRANSPORT

A summary is given below of the Strathclyde Local Authority transport proposals and the NHS Greater Glasgow patient flow analysis.

When patients travel to Yorkhill site, from the 2005 SMR data and Strathclyde Information System then:

- 80% of patients travelled by bus
- 2% by train
- 18% by private transport
- a small minority by ambulance or air ambulance

When taking a bus from a number of geographical points around Greater Glasgow to Yorkhill and the Southern General Hospital site for an 11.30 am appointment, the time differences are noted below.

Bus Station of Origin	Time difference (minutes) for travel moving the service from Yorkhill to Southern General Hospital site
Oban	+ 1
Paisley	-9
Cumbernauld	-10
Hamilton	- 4
Falkirk	- 3
Springburn S/Centre	- 3
Clydebank S/Centre	- 1
Pollock S/Centre	-10
Castlemilk	- 9

Those patients who travel by train to the RHSC or SGH will use the following stations, and the journey times also include either a short bus or pedestrian journey.

Railway Station	Hospital Destination	Travel Time (minutes)
Central Station	SGH	32
Central Station	Yorkhill	22
Queens Street Station	SGH	34
Queens Street Station	Yorkhill	24
Partick Train Station	Yorkhill	20
Cardonal Train Station	SGH	20

The Strathclyde Travel Plan Strategy includes:

- New Clyde Bridge at Finnieston of 4 lanes (2 public transport) by 2006
- M74 extension at Fullarton Interchange to M8, meeting at the Kingston Bridge by 2008

- Rail link between Glasgow City Centre and Glasgow Airport
- Light railway transit system (tram) along the north and south sides of the Clyde

At present:

- 15 bus services travel through the actual SGH site, but whether this will be maintained is uncertain
- 50 buses travel to nearby Govan Street and Hardgate Street
- Fixed wing aircraft/air ambulance fly to nearby Glasgow Airport
- Helicopter to SGH helipad or SECC for access to Yorkhill

The area of residence of patients being seen at the Yorkhill site from SMR 2004 analysis is:

1. 52% from Glasgow:	North Glasgow	20%
	West Glasgow	25%
	South East Glasgow	18%
	South West Glasgow	20%
	East Glasgow	17%
2. 48% outwith Glasgow	Argyll and Clyde	28%
	Ayrshire and Arran	13%
	Lanarkshire	36%
	Forth Valley	8%
	Other	15%

From the travel analysis, therefore, there is a significant reduction in travel time with a relocation of paediatric services from Yorkhill to the Southern General Hospital site by bus.

Those patients from further afield accessing Yorkhill or the Southern General Hospital site will normally come by private transport or via rail services to Central Station or Queen Street and there is an approximate increase in journey time by 8-10 minutes.

TIMETABLE AND RECORDS OF PLENARY MEETINGS OF THE CLINICAL ADVISORY GROUP

Friday 2 nd September 2005	-	Public Session
Monday 24 th October 2005	-	Public Session
Monday 14 th November 2005	-	With Invitees
Monday 20 th December 2005	-	With Invitees
Monday 23 rd January 2006	-	Closed session

The minutes of the meetings, which indicate those invited to express views to the Clinical Advisory Group are attached.

In addition to those attending the above sessions, those and others interested parties were invited to contact the Group by letter or via our website. Around 80 organisations or individuals did so.

**GLASGOW MATERNITY STRATEGY OPTION APPRAISAL
RISK SCORING 19.12.06**

RISK	IMPACT		
	Option 1	Option 2	Option 3
1 Distance (time) between obstetrics and neonatal units for emergencies	3.48	2.28	1.52
2 Distance (time) between obstetrics and other departments	3.04	2.12	1.88
3 Distance (time) between gynaecology and other departments	3.16	2.56	2.16
4 Disruption to services during building work	3.80	3.28	1.6
5 Inability to meet working time directives	2.92	2.60	1.8
6 Inability to meet timescales	3.36	3.08	1.8
7 Insufficient capacity within gynaecology and obstetrics units	3.68	2.52	1.44
8 Lack of integration between departments, including neonatal, medical and surgical	3.76	2.76	1.48
TOTAL	27.20	21.20	13.68
RANK	3	2	1

Impact scored as follows:

- 1 – very minor disruption
- 2 – minor disruption
- 3 – moderate disruption
- 4 – major disruption
- 5 – need to move to contingency arrangements

**GLASGOW MATERNITY STRATEGY OPTION APPRAISAL
BENEFIT SCORING 19.12.06**

GROUP		CRITERIA	WEIGHT	SCORE			WEIGHTED SCORE		
				Option 1	Option 2	Option 3	Option 1	Option 2	Option 3
Group A. Improving the patient's and clinician's experience	1	Facilitates clinical access for emergencies to and between neonatal unit, obstetrics and gynaecology departments and children's hospital (including ambulances)	8.8	3.0	5.7	8.3	26.6	49.8	72.9
	2	Facilitates clinical access for non-emergencies to and between neonatal unit, obstetrics and gynaecology departments and children's hospital (including ambulances)	7.2	3.2	5.8	8.4	23.3	41.6	60.3
	3	Facilitates access for support services, such as laboratories and allied health professionals	6.1	3.0	4.8	7.4	18.6	29.1	45.5
	4	Facilitates academic links	4.8	2.4	3.6	6.1	11.5	17.1	29.2
	5	Meets clinical standards, e.g. QIS, national, regional programmes	7.4	3.3	5.6	7.6	24.3	41.8	56.6
	6	Improves quality of environment for patients and staff	7.3	3.5	6.0	8.4	25.5	43.7	61.6
Group A total weight			41.6						
Group B. Improving the estate asset base	7	Functionally suitable for obstetrics, neonatal care and gynaecology	5.8	3.1	5.8	8.4	18.2	33.9	49.1
	8	Minimises disruption to clinical service provision while work is ongoing	5.5	2.9	4.1	8.5	15.8	22.3	46.4
	9	Ability to meet timescale for completion of work	4.5	3.7	4.2	7.2	16.7	18.6	32.1
	10	Buildings fit for purpose, e.g. matched against Calder requirements for children and adults	5.7	2.8	5.6	8.8	16.0	31.7	50.0
	11	Enhances IT infrastructure	4.3	3.1	4.9	8.2	13.2	21.0	35.2
Group B total weight			25.8						
Group C. Flexibility	12	Increases capacity	11.0	3.2	5.6	8.1	35.5	61.8	88.5
	13	Improves flexibility of accommodation	10.3	2.8	5.4	8.4	28.9	56.2	87.2
	14	Enhances ability to future proof	11.4	2.7	5.2	8.4	31.0	58.9	95.4
Group C total weight			32.7						
GRAND TOTAL			100				305.2	527.5	810.0
RANK							3	2	1
Scores min = 0, max = 10									