Report of the Moray Maternity Services Review

Review of maternity services for the women and families of Moray

December 2021

Acknowledgements

I would like to start by thanking my fellow Review Group members for your time, patience, encouragement and advice while undertaking the work of this independent review of maternity services in Moray. This has been carried out at a challenging time for everyone involved, and the commitment colleagues have shown has been exemplary.

No review like this would be possible without the input, co-ordination and sheer hard work of a dedicated support team. In this case, provided by the Programme Management and Service Design Hub teams[1] from NHS National Services Scotland, who have carried the burden of managing and supporting the Review; so to you all, thank you.

I would also like to thank the many members of staff and professionals from across NHS Grampian, NHS Highland and the wider Scottish health service who have given up your time and been so patient with us; this has been invaluable.

Finally, and most importantly, I would like to thank the women, families and service stakeholders who gave up your time and shared your own stories in such an open and generous manner. It was only by hearing your experiences that we have been able to carry out our work; so, thank you all.

Ralph Roberts

Chief Executive, NHS Borders

[1] The Programme Management and Service Design Hub teams of Programme Management Services, within the Strategy, Performance and Service Transformation Strategic Business Unit of NHS National Services Scotland (NSS)

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Foreword

"The Best Start: A Five-Year Forward Plan for Maternity and Neonatal Care in Scotland", published in January 2017, set out Scotland's strategy for the future of maternity care:

> "Maternity and neonatal care and services matter to the health and wellbeing of Scotland's people. The health, development, social, and economic consequences of childbirth and the early weeks of life are profound, and the impact, both positive and negative, is felt by individual families and communities as well as across the whole of society."

This is a sentiment the Moray Maternity Services Review Group (the Review Group) has heard clearly, and it is with this in mind that we have approached our work.

Maternity care and related services provided at Dr Gray's Hospital (Dr Gray's) in Elgin have experienced significant challenges in recent years, including the ability to recruit and retain the specialist staff necessary to provide a full range of obstetric, neonatal and anaesthetic care. This has led to the protracted and controversial debate about the future of the service.

To deliver the task we were set by the Cabinet Secretary of Health and Sport, the Review Group has focused on listening to as wide a range of stakeholders as possible, and then used the professional input of our clinical experts to reach a series of conclusions and recommendations.

From the start of our work, we understood the task was going to be complex and very probably take longer to work through than the original timeframe. However, it is our hope that the output from the Moray Maternity Services Review (the Review) will be of benefit to those who work in the service, to those charged with planning and delivering services, and most importantly to all the mothers and babies who have a right to be appropriately supported through their pregnancy and birth experience.

Finally, as a Review Group, we sincerely believe that we are making robust recommendations that are most appropriate for Moray at the current time, and looking to the future. We would encourage all parties to work collaboratively to deliver this for the benefit of the whole community.

1 Executive Summary

In March 2021, the Cabinet Secretary for Health and Sport, Jeane Freeman, commissioned an independent review into maternity services for the women and families of Moray: "The Moray Maternity Services Review" (the Review).

The Review Group was commissioned to work with NHS Grampian, NHS Highland, and with stakeholders who have an interest in local maternity services, to describe the best obstetric model that would provide safe, deliverable, sustainable, and high quality maternity services for the women and families of Moray in line with the Scottish Government ambition described in "The Best Start: A Five-Year Forward Plan for Maternity and Neonatal Care in Scotland (2017)" (the Best Start Plan):

The best start: five-year plan for maternity and neonatal care - gov.scot (www.gov.scot)

Expected Outcome

The outcome of the Review was to be "a report detailing the best service model or options that offer deliverable, sustainable, safe and high-quality maternity care for the women and families of Moray".

The report should also offer "a recommended action plan that takes the service from its current position, through a series of safe interim steps, before reaching its final configuration".

The Process

The Commission Brief, including a Terms of Reference for the Review[2] were agreed with Scottish Government, and a Review Group[3], chaired by Ralph Roberts, Chief Executive of NHS Borders was set up. This group was formed of experienced clinical and senior executive and managerial staff from other NHS Boards in Scotland. No member of the Review Group was working for NHS Grampian or NHS Highland at the time the Review was commissioned. All members have had experience of working in areas which serve remote and rural settings, which has been crucial in understanding and assessing the information provided and evidence gathered.

The Review Group undertook a robust process to support its decision-making and in reaching a conclusion. This included referencing and reviewing all the written evidence provided by NHS Grampian, NHS Highland and a range of

[2] See Appendix A for the Brief including Terms of Reference for the Review as commissioned by the Scottish Government
[3] See Appendix B for a list of the Review Group Members

stakeholders, and meeting with women and families in Moray, and their advocacy and political representatives. The Executive Leadership Teams of NHS Grampian and NHS Highland were also directly engaged during the course of the Review.

Members and representatives of multi-disciplinary clinical teams from Aberdeen Maternity Hospital, Dr Gray's in Elgin and Raigmore Maternity Unit in Inverness were interviewed and/or offered an opportunity to submit a written statement, as were heads of service at the Scotland Deanery[4] based in the North of Scotland.

Representatives of both the Royal Air Force (RAF) based at Lossiemouth and the Army's 39 Engineer Regiment based at Kinloss were offered the opportunity to meet with members of the Review Group, or to submit evidence in writing, as was the local Chamber of Commerce.

From all of the information gathered and reviewed, the Review Group formed a long list of six potential models of service delivery for maternity services in Moray:

Model 1	Status Quo
Model 2	No Intrapartum Services in Moray
Model 3	Community Maternity Unit* linked mainly to Aberdeen
Model 4	Community Maternity Unit* linked mainly to Raigmore ("Moray Networked Model")
Model 5	Rural Consultant-supported Maternity Unit*
Model 6	Consultant-led Maternity Unit*

*this unit to be located in Dr Gray's Hospital in Elgin

Model 1 (Status Quo) and Model 2 (No Intrapartum Services in Moray) were promptly considered to be inappropriate and disadvantageous by the Review Group. The Review Group, therefore, focused its time and deliberations in considering the remaining four models of service delivery in further detail.

[4] The Scotland Deanery's primary responsibility is the education and training of doctors in Scotland. It is also responsible for the appraisal and re-validation of all doctors in Scotland as well as a number of cross-cutting and multi-professional programmes, including patient safety, quality improvement of patient care and the development of Scotland's remote and rural workforce. Its overarching aim is to deliver first-class medical education and training for Scotland to ensure safe, effective care for patients, both now and in the future.

Conclusion: Short-term

The outcome of the Review Group's in-depth deliberations is the recommendation that, in the short-term, Model 4 is the most appropriate model to be established promptly in order to provide a safe, high-quality maternity service to women residing in Moray.

This decision was reached by taking into consideration all the information provided, and having met with all the interested parties who wished to contribute to the process, coupled with stakeholders' experience and the Review Group's professional knowledge.

This model of delivery will provide stability and clarity to the service, and to all those involved in delivering and receiving the service.

Model 4: Community Maternity Unit* linked mainly to Raigmore ("Moray Networked Model")

- Women are offered a choice of intrapartum care at either Dr Gray's, Aberdeen or Raigmore, with the associated antenatal care provided in Dr Gray's, as appropriate to the complexity of their care requirements.
- Midwife-led and consultant-supported antenatal care in Dr Gray's.
- Midwife-led intrapartum care in Dr Gray's, offering the potential to provide approximately 20% of Moray births (all of these births would be 'low risk').
- No obstetric medical cover for Dr Gray's intrapartum care; and therefore, no facility for Obstetric interventions, such as instrumental deliveries or emergency caesarean sections.
- Access to planned consultant-led intrapartum care shared between Raigmore and Aberdeen as part of a "Network" with a choice of unit, dependent upon a clinical risk assessment, the woman's personal choice and geographical location.
- Consultant-provided elective caesarean sections in Dr Gray's (offering the potential to increase the number of births by a further 20%); This service expected to be provided by consultant obstetrics and gynaecology staffing and supported by the existing theatre and anaesthetic teams. This will also require flexibility of midwife staffing to provide a 24/7 staffed unit as required.
- In the event of emergency or urgent transfers, women will be transferred to Raigmore, unless they are clinically required to transfer to the specialist unit in Aberdeen.

*this unit to be located in Dr Gray's Hospital in Elgin

Conclusion: Medium-term

We have detailed in the main body of this report a model of service delivery that we believe is achievable in the medium to long-term: Model 5. However, this will be dependent on a significant increase in staff recruitment, which is a known challenge across Scotland (and indeed the UK) at the present time.

It is also dependent upon continuous development of Dr Gray's Hospital to enable it to function at a level commensurate with other small, rural district general hospitals in Scotland.

Model 5: Rural Consultant-supported Maternity Unit*

- Midwife-led and consultant-supported antenatal services in Dr Gray's.
- Midwife-led and consultant-supported intrapartum care in Dr Gray's, with the service offered to women who have been carefully risk-assessed and meet agreed criteria to give birth in Dr Gray's. There is potential to provide care for between 50%-70% of Moray women (based on the Scottish Northern Isles' approach).
- Obstetric medical cover available on a 24/7 basis (on-call from home, out of hours). This model, based on risk assessment, includes provision for obstetric interventions, including instrumental births and emergency caesarean sections.
- Elective caesarean section service in Dr Gray's for selected women provided by consultant obstetrician and gynaecologists, and supported by the anaesthetic and theatre teams.
- Links for planned consultant-supported intrapartum care for higher risk deliveries shared between Raigmore and Aberdeen as part of a "network". Choice of unit, dependent upon a clinical risk assessment, and the woman's choice and geographical location.
- In the unlikely event of emergency or urgent transfers, women will be transferred to Raigmore, unless they are clinically required to transfer to the specialist unit Aberdeen.

*this unit to be located in Dr Gray's Hospital in Elgin

The Review Group commend these recommendations for maternity services to the women and families of Moray, and their community and political representatives. The delivery of these recommendations will require the support and commitment of the managerial and clinical staff across NHS Grampian and NHS Highland, as well as their executive leadership teams and the Scottish Government. This will be essential to promote and

champion this model, and to support all parties to work collaboratively to ensure it is delivered within the indicative time-frames laid out within this report.

The report is presented to the Cabinet Secretary for Health and Social Care and the Minister for Public Health, Women's Health and Sport for consideration.

2 Background to the 2021 Review

Moray, situated in the North East of Scotland covers a population in the region of 100,000 residents, many living in remote and rural areas. Overall, Moray is one of the least deprived areas in Scotland, as defined by the Scottish Index of Multiple Deprivation (SIMD), having no data zones in the 15% most deprived areas in Scotland, and two data zones in the 20% most deprived areas; both of which are in Elgin.

Dr Gray's is the only District General Hospital in Grampian. Its catchment includes the RAF base at Lossiemouth and the Army's 39 Engineer Regiment base at Kinloss; these, by their nature, are shifting populations, often bringing a younger demographic to the region.

The Review Group recognises there is intense interest in the outcome of this independent review from the people of Moray, the staff involved, NHS Grampian and NHS Highland, and the political representatives of the area. One of the key messages heard by the Review Group is the desire for a clear decision to be made and then implemented. The Review Group has made a great effort and taken considerable care to understand the current position and perspectives of all stakeholders. The Review Group makes its independent and professional view based on the most realistic approach to providing and developing maternity services at Dr Gray's.

An obstetric service has been provided at Dr Gray's since 1995 when this was established following an extended and committed public campaign on the development of Dr Gray's Hospital; this strong public and community commitment continues to this day.

Over the last 10 years, there have been difficulties in the recruitment and retention of appropriately trained clinical staff. This is not unique to Dr Gray's, and has been the case for much of rural Scotland, and indeed the UK as a whole. This reflects the increased specialisation of medical, nursing and midwifery careers, and the overall workforce demographic and supply, amongst other factors.

As a result of these issues, the future of Dr Gray's Maternity Services has been under scrutiny since the services were "temporarily" changed in August 2018 following staffing issues in the paediatric service. This change recognised that running an extended obstetric service requires a range of other support services, such as paediatrics, anaesthetics and access to theatres to be in place to provide a safe service.

While most antenatal care continues to be provided locally, intrapartum and inpatient care in Dr Gray's is currently provided through a midwifery-led model with "Life and Limb" support from the consultant obstetrician and gynaecologists who are on-call (from home) for gynaecology emergencies. Expectant mothers who require more complex care, or who choose to deliver in a consultant-led maternity unit, receive their care in Aberdeen Maternity Hospital (Aberdeen), with a very small number transferring care to the maternity unit at Raigmore Hospital in Inverness (Raigmore). Over time, this has resulted in a reduction in the number of women who can safely deliver their babies at Dr Gray's.

Following the introduction of these changes, Dr Gray's Maternity Services have been the subject of two previous reviews. The first review, in 2018, following the above mentioned changes to the service, was carried out by a small Expert Group reporting to the Chief Medical Officer at the Scottish Government. The Expert Group was established to provide insight and guidance on the measures proposed by NHS Grampian to maximise the maternity care which could be provided in Dr Gray's Hospital.

The second review, undertaken in 2019 and led by Professor Alan Cameron, was commissioned by NHS Grampian due to ongoing issues of recruitment and retention of medical staff, and the inability to provide sustainable medical out of hours' cover for the maternity service at Dr Gray's.

The high level outcome of each of these previous reviews is summarised below.

2.1 Chief Medical Officer's (CMO) Expert Group

The service provision in place at the time of this review had been primarily driven by the lack of available paediatric cover at Dr Gray's. This led to the need to rapidly change the service to ensure it remained safe; a change which was, at the time, expected to be a temporary arrangement.

1. The Expert Group were asked to provide independent assessment of the feasibility and likely success of the 6 priorities for service proposed by NHS Grampian to maximise maternity care at Dr Gray's, which were: Reinstating elective caesarean sections at Dr Gray's.

2. Increasing the number booked for birth at the Community Maternity Unit (CMU) to 35% of total bookings (currently 25%).

3. Reducing unnecessary transfers to Aberdeen by reviewing reasons for maternal transfer.

4. Increasing antenatal care delivered at Dr Gray's, by reviewing what specialist antenatal and postnatal services currently provided in Aberdeen can be delivered locally.

5. Working with NHS Highland to increase capacity in Raigmore to allow more women from Moray to receive care there in addition to the emergency transfers which have already been agreed.

6. Working to improve historically poor experience of trainees in obstetrics, gynaecology and paediatrics at Dr Gray's.

The 2018 CMO Expert Group recognised the difficulties staff and service users were facing at that time with the current service; they commented:

> "At present Obstetric staff remain on call for "Life and Limb" emergencies as per the paediatric model in place and described by local staff. This creates a difficult model to describe to women, so that they can make an informed choice of place of birth."

Despite work to progress the outcome of the CMO Expert Group, in 2019, the Maternity Unit at Dr Gray's continued to be midwifery-led with obstetric support for antenatal care and the provision of "Life and Limb" support, which the CMO Expert Group had previously commented was "difficult to describe". This continued to create confusion for women as to whether or not they met the criteria to give birth to their baby in Dr Gray's.

Under the arrangements currently in place, midwives risk-assess women whilst they are in labour. Depending on the nature of any complications in labour, they will also consider referring to the Dr Gray's consultant obstetrician and gynaecologists for "Life and Limb" support. In order to make these decisions and arrange transfer, the midwives have been required to discuss and gain agreement from staff in the Maternity Hospital in Aberdeen (NHS Grampian, 65 miles away) or at the Maternity Unit in Raigmore (NHS Highland, 37 miles away).

This has led to confusion with staff groups as to which obstetric service to contact, and whether "Life and Limb" support is necessary, which has left women and midwives potentially vulnerable, and delayed decision-making at a critical time in labour. Women have described how, on arrival at Raigmore or Aberdeen, they have felt that their arrival was unexpected, their obstetric information was unavailable, and the units were too busy to provide the level of care they had anticipated. This in turn has, on occasion, led them to feel unwelcome in the unit to which they were transferred - the section on 'Mothers' and Families' Voices' within this report (Section 7.2) shares some of these women's experiences. The Review Group felt it was important to hear and capture as evidence these experiences in the women's own words.

Because of its relative proximity, there has been a desire for urgent transfers to be supported by the Maternity Unit at Raigmore in Inverness. However, due to

the current capacity of this unit, Raigmore has only been able to accept transfers from Dr Gray's on a limited basis. As a result, most women in labour requiring transfer to a consultant-led unit are being transferred 65 miles away to Aberdeen.

2.2 The Alan Cameron Report 2019

The Alan Cameron report was received by NHS Grampian on 11 November 2019. This report detailed seven key findings in its Executive Summary, and made seven recommendations:

2.2.1 Alan Cameron Report - Executive Summary Findings

- There is no evidence of a trend in adverse outcomes for patients of the Dr Gray's Maternity Service.
- Clinical Governance in the Dr Gray's Maternity Service is not fully functional and presents a risk to patient safety.
- Working relationships in the Dr Gray's Maternity Service are dysfunctional and damaged to the extent that they may impact upon patient safety.
- There are increasing concerns regarding safety with the current hybrid model within the Dr Gray's Maternity Service.
- Circumstances have changed such that it is now not possible to revert back to the previous model of care.
- There are a number of significant concerns regarding the proposed enhanced Multi-Disciplinary Team (MDT) model of care.
- A Best Start Hub Model of Midwifery-led care could provide a safe and sustainable Maternity Service for the population of Moray.

2.2.2 Alan Cameron Report - Recommendations

- NHS Grampian transitions from the current hybrid model of care to a Best Start Hub Model of Midwifery-led care as soon as it is safe to do so.
- NHS Grampian undertakes a full and detailed review of clinical cases to assure themselves of the historical outcomes for individual patients within the Dr Gray's Maternity Service.
- NHS Grampian timeously utilises appropriate employment policies in relation to any findings that result from the detailed case review referred to above.

- NHS Grampian adopts robust clinical governance arrangements within the Maternity Service that fulfil the requirements of the Clinical and Care Governance Framework.
- NHS Grampian clarifies the management arrangements for Dr Gray's.
- NHS Grampian develops a clear vision for Dr Gray's Hospital and the Maternity Service there.
- NHS Grampian develops a full package of support for all staff who have been adversely affected by the issues within the Dr Gray's Maternity Service.

3 Establishment of the 2021 Review Group

Clearly, in the time since these two previous reviews were published, we have seen the Covid Pandemic fundamentally impact the NHS as well as our communities. This has also limited the ability of NHS Grampian to make progress with those recommendations.

The outcome, however, is that women and their families within the area have continued to raise safety concerns and asked for clarity on the provision of maternity care for the area. In particular, there remain issues in relation to transfers of care to Aberdeen, especially during labour, and confusion on the limits of care provided at Dr Gray's.

The current situation is, therefore, viewed as unsatisfactory by all concerned, including women and their families, members of staff and local health service leaders in Moray, NHS Grampian and NHS Highland, as well as the wider community and political representatives.

As a result, the then Cabinet Secretary for Health and Sport, Jeane Freeman, requested an independent review of the Maternity Service being delivered to the women and families of Moray. A multi-disciplinary Review Group was identified; its members chosen due to their experience of working in remote and rural settings, leadership and management experience, clinical knowledge, and their independence from NHS Grampian and NHS Highland.

3.1 Objectives of the Review

This Review Group was commissioned to:

> "Work with NHS Grampian, NHS Highland and stakeholders with an interest in local Maternity Services to describe the best Obstetric model that will provide safe, deliverable, sustainable and high quality Maternity Services for the women and families of Moray in line with the Scottish Government

ambition described in 'The Best Start: A Five-Year Forward Plan for Maternity and Neonatal Care in Scotland (2017)'."

The best start: five-year plan for maternity and neonatal care - gov.scot (www.gov.scot)

The Best Start Plan states:

"Maternity and neonatal care and services matter to the health and wellbeing of Scotland's people. The health, development, social and economic consequences of childbirth and the early weeks of life are profound, and the impact both positive and negative, is felt by individual families and communities as well as across the whole of society".

3.2 Commission Brief and Terms of Reference

The Commission Brief[5] incorporating Terms of Reference for the latest Review was agreed with Scottish Government in March 2021.

The key requirements were:

- It should examine the requirements for establishing a safe and sustainable consultant-led intrapartum obstetric service at Dr Gray's Hospital.
- It should examine the requirements for establishing a safe and sustainable midwife-led intrapartum service at Dr Gray's Hospital.
- It should involve services in Raigmore Hospital (NHS Highland) and Aberdeen Maternity Hospital (NHS Grampian) as well as Dr Gray's Hospital, Elgin.
- It should consider rurality, transport and local support whilst aiming to provide services as close to home as possible.
- It should be deliverable and sustainable in the context of other health and social care services in Moray, with reference to the local healthcare landscape and economy.
- It must be carried out in partnership with local stakeholders with an interest in Maternity Services that would be affected by the recommendations.
- It will involve NHS Grampian and NHS Highland staff including the respective leadership teams, Obstetric specialists (Medical and Midwifery), Paediatric Specialists (General and Neonatal, Medical and Nursing), Anaesthetics Specialists (General and Specialist) and Scottish Ambulance Service.

[5] The full Commission Brief is available for reference in Appendix A

- It should reference national standards and guidelines for maternity service provision to ensure the recommended option is safe and of high quality.
- Recommendations should reflect the provision of choice for women in line with 'The Best Start: A Five-Year Forward Plan for Maternity and Neonatal care (2017)'.
- It should examine and review the chronology of events to stabilise services since July 2018, and offer reflection on what can be learnt from this.

3.3 Governance Arrangements

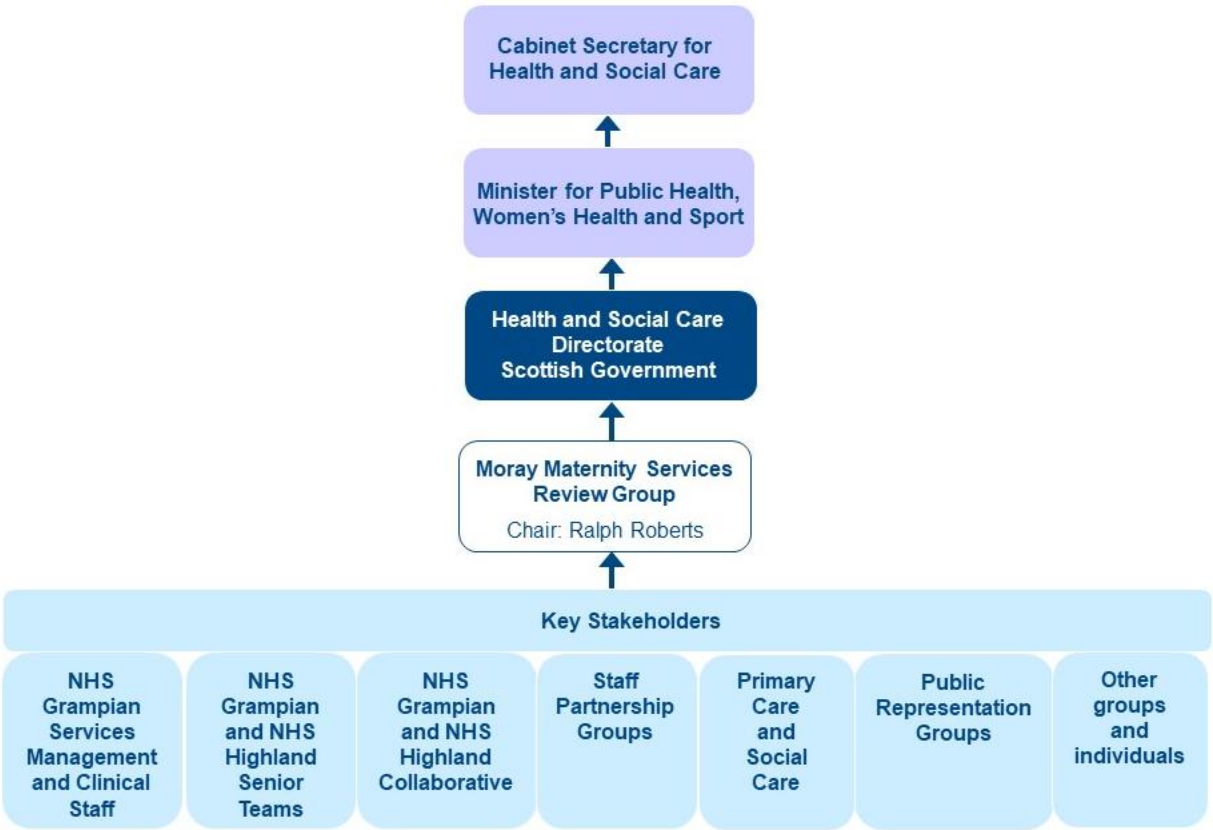
The Moray Maternity Services Review is an independent and standalone piece of work.

The Moray Maternity Services Review Group (the Review Group) has been commissioned to be independent from the maternity services under review. The Review Group has been tasked with ultimately producing a report for the Cabinet Secretary for Health and Sport.

This report will be submitted via the Maternal and Infant Health team within the Health and Social Care Directorate at the Scottish Government to the Minister for Public Health, Women's Health and Sport, and the Cabinet Secretary for Health and Social Care.

3.4 Governance Chart

The following chart lays out the governance arrangements for the purpose and duration of this Review:



3.5 The Review Group Principles:

- To identify and agree the nature and scope of the activity required to meet the remit of the Review Group and to achieve the desired objectives of the Review.
- To ensure the objectives set for the Review Group are achieved in a collaborative and transparent manner, to involve all relevant partners and stakeholders.
- To develop outputs for all deliverables collaboratively with relevant partners and stakeholders, and ensure required consultation takes place, responding appropriately to feedback received.
- To be aware of any operational plans in place to ensure alignment and dependencies are identified and effectively managed.
- To ensure the deliverables are achieved in a timely manner, tracking delivery against time-frames agreed.
- To liaise closely with, and report progress regularly to, the key contact at Scottish Government for onward communication to the Cabinet Secretary for Health and Sport[6], and provide written updates e.g. via a highlight report or an interim report, as directed.
- To contribute to the development of the Review plan, identifying activities and timelines for delivery with agreement of member(s) responsible for the delivery of each activity.
- To ensure all risks and issues identified are tracked and managed effectively.
- The review process and final report should take account of the operating principles for invited reviews in health care as recommended by the Academy of Royal Colleges, 2016.

3.6 Expected Outcome

A report detailing the best service model or options that offer deliverable, sustainable, safe and high-quality maternity care for the women and families of Moray. The report should also offer a recommended action plan that takes the service from its current position through a series of safe, interim keys steps before reaching its final configuration.

[6] This report was originally commissioned in March 2021 by Jeane Freeman who held the position at that time of Cabinet Secretary for Health and Sport; her replacement Humza Yousaf is the current Cabinet Secretary for Health and Social Care

3.7 Approach of the Review Group

The challenges facing the services in NHS Grampian, and Dr Gray's in particular, are well documented in the two previous reviews. It was not the purpose of this Review to revisit what has already been recorded and commented upon. Rather, this Review has looked to the future, and considered what could be achieved within a sensible time-frame. The information from the previous reviews has, however, assisted the Review Group in its discussions and deliberations with regard to where services are now, and how they have arrived at this stage.

As requested, in undertaking this Review, the Review Group has taken cognisance of the ambition described within the Best Start Plan, which states that:

> "Wherever women and babies live in Scotland, and whatever their circumstances, all women should have a positive experience of maternity and neonatal care which is focused on them, and takes account of their individual needs and preferences.
>
> All women, their babies, their partners and their families should be aware of the support and choices that are available to them in order that they can be partners in care and achieve the best outcomes for them and their family."

The Best Start Plan makes a number of recommendations that will transform the way that maternity services are organised across Scotland. It describes the future vision of maternity and neonatal services across Scotland where:

- All mothers and babies are offered a truly family-centred, safe and compassionate approach to their care, recognising their own unique circumstances and preferences;
- Fathers, partners and other family members are actively encouraged and supported to become an integral part of all aspects of maternal and newborn care;
- Women experience real continuity of care and carer, across the whole maternity journey, with vulnerable families being offered any additional tailored support they may require;
- Services are redesigned using the best available evidence, to ensure optimal outcomes and sustainability, and maximise the opportunity to support normal birth processes and avoid unnecessary interventions;
- All staff are empathetic, skilled and well-supported to deliver high quality, safe services, every time; and,

- Multi-professional team working is the norm within an open and honest team culture, with everyone's contribution being equally valued.

Best Start provides a direction for the future of maternity services with an aim to have a single Maternity Network for Scotland alongside the current single Neonatal Managed Clinical Network for Scotland.

The Review Group are a multi-disciplinary independent team of NHS professionals with expertise of working in remote and rural areas of Scotland, in specialties and functions related to the Review scope. The members of the Review Group come from a range of disciplines; with none of the members currently working for NHS Grampian[7].

The Review Group includes representatives from the following specialities and disciplines[8]: anaesthetics, midwifery, obstetrics, paediatrics, medical director, general management and executive leadership, planning and person-centred care and engagement.

4 Evidence Gathering and Assessment of Models

The Review Group initially considered the substantial volume of materials provided by NHS Grampian, and then carried out extensive evidence gathering sessions with stakeholders, either virtually (utilising the widely used MS Teams platform), or by undertaking a series of face-to-face discussions during a two-day visit to Elgin in early July 2021[9].

The outputs of all of these sessions have been synthesised by Service Design Hub staff who worked closely with colleagues in the Programme Management Team from the Strategy, Performance and Service Transformation Strategic Business Unit in NSS to support the Review.

The Review Group have undertaken extensive review and evaluation of the findings and evidence gathered, and have ensured that the Scottish Approach to Service Design (SAtSD) has informed its work throughout the process. This approach[10] is based on "User Research", which is a methodology that connects the people designing a service with the people who use it.

Furthermore, to provide equitable opportunities to all those individuals and groups who wished to voice their views, members of the Review Group also made themselves available for additional evidence gathering sessions, which

[7] One of the Review Group members, Karen King, commenced work with NHS Highland in September 2021
[8] See Appendix B for further details on the Review Group membership
[9] See Appendix C for further details of the stakeholder engagement / evidence gathering sessions
[10] See Appendix D which details the approach taken to synthesise evidence as per the Scottish Approach to Service Design

stretched the timeframes beyond those originally planned for the Review. The Group felt, however, it was important to hear all viewpoints of those willing to contribute to the Review.

Where it was not possible for the contributors to attend a face-to-face session with Review Group members, or if this was preferred, individuals and groups were invited to contribute to the Review by submitting a written statement of their experience of Maternity Services in Moray via the dedicated email mailbox: NSS.MorayMatReviewEnquiries@nhs.scot

Following extensive review of all the evidence gathered, as well as consideration of professional opinion and policy direction, the Review Group defined a number of possible models they felt should be considered.

5 Considering Proposed Models of Service Delivery

As described above, the Review Group has been tasked with describing the best model for service delivery in Moray that will provide safe, deliverable, sustainable and high quality maternity services for the women and families of Moray.

An initial long list of models was considered, which included two models – Model 1 and Model 2 – both of which were ruled out at an early stage.

5.1 Model 1: The Status Quo

The current 'As Is' model includes intrapartum care provided through a community maternity unit, with "Life and Limb" support from consultant obstetricians.

To retain the status quo, with services to continue as they are at present, was excluded from consideration by the Review Group, because, although there is no evidence of adverse outcomes for women, both Professor Cameron in his report and the Review Group believe there are potential risks to patient safety. The service is not considered or perceived to be safe by the wider community. Neither does it have support from women and their families, members of staff, nor the other stakeholders with whom the Review Group engaged.

In this 'As Is' model, it is unclear at present as to which women can safely give birth in Dr Gray's. As a result, this model of service provision has lost credibility as a suitable maternity service.

5.2 Model 2: No Intrapartum Services in Moray

Under this model, no intrapartum care would be provided in Dr Gray's, with women in Moray (except those who choose to have a home birth) giving birth in either Aberdeen or Raigmore.

Whilst this model was included for completeness, it was not considered a viable or appropriate model, and was, therefore, immediately excluded. It was acknowledged by the Review Group that adopting this model would greatly reduce options for women and their families, and remove the choice of giving birth locally for nearly all women in Moray. As such, this would not be in line with 'Best Start' principles, nor would it meet the needs of families.

The Review Group then considered four further potential models for the delivery of maternity services in Moray:

5.3 Model 3: Community Maternity Unit* linked mainly to Aberdeen

- Women are offered a choice of intrapartum care at either Dr Gray's, Aberdeen or Raigmore, with the associated antenatal care provided at Dr Gray's (as appropriate, based on the complexity of their care requirements).
- Midwife-led and consultant-supported antenatal care in Dr Gray's (potentially provided by visiting consultants from Raigmore and/or Aberdeen).
- Limited midwife-led antenatal triage and day assessment.
- Midwife-led intrapartum care, offering the potential to provide approximately 20% of Moray births (all of these births will be "low risk").
- No obstetric medical cover for intrapartum care; and therefore, no facility for obstetric interventions, such as instrumental deliveries and emergency caesarean sections.
- Main link for higher risk pregnancies and intrapartum transfers to Aberdeen, as currently, with a small proportion to Raigmore. Around 80% of Moray birth's delivering outside Moray.

5.4 Model 4: Community Maternity Unit* linked mainly to Raigmore ("Moray Networked Model")

- Women are offered a choice of intrapartum care at either Dr Gray's, Aberdeen or Raigmore, with the associated antenatal care provided at Dr Gray's (as appropriate, based on the complexity of their care requirements).
- Midwife-led and consultant-supported antenatal care in Dr Gray's.
- Midwife-led antenatal triage and day assessment expanded to 24-hour availability.

- Midwife-led intrapartum care in Dr Gray's, offering the potential to provide approximately 20% of Moray births (all of these births would be 'low risk').
- No obstetric medical cover for Dr Gray's intrapartum care; and therefore, no facility for obstetric interventions, such as instrumental deliveries and emergency caesarean sections.
- Access to planned consultant-led intrapartum care shared between Raigmore and Aberdeen as part of a 'network'; with the choice of unit dependent upon a clinical risk assessment, the woman's personal choice, and geographical location.
- Consultant-provided elective caesarean sections in Dr Gray's (offering the potential to increase the number of births by a further 20%); caesarean section service expected to be provided by consultant gynaecology staffing, and supported by the existing theatre and anaesthetic teams. This will also require flexibility of midwife staffing to provide a 24/7 staffed unit as required.
- In the event of emergency or urgent transfers, women will be transferred (by ambulance) to Raigmore, unless they are clinically required to transfer to the specialist unit in Aberdeen.

5.5 Model 5: Rural Consultant-supported Maternity Unit*

- Midwife-led and consultant-supported antenatal services in Dr Gray's.
- Midwife-led and consultant-supported intrapartum care in Dr Gray's, with the service offered to women who have been carefully risk-assessed and selected. There is potential to provide care for between 50%-70% of Moray women (based on the Scottish Northern Isles' approach).
- Obstetric medical cover available in Dr Gray's on a 24/7 basis (on-call from home out of hours). This model, based on risk assessment, includes provision for Obstetric interventions, including instrumental births and emergency caesarean sections in Dr Gray's.
- Elective caesarean section service in Dr Gray's for selected women provided by consultant obstetrician gynaecologists and supported by the Anaesthetic and Theatre teams.
- Links for planned consultant-supported intrapartum care for higher risk births shared between Raigmore and Aberdeen as part of a "Network"; with the choice of unit dependent upon a clinical risk assessment, the woman's choice and geographical location.
- In the unlikely event of emergency or urgent transfers, women will be transferred to Raigmore, unless specifically clinically required to transfer to the specialist unit in Aberdeen.

*this unit to be located in Dr Gray's Hospital in Elgin

5.6 Model 6: Consultant–led Maternity Unit[11]

- Consultant-led unit with alongside maternity unit operating from Dr Gray's, with the wrap-around support necessary to sustain an extended maternity service.
- This would include all antenatal, intrapartum and postnatal services.
- This would offer the women of Moray the choice to give birth in Dr Gray's with a very small number of women who may still require, in the interests of the wellbeing of the mother and baby, to give birth, in the tertiary obstetric unit in Aberdeen.

*this unit to be located in Dr Gray's Hospital in Elgin

[11] This is referred to within Best Start as an "Obstetric Unit"

6 Review of Models

To allow a clear comparison of the models by the Review Group, to support application of their professional expertise, and aid discussion and decision-making, a comparative evaluation was made against pre-agreed criteria.

The criteria used and their relative weighting are listed below[12]:

1. Safety and quality of service provision (30)
2. Positive user and stakeholder experience (20)
3. Financial sustainability (15)
4. Workforce sustainability (25)
5. Policy alignment (10)

7 Key considerations

When considering all the proposed models of service delivery for maternity services in Moray, and reviewing these against identified criteria, a number of factors were considered. These included patient safety and quality; patient experience and feedback; as well as the deliverability of the models under consideration.

Further information on key factors considered are set out below:

7.1 Human Factors

Human factors play a key role in any organisation, and their importance to the safety and wellbeing of all involved in those services are crucial. Within Health, this link has been well recognised, initially in the work of The Institute of Healthcare Improvement, and now through the work of Healthcare Improvement Scotland (HIS) and the Scottish Patient Safety Programme (SPSP).

This work is based on learning from other sectors, including the Nuclear and Aviation industries.

'Human factors' is the scientific discipline concerned with the understanding of interactions among humans and other elements of a system. These human factors include leadership, team working, and communication, such as handover, briefing and debriefing. It is well documented that these factors are a crucial element in delivering safe patient care. For example, the SPSP

[12] A fuller description of the Review process is described in Appendix H.

supports care services to learn together to improve the safety and reliability of healthcare to reduce harm whenever care is delivered. They encourage Health Boards to share learning in a safe environment which supports learning and development. The Maternity and Children's Quality Improvement Collaborative (MCQIC) works with maternity services across Scotland to improve outcomes for mothers and babies.

Human factors have also been specifically referenced in a number of reviews into maternity services across the UK, including the high profile "Morecambe Bay" report:

Morecambe Bay Investigation Report published - GOV.UK (www.gov.uk)

The Royal College of Obstetricians and Gynaecologists (RCOG) state "Positive working place cultures are underpinned by kindness, civility and respect. And staff need to feel part of a common goal." Jointly with the Royal College of Midwives (RCM), they have undertaken work to improve and support positive work-place environments.

With respect to Dr Gray's, the Expert Group Review into services in Dr Gray's commissioned by the CMO in 2018 noted that "staff morale was low and communication was poor".

Again in 2019, the culture and working relationships were highlighted as an issue as part of the information provided to NHS Grampian's Clinical Governance Committee report into Maternity Services at Dr Gray's Hospital on 21 February 2020. This information references the review by Professor Alan Cameron undertaken in 2019. In the report of that review, it is stated:

> "Working relationships in the Dr Gray's Maternity Services are dysfunctional and damaged to the extent they may impact upon patient safety"

The following comments also appear in the report:

> "examples of blame, alleged bullying, unprofessional behaviour and the desire for Dr Gray's to be 'left alone' – none of these are conducive to a multidisciplinary team working in an open and honest culture, where everyone's contribution, irrespective of role or location, is equally valued"
>
> "incidences of staff displaying paternalism in respect of compassionate discussions"
>
> "The current culture within the unit appears to be one where the medical model was dominant with communication to the Review team of a paternalistic culture and a current hybrid model of care that does not fully meet the needs of anyone, women or staff."

During this review, working relationships and culture, both internally in Dr Gray's as well as between staff in Dr Gray's, Aberdeen Maternity Hospital and NHS Grampian, have again been identified as an ongoing concern. This was expressed by a number of professionals and stakeholders; and has, on occasion, led to a loss of confidence by service users and the wider community.

For example, staff mentioned that poor working relationships had hampered development in the unit, and multi-disciplinary meetings were described as "difficult to attend". Mothers and families also referenced communication issues between professionals and across sites.

It is also noted that guidelines appear to differ between Dr Gray's, Aberdeen and Raigmore, which lead to confusion for women and their families. Whilst the Review Group accept that some variations may be required, the core of guidelines should be built on evidence-based practice. Variations in any guidelines require to be clearly articulated to all staff and service users.

It will, therefore, be important that work is progressed to address these relationships, and the overall safety culture within the service.

Notwithstanding the above, it is however, extremely important to emphasise that during the work of the Review Group, there was no evidence that the clinical outcomes for women and babies in Moray were any way impacted by this.

As described below, on the whole, women and families were also extremely positive about the care and support they had been given by individual members of staff.

7.2 Mothers' and Families' Voices

During the course of this independent Review, we met with mothers from Moray, and local action groups representing mothers, both virtually and in person. We felt that it was very important that we heard their stories from mothers to fully understand the lived experience of those directly affected by changes to the Maternity Service in Moray.

We heard the mothers describe spending their pregnancy concerned as to whether they would meet the criteria for a "Moray birth" or require to be transferred in advanced labour to Aberdeen, a journey of 65 miles. Mothers from the West of the Moray area spoke of having to drive past Dr Gray's to make the journey to Aberdeen whilst in labour, despite Raigmore in Inverness being the closest Obstetric Maternity Unit. Mothers also expressed concern regarding the journey to Aberdeen along the A96, a single carriageway road,

perceived to be prone to accidents; and which can, on occasion, be closed in winter due to prevailing weather conditions. Mothers described the stress this caused on themselves and their partners making the journey home, relatively soon after giving birth, with a new-born baby in an infant car seat.

The stories they told, whilst all individually distinct, had several common themes running through them, and we have decided to relate their stories via these themes which will hopefully give a flavour of what we heard whilst maintaining confidentiality. We recognise that we only heard a small fraction of the voices from Moray, and that many mothers and their families will have more positive experiences to relate, and this has to be taken into consideration when reading these stories; however, this does not detract from the emotional impact they had upon us. We would like to thank and commend all of the mothers, women and families who contacted us to explain how their experiences of the maternity services in Moray had impacted them; and we would especially like to thank those who came forward and spoke to us. Telling their stories in person was clearly distressing for a number of them, yet they persisted, and their courage and fortitude is commendable.

As an integral part of the synthesis of evidence gathered, the Service Design Hub established a series of personas[13] for each homogeneous[14] group with whom the Review Group engaged, based on shared 'pain points' and similar 'needs' identified.

Key themes recognised as emerging from experiences shared by the various stakeholders, and outlined below, are: communication, community impact and anxiety, travel, staff, and partners.

7.2.1 Communication

It is recognised that communication is vital to the efficient working of any system, never mind one as complex as the NHS, but it was evident from the stories we heard that communication issues were a major factor. This may have been communication with the mothers by either of the three Maternity Units, communication between those units at a professional level, or communication with the community as a whole. Many mothers felt that the links between Dr Gray's and Aberdeen Maternity Hospital were poor.

- "I am not sure who is talking to who between the two units, but when I turned up at Aberdeen Maternity Hospital, they didn't have a clear idea of what my problem was and were so busy struggled to find out."

[13] Details of personas and key insights are detailed in Appendix E
[14] Homogeneous: meaning 'of the same kind' or 'alike'

- “I felt that the staff in Dr Gray’s were frightened to raise any issues with Aberdeen Maternity Hospital.”

- “It was clear that the staff in Aberdeen Maternity Hospital had no understanding of where we had come from and the distance involved. It was quite common to be told to go away and come back later, or the next day. If they spoke to each other (Dr Gray’s and Aberdeen) then surely they would understand how difficult this was?”

- “When I arrived at Raigmore, I was terrified; but I could feel, simply by the looks and murmured conversations, that I was deemed a bit of a nuisance. They hadn’t expected me, and had no free space. It really clouded what I hoped would be a more positive experience.”

- “The unit was downgraded very suddenly, in our eyes anyway, and we were told it was temporary, for a year at most. This was three years ago and nothing has changed. We need to hear from NHS Grampian and have more chance to speak to them and let them hear us. The silence just increases all our anxiety. The fear of the unknown.”

7.2.2 Community Impact and Anxiety

The move from a Consultant-led Unit to a Community Maternity Unit at Dr Gray’s in 2018 led to an understandable reaction from the community, which has led to local groups and politicians discussing this issue regularly, and in as many forums as possible. Stories have been relayed and shared, and one consequence of this has been a growing anxiety amongst women about what quality of service they may receive if they are having a baby in Moray.

- “I am very aware of women who wish to have a baby, but are making the awful decision not to, based on the local services available. Some have left the area due to their concerns, which is a real blow to an area like Moray which is desperate to grow its community, not shrink it!”

- “Some of my friends have discussed timing their pregnancy to ensure that they deliver in the summer months, so that they don’t have to contemplate travelling to Aberdeen in the winter. We shouldn’t have to do this.”

- “Ever since I fell pregnant, I have noticed a background anxiety, a nervousness, that I didn’t have in my first pregnancy. I have heard these stories of mothers travelling all the way to Aberdeen in labour and in pain, and the thought terrifies me.”

- “Moray can seem a bit of a deprived area, but it has lots going for it, not least the two military bases; but I keep hearing about families asking for

transfers or refusing to be posted here purely down to the Maternity Services."

- "There is fear: I fear not knowing exactly where I will deliver my baby; will I have to travel a long distance? / on a poor road? / in pain? only to arrive somewhere unknown to me and so busy that it struggles to deal with me."

7.2.3 Travel

Women, early on in their pregnancy, due to complications or underlying health conditions, may be placed on what is commonly referred to as a "Red Pathway". This means they will be booked to give birth in Aberdeen (or Raigmore; although numbers suggest very few women are offered this option). However, of the women planning to give birth in Dr Gray's, for appropriate clinical reasons and safety whilst in labour, they may have to be transferred intrapartum to Aberdeen or Raigmore. This can often lead to a poor experience, uncontrolled pain, and safety issues from the journey itself. However, it should be stressed that many mothers in Moray have made this journey with no adverse clinical outcomes, and accept that (at the time) this was the best and safest option for them and their unborn baby. It is also worth noting that it is not uncommon for mothers in other rural areas of Scotland to have to travel similar distances for their maternity care.

- "When my contractions started, I went to Dr Gray's as planned, but it was apparent early on that they were not happy. Quite suddenly, I was told I needed to go to Aberdeen, and I had to make my own way there. Thankfully, my husband was free and able to get time off work to drive me, although this could have been much harder in different circumstances. He often works away from home and we haven't family nearby. Anyway, we started the journey; but, after about 10 minutes, my contractions got significantly worse. I had to take my seatbelt off as the pain was unbearable. I spent the next hour of the journey like this with my husband sometimes driving too fast as he was so worried about me. I couldn't stop thinking about what would happen if we had an accident. It was terrifying."

- "I had been deemed a high risk but there had been agreement that I could still have my baby in Dr Gray's. However, after 35 hours of labour, it was decided that I was not progressing and that I had to go to Aberdeen. My husband had to drive me and I was in so much pain that the only way I could achieve any level of comfort was to kneel in the back seat facing backwards holding the headrest. I had no seatbelt on the whole way."

- "I had been told that if I had a bleed before giving birth, the chances were slim that I would survive, and consequently neither would my baby. I spent months in constant fear that I would bleed. Then the worst

happened, and I started bleeding at home. I was transferred, initially to Dr Gray's, then to Aberdeen in a blue-light ambulance. The bleeding did initially stop, and I was told my baby had a heartbeat; but, when the bleeding started again, on the way to Aberdeen, I was told the heartbeat had gone. I therefore thought that my baby was dead, and it was likely I was next. It has taken me over a year to talk about this as the experience was so traumatic. Thankfully, my baby (and I) did survive."

7.2.4 Staff

It goes without saying that all interaction of the women and their families described above involved staff members from Dr Gray's and Aberdeen, NHS Grampian and Raigmore, NHS Highland. It is possible that some of the experiences shared may give readers a sense that staff could perhaps be rather uncaring or unhelpful. However, it is important to stress that women, almost without fail, would sing the praises of the staff they interacted with. Often mothers recognised that both Aberdeen and Raigmore were busy; and described feeling like they were an 'extra' on top of the maternity staff's already heavy workload; yet compassion and kindness in how they were treated were expressed as the norm.

- "Before I tell my story, I want to say that all staff that I have been involved with over my two pregnancies have been amazing. Nothing I say is in any way a criticism of their care."

- "The staff in Aberdeen Maternity Hospital may not realise at times that we have great distances to cover (and this is understandable when you realise the number of mothers they are dealing with), but they were always extremely kind and caring. I couldn't have asked for more, other than to have got all that in Elgin!"

- "I feel genuinely sorry for the staff at Dr Gray's. They are amazing, and delivered my first baby (prior to 2018) with kindness and a care that made every moment memorable, even the painful parts! I hope they can get back to this soon."

7.2.5 Partners

In recounting their stories, many women and their representatives were at pains to tell us how their experience had affected their partners. There was a combination of fear, anxiety, inconvenient and uncomfortable travel, and helplessness in these stories; and we feel it is important to recognise this in the report.

- "My husband does not like driving and, because of this, has never driven to Aberdeen. When he had to do this, at short notice, with a crying, panting wife beside him it was a pretty terrible experience. Then we arrived and he was asked to 'go home and come back later'. Home was nearly 80 miles away; but he did this without question. He made this journey every day for three days in a row, which was exhausting."

- "I feel traumatised by our journey, but I know my husband feels the same. He has flashbacks about possible accidents and their consequences. Whatever would've happened would've been his fault…which is so unfair."

- "I think it is really unfair that my partner had to witness what he did. This is an important time for him too, but he felt excluded and often ignored simply due to all the uncertainty and moves. It shouldn't be like this."

The quotes used above are a small sample of what we heard; to relate all the stories in their entirety would be inappropriate, and likely to breach privacy and confidentiality agreements.

We, the Review Group, wish to express our sincere gratitude to all of the mothers for your honest contribution to this review process; and we would like to assure you that we did listen, and we heard what you told us.

7.2.6 Staffing levels and challenges

Maternity and Obstetric care requires the support of a multi-disciplinary team to deliver high-quality and safe services. This includes, depending on the model of service provided:

- Midwives
- Obstetricians and junior doctors
- Anaesthetists
- Paediatricians and neonatal staff to support newborn babies
- Theatre staff (to support the provision of specific procedures – i.e. caesarean sections, assisted deliveries, etc.)
- Laboratory and pharmacy staff
- Non-clinical support staff (e.g. porters, domestics, etc.)

The make-up of the North region is quite unique; and therefore, we cannot underestimate the challenges that exist around the workforce and in the maintenance of skills for the multi-disciplinary team referenced above.

There are currently recruitment challenges for both medical and midwifery posts across health services in the UK. This is exacerbated in rural Health

Boards in Scotland, and has been a particular challenge in the North of Scotland. This reflects the fact that communities are often more remote and the nature of service provision requires staff who are willing to work in more generalised roles and on out of hours ('on-call') rotas with greater frequency of work. For example, in Dr Gray's, the obstetrics and gynaecology consultants have always worked a single on-call rota, 1:4 covering both obstetrics and gynaecology. In Aberdeen, consultants will often specialise in either obstetrics or gynaecology; the current on call rota there is 1:11.

While there are definite benefits to be described in working within services such as Dr Gray's, it is essential that Health Boards in the North of Scotland look at innovative ways to recruit, train and retain staff. This is being explored as part of the "Best Start North" Programme, between NHS Grampian, NHS Highland, NHS Orkney and NHS Shetland. This will be critical to the ongoing sustainability of any future model of care in Dr Gray's.

This includes options to have joint appointments between Health Boards, and agreement is being explored to provide a service network. An indication for further work from phase one of this programme is in relation to clinical supervision, education, training, and sustaining people skills. This is shown as an example of something that can more effectively be achieved collectively than it could within a single Board. The Best Start North Programme has noted innovative examples of recruiting and retaining staff which warrant further exploration. While the progression of this work has been impacted by the pandemic, and is currently paused awaiting the outcome of this Review, we would strongly support this being taken forward as a priority.

We also heard from representatives at RAF Lossiemouth that opportunities may exist to recruit partners of military staff arriving in Moray for a tour of duty, who currently work in clinical roles elsewhere in the UK. This should also be progressed as a matter of priority for joint work.

It is recognised that solutions for the North need to be unique and provide resilience for these services. There are examples of Scottish Island Boards who have recruited obstetricians and gynaecologists on a rotational basis from other parts of the UK and beyond. The benefit of this is that while they may be carrying out lower volumes of work while on the Islands, they are doing high volumes of activity elsewhere; as a result, this sustains their clinical skills, and is a key factor in ensuring they can continue to sustain a service in remote areas that do not provide an adequate level of activity to maintain their skills.

Within any extended model of obstetric care in Dr Gray's, the availability of junior medical staff, who are still in training to become consultants in their relevant speciality, is essential. This was demonstrated with the gap in

paediatric junior staff in 2018 that led to the initial change in obstetric service provision.

It is also well recognised that the teaching of junior medical staff is beneficial to services both in terms of improvements in quality of services, but also as a factor in the recruitment and retention of staff. It is, therefore, important that work is progressed to improve the experience and retention of trainees in Dr Gray's.

The distribution, employment and supervision of junior medical staff is the responsibility of National Education Scotland (NES) through the Scotland Deanery (the Deanery). The Deanery is also responsible for monitoring the quality of training and making recommendations on the approval of training places. This also includes input from the relevant Royal Colleges and the General Medical Council (GMC). It should also be noted that while the primary reason for a junior doctor placement is education and training, they are also integral to the safe staffing and delivery of a service.

As part of the Review Group's evidence gathering, we met with representatives of the Deanery who indicated there are insufficient medical trainee numbers in the North of Scotland in obstetrics, anaesthetics and paediatrics to provide an adequate number of doctors at either junior or middle grade level to support a standard consultant-delivered maternity model in Dr Gray's. Indeed, with current trainee numbers, and the difficulty of recruiting to even these posts, there are real challenges in supplying trainees to Aberdeen and Raigmore, let alone to three consultant-led units in the North of Scotland. Any attempt at redistributing trainees from Aberdeen or Raigmore would create a significant risk to the sustainability of these services. Alternatively, a redistribution would be required to the North of Scotland, which would equally run the risk of destabilising services in the rest of Scotland. It should also be noted that the unit in Dr Gray's is not currently approved as a training location for obstetric trainees.

Midwifery staffing provision was also noted to be a challenge in the North of Scotland. Whilst during the Review it had been noted that the midwifery team in Moray has been stable for a significant period of time, recruitment and retention for qualified midwives remains challenging in NHS Highland and NHS Grampian. This meant, at times, that midwives working in Moray would be working in Aberdeen; there were some benefits to this model though, with increased staff integration and collaboration through relationship-building. With the move to continuity of midwifery care, it is likely flexible movement of staff between sites will become the norm and should be promoted.

Other elements of service provision and supporting infrastructure were noted, which will also require to be taken into consideration, as follows:

- The gestation at which women can safely give birth at Dr Gray's will need to be agreed locally. This needs to reflect the recommendations in Best Start regarding where and how Neonatal services can be delivered. The decision will need to take account of recommendations regarding transitional care to keep mothers and babies together. This will require discussion around the staff and training required to provide these services safely.

- ScotSTAR (Scottish Specialist Transport and Retrieval) is a division of the Scottish Ambulance Service that exists to provide a national service for the safe and effective transport and retrieval of critically ill neonates and children in Scotland. The service provides a safe and dedicated transport service for a particular patient group who, because of their clinical condition, require an augmented clinical team during retrieval/transport, and represent the most vulnerable of patients transported in Scotland.

  The ScotSTAR team have a multi-professional staff complement of consultant and fellow grade medical staff and experienced transport nurses, who work in tandem with the regional Paediatric Intensive Care (PICU) teams. While it is not suggested that in the near future there will be any significant change in impact on the ScotSTAR service, it will be important, as development of local maternity services progresses, that continued engagement takes place with ScotSTAR to address any further impact.

- The Scottish Ambulance Service (SAS) is central to providing intrapartum transfers of mothers (who are currently mainly transferred to Aberdeen from Dr Gray's). This can reportedly take a crew out of area for up to six hours at a time. Ongoing discussions will be need to be taken forward between NHS Grampian, NHS Highland and SAS to ensure the sustainability of the service, to support future transfer requirements, as the maternity service in Moray evolves.

- Appropriate laboratory services are available to support maternity care at Dr Gray's. It is understood that Dr Gray's utilises "O Negative" blood for emergency situations, as cross-matching services are not available out of hours. We recognise this could have an impact on the level and sustainability of maternity services provision. We are aware, with the development of new technologies, there are alternative models of blood supply. As maternity services are developed in Dr Gray's, consideration should be given to the appropriateness of alternative solutions to bolster availability of blood to support the maternity services in Moray.

7.3 Births Data and Analysis

Analysis of data regarding births by Induction of labour and Caesarean Section:

7.3.1 Moray and Banff Births 2017/8 to 2020/Sep 2021[15]

Number of births in Moray and Banff split by location of delivery

Location / Year[16]	2017	2018	2019	2020
Dr Gray's	869	596	280	178
Aberdeen	125	321	618	714
Raigmore	-	38	33	16
CMU	7	0	3	6
Home	7	16	8	13
Born before arrival (BBA)	4	9	5	11
Total	**1023**	**1014**	**1041**	**1032**

Number of births by type of delivery in Dr Gray's 2018 - 2021 (Jan-Sep)

Dr Gray's[17]	2018	2019	2020	2021 (Jan-Sep)
Induction of labour	215	0	1[18]	2[19]
Birth without obstetric intervention	416	215	191	132
Breech	4	1	0	1
Ventouse	25	6	2	0
Forceps	23	1	0	1
Elective caesarean section	35	52	0	0
Emergency caesarean section	49	5	5	0
Caesarean section grade not recorded	14	0	0	0
Babies born before arrival at hospital	7	3	8	7

[15] Accurate Figures provided by NHS Grampian

[16] The figures in this table may not correlate exactly with the figures in the next two tables, due to the fact that one birth may appear in more than one line of the tables showing 'type of delivery' and some women may have a multiple birth, with a different type of delivery for each baby born at that time

[17] Since 2018, 21 women have chosen to birth in Inverurie Community Maternity Unit and 11women have chosen to birth in Peterhead Community Hospital.

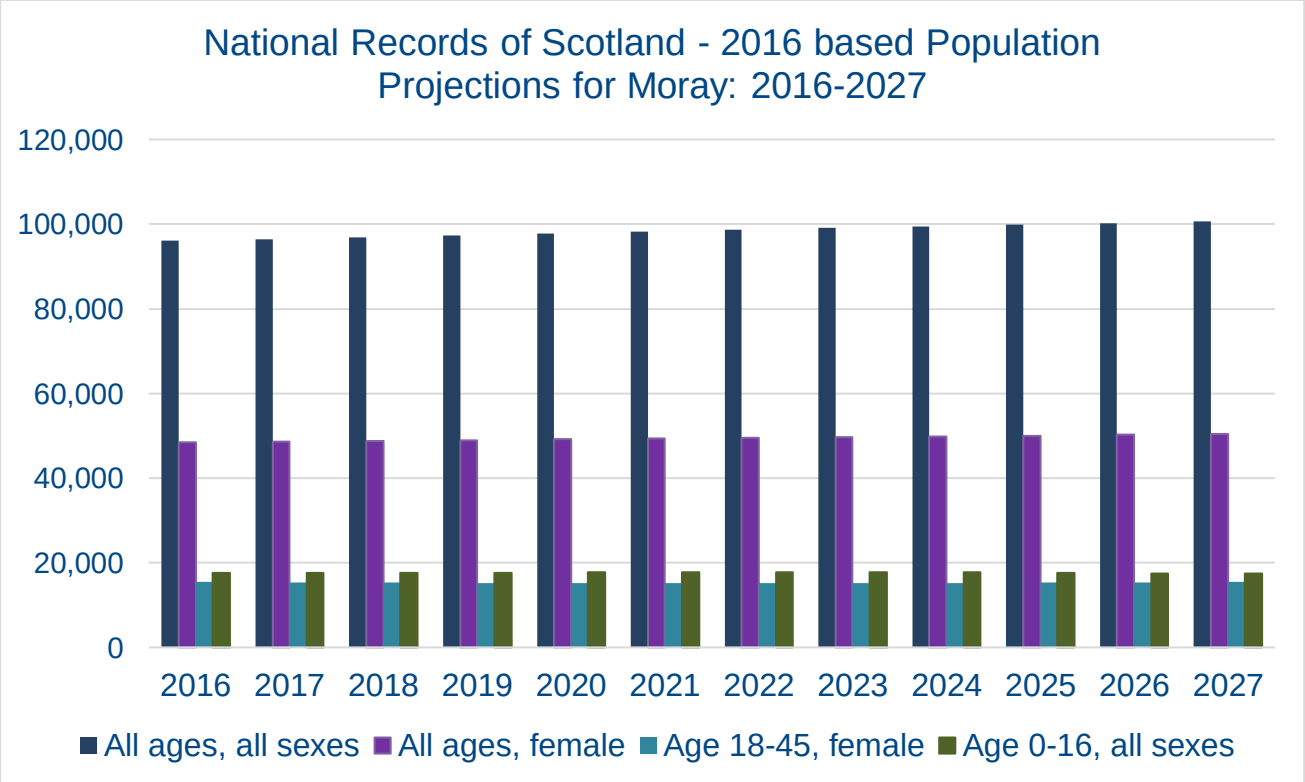
[18] Data quality issue

[19] Data quality issue

Number of births by type of delivery in Aberdeen 2018 - 2021 (Jan-Sep)

Aberdeen	2018	2019	2020	2021 (Jan-Sep)
Induction of labour[20]	156	337	335	265
Birth without obstetric intervention [21]	182	312	325	210
Breech	1	5	5	1
Ventouse	7	17	13	10
Forceps	52	92	83	86
Elective caesarean section	32	69	126	88
Emergency caesarean section	65	138	186	153
Caesarean grade not recorded	23[22]	0	0	0
Babies born before arrival at hospital	1	1	3	3

7.3.2 Moray Population Projections



[20] This figure includes failed inductions
[21] Otherwise referred to as a “spontaneous cephalic” or “spontaneous vertex delivery” or SVD
[22] This record was changed to a mandatory field in the system from 2019 onwards

While these projections show a small increase in the overall population in Moray of nearly 5% over the period from 2016 to 2027, within this, the proportion of women in the 18-45 cohort is broadly stable.

7.4 Best Start North

NHS Grampian, NHS Highland, NHS Orkney and NHS Shetland have come together to develop a sustainable plan for the future service delivery.

Best Start North, a programme report published in December 2020, sets out their ambition and the challenges they face in delivering on this ambition.

The Best Start North Steering Group had the following objectives:

- To support a multi-professional and cross Board culture of excellence in Maternity and Neonatal Services.
- To provide senior leadership and direction from each of the relevant Boards for a strategic review and planning process.
- To provide senior clinical input and leadership on the services provided across the relevant Boards.
- To ensure that any planning processes or data gathering undertaken as part of the review is supported at Board level.
- To agree and support relevant communications and messages related to the review.
- To consider and contribute to the outputs from the review process, including interim and final reports.
- To provide and optimise Board level leadership for the redesign of services.
- To consider and provide feedback and direction on proposals or developments arising from the planning process.
- To provide information and advice to the programme of work on any issue posing a risk to deliver ability using appropriate escalation or reporting processes.
- To respond to direction from the Chair and Chief Executives Group, taking appropriate actions.

7.4.1 Best Start North Approach

The group has undertaken a mapping exercise of the resources available in the North of Scotland, and Shetland and Orkney Health Boards.

The group comments that:

> "NHS Grampian has been committed to a phased return of maternity services to Dr Gray's, with phase one seeing the re-introduction of elective caesarean sections already in place. However, the second phase of the reintroduction has not been realised as concerns were raised about the workforce required particularly from an anaesthetic standpoint. This would mean that a substantial capital investment was required to meet national standards, as currently Dr Gray's do not have around the clock resident anaesthetist. This temporary model of care has now been in place for over two years and there is a growing need to move to a sustainable long-term model of maternity care at Dr Gray's."

To support this work, an interim report was commissioned with the Department of Health Innovation (DHI)[23] as an output from a series of workshops; and in this report, key themes were identified in looking at Dr Gray's.

DHI reported that: "These emerging themes are acutely represented within the challenges in establishing a sustainable long-term model for maternity care at Dr Gray's".

(1) Right People, Right Skills, Right Place, Right Time

Medical staffing was a significant reason for the shift to a hybrid model of maternity care at Dr Gray's Hospital. The current model was not designed to be a long-term solution and the phased re-introduction of obstetric-led maternity services has been hindered by the economic and workforce resource required. Therefore, a long-term solution that is safe, equitable and economically viable may involve taking a tailored approach to ensuring the right people with the right skills are available in an appropriate location to deliver care in a timely manner.

It is beyond the remit of this study alone to suggest what the appropriate future model for maternity care at Dr Gray's may be. However, ensuring

[23] The Digital Health and Care Institute (DHI) is one of eight Innovation Centres (IC) in Scotland. DHI's focus is in harnessing innovation to seek and solve key challenges for the health and care sector; transforming great ideas into real solutions. It is a collaboration between the University of Strathclyde and the Glasgow School of Art; and is part of the Scottish Funding Council's Innovation Centre Programme. It is part funded by Scottish Government. DHI support innovation between academia, the public and third sectors and businesses in the area of health and care.

that a frank, receptive approach is taken towards future conversations, that include the input of the full range of stakeholders and that are done in an efficient, albeit considered manner, will be integral.

(2) Patient Expectations and Choice

Patient expectations and choice of location of birth are central to the challenge faced by Dr Gray's. The work undertaken by DHI will be supported by engagement undertaken by SenseMaker® which focuses on the public/patient perspective, experience and expectations. Therefore, SenseMaker®'s work will be better positioned to highlight patients/public perceptions on expectations and choice in greater detail.

However, the DHI has had extensive engagement with clinical and midwifery staff, as well as patient representatives contributing to co-design workshops. It has been indicated that local public campaigns fervently advocate the resumption of a consultant-led maternity service at Dr Gray's.

(3) Emergency and Retrieval Services

As highlighted previously, it is important that good communication and consultation on changes in models of service delivery takes place, including with the SAS and ScotSTAR who are critical to the safe transfer of mothers and babies between maternity units and to neonatal care when this is clinically required.

With the pace at which the shift in service model had to be implemented in 2018, it is clear that the opportunity for joint planning and consultation was limited. However, it has also been suggested that clarity of guidelines and transfer arrangements can remain an area of continued challenge. It has been suggested, for example, that there have been delays in timing of transfers, and the remit of the service at Dr Gray's resulting in "SAS arriving on site with women that fall out with the remit of current services."

7.5 Wider implications for Dr Gray's beyond Maternity Services

In discussions with a range of stakeholders, including members of the public, NHS Grampian and the local maternity services, it has been acknowledged that the future of maternity services in Dr Gray's is closely linked to the future of Dr Gray's Hospital as a whole.

This would be the experience of similar services in other district general hospitals across the UK and Scotland, where the vibrancy of services in a hospital has a positive knock-on effect on all the services being provided. This reflects the interconnected nature of services in the Health Service with all services, including maternity and obstetric services, being dependent on the

range of clinical and non-clinical services available on the site. As already indicated, obstetric services are particularly dependent on services in anaesthetics, theatres and paediatrics. The sustainability, scale and capacity of these services are also then linked to the wider services provided on the site.

In turn, this impacts on the way in which a hospital is perceived, and will impact on the overall ability to recruit to and retain staff at the hospital.

It was clear from much of the feedback we received from local staff and the public that they were unsure about, and concerned for, the future of Dr Gray's. This is despite NHS Grampian stating their support for services at Dr Gray's, and confirming that Dr Gray's is an essential part of NHS Grampian's future service provision. The Review Group is clear that the future plans for Dr Gray's as a whole will be critical to the successful ongoing provision of obstetric and maternity services there.

7.6 Travel to Access Maternity Services

The women and families of Moray raised concerns regarding the distances they had to travel for elements of their antenatal care, or indeed whilst they were in labour. Their perception was that staff in Grampian did not always appreciate the distances that were required to be travelled and the challenges presented by the rurality of the area. This resulted on occasions with women being contacted to attend Aberdeen without adequate notice. If attending for a review out with core hours, the women found themselves being discharged home late in the evening. In this context, it has to be acknowledged that this is not unique to the women of Moray, and that, in other areas of rural Scotland, women also find themselves in similar situations. The information below offers some context to the women's concerns.

Travelling from Elgin to Aberdeen:

- By train, this can take in the region of two hours, and costs can vary from £16 to £47 depending on the time of day when the journey is made.
- By bus, this journey can take in excess of two and a quarter hours, and costs can range from £14 up to £21.
- By car, Aberdeen is approximately 65 miles from Elgin which generally takes between an hour and twenty minutes to just over an hour and a half to drive to, depending on traffic and road conditions. Fuel costs would be in the region of £15, and with fuel price rises this can fluctuate.

It should be noted that women and their partners and/or families may have to make this journey on more than one occasion, which can be inconvenient, uncomfortable and costly.

Having this number of women travelling via personal transport does not align with the Scottish Government plan to cut carbon emissions to net zero in the Health Service.

Utilising NHS “Near Me” digital technology, reducing the need for women and families to travel in person to Aberdeen or Inverness should be enhanced as a result of this Review. Consultant anaesthetic and obstetric services can successfully be delivered via digital technology moving forward. This reduces the amount of time spent travelling for women, ensuring they continue to have thorough assessment in collaboration with their midwife, offering a more convenient, less costly, and more comfortable experience.

8 Findings and Conclusions

8.1.1 Findings

The above sections summarise the evidence the Review Group has received.

From this, the Review Group believe that:

- It is right to be more ambitious with the scope of maternity services currently provided for the Moray population. Similar populations across Scotland have a more extensive local provision, and this would be in line with the "Best Start" and "Realistic Medicine" framework.

- It must be recognised that, regardless of investment and the development of alternative maternity service models in Dr Gray's, a proportion of women will choose, or will need, to give birth in a larger and more specialist unit. This should be seen as a positive step in ensuring women and babies are safely and appropriately cared for. This is likely to mean that transfers in labour, while this should be minimised through effective risk assessment, may still be required.

- Maternity services are key to the wider economic and community wellbeing of a population, and this should be factored into the decision making.

- The provision of maternity services in Moray is inextricably linked to the long term development and success of all the services within Dr Gray's.

- The Review Group heard that, at times, the staff in Dr Gray's felt unsupported by NHS Grampian as an organisation. While there will always be different perspectives, it is important that this is acknowledged.

- In discussion with staff, the Review Group also heard that relationships between the service in Dr Gray's and the wider maternity services in Aberdeen and Raigmore require to be strengthened and developed, promoting collaborative working to improve safety.

- The Review Group also heard about specific actions being taken to strengthen and support the leadership in Dr Gray's (NHS Grampian's new portfolio leadership approach). This is also acknowledged, and should be supported and encouraged.

- The Review Group received considerable testimony from women, families and women's advocacy groups. These included "Maternity Voices Partnership" groups in Moray, Grampian and Highland, and "Keep Mum" who have had a long history of supporting and campaigning in relation to the maternity services in Moray. It was clear that, while "Keep Mum" is

understandably an influential group on public views around Moray maternity services, that it will be beneficial to develop engagement through the MVP groups who are making positive progress in developing relationships with maternity services representatives and extending the input from women, families and wider stakeholder groups. This should continue to be encouraged.

8.1.2 Conclusions

The Review Group carefully considered the extensive evidence heard and reviewed, the desire to widen the scope of the service, and the careful balance that has to be struck in relation to patient safety and the deliverability of any future model of service provision for Maternity Services in Moray.

As described above, the evidence and testimony provided by a wide variety stakeholders allowed the Review Group to consider the many factors and influences which will have an effect on the ability of NHS Grampian to stabilise and further develop Maternity Services on the Dr Gray's site.

The six models considered were:

Model 1	Status Quo
Model 2	No Intrapartum Services at Dr Gray's
Model 3	Community Maternity Unit* linked mainly to Aberdeen
Model 4	Community Maternity Unit* linked mainly to Raigmore (Moray Networked Model)
Model 5	Rural Consultant-supported Maternity Unit*
Model 6	Consultant-led Maternity Unit*

*this unit to be located in Dr Gray's Hospital in Elgin

Both Model 1 (Status Quo) and Model 2 (No Intrapartum Services in Moray) were considered inappropriate and undesirable by the Review Group. The remaining four models of service provision were considered individually by Review Group members based on a set of pre-agreed scoring criteria. Of these, Model 6 (a Consultant-led Maternity Unit in Dr Gray's) was recognised as the most desirable model of service provision when considering 'Patient Safety and Quality', 'Service User and Stakeholder Experience', and 'Policy Alignment'. However, the Group is clear that, when set within the current

service and workforce context, this is not deliverable within any reasonable timescale (2-5 years), and unlikely even within the next 10 years. As a result, continuing to focus on this model is not recommended.

The Review Group therefore focused its attention on: Model 3 (a Community Maternity Unit linked mainly to Aberdeen); Model 4 (a Community Maternity Unit linked mainly to Raigmore); and, Model 5 (a Rural Consultant-supported Maternity Unit).

The Review Group believe that all three of these models are realistically deliverable. It is acknowledged that whilst Model 5 is similar to the model provided in the Scottish Northern Isles (which is not considered 'standard' for mainland obstetric services) it remains a sensible, pragmatic model supported by robust safety data from other units.

8.1.3 Conclusions – Short-term

Following careful review and consideration of the evidence gathered the Review Group agreed that Model 4 was the best model to be established within a reasonable time-frame (up to two years) in order to provide a safe, high-quality Maternity Service to women residing in Moray; particularly given that Raigmore is significantly closer to Dr Gray's than Aberdeen.

Model 4 is described as a "Moray Networked Model", and includes a Community Maternity Unit (midwife-led) in Dr Gray's, with access to consultant intrapartum care in Raigmore or Aberdeen. This would see an increase in the proportion of births taking place in Raigmore which is geographically closer to home for a percentage of women in Moray. Emergency and urgent transfers would also go to Raigmore. It is expected that the CMU would be able to deliver approximately 20% of babies in Moray (all of which would be "low risk"), and potentially an additional 20% with the repatriation of women having elective caesarean sections. There would be local consultant-supported antenatal care, potentially supported by an increase (where appropriate) of digital and virtual care, but no in-hours or out of hours' medical provision for intrapartum care.

This model is in line with the Health Boards' plans for "Best Start North", and will require an appropriately formalised Clinical Accord/Service Level Agreement (SLA) regarding ongoing service development with NHS Highland. NHS Highland has indicated it has a two-year plan to enhance its infrastructure and staffing levels, and this will allow expansion of the facilities in Raigmore. It is recognised that NHS Highland's plan for Raigmore are co-dependent on further changes within NHS Highlands maternity services, including appropriate capacity with the Special Care Baby Unit, the development of the Invergordon Community Midwifery Unit, and the

Inverness Community Hub. This plan will support women from West Moray giving birth in Raigmore, and will support intrapartum transfers to Raigmore in urgent and emergency situations. This will, in turn, offer further choice for women in Badenoch and Strathspey who may wish to choose to give birth in Dr Gray's in Elgin.

8.1.4 Conclusions – Medium-term

The Maternity Services at Dr Gray's are inextricably linked to the vitality of the hospital as a whole, and it is recommended that careful consideration is required around the overall role of Dr Gray's Hospital. The size of the catchment area and rurality are sufficient to justify and sustain a vibrant hospital with a range of consultant-led services; however, development of the hospital has not continued in line with other comparable Scottish hospitals (e.g. NHS Borders, NHS Dumfries and Galloway), and it may not be possible, for either practical or financial reasons, to reach a full "District General" position. NHS Scotland and NHS Grampian need to consider how best Dr Gray's should be supported to serve the population of Moray as a whole.

If NHS Grampian concludes that the hospital should be a functioning District General Hospital, then it would need to commit to a revitalisation plan for secondary care covering an appropriate range of hospital departments. This is likely to require additional recurring funding. It would also require a dedicated and pro-active leadership and change management team who could focus on the positives of the revitalisation plan and the benefits of living locally. The recruitment and retention of staff will be a key element of delivering this model. The Scottish Government, both of the Health Boards, NES and the Deanery, must also all commit to finding solutions for staffing rural areas of Scotland. Indeed, it could be argued that if NHS staff in training are not exposed to rural working, they are missing a key element of required training; as it is often emphasised that trainees are not in units to provide service but to be trained for the future. Allocation across Scotland, however, can appear to be based on sustaining middle grade rotas for service delivery in the larger centres.

If moving towards a more fully functioning district general hospital is the preferred plan for Dr Gray's as a whole, then the Review Group would favour moving to Model 5 for maternity care i.e. a Rural Consultant-supported Maternity Unit aiming to deliver 50-70% of babies in Dr Gray's (based on the Scottish Northern Isles' Model).

NHS Grampian may envisage, however, that Dr Gray's would best serve its medical services in Moray by providing valuable outreach care from the specialist units in Aberdeen and Raigmore. This may be the most

appropriate model when considering the population of NHS Grampian as a whole; and moreover, this may be more sustainable from a service, workforce, and financial perspective. If this were to be the preferred strategic plan for the area, then the Review Group would favour continuing with Model 4.

In setting out these models in this way, it is recognised that this is dependent on strategic considerations that are outside the remit of this Review.

8.1.5 Recommendations

NHS Grampian and NHS Highland should, as a matter of priority[24]:

- Progress in the short-term with setting up Model 4 (Community Maternity Unit linked mainly to Raigmore ("Moray Networked Model").
- Consider, in the medium-term, the role of Dr Gray's Hospital as a whole; and, if a more fully functional District General Hospital is favoured and achievable, to then consider what steps can be put in place to deliver Model 5 (a Rural Consultant-supported Maternity Unit) in Dr Gray's.

It must be recognised that the development of any new model of service provision will take time; and the Review Group has, therefore, set out a number of recommendations that should also be progressed immediately, as a matter of urgency, to be established as soon as possible and at least within the next 6 months.

8.1.6 Summary of Recommended Actions

A number of key actions are set out below:

1) Immediate measures

It is accepted that implementing the preferred short-term model (Model 4) will take some time, with the development of increased physical and staffing capacity in the Raigmore Maternity Unit likely to take up to two years to achieve. It is, however, important that steps are taken now to improve the current situation in Dr Gray's, and to address a number of the current potential safety and public concerns with the Maternity Services in Moray:

- The Review Group would suggest that the terminology "Life and Limb support" is withdrawn and ceases to be used; and that the offer of this service is discontinued with immediate effect. The nature of 'Life and Limb support' is unclear, and has been the source of considerable concern and discontent amongst staff at Dr Gray's as well as causing confusion to women and their families.
- Enhance the support from the existing local Obstetrics and Gynaecology (O&G) Consultants to the midwifery team so that they have agreed multi-disciplinary guidelines and protocols.

[24] Further detail on proposed actions to progress implementation of the new model is set out in Appendix I.

- Encourage and support the appropriate “autonomy” of decision-making by midwifery staff at Dr Gray’s, working within their scope of practice.
- Agree clearly defined transfer protocols, transfer criteria and associated triggers between Dr Gray’s and the maternity units in Aberdeen and Raigmore.
- Ensure that when managing potential transfers, within these agreed criteria/triggers, that those transfers are accepted in a proactive manner, so that the Maternity Team at Dr Gray’s are appropriately and adequately supported.
- Agree and support Emergency Transfers in labour being directed to Raigmore.
- Consider the use of staff with advanced skills to minimise the dependence of the service on junior doctors i.e. pharmacists / midwives, ensuring that skills are kept up to date.
- Ensure that an effective and supportive multi-disciplinary “debrief” process is in place for any incident or “near miss”, so that a culture of learning and improvement is developed and embedded throughout.
- Re-introduce elective caesarean sections to Dr Gray’s under the care of current O&G consultants.

2) Culture

The importance of culture to quality and safety in any service has been clearly articulated. The following recommendations are made, and should be progressed as a matter of priority:

- Identify opportunities for staff to work across all sites (i.e. Dr Gray’s, Raigmore and Aberdeen) to enhance relationships and improve understanding between staff groups. This should include at least Midwives and Obstetricians from all sites.
- Commission the delivery of a Cultural Safety Programme aimed at the multi-disciplinary team working in Dr Gray’s. This should include the relevant team members at Raigmore and Aberdeen so that the ownership of this work, and the relationships between Dr Gray’s, Raigmore and Aberdeen, and the services they work with are addressed as part of this work. Involvement of all senior clinical staff in this work should be mandatory.

- Invest in and protect time for the creation of a whole team focus at Dr Gray's, and between Dr Gray's, Raigmore and Aberdeen, so that the service at Dr Gray's becomes embedded as part of a Networked Maternity Service between NHS Grampian and NHS Highland.

3) Leadership

Effective leadership of any service, including good Clinical Leadership and management support, is essential if a service is to thrive. There has been a gap in leadership to the Maternity service in Dr Gray's in recent years and good future leadership will be a critical success factor going forward. Progress has been made with the overall leadership for Dr Gray's and this must be supported and encouraged in the future:

- Invest in the clinical leadership of the obstetrics and gynaecology service at Dr Gray's. The service should look to identify an experienced and respected Senior Clinician who can lead the service for at least the next five-year period as the service goes through continued change and development. This post would require extended managerial sessions and be given appropriate management support;

- NHS Grampian should build on the recent development of Hospital management at Dr Gray's and the focus and responsibility for Dr Gray's within the Moray Health and Social Care Partnership;

- NHS Grampian, with local clinical leaders and the community, should develop a clear strategic plan and vision for the future of Dr Gray's. This has the potential to be a key component of the Acute services in Grampian and provide significant support to the service's recovery from the Pandemic;

- NHS Scotland should provide clear support for the ongoing sustainability of Dr Gray's as a key part of the NHS Scotland estate, including capital investment where required;

- NHS Grampian should work closely with NHS Highland to ensure a clear programme plan and support arrangements (including Governance) are in place to support the ongoing delivery of an Improvement Plan for Maternity Services in Moray.

- NHS Scotland should consider arrangements for ongoing oversight of the development of Maternity Services in Moray. This is ultimately the responsibility of NHS Grampian, but public confidence may be enhanced by a level of objective external oversight.

4) Workforce and Recruitment

The recruitment and retention of the workforce will be the main driver of success for the sustainability and improvement of maternity services in Moray. This recognises the ongoing challenges associated with recruitment and retention in rural areas of Scotland, that are exacerbated in the North of Scotland.

- NHS Grampian should take a focused approach to the ongoing recruitment of staff to Dr Gray's, and for the maternity services in particular. This should include a specific workforce development plan for the site and service, and a recognition that this will need to be creative and to explore alternative approaches.

- NHS Highland should take a similar focused and creative approach to recruitment for the development of the Raigmore Maternity Service.

- These workforce and recruitment plans should include consideration of the opportunities to maximise links from the transfer of staff into the Ministry of Defence (MOD) facilities at Lossiemouth and Kinloss. Both sites employ a significant number of staff of working age and opportunities for identification of MOD personnel with appropriately skilled partners willing to transfer to work in the NHS in Moray should be explored.

- Any recruitment plan should be based on the "strengths" and "benefits" living and working in Moray provide, as well as the opportunities for joint appointments and cross-service working with Aberdeen and Raigmore Hospital; this plan will require dedicated investment.

- NHS Grampian and senior staff in Dr Gray's must focus on the training experience of all junior doctors working in Dr Gray's, so that this becomes a placement of choice based on the excellence of teaching and support. This will require investment in the teaching time, leadership and skills of relevant senior staff.

- NHS Scotland (Scottish Government) should ensure the National Workforce Strategy and future National Workforce Plans clearly prioritise the challenges associated with rural recruitment and retention.

- NHS Scotland (Scottish Government) should develop a 'National Maternity Services Workforce Plan' that recognises the future workforce needs to sustain maternity services in rural areas that are consistent with the "Best Start" Strategy.

- NES should develop and agree with relevant stakeholders a clear framework for Advanced Midwifery practice, that recognises the challenges and needs of all Maternity units.

- Further consideration should be given to how student intake to midwifery and medical school can be appropriately managed to ensure adequate successful applicants from remote and rural Scotland (recognising that individuals from these areas are more likely to return to work in these areas in due course).

- Following the development of an updated Maternity Services Workforce Plan, consideration must be given to the required junior doctor and midwifery training numbers necessary to support the future workforce across the whole of Scotland. This will need to include additional trainee numbers for the North of Scotland in Obstetrics and Anaesthetics, without reducing numbers elsewhere in Scotland.

- Consideration should be given to the future role and scope of Maternity Care Support Workers within the Maternity Services' workforce.

5) Infrastructure

- An up–to-date and appropriate infrastructure is important both in relation to the service provided to our communities but also supports the recruitment and retention of staff. As a result: NHS Grampian, supported by the Scottish Government, should ensure appropriate ongoing capital investment in Dr Gray's to sustain this as a vibrant hospital for the local Moray area.

- NHS Highland and the Scottish Government should urgently complete and agree the business case process for the re-provisioning of the Maternity Unit at Raigmore Hospital, including the wider implications for NHS Highland's maternity services. This is imperative, so that the unit has adequate capacity to accept urgent transfers from Dr Gray's, along with providing an appropriate unit of choice for women and families from Moray who may wish to choose Raigmore as a consultant-led maternity unit of choice.

6) Engagement

The support of the community to the future of maternity services in Moray will be essential. There is a developing Maternity Voices Partnership[25] (MVP) group in Moray, and this should be encouraged and supported so that this becomes the main vehicle for constructive engagement with the local community:

- NHS Grampian should invest time and energy to the ongoing development of the MVP group across Moray.
- NHS Grampian should ensure this includes a clear engagement of next steps in the development of local services, with regular updates and explanations of progress to the local community.
- The MVPs in Moray, Grampian and Highland, as well as other community groups are encouraged to support the recommendations in this report as the most appropriate way of developing Maternity Services in Moray, recognising how important their voices are in providing support to staff and the right climate for the recruitment and retention of key staff.
- Elected representatives are encouraged to support the recommendations in this report as the most appropriate way of developing Maternity Services in Moray, recognising how important their voices are in providing support to staff and the right climate for recruitment and retention of key staff.

In conclusion, the Review Group, while recognising the desire for changes to the service, believe our conclusions and recommendations are balanced, deliverable, and will support the continuous development of Maternity Services in Moray.

The Review Group, therefore, commend these recommendations for Maternity Services to the women and families of Moray, the wider community and their political representatives. The delivery of these recommendations will require the support and commitment of the managerial and clinical staff across NHS Grampian and NHS Highland, as well as their Executive Leadership Teams and the Scottish Government. This will be essential to promote and champion this model, and to support all parties to work collaboratively to ensure it is delivered within the indicative time-frames laid out within this report.

[25] A Maternity Voices Partnership (MVP) is a NHS working group: a team of women and their families, commissioners and providers (midwives and doctors) working together to review and contribute to the development of local maternity care.

9 Appendices

Appendix A: Commission Brief (including Terms of Reference)

Review of Maternity Services for the women and families of Moray.

Description

To work with NHS Grampian, NHS Highland and stakeholders with an interest in local maternity services to describe the best obstetric model that will provide safe, deliverable, sustainable and high quality maternity services for the women and families of Moray in line with the Scottish Government ambition described in 'The Best Start: A Five Year Plan for Maternity and Neonatal care (2017)'.

Terms of Reference

- It should examine the requirements for establishing a safe and sustainable consultant-led intrapartum obstetric service at Dr Gray's Hospital.
- It should examine the requirements for establishing a safe and sustainable midwife-led intrapartum service at Dr Gray's Hospital.
- It should involve services in Raigmore Hospital (NHSH) and Aberdeen Maternity Hospital (NHSG) as well as Dr Gray's Hospital Elgin.
- It should consider rurality, transport and local support whilst aiming to provide services as close to home as possible.
- It should be deliverable and sustainable in the context of other health and social care services in Moray, with reference to the local healthcare landscape and economy.
- It must be carried out in partnership with local stakeholders with an interest in maternity services that would be affected by the recommendations.
- In will involve NHS Grampian and NHS Highland staff including the respective leadership teams, Obstetric specialists (Medical and Midwifery), Paediatric Specialists (General and Neonatal, Medical and Nursing), Anaesthetics Specialists (General and Specialist) and Scottish Ambulance Service.
- It should reference national standards and guidelines for maternity service provision to ensure the recommended option is safe and of high quality.
- Recommendations should reflect the provision of choice for women in line with 'The Best Start: A Five-Year Forward Plan for Maternity and Neonatal Care (2017)'.
- It should examine and review the chronology of events to stabilise services since July 2018 and offer reflection on what can be learnt from this.

Expected Outcome

A report detailing the best service model or options that offer deliverable, sustainable, safe and high quality maternity care for the women and families of Moray. The report should also offer a recommended action plan that takes the service from its current position through a series of safe interim steps before reaching its final configuration.

Principles

The review process and final report should take account of the operating principles for invited reviews in health care as recommended by the Academy of Royal Colleges, 2016.

These include:

- The primary focus should be on patient safety and patient care;
- The review will be advisory in nature;
- The accountable organisations will indemnify the review team;
- The review must be independent, objective, open, transparent and impartial;
- It will be conducted by experts with reference to nationally recognised standards and guidelines, relevant to the area of interest;
- It will be carried out in partnership with staff, women, families and the public;
- It will be conducted on a confidential basis in a respectful and sensitive manner;
- It will follow a recognised structured process to be agreed prior to the review;
- The review report will be structured setting out the reasons for review, its Terms of Reference, the information gathered by the reviewers, their conclusions and recommendations;
- Any patient safety issues identified, during the review, will be immediately addressed by NHS Grampian and NHS Highland;
- There will be a clear process for receiving feedback associated with the review process.

Review Group

The review process should be led by an experienced NHS Scotland Chief Executive. The Chief Executive, and where possible members of the review group, should have experience of delivering services in a similar population context, and where possible, experience of service review. The review group should be independent of the NHSG and NHSH Boards and include:

- Obstetric Medical Specialist
- Midwifery Lead with experience of both midwifery-led and consultant-led delivery units

- Obstetric Anaesthetic specialist
- Administrative support
- National NHS planner with expertise in service development
- Paediatric Medical Specialist with experience of service review

Timescale

To produce a report for the consideration by the Cabinet Secretary for Health and Sport by the end of June 2021.

Scottish Government

March 2021

Appendix B: Review Group Membership

Chair of Review Group

Ralph Roberts, Chief Executive of NHS Borders

Review Group Members

Andrew Clark, Consultant Anaesthetist, NHS Ayrshire and Arran

Kenneth Donaldson, Medical Director, NHS Dumfries and Galloway

Donna Hughes, Head of Person Centred Care, NHS Fife

Karen King, Associate Midwifery Director, Women and Children Health, Raigmore Hospital, NHS Highland (formerly Head of Midwifery/Consultant Midwife, NHS Dumfries and Galloway)

David Macnair, Lead Anaesthetist for Obstetrics, NHS Dumfries and Galloway

Hilary Macpherson, Consultant Obstetrician, NHS Orkney

Brian Magowan, Consultant Obstetrician, NHS Borders

Guy Millman, Consultant Paediatrician, NHS Lothian

Lesley Sharkey, Chief Midwife, Women's Health, Maternity and Gynaecology, NHS Tayside

Helen Strainger, Head of Planning and Performance, NHS Ayrshire and Arran

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Appendix C: Stakeholder Engagement

Sessions undertaken to gather evidence - May to October 2021

Stakeholder Evidence Sessions (face-to-face and virtual via MS Teams)	Group	Number of Attendees
Evidence Session (1) NHS Grampian (NHSG) Services Management (multiple attendees)	Management	10
Evidence Session (2) NHS Grampian and NHS Highland Collaborative (multiple attendees)	Management	16
Evidence Session (3) "Keep Mum" Representatives	Local Mothers' Group	3
Evidence Session (4) Maternity Voices Partnership Moray / Grampian (multiple attendees)	Local Mothers' Group	10
Evidence Session (5) The Deanery	The Deanery	2
Evidence Session (6) NHSG Staff Partnership Groups' Representatives (multiple attendees)	Staff Partnership	10
Evidence Session (7) ScotSTAR	Transfers and Transport	4
Evidence Session (8) Pharmacists at Dr Gray's Hospital	Pharmacists	2
Evidence Session (9) SNP MP / MSP	MSP	2
Evidence Session (10) Former Consultant Obstetricians at Dr Gray's Hospital	Clinicians	2
Evidence Session (11) Conservative MP / MSP	MSP	1
Evidence Session (12) Paediatrician at Dr Gray's Hospital	Clinicians	1

Stakeholder Evidence Sessions (face-to-face and virtual via MS Teams)	Group	Number of Attendees
Evidence Session (13) Scottish Green Party MP / MSP	MSP	1
Evidence Session (14) Junior Doctor at Dr Gray's Hospital	Clinicians	1
Evidence Session (15) Mothers from Moray	Mothers	3
Evidence Session (16) Anaesthetists at Dr Gray's Hospital	Clinicians	2
Evidence Session (17) Midwife at Dr Gray's Hospital	Midwives	1
Evidence Session (18) Representative of vulnerable individuals and groups	Local Mums Group	1
Evidence Session (19) Consultant Obstetrician at Dr Gray's Hospital	Clinicians	1
Evidence Session (20) Midwives at Dr Gray's Hospital	Midwives	3
Evidence Session (21) Midwives at Dr Gray's Hospital	Midwives	4
Evidence Session (22) Doctor, Diabetics Specialist, Dr Gray's Hospital	Clinicians	1
Evidence Session (23) Former Obstetrician at Dr Gray's Hospital	Clinicians	1
Evidence Session (24) Senior Charge Midwifes at Dr Gray's Hospital	Midwives	2
Evidence Session (25) Scottish Ambulance Service Representatives	Transfers and Transport	2

Stakeholder Evidence Sessions (face-to-face and virtual via MS Teams)	Group	Number of Attendees
Evidence Session (26) Midwifery Manager at Dr Gray's Hospital	Midwives	1
Evidence Session (27) Consultant Paediatrician, Special Care Baby Unit, and Consultant Obstetricians, Raigmore Hospital	Clinicians	3
Evidence Session (28) Midwife from Dr Gray's Hospital	Midwives	1
Evidence Session (29) Mothers from Moray	Mothers	4
Evidence Session (30) Consultant Neonatologist at Aberdeen Maternity Hospital	Clinicians	1
Evidence Session (31) Chair of "Best Start North"	Management	1
Evidence Session (32) Anaesthetist from Dr Gray's Hospital	Clinicians	1
Evidence Session (33) Doctor from Dr Gray's Hospital	Midwives	1
Evidence Session (34) Mothers from Moray	Mothers	3
Evidence Session (35) Consultant Obstetrician and Midwifery Managers from Raigmore Hospital	Midwives	3
Evidence Session (36) Scottish Ambulance Service Representatives	Transfers and Transport	2
Evidence Session (37) NHSG Head of Planning and Transformation re. Maternity Services Planning	Management	1
Evidence Session (38) Senior Management Teams from NHS Grampian and NHS Highland (multiple attendees)	Management	13

Stakeholder Evidence Sessions (face-to-face and virtual via MS Teams)	Group	Number of Attendees
Evidence Session (39) Clinical Director, NHS Grampian	Management	1
Evidence Session (40) Former NHS Grampian Service Manager, and Grampian H&SCP Manager	Management	1
Evidence Session (41) Paediatrician, Medical Paediatrics, Dr Gray's Hospital	Clinicians	1
Evidence Session (42) Consultant Midwife - NHS Grampian	Midwives	1
Evidence Session (43) Obstetricians from Aberdeen Maternity Hospital	Clinicians	6
Evidence Session (44) Obstetricians from Dr Gray's Hospital	Clinicians	3
Evidence Session (45) Obstetricians from Dr Gray's Hospital	Clinicians	1
Evidence Session (46) Royal College of Midwifery Representative	Midwives	1
Evidence Session (47) Royal Air force (RAF) at Lossiemouth Head of Communications and Engagement	Local Mums Group	1

Stakeholders Engaged by Group (whose evidence was synthesised)	Number of individuals
Clinicians	25
Local mothers' groups	15
Management	43
Midwives	18
MSPs / Local elected representative	4
Mothers	10
Pharmacists	2
Staff partnership	10
Transfers and Transport	8
The Deanery	2
All individuals directly engaged (face-to-face or MS Teams)	137
Personal experiences/written statements (received via email)	55
Feedback including written statements ("Keep Mum" Survey)	104
Total number of individuals engaged (incl. written statements)	296

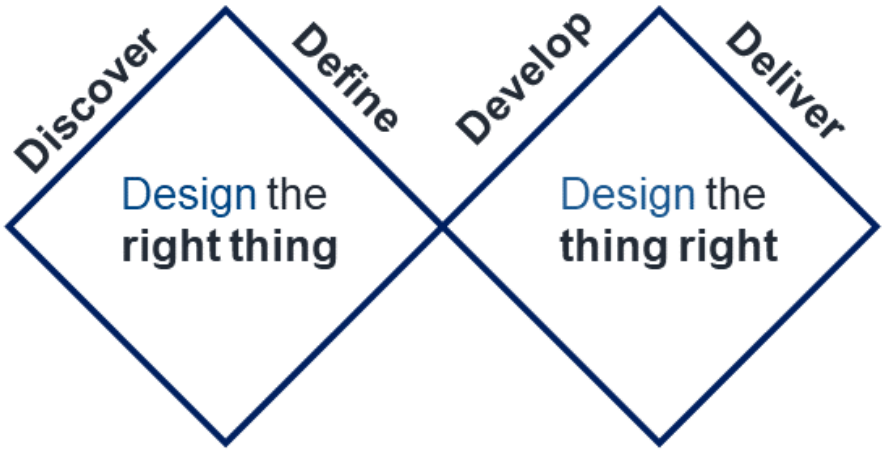
Appendix D: Scottish Approach to Service Design (SAtSD)

Approach

The Scottish Approach to Service Design (SAtSD) informed the design approach considered when the Moray Maternity Services Review was set in motion. User research is “a methodology that connects the people designing a service with the people who use it".

The “Double Diamond” model (below) is a visual diagram showing the design stages of the service design approach. The Double Diamond shows the importance of taking time to understand the problem before designing solutions. Each diamond shape illustrates the process of creating or exploring many possible ideas before refining these to the best or most appropriate idea. The first diamond does this to confirm the problem (through user research) and the second to design the solution.

This Review focused on discovery and defining potential models for NHS Grampian to take into the second diamond to then develop and deliver the proposed model.



Research Methods

As informed by the SAtSD, user research was undertaken to understand the experiences and “pain points” of those interacting with Moray maternity services.

User research was necessary to ensure that the needs of the service users were understood and considered when making recommendations regarding the proposed future model for Moray maternity services. The user research consulted a range of stakeholders:

- Mothers
- Family and Partners
- Patient Representatives
- MSPs

- Other clinicians
- Management
- Transport and Transfer
- Professional groups

Evidence sessions were conducted by the Review Group between May and October 2021. Written evidence was requested via public engagement communications channels which also contributed to the themes identified.

It is recommended that NHS Grampian Health Board use a Service Design Approach when implementing the proposed recommendations. This will ensure that users are fully engaged in the design of the new service.

Synthesis

Data from the research was analysed by thematic analysis using the POPI framework which categorises responses into:

- **Pain points** – areas of improvement;
- **Opportunities** – opportunities in the system that could contribute to improvement;
- **Principles** – elements of an ideal service;
- **Insights** – key insights from the review.

Following this analysis, insights were synthesised into cross-cutting themes, which are the areas on which there was common agreement. Personas were created for each user group to highlight the 'needs' that are specific to that group, based on the evidence alone. The cross-cutting themes and personas were validated with the Review Group, and used to inform the development of potential models of service delivery, accepting that it would be difficult to meet everyone's needs.

Cross-cutting themes and user needs

User research and thematic analysis identified the following cross-cutting themes:

- Communication and procedures across NHS Grampian lack consistency
- Desire for a safe more local maternity service
- Paucity of available resources and staff increases transfer
- Precarious intrapartum transfer should be minimised
- Wider public engagement in the region would build back trust
- Unclear expectation setting for delivery and recovery causes anxiety for mothers

Full user personas and individual user group specific insights can be found in Appendix E of this report.

Mothers

“There was little to no 'consultation' about induction and no explanation as to what that would entail. Poor communication also between Dr Gray's Hospital and Aberdeen.”

Mothers described the need for upfront communication and attentive care to enable them to make a more informed decision about their birthing pathway, and to focus on giving birth.

Other key user needs included:

- I need maternity care closer to home.
- I need better planning around bed availability and ambulance transfers.
- I need better communication around the reasons and risks behind the transfers and delays to feel safer and reassured.
- I need consideration and assistance for my partner and my family to enable them to visit and support the baby and I throughout the birth.
- I need to feel like I have been consulted and involved in the decisions made around my birthing pathway.
- I need accessible communication and information on the process, the decisions, and the risks associated with my birthing plan, so I don't feel anxious.
- I need a clear understanding of who is taking responsibility for my care.

Midwives

While also part of a clinical multi-disciplinary team, midwives were singled out due to their unique supportive role for mothers.

“What guideline are you following? Depending on who you are speaking to in Aberdeen, you’re getting told “yes, you can put them through”, or “no, you’ll have to deal with that.”

Midwives described the need for more guidance, recognition and autonomy to enable them to feel like a valued part of a multi-disciplinary team and advocate for mothers’ needs.

Other key user needs included:

- I need clear guidance on midwifery protocols such as triage and escalation.
- I need recognition of and workforce support to advocate for mothers' needs throughout the birthing process.
- I need to be informed on the planned roadmap for maternity care going forward.
- I need a safer more consistent transfer process for women.
- I need greater collaboration with consultants so that my specialist skills as a midwife are better recognised and utilised within the MDT.

Family and Partners

"There were limited facilities available for partners."

Family and Partners highlighted the requirement for more consideration around their role as a support network to their partners and newly born baby.

Other key user needs included:

- I need mothers to have the highest quality care experience regardless of the location of birth.
- I need local maternity services that minimise transfers so mothers feel safer.
- I need clear communication on birth procedures to support my partner.
- I need more shared decision making on where the mother will give birth.
- I need more consideration for the mothers' emotional wellbeing.
- I need staff, procedures and infrastructure to be aligned with partners and families' practical needs.

Patient Representatives

"We have to be actively trying to engage a diverse group of people to fully understand the issues mothers face"

Patient representatives needed greater dialogue with NHS Grampian to co-design a service that is fit for purpose.

Other key user needs included:

- I need NHS Grampian to be more transparent about the future plan's co-design it with us.
- I need more support for the mother's mental and physical wellbeing.
- I need NHS Grampian to engage with more diverse audiences in their public engagement.
- I need more robust feedback mechanisms for the public to enable continuous improvement.
- I need more local maternity services which reflect the needs of the growing population.

MSPs

"You've heard of senior decision makers in Aberdeen who did not visit the hospital until this crisis emerged. So, in charge for several years and did not walk the floor of Dr Gray's hospital. That's decision makers in Aberdeen, medical decision makers"

MSPs advocated for clarity on the future of Dr Gray's, and independent oversight on the outcome of the review, so that women can continue to get quality care.

Other key user needs included:

- I need women to feel safe and supported by maternity care in Dr Gray's.
- I need independent oversight of agreed changes by NHS Grampian to ensure quality.
- I need consistent patient care and less clinical risk caused by transfer for women in Elgin.
- I need less medicalisation of the pregnancy pathway and greater compassion for mother and family needs.
- I need more innovative recruitment in the area to create a sustainable service for the North.

Other Clinicians

This user group was made up of responses from pharmacists, anaesthetists and obstetricians

“If this is an exercise to set up the service without any investment, then we are wasting time because somehow people want to reconfigure the service without putting in any money"

Clinicians described a need for investment training and recruitment so that more people are attracted to work in the area to build capacity of a multi-disciplinary team

Other key user needs included:

- I need trusted multidisciplinary teams
- I need career development and cross-skilling of midwives
- I need more creative recruitment in the region to support the growing demand
- I need reconsideration of the infrastructure available to maternity
- I need less subjectivity around 'life and limb' and a reduction in the medicalisation of birth
- I need a better understanding of the risks of transfer with tighter protocols when it does happen
- I need more shared data intelligence in the region for better prescribing and a reduction in antibiotic use

Management

“Things have to be spelt out explicitly as to what is required to run the service model the public want and state this is what it's going to cost”

Management required a clear decision on the roadmap for Dr Gray's with investment to support it to continue delivering sae patient centred service

Other key user needs included:

- I need a resourced service with the right infrastructure to deliver a safer service.
- I need more collaboration in the North to share resources and learning.
- I need a decision on the future roadmap of service to return quality of care.
- I need engagement with the public to continue, building a dialogue and trust.
- I need more innovative and creative models for Dr Gray's to be considered that tackle the unique challenges of the North.
- I need sustainable and clearly defined solutions with roadmaps within reasonable timeframes.

Transport and Transfer

"So, I really feel for front-line crews in these circumstances, as they are often portrayed as being unnecessarily rigid about things. They need a very clear, supportive framework if we are going to change that process from just 'taking to the nearest place"

Transport and transfer staff require clearer protocols on transfer and resources available to provide safe and timely transport across the region.

Other key user needs included:

- I need greater resources and staff, in the short term, midwives could provide additional support.
- I need greater consideration of the risks of intrapartum transfer.
- I need greater collaboration between hospitals in the region around transfer and bed availability.
- I need a decision on the future for Dr Gray's.
- I need there to be clearer communication with mothers on the timings and realities of current infrastructure.

Professional groups

"Staff feel they are under the spotlight again with yet another review"

Professional groups needed some transparency around the future plans for Dr Gray's, dialogue in its design to create an innovative service with attractive career paths and a sustainable service for the North.

Other key user needs included:

- I need more innovation in the North around the routes of development available to trainees.
- I need more creative recruitment to resource services for the growing population.
- I need more support for development time so that staff can grow and deliver a higher quality service.
- I need more consideration of the pressure the reviews have put on staff at all levels.
- I need more collaboration with NHS Grampian over the future of the service.

Appendix E: Personas and Key Insights

The following pages illustrate and provide further details on the various personas and key insights which evolved from the Service Design synthesis work in relation to stakeholder engagement for the Moray Maternity Services Review:

Persona 1 – Mothers (56)

User story

- **I need** clear upfront communication and compassionate care
- **So that** I can make an informed decision about my birthing pathway and focus on giving birth

Opportunities

- Midwives are trusted familiar points of contact for the mothers
- Mothers describe a better experience when they know what to expect

Principles of an ideal service

- Safety
- Familiarity
- Communication
- Shared decision-making
- Compassion
- Family
- Local

Key quote

"There was little to no 'consultation' about induction, and no explanation as to what that would entail. Poor communication also between Dr Gray's and Aberdeen."

User needs

- I need maternity care closer to home
- I need better planning around bed availability and ambulance transfers
- I need better communication around reasons/risks behind transfers and delays to feel safer and reassured
- I need consideration and assistance for my partner and my family to enable them to visit and support the baby and I throughout birth
- I need to feel like I have been consulted and involved in the decisions made around my birthing pathway
- I need accessible communication and information on the process, the decisions, and the risks associated with my birthing plan, so I don't feel anxious
- I need a clear understanding of who is taking responsibility for my care

Key Insights* - Mothers

Local maternity services would provide a mother with less stress and discomfort.	"I am terrified of ever getting pregnant again due to the lack of a consultant unit. Having already been blue-lighted to Aberdeen to have my first baby, it is an experience I would never ever like to go through again."
Women sometimes felt un-safe with the decisions that were made around transfer and postnatal care.	"It literally doesn't make any sense that higher risk births have to travel so far! Surely the only safe way is for high risk and emergency situations to be as close to home as possible before a disaster happens."
Mothers feel like they are often powerless in key decisions relating to their care.	"I feel my right to choose a natural birth with my second baby has been compromised by being sent to Aberdeen and an elective section offered."
Better communication, explanation of process, and shared decision-making would help alleviate mothers' experiences of stress due to uncertainty.	"There was little to no 'consultation' about induction and no explanation as to what that would entail. Poor communication also between Dr Gray's Hospital and Aberdeen."
Inconsistent and unclear communications with mothers about their birth plan erodes their trust and creates anxiety.	"The lack of communication between Elgin and Aberdeen but also between my GP surgery and consultant (both in Elgin) is terrible and gives me anxiety and unnecessary stress."
Mothers need compassionate and attentive care that supports their personal circumstances and privacy.	"There is not enough privacy to talk about personal issues with staff as the beds are so close together with only curtains in between."
Maternity care needs to take into consideration the potential practical and financial implications for mothers and family (e.g. with regards to travel, time, childcare and work-pattern).	"To attend an appointment in Aberdeen takes time. It's at minimum a 3 hour round trip; so include the appointment times on there, and you could potentially have to take a whole day off work to attend. I am personally self-employed, so if I don't work, I don't get paid."

* Each user group has a selection of key insights coded from thematic analysis of evidence statements and or evidence sessions

Persona 2 – Midwives (6)

Also part of the clinical multidisciplinary team midwives were singled out due to their unique supportive role to the mother

User story

- **I need** more guidance, recognition and autonomy
- **So that** I feel like a valued part of a multi-disciplinary team and can advocate for mothers needs

Opportunities

- Midwives are trusted familiar points of contact for the mothers
- Mothers describe better experience when they know what to expect

Principles of an ideal service

Clarity	Protocols
Trained	Multi-disciplinary
Recruited	Supported

Key quote

"What guideline are you following? Depending on who you are speaking to in Aberdeen, you're getting told 'yes, you can put them through' or 'no, you'll have to deal with that'."

User needs

- I need clear guidance on midwifery protocols such as triage and escalation
- I need recognition of and workforce support to advocate for mothers' needs throughout the birthing process
- I need to be informed on the planned roadmap for maternity care going forward
- I need a safer more consistent transfer process for women
- I need greater collaboration with consultants so that my specialist skills as a midwife are better recognised and utilised within the MDT

Key Insights* - Midwives

Midwives and their peers need to be supported with structured training that brings procedures and guidance into practice for consistent care.	"I think there has been some give with some space and trying to boost some of our CME use further. But then it has to match with appropriate trained staffing."
Midwives need to understand and contribute to the roadmap for change and for it to meet the needs of staff and mothers.	"You need to decide where we stand, were either seeing high risk woman or we're not. It definitely has had an effect on staff morale, we would like to see things back and get that positive life back into the unit."
Clear and consistent guidance on midwifery practice is needed to provide consistent care and information to mothers regionally.	"What guideline are you following? Depending on who you are speaking to in Aberdeen, you're getting told yes you can put them through or no you'll have to deal with that."
A more consistent and clear transfer process between hospitals would help me properly inform mothers of the risk.	"We are trying to firm up our entire trial transfer protocol so that it's the same every time any time of the day, you know, consistently the same approach, you know, to get that discipline embedded in all the teams."
There needs to be greater demand management around local resource as well as more creative recruitment to meet growing demand.	"There are capacity and staffing issues with Raigmore and at times with Aberdeen also. Ladies being asked to travel in the middle of the night for an induction slot or no induction slots for days or weeks."
A deployable multi-disciplinary team across NHS Grampian would help with low capacity and consistency of care.	"Why can't there be a rotational system with Aberdeen medical staff? Other disciplines manage this. We all had to upskill gradually when we moved from the GP unit to obstetric unit with CTGs* , infusion pumps, Ventouse, C-sections and early pregnancy loss."

* Each user group has a selection of key insights coded from thematic analysis of evidence statements and or evidence sessions

*CTG is a Cardiotocograph

Persona 3 – Family and Partners (8)

User story

- **I need** more recognition of my role and consideration of my needs in the birthing pathway.
- **So that** I can better support my partner and newborn.

Opportunities

- Midwives are highly regarded as a compassionate carer by mother and partner.
- More consideration for partners' roles would mean more social and practical support for delays and transfers in unfamiliar locations.

Key quote

"There were limited facilities available for partners... "

User needs

- I need mothers to have the highest quality care experience, regardless of the location of birth.
- I need local maternity services that minimise transfers, so mothers feel safer.
- I need clear communication on birth procedures to support my partner.
- I need more shared decision-making on where the mother will give birth.
- I need more consideration for the mother's emotional wellbeing.
- I need staff, procedures and infrastructure to be aligned with partners and families' practical needs.

Principles of an ideal service

Communication	Empathy
Local	Choice
Compassion	Collaborative

Key Insights* – Family and Partners

More support from NHS Grampian is needed to deliver on local maternity services in Dr Gray's to minimise transfer-related trauma and distress experienced partners and families.

"I do not feel that this type of transfer being seen as a reasonable option for Moray families is in any way reasonable – it is a very distressing and traumatic experience for all involved and therefore should not be seen as suitable patient care."

Clear communication and assignment of care responsibilities is needed on birth and related procedures to set expectations and reduce anxieties related to uncertainty.

"When phoning Dr Gray's or Aberdeen for some idea of a plan of when induction might be possible, we just got palmed off between the two hospitals with no indication of dates, times, next steps, etc."

Shared decision-making around birthing pathways would allow the partners' and families' support needs to be addressed to enable them to better support the mothers.

"I do not feel enough consideration has been given to the logistical difficulties faced by families when a baby has to be born so far from home and the family support network."

Consideration for birthing partners throughout the maternity pathway would help reduce the stress and anxiety around birth by enabling practical and physical support.

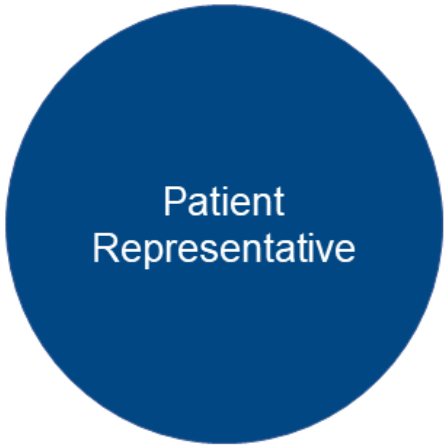
"There were limited facilities available for partners to either get washed, changed or get something to eat."

A consistent environment for those not from the area for mother and family would make the service experience equitable.

"In Aberdeen, I know I would have a long uncomfortable journey and enter the overstretched system where I would not have the same level of midwife support as in Elgin."

* Each user group has a selection of key insights coded from thematic analysis of evidence statements and or evidence sessions

Persona 4 – Patient Representatives (2)



User story

- **I need** to work alongside, in dialogue with, NHS Grampian.
- **So that** we co-design a service that is fit for purpose, and meets mothers' needs.

Opportunities

- Engaging a diverse audience in the design of the new model of maternity care will help build trust in the community.

Key quote

"We have to be actively trying to engage a diverse group of people to fully understand the issues mothers face."

User needs

- I need NHS Grampian to be more transparent about the future plans, and co-design it with us.
- I need more support for the mother's mental and physical wellbeing.
- I need NHS Grampian to engage with more diverse audiences in their public engagement.
- I need more robust feedback mechanisms for the public to enable continuous improvement.
- I need more local maternity services which reflect the needs of the growing population.

Principles of an ideal service

- Public engagement
- Collaboration
- Inclusion
- Support
- Compassion

Key Insights* – Patient Representatives

NHS Grampian has created higher clinical risk through the downgrade. This delay has meant many women must experience unsafe and highly distressing lengthy transfer in labour.

"We have mums who were previously thriving with their mental health who are crippled by the thought of being strapped-down in an ambulance for over two hours to travel in an emergency situation through to Aberdeen to give birth."

Anecdotally, the maternity process in Dr Gray's is unnecessarily stressful and public representatives believe there is little consideration for mother and family wellbeing.

"We don't hear a public, or private acknowledgement that this is having a devastating effect on people's emotional lives."

NHS Grampian needs to have a closer dialogue with diverse participant representatives on patient experience who currently don't feel listened to.

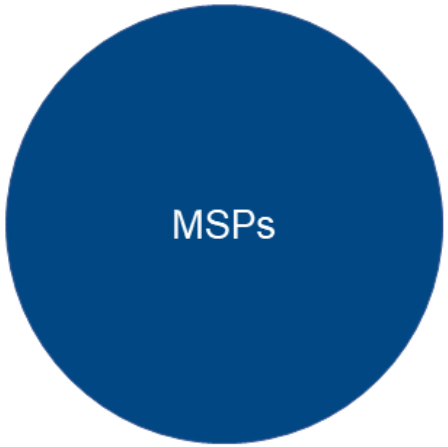
" I don't think this group is sufficient to capture all the different voices in Moray and different views on maternity services. You probably do need to go wider than our group."

The growing population and geography in the Moray area needs a local maternity service that meets its unique needs.

"We tend to think in a fairly Elgin centric way as Moray, but we've already got people who are 40 minutes to an hour from Elgin, out into the kind of more rural communities where the roads are not good. So, the big issue is always geography, and that's what everything comes back to."

* Each user group has a selection of key insights coded from thematic analysis of evidence statements and or evidence sessions

Persona 5 – MSPs (3)



User story

- **I need** a decision on the future of Dr Gray's and independent oversight of the outcome of the review.
- **So that** women get the appropriate safety and support they need.

Opportunities

- Dr Grays's is an opportunity for more creative recruitment that benefits patients and clinicians alike, and delivers more equitable service in the North.

Principles of an ideal service

Safety	Oversight
Shared decision-making	Clarity
Resourced	Innovation

Key quote

"You've heard of senior decision-makers in Aberdeen who did not visit the hospital until this crisis emerged.

So, in charge for several years, but did not walk the floor of Dr Gray's Hospital.

That's decision-makers in Aberdeen, medical decision-makers."

User needs

- I need women to feel safe and supported by maternity care in Dr Gray's.
- I need independent oversight of agreed changes by NHS Grampian to ensure quality.
- I need consistent patient care, and less clinical risk caused by transfer for women in Elgin.
- I need less medicalisation, and more shared decision-making with mother and family for pregnancy pathways.
- I need more innovative recruitment in the area, to create a sustainable service for the North.

Key Insights* - MSPs

The reputation of Dr Gray's after the downgrade appears to have made some families reconsider whether to have children.	"People are thinking twice about having children. That concerns me."
An increase of families moving to the area with the Armed Forces has created an even greater need for recruitment of consultants to support the maternity and wider medical care in the area.	"Trying to persuade the NHS to have proper engagement with the MOD, and the MOD to properly engage with the NHS because its only Scotland's operational RAF station is based in Moray. So, that's 4000-5000 people employed there."
NHS Grampian haven't operated transparently following the temporary downgrade – in 2018 described as for 1 year; and MSPs believe they need independent oversight.	"I do believe that going forward there is a need for independent oversight of implementing your conclusions, and it's quite important to mention. You know, the cultural issues huge."
The fear of transfer has caused some women to feel anxious or unsafe in talking about how they are feeling about their pregnancy.	"What I get from talking to people. It is that journey, and having to make that journey; and you're already making the journey of becoming a mother, that's already full of potential anxiety, so I think that just adds to the anxiety level for people."
Unsafe roads and long transfers between hospitals makes many women feel unsafe; and MSPs believe it increases the risk of birth in transport and overall clinical risk.	"whether it's from Elgin or Moray to Aberdeen, or in terms of Caithness to Raigmore, adds to the difficulty and the lack of safety, or the feeling of lack of safety. For some people, it's that gut factor anxiety about what might happen on that journey."
There is a lack of clarity around a mother's birthing pathway - when it will happen, and where, and if there is a risk of any consultant care needed.	"...they were concerned about our baby's heartrate, and that they wanted to transfer us to a unit with more specialisms, they then came back to say they had nowhere."
A culture of birth medicalisation caused many women to be transferred, which is often riskier than the reason for their transfer. Shared decision-making with the mother on where they would like to give birth often doesn't happen.	"It's quite difficult to challenge medical professionals who tell you it's not safe and sustainable, because no matter what you are saying, what the debate is, they can just keep repeating...it is very frustrating."
MSPs believe that more compassionate care is needed from staff, so as to protect both the physical and mental wellbeing of the mother and baby.	"So, they phoned up Aberdeen and the next appointment (to be induced) was going to be 15 July. I can't believe anyone would think that would be acceptable to then put someone three weeks overdue."

* Each user group has a selection of key insights coded from thematic analysis of evidence statements and or evidence sessions

Persona 6 – Other Clinicians (15)

The group of clinicians who took part in the research included: pharmacists, anaesthetists and obstetricians and paediatricians. Views are coded collectively as clear user group specific representative insights from the small sample interviewed.

User story

- **I need** a decision on the future of Dr Gray's and independent oversight of the outcome of the review.
- **So that** women get the appropriate safety and support they need.

Opportunities

- Dr Grays's is an opportunity for more creative recruitment that benefits patients and clinicians alike, and delivers more equitable service in the North.

Principles of an ideal service

Safety	Oversight
Shared decision-making	Clarity
Resourced	Innovation

Key quote

"You've heard of senior decision-makers in Aberdeen who did not visit the hospital until this crisis emerged.

So, in charge for several years, but did not walk the floor of Dr Gray's Hospital.

That's decision-makers in Aberdeen, medical decision-makers."

User needs

- I need women to feel safe and supported by maternity care in Dr Gray's.
- I need independent oversight of agreed changes by NHS Grampian to ensure quality.
- I need consistent patient care, and less clinical risk caused by transfer for women in Elgin.
- I need less medicalisation, and more shared decision-making with mother and family for pregnancy pathways.
- I need more innovative recruitment in the area, to create a sustainable service for the North.

Key Insights* - Other Clinicians

Midwives provide an opportunity for familiarity to mothers across care and would benefit from cross-skilling in other areas (such as prescribing) so that they can support the wider workforce in Grampian.	"If we got to the stage where we had an independent prescribing midwife on every shift, then it changes the dynamic of this role again into more of the support, the peer review, and the more specialist angle of the prescribing in pregnancy and lactation."
NHS Grampian haven't operated transparently following the temporary downgrade and MSPs believe they need independent oversight.	"I do believe that going forward there is a need for independent oversight of implementing your conclusions, and it's quite important to mention. You know, the cultural issues huge."
Staff shortages and the rural setting require more creative recruitment methods in the area to attract a new and sustainable workforce.	"We need enthusiastic new young consultants to drive a service"
In order to reduce staff attrition, clear career paths and opportunities are needed that align with education, training and development.	"It has frustrated us, the lack of appreciation as to what the importance of training and education is. We lost our undergraduate training as we are no longer functioning as a credible obstetric unit. Why come to study obstetrics in a unit that doesn't do obstetrics?"
Shared learning from data would help inform medical practice (prescribing) and training requirements.	"How do we measure and design a service for the population if we can't quantify what that data need is, if the data isn't there?"
A culture change is needed in the North to allow everyone to feel supported and operating as a multi-disciplinary team for consistency of care.	"It can be dressed up in a variety of ways. Yes, it's difficult, workforce is difficult, and I think there are national strategies that need to be addressed if we are to genuinely have a sustainable workforce to support the remote and rural population in Scotland"
Clear evidence-based guidelines and roles in transfer need to be defined so that clinicians can give their teams and mothers consistent direction.	"We've been told repeatedly that safety is paramount but there isn't any evidence that centralising the service O&G is a safer option – absolutely none at all and indeed the service that's now on offer was never tested to show that it's safer"
There is a risk-averse culture and subjectivity around 'life and limb' which is leading to unnecessary intrapartum transfers which inherently increases risk and impacts on patient experience.	It is anxiety provoking and I feel that in an intrapartum transfer, it can take an hour and a half, if not longer, to get somebody through to Aberdeen ...and particularly if you're in labour and that's quite distressing…"
NHS Grampian need to consider a clear change to the current resourcing and workforce model as it is not viable due to rapidly increasing population	"I think looking at demand, both in terms of current population and catchment, and projected, by virtue of the fact that another 1500 houses are going up and another squadron of RAF people coming in."
Shared learning from data would help inform medical practice (prescribing) and training requirements.	"How do we measure and design a service for the population if we can't quantify what that data need is, if the data isn't there?"

* Each user group has a selection of key insights coded from thematic analysis of evidence statements and or evidence sessions

Persona 7 – Management (7)

User story

- **I need** a clear decision on the roadmap for Dr Gray's with investment to support it.
- **So that** we can deliver a safe patient-centred service.

Opportunities

- To work collaboratively with regionally based maternity services
- To conduct public engagement to build trust in the community
- To recruit and resource innovatively and attract new young talent to the region
- Regional reciprocation of care across health board borders could enable greater continuity of care

Principles of an ideal service

Infrastructure	Collaboration
Roadmap	Resourced
Public Engagement	Consistent

Key quote

"Things have to be spelt out explicitly as to what is required to run the service model the public want and state this is what it's going to cost"

User needs

- I need a resourced service with the right infrastructure to deliver a safer service.
- I need more collaboration in the North to share resources and learning.
- I need a decision on the future roadmap of service to return quality of care.
- I need engagement with the public to continue, building a dialogue and trust.
- I need more innovative and creative models for Dr Gray's to be considered; that tackle the unique challenges of the North.
- I need sustainable and clearly defined solutions with roadmaps within reasonable timeframes.

Key Insights* - Management

The infrastructure and space allocated to Dr Gray's should be reconsidered for families and clinicians.

"As someone who has tried to recruit and retain obstetric staff to Dr Gray's Hospital over the years, I think the only sustainable solution long-term for intrapartum care at Dr Gray's is a community maternity unit. I would really like to see that deliver as much antenatal care and day case assessment as humanly possible."

Sharing of resources more across the North region, perhaps with a collaboration with NHS Highland, could lead to safer and more sustainable services.

"There seems to be a different problem with obstetrics because if you made a rota of six or eight obstetricians, and there was not a sufficient number of births to keep them current, you would then have to build in a rotational element with somewhere else which, for us, Highland seemed the obvious place to do that."

Politics are at play in the Dr Gray's downgrade, but the decision for the future services needs to be made to return services to an acceptable standard.

"Political pressure has been a problem in deciding a clear way forward but the politicians are there to respond to the public and the public are requesting a service that they are entitled to."

Greater community engagement is needed to build trust and acknowledge the different views in the region.

"We have done a massive amount of work with women with good quality discussions around place of birth and we have ongoing quality improvement pieces of work which have grown out of the feedback from women around mode of birth, choice, travel options, etc."

Co-ordinated transport and infrastructure is needed for the region to deliver high quality services.

"The question is, how do you actually deliver a safe service in a remote area as it is not easy and distance of travel is a big issue."

* Each user group has a selection of key insights coded from thematic analysis of evidence statements and or evidence sessions

Persona 8 – Transport and Transfer (3)

User story

- **I need** clear protocols on transfer and resources.
- **So that** I can provide safe and timely transport.

Opportunities

- To create greater ambulance flow between hospitals for more efficient transfer
- To have midwives during transfer, providing a supportive familiar face to the mother

Principles of an ideal service

Roadmap	Protocols
Planning	Clarity
Resourced	Communication

Key quote

"So, I really feel for front-line crews in these circumstances, as they are often portrayed as being unnecessarily rigid about things. They need a very clear, supportive framework if we are going to change that process from just 'taking to the nearest place'."

User needs

- I need greater resources and staff; in the short term, midwives could provide additional support.
- I need greater consideration of the risks of intrapartum transfer.
- I need greater collaboration between hospitals in the region around transfer and bed availability.
- I need a decision on the future for Dr Gray's.
- I need there to be clearer communication with mothers on the timings and realities of current infrastructure.

Key Insights* - Transport and Transfer

There is a lack of staffing and ambulance resources. Support of a midwife during transfer would be encouraged.

"There's two ambulances based in Elgin and that is to cater for all emergency transfers that come out of the hospital. So just 2, and we can often get 6-8 transfers in a day."

Intrapartum transfer comes with its own risks. Transfer staff would feel more confident if they had staff to support with obstetric emergencies.

"Sometimes we do get midwives that transfer with us which is good, but it is always the thought about are we transferring in sufficient time to know that we are going to reach the final destination at the receiving unit or is there a real high risk of delivery en route."

A decision on the level of care Dr Gray's can provide will provide clarity on ambulance staff's role.

"To ensure that the emergency department is capable and confident and has the competencies to deal with obstetric emergencies that may come in from the community."

Clear expectations on the birthing pathway need to be set with mothers so that transport and transfer staff can best support them.

"When a mother-to-be phones that maternity unit, that the maternity unit tell the mother to make the phone call to the ambulance service – we feel that it should be a medical professional who makes that call because we've had some instances where there has been some mis-communication"

Standardised procedures around planning of transfers and collaboration between hospitals and beds need defined.

"So again, working around how we get clarity within the staff who are already in the maternity unit, or the midwife led unit, to say this should be the process, this is the number you phone, etc supporting the right conversation and you will get the right resource – a retrieval team or a normal road ambulance."

* Each user group has a selection of key insights coded from thematic analysis of evidence statements and or evidence sessions

Persona 9 – Professional Groups (2)

User story

- **We need** more transparency around the future plans, with dialogue on its design.
- **So that** we create an innovative service with attractive career paths; and a sustainable service.

Opportunities

- Involving more staff at all levels in the future service redesign could lead to more creative recruitment, engagement and attractive career paths for trainees in the North.

Key quote

"Staff feel they are under the spotlight again with yet another review"

User needs

- I need more innovation in the North around the routes of development available to trainees.
- I need more creative recruitment to resource services for the growing population.
- I need more support for development time. so that staff can grow and deliver a higher quality service.
- I need more consideration of the pressure the reviews have put on staff at all levels.
- I need more collaboration with NHS Grampian over the future of the service.

Principles of an ideal service

- Recruitment
- Development
- Transparency
- Co-design
- Support

Key Insights* - Professional Groups

The Deanery

The recruitment and retention of junior doctors is not effective.	"Trainees discouraged during CV submission by NHS Grampian."
Working practices hinder the development of grade trainees.	"At present not possible to put Middle grade trainees because of lack of supervision and adaptability to create sustainable rota."
The rotation plans and current resource is diminishing the quality of life for those working in the area.	"There are issues regarding 'commutability' and quality of life. Rotation from Highland to Elgin for some trainees."

Staff Partnerships

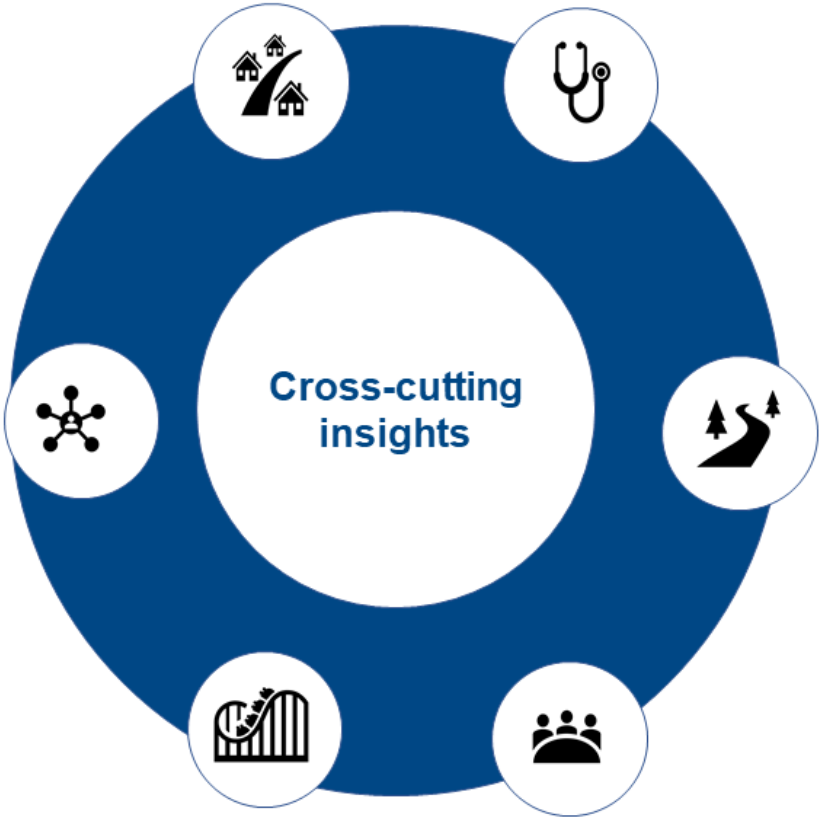
The multiple reviews, and the length of time it has taken, puts a lot of pressure on staff.	"Anxiety concerns and stress amongst staff is a very strong theme"
More clarity and future roadmap of staff engagement could enable staff to speak up and contribute.	"My point is about what we are engaging about is the select few and also about people feeling they can't speak up."
The review needs to acknowledge voices at all levels in the system.	"Staff are also patients and they have neighbours, friends, etc., so if there is a change, then you need to take staff and patients with you. There has to be follow through engagement."

* Each user group has a selection of key insights coded from thematic analysis of evidence statements and or evidence sessions

Cross-cutting insights

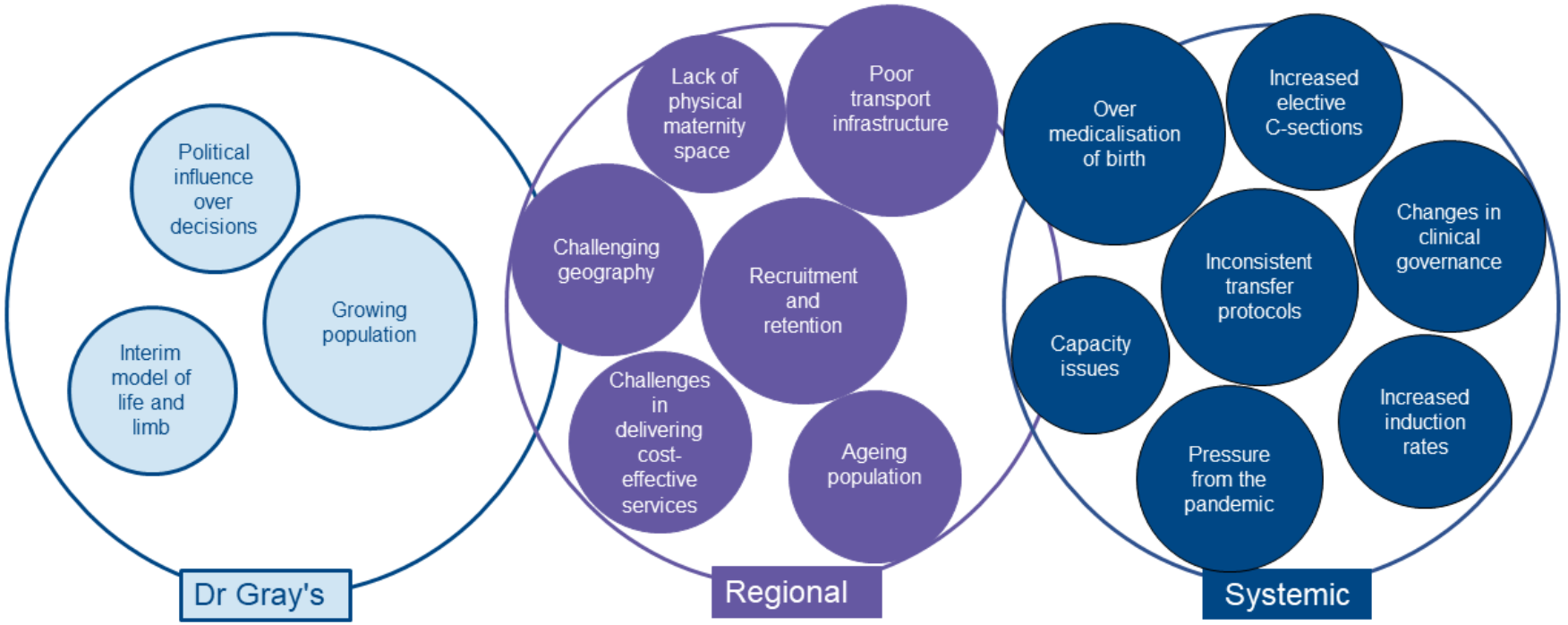
6 insights were identified across all user groups after thematic analysis. Each are interlinked and should not be considered independently when defining a case for change.

- Communication and procedures across NHS Grampian lack consistency
- Desire for a safe more local maternity service
- Paucity of available resources and staff increases transfer
- Precarious intrapartum transfer should be minimised
- Wider public engagement in the region would build back trust
- Unclear expectation setting for delivery and recovery causes anxiety for mothers



Systems of influence

Cross-cutting themes should be considered alongside the systems of influence: at Dr Gray's level, regional level and systematic. Influence must act across all levels for lasting change.



Appendix F: Service Features by Model

Service Features	Model 3: Community Midwifery Unit	Model 4: Moray Networked Model	Model 5: Rural Consultant-supported Maternity Unit	Model 6: Consultant–led Maternity Unit
Antenatal care at Dr Gray's:	Yes (should be available by visiting consultant)	Yes	Yes	Yes
Obstetric sonography, etc.	Yes	Yes	Yes	Yes
Fetal medicine	No	No	No	Yes (could have fetal medicine specialist)
Midwife-led antenatal care	Yes	Yes	Yes	Yes
Obstetric antenatal care (at Dr Gray's)	Yes	Yes	Yes	Yes
Antenatal triage (Queries in labour / assessment to avoid unnecessary travel)	Yes (midwife provided)	Yes (midwife provided and extended to 24 hour service)	Yes (midwife provided supported by consultant - 24 hour availability)	Yes (midwife provided supported by consultant - 24 hour availability)
Day-care assessment - fetal heartrate monitoring, etc. (as per MLU+)	Yes (could be provided on a planned basis by visiting consultant to avoid excess travel)	Yes (could be provided on a planned basis by visiting consultant to avoid excess travel)	Yes	Yes
Antenatal transfer of responsibility for consultant care	Yes To Aberdeen where clinically required	Yes	Yes To Raigmore/Aberdeen based on choice / clinical risk assessment	Yes Only for limited number of high risk pregnancies births

Service Features	Model 3: Community Midwifery Unit	Model 4: Moray Networked Model	Model 5: Rural Consultant-supported Maternity Unit	Model 6: Consultant–led Maternity Unit
		To Raigmore/Aberdeen based on choice / clinical risk assessment	(lower number required for clinical risk)	Location dependent on neonatal cot availability
Elective sections delivered in Dr Gray's	No	Yes (based on risk assessment) Requires flexible 24/7 midwife staffing*	Yes (based on risk assessment)	Yes
Consultant obstetric input to intrapartum care at Dr Gray's	No	No	Yes (numbers required are lower than in Model 6)	Yes
Resident obstetric cover at Dr Gray's	No	No	No	Yes (though it may not be a consultant; it could be a middle grade tier doctor)
Consultant obstetrician(s) on call from home for intrapartum care at Dr Gray's (24/7)	No	No	Yes	Yes
Consultant paediatrician available in hours/out of hours for neonatal resuscitation and stabilisation	Not required (stabilisation and resuscitation is led by midwives)	Not required (stabilisation and resuscitation is led by midwives)	Yes (initial stabilisation and resuscitation is led by midwives / access to	Yes (initial stabilisation and resuscitation is led by midwives / access to

Service Features	Model 3: Community Midwifery Unit	Model 4: Moray Networked Model	Model 5: Rural Consultant-supported Maternity Unit	Model 6: Consultant–led Maternity Unit
(midwives / other staff available to do so)			on-call paediatrician is required)	on-call paediatrician is required)
Resident obstetric anaesthetic cover at Dr Gray's	No	No	No	Yes (though it may not be a consultant; it could be a middle grade tier doctor)
Consultant anaesthetist(s) on call from home for intrapartum care at Dr Gray's (24/7)	No	No	Yes (nos. needed lower than Model 6)	Yes
Epidural service at Dr Gray's	No	No	No	Yes
Emergency / urgent intrapartum transfer	To Aberdeen	Yes Assumed Raigmore (women's choice / risk based)	Yes Assumed Raigmore (women's choice / risk based)	No Should not be required (age of gestation dependent)

Service Features	Model 3: Community Midwifery Unit	Model 4: Moray Networked Model	Model 5: Rural Consultant-supported Maternity Unit	Model 6: Consultant–led Maternity Unit
Postnatal care at Dr Gray's:	Yes ("Low Risk" mothers)	Yes	Yes	Yes
Inpatient	Yes	Yes	Yes	Yes
Community care	Yes	Yes	Yes	Yes
Transitional care for baby	Yes	Yes	Yes	Yes
Postnatal transfers of mothers and babies back to Dr Gray's	Depends on pathways of care	Expected (depends on pathways of care - to be developed)	Expected (depends on pathways of care - to be developed)	Yes (but limited requirement for transfers back)
Postnatal emergency transfers out of Dr Gray's:	To Aberdeen	Yes To Raigmore/Aberdeen (based on choice / clinical risk assessment / cot availability	Yes To Raigmore/Aberdeen (based on choice / clinical risk assessment / cot availability	Yes To Raigmore/Aberdeen (based on choice / clinical risk assessment/cot availability - expected reduced number required)
Special Care Baby Unit (SCBU) required	No	No	No (due to robust antenatal risk assessment / subject to transfer by ScotSTAR. Transitional care available.)	Ability to provide flexible special care, as required

Appendix G: Required Staffing by Model

Model 3: Community Midwifery Unit		
Clinician Type	**Staff Grade / Level**	**Number of staff required**
Obstetrics	Consultant WTE Middle grade or equivalent Junior doctor - part of hospital at night cover	No extra staff at Dr Gray's but additional staffing at receiving units
Paediatrics	Not applicable	No paediatric support required for community midwifery unit
Anaesthetics	Not applicable	No anaesthetic staff required to support community midwifery unit
Theatre staffing	Not applicable	Not applicable
Midwifery	Please see information on separate document	Please see information on separate document

Model 4: Moray Networked Model		
Clinician Type	**Staff Grade / Level**	**Number of staff required**
Obstetrics	Consultant WTE Middle Grade or equivalent Junior Doctor - part of hospital at night cover	No extra staff at Dr Gray's. Additional staffing at receiving units likely particularly if "outreach" clinics
Paediatrics	Not applicable	No specific paediatric input required to support community midwifery unit in Dr Gray's as part of networked model
Anaesthetics	Not applicable	No specific anaesthetic input required to support community midwifery unit in Dr Gray's as part of networked model
Theatre staffing	Not applicable	Not applicable
Midwifery	Please see information on separate document	Please see information on separate document

Model 5: Rural Consultant-supported Maternity Unit		
Clinician Type	**Staff Grade / Level**	**Number of staff required**
Obstetrics	Consultant WTE Middle grade or equivalent Junior doctor - part of hospital at night cover	6-8 depending on risk assessment Middle grade - Non-essential, but may be valuable training opportunities Junior - 8 required to sustain this tier, recognising that the team may be covering a variety of specialities.
Paediatrics	Consultant WTE Middle grade or equivalent Junior doctor - part of hospital at night cover	No additional paediatric input required to support rural consultant supported maternity unit
Anaesthetics	Consultant WTE	12+ (incl. current establishment)
Theatre staffing	On-call theatre team required: (theatre nurses / operating department practitioner (ODP) / health care support workers)	Requires work force planning to be undertaken
Midwifery	Please see information on separate document	Please see information on separate document

Model 6: Consultant-led Maternity Unit		
Clinician Type	**Staff Grade / Level**	**Number of staff required**
Obstetrics	Consultant WTE Middle grade or equivalent Junior doctor	6 - 8 8 8
Paediatrics	Junior doctors trained in neonatal life support Consultant WTE	6-8 depending on working pattern 6
Anaesthetics	Consultant WTE Junior doctor (trained in obstetric anaesthesia) - on call for hospital - but should be immediately available for maternity	12+ (incl. current establishment) 6-8
Theatre staffing	Resident theatre team required: (theatre nurses / operating department practitioner / health care support workers)	Requires work force planning to be undertaken
Midwifery	Please see information on separate document	Please see information on separate document

The Midwifery Model of Care

Please note: the below suggestions are only focused on workforce for Dr Gray's. Dependent upon model, further review for Raigmore Maternity Unit and Aberdeen Maternity Hospital will be required.

Model 1: The Status Quo

Midwifery staffing – no change

Model 2: No Intrapartum Service in Dr Gray's

If this model were to be explored, and no intrapartum services were to be in Dr Gray's, this would mean that only a community midwifery workforce model would be required.

Therefore, approx. 1000 women per year = 11.1 WTE[26] midwives (caseload max 90 women)

Model 3: Community Maternity Unit linked mainly to Aberdeen

This model will require a workforce review to align with "Best Start" recommendations.

This can either be staffed by 24 hours / 7 day a week core staffing, or an on-call / rota system for when women are requiring intrapartum midwifery care. This means that all midwives would work in an integrated way across community and midwifery unit to allow a continuum of care for families as per "Best Start" recommendations.

The primary midwife will normally have a caseload of approximately 35 women at any one time, and be the first point of contact for women in pregnancy (Best Start, 2017).

Therefore, for example, with 1000 women in the area, the requirement would be 21.4 WTE Midwives for full integration for the whole of Moray area.

This could be undertaken in a stepped approach, dependent on workforce availability and implementation of "Best Start" recommendations:

[26] WTE stands for whole time equivalent

Community Area	Approx. Booking per year	Approx. caseloads at one point in time	WTE MWs caseload max 35	WTE MWs caseload max 40	WTE MWs caseload max 45
Moray	1000	750	21.4	18.75	16.7

If core staffing for the Dr Gray's maternity unit is preferred, this would require 2 midwives and 1 health care assistant (HCA) on shift at all times; therefore, 10.5 WTE midwifery workforce and 5.26 whole time equivalent (WTE) health care assistant would be required to staff 24/7. Suggested for full team as below:

Health care assistant	5.26
Registered midwife	10.52
1 WTE Senior charge midwife	1.00
1 WTE Ward assistant	1.00
Total	**17.78**

However, again, there can be creative models explored, such as 1 midwife and 1 maternity support worker, and this would be dependent on NHS Grampian's desire to explore and risk assess safety.

Model 4: Community Maternity Unit linked to Raigmore ("Moray Networked Model")

As above in Model 3, however, on days where there are planned caesarean sections, the staffing model would need to encompass a 24-hour model. This could still be staffed by the woman's named midwife and team to ensure continuity.

Model 5: Rural Consultant-supported Maternity Unit

This would require staffing from midwifery and maternity support workers 24/7, therefore, as below:

(2 MW and 1 HCA every shift)

If 12 hour shifts

Health care assistant	5.26
Registered midwife	10.52
1 WTE Senior charge midwife	1.00
1 WTE Ward assistant	1.00
Total	**17.78**

If 7.5 hour shifts (9.5 night)

Health care assistant	5.60
Registered midwife	11.20
1 WTE Senior charge midwife	1.00
1 WTE Ward assistant	1.00
Total	**18.81**

This would then need to increase when elective / planned caesarean sections are implemented.

Model 6: Obstetric Consultant–Led Unit

This model would be an increased Intrapartum presence from Model 5; therefore, 3 midwives and 1 health care assistant would be required to staff the unit in a core manner.

If 12 hour shifts

Health care assistant	5.72
Registered midwife	17.15
1 WTE Senior charge midwife	1.00
1 WTE Ward assistant	1.00
Total	**24.87**

If 7.5 hour shifts (9.5 night)

Health care assistant	5.60
Registered midwife	16.81
1 WTE Senior charge midwife	1.00
1 WTE Ward assistant	1.00
Total	**24.41**

Appendix H: Review Process for Considering Model

As previously stated, the Review Group agreed to carry out a process of evaluating all models of service provision under consideration to support its decision-making and reaching of conclusions. From this, the Moray Maternity Services delivery model would then evolve.

Each of the four main models were scored anonymously using pre-agreed criteria and proportionate weighting, as described below. Once submitted, the Programme Team collated all responses from Review Group members, and calculated the average score for each principle. The average score returned was then applied to the weighting for each criterion to achieve the score for that particular principle.

Scores for all criteria were then added together for each model to achieve the final overall score. The criteria used and the weighting out of 100 are listed below:

1 Safety and quality of service provision (30)

- Does the proposed model under consideration provide a safe service?
- Does it meet the standards and guidance for all professional groups?
- Does it provide suitable accommodation?
- Does it have access to other related services?
- Can it provide support to patients in an emergency?
- Is the model understood by staff, GPs, service users, and the general public?
- Does it allow for skills of all staff to be maintained?

2 Positive user and stakeholder experience (20)

Does the proposed model under consideration allow for positive experiences for all stakeholders?

- Staff
- Patients
- Support services
- Carers and families

Does it meet the needs of all those users? Are there financial implications for families?

3 Financial sustainability (15)

How affordable is the proposed model under consideration to deliver the staffing required to meet the needs of each specialty?

- Midwifery
- Obstetrics
- Anaesthetics
- Paediatrics

Consider the ongoing financial sustainability and cost of infrastructure changes (whole system).

4 Workforce sustainability (25)

How does the proposed model under consideration support staff recruitment and retention to create a skilled, resilient and long term sustainable workforce?

How does the proposed model under consideration support the use of joint appointments/alternative recruitment and retention approaches to improve workforce sustainability?

5 Policy alignment (10)

How aligned is each proposed model under consideration with policy such as:

- “Best Start Strategy”
- “Best Start North”
- professional policies
- “Realistic Medicine”?
- Equity impact?

How consistent is each proposed model under consideration with the expectation of the Commission Brief for the Review, and its Terms of Reference? And therefore, how likely is the model to be supported and improve the situation for local women, families and staff?

Appendix I: Action Plan

Dr Gray's Maternity Model 4 Initiation Phase / Immediate actions				
Actions	**Timeline**	**Responsible Organisations**	**Key Stakeholder/s**	**Outcome**
Clearly define criteria for delivery in Dr Gray's midwife-led maternity service (removing use of "Life and Limb support"	Within 3 months	NHS Grampian	Mothers and families; Midwifery team Consultant obstetricians (Dr Gray's) Dr Gray's management team	Clear criteria for maternal deliveries at Dr Gray's and at other sites, Aberdeen and Raigmore
Encourage appropriate "autonomy" of decision-making by midwifery staff at Dr Gray's, working within their scope of practice and agreed service / transfer	Within 3 months	NHS Grampian	Midwifery team Dr Gray's management team NHS Grampian maternity service	Supported and confident midwifery team
Agree clear emergency / urgent transfer criteria and triggers between Dr Gray's and Raigmore / Aberdeen (presumption for emergency Intrapartum transfers to Raigmore)	Within 3 months	NHS Grampian NHS Highland	Mothers and families Midwifery team at Dr Gray's NHS Grampian maternity service NHS Highland maternity service Scottish Ambulance Service	Emergency transfers to Raigmore with minimum delay
Ensure that when managing transfers, within agreed criteria / triggers, that those transfers are accepted in a proactive manner so that the team at Dr Gray's are appropriately and adequately supported	Within 3 months	NHS Grampian NHS Highland	Mothers and families Midwifery team at Dr Gray's NHS Grampian Maternity service NHS Highland Maternity service Scottish Ambulance Service	Transfers to Raigmore or Aberdeen with minimum delay

Dr Gray's Maternity Model 4 Initiation Phase / Immediate actions				
Actions	**Timeline**	**Responsible Organisations**	**Key Stakeholder/s**	**Outcome**
Extend the use of staff with advanced skills (i.e. pharmacists / midwives with advanced skills) ensuring that skills are kept up-to-date	Ongoing	NHS Grampian	Mothers and families; Midwifery Team Consultant obstetricians (Dr Gray's) Dr Gray's management team	Enhanced staffing and service sustainability
Ensure that an effective and supportive multi-disciplinary "debrief" process is in place for any incident / "near miss" so that a culture of learning and improvement is developed and embedded	Ongoing	NHS Grampian	Mothers and families Midwifery team at Dr Gray's NHS Grampian Maternity service NHS Highland Maternity service Scottish Ambulance Service	Ongoing safety and quality of service provision
Progress Best Start North programme	Ongoing	NHS Grampian NHS Highland NHS Orkney NHS Shetland	Mothers and families Midwifery team at Dr Gray's NHS Grampian Maternity service NHS Highland Maternity service NHS Orkney Maternity Service NHS Shetland Maternity service Scottish Ambulance Service	Increased sustainability and quality of maternity services across North Scotland Health Boards
Re-introduce elective caesarean sections to Dr Gray's hospital	Within 6 months	NHS Grampian	Mothers and families; Midwifery team Consultant obstetricians (Dr Gray's) Dr Gray's management team	Local elective sections; Increased number of local deliveries

Culture The importance of culture to quality and safety in any service has been clearly articulated. The following recommendations are made, and should be progressed as a matter of priority:				
Actions	**Timeline**	**Responsible Organisations**	**Key Stakeholder/s**	**Outcome**
Identify opportunities for staff to work across both Dr Gray's, Raigmore and Aberdeen to improve relationships and understanding between staff groups including at least midwives and obstetricians from both sites.	Initiated within 3 months - then ongoing	NHS Grampian NHS Highland	Mothers and families; All staff groups NHS Grampian	Improved support for staff; Understanding and support for shared vision for Moray maternity services
Commission the delivery of a cultural safety programme aimed at the multi-disciplinary team working in Dr Gray's, including the relevant team members at Aberdeen so that the ownership of this work, and the relationships between Dr Gray's, Raigmore and Aberdeen are addressed as part of this work. Involvement of all senior clinical staff in this work should be mandatory	Initiated within 6 months – up to 1 year to deliver	NHS Grampian NHS Highland	All staff groups	Ongoing patient safety & high quality of service
Invest in and protect time for the creation of a whole team focus at Dr Gray's and between Dr Gray's, Raigmore and Aberdeen	Initiated within 6 months - up to 2 years to deliver	NHS Grampian NHS Highland	All staff groups	Service at Dr Gray's is owned as part of the maternity services in NHS Grampian and is delivered as part of a functioning networked service;

Leadership

Effective leadership of any service, including good clinical leadership and management support, is essential if a service is to thrive. There has been a gap in leadership to the maternity service in Dr Gray's in recent years and good future leadership will be a critical success factor going forward. Progress has been made with the overall leadership for Dr Gray's and this must be supported and encouraged in the future:

Actions	Timeline	Responsible Organisations	Key Stakeholder/s	Outcome
Invest in the clinical leadership of the O&G service at Dr Gray's. The service should look to identify an experienced and respected senior clinician who can lead the service for at least the next five-year as the service goes through continued change and development: this post would require extended managerial sessions and be given appropriate management support	Within 6 months – in place for up to up to 5 years	NHS Grampian	Mothers and families; Consultant staffing groups Midwifery team NHS Grampian	Clinical Lead supporting development of future maternity model implementation
NHS Grampian should build on the recent development of Hospital management at Dr Gray's and the focus / responsibility for Dr Gray's within the Moray H&SC Partnership	Ongoing	NHS Grampian / Moray Integrated Joint Board	NHS Grampian Moray community	Enhanced support from Leadership to Moray health services; Increased confidence in NHS Grampian by the Moray community
NHS Grampian, with local clinical leaders and the community, should develop a clear strategic plan and vision for the future of Dr Gray's	Initiate within 6 months – process up to 3 years	NHS Grampian / Moray Integrated Joint Board	Moray community Grampian community NHS Grampian NHS Highland	A clear strategic plan for the future of Dr Gray's Hospital

Leadership Effective leadership of any service, including good clinical leadership and management support, is essential if a service is to thrive. There has been a gap in leadership to the maternity service in Dr Gray's in recent years and good future leadership will be a critical success factor going forward. Progress has been made with the overall leadership for Dr Gray's and this must be supported and encouraged in the future:				
NHS Scotland should provide clear support for the ongoing sustainability of Dr Gray's as a key part of the NHS Scotland estate, including capital investment where required	Ongoing	Scottish Government / NHS Grampian	Moray community Grampian community NHS Grampian NHS Highland	Sustainable Acute Hospital at Dr Gray's
NHS Grampian should ensure a clear programme plan and support arrangements (including governance) are in place to support the ongoing delivery of an improvement plan for maternity services in Moray	In place within 3 months	NHS Grampian	NHS Grampian NHS Highland All staff groups Moray community	Effective delivery of an improved maternity service in Moray; Enhanced community confidence
NHS Scotland should consider arrangements for ongoing oversight of the development of maternity services in Moray	In place within 3 months	Scottish Government	NHS Grampian NHS Highland Moray community / mothers and families All staff groups	Improved confidence of the community into the future provision of Moray maternity services

Workforce and Recruitment

The recruitment and retention of the workforce will be the main driver of success for the sustainability and improvement of maternity services in Moray. This recognises the ongoing challenges associated with recruitment and retention in rural areas of Scotland, which are exacerbated in the North of Scotland.

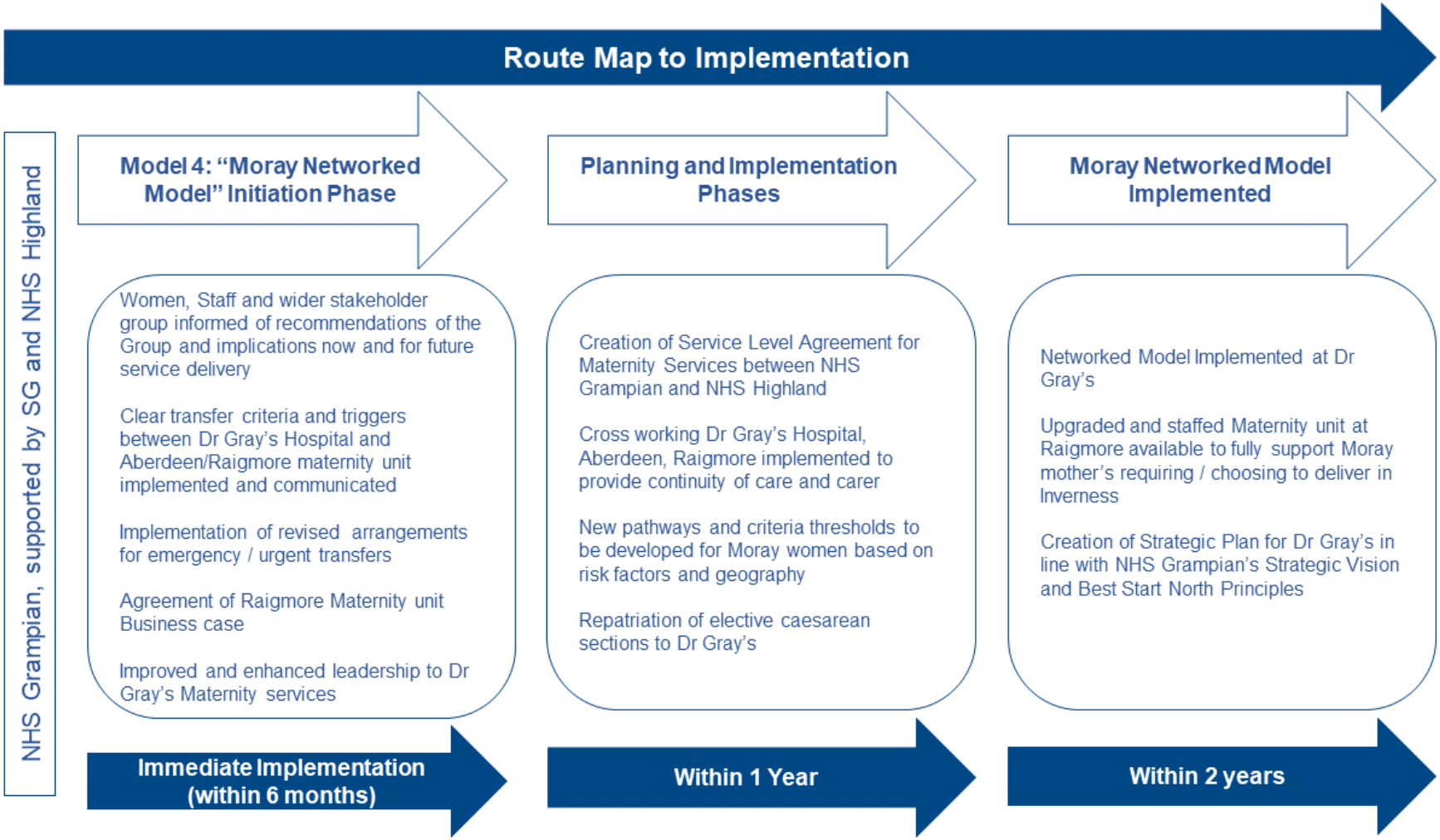
Actions	Timeline	Responsible Organisations	Key Stakeholder/s	Outcome
A focussed approach to the recruitment of staff to Dr Gray's and the maternity service in particular, including a specific workforce development plan for the service	In place within 3 months	NHS Grampian	Mothers and families; All staff groups NHS Grampian NHS Highland	A clear and creative workforce development plan for Dr Gray's in place
NHS Highland should take a similar focussed and creative approach to recruitment for the development of the Raigmore maternity service in line with maternity Service Level Agreement between NHSG and NHSH	In place within 3 months	NHS Highland	Mothers and families; All staff Groups NHS Grampian NHS Highland	A clear and creative workforce development plan for Raigmore maternity service in place
Consideration of the opportunities to maximise links with the Ministry of Defence (MOD) facilities at Lossiemouth and Kinloss	Within 6 months	NHS Grampian NHS Highland	Mothers and families; All staff groups NHS Grampian NHS Highland	Maximise the opportunities to the local NHS workforce from military families (partners) moving to Moray
Recruitment plan to be based on the "strengths" and "benefits" of living and working in Moray and the opportunities for joint appointments and cross service working with Aberdeen and Raigmore Hospital	Within 6 months	NHS Grampian NHS Highland	Mothers and families; All staff groups NHS Grampian NHS Highland	Sustainable workforce for maternity service across Moray and Raigmore

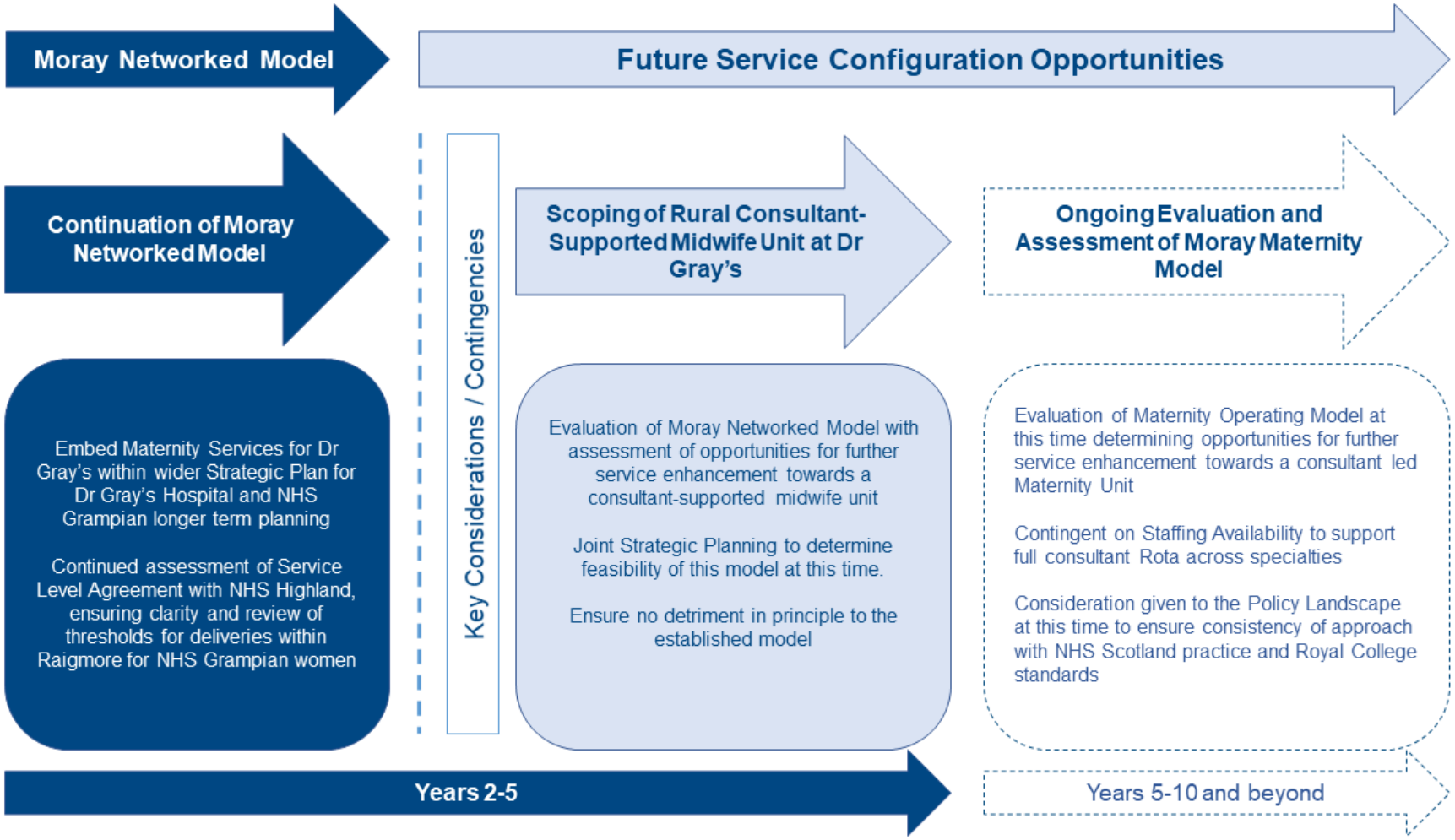
Workforce and Recruitment The recruitment and retention of the workforce will be the main driver of success for the sustainability and improvement of maternity services in Moray. This recognises the ongoing challenges associated with recruitment and retention in rural areas of Scotland, which are exacerbated in the North of Scotland.				
NHS Grampian / Dr Gray's must focus on the training experience of all junior doctors working in Dr Gray's	Initiate within 6 months; and then ongoing	NHS Grampian NHS Highland	NHS Grampian NHS Highland Medical staff across Dr Gray's / Raigmore and Aberdeen	Enhanced quality of service; Improved long term recruitment and retention of staff
NHS Scotland (Scottish Government) should ensure the national workforce strategy and future national workforce plans clearly prioritise the challenges associated with rural recruitment and retention	Within 1 year & ongoing	Scottish Government	NHS Boards Professional staff groups National staffing regulators Local Communities	Improved long term recruitment & retention to rural services in Scotland
NHS Scotland (Scottish Government) should develop a 'National Maternity Services Workforce Plan' that recognises the future workforce needs to sustain maternity services in rural areas that are consistent with the "Best Start" strategy	Within 2 years	Scottish Government	NHS Boards Professional staff groups National staffing regulators Local Communities	Improved long term recruitment & retention to maternity services in rural Scotland
NES should develop and agree with relevant stakeholders a clear framework for advanced midwifery practice, which recognises the challenges and needs of all maternity units	In 2 years	NES	Scottish Government NHS Boards Midwifery staff	Improved long term sustainability of midwifery staffing across Scotland

Workforce and Recruitment The recruitment and retention of the workforce will be the main driver of success for the sustainability and improvement of maternity services in Moray. This recognises the ongoing challenges associated with recruitment and retention in rural areas of Scotland, which are exacerbated in the North of Scotland.				
Consideration of how student intake to midwifery and medical school can be appropriately managed to ensure adequate successful applicants from remote and rural Scotland (recognising that individuals from these areas are more likely to return to work in these areas in due course)	Within 2 years and then ongoing	Scottish Government NES	Universities Staff groups NHS Boards Local Communities	Improved long term recruitment & retention to maternity services in rural Scotland
Following the development of an updated maternity services workforce plan, consideration must be given to the required junior doctor and midwifery training numbers necessary to support the future workforce across the whole of Scotland. This will need to include additional trainee numbers for the North of Scotland in obstetrics and anaesthetics, without reducing numbers elsewhere in Scotland	Up to 5 years	Scottish Government NES	Universities Staff groups NHS Boards Local Communities	Improved long term recruitment & retention to maternity services in rural Scotland
Consideration should be given to the future role and scope of maternity care support workers within the maternity services' workforce	2 - 5 years	Scottish Government NES	Universities Staff groups NHS Boards Local communities	Improved long term recruitment & retention and workforce sustainability in maternity services in (rural) Scotland

Engagement The support of the community to the future of maternity services in Moray will be essential. There is a developing Maternity Voices Partnership[1] (MVP) group in Moray, and this should be encouraged and supported so that this becomes the main vehicle for constructive engagement with the local community:				
Actions	**Timeline**	**Responsible Organisations**	**Key Stakeholder/s**	**Outcome**
NHS Grampian should invest time and energy to the ongoing development of the MVP group across Moray	Ongoing	NHS Grampian	Mothers and families; All staff groups NHS Grampian	Maternity Voices continue to be engaged as maternity services develop within Dr Gray's
NHS Grampian should ensure this includes a clear engagement on the next steps in the development of local services, with regular updates and explanations of progress to the local community	Within 3 months and then ongoing	NHS Grampian	Mothers and families; All staff groups NHS Grampian	Enhanced confidence of local community in Moray services
The MVPs in Moray, Grampian and Highland, as well as other community groups are encouraged to support the recommendations in this report as the most appropriate way of developing maternity services in Moray	Ongoing	Moray MVP	Mothers and families; Moray community All staff groups NHS Grampian	Enhanced confidence of local community in Moray services; Improved recruitment & retention of staff
Elected representatives are encouraged to support the recommendations in this report as the most appropriate way of developing maternity services in Moray	Within 3 months and Ongoing	Local elected representatives	Mothers and families; Moray community All staff groups NHS Grampian	Enhanced confidence of local community in Moray services; Improved recruitment & retention of staff

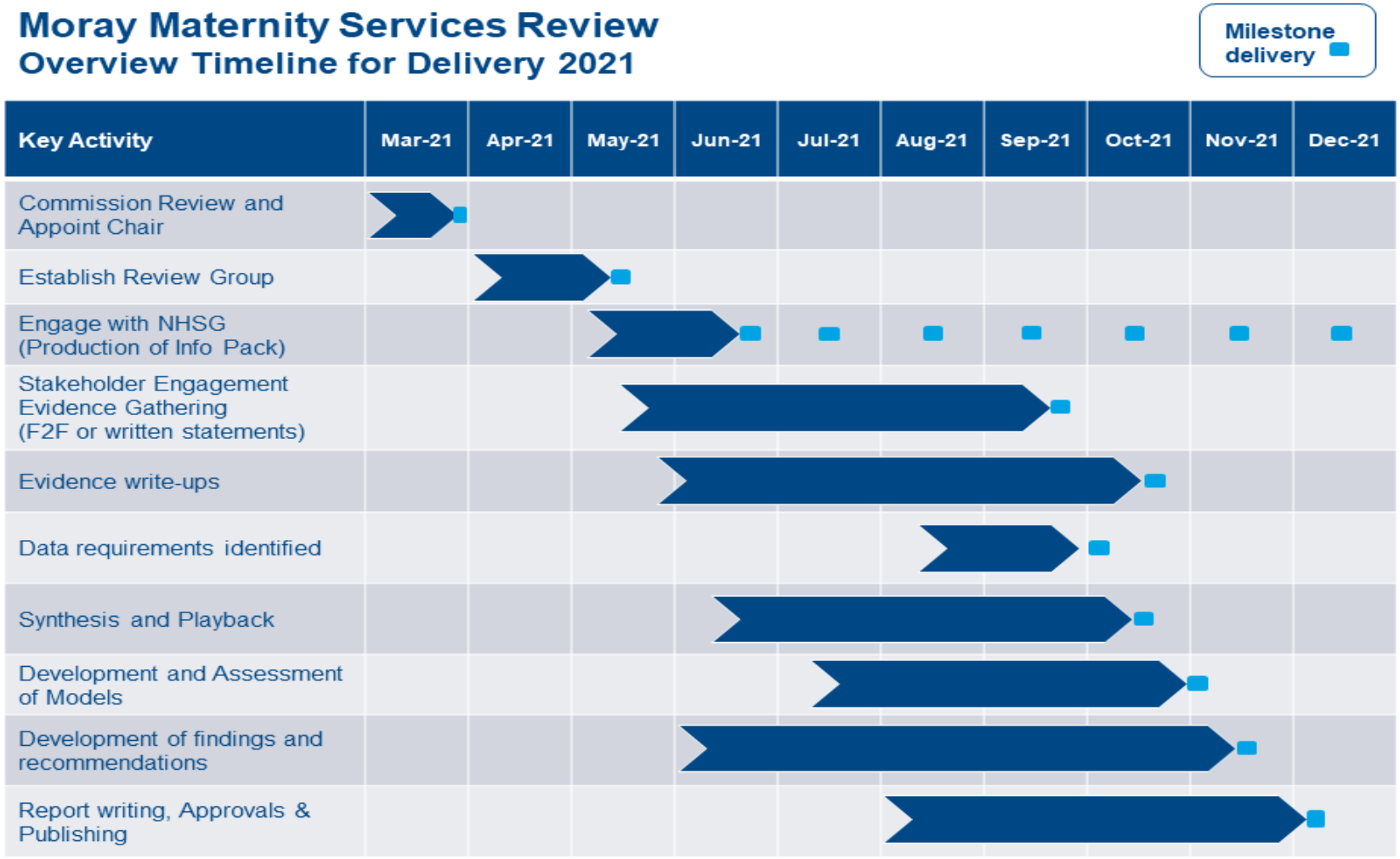
Appendix J: Route Map




Moray Networked Model
Future Service Configuration Opportunities
Continuation of Moray Networked Model
Key Considerations / Contingencies
Scoping of Rural Consultant-Supported Midwife Unit at Dr Gray's
Ongoing Evaluation and Assessment of Moray Maternity Model
Embed Maternity Services for Dr Gray's within wider Strategic Plan for Dr Gray's Hospital and NHS Grampian longer term planning
Continued assessment of Service Level Agreement with NHS Highland, ensuring clarity and review of thresholds for deliveries within Raigmore for NHS Grampian women
Evaluation of Moray Networked Model with assessment of opportunities for further service enhancement towards a consultant-supported midwife unit
Joint Strategic Planning to determine feasibility of this model at this time.
Ensure no detriment in principle to the established model
Evaluation of Maternity Operating Model at this time determining opportunities for further service enhancement towards a consultant led Maternity Unit
Contingent on Staffing Availability to support full consultant Rota across specialties
Consideration given to the Policy Landscape at this time to ensure consistency of approach with NHS Scotland practice and Royal College standards
Years 2-5
Years 5-10 and beyond

Appendix K: Timeline

Moray Maternity Services Review
Overview Timeline for Delivery 2021



Appendix L: References

Original brief for the Review:

March 2021 Scottish Government Brief for the Moray Maternity Services Review

Maternity Services Reference Materials:

2017 (Jun) HIS Review of Ayrshire Maternity Unit - NHS Ayrshire and Arran

2018 (Nov) CMO Advisory Group Report on Dr Gray's Maternity Services

2020 (Feb) Dr Gray's Safety Report to NHSG Clinical Governance Committee

2020 (Aug) Maternity Services in smaller hospitals

2020 (Oct) Engagement in Maternity Services Report

2015 (May) Cumbria & North Lanarkshire Independent Review of Mat Services

2014 (Nov) RGOG Obstetric & Maternity Services - Options Appraisal

2017 (Jan) Best Start Strategy

2018 (Jan) Fatal Accident Inquiry into baby death in Montrose

2020 (Dec) DHI Best Start North Report

Maternity Service Models:

NHS Borders Maternity Medical Cover

2020 Orkney Maternity Service Stats

Orkney Model for Maternity Service

2021 (Jun) NHS Dumfries and Galloway - Maternity Service Descriptor V2

2018 (Jul) Concerns from Midwives at Raigmore

2018 (Jul) Letter from Raigmore Midwives

2018 Raigmore & Dr Gray’s Midwives Concerns

2021 (Oct) Feedback from The Deanery

2021 (Oct) Further Feedback from The Deanery

NHSG Maternity Services Information Pack:

2018 Clinical Accords Grampian-Highland v.8

External Review Moray Maternity Services - Equality Impact Assessment

Midwife-led Clinical Guidelines for Labour and Birth Dec-2016 - Comments

Midwife-led Clinical Guidelines for Labour and Birth Dec-2016

RIC Midwife-led Clinical Guidelines for Labour and Birth Dec-2016 - Summary

RIC Midwife-led Clinical Guidelines for Labour and Birth Dec-2016

Accessing the Moray Maternity Services Review - NHSG Info Pack

DGH Review Team Introduction Talk

Narrative Document Folders Reference Sheet

Read This First DGH Narrative Guide

D1 External Review Data pack - DGH figures 2016_2017

D2 External Review Data pack - Moray and Banff Badgernet Data JAN2018toAPR2021

D3 Grampian Maternity Services Dashboard_ DGH data

D4 Midwife Led Clinical Guidelines for Labour and Birth

D4a Midwife-Led Care - Place of Birth Criteria and Recommendations

D5 MBRRACE-UK Perinatal Surveillance Full Report for 2016 - June 2018

D6 MBRRACE-UK Perinatal Mortality Surveillance Report for Births in 2017 - FINAL Revised

D7 MBRRACE-UK_Perinatal_Surveillance_Report_2018_-_final_v3

S1 External Review Data pack - Medical staffing

S2 External Review Data pack - Midwifery Staffing

C1 DGH Maternity Summary of engagement and communication 2018

C2 DGH Summary of engagement and communication 2019

C3 Moray maternity comms plan Nov2020 to March2021 v2 (1)

C4 DGH Maternity Facebook Posts 1

C5 DGH Maternity Facebook Posts 2

C6 DGH Maternity Facebook Posts 3

B1 Obstetrics + Paediatrics Board CGC Search to June 2018

B2 NMPA Clinical Report 2017 (updated 2018)

B3 CGC Paper 171117 Outlier in NMPA

B4 17.11.17 CGC Closed Session Note of Meeting

B5 CGC Paper 090218 Update on Outlier NMPA

B6 09.02.18 CGC Closed Session Note of Meeting

B7 CGC Paper 170818 Summary of Findings NMPA Outlier Cases

B8 17.08.18 CGC Closed Session Note of Meeting

G1 Business Continuity Plan DGH June 2018

G2 SG Briefing on DGH Paediatric + Obstetric Care June 2018

G3 DGH Obs Paeds Comms Plan June 2018

G4 7SG DGH Briefing Update following G2 June 2018

G5 DGH Briefing on Service Change - 180718 source Neil Strachan

G6 NHSG Board ApprovedOpenMinute02August2018

O1 060818-CAB-AC-01-es

O10 Phase 1 Dr Gray's Obstetric Services Action Plan Nov 2018

O11 Maternity and Paediatric Services at Dr Gray's Hospital - CMO Report Nov 2018

O2 170818 - AC - Ms Jeane Freeman

O3 DGH Initial Plan August 18

O4 CGC Acute Report (see pages 13 -55 Agenda Item 3a) 170808

O5 CGC Approved minute 17.8.18

O6 NHSG Board Meeting 141018 DGH Obstetrics Paper

O7 CGC Paper 161118 Mgmt of W&C Service DGH

O8 CGC Paper 161118 Mat Services Pt Feedback DGH

O9 Agenda Item 1 - Approved minute 16.11.18

P1 NHSG Board Meeting DGH Update 020219

P2 NHSG Board Meeting 7 February 2019 Minute

P3 Phase2 DGH Women Children's Plan

P4 CGC Closed Session 15Feb2019

P5 Draft TOR for DGH External Safety Review Feb 19

P6 Cabinet Secretary Letter 2 May 2019 re Phase 2

P7 NHSG Board DGH Phase 2 Update Paper June 19

P8 NHSG Board Approved Minute 25 June 2019

GR1 DGH Women and Children's Service - Phase 2 Plan Progress Update

GR10 JF to NHSG CEO re Dr Gray's February 2020

GR11 020320 ALC Cabinet Secretary

GR12 Best Start NORTH Project Steering Group Agenda 20 March 2020

GR13 Best Start NORTH Terms of Reference Aug 2020

GR14 Board Meeting 2 April 2020 Minute - approved

GR15 Agenda Item 1 - Approved minute 16.4.20

GR2 Approved Board Minute 7 November 2019

GR5 CGC Note of Meeting 221119

GR6 Elgin DGH External Report Board Update

GR7 Itinerary cab sec 110220 final - source Neil Strachan

GR8 Agenda Item 2.1 - Dr Gray's Document 210220

GR9 CGC Approved minute 21220

M1 ECOG Draft Terms of Reference 1.3 Aug 2020

M10 A view paper DGH Mostafa Ali 7 Oct 20

M11 Dr Gray's - DCMO letter to Caroline Hiscox - Oct 2020

M12 NHSG CGC DGH Update Agenda Item 2 - Approved minute 13.11.20

M13 CGC Paper 120221 Hybrid Model

M14 CGC Paper 120221 Cases Obstetric Intervention

M15 CGC Paper 120221 TOR Grampian and Highland Maternity and Neonatal Collaboration

M16 CGC Closed Session Note 120221

M17 NHSG Board Paper DGH Maternity Update March 2021

M2 Letter to CMO,CNO,DCMO 17 July 2020

M3 Letter App 1 to CMO,CNO,DCMO 17 July 2020

M4 Letter App 2 to CMO,CNO,DCMO 17 July 2020

M5 Letter App 3 to CMO,CNO,DCMO 17 July 2020

M6 Letter App 4 to CMO,CNO,DCMO 17 July 2020

M7 Dr Gray's Revised Maternity Plan July 2020

M8 08.01 Item 8 NHS Grampian 2019-20 Annual Audit Report

M9 Intrapartum Transfers Review NHSG and NHSH Final Version 1.3

Portfolios and System Leadership NHSG

Moray Maternity Services Review - Additional Info from NHSG, MA comment

Moray Review Additional Information August 2021 (Final Grampian)

Associated Information:

Dr Gray's Hospital - Summary of Transfers 1 April 2016 to 31 May 2021

Transcript of Parliamentary discussion on DGH

Evidence Received from a former NHSG Manager

Neil McLean Reflections - Remote & Rural Obstetrics

Advanced Pharmacy Practitioner Post info

ERPB 180621 Item 8 ScotSTAR Neonatal Review Recommendations Update Apr-21

RG Data Analysis v1.0

MMSR Data Sources v1.0

NHS Highland Feedback on Capital Spend for Development

NHSH Integrated Maternity V1 Final

Anaesthetics Information relevant to Dr Gray’s:

November 2014 RGOG Obstetric & Maternity Services - Options Appraisal

May 2015 Cumbria & North Lanarkshire Independent Review of Mat Services

NHS Grampian Clinical Governance Committee Agenda Item 2.1

Consultant vs Midwife Led Unit - Option Appraisal V2

Material for consideration - Anaesthetic Workforce

Service Model Anaesthesia DGH Options Appraisal Outcomes

Papers for consideration re. Anaesthetics

Dr Gray's Anaesthetic Department Maternity Review Submission

Keep Mum Evidence Materials:

Urgent - Staff Shortages at Dr Gray's Hospital Theatre

Consultant Obstetrician DGH Independent Review

History of Elgin Maternity Unit Latest Independent Review

Independent Review Best Start NHS Grampian FOI 290421

Independent Review FOI Best Start NHS Highland

Independent Review Keep Mum Best Start Inverness Option

Keep Mum Press Release re Nov 2019 Safety Review Independent Review

Specialist Maternity Services for Moray Review 1988

Birth Experiences 1-15 Independent Review

Birth Experiences 16-30 Independent Review

Birth Experiences 31-45 Independent Review

Birth Experiences 46-61 Independent Review

Birth Experiences 61-66 Independent Review

Keep Mum Info_Cover Letter from Marj Adams

Keep Mum Info_Letter from Cab Sec JF to NHSG CE A.Croft

Keep Mum Info_Letter from Keep Mum to A.Croft NHSG CE 27.02.21

Keep Mum info_Letter from KM to Cab Sec JF 24.01.20

Keep Mum info_Letter to NHSG CE Oct 2019

Keep Mum info_MMR Option Appraisal scoring results 2011

Keep Mum info_Response from NHSG Oct 2019

Keep Mum MMR info 2011

MMR Option Appraisal Scoring Results 2011

Survey Monkey Q.1 Independent Review

Survey Monkey Q.2 Independent Review

Survey Monkey Q.3 Independent Review

Survey Monkey Q.4 Independent Review

Survey Monkey Q.5 Comments from Women

Appendix M: Glossary of Terms

Acronym / Term	Meaning
AMH	Aberdeen Maternity Hospital
Antenatal Care	Care of women during pregnancy by professionals in order to detect, predict, prevent and manage problems with women or their unborn babies. Care also includes education, advice and support.
Birth Plan	A woman's written record of her preferences for her care during pregnancy, labour and childbirth.
Caesarean Section	An operation where the baby is delivered through an incision through the abdominal and uterine walls.
Cardiotocograph (CTG)	A test of fetal well-being and uterine contractions. A combination of electro-cardiography and tocography. The fetal heart rate is obtained by a microphone placed on the woman's abdomen or by an electrode attached to the fetal scalp during labour. At the same time contractions of the uterus are measured by a tocograph placed on the woman's abdomen. Both are recorded on a monitoring device.
CMO	Chief Medical Office
CMU	Community Maternity Unit
Community Maternity Unit	A maternity unit, midwife managed, occasionally with GP involvement, which may be a stand-alone unit or adjacent to a non-Obstetric hospital or adjacent to a maternity unit.
Congenital Abnormalities	An anomaly present at birth.
Continuity of Care	This term is used to describe a situation where all the professionals involved in delivery of care share common ways of working and a common philosophy. The aim being to reduce conflicting advice experienced by women, and the same philosophy of care is experienced by the woman throughout the period of her care.
Continuity of Carer	The same professional providing care throughout a woman's contact with the maternity services. It can also be used to describe the same caregiver throughout a specific episode of care, such as during labour and childbirth.
Demography	The study of statistics on births, deaths and diseases.
DGH	Dr Gray's Hospital
DHI	Digital Health And Care Innovation Centre - Collaboration between The Glasgow School of Art and University of Strathclyde Glasgow
Diagnostic Services	Services used to recognise the distinctive signs and symptoms of a disease or condition.

Acronym / Term	Meaning
Domino Scheme	(Domiciliary In and Out): Care is provided by midwives in the community. They provide the majority of care during pregnancy, care for the woman in the maternity unit during labour and childbirth; the woman usually goes home 6 hours after her baby is born and the midwives continue to provide care at home in the early postnatal period.
Education	The learning process prior to the professional's initial registration or first degree.
ELCS	Elective Caesarean Sections.
Fetal	Of the fetus.
Fetus	The unborn baby, usually referring to development from the seventh week of pregnancy until birth.
GMC	General Medical Council
Guidelines	Systematically developed statements which assist in decision-making about appropriate health care for specific clinical conditions.
HDU	High dependency unit
HIS	Healthcare Improvement Scotland
Holistic	Treatment of the whole person rather than a symptom or an illness.
Home Birth	This is usually a planned event where the woman decides to give birth at home, with care provided by the midwife.
Independent Midwife	A midwife who is self-employed, contracting directly with an individual woman or with an NHS Trust.
Integrated Care Pathways	A coherent approach to providing health promotion, detection and treatment for a specific illness.
Integrated Service	A multi-disciplinary, multi-professional approach to service provision.
Intrapartum	Occurring or provided during the act of birth.
In-utero	In the uterus/womb, unborn.
KPI's	Key Performance Indicators
Lead Professional	The professional who will give a substantial part of the care personally and who is responsible for ensuring that the woman has access to care from other professionals as appropriate.
Maternity Services Liaison Committee	A committee set up within a NHS Board area which provides a forum for all the professions involved in the provision of maternity care with representatives of the women who use the services to discuss issues relevant to the provision and development of maternity services in the area.

Acronym / Term	Meaning
Maternity Unit	A building or group of buildings in which maternity care is provided. It can be located within, or adjacent to, a general hospital, or away from the general hospital.
MCQIC	Maternity and Children's Quality Improvement Collaborative
MDT	Multi-Disciplinary Team
MLU	Midwifery-led Unit
MOD	Ministry of Defence
MVP	Maternity Voices Partnership
Named Midwife	A named, qualified midwife who will be responsible for women's midwifery care.
Neonatal Period	The first 28 days of a baby's life
NES	National Education Scotland
NHSG	NHS Grampian
NHSH	NHS Highland
Obs and Gynae	Obstetrics and Gynaecology
Obstetric	The branch of medicine and surgery that deals with pregnancy and childbirth.
OOH	Out of Hours
Paeds	Paediatrics
PHS	Public Health Scotland
PICU	Psychiatric intensive-care unit
Postnatal Period	A period not less than 10 days or more than 28 days after the end of labour, during which time the attendance on the mother and baby by a midwife is mandatory.
Postnatal	After the birth.
Premature Baby	Born before the due date (less than 37 weeks gestation).
Primary Health Care	Primary Health Care is health care at the first point of contact with the Health Service, addressing physical, social and psychological problems, but also providing continuity of care. The traditional Primary Health Care Team of General Practitioners working with nursing, administrative and other support colleagues has largely been expanded to include colleagues from other agencies and disciplines relevant to the delivery of care appropriate to the person's needs.
Professional	In the context of this Framework, Professional usually refers to those who have been specially trained in health care such as the midwife, the GP, the Obstetrician, the anaesthetist, the paediatrician/neonatologist and the health visitor.

Acronym / Term	Meaning
Protocol	An adaptation of a clinical guideline or a written statement to meet local conditions and constraints, which has legal connotations.
RAF	Royal Air Force
RCA	Royal College of Anaesthetists
RCM	Royal College of Midwives
RCOG	Royal College of Obstetricians and Gynaecologists
SAS	Scottish Ambulance Service
SAtSD	Scottish Approach to Service Design
SCBU	Special Care Baby Unit
ScotSTAR	Scottish Specialist Transport and Retrieval
Screening	Mass examination of the population to detect specific illnesses.
SG	Scottish Government
Shared Care	An agreed arrangement between a GP and an Obstetrician, a GP and a midwife or an Obstetrician and a midwife over care for a pregnant woman.
SLA	Service level Agreement
SME	Subject Matter Expert
SPSP	Scottish Patient Safety Programme
Stillbirth	A baby born dead after 24 completed weeks of pregnancy. Stillbirths must be registered and the cause of death established before a certificate of stillbirth can be issued and a burial take place.
Strategy	A plan or a policy to achieve something.
Supervisor of Midwives	A statutory function whereby a midwife who has completed the appropriate training is appointed to the role of supervisor of midwives. The role encompasses the provision of support and guidance for midwives, protection of the public, contribution to the regulation of the practice of midwives and promotion of high quality care. Each midwife has a named supervisor of midwives. 31 March 2017 saw the removal of statutory supervision from the Nursing and Midwifery Order 2001.
Team Midwifery	Where a small team of midwives share responsibility for care during pregnancy, childbirth and the postnatal period.
ToR	Terms of Reference
Ultrasound Scan	An image created by the use of sound waves above the audible range of the human ear. It is useful in the confirmation of pregnancy, the determination of fetal size and wellbeing.

Acronym / Term	Meaning
Woman Centred	The needs of the individual woman provide the focus for the planning, organising and delivery of maternity services.
WTE	Whole Time Equivalent

This publication is available at **www.gov.scot**

Any enquiries regarding this publication should be sent to us at

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