

NHS Highland

Local Report ~ *January 2007*

# Maternity Services



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## **Maternity Services**

The maternity services standards apply to specific areas of the service. The clinical standards cover the period of time between confirmation of pregnancy, through until the baby is 6–8 weeks old. The project group developed five standards, covering: core principles; pre-conception and very early pregnancy; pregnancy; childbirth; and postnatal and parenthood. This report presents the findings from the peer review of performance against the standards.

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# 1 Setting the scene

NHS Quality Improvement Scotland (NHS QIS) was set up by the Scottish Parliament in 2003 to take the lead in improving the quality of care and treatment delivered by NHSScotland. We do this by setting standards and monitoring performance, and by providing NHSScotland with advice, guidance and support on effective clinical practice and service improvements.

## About this report

The ‘Clinical standards for maternity services’ were published in March 2005. These standards are being used to assess the quality of services provided by NHSScotland nationwide.

This report presents the findings from the peer review of **NHS Highland**.<sup>1</sup> This review visit took place on **16 March 2006**, and details of the visit, including membership of the review team, can be found in Appendix 2.

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<sup>1</sup> At the time of the review visit there were 15 territorial NHS boards and eight special health boards. Since 31 March 2006 and the dissolution of NHS Argyll & Clyde there have been 14 territorial boards. As the review programme cut across this date 15 reports have been presented in order to accurately reflect service provision at the time.

## 1.1 How the standards were developed

In June 2002, a maternity services project group was established and chaired by Dr Jane Magill, Director, Robert Clark Centre for Technological Education, University of Glasgow. Membership of the maternity services project group includes both healthcare professionals and members of the public (see Appendix 3).

Members of the maternity services project group are involved in the quality assurance process of:

- developing standards
- reviewing performance against the standards throughout Scotland, using self-assessment and external peer review, and
- reporting the findings from the review.

When developing the maternity services standards, a Scotland-wide consultation process was undertaken. The views of health service staff, women (pre and postnatally), and the public were sought, and all the relevant evidence available at the time was taken into account. Draft standards were also piloted in NHS Highland, NHS Lanarkshire and NHS Lothian in June 2004.

## 1.2 How the review process works

The review process has two key parts: local self-assessment followed by external peer review. First, each NHS board assesses its own performance against the standards. An external peer review team then further assesses performance, both by considering the self-assessment data and visiting the NHS board to validate this information and discuss related issues. The review process is described in more detail below (see also the flow chart on page 9).

### Self-assessment by NHS boards

On receiving the standards, each NHS board assesses its own performance using a framework produced by NHS QIS. This framework includes guidance about the type of evidence (eg guidelines and audit reports) required to allow a proper assessment of performance against the standards to be made.

The NHS board submits the data it has collected for this self-assessment exercise to NHS QIS before the on-site visit, and it is this information that constitutes the main source of written evidence considered by the external peer review team.

### External peer review

An external peer review team then visits and speaks with local stakeholders (eg staff, patients and carers) about the services provided. Review teams are multidisciplinary, and include both healthcare professionals and members of the public. All reviewers are trained. Each review team is led by an experienced reviewer, who is responsible for guiding the team in its work and ensuring that team members are in agreement about the assessment reached.

The composition of each team varies, and members have no connection with the NHS board they are reviewing. Both of these factors facilitate the sharing of good practice across NHSScotland, and ensure that each review team assesses performance against the standards rather than make comparisons between one NHS board and another.

At the start of the on-site visit, the review team meets key personnel responsible for the service under review. Reviewers then speak with local stakeholders about the services provided. After these meetings, the team assesses performance against the standards, based on the information gathered during both the self-assessment exercise and the on-site visit. The visit concludes with the team providing feedback on its findings to the NHS board. This includes specific examples of local initiatives drawn to the attention of the review team (recognising that other such examples may exist), together with an indication of any particular challenges.

### **Assessment categories**

Each review team assesses performance using the categories ‘met’, ‘not met’ and ‘not met (insufficient evidence)’, as detailed below.

- **‘Met’** applies where the evidence demonstrates the standard and/or criterion is being attained.
- **‘Not met’** applies where the evidence demonstrates the standard and/or criterion is not being attained.
- **‘Not met (insufficient evidence)’** applies where no evidence is available for the review team, or where the evidence available is insufficient to allow an assessment to be made.

A final category **‘not applicable’** is used where a standard and/or criterion does not apply to the NHS board under review.

### 1.3 Reports

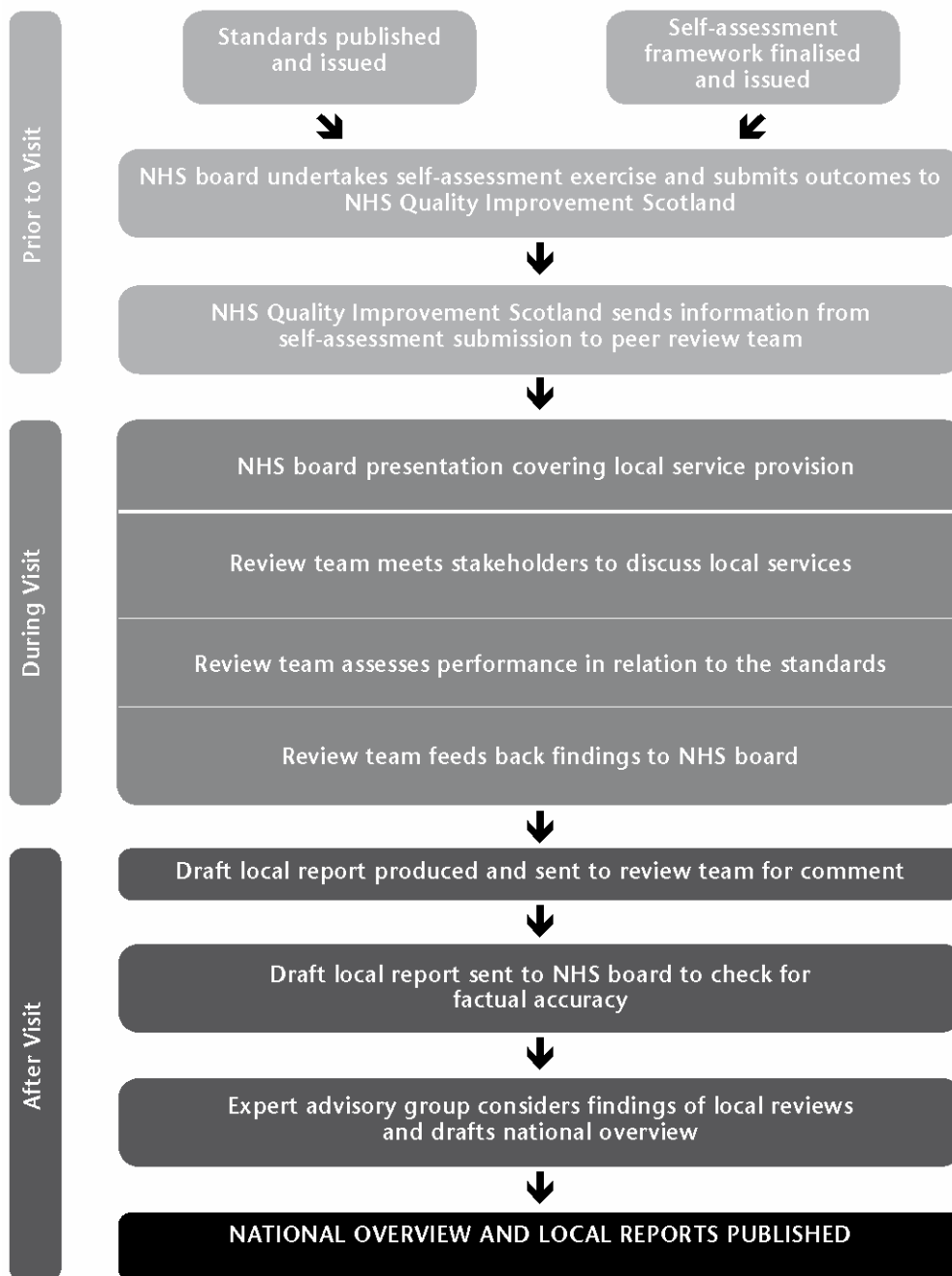
After each review visit, NHS QIS staff, with clinical input as appropriate, draft a local report detailing the findings of the review team. This draft report is sent to the review team for comment, and then to the NHS board to check for factual accuracy. The local report is published only after all the visits for that topic have been undertaken nationwide.

Once a national review cycle is completed, the expert advisory group convenes to examine review findings and make recommendations. The group then oversees the production of a national overview of service provision across Scotland in relation to the standards. This document includes both a summary of the findings (highlighting examples of local initiatives and challenges for the service) and recommendations for improvement.

Part of the remit of NHS QIS is to report whether the services provided by NHSScotland, both nationally and locally, meet the agreed standards. This does not include reviewing the work of individual healthcare professionals. In achieving this aim, variations in practice (and potential quality) within a service will be encountered and subsequently reported.

**Please note – all reports published are available in print format and on the NHS QIS website.**

## The review process



## 2 Summary of findings

### 2.1 Overview of local service provision

Highland is a large geographical area situated in the north of Scotland and has a population of around 211,340. The city of Inverness is the largest urban area in the region, although most of the population live in rural areas which may be remote, including islands. The proportion of older people in the population is higher than the national average, whereas levels of illness and deprivation are relatively low.

#### Local NHS system and services

Highland NHS Board is responsible for improving the health of the local population and for the delivery of the healthcare required. It provides strategic leadership and has responsibility for the efficient, effective and accountable performance of the NHS in Highland.

At the time of the review visit, NHS Highland provided acute and primary care services through a single operating division, Highland Direct Health Services. This comprised one specialist services unit (SSU) providing acute care, and based mainly at Raigmore Hospital, Inverness, and three community health partnerships (CHPs). Each CHP covers a geographical area and is a way of organising non-acute care where an NHS board maximises its ability to support integration across health services and with other agencies such as social services.

The NHS Board is accountable for both continuously improving the quality of health services, and safeguarding high standards of care, by creating an environment in which excellence in clinical care will flourish (framework of clinical governance).

Further information about the local NHS system can be accessed via the website of NHS Highland ([www.show.scot.nhs.uk/nhshighland/](http://www.show.scot.nhs.uk/nhshighland/)).

#### Service organisation

Information obtained from a scoping study exercise undertaken in 2005 indicated that there are 15 NHS boards within Scotland that provide maternity services.

In NHS Highland, all maternity services are provided across primary and secondary care settings throughout the NHS board area, with specialist/tertiary services being provided by the regional services within NHS Grampian, NHS Greater Glasgow and NHS Lothian.

There are four maternity units within NHS Highland, two are consultant-led: Raigmore Hospital, Inverness, and Caithness General Hospital, Wick; and two are midwife-led: Belford Hospital, Fort William, and Mackinnon Memorial Hospital, Broadford, Skye. The number of births have fluctuated over the last 5 years as illustrated in the following table.

NHS Highland	Number of births				
	2001	2002	2003	2004	2005
Belford Hospital	27	24	45	36	49
Caithness General Hospital	208	219	224	202*	226
MacKinnon Memorial Hospital	Not known	Not known	Not known	18	24
Raigmore Hospital	1,837	1,713	1,752	1,899	1,877
Home births	4	10	15	12	18
Other (eg born before arrival)	17	12	13	10	4
<b>Total births</b>	<b>2,093</b>	<b>1,978</b>	<b>2,049</b>	<b>2,177</b>	<b>2,198</b>

\*Unit closed for one month

## 2.2 Summary of findings against the standards

A summary of the findings from the review, including examples of local initiatives drawn to the attention of the review team, is presented in this section. A detailed description of performance against the standards/criteria is included in Section 3.

### Core Principles

NHS Highland operates as a single division known as Highland Direct Health Services, and includes two consultant-led and two midwife-led maternity units. There are defined lines of responsibility for the planning and delivery of the maternity service, and the Board is aiming to recruit a designated lead clinician to this role.

A woman's health network has been established with a wide range of professional disciplines and public involvement to prioritise implementation of 'A Framework for Maternity Services in Scotland' and to take forward the development of a maternity strategy document.

Considerable consultation with the public has taken place in various areas across NHS Highland in the planning for future delivery of maternity services. A proposal is in place to set up a maternity services liaison committee (MSLC) with a member of the public as chair of the group.

There are comprehensive procedures in place to ensure all clinical incidents can be reported and these are monitored on a quarterly basis. The review team commended the system in place to share learning outcomes from incidents with staff working in maternity services across NHS Highland.

#### Example of a local initiative...

NHS Highland has taken a strategic approach to sharing identified best practice and supporting local developments and is collaborating with Stirling University to organise a conference in recognition of nursing and midwifery achievements.

Training courses on adult and neonatal resuscitation care are available and offered to all healthcare professionals involved in delivering maternity care. The training is mandatory and is delivered locally by a multidisciplinary training and development co-ordinating team. There was good evidence of course attendance and the review team commended the training process.

There is a protocol for the identification of women who are at risk of domestic abuse. Training courses are provided in collaboration with other related professional groups, eg police and social workers, to increase staff awareness on how to support and advise vulnerable women on how they can empower themselves to avoid abuse.

A special care baby unit (SCBU) is available on-site in one of the two consultant-led hospitals in NHS Highland. Direct rapid access for all women and babies requiring specialist expertise and intensive care within NHS Highland is not always possible due to demands on the intensive care beds/cots at Raigmore Hospital. The review

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team acknowledged the geographic challenges involved in stabilising and transferring women and their newborn babies in emergency situations across and outwith NHS Highland which can lead to lengthy travel times. The Board was encouraged to develop local referral protocols to ensure clear guidance is provided on how and when to transfer a woman with significant or obstetric complications or a baby requiring neonatal intensive care to a unit with specialist facilities.

Women are supported in their chosen place of delivery, and partners' and family involvement is actively encouraged throughout pregnancy and childbirth.

NHS Highland uses a unified handheld maternity record to document all events during a woman's antenatal, childbirth and postnatal period. Women take responsibility to ensure that the information contained in the record is shared with other health professionals involved in the planning and delivery of their maternity care. The handheld maternity record contains details of the key individual responsible for the woman's maternity care.

### **Pre-conception and Very Early Pregnancy**

Pre-conception advice is available to women with diabetes. The diabetic specialist nurse based at Raigmore Hospital tailors the service to meet the needs of individual women and liaises closely with other healthcare professionals as appropriate to ensure further advice and support is available if needed. The review team commended the flexible arrangements in place to provide diabetic care management that is based on SIGN Guideline 55: Management of Diabetes.

Women with a known family history of personal or significant illness who require pre-conception advice are seen on an individual basis at the local gynaecological clinic by consultants with a special interest in the specific condition. Geneticists visit Raigmore Hospital every 2 months and women are rarely referred to other boards for specialist consultation.

There is a good system in place for women to self-refer or for a health professional to make a referral to the early pregnancy assessment clinic and a dedicated 24-hour telephone line enables prompt referrals to be made. Guidelines for referral are available on the Raigmore Hospital intranet site and locally adapted protocols are available in paper form in other areas across NHS Highland. The review team commended the comprehensive early pregnancy service provided.

NHS Highland recognises the challenge to provide women in early pregnancy with prompt access to ultrasound scanning across the Board area, and it was noted that three midwives have already completed training in the use of ultrasound scanning equipment as a first step in addressing the provision of a 7-day scanning service. Telemedicine is well established and used within the paediatric service. The Board aims to trial telemedicine links for multidisciplinary review of fetal anomaly images with NHS Grampian.

## **Pregnancy**

NHS Highland has a range of parent education programmes which are delivered by midwives across the region. One-to-one education is provided where appropriate and there are members of maternity staff who have been trained in the use of sign language.

Antenatal education is recognised as an integral part of a woman's antenatal care and information is provided both verbally and in written form. The Board is aware that a change in demographics has resulted in the need to provide information to women in a wider choice of languages and a review of translation services available is being actioned.

The review team encouraged the Board to consider standardising the education programme provided within NHS Highland to ensure it outlines the aims, themes and outcomes of the programme.

### **Example of a local initiative...**

NHS Highland is developing good practice guidelines in conjunction with the Scottish Training in Drugs and Alcohol (STRADA) partnership to support staff in the management of drug and alcohol misuse in pregnant women. The guidelines provide detailed guidance on all aspects of planning a maternity care pathway for individual women and their families with necessary community links and support agencies to allow women to feel more confident in their ability to manage parental and family responsibilities.

The review team commended the comprehensive draft guidelines.

Postnatal reunion classes are provided throughout NHS Highland and are well attended. The education programme delivered at these classes has been evaluated and changes implemented in response to feedback received.

### **Example of a local initiative...**

NHS Highland health promotion department is currently developing an 'information trail' detailing the range of written material that all parents and carers should have access to across Highland. The information trail covers the period from pre-conception up to the age of 5 years old. The information provided is produced both locally and nationally, and the trail directs parents and professionals to related support services and resources. The Highland information trail includes a detailed list of website addresses for parents.

All women have access to screening services and antenatal diagnostic testing with a good service being provided to women identified as at risk of rhesus disease. Women continually have their obstetric risk assessed throughout their pregnancy and

managed in accordance to the level of risk. Identified risk factors and maternity care are documented in the handheld maternity record and on the birth plan.

### **Childbirth**

One-to-one midwifery care is actively practised in all areas across NHS Highland. At the MacKinnon Memorial Hospital, there are always two trained midwives in attendance during a woman's labour and childbirth, and one of the midwives is usually known to the woman. It is Board policy to have two trained midwives present for planned home births. Staff reported that the number of requests for home births is continually increasing and providing midwifery care to meet the demand is becoming a challenge.

There is a range of agreed multidisciplinary protocols in place for the management of key labour activities. Protocols are reviewed by the midwifery group and accessible on the intranet. The review team encouraged the Board to systematically add a review date to all protocols following revision to ensure the most up-to-date version is being used.

Women are offered a range of pain management techniques during childbirth and are supported in their choice of pain control. Pain management techniques available include: transcutaneous electrical nerve stimulation (TENS); oral, intramuscular and inhalation analgesia; and the use of water for pain relief and deliveries is available in Raigmore and Belford hospitals. Epidural analgesia is available on-site within Raigmore Hospital. Following administration of epidural anaesthesia or during the post-delivery period all women have their pain assessed. The review team commended the Board on its comprehensive pain assessment guidelines.

Raigmore Hospital is working towards providing a dedicated obstetric theatre with 24-hour anaesthetic cover. Currently, the theatre operates during normal working hours on weekdays and the introduction of 12-hour shifts is being implemented to extend the operating times.

At the time of the visit, there were no audit data available to confirm that 'decision to delivery' intervals did not exceed 30 minutes.

### **Postnatal and Parenthood**

The Board has procedures in place to ensure that all women are assessed immediately after giving birth by a midwife or student midwife under supervision. The assessment is documented in the woman's postnatal record. Women are further assessed prior to discharge from hospital. Protocols are in place to support staff in the recognition and management of obstetric complications.

Women are provided with a range of information leaflets and advice on contraception. The choices available are discussed with the women prior to leaving hospital or within the first 10 days of childbirth by the community nurse. Women are aware that GP practices and family planning clinics are accessible for further advice and support on contraception issues if required.

Raigmore Hospital achieved UNICEF/WHO Baby Friendly status in 2005 and there is work ongoing in other areas of NHS Highland to attain this award. The review team acknowledged the considerable work undertaken by the Board in its commitment to achieving this status in Raigmore Hospital and encouraged it to maintain its enthusiasm to attain Baby Friendly status in all areas across NHS Highland.

Breastfeeding is actively promoted throughout all areas in NHS Highland and high rates of successful breastfeeding mothers were noted. Information regarding breast and bottle feeding methods is available and all mothers are supported in their preferred choice. Local breastfeeding support groups are offered in some areas throughout NHS Highland and one-to-one support from a midwife or health visitor is available for all mothers.

At the time of the review visit, there was no infant feeding advisor in post. However, a job description and secured funding is in place for the Board to advertise this vacancy.

Board staff follow standard procedures to ensure that a baby receives 'skin to skin' contact with the mother as early as possible after delivery and also use other methods such as heated resuscitaires and cosi-cots to minimise temperature loss. There were a large number of admissions to the SCBU for year 2005 due to inadequate nutrition leading to hypoglycaemia and dehydration. A weight loss protocol was being developed.

Babies with birth weights less than 2.2 kgs are admitted to the SCBU. The review team encouraged the Board to consider reviewing its admission criteria and reducing the birthweight criterion (eg to 1.8kgs) to reduce avoidable admissions to the SCBU.

Newborn babies are clinically examined by a member of the birth team within 72 hours of delivery and there are clear guidelines in place to support staff with these examinations. The review team recommended that all staff involved in examination of the baby receive clinical training in newborn examination.

There are guidelines in place for transfer and post transfer of women and their newborn babies from hospital to community care. Staff provide advice on securing babies less than 34 weeks old in their car seats.

## 3 Detailed findings against the standards

### Standard 1(a): Standard 1 ~ Core Principles

#### Standard Statement

*Accountability: There are clear lines of responsibility for the planning and delivery of maternity services, with evidence of public involvement.*

#### NHS Highland

#### Essential Criteria

*1a.1: There is a named individual at NHS Board director level with responsibility for maternity services.*

#### STATUS: Met

There is a named individual with clear lines of responsibility for the planning and delivery of maternity services at operational and Board level in NHS Highland. At the time of the review visit, this role was provided by the director of nursing who works closely with the medical director on strategic issues.

*1a.2: There is a named clinician at both Primary and Acute NHS Operating Division level with responsibility for maternity services.*

#### STATUS: Met

NHS Highland operates as a single division known as Highland Direct Health Services. At the time of the visit, the medical director was the clinician responsible for the planning and delivery of maternity services. However, staff reported that, through the women's health forum, the need to appoint a permanent designated lead clinician to this role was identified and the Board aims to recruit to the post within the next 6 months.

*1a.3: There is a current, dated, documented NHS Board strategy, developed by stakeholders, which sets out how maternity services are planned, developed and implemented, in line with Scottish Executive Health Department (SEHD) policies for women-centred care.*

#### STATUS: Not met

At the time of the visit, NHS Highland did not have a formal NHS Board strategy in place for maternity services. However, staff reported that in January 2006, a women's health network had been established with a remit to undertake strategic planning, clinical governance, staff governance and regional/national networking. The network

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has identified risk assessed priorities for implementation and delivery of maternity services across NHS Highland and, following Board approval, a formal maternity services strategy document and timescale will be finalised by a subgroup of the network.

The review team commended the positive work undertaken on behalf of the Board in establishing the women's health network and the commitment to ensure a wide membership and service users' involvement on the group, and encouraged the Board with its formalisation of a maternity strategy document.

*1a.4: There is evidence of a range of public involvement activities in the planning of all maternity services.*

#### **STATUS: Met**

There has been considerable consultation with the public in Caithness and Sutherland in the planning for the future delivery of maternity and gynaecology services at Caithness General Hospital, Wick, and the review team encouraged the Board to continue to involve the public in its development of a fully integrated maternity service across NHS Highland.

Staff reported on the importance of user feedback which is recognised as central to quality measurement and service improvement within NHS Highland. At the time of the visit, local action plans in response to comments, complaints and incidents were being developed, and a Board-wide strategy was to be implemented to address identified themes that will lead to improved delivery of care.

The patient and public involvement officer is actively working with patient councils across a wide area to establish a maternity services liaison committee (MSLC). The first meeting of the committee will be held on 1 April 2006. The remit of the group is under development with lay membership involvement and it is anticipated that the chair of this group will be a service user. Training needs for the lay members have been identified and information 'road shows' are being considered to give the public an opportunity to get to know the staff and Board executives, and gain an overview of the maternity services provided. The information sessions will be scheduled throughout different locations across the region and delivered within a year.

## Standard 1(b): Standard 1 ~ Core Principles

### Standard Statement

*Risk Management: All healthcare professionals are aware of the importance of risk assessment and management of pregnant women, and take action to minimise avoidable adverse clinical incidents, including during transfer and access to services.*

### NHS Highland

#### Essential Criteria

*1b.1: Assessment: There is a system to ensure that all critical incidents are reported, investigated and analysed, resulting in changes in practice, where necessary.*

#### STATUS: Met

Within NHS Highland maternity units, critical incidents are reported following the guidelines of the Royal College of Obstetricians and Gynaecologists (RCOG). Clinical incidents are also identified through complaints and clinical audits.

An incident reporting form (IR1) is in use across NHS Highland to document all incidents and near misses. IR1 forms are collated and quarterly reports are submitted to the direct health services management team and the Board performance committee. These reports identify specific maternity trends which are brought to the attention of appropriate maternity service personnel. The medical director reviews all appropriate incidents.

Within Raigmore Hospital, Inverness, maternity services incidents are collated weekly and reviewed monthly by the risk management steering group (RMSG), a multidisciplinary group that shares experience and uses lessons learned for improving future practice. Analysis of significant incidents is regularly conducted with actions determined and followed up by the RMSG. At the time of the visit, the group had only recently started to identify trends and record changes in practice as a result of these findings. Details of incidents reported/trends identified are widely circulated within the Board. Good attendance at the multidisciplinary review meetings was noted.

Within Caithness General Hospital, clinical incidents are reviewed at monthly perinatal meetings and all IR1 forms are forwarded to the Raigmore RMSG.

Staff informed the review team that a risk register is being developed to support sharing of information and learning outcomes with staff Board-wide.

The review team commended the processes in place for systematically analysing learning outcomes from incidents which included the identification of positive behaviours as well as areas for improvement. The team encouraged the Board to adopt a single service-wide approach to risk management.

*1b.2: Assessment: A compliments, comments and complaints procedure is in place to enable women to express views about their pregnancy and childbirth experience.*

**STATUS: Met**

Users of maternity services in NHS Highland have access to a complaints procedure which requires a reply to the complainant within 20 days of receipt of the complaint. This procedure is publicised in leaflets which are available in all clinical areas. At the time of the visit, the complaints procedure was under review. Raigmore Hospital also has a Citizens Advice Bureau on-site which is widely publicised and is easily accessible.

Staff reported that a large volume of ‘thank-you’ correspondence is received within the maternity units, but has not yet been audited. Cards and letters are distributed to the relevant department for staff to read.

Patient satisfaction data on an individual’s experience of pregnancy and childbirth are audited using a standard questionnaire. An evaluation of specific aspects of the service is undertaken by the clinical effectiveness team and discussed at monthly team meetings. Examples of recent audit reports from across the region indicated changes in practice which had resulted from consumer feedback. Findings from surveys undertaken are published and displayed in poster form throughout the maternity unit. Women can also directly contact the service for verbal feedback on outcomes of specific surveys if required.

*1b.3: Assessment: There are local guidelines agreed between the NHS Operating Division and the Scottish Ambulance Service, for the safe transfer of women during pregnancy, childbirth and with her newborn baby in the postnatal period.*

**STATUS: Not met**

Draft guidelines prepared by NHS Highland for the safe transfer of women and their newborn to and from Raigmore Hospital are being reviewed by the Scottish Ambulance Service. Discussions and work are also ongoing to consider development of the ambulance service to effectively manage the transfer of women across the regions following the merger of part of NHS Argyll & Clyde with NHS Highland after 31 March 2006. However, at the time of the visit, there was no staff representative from the Scottish Ambulance Service available to discuss existing transfer arrangements to Raigmore Hospital.

Staff reported that risk assessment and identification of obstetric emergency cases are integral to the effective use of the ambulance service within NHS Highland.

Algorithms are in place to manage how and when to transfer women, but to date these had not been agreed with the Scottish Ambulance Service. On Skye and in Lochalsh, patient education regarding the correct identification of onset of labour is emphasised to ensure that the majority of women use their own transport to transfer to Raigmore Hospital, where possible, accompanied by a midwife.

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The review team was further informed that, on occasion, delays have been experienced when transferring women to Raigmore Hospital from Caithness General Hospital. The delays are mainly due to severe weather conditions, coupled with the decision to no longer use fixed wing aircraft to transfer pregnant women and helicopters not being a suitable mode of transport for women in labour. Concerns were also raised regarding the new style ambulances in use which cannot accommodate an incubator and provide sufficient space for a woman in labour to lie down.

The review team noted, as a challenge for the Board, the need to formalise transfer guidelines for obstetric emergencies throughout all areas of NHS Highland ensuring these are as robust and accessible as possible.

*1b.4: Referral: Formal arrangements exist for women and their babies to access a network of specialist services.*

**STATUS: Not met**

The review team was informed that there are formal arrangements in place for women and their babies to access a network of specialist services: allied health professionals (AHPs); anaesthesia and intensive care; imaging; laboratory medicine; medicine; neonatology; obstetrics; perinatal pathology; surgery; and psychiatry.

These specialist services are, however, not consistently available in all sites across NHS Highland during a 24-hour period, although staff reported that specialist advice is always available. In particular, the review team noted that the accessibility of antenatal physiotherapy services is restricted to Raigmore Hospital. Women can be referred to an obstetric physiotherapist, but the waiting times make this service inaccessible.

It was further noted that women can access anaesthesia services for assessment or advice by attending a local antenatal clinic.

*1b.5: Referral: All women with risk factors for their pregnancy are offered assessment by a consultant obstetrician.*

**STATUS: Met**

There is a risk factor assessment guide included in the Highland midwifery guidelines which is used consistently across NHS Highland and the review team considered this documentation to be comprehensive.

The risk assessment is recorded in the woman's handheld maternity record.

*1b.6: Training and Audit: There is an audit system in place to monitor important aspects of maternity care.*

**STATUS: Met**

The review team was informed that aspects of maternity care to be audited are identified by various means: from the risk management tools and the introduction of new services or changes in practice and local/national initiatives. The clinical effectiveness team co-ordinates and supports audit activity and reports findings at Board level. The clinical governance department is responsible for overseeing audit studies and ensuring changes in practice are implemented where appropriate. The Board has identified that CHPs will be involved in future selection of audit activity. NHS Highland contributes to several national multi-centred audits.

*1b.7: Training and Audit: All healthcare professionals directly involved in childbirth are competent in basic adult obstetric, neonatal resuscitation and immediate care.*

**STATUS: Met**

A comprehensive training and skills-update programme for adult, obstetric and neonatal resuscitation is in place within NHS Highland. The programme is delivered locally to all healthcare professionals directly involved in childbirth by a training and development co-ordinating team. The multidisciplinary training team conducts the training according to local needs, which encourages good attendance from a wide range of professionals. The review team was advised that training 'road shows' involving instruction from the Scottish Ambulance Service, neonatal nurse practitioners, GPs and midwives are planned for delivery at MacKinnon Memorial Hospital, Bradford, Skye, and Belford Hospital, Fort William.

Staff in community maternity units receive the training at least every 6 months and hospital-based staff attend annually. Records of attendance were seen by the review team and indicated a high level of training across all professions. The process for administering this training was commended by the review team.

*1b.8: Clinical Complications: A clinical risk assessment process for individual women, including a communications strategy, is in place, which addresses escalating risk.*

**STATUS: Met**

The review team was satisfied that NHS Highland has a clinical risk assessment and communications strategy in place. The detailed risk factor assessment guide is included in the Highland midwifery guidelines which is used consistently across NHS Highland and includes a section on communication across the regional service which addresses continuous risk assessment, re-evaluation and escalation procedures.

*1b.9: Clinical Complications: A policy is in place for the identification of women who are at risk of domestic abuse, and staff are trained in assessment, communication skills and support of such women.*

**STATUS: Met**

A protocol on domestic abuse is available to all healthcare professionals within NHS Highland which includes a care pathway for responding to women experiencing domestic abuse, with special emphasis on the occurrence of abuse during pregnancy. Ongoing training on recognition of warning signs and symptoms and communication with women who are experiencing domestic abuse is conducted at various venues in collaboration with related professional groups, eg police and social workers. The training provided alerts staff to identify cause for concern and be able to offer support and advice on how women can empower themselves to escape abuse.

*1b.10: Clinical Complications: High dependency facilities and clinical expertise are available within the obstetric unit for all women in level II and level III consultant-led units.*

**STATUS: Not met**

There is a four-bedded high dependency area within the maternity unit in Raigmore Hospital with 24-hour midwifery cover. An additional midwife is scheduled on duty in the high dependency unit (HDU) on weekdays during normal working hours when elective caesarean surgery is planned. Obstetric anaesthetists are available to provide postoperative care at all times.

Although high dependency care is available in Caithness General Hospital within the medical ward, transient ventilation can not be provided. Women identified as requiring emergency high dependency care would be stabilised and transferred to Raigmore Hospital. Dedicated obstetric anaesthesia is not available in Caithness General Hospital.

Board staff emphasised the importance of planning a woman's pregnancy management following the initial obstetric risk assessment. Women identified with a high obstetric risk would routinely be scheduled for maternity care in Raigmore Hospital.

*1b.11: Clinical Complications: There is a defined rapid access route for women to adult intensive care and expertise in all level II and level III consultant-led units.*

**STATUS: Not met**

Within NHS Highland, there is an adult intensive care unit (ICU) on-site within Raigmore Hospital. High dependency care is also available within Caithness General

Hospital, however, it cannot provide transient ventilation and does not have dedicated obstetric anaesthesia.

Raigmore Hospital has a draft protocol for women to access the adult ICU and specialist expertise. Admission to the adult ICU is by direct consultant referral with access to a dedicated anaesthetist within the obstetric unit if required.

Women living in other rural areas who require admission to the adult ICU are transferred to Raigmore Hospital by ambulance, plane or helicopter depending on individual circumstances. Referral is consultant-led.

While the review team acknowledged that staff are aware of the procedures to be followed to ensure women are admitted to the adult ICU as quickly as possible, it recommended that the processes in place are formally documented for all areas and accessible to all healthcare professionals.

*1b.12: Clinical Complications: Adult intensive care facilities and specialist medical back-up are available on-site in all level IIc and level III consultant-led units.*

**STATUS: Met**

Adult intensive care facilities and specialist medical support are available on-site at Raigmore Hospital.

*1b.13: Clinical Complications: Where full adult intensive care facilities are not currently available on-site in level IIc and level III consultant-led units, a strategy is in place outlining the process and timescale to achieve this.*

**STATUS: Not applicable**

The maternity unit at Raigmore Hospital is a level 11c consultant-led service which provides full adult intensive care facilities on-site.

*1b.14: Clinical Complications: Units that do not have adult intensive care facilities, advanced imaging and cardiology on-site, must have protocols in place for the care of women with significant medical or obstetric illness to ensure that they are delivered in a unit that can provide these resources on-site.*

**STATUS: Not met (insufficient evidence)**

The Board reported that there is a robust booking strategy in place based on its risk assessment guidelines which ensure that women with a significant medical or obstetric illness receive care in an appropriate environment. The review team noted that, while the midwifery guidelines contain guidance on the management of specific obstetric conditions, they do not clearly detail how and when women would be referred to a unit with intensive care and advanced imaging/cardiology services

on-site. The review team encouraged the Board to develop written local referral protocols for use by all health professionals involved in the management of maternity care.

*1b.15: Clinical Complications: Neonatal intensive care unit (NICU) facilities are available on-site in level IIc and level III consultant-led units. Where NICU facilities are not available on-site, a strategy is in place outlining the process and timescale to achieve this.*

**STATUS: Met**

Within NHS Highland, there are four intensive care cots available within the maternity unit in Raigmore Hospital. There is a protocol detailing admission criteria for babies with specific signs and symptoms. Babies identified with other symptoms not specified in the protocol are discussed with the registrar or consultant in charge before a baby is admitted to the neonatal intensive care unit (NICU).

*1b.16: Clinical Complications: Special care baby unit (SCBU) facilities are available on-site in all level II and level III consultant-led units and there is a defined rapid access route to NICU in all level II and level III consultant-led units.*

**STATUS: Not met**

Within NHS Highland, there are two level II consultant-led maternity units: Raigmore Hospital and Caithness General Hospital. A special care baby unit (SCBU) is available on-site at Raigmore Hospital.

There are procedures in place for the stabilisation and transfer of mothers and their newborn babies to Raigmore Hospital. Maternity staff at the MacKinnon Memorial Hospital, Belford Hospital and Caithness General Hospital liaise with the neonatologist at Raigmore Hospital to determine the availability of special care cot facilities prior to arranging the transfer of a mother and her newborn baby. If required, the North of Scotland neonatal transfer team is responsible for transporting the mother and her newborn baby to their destination with a target of 4–6 hours travel time. It was noted that, on occasions, due to demands on special care cots at Raigmore Hospital, some babies are required to be admitted to other units outwith NHS Highland.

Board staff reported that local maternity unit teams are responsible for the stabilisation of the neonatal baby until the transfer team arrives. In Caithness General Hospital, an anaesthetist will support stabilisation and neonatal care if required. In Mackinnon Memorial, Belford and Caithness General hospitals, midwives receive training in maintenance of neonatal airway and temperature control. The training is conducted locally by midwives, in addition to three advanced neonatal nurse practitioners from Raigmore Hospital who visit hospitals within NHS Highland on a rotational basis to provide monthly resuscitation/stabilisation training. The review

team commended NHS Highland on its approach and commitment to ensuring staff training and development is provided frequently.

*1b.17: Clinical Complications: Where there is provision of NICU and SCBU facilities, these conform to agreed national guidelines.*

**STATUS: Met**

The NICU and SCBU facilities within Raigmore Hospital conform to the guidelines of the British Association of Perinatal Medicine.

## Standard 1(c): Standard 1 ~ Core Principles

### Standard Statement

*Information, Communication and Support: All women are fully informed of the different options available to enable them to take an informed and active role in planning their care, and in the decision-making involved in providing this care. Healthcare professionals are skilled in supporting women in the decision-making process.*

### NHS Highland

#### Essential Criteria

*1c.1: There is a named healthcare professional identified for each woman, who leads and plans her contact with maternity services.*

#### STATUS: Met

Throughout NHS Highland, all women carry their own handheld maternity record which contains contact details of the lead professional responsible for planning her maternity care. This can be the midwife, GP or obstetric consultant.

*1c.2: Women are provided with information in order to make an informed decision about the chosen place of birth for their baby.*

#### STATUS: Met

Within NHS Highland, women are provided with information on choices available for their preferred place of birth for their baby. Discussions take place between women and midwives which provide the opportunity for midwives to explain details of birth place options and outline the available local maternity services. Information on birth options is also discussed with women at parent education classes. Birth options available in NHS Highland include: home birth; 'domicillary in and out' (ie admission to hospital in late stage of labour and early discharge following childbirth); and water birth facilities, which are available on-site at Raigmore, Belford and Caithness General hospitals.

Women are advised at an early stage of the birth planning process: where possible, their preferred choice will be arranged, but should medical or obstetric complications subsequently develop, their birth plan will be reviewed and alternative plans for delivery agreed. Birth plan discussions are recorded in the woman's handheld maternity record.

Staff informed the review team that currently there are no written protocols for denial of choice of place of birth, and that risk assessment of permitting individual choice was under consideration. A patient information leaflet will be prepared which will include all known risks associated with choice.

*1c.3: There is evidence that professionals obtain informed consent for interventions and investigations, and this is documented.*

**STATUS: Met**

NHS Highland has a written policy for consent to treatment, surgery and invasive procedures which includes documentation of consent in a standard form. For specific investigations, such as the taking of blood samples, there is a reference on the consent form to the patient information leaflet provided prior to the giving of consent. The review team encouraged the Board to consider modifying the standard consent forms used to be more in line with the national consent form which provides tick boxes for each investigation rather than having a list of investigations.

Completed consent forms are filed in the woman's handheld maternity record and their inclusion in the record is monitored by the supervisor of midwives. For minor procedures, verbal consent is given and this is also documented in the maternity record.

*1c.4: All women are given the opportunity to reflect on their birth experience.*

**STATUS: Met**

Staff reported that, while there is no formal process in place for allowing women within NHS Highland to have an opportunity to reflect on their birth experience, this does occur through discussions with hospital and community midwives and the information is recorded in the woman's handheld maternity record.

*1c.5: Training on how to communicate information in an effective and sensitive manner, is provided to all healthcare professionals.*

**STATUS: Met**

The Board informed the review team that communication skills training is available within NHS Highland, but is not mandatory for all maternity services staff. The chaplain in Raigmore Hospital provides seminars on breaking bad news which are available to all healthcare professionals, and other specialised communication courses such as a neurolinguistic training program are offered on an ad hoc basis. Staff reported that medical staff receive communication skills training as part of orientation, and NHS Highland learning and development department offers communication skills courses to all staff as part of continuous personal development.

The review team recognised that the Board is committed to ensuring communication skills training is provided to all staff, but would encourage it to promote and monitor attendance.

*1c.6: There is a policy for supporting and informing parents bereaved during pregnancy, or soon after giving birth.*

**STATUS: Met**

There is a comprehensive support pack provided to parents bereaved during pregnancy or soon after giving birth. At the time of the visit, NHS Highland did not have a formal written policy to support women who experience an early pregnancy loss, staff reported that this is currently in development. The review team noted that some of the information provided contained a footnote 'Working with you to make Highland the healthy place to be'. The review team encouraged the Board to consider the suitability of the footnote in this context and would recommend that it be removed.

*1c.7: Information giving (verbal, written and other media) is monitored and evaluated.*

**STATUS: Met**

NHS Highland has conducted a review of all written information provided for maternity services patients and identified that the information is given out at different times in different places. The review team was advised that information giving would be standardised in future as a result of the development of Highland 'information trail' prepared as part of NHS Highland's implementation of the Scottish Executive's 'Getting it Right for Every Child' which was published in 2005 following the 2003 report 'Health for All Children'.

Users of the service are asked to provide comments on the quantity, quality and usefulness of the information they receive and changes are made where appropriate.

## Standard 1(d): Standard 1 ~ Core Principles

### Standard Statement

*Partner and Family Involvement: All maternity services and healthcare professionals recognise the important role of the partner/family, and ensure that they are encouraged and supported to be involved in pregnancy and childbirth.*

### NHS Highland

### Essential Criterion

*1d.1: There is evidence that partner/family/friend involvement occurs, (including information provision for partners and families and open/flexible visiting times for partners and children).*

### STATUS: Met

A variety of information leaflets from across NHS Highland was provided to the review team. These leaflets make reference to the options for partners to attend parent education sessions, and the Board informed the team that such attendance is encouraged.

There is open visiting at all maternity units at any reasonable time for partners and the woman's own children.

## Standard 1(e): Standard 1 ~ Core Principles

### Standard Statement

*Record-keeping: A structured and accurate record of all events during the antenatal, childbirth and postnatal periods is maintained for every woman and child (known as a 'unified record').*

### NHS Highland

### Essential Criteria

*1e.1: All women have a unified handheld record.*

### STATUS: Met

There are unified NHS Highland handheld maternity records and postnatal records in use across the region. Women have held these records themselves since 2002. There is also a standard obstetric inpatient record in use in NHS Highland hospitals.

An audit tool has been developed by the supervisor of midwives in collaboration with the NHS Highland clinical effectiveness department. This tool measures the completeness of the three records in use. A pilot study using the audit tool was conducted in early 2005 which identified areas for improvement and the results of the study were shared across the region. A follow-up audit several months later confirmed improvements in record-keeping. The need for further improvements has been recognised by the Board and the review team was advised that staff training in record-keeping would be conducted. The audit tool was commended by the review team and delivery of the training was noted as a challenge for the Board.

*1e.2: The SMR02, Scottish birth record and birth notification General Register Office for Scotland (GROS), is completed for all women and newborn babies in line with current standards.*

### STATUS: Met

There is a process to ensure that the Scottish Morbidity Record 2 (SMR02), Scottish birth record (SBR) and birth notification are completed in line with current standards. The SMR02 is completed electronically by medical records staff for women delivering in Raigmore and Caithness General hospitals, and completed manually by community midwives for women delivering at home or in MacKinnon Memorial and Belford hospitals. The SBR is completed manually throughout NHS Highland. Birth notification completion is electronic at Raigmore and Belford hospitals and manual at Caithness General and MacKinnon Memorial hospitals.

## Desirable Criterion

*1e.3: The national unified handheld record and national electronic record are completed for all women and newborn babies.*

### **STATUS: Not applicable**

The review visit to NHS Highland took place shortly after the official launch of the national unified handheld maternity record. As the review team considered the time between the launch of the national record and this review visit to be insufficient to measure progress in this area, it concluded this criterion was not applicable at this stage of the review process.

## Standard 2(a): Standard 2 ~ Pre-conception and Very Early Pregnancy

### Standard Statement

*Pre-conception Services: All women with a poor obstetric/medical history, a previous poor fetal/maternal outcome, or where there is a family history of significant illness, have access to specific pre-conception services.*

### NHS Highland

#### Essential Criterion

*2a.1: There is a specific pre-conception service for women with diabetes which is based on the SIGN guideline for diabetes.*

#### STATUS: Met

Within NHS Highland, posters and leaflets publicise the pre-conception and pregnancy advice available from a diabetic specialist nurse, based at Raigmore Hospital. Board staff advised the review team that local GPs are aware of the service and women with diabetes can easily self-refer.

Staff reported that the specialist nurse consults with other AHPs, as appropriate, prior to arranging a meeting with the woman to ensure the service is tailored to meet her individual needs. This flexible process was commended by the review team as it provides one-stop diabetic care management which makes best use of professional time and is convenient for the woman.

#### Desirable Criterion

*2a.2: There are specific pre-conception services for women with a personal or family history of significant illness (eg epilepsy, neural tube defect, chromosomal abnormality).*

#### STATUS: Met

One-to-one pre-conception services for women with a personal or family history of significant illness are provided at local gynaecology clinics by consultants with a special interest in this area. The woman's GP closely supports the management of her care.

Geneticists also visit Raigmore Hospital every 2 months and it was noted that it is rare for women to be referred to Glasgow for specialist consultation. Board staff reported that it is difficult to organise a multidisciplinary pre-conception service due to the small numbers of women being referred.

## Standard 2(b): Standard 2 ~ Pre-conception and Very Early Pregnancy

### Standard Statement

*Early Pregnancy Complications: All women who experience complications in early pregnancy have access to an early pregnancy assessment service.*

### NHS Highland

#### Essential Criteria

*2b.1: There are formal arrangements in place for referral to the early pregnancy assessment service, which allows any healthcare professional to access the service directly.*

#### STATUS: Met

Women who experience complications in early pregnancy have access to the early pregnancy assessment clinics available in Caithness General Hospital and Raigmore Hospital. There is a 24-hour telephone line to allow direct referrals and contact is usually via the GP or midwife. In Caithness General Hospital, there are two dedicated morning clinics providing an early pregnancy assessment service (EPAS) and, outwith these times, women identified as urgent referrals are seen by the consultant on-call. Women identified as non-urgent obstetric cases are requested to wait until the following clinic date. In Raigmore Hospital, the early pregnancy clinic operates during weekday afternoons. In Mackinnon Memorial Hospital, a radiographer and midwife are always available to provide care and support to women who self-refer for early pregnancy assessment.

All healthcare professionals have access to referral guidance which is contained in electronic clinical communication protocols on the Raigmore Hospital intranet site. These protocols are adapted for local use and are also available in paper form. Staff reported that the protocols clearly describe the early pregnancy referral process. The review team commended the Board on its comprehensive early pregnancy service.

*2b.2: There are formal arrangements in place for referral to the early pregnancy assessment service, which allows women with previous early pregnancy problems to self-refer.*

#### STATUS: Met

The review team was informed that women with a known history of previous early pregnancy complications or miscarriage can self-refer to the early pregnancy assessment clinic in Raigmore Hospital at anytime and are given direct contact details. The early pregnancy clinic in Caithness General Hospital operates Monday–Tuesday and the on-call obstetric consultant sees all women referred as urgent cases outwith these scheduled clinics. Women are aware that they can access

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midwife support 24-hours a day and the review team was informed that the Board is currently considering developing a leaflet to inform women about the EPAS.

*2b.3: Women who experience early pregnancy complications are cared for in a dedicated area distinct from the general gynaecology or antenatal ward.*

**STATUS: Not met (insufficient evidence)**

The review team was informed that women who experience early pregnancy complications are cared for in a sensitive manner and, where possible, contact with mothers and babies is minimised. In Raigmore Hospital, women are cared for in a gynaecological ward and provided with a side room if available and, if preferred they are admitted to a general ward and given a single room if vacant. In Caithness General Hospital, Belford Hospital and MacKinnon Memorial Hospital, women and their partners are seen in a private area to allow discussion regarding further management and available local support.

*2b.4: Women who miscarry have access to a choice of management options (surgical/medical/expectant).*

**STATUS: Met**

Women who miscarry have three management options available to them: medical; surgical; and expectant. Women receive information leaflets detailing each of the options and another general leaflet describing the support available. The review team commended the detail of information provided within the leaflets, but noted that the frequency of miscarriage was quoted inconsistently.

*2b.5: There is prompt access (within 24 hours) to ultrasound facilities with trained staff in secondary and tertiary services.*

**STATUS: Not met**

Raigmore Hospital, Belford Hospital and the MacKinnon Memorial Hospital offer an early pregnancy ultrasound scanning service for women on weekdays during normal working hours. Whilst ultrasound scanning is not routinely offered over the weekend and out-of-hours, this service can occasionally be provided at Raigmore Hospital depending on the number of trained staff available. At Caithness General Hospital, there are three trained ultrasonographers who provide a 24-hour, 7 days per week scanning service.

The Board recognised the challenge to provide a full-time anomaly screening service for women at risk across the region and informed the review team that three midwives have already completed training in the use of ultrasound scanning

equipment with a view to the Board being able to provide a seven-day scanning service throughout the NHS Board area in the future.

### **Desirable Criterion**

*2b.6: Telemedicine is used to promote regional networking, and to expedite the reporting of results.*

### **STATUS: Not met**

Telemedicine is not being used systematically within NHS Highland maternity services, although it is well established within the paediatric service. The Board is in the process of setting up trial telemedicine links for review of fetal anomaly scans with NHS Grampian 2 days per week, ie between Raigmore Hospital and Aberdeen Maternity Hospital and Dr Gray's Hospital, Elgin. If trialled successfully it is intended to use telemedicine links with other peripheral areas in order to allow for multidisciplinary review of scanned images.

## Standard 3(a): Standard 3 ~ Pregnancy

### Standard Statement

*Education Programme: All maternity services provide comprehensive programmes of education for childbirth and parenthood to women and their partners and families.*

### NHS Highland

### Essential Criteria

*3a.1: There is a written syllabus of education that targets specific groups, and is in a user-friendly format. The syllabus outlines the aims, themes and outcomes of the education programme.*

### STATUS: Not met

At the time of the visit, there was a number of written antenatal parent education programmes used across NHS Highland. However, it was noted that work is being undertaken by the supervisor of midwives and midwives groups to standardise the information provided and agree a unified syllabus of education. The revised programme will take into account the merger of part of NHS Argyll & Clyde with NHS Highland after 31 March 2006.

All women are invited to attend the parent education classes. One-to-one education programmes are also offered to women with special needs, in particular those with sensory impairment, and it was noted that some staff working within the units are trained in the use of sign language. Obstetric physiotherapists contribute to the antenatal education programmes, although it was recognised by the Board that there is limited access to physiotherapy services.

Women currently receive information regarding antenatal education in a variety of formats and styles, and the review team encouraged the Board to consider standardising the information available. At the time of the visit, information regarding antenatal education and childbirth in languages other than English was not widely available across NHS Highland. The Board reported that providing information to women in their first spoken language is becoming an increasing challenge with the changing demographics within the region. The review team noted that the Board is undertaking a survey of translation services currently in use across NHS Highland with an aim to extend the provision of translation services to encourage non-English speaking pregnant women to access maternity services earlier than at present.

*3a.2: There is a lead named co-ordinator, with recognised training and development to undertake the role, who takes responsibility for the programme on a service-wide basis.*

**STATUS: Not met**

There is a designated education co-ordinator based in Raigmore Hospital. However, it was reported that the post-holder does not have responsibility for the education programme Board-wide, but does liaise with other maternity units within the region on a regular basis by telephone and email.

At Belford, MacKinnon Memorial and Caithness General hospitals, the named midwife identifies specific educational needs for women and their partners and arranges education programmes as appropriate. The midwives maintain their own educational professional skills and have attended a range of courses including those organised by the national charity, Parents in Partnership - Parent Infant Network (PIPPIN).

**Desirable Criteria**

*3a.3: The Ready, Steady, Baby book is provided to all women on confirmation of pregnancy.*

**STATUS: Met**

Within NHS Highland, women receive a copy of the Ready, Steady, Baby book at their first antenatal clinic appointment. Throughout their pregnancy and postnatally, women receive a wide range of local and nationally produced information leaflets relating to maternity care and services available. The review team commended the system currently in development to record all information provided to women at the various stages of her pregnancy known as the Highland information trail.

*3a.4: Parent education programmes include a postnatal reunion.*

**STATUS: Met**

Formal postnatal reunion classes are provided throughout NHS Highland at approximately 6–8 weeks post-delivery and are well attended. The education programme delivered at these events has been evaluated and changes implemented in response to feedback received.

## Standard 3(b): Standard 3 ~ Pregnancy

### Standard Statement

*Screening Services: All women have access to screening services and antenatal diagnostic testing.*

### NHS Highland

#### Essential Criteria

*3b.1: All women who are identified in the screening programme as at risk of rhesus disease are managed and treated according to an agreed protocol.*

#### STATUS: Met

All areas within NHS Highland adhere to the agreed national programme for antenatal screening and diagnostic testing. Women who are identified as being rhesus negative are offered routine antenatal Anti-D prophylaxis at 28 and 34 weeks gestation. Women are also provided with written information produced by the Scottish National Blood Transfusion Service on the use of Anti-D immunoglobulin during pregnancy.

*3b.2: The antenatal care and investigation of women conforms to the guidance set out in Table 14, page 40 of A Framework for Maternity Services in Scotland.*

#### STATUS: Not met

The antenatal care of women in NHS Highland largely conforms to 'A Framework for Maternity Services in Scotland' guidance with the exception of fetal anomaly scanning which is only routinely available to women who live in the Caithness area and those who attend clinics at the Lawson Memorial Hospital, Golspie.

Anomaly screening for women identified as at high risk pregnancy is carried out at Raigmore and Caithness General hospitals and in the Lawson Memorial Hospital.

Women may also transfer to NHS Grampian or NHS Greater Glasgow for more specialised scanning services if required.

## Standard 3(c): Standard 3 ~ Pregnancy

### Standard Statement

*Antenatal Care: All maternity services provide antenatal care delivered by a network of professionals, such that each woman is managed by a midwife, GP or obstetrician according to her level of risk, and as locally as possible.*

### NHS Highland

#### Essential Criteria

*3c.1: Each maternity service has an explicit plan for antenatal care for all women, taking account of risk, which acknowledges that women can move in either direction between different levels of care and lead professionals.*

#### STATUS: Met

Antenatal care plans are agreed according to an individual woman's risk assessment which is recorded in the handheld maternity record. The individual level of obstetric risk is continuously monitored and the care plan amended in line with NHS Highland midwifery guidelines. The guidelines clearly identify that women can move between different levels of care and lead professionals according to their level of risk.

*3c.2: Women are offered the opportunity to be involved in the development of their birth plan, including the chosen place of birth of their baby.*

#### STATUS: Met

Women are offered the opportunity to be involved in the development of their birth plan and are given dedicated time to discuss in detail the preferred choice for place of birth of their baby with the midwife or obstetrician. A record of the outcome of the discussion is documented in the handheld maternity record.

Women may choose the place of birth of their baby within the local area. They may also request a home birth or an early discharge from hospital following delivery.

*3c.3: The routine pattern of antenatal care for pregnant women is no more than nine visits for a primigravida and eight visits for a multigravida.*

#### STATUS: Met

The routine pattern for antenatal care is detailed in the NHS Highland maternity care plan and includes nine scheduled visits for primigravida and eight visits for multigravida. Women identified at high risk may exceed the routine number of antenatal visits.

## Standard 4(a): Standard 4 ~ Childbirth

### Standard Statement

*Care Planning and Birth: All women receive an agreed plan of care throughout labour in line with current professional standards consistent with their risk assessment and their chosen place for childbirth.*

### NHS Highland

#### Essential Criteria

*4a.1: Each woman receives one-to-one midwifery care during established labour and childbirth by a trained midwife, or trainee midwife under supervision.*

#### STATUS: Met

One-to-one midwifery care of women during established labour and childbirth is provided in NHS Highland by a trained midwife or midwife under supervision. Careful management of staff rotas and induction of labour allows this level of care to be achieved.

At the MacKinnon Memorial Hospital, two midwives are in attendance at the birth, one of whom is usually known to the woman.

*4a.2: For planned home births there is a minimum of two trained professionals present, one of whom is a midwife.*

#### STATUS: Met

Two trained midwives are always available for planned home deliveries and an on-call rota system is used to provide this cover. Staff reported that the number of requests for home births is continually increasing and providing midwifery care for home births is becoming a challenge. Women living in the more remote and rural areas of Highland are advised at an early stage in their pregnancy that, due to limited staffing resources and distances involved, a home birth may not always be possible.

The review team commended the Board on its comprehensive home birth guidelines.

*4a.3: There are agreed multidisciplinary, evidence-based policies for the management of all key labour practices, when care deviates from the norm.*

#### STATUS: Met

NHS Highland has agreed multidisciplinary protocols in place for the management of all key labour practices. These include: induction of labour; breech presentation; perineal repair; caesarean section; prophylactic antibiotics for caesarean section; placenta praevia; prostaglandins and oxytocin use; management of thromboembolism

and thromboprophylaxis; water birth; epidural analgesia; fetal monitoring; management of multiple pregnancy; diabetes; pre-eclampsia and eclampsia; declination of blood products; haemorrhage; prolapsed cord; rupture of the uterus; shoulder dystocia; neonatal resuscitation; adult resuscitation; retained placenta; and intrauterine death.

Staff reported that the protocols are reviewed by a midwifery group and all obstetric guidelines are modified in response to feedback from risk management reviews and are available for staff to access on the intranet. However, the review team noted that review dates were not routinely updated on protocols, and it encouraged the Board to systematically add a review date to all protocols following their revision to reassure staff that they are using the most up-to-date version of the guidelines.

## Standard 4(b): Standard 4 ~ Childbirth

### Standard Statement

*Pain Management: All women, regardless of their specific location, are informed about, and offered the range of pain management techniques during childbirth, and are supported in their choice of pain control.*

### NHS Highland

#### Essential Criteria

*4b.1: All women receive information about, and have access to, a range of pain management techniques which include: transcutaneous electrical nerve stimulation (TENS); oral and intramuscular analgesia; inhalational analgesia; and the use of water for pain relief. Epidural analgesia is available in consultant-led units.*

#### STATUS: Not met

Women attending parent education classes are given written and verbal information about the range of pain management techniques available to them. Transcutaneous electrical nerve stimulation (TENS); oral, intramuscular and inhalation (Entonox) analgesia are provided within all maternity units across NHS Highland and the use of water for pain relief is available at Raigmore and Belford hospitals. A birthing pool can also be provided on request at Caithness General Hospital and it was reported that funding has recently been secured to purchase a permanent birthing pool for this maternity unit.

There are dedicated obstetric anaesthetists on-site within Raigmore Hospital to provide a 24-hour epidural analgesia service and it was noted that the provision of epidural analgesia in Caithness General Hospital is no longer available due to limited staffing resources. Staff reported that they are considering reintroducing this service for use in medical emergencies with midwives being trained to support the anaesthetist in maintenance of epidural analgesia.

*4b.2: All women, who have epidural analgesia or an operative delivery, have their pain assessed using a pain assessment tool.*

#### STATUS: Met

A visual pain assessment tool is in use to record a woman's level of pain following administration of epidural anaesthesia or during the post-delivery period. Women are asked to rate their pain using a 0–10 score. Midwives closely monitor the effectiveness of analgesia and contact medical staff where further review is required. The review team was informed that the pain assessment tool has been adapted for use in various languages and it commended the Board on its comprehensive pain assessment methods detailed in the guidelines and practised by staff.

## **Desirable Criterion**

*4b.3: Epidural analgesia is available at all times in consultant-led units.*

### **STATUS: Not met**

A 24-hour epidural service is available within one of the two consultant-led units within NHS Highland. Dedicated obstetric anaesthetists provide this service during normal working hours on weekdays. Out-of-hours cover is provided by an on-call rota system established by the anaesthetic department.

## Standard 4(c): Standard 4 ~ Childbirth

### Standard Statement

*Anaesthesia: During childbirth all women have access to anaesthesia that conforms to current professional standards.*

### NHS Highland

#### Essential Criteria

*4c.1: There is a lead consultant obstetric anaesthetist with responsibility for the organisation and management of the specialist anaesthetics service within consultant-led units.*

#### STATUS: Not met

There are named individuals responsible for the management of specialist maternity anaesthesia services in both consultant-led units at Raigmore and Caithness General hospitals. However, there is no single lead consultant obstetric anaesthetist in each consultant-led unit.

*4c.2: Arrangements are in place in consultant-led units, to ensure that a specialist anaesthetic service is available at all times during childbirth.*

#### STATUS: Met

A specialist anaesthesia service is available 24-hours per day in both Raigmore Hospital and in Caithness General Hospital. These services are managed using an on-call rota system in both maternity units.

*4c.3: All specialist anaesthetic services comply with NHS QIS anaesthesia standards and Royal College of Anaesthetists (RCA) guidelines.*

#### STATUS: Met

The review team acknowledged the Board's commitment to comply with the NHS QIS anaesthesia standards and the guidelines issued by the Royal College of Anaesthetists (RCA). The Board has an action plan to follow-up on the NHS QIS anaesthesia review visit in July 2004. The review team confirmed from observation of this plan that the Board is meeting this criterion.

*4c.4: There is a system in place to ensure that anaesthetic and theatre services respond rapidly to obstetric emergencies and expedite delivery in the event of maternal or fetal compromise.*

**STATUS: Not met**

There is an emergency team on-call within Raigmore Hospital that is responsible for responding to obstetric emergencies and each case is given a classification code of urgency: red for immediate delivery within 30 minutes or amber for delivery within an hour. Staff reported there is a dedicated obstetric theatre within the labour suite in Raigmore Hospital which operates during normal working hours and there are plans to extend the operating hours from April 2006 by introducing 12-hour working shifts for anaesthetists. However, it was noted that while staff have access to the obstetric and general theatres, there is not always immediate access for obstetric emergencies 24 hours per day due to the limited number of theatres and on-call staff available. It was also reported that the number of emergency deliveries in the obstetric theatre was low.

In Caithness General Hospital, there is no dedicated obstetric theatre although there is 24-hour anaesthetist cover and on-call theatre staffing. The review team was advised that obstetric emergencies would be given priority.

*4c.5: There is a system in place to ensure that 'decision to delivery' intervals and perceived urgency are monitored.*

**STATUS: Not met (insufficient evidence)**

At the time of the visit, the Board reported that it was undertaking an audit of 'decision to delivery time'. However, the provisional audit data available were insufficient to allow the review team to assess compliance with this criterion.

**Desirable Criterion**

*4c.6: The time from informing the anaesthetist to the start of an emergency operative delivery should not normally exceed 30 minutes except if there is a risk to maternal health.*

**STATUS: Not met (insufficient evidence)**

At the time of the visit, there were no audit data available to confirm that the time from informing the anaesthetist to the start of an emergency operative delivery was no more than 30 minutes for both consultant-led maternity units within NHS Highland. However, staff reported that this target is being achieved by measuring the length of time it takes to deliver a baby rather than the time to start. For Raigmore Hospital and in Caithness General Hospital the average delivery time of a baby was 14 minutes during the normal working day and 30 minutes out-of-hours.

## Standard 5(a): Standard 5 ~ Postnatal and Parenthood

### Standard Statement

*Care of Women: All women receive appropriate care and assessment from giving birth to the 6-week postnatal check.*

### NHS Highland

### Essential Criteria

*5a.1: All women are assessed immediately after giving birth by a suitably qualified member of the birth team.*

### STATUS: Met

The review team was informed that all women within NHS Highland are assessed immediately after giving birth by the midwife in attendance or student midwife under supervision and details are recorded in the postnatal record. Staff reported that an audit of completion of assessment documentation has recently been undertaken which highlighted the need for an improvement in record-keeping and the Board is actively addressing this as part of staff training.

*5a.2: All women are assessed prior to transfer to community care and/or within 24 hours of giving birth, by a midwife.*

### STATUS: Met

It was reported to the review team that all women are assessed by a midwife within 24 hours of giving birth. Women are assessed by an experienced midwife prior to discharge or transfer into the community and details recorded in the postnatal record.

*5a.3: There is ongoing assessment for the recognition of complications, eg infection, haemorrhage, thromboembolism and anaesthetic problems.*

### STATUS: Met

There is ongoing assessment for the recognition of complications following specific NHS Highland protocols. In particular, women with a history of postpartum haemorrhage are delivered in hospital, have an infusion of syntocinon and are cared for in the HDU for 12 hours post-delivery. Protocols are in place across NHS Highland to support staff in the recognition and management of obstetric complications.

*5a.4: Women receive information on contraception within 2 weeks of childbirth.*

**STATUS: Met**

Board staff reported that women receive information on contraception during one-to-one discussion with their midwife, in hospital prior to their discharge or at a postnatal home visit by the community nurse within the first 10 days of delivery. The discussion is recorded in the woman's maternity record. Women are also informed that there is a variety of published leaflets available on contraception choices and family planning clinics are accessible throughout the majority of areas within NHS Highland. GP practice nurses are also available to provide contraceptive advice and support if required.

## Standard 5(b): Standard 5 ~ Postnatal and Parenthood

### Standard Statement

*Infant Feeding: Maternity services promote, support and sustain breastfeeding. Women are informed of its benefits, while being supported in their chosen mode of feeding.*

### NHS Highland

#### Essential Criteria

*5b.1: There is evidence that the maternity service adheres to the principles of, or is working towards, the UNICEF/WHO Baby Friendly status.*

#### STATUS: Met

Raigmore Hospital achieved UNICEF/WHO Baby Friendly status in November 2005. Midwives working within the maternity unit at Caithness General Hospital are UNICEF/WHO trained and the hospital is actively working towards achieving this status.

At Belford Hospital, two midwives have completed UNICEF/WHO training and all midwives and midwifery care assistants working at the MacKinnon Memorial Hospital have attended a 2-day breastfeeding and Baby Friendly training session and are committed to working within UNICEF/WHO principles.

Breastfeeding rates are audited across NHS Highland with data collected on babies breastfeeding at birth, discharge and at 6 weeks old. Breastfeeding rates were noted to be above the national average.

The review team noted the Baby Friendly achievement of Raigmore Hospital and encouraged the Board to continue to work towards attainment of UNICEF/WHO Baby Friendly status throughout that NHS Board area.

*5b.2: Women are provided with readily accessible information and support in their chosen method of feeding, including access to peer support groups.*

#### STATUS: Met

Women across NHS Highland receive a wide range of written and verbal information regarding the benefits of breastfeeding. A breastfeeding resource pack is accessible to all staff to ensure that the most up-to-date literature and advice is available for women. Breastfeeding posters are displayed throughout the maternity units and video tapes are available on request.

Women are supported in their chosen method of feeding. Breastfeeding support groups are available in most areas throughout NHS Highland with midwives being accessible at all times for support and advice. In Caithness General Hospital, there is a designated infant feeding room for women and visitors, and women are

encouraged to use the parent education room for breastfeeding in Raigmore Hospital.

Community midwives and health visitors provide one-to-one breastfeeding advice and support on request in all areas of NHS Highland and community care assistants based in Belford Hospital conduct home visits if a feeding issue has been identified.

### **Desirable Criteria**

*5b.3: Each NHS Board area has an infant feeding advisor to provide education and training to healthcare professionals who support women in their chosen method of feeding.*

#### **STATUS: Not met**

At the time of the visit, NHS Highland did not have an infant feeding advisor in post. However, it was noted that a job description and secured funding for the post of breastfeeding advisor was in place and the Board had scheduled advertising the vacancy. A mandatory 2-day training course is provided for all staff involved in supporting women in their chosen method of feeding and the review team was satisfied that education and training is provided and attended by the appropriate healthcare professionals.

The review team noted as a challenge for the Board the need to recruit an infant feeding advisor.

*5b.4: Admission rates for babies due to inadequate nutrition are monitored.*

#### **STATUS: Met**

The Board reported that a review of the admissions register for 2004–2005 indicated that a number of babies had been admitted to the SCBU due to inadequate nutrition. The Board plans to undertake a retrospective audit to determine the proportion of admissions in relation to method of feeding provided. A management of weight loss protocol was in development at the time of the visit.

## Standard 5(c): Standard 5 ~ Postnatal and Parenthood

### Standard Statement

*Care of Babies: All babies receive appropriate care and assessment from birth until 6 weeks post birth.*

### NHS Highland

#### Essential Criteria

*5c.1: Steps are taken to minimise the number of infants who require re-warming or avoidable admission to SCBU.*

#### STATUS: Met

The Board reported that in order to minimise the number of infants who require re-warming, 'skin to skin' contact with the mother is immediately initiated following delivery. Within Raigmore Hospital a cosi-cot is available in the postnatal ward and a heated resuscitaire and polythene is used for babies delivered below 29 weeks of gestation. A portable incubator transfers babies within the hospital using therma-warm packs to minimise temperature loss.

Staff reported that the number of babies admitted to the SCBU was high as all infants weighing less than 2.2 kgs are admitted because there are no facilities available within the postnatal ward to allow for tube feeding and transitional care to be provided. The review team encouraged the Board to consider reviewing its SCBU admission criteria.

*5c.2: All babies are clinically examined immediately following birth by a suitably qualified member of the birth team.*

#### STATUS: Met

All babies in NHS Highland are clinically examined by the attending midwife immediately following birth. The results of the examination are recorded in the SBR.

*5c.3: All babies are clinically examined prior to discharge from hospital and/or within 72 hours of birth, by a suitably qualified healthcare professional.*

#### STATUS: Not met

Newborn babies are clinically examined prior to discharge from the maternity units and or within 72 hours of birth by a member of the birth team. An information leaflet regarding the physical examination of the baby is given to all parents. The review team found good evidence of clear and detailed guidelines in place to support staff with these examinations and commended the extension of the midwife's role in

examination of the newborn in many of the areas across NHS Highland. However, it was noted that at the time of the visit, not all practitioners involved in examination of the newborn had received clinical training in newborn examination and the review team recommended that this training be rolled out to all staff involved in examination of the newborn.

*5c.4: There is ongoing assessment, including recognition of group B streptococcal infection and jaundice.*

**STATUS: Met**

The review team was provided with good evidence to confirm that the Board has protocols to support staff in the assessment of babies with recognised group B streptococcal infection and in the diagnosis and management of jaundice.

The protocols used give guidance on the clinical signs and symptoms to be considered when undertaking an assessment of an infant and detail when a baby should be observed, investigated and treated.

## Standard 5(d): Standard 5 ~ Postnatal and Parenthood

### Standard Statement

*Transfer Standard: The transfer of women and their newborn babies into the community is planned to facilitate continuing effective care.*

### NHS Highland

#### Essential Criteria

*5d.1: A system is established to ensure that information on women and their babies in the postnatal period is collated and transferred between secondary and primary care in a reliable, timely and secure manner.*

#### STATUS: Met

Women in NHS Highland carry their own handheld maternity record to support shared care in the community. GPs and health visitors are provided with a copy of the woman's discharge letter describing delivery information and postnatal care required. Information on discharge medication is also included where applicable. Prior to a woman's discharge from hospital, the midwife contacts the community midwife/health visitor to discuss details of the birth and the woman's chosen method of feeding for her baby at the time of discharge.

Staff reported that where a baby has been clinically examined within 12 hours of birth and discharged from hospital, the woman's GP is verbally informed of the outcome of the examination by the neonatal nurse practitioner or senior house officer.

*5d.2: Guidelines for transfer and post transfer care are in place.*

#### STATUS: Met

There are guidelines in place for the transfer and post transfer of women and their newborn babies. Women are provided with a discharge letter to share with other healthcare professionals and a copy of this documentation is also given to the GP. In addition, verbal communication is used between hospital and community staff to facilitate effective post transfer care. Staff provide advice on securing babies less than 34 weeks old in their car seats.

## Appendix 1 – Glossary of abbreviations

### Abbreviation

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<b>AHP</b>	allied health profession
<b>CHP</b>	community health partnership
<b>EPAS</b>	early pregnancy assessment service
<b>GP</b>	general practitioner
<b>GROS</b>	General Register Office for Scotland
<b>HDU</b>	high dependency unit
<b>ICU</b>	intensive care unit
<b>IR1</b>	incident reporting form
<b>MSLC</b>	maternity services liaison committee
<b>NHS QIS</b>	NHS Quality Improvement Scotland
<b>NICU</b>	neonatal intensive care unit
<b>PIPPIN</b>	Parents in Partnership – Parent Infant Network
<b>RCA</b>	Royal College of Anaesthetists
<b>RCOG</b>	Royal College of Obstetricians and Gynaecologists
<b>RMSG</b>	risk management steering group
<b>SBR</b>	Scottish birth record
<b>SCBU</b>	special care baby unit
<b>SEHD</b>	Scottish Executive Health Department
<b>SIGN</b>	Scottish Intercollegiate Guidelines Network
<b>SMR02</b>	Scottish Morbidity Record 2
<b>SSU</b>	specialist services unit

<b>STRADA</b>	Scottish Training in Drugs and Alcohol
<b>TENS</b>	transcutaneous electrical nerve stimulation
<b>UNICEF/WHO</b>	United Nations Children’s Fund/World Health Organisation

## Appendix 2 – Details of review visit

The review visit to NHS Highland was conducted on 16 March 2006.

### Review team members

**Dr Linda de Caestecker (Team Leader)**

Acting Director of Public Health, NHS Greater Glasgow

**Ms Heather Allan**

Health Visitor, NHS Lanarkshire

**Mrs Helen Cadden**

Public Partner, Greater Glasgow

**Mrs Catherine Cummings**

Clinical Midwifery Manager, NHS Fife

**Ms Stella MacPherson**

Public Partner, Dumfries & Galloway

**Dr Paul Mensah**

Consultant Obstetrician, NHS Dumfries & Galloway

**Dr Alistair Michie**

Service Director in Anaesthesia, NHS Ayrshire & Arran

**Dr Madeleine P White**

Consultant Neonatologist, NHS Greater Glasgow

### NHS Quality Improvement Scotland Staff

**Mrs Morag Kasmi**

Senior Project Officer

**Dr Avril MacLennan**

Project Officer

**Ms Stacey Macindoe (Observer)**

Project Officer

During the visit, members of the review team met with local health service personnel including anaesthetists, health visitors, midwives, neonatologists, obstetricians, paediatricians, paramedics, AHPs and GPs.

## Appendix 3 – Maternity services project group members

### Chair

#### **Dr Jane Magill**

Director, Robert Clark Centre for Technological Education, University of Glasgow

### Project group members

#### **Ms Gill Allan**

Sister Midwife, NHS Tayside

#### **Mrs Frances Arnott**

Health Visitor, NHS Forth Valley

#### **Ms Irene Barkby**

LSA Midwifery Officer/Divisional Nurse Director – Acute, NHS Lanarkshire

#### **Dr Ian Bashford**

Senior Medical Officer, Scottish Executive Health Department

#### **Dr Jennifer Bennison**

Deputy Chair (Policy), Royal College of General Practitioners (Scotland)

#### **Professor Andrew Calder**

Consultant Obstetrician, NHS Lothian

#### **Ms Cynthia Clarkson**

Lay Representative, National Childbirth Trust

#### **Dr Corinne Love**

Consultant Obstetrician, NHS Lothian

#### **Dr John McClure**

Consultant Anaesthetist, Royal College of Anaesthetists, NHS Lothian

#### **Ms Dahrlene McMahon**

Paramedic, Scottish Ambulance Service

#### **Mrs Mathilde Peace**

Lay Representative, Lothian Health Council

#### **Dr Gillian Penney**

Clinical Senior Lecturer & Programme Director, Scottish Programme for Clinical Effectiveness in Reproductive Health, NHS Grampian

**Ms Nancy Robson**

Public Partner, Grampian

**Ms Joanne Thorpe**

Midwifery Team Leader, NHS Argyll & Clyde

**Dr Tom L Turner**

Consultant Paediatrician, NHS Greater Glasgow

Support from NHS QIS was provided by **Ms Jan Warner** (Director of Performance Assessment and Practice Development), **Mr Steven Wilson** (Team Manager), **Mrs Morag Kasmi** (Senior Project Officer), **Ms Sharon Keane** (Project Officer), **Dr Avril MacLennan** (Project Officer) and **Mrs Lorraine Inglis** (Project Administrator).

## Appendix 4 – Timetable of review visits

Organisation reviewed	Visit date(s)
NHS Argyll & Clyde	20 June 2006
NHS Ayrshire & Arran	7 June 2006
NHS Borders	19 April 2006
NHS Dumfries & Galloway	29 March 2006
NHS Fife	10 May 2006
NHS Forth Valley	17 January 2006
NHS Grampian	27 April 2006
NHS Greater Glasgow	25 May 2006
NHS Highland	16 March 2006
NHS Lanarkshire	2 February 2006
NHS Lothian	1 March 2006
NHS Tayside	16 February 2006
NHS Orkney	22 November 2005
NHS Shetland	8 November 2005
NHS Western Isles	6 December 2005





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