Scottish Government
Riaghaltas na h-Alba

Miscarriage Care and Facilities in Scotland: Scoping Report National Overview

CHILDREN, EDUCATION AND SKILLS

social research

Contents

Introduction

The Scottish Government's 2021-22 Programme for Government: A Fairer, Greener Scotland[1] includes a commitment to 'establish a dignified and compassionate miscarriage service'. The aim of this commitment is to support the development of individualised care plans following a woman's first miscarriage, take forward specific recommendations made in the Lancet series on Miscarriage Matters published on 26 April 2021[2], and ensure women's services in Health Boards have dedicated facilities for women who are experiencing unexpected pregnancy complications.

Miscarriage is the loss of intrauterine pregnancy before viability, at 23 weeks and 6 days gestation or less. First trimester miscarriages occur in the first 11 weeks and 6 days of pregnancy, while second trimester miscarriages occur between 12 weeks and 23 weeks and 6 days of pregnancy.

It is thought that miscarriage affects around one in five pregnancies before 12 weeks gestation. It is estimated that 1–2% of second-trimester pregnancies miscarry before 23 weeks and 6 days of gestation. After 24 weeks gestation the death of a baby in utero is regarded as a stillbirth. The risk of miscarriage was lowest in women with no history of miscarriage (11%)[3].

Treatment of miscarriage is dependent on gestation. Patients in early first trimester may choose to go home and miscarry with support; those in late first trimester or second trimester will usually be advised to be admitted to hospital.

There are three recognised management pathways for miscarriage available for women:

Expectant (also called natural or conservative) management – this allows a miscarriage to happen without medical intervention and is often recommended in the early first trimester. National Institute for Health and Care Excellence (NICE) guidelines state that expectant management should be the first method of consideration.
Medical management – treatment with medication taken orally and/or vaginal tablets (pessaries) to start or assist the process of a missed or incomplete miscarriage.
Surgical management – to remove the pregnancy tissue surgically. This is usually carried out under general anaesthetic although it can be done under local anaesthetic.

As well as the physical treatment of miscarriage there is also the emotional consideration of the loss of a pregnancy and the way in which people process this loss varies.

Recurrent miscarriage is defined by the Royal College of Obstetrics and Gynaecology (RCOG) as three or more first trimester miscarriages and is thought to affect one in every hundred women. Previously, the RCOG defined recurrent miscarriage as the loss of three or more consecutive pregnancies, however, this was redefined in June 2023 to include non-

[1] Scottish Government Programme for Government: A Fairer, Greener Scotland 2021-22
[2] The Lancet: Miscarriage Matters Series
[3] The Lancet: Miscarriage Matters Series

consecutive miscarriages[4]. The risk of recurrent miscarriage increases after each successive pregnancy loss, reaching approximately 40% after three consecutive pregnancy losses. Miscarriage, and especially recurrent miscarriage, is associated with future obstetric complications. The chance of preterm birth increases stepwise with each previous miscarriage, showing a biological gradient with the highest chance in women with three or more previous miscarriages. The chance of fetal growth restriction, placental abruption, and stillbirth in future pregnancies is also increased.

The prognosis worsens with increasing maternal age. Previous live birth does not preclude a woman developing recurrent miscarriage. The chances of finding a treatable cause for recurrent miscarriage are better than in a single miscarriage but a cause will not be identified in many women, despite undergoing investigation.

Most women who have a miscarriage will go on to carry a baby to term without complications. However, for women that experience recurrent miscarriage it is important that the care and services they receive are evidence based providing the most optimal care. This national report seeks to provide an overarching view of miscarriage care in Scotland to enable improvements to practice and services.

[4] Recurrent Miscarriage Green-top Guideline No. 17 - BJOG: An International Journal of Obstetrics & Gynaecology

Key Messages

The findings of this scoping exercise are presented in a table in Annex A mapped to the recommendations from the Lancet series on Miscarriage Matters and the Scottish Government Programme for Government commitments.

Miscarriage services and dedicated facilities

- All Health Boards in Scotland have services available for women experiencing miscarriage, the services and provision available varies across Scotland.
- Early pregnancy services are available in all Health Boards in Scotland. 10 of 14 Health Boards have a dedicated early pregnancy unit and 4 Health Boards deliver early pregnancy services within existing services.
- Some dedicated facilities for women experiencing unexpected pregnancy complications at any gestation are available in all Health Board areas. Some women may need to travel significant distances to access these facilities particularly in more rural areas and in areas where miscarriage care is provided at one or two main locations within a Health Board.
- Not all Health Boards have a separate room/area/ward away from the labour ward for women that are miscarrying. Where this is available, rooms are usually located in the gynaecology ward or the maternity unit (often away from the labour and postnatal wards).
- 11 of the 14 Health Boards provide services for recurrent miscarriage.
- Seven out of the 14 Health Boards said that they have a separate area to carry out complication/investigative scans separated from women with a continuing pregnancy.

Miscarriage Management

- All Health Boards in Scotland routinely provide written information about the treatment options for the management of miscarriage and what to expect next in terms of miscarriage care.
- Written information about third party services for mental health or bereavement support is provided in most Health Boards.
- Expectant management is offered in all Health Boards, however, in some areas expectant management may not be chosen by women due to the potential for multiple long journeys to the site where provision is located.
- Medical management with misoprostol is offered in all Health Boards. 13 of the 14 Health Boards offer medical management with mifepristone and misoprostol with one Health Board not offering this service.
- Surgical management with general anaesthetic is offered in all Health Boards, while surgical management with manual vacuum aspiration is provided in 10 Health Board areas, with two further Health Boards able to access this management option upon request.

- All Health Boards stated that women are free to choose their preferred management approach based on their needs and preferences, local guidance and gestation at which management approaches are offered to women varies across Scotland.
- The choices that women make about management options can be impacted by the travel distances to the site where the management option is provided.

Graded Approach to Recurrent Miscarriage

- Elements of the graded approach to recurrent miscarriage are adopted or can be accessed in 13 Health Boards, however, none of the 13 Health Boards consistently deliver all elements of the graded approach particularly after a first or second miscarriage. One Health Board does not plan to implement the graded approach.
- The care and options provided to women in relation to recurrent miscarriage is often dependent on the site at which women attend or are referred to.
- Key elements of the graded approach such as the provision of vaginal micronised progesterone and medical management with mifepristone and misoprostol have not yet been fully implemented in all Health Boards.
- Many of the elements that the Lancet series recommends should be provided after a first miscarriage, are provided in all Health Board areas but not in all sites that may care for women experiencing miscarriage. Screening for mental health issues and individualised care plans are not provided in all Health Boards.
- No Health Board offers all elements that the Lancet series recommends should be provided after a second miscarriage. There is variability in approach within and between Health Board areas.
- After a second miscarriage, the Lancet recommends that women are offered appointments at nurse-led or midwifery-led miscarriage clinics. Many Boards have no plans to implement this as miscarriage clinics are consultant-led. In more than half of the Health Board areas in Scotland women are seen at a miscarriage clinic by a consultant rather than a nurse or midwife.
- After a second miscarriage, it is not routine for all Health Boards or sites to offer continuity of carer, tests for full blood count and thyroid function and discussions about lifestyle issues in relation to future pregnancies.
- No Health Board offers all elements that the Lancet series recommends should be provided after a third or subsequent miscarriage. The service provision is variable, and while almost all options are being delivered in all Health Boards, this is site dependent.
- Screening for mental health issues after a third or subsequent miscarriage is provided in 12 of the 14 Health Boards. Although it is unclear if screening is routine for all women in all sites and whether a validated tool is being used across all Health Boards.

Referrals, Assessments, Skills and Training and Data

- Referral pathways directly from secondary care to mental health support, for women experiencing miscarriage, are not always available in early pregnancy or maternity services with referrals pathways often via primary care.
- All Health Boards have written clinical guidance for clinical staff on the appropriate treatment and care for miscarriage at all gestations.
- The training and skills of staff providing miscarriage care varied across Health Boards. Often specialist training was centralised within one or two units within a Health Board area. Some Health Boards operate a more medical approach to miscarriage care with consultant-led provision and doctors trained to provide comprehensive miscarriage care. Fewer Health Boards have nurses or midwives with additional specialist training.
- Currently data gathering on miscarriage varies both between and within Health Board areas. There is a lack of consensus on what would be recorded as a miscarriage, what data about miscarriage should be recorded (such as maternal characteristics and gestation) and where data should be reviewed.

This report

This report details the findings of a scoping exercise to enable better understanding of miscarriage care in Scotland overall. It sets out the current arrangements for miscarriage care in Scotland and will be used to inform the development of a consistent graded model of care across Scotland. Alongside this report, detailed reports on the service provision within each of the 14 Health Boards in Scotland have been produced. This national report seeks to aid policy makers and Health Boards in making decisions about what improvements are required to miscarriage care in Scotland.

The key aims of the report are to;

- provide an overarching view of miscarriage care in Scotland
- highlight consistencies and inconsistencies in miscarriage care provision
- provide information to aid in the development of an improvement plan for miscarriage care in Scotland

Methods

All Health Boards were contacted to identify a lead professional for miscarriage care within their individual Health Board in May 2022. The lead professionals then worked with the Scottish Government to identify staff within the 44 secondary care sites across Scotland where women experiencing miscarriage may present to access care. When a contact for all 44 sites was identified, a web-based questionnaire was sent out to each site to request information on the provision of care within that site.

The questionnaire opened on the 1st June 2022 and unique links to the questionnaire were sent to all 44 sites (Annex B). The questionnaire consisted of up to 95 questions and sites were routed through the questionnaire based on their answers to the questions. There were a range of closed and open ended questions within the questionnaire, as well as space for additional information to be added if appropriate. The questionnaire closed on the 3rd August 2022 with responses from all 44 sites across all 14 Health Boards.

The results of the questionnaire were collated, analysed, and are presented in a national report as well as in individual reports specific to each Health Board. This report presents the analysis of responses received from all Health Boards in Scotland. Alongside the questionnaire responses, sites were also asked to send leaflets and other policy documents relevant to miscarriage care to the Scottish Government. Where documents were submitted, these were analysed along with the questionnaire results to supplement some sections of the individual Health Board reports.

Findings

Miscarriage care services in Scotland

In Scotland women experiencing miscarriage present at many different locations. This includes: GP practices, Accident and Emergency (A&E) departments, Maternity Units, Community Maternity units (CMU)[5], Early Pregnancy Units (EPU), and midwifery services more generally. Women call in advance or present in person for the first time at this range of settings.

Within the 14 Health Board areas in Scotland, numerous secondary care sites that could provide miscarriage care in Scotland were identified. These were checked by the lead professional for miscarriage care in each Health Board to ensure they were secondary care sites that may be the first point of contact for women experiencing miscarriage. This resulted in 44 sites being identified. The sites are listed in Annex B. Table 1 shows the number of sites identified for each Health Board.

Table 1: Number of sites where women experiencing miscarriage in Scotland may be seen

Health Board	Number of sites
NHS Ayrshire and Arran	3
NHS Borders	1
NHS Dumfries and Galloway	2
NHS Fife	1
NHS Forth Valley	1
NHS Grampian	6
NHS Greater Glasgow and Clyde	5
NHS Highland	12
NHS Lanarkshire	3
NHS Lothian	2
NHS Orkney	1
NHS Shetland	1
NHS Tayside	3
NHS Western Isles	3
Total	44

Table 2 below lists the secondary care services that the 44 sites that took part in this scoping exercise said were available at each site within the 14 Health Board areas.

[5] The Best Start: A five year plan for Maternity and Neonatal Care refers to CMUs as either being freestanding units or alongside units.

Table 2: Services for miscarriage care in Scotland							
Services	**Early Pregnancy Unit**	**Maternity Unit**	**Community Maternity Unit**	**Obstetrics and Gynaecology Department**	**Accident & Emergency Department**	**Recurrent miscarriage services**	**Infertility services**
Total All Sites	17	19	21	21	37	13	14
All Health Boards	10	14	7	14	14	11	12
NHS Ayrshire and Arran	1	1	1	1	3	1	1
NHS Borders	1	1	0	1	1	1	1
NHS Dumfries and Galloway	0	1	0	1	2	1	2
NHS Fife	1	1	0	1	1	1	1
NHS Forth Valley	1	1	1	1	1	0	1
NHS Grampian	2	2	3	2	4	1	1
NHS Greater Glasgow and Clyde	5	4	4	4	4	2	2
NHS Highland	1	1	8	1	10	1	0
NHS Lanarkshire	2	1	0	2	3	1	1
NHS Lothian	2	2	0	2	2	2	1
NHS Orkney	0	1	0	1	1	1	1
NHS Shetland	0	1	0	1	1	0	1
NHS Tayside	1	1	3	2	1	1	1
NHS Western Isles	0	1	1	1	3	0	0

Services within Health Board Areas

Where most women present for the first time when experiencing a miscarriage differs depending on location in Scotland. The main services where women present include Accident and Emergency departments, general practice, midwifery teams, Community Midwifery Unit, Midwifery Unit or Early Pregnancy Unit (EPU). Table 3 below outlines the sites identified for this study where women may present and where those sites said women experiencing miscarriage should initially be seen in each Health Board area.

Women are triaged and then cared for within the service where they initially present or are transferred or referred to another site, most often to an EPU or maternity services.

Victoria Hospital, Mull & Iona Community Hospital, Mid Argyll Community Hospital and Integrated Care Centre, Lorn & Islands Hospital, Islay Hospital, Cowal Community Hospital (A&E) and Campbeltown Hospital are all located in Argyll and Bute. Although these sites are part of NHS Highland, the services for miscarriage care and pregnancy complications are provided jointly through the local community maternity units and general practice in NHS Highland and via a service level agreement with NHS Greater Glasgow and Clyde. As the same pathway of care is used across all sites in Argyll and Bute these sites have been grouped together in the report. The services provided in this area are explained in more detail in the report Miscarriage care and facilities in Scotland: scoping report - NHS Highland.

In NHS Orkney, all maternity services are operated from one Maternity Unit. Early pregnancy services are incorporated into the whole service and as such are not classed as a separate dedicated provision. The services typically provided by an early pregnancy unit are provided through the whole service approach adopted at Balfour Hospital. Balfour Hospital indicated that although women mainly prefer to access the support and expertise of the maternity team within the Maternity Unit, options are available for alternative accommodation in the acute or day surgery wards if women prefer not to attend the Maternity Unit. Regardless of where women are located within Balfour Hospital, access to midwifery care is always available. NHS Orkney provides management options for women experiencing miscarriage in the first trimester with second trimester miscarriage management referred to NHS Grampian.

NHS Shetland reported that all women present at Gilbert Bain Hospital when experiencing a miscarriage. NHS Shetland provides miscarriage care from Gilbert Bain Hospital Maternity Unit. However, only first trimester losses, up to 12 weeks gestation, are managed within NHS Shetland; second trimester miscarriage management is referred to NHS Grampian. In NHS Shetland building work has commenced on a new bereavement suite for parents which will enable care to be offered up to 22 weeks gestation.

Table 3: Main location where women experiencing miscarriage should initially be seen

Health Board	Site	Main location where women should be seen
NHS Ayrshire and Arran	University Hospital Ayr (ED)	EPU – University Hospital Crosshouse
	Arran War Memorial Hospital	EPU – University Hospital Crosshouse

	University Hospital Crosshouse (including Ayrshire Maternity Unit)	EPU – University Hospital Crosshouse
NHS Borders	Borders General Hospital	Pregnancy Assessment Unit – Borders General Hospital
NHS Dumfries and Galloway	Galloway Community Hospital (A & E)	Community midwifery hub (Oak Tree Family Centre)
	Dumfries and Galloway Royal Infirmary	Clinic with early pregnancy services – Dumfries and Galloway Royal Infirmary
NHS Fife	Victoria Hospital	EPU – Victoria Hospital
NHS Forth Valley	Forth Valley Royal Hospital	EPU - Forth Valley Royal Hospital
NHS Grampian	Aberdeen Maternity Hospital	EPU – Aberdeen Maternity Hospital
	Dr Gray's Hospital	Maternity Ward – Dr Gray's Hospital
	Jubilee Hospital	EPU – Aberdeen Maternity Hospital
	Fraserburgh Hospital	EPU – Aberdeen Maternity Hospital
	Inverurie Health & Care Hub	EPU – Aberdeen Maternity Hospital
	Peterhead Community Hospital	EPU – Aberdeen Maternity Hospital
NHS Greater Glasgow and Clyde	Royal Alexandra Hospital	EPU – Royal Alexandra Hospital
	Inverclyde Royal Hospital	EPU - Inverclyde Royal Hospital
	Queen Elizabeth University Hospital	EPU - Queen Elizabeth University Hospital
	Vale of Leven District General Hospital	EPU - Vale of Leven District General Hospital
	Princess Royal Maternity	EPU - Princess Royal Maternity
NHS Highland	Raigmore Hospital	EPU - Raigmore Hospital
	Dr. MacKinnon Memorial Hospital	EPU - Raigmore Hospital
	Argyll and Bute Sites*	A&E (then referred to NHS Greater Glasgow and Clyde)
	Nairn Town and County Hospital	Midwifery Team or GP surgery (then referred to Raigmore)
	Caithness General Hospital	A&E - (then referred to Raigmore)

	Belford Hospital	Community Midwifery Unit - (then referred to Raigmore)
NHS Lanarkshire	University Hospital Monklands	A&E – (then referred to University Hospital Wishaw)
	University Hospital Wishaw	EPU - University Hospital Wishaw
	University Hospital Hairmyres	EPU - University Hospital Hairmyres
NHS Lothian	Royal Infirmary of Edinburgh	Pregnancy Support Centre - Royal Infirmary of Edinburgh
	St John's Hospital	EPU - St John's Hospital
NHS Orkney	Balfour Hospital	Community Maternity Unit - Balfour Hospital
NHS Shetland	Gilbert Bain Hospital	Maternity Unit - Gilbert Bain Hospital
NHS Tayside	Perth Royal Infirmary	EPU – Ninewells Hospital
	Arbroath Infirmary	EPU – Ninewells Hospital
	Ninewells Hospital	EPU – Ninewells Hospital
NHS Western Isles	Barra Community Hospital	Barra Community Hospital (then referred to Western Isles Hospital)
	Uist and Barra Hospital	Uist and Barra Hospital (then referred to Western Isles Hospital dependant on management option chosen)
	Western Isles Hospital	Maternity Unit – Western Isles Hospital

*This includes all sites in Argyll and Bute (Victoria Hospital, Mull & Iona Community Hospital, Mid Argyll Community Hospital and Integrated Care Centre, Lorn & Islands Hospital, Islay Hospital, Cowal Community Hospital (A&E) and Campbeltown Hospital)

Gestation at which miscarriage care is provided

An important determinant of risk of miscarriage is the gestational age of a pregnancy. The risk of pregnancy loss decreases with advancing gestational age. Once the pregnancy reaches 8 weeks gestation, the risk of miscarriage decreases substantially[6].

All sites in Scotland were asked to provide an approximation of the gestation at which miscarriage care is provided at their site. There is wide variation in responses, particularly among sites that do not currently collect data on gestation. The average approximations of gestation at which miscarriage care is provided are presented in Table 4 below.

Table 4: Gestation at which miscarriage care is provided in Scotland

Site	Under 9 weeks %	9-12 weeks %	Over 12 weeks %
All sites average	65	26	9

[6] The Lancet: Miscarriage Matters Series

Opening hours of miscarriage care services

The following section details service provision within each Health Board overall, further details at a site level is available in the 14 individual Health Board reports that have been published alongside this national report.

Early Pregnancy Units

The Lancet series on Miscarriage Matters recommended that healthcare funders and providers invest in early pregnancy care, with specific focus on training for clinical nurse specialists and doctors to provide comprehensive miscarriage care within the setting of dedicated Early Pregnancy Units**.**

All Health Boards in Scotland said they provide early pregnancy services. 10 Health Boards have a dedicated early pregnancy unit (Table 2).

The opening times of EPUs varies across Scotland, the majority are open on weekdays with wider variation at the weekend. On Saturdays eight EPU sites are open and five are open on Sundays (Table 5). Boards reported that when the EPU is closed other facilities are provided for women experiencing miscarriage either through emergency departments or obstetrics and gynaecology teams, or through transferring to another site within the Health Board area.

Four of the Health Boards in Scotland do not have a dedicated early pregnancy unit, however they all provide some early pregnancy services. This is often due to local circumstances, space and costs. In NHS Dumfries and Galloway, NHS Orkney and NHS Western Isles while there is no dedicated early pregnancy unit, early pregnancy services are available within existing maternity services in the sites where women would be directed for miscarriage care. At the time of the questionnaire NHS Shetland offered care for miscarriage up to 12 completed weeks of pregnancy primarily through the local Maternity Unit. For losses in later pregnancy, women are transferred to NHS Grampian. However, in NHS Shetland building work has commenced on a new bereavement suite for parents which will enable care to be offered up to 22 weeks gestation.

Table 5: Opening times of Early Pregnancy Units in Scotland by Health Board area

Health Board	Monday – Friday	Saturday	Sunday	Number of sites with an EPU
NHS Ayrshire and Arran	08:00-18:00	08:00-16:00	Closed	1
NHS Borders	08:30-16:30	Closed	Closed	1
NHS Dumfries and Galloway	-	-	-	No unit
NHS Fife	09:00-13:00, 24 hour cover	09:00-15:00, 24 hour cover	09:00-15:00 24 hour cover	1
NHS Forth Valley	08:00-16:00	Closed	Closed	1
NHS Grampian	08:30-16:30 07:00-21:00	Closed 07:00-21:00	Closed 07:00-21:00	2

NHS Greater Glasgow and Clyde	09.00-17.00 09.00-17.00 08:00-16:00 09:00-17:00 08.30-16.30	Closed Closed 08:30-16:30 Closed Closed	Closed Closed Closed Closed 08.30-16.30	5
NHS Highland	08:30-15:30	Closed	Closed	1
NHS Lanarkshire	09:00-17:00 08:00-16:00	09:00-13:00 Closed	Closed Closed	2
NHS Lothian	08:30-17:30 08:30-17:00	08:30-16:30 Closed	08:30-16:30 Closed	2
NHS Orkney	-	-	-	No unit
NHS Shetland	-	-	-	No unit
NHS Tayside	08:30-16:30	Closed	Closed	1
NHS Western Isles	-	-	-	No unit

Maternity Units

19 sites reported that they have a Maternity Unit, with at least one Maternity Unit in each Health Board area.

All Maternity Units are open 24 hours a day, seven days a week. The exception is Inverclyde Royal Hospital in NHS Greater Glasgow and Clyde, where they reported that they have a Maternity unit that is open 08:00-20:00, seven days a week (Table 6). Outside of these hours, care is available on call or at the Royal Alexandra Hospital.

Table 6: Opening times of Maternity Units in Scotland by Health Board area

Health Board	Monday – Friday	Saturday	Sunday	Number of sites with a Maternity Unit
NHS Ayrshire and Arran	24 hours	24 hours	24 hours	1
NHS Borders	24 hours	24 hours	24 hours	1
NHS Dumfries and Galloway	24 hours	24 hours	24 hours	1
NHS Fife	24 hours	24 hours	24 hours	1
NHS Forth Valley	24 hours	24 hours	24 hours	1
NHS Grampian	24 hours	24 hours	24 hours	2
NHS Greater Glasgow and Clyde	24 hours (3 sites) 08:00-20.00 (1 site)	24 hours (3 sites) 8:00-20:00 (1 site)	24 hours (3 sites) 8:00-20:00 (1 site)	4
NHS Highland	24 hours	24 hours	24 hours	1
NHS Lanarkshire	24 hours	24 hours	24 hours	1

NHS Lothian	24 hours	24 hours	24 hours	2
NHS Orkney	24 hours	24 hours	24 hours	1
NHS Shetland	24 hours	24 hours	24 hours	1
NHS Tayside	24 hours	24 hours	24 hours	1
NHS Western Isles	24 hours	24 hours	24 hours	1

Community Maternity Units

21 sites reported that they have a Community Maternity Unit (CMU), these are in 7 Health Board areas. The Best Start: A five year plan for Maternity and Neonatal Care refers to CMUs as either being freestanding units or alongside units.

In NHS Dumfries and Galloway, Galloway Community Hospital operates a community maternity hub which is open 9:00-17:00 seven days a week for antenatal and postnatal appointments only.

Table 7: Opening times of Community Maternity Units (CMU) in Scotland by Health Board area

Health Board	Monday – Friday	Saturday	Sunday	Number of Sites
NHS Ayrshire and Arran	24 hours	24 hours	24 hours	1
NHS Borders	-	-	-	No CMU
NHS Dumfries and Galloway	-	-	-	No CMU
NHS Fife	-	-	-	No CMU
NHS Forth Valley	24 hours	24 hours	24 hours	1
NHS Grampian	24 hours	24 hours	24 hours	3
NHS Greater Glasgow and Clyde	24 hours (2 sites) 08:00-20:00 09:00-17:00	24 hours (2 sites) 08:00-20:00 09:00-17:00	24 hours (2 sites) 08:00-20:00 09:00-17:00	4
NHS Highland	08:00-17:00 08:00-18:00 and then on-call (7 sites) 09:00-17:00 (2 sites)	08:00-17:00 08:00-18:00 and then on-call (7 sites) 09:00-17:00 (2 sites)	08:00-17:00 08:00-18:00 and then on-call (7 sites) 09:00-17:00 (2 sites)	10
NHS Lanarkshire	-	-	-	No CMU
NHS Lothian	-	-	-	No CMU
NHS Orkney	-	-	-	No CMU
NHS Shetland	-	-	-	No CMU
NHS Tayside	24 hours	24 hours	24 hours	3

	07:30-17:30 and on-call (2 sites)	07:30-17:30 and on-call (2 sites)	07:30-17:30 and on-call (2 sites)	
NHS Western Isles	09:00-17:00	On-call	On-call	1

Obstetrics and Gynaecology

21 sites said they had an Obstetrics and Gynaecology department. This is across all 14 Health Board areas as detailed in Table 8 below.

Most Obstetrics and Gynaecology departments are open 24 hours a day, seven days a week. However, in NHS Greater Glasgow and Clyde, Inverclyde Royal Hospital reported that they have an Obstetrics and Gynaecology department that is open 09:00-17:00 Monday-Friday for obstetric outreach clinics and antenatal appointments and closed on Saturdays and Sundays. In NHS Tayside, Perth Royal Infirmary is open 08.30-16.00 Monday to Friday for appointments and closed on Saturday and Sunday, out with these hours care is provided at Ninewells Hospital. In NHS Lanarkshire, the Obstetrics and Gynaecology department at University Hospital Wishaw is open 24 hours a day seven days a week, while the department at University Hospital Hairmyres only delivers outpatient services and is open 09:00-17:00 Monday-Friday and closed on Saturdays and Sundays.

Table 8: Opening times of Obstetrics and Gynaecology departments in Scotland by Health Board area

Health Board	Monday – Friday	Saturday	Sunday	Number of Sites
NHS Ayrshire and Arran	24 hours	24 hours	24 hours	1
NHS Borders	24 hours	24 hours	24 hours	1
NHS Dumfries and Galloway	24 hours	24 hours	24 hours	1
NHS Fife	09:00-17:00 (then on-call)	On-call	On-call	1
NHS Forth Valley	24 hours	24 hours	24 hours	1
NHS Grampian	24 hours	24 hours	24 hours	2
NHS Greater Glasgow and Clyde	24 hours (3 sites) 09:00-17:00	24 hours (3 sites) Closed	24 hours (3 sites) Closed	4
NHS Highland	24 hours	24 hours	24 hours	1
NHS Lanarkshire	24 hours 09:00-17:00	24 hours Closed	24 hours Closed	2
NHS Lothian	24 hours 24 hours	24 hours 24 hours	24 hours 24 hours	2
NHS Orkney	Available when required			1
NHS Shetland	24 hours	24 hours	24 hours	1
NHS Tayside	08:30-16:00 24 hours	Closed 24 hours	Closed 24 hours	2

NHS Western Isles	24 hours	24 hours	24 hours	1

Recurrent miscarriage services

The Lancet series states that ‘as recurrent miscarriage is a sentinel marker for various obstetric risks in future pregnancies, women should receive care in preconception and obstetric clinics specialising in patients at high risk’.

13 sites said they have recurrent miscarriage services. This is across 11 Health Board areas.

The timing of recurrent miscarriage clinics varies across Scotland. However, no recurrent miscarriage services are available at weekends or out with 09:00-17:00 during weekdays Monday to Friday.

Table 9: Opening times of recurrent miscarriage services in Scotland by Health Board area

Health Board	Monday – Friday	Saturday	Sunday	Number of Sites in Health Board
NHS Ayrshire and Arran	14:00-17:00 Monday and Tuesday (2 clinics side by side)	Closed	Closed	1
NHS Borders	Service provided when required (no set clinic times)			1
NHS Dumfries and Galloway	09:00-12:30 Monday	Closed	Closed	1
NHS Fife	09:00-16:00 Mondays, Wednesday and Thursday, 09:00-12:00 every second Tuesday	Closed	Closed	1
NHS Forth Valley	-	-	-	None
NHS Grampian	Two consultant clinics per month and nurse/midwifery led clinic Mondays; access to EPU telephone for advice 24 hours per day.			1
NHS Greater Glasgow and Clyde	9:00-17:00 Mon-Fri 9:00-12:00 Mon, Tuesday, Closed Wed and Friday, 13:00-16:00 Thurs	Closed	Closed	2
NHS Highland	08:15-15:30	Closed	Closed	1
NHS Lanarkshire	9:00-12:00 Monday	Closed	Closed	1

	10:00-12:00 Friday			
NHS Lothian	09:00-12:00 every two weeks on a Thursday 09:00-12:30 every two weeks on a Monday	Closed	Closed	2
NHS Orkney	14:00-16:00 Wednesday	Closed	Closed	1
NHS Shetland	-	-	-	None
NHS Tayside	09:00-13:00 on alternate Fridays	Closed	Closed	1
NHS Western Isles	-	-	-	None

Infertility Services

14 sites said they have infertility services. This is across 12 Health Board areas.

The timing of infertility clinics varies across Scotland. However, no infertility services are available at weekends or out with 09:00-17:00 during weekdays Monday to Friday.

Table 10: Opening times of infertility services in Scotland by Health Board area

Health Board	Monday – Friday	Saturday	Sunday	Number of Sites in Health Board
NHS Ayrshire and Arran	09:00-12:30	Closed	Closed	1
NHS Borders	-	-	-	None
NHS Dumfries and Galloway	08:00-14:00 Monday-Wednesday 09:00-17:00 one Wednesday approx. every 3 months	Closed	Closed	2
NHS Fife	9:00-17:00 Monday, 9:00-16:00 Tuesday & Thursday, 9:00-12:00 Wednesday, 13:00-17:00 alternate Wednesdays clinic run by Consultant, Closed Friday	Closed	Closed	1
NHS Forth Valley	8:00-16:00	Closed	Closed	1
NHS Grampian	8:00-16:00 – telephone advice from 16:00-08:00	Telephone advice 24 hours		1

NHS Greater Glasgow and Clyde	14:00-16:00 Thursday 09:00-17:00 Monday to Friday	Closed	Closed	2
NHS Highland	-	-	-	None
NHS Lanarkshire	08:00-16:00	Closed	Closed	1
NHS Lothian	08:00-17:00	Closed	Closed	1
NHS Orkney	10:30-16:00 Wednesday	Closed	Closed	1
NHS Shetland	13:30-17:00 Friday	Closed	Closed	1
NHS Tayside	09:00-17:00	Closed	Closed	1
NHS Western Isles	-	-	-	None

Accident and Emergency

Of the 44 sites included in this scoping exercise, 38 sites said that they have an Accident and Emergency (A&E) department. All 38 sites that have an A&E department reported that they are open 24 hours every day including weekends. There is at least one A&E department in every Health Board area.

Four sites reported that they have no maternity services and were identified as A&E only sites. One A&E only site said women experiencing miscarriage do present at their site. The other three A&E only sites said women do not present at their site but would present at a GP surgery, to midwifery teams or at another local hospital.

Out of Hours Care

If a woman presents at A&E in Scotland with suspected miscarriage through the night (out of hours) the pathway of care varies both within and between Health Boards. All sites triage patients and determine if the patient requires further investigation. This can involve liaison with obstetrics and gynaecology teams. If the patient is stable, they may be sent home and referred to early pregnancy services within the Health Board area. If the patient is not stable, they are generally transferred to obstetrics and gynaecology departments or maternity units for further investigation or to be admitted. In some cases women can be transferred to another site.

Dedicated facilities

Unexpected pregnancy complications at any gestation

The Scottish Government committed to the provision of dedicated facilities for women experiencing unexpected pregnancy complications in the Programme for Government 2021-22[7]. All sites in this scoping exercise were asked if they currently provide dedicated facilities for women experiencing unexpected pregnancy complications at any gestation. Sites with an EPU were also asked to indicate if they currently provide dedicated facilities for women experiencing unexpected pregnancy complications at any gestation within the EPU.

The Lancet series on miscarriage matters states 'we urge health-care funders and providers to invest in early pregnancy care, with specific focus on training for clinical nurse specialists and doctors to provide comprehensive miscarriage care within the setting of dedicated early pregnancy units.

All Health Boards in Scotland said they have dedicated facilities for women experiencing unexpected pregnancy complications. These facilities are most often provided in the early pregnancy unit where there is an EPU on site (Table 11). Where there is no EPU, at least one room is available for women experiencing unexpected pregnancy complications in the Health Board area.

While these dedicated facilities are available in all Health Board areas, some women may need to travel significant distances to access these facilities, particularly in more rural areas and in areas when miscarriage care is provided at one or two main locations within a Health Board area.

Table 11: Facilities provided for miscarriage care across all Health Boards (within EPU or out with EPU)

Health Board	Number of sites	Dedicated facilities for women experiencing unexpected pregnancy complications at any gestation		Separate room/area/ward away from labour ward for women that are miscarrying		Separate room/area/ward separated from the labour ward with dedicated services to admit women who are miscarrying		Number of rooms
		Within EPU	Out with EPU	Within EPU	Out with EPU	Within EPU	Out with EPU	All
NHS Ayrshire and Arran	3	Yes (1 site)	Yes (1 site)	Yes (1 site)	Yes (1 site)	Yes (1 site)	Yes (1 site)	More than 5 rooms

[7] Scottish Government Programme for Government: A Fairer, Greener Scotland 2021-22

NHS Borders	1	Yes	Yes	No - due to space - plan to implement in next 2 years	No - due to space - plan to implement in next 2 years	No - due to space - plan to implement in next 2 years	No - due to space - plan to implement in next 2 years	None
NHS Dumfries and Galloway	2	No EPU	Yes (1 site)	No EPU	Yes (1 site)	No EPU	Yes (1 site)	1 room (Gynaecology ward)
NHS Fife	1	Yes	Yes	Yes	Yes	Yes	Yes	9 rooms (Gynaecology ward)
NHS Forth Valley	1	Yes	Yes	Yes	Yes	Yes	Yes	12 rooms (Gynaecology ward, quiet rooms in USS, bereavement room in maternity unit)
NHS Grampian	6	Yes (2 sites)	Yes (1 site)	Yes (2 sites)	Yes (1 site)	Yes (2 sites)	Yes (1 site)	8 rooms (EPU and Bereavement Suite)
NHS Greater Glasgow and Clyde	5	Yes (5 sites)	Yes (2 sites)	Yes (3 sites)	Yes (2 sites)	Yes (2 sites) 1 site plans to implement in next 2 years	Yes (2 sites)	12 rooms (2 EPU, 5 Gynaecology ward, 1 outpatient, 1 maternity assessment, 3 fetal medicine)
NHS Highland	12	Yes (1 site)	No – plans to implement	Yes (1 site)	No – plans to implement	Yes (1 site)	Yes (1 site)	2 rooms – (Gynaecology Ward)
NHS Lanarkshire	3	Yes (2 sites)	Yes (1 site)	Yes (2 sites)	No – plan to implem	Yes (1 site)	Yes (1 site)	1 outpatient (EPU)

					ent next 2 years (2 sites)			(Two rooms in Bereavement suite opened in August 2023)
NHS Lothian	2	Yes (1 site) Yes (up to 12 weeks gestation)	Yes (2 sites)	Yes (1 site) Yes (up to 12 weeks gestation)	Yes (2 sites)	Yes (1 site) Yes (up to 12 weeks gestation)	Yes (1 site) Yes – depends on gestation (1 site)	6 rooms (Gynaecology and other)
NHS Orkney	1	No dedicated EPU	No dedicated EPU	No dedicated EPU	No dedicated EPU	No dedicated EPU	No dedicated EPU	1 room (Maternity Unit – away from postnatal and labour section) Women can choose to be moved to an acute ward
NHS Shetland	1	No EPU	Yes (1 site)	No EPU	No – plan to implement in next 2 years	No EPU	No – plan to implement in next 2 years	1 room
NHS Tayside	3	Yes (1 site)	Yes (2 sites)	Yes (1 site)	Yes (1 site)	Yes (1 site)	Yes (1 site)	More than 5 rooms (single rooms in maternity assessment and gynaecology ward)
NHS Western Isles	3	No EPU	Yes (1 site)	No EPU	Yes (1 site)	No EPU	No – no plans to implement	2 rooms (away from labour and main ward)

Separate room/area/ward

Eleven out of 14 Heath Boards in Scotland have a separate room/area/ward away from the labour ward for women experiencing miscarriage. The number of separate rooms available for women who are experiencing miscarriage ranges between 1 and 12 rooms. In most Health Boards these rooms are available on the gynaecology ward or on the maternity ward, where rooms are located away from the labour or postnatal rooms. It is noted that some rooms/areas are not solely used for miscarriage care and may be used for other pregnancy complications or loss (Table 11).

Three Health Board areas that stated they do not have a separate room/area/ward away from labour ward for women that are miscarrying, NHS Borders stated that they plan to implement this provision in the next two years. In NHS Orkney a room is available in the maternity unit away from the postnatal and labouring area and the acute ward can be used if preferred by the patient. In NHS Shetland building work is underway for a bereavement suite that will provide this space for women.

If women experiencing miscarriage need to be admitted for care, 10 of the 14 Health Boards stated a separate room/area/ward, separated from the labour ward with dedicated services is available to admit women who are miscarrying. These rooms are often in the gynaecological ward, EPU or bereavement suite. Of the Health Boards that stated a separate room/area/ward separated from the labour ward with dedicated services to admit women who are miscarrying is not provided, NHS Borders and NHS Shetland stated there are plans to implement this. In NHS Western Isles there are no rooms out with the maternity ward but women experiencing miscarriage are located away from the labour and main wards. In NHS Orkney women largely prefer to access the maternity unit. Options are available for alternative accommodation in the acute or day surgery wards where the support and expertise of the maternity team is still available if women prefer not to attend the maternity unit.

Scanning facilities

Scans are often performed to confirm a miscarriage has occurred. For this scoping exercise all of the 44 sites were asked if an area was available to carry out complication or investigative scans separated from women with a continuing pregnancy (Table 12).

Seven of the 14 Health Boards said that they have a separate area to carry out complication/investigative scans separated from women with a continuing pregnancy either within or out with the EPU. In most Health Board areas this provision is at the one main site in the Health Board area where most women that present with a miscarriage are seen. Only NHS Greater Glasgow and Clyde and NHS Lanarkshire have a separate area to carry out complication/investigative scans separated from women with a continuing pregnancy in more than one site.

Amongst the 17 EPUs, eight can carry out complication/investigative scans in an area separated from women with a continuing pregnancy. Of the remaining nine EPU sites, three sites have plans to implement this service within the EPU in the next two years and six sites have no plans to implement this service within the EPU. Of those with no plans to implement a separate area, cost was cited as a barrier to implementation.

Seven of the 14 Health Boards reported that they do not have an area to carry out complication /investigative scans separated from women with a continuing pregnancy

either within or out with the EPU. NHS Borders have plans to implement this in the next two years, one site in NHS Lothian plan to implement this in the next two years, while NHS Fife, NHS Highland, NHS Orkney, NHS Shetland and NHS Western Isles have no plans to implement this service.

Table 12: Scanning facilities in Scotland

Health Board	Number of sites	Area to carry out complication / investigative scans separated from women with a continuing pregnancy	
		Within EPU	Out with EPU
NHS Ayrshire and Arran	3	Yes (1 site)	Yes (1 site)
NHS Borders	1	No – but plan to implement in next 2 years	No – but plan to implement in next 2 years
NHS Dumfries and Galloway	2	No EPU	Yes (1 site)
NHS Fife	1	No – No plans to implement	No – no plans to implement
NHS Forth Valley	1	Yes (1 site)	Yes (1 site)
NHS Grampian	6	Yes (1 site) No plans to implement (1 site)	No – no plans to implement
NHS Greater Glasgow and Clyde	5	Yes (2 sites) 1 site plans to implement in next 2 years 2 sites - no plans to implement	Yes (3 sites) No – plans to implement in next 2 years (1 site) No – no plans to implement (1 site)
NHS Highland	12	No – no plans to implement	No – no plans to implement
NHS Lanarkshire	3	Yes (2 sites)	Yes (1 site)
NHS Lothian	2	No (1 site plans to implement in 2 years, 1 site no plans to implement)	No – no plans to implement
NHS Orkney	1	No dedicated EPU	No
NHS Shetland	1	No EPU	No – no plans to implement
NHS Tayside	3	Yes (1 site)	Yes (1 site) No – no plans to implement (1 site)
NHS Western Isles	3	No EPU	No – no plans to implement

Miscarriage management and information

The Lancet series on Miscarriage Matters stated that women should be presented with the available evidence about miscarriage management and be free to choose the management approach that suits their needs and preferences.

Choice of management option

All Health Boards in Scotland reported that they ensure women can choose their preferred method of management of miscarriage. However, the geography of provision has implications for women in terms of how and if they can access their chosen approach.

Written information

All Health Boards in Scotland said that they routinely provide written information about the treatment options for the management of miscarriage and what to expect next in terms of miscarriage care. However, not all sites within Health Boards routinely provide this. This information is provided once the individual has reached the relevant service within the Health Board where miscarriage is confirmed, and management options discussed. This may not be at the site at which women originally present.

Provision of written information about services, including third party services, for mental health support are not routinely provided in all Health Boards or all sites. NHS Lanarkshire does not routinely provide written information on third party services for mental health support following a loss, but sites in the Health Board area do routinely provide written information on third party services for bereavement, which may also offer mental health support. In NHS Shetland the Gilbert Bain Hospital provides local leaflets directing women to SANDS[8] following a pregnancy loss. SANDS offer support to anyone affected by pregnancy loss or the death of a baby.

Table 13: Written information provided about:

Health Board	Treatment options for the management of miscarriage	What to expect next in terms of miscarriage care	Services including third party services for mental health support following a loss	Services including third party services for bereavement following a loss
NHS Ayrshire and Arran	2 of 3 sites	2 of 3 sites	2 of 3 sites	2 of 3 sites
NHS Borders	1 of 1 site	1 of 1 site	1 of 1 site	1 of 1 site
NHS Dumfries and Galloway	2 of 2 sites	2 of 2 sites	2 of 2 sites	2 of 2 sites

[8] About Sands | Sands - Saving babies' lives. Supporting bereaved families.

NHS Fife	1 of 1 site	1 of 1 site	1 of 1 site	1 of 1 site
NHS Forth Valley	1 of 1 site	1 of 1 site	1 of 1 site	1 of 1 site
NHS Grampian	2 of 6 sites	1 of 6 sites	1 of 6 sites	1 of 6 sites
NHS Greater Glasgow and Clyde	5 of 5 sites	5 of 5 sites	5 of 5 sites	5 of 5 sites
NHS Highland	10 of 12 sites	3 of 12 sites	10 of 12 sites	11 of 12 sites
NHS Lanarkshire	3 of 3 sites	2 of 3 sites	None	2 of 3 sites
NHS Lothian	2 of 2 sites	2 of 2 sites	2 of 2 sites	2 of 2 sites
NHS Orkney	1 of 1 site	1 of 1 site	1 of 1 site	1 of 1 site
NHS Shetland	1 of 1 site	1 of 1 site	None	1 of 1 site
NHS Tayside	2 of 3 sites	2 of 3 sites	2 of 3 sites	2 of 3 sites
NHS Western Isles	3 of 3 sites	3 of 3 sites	3 of 3 sites	3 of 3 sites

Information about management options

As well as written information, what will happen during, after and in terms of follow-up after the management of miscarriage is explained to women in all Health Boards. This is often done once the pathway of care for the health board is followed and the patient is at the site that offers treatment for miscarriage.

Table 14: Information about management options

Health Board	What will happen during the chosen method of management of miscarriage is explained fully to women	What will happen after the chosen method of management of miscarriage is explained fully to women	What will happen in terms of follow-up after the management of miscarriage is fully explained to women
All Health Boards	14	14	14
NHS Ayrshire and Arran	Agree	Agree	Agree
NHS Borders	Agree	Agree	Agree
NHS Dumfries and Galloway	Agree	Agree	Agree
NHS Fife	Agree	Agree	Agree
NHS Forth Valley	Agree	Agree	Agree
NHS Grampian	Agree	Agree	Agree

NHS Greater Glasgow and Clyde	Agree	Agree	Agree
NHS Highland	Agree	Agree	Agree
NHS Lanarkshire	Agree	Agree	Agree
NHS Lothian	Agree	Agree	Agree
NHS Orkney	Agree	Agree	Agree
NHS Shetland	Agree	Neither agree nor disagree	Neither agree nor disagree
NHS Tayside	Agree	Agree	Agree
NHS Western Isles	Agree	Agree	Agree

Management options

The Lancet series on Miscarriage Matters states an effective early pregnancy service needs to be able to support women with expectant management, and provide medical management with mifepristone and misoprostol, and surgical management with manual vacuum aspiration.

In some Health Boards miscarriage management options are only available at one or two sites within the Health Board. The geography of provision means that some women may have to travel substantial distances to access any management option for miscarriage, including expectant management (Table 15).

There are differences in the management options that are available to women at different gestations throughout Scotland. For all Health Boards management options are discussed with women and considered for each individual case particularly in terms of the gestation at which the loss had occurred. While all Health Boards stated specific gestations at which a treatment option may be available to women, there is variation across Scotland in terms of what treatment options are offered at different gestions.

Expectant Management

Expectant management is offered in all Health Board areas. Expectant management is offered for first trimester losses in nine Health Boards with five Health Boards offering expectant management for first and second trimester losses.

Medical Management

Medical management with misoprostol is offered in all Health Board areas. Medical management with mifepristone and misoprostol is offered in all Health Board areas except NHS Fife.

Medical management with misoprostol is offered for first trimester losses in 5 Health Boards with 9 Health Boards offering this treatment for first and second trimester losses.

Medical management with mifepristone and misoprostol is offered for first and second trimester losses in 13 of the 14 Health Boards. In NHS Fife medical management with mifepristone and misoprostol is not offered instead multiple doses of misoprostol is offered for first and second trimester losses. In NHS Shetland and NHS Orkney medical management with mifepristone and misoprostol is offered in first trimester losses with second trimester losses being cared for in NHS Grampian where medical management with mifepristone and misoprostol is available for first and second trimester losses.

Surgical Management

All Health Boards offer surgical management with general anaesthetic and 10 of 14 Health Boards currently provide surgical management with manual vacuum aspiration (MVA) in at least one site in the Health Board area. One Health Board stated this service was being developed (NHS Borders).

Surgical management with manual vacuum aspiration (MVA) with local anaesthetic is offered for first trimester losses in 10 Health Board areas. In NHS Borders and NHS Fife MVA is not provided in the Health Board area but can be accessed in another Health

Board area. In NHS Lothian MVA is not provided due to lack of physical space and staff training. In NHS Shetland MVA is not currently offered for first trimester losses.

Surgical management under general anaesthetic is available in all Health Boards in Scotland. This is offered for first trimester losses in 12 Health Boards. NHS Forth Valley and NHS Grampian offer surgical management under general anaesthetic for first and second trimester losses.

Table 15: Choice of management options*

Health Board	Expectant Management	Medical management with misoprostol	Medical management with mifepristone and misoprostol	Surgical management with manual vacuum aspiration (MVA) with local anaesthetic	Surgical management under general anaesthetic
NHS Ayrshire and Arran	Offered in first trimester (1 site)	Offered in first trimester (1 site)	Offered in first and second trimester (1 site)	Offered in first trimester (1 site)	Offered in first trimester (1 site)
NHS Borders	Offered in first and second trimester	Offered in first and second trimester	Offered in first and second trimester	Offered in first trimester	Offered in first trimester
NHS Dumfries and Galloway	Offered in first trimester (2 sites)	Offered in first and second trimester (only first trimester in one site)	Offered in first and second trimester (2 sites)	Service being developed not offered routinely, but can be arranged on request (1 site)	Offered in first trimester (1 site)
NHS Fife	Offered in first and second trimester	Offered in first and second trimester	Not offered	Not provided can be accessed in another Health Board area	Offered in first trimester
NHS Forth Valley	Offered in first and second trimester	Offered in first and second trimester	Offered in first and second trimester	Offered in first trimester	Offered in first and second trimester
NHS Grampian	Offered in first and second trimester (2 sites)	Offered in first and second trimester (2 sites)	Offered in first and second trimester (2 sites)	Offered in first trimester (1 site)	Offered in first and second trimester (2 sites)

NHS Greater Glasgow and Clyde	Offered in first trimester (5 sites)	Offered in first and second trimester (1 site)	Offered in first and second trimester (4 sites)	Offered in first trimester (3 site)	Offered in first trimester (4 sites)
NHS Highland	Offered in first and second trimester (only first trimester in 2 sites)	Offered in first and second trimester (1 site)	Offered in first and second trimester (1 site)	Offered in first trimester (1 site)	Offered in first trimester (1 site)
NHS Lanarkshire	Offered in first trimester (2 sites)	Offered in first and second trimester (1 site)	Offered in first and second trimester (1 site)	Offered in first trimester (1 site)	Offered in first trimester (1 site)
NHS Lothian	Offered in first trimester (2 sites)	Offered in first trimester (2 sites)	Offered in first and second trimester (2 sites)	Not Offered	Offered in first trimester (2 sites)
NHS Orkney**	Offered in first trimester (1 site)	Offered in first trimester (1 site)	Offered in first trimester (1 site)	Offered in first trimester (1 site)	Offered in first trimester (1 site)
NHS Shetland***	Offered in first trimester (1 site)	Offered in first trimester (1 site)	Offered in first trimester (1 site)	Not Offered	Offered in first trimester (1 site)
NHS Tayside	Offered in first trimester (1 site)	Offered in first trimester (1 site)	Offered in first and second trimester (1 site)	Offered in first trimester (1 site)	Offered in first trimester (1 site)
NHS Western Isles	Offered in first trimester (3 sites)	Offered in first and second trimester (1 site)	Offered in first and second trimester (1 site)	Offered in first trimester (1 site)	Offered in first trimester (1 site)

* While trimesters are referred to in the table the management option is often offered up to a specific gestation in weeks and days which may cover part of a trimester rather than the full trimester.

**NHS Orkney provide first trimester care with second trimester care referred to NHS Grampian

***NHS Shetland provide first trimester care with second trimester care referred to NHS Grampian

Referrals and assessment following a loss

The Lancet series stated that 'the consequences of miscarriage are both physical, such as bleeding or infection, and psychological. Psychological consequences include increases in the risk of anxiety, depression, post-traumatic stress disorder, and suicide. As psychological morbidity is common after pregnancy loss, effective screening instruments and treatment options for mental health consequences of miscarriage need to be available'[9].

Referrals and assessment for support services following a loss were provided by 13 of the 14 Health Boards. NHS Shetland cares for women experiencing first trimester losses and refers to services out with the Health Board area for second trimester losses, including specialist bereavement services. In NHS Shetland mental health and counselling referrals are made via the GP although if there are concerns midwives can make a referral prior to discharge (Table 16).

Across the individual Health Board areas, it is unclear if there are referral pathways directly from early pregnancy services or maternity services to NHS or third party services for mental health, bereavement, or counselling support. Across all Health Boards there does not appear to be a clear process in all sites that provide miscarriage care, for the routine assessment or referral to support services.

[9] The Lancet: Miscarriage Matters - the epidemiological, physical, psychological, and economic costs of early pregnancy loss

Table 16: Referrals and assessment							
Health Board	Assessment of women for risk of psychological distress following miscarriage	Referring women to NHS services for mental health support following a loss	Referring women to third party services for mental health support following a loss	Referring women to NHS services for bereavement support following a loss	Referring women to third party services for bereavement support following a loss	Referring women to NHS services for counselling following a loss	Referring women to third party services for counselling following a loss
NHS Ayrshire and Arran	Provided (1 site)	Provided (1 site)	Provided (2 sites)	Provided (1 site)	Provided (2 sites)	Provided (1 site)	Provided (2 sites)
NHS Borders	Provided (1 site)	Provided (1 site)	Provided (1 site)	Provided (1 site)	Provided (1 site)	Provided (1 site)	Provided (1 site)
NHS Dumfries and Galloway	Provided (1 site)	Provided in Board area not on site	Provided in Board area not on site	Provided in Board area not on site	Provided in Board area not on site	Provided in Board area not on site	Provided in Board area not on site
NHS Fife	Provided (1 site)	Provided (1 site)	Provided (1 site)	Provided (1 site)	Provided (1 site)	Provided (1 site)	Provided (1 site)
NHS Forth Valley	Information provided	Provided (1 site)	Provided (1 site)	Provided (1 site)	Provided (1 site)	Provided (1 site)	Provided (1 site)
NHS Grampian	Provided (2 sites)	Provided (1 sites)	Provided (2 sites)	Provided (2 sites)	Provided (2 sites)	Not provided	Provided (1 sites)
NHS Greater Glasgow and Clyde	Provided (3 sites)	Provided (3 sites)	Provided (3 sites)	Provided (3 sites)	Provided (3 sites)	Provided (3 sites)	Provided (3 sites)
NHS Highland	Provided (2 sites)	Provided (3 sites)	Provided (10 sites)	Provided (3 sites)	Provided (3 sites)	Provided (3 sites)	Provided (3 sites)

NHS Lanarkshire	Provided (1 site)	Provided (1 site)	Provided (1 site)	Provided (1 site)	Provided (2 sites)	Provided (1 site)	Provided (2 sites)
NHS Lothian	Provided in Board area not on site	Provided in Board area not on site	Provided in Board area not on site	Provided in Board area not on site	Provided in Board area not on site	Provided in Board area not on site	Provided in Board area not on site
NHS Orkney	Provided in board area not on site	Provided in board area not on site	Provided in board area not on site	Provided in board area not on site	Provided in board area not on site	Provided in board area not on site	Provided in board area not on site
NHS Shetland*	Provided in Health Board area for first trimester losses	Provided in Health Board area for first trimester losses	Provided in Health Board area for first trimester losses	Provided in Health Board area for first trimester losses	Provided in Health Board area for first trimester losses	Provided in Health Board area for first trimester losses	Provided in Health Board area for first trimester losses
NHS Tayside	Provided in board area not on site	Provided (3 sites)	Provided in board area not on site	Provided (3 sites)	Provided in board area not on site	Provided (3 sites)	Provided in board area not on site
NHS Western Isles	Provided (2 sites)	Provided (2 sites)	Provided (2 sites)	Provided (2 sites)	Provided (2 sites)	Provided (1 site)	Provided (1 site)

*NHS Shetland only provide first trimester care with second trimester care referred to NHS Grampian

Graded approach to miscarriage

The Lancet series on Miscarriage Matters provided information on the provision of treatment and care after first, second and third or subsequent miscarriage. The Lancet series proposed a graded approach to the treatment of recurrent miscarriage, where after one miscarriage women would have their health needs evaluated and would be provided with information and guidance to support future pregnancies. If a second miscarriage occurs, women should be offered an appointment at a miscarriage clinic for a full blood count and thyroid function tests and have extra support and early scans for reassurance in any subsequent pregnancies. After three miscarriages additional tests, including genetic testing and a pelvic ultrasound, should be offered.

The following sections of this report are based on the Lancet series. The sections are designed to ascertain the extent to which the graded approach is currently being delivered in Health Boards across Scotland.

In 13 Health Board areas a graded approach to the treatment of miscarriage is adopted or can be accessed. NHS Shetland reported that they do not provide a graded approach to recurrent miscarriage, however they are able to access this out with the Health Board area in NHS Grampian. See Table 17.

NHS Forth Valley do not provide a graded approach for recurrent miscarriage and reported that there are no plans to implement this. This was attributed to lack of staff training and cost/finance. While NHS Forth Valley stated a graded approach to recurrent miscarriage is not currently adopted, some of the elements of a graded approach are provided. Further details can also be found in the report NHS Forth Valley - Miscarriage care in Scotland - Scoping report.

17 of the 44 sites said a graded approach to the treatment of recurrent miscarriage is adopted and provided on their site. A further 9 sites reported that they are able to access a graded approach to the treatment of recurrent miscarriage by referring to another site in their Health Board area.

Table 17: Graded approach to recurrent miscarriage

Health Board	Number of sites	Overall a graded approach to the treatment of recurrent miscarriage is adopted on this site
All Health Boards	44	17 sites provide a graded approach to the treatment of recurrent miscarriage
NHS Ayrshire and Arran	3	Provided at 1 site
NHS Borders	1	Provided
NHS Dumfries and Galloway	2	Provided at 2 sites
NHS Fife	1	Provided
NHS Forth Valley	1	No – no plans to implement
NHS Grampian	6	Provided at 1 site

NHS Greater Glasgow and Clyde	5	Provided at 4 of the 5 sites (not Vale of Leven Hospital)
NHS Highland	12	Provided at 1 site
NHS Lanarkshire	3	Provided at 1 site
NHS Lothian	2	Provided at 1 site
NHS Orkney	1	Provided
NHS Shetland	1	Accessed through NHS Grampian
NHS Tayside	3	Provided at 1 site
NHS Western Isles	3	Provided at 2 sites (not Barra Community Hospital)

After first miscarriage

The Lancet series on Miscarriage Matters recommended the provision below (Table 18, Table 19) is available after a first miscarriage. Table 18 indicates the number of Boards that currently provide the elements of miscarriage care listed after a first miscarriage and Table 19 indicates the number of sites that currently provide them.

After a first miscarriage many of the services and provision outlined in The Lancet series are provided in all Health Board areas. Vaginal micronised progesterone in women with early pregnancy bleeding and a history of miscarriage is not offered in all 14 Health Boards with some sites referring to the NICE Guidelines that state this should be offered for women with early pregnancy bleeding and a history of miscarriage rather than a first miscarriage[10]. Screening for mental health issues was provided in 12 of the 14 Health Boards. Some sites stated that there are no screening tools available for use and others stated that this is offered following a referral to another service (GP or Mental Health Teams). The development of an individualised care plan is provided in 13 of the 14 Health Boards with NHS Forth Valley not providing this service.

Table 18: Service provision after first miscarriage across Health Boards

	Number of Health Boards service provided/accessed
Information provided about miscarriage	14
Vaginal micronised progesterone in women with early pregnancy bleeding and a history of miscarriage*	10
Information provided about physical health needs following pregnancy loss	14
Information provided about mental health needs following pregnancy loss	14
Screening for mental health issues	11

[10] Ectopic pregnancy and miscarriage: diagnosis and initial management - NICE Guidance

Information provided to optimise health for future pregnancies e.g. smoking cessation, weight loss, folic acid intake etc.	13
Referral to necessary services for management and optimisation of chronic maternal medical conditions	12
Women are asked verbally if they have had a previous miscarriage	14
Development of an individualised care plan	13

*Vaginal micronised progesterone is recommended for women with early pregnancy bleeding and a history of miscarriage.

Table 19: Service provision after first miscarriage *

	Provided on site	Can refer/ access within Health Board	Can refer /access out with Health Board area	Plan to implement	No plans to implement	Other
Information provided about miscarriage	35	2	-	-	2	-
Vaginal micronised progesterone in women with early pregnancy bleeding and a history of miscarriage**	13	12	-	3	10	1 (case dependent)
Information provided about physical health needs following pregnancy loss	32	4	-	1	3	-
Information provided about mental health needs following pregnancy loss	32	5	-	-	2	-
Screening for mental health issues	16	11	-	3	8	1 (do not provide- would like resource to do so)
Information provided to optimise health for future pregnancies	29	4	-	3	2	1 (do not provide - would like

e.g. smoking cessation, weight loss, folic acid intake etc.						resource to do so)
Referral to necessary services for management and optimisation of chronic maternal medical conditions	15	16	-	4	4	-
Women are asked verbally if they have had a previous miscarriage	33	4	-	-	2	-
Development of an individualised care plan	28	5	-	2	4	-

* This question was not asked of sites with A&E facilities only, 39 sites were asked in total
**Vaginal micronised progesterone is recommended for women with early pregnancy bleeding and a history of miscarriage.

The Lancet series stated that adopting a graded approach would involve women being guided to information about miscarriage, resources to address their physical and mental health needs following pregnancy loss, and ways to optimise their health for future pregnancy after a first miscarriage.

After a first miscarriage the following services listed in Table 20 below were explicitly stated in the miscarriage matters series[11]. Sites were asked if they routinely signpost patients to any of the following. While this signposting is provided in most Health Board areas, there is a lack of consistency among sites both within and between Health Board areas in terms of whether this is routine for all patients.

In the Health Boards where women are not signposted, general advice on maternal optimisation of pregnancy such as weight management, pregnancy vitamins, smoking cessation advice is provided and women are signposted to the Miscarriage Association.

Table 20: Service provision after first miscarriage*

	Always	Most of the time	Some of the time	Only if deemed appropriate	Never	Number of Health Boards service provided (excludes Never)
Patient support groups	28	1	-	8	2	14

[11] The Lancet: Miscarriage Matters - Recurrent miscarriage: evidence to accelerate action

Online self-help strategies for mental health	13	-	6	13	7	13
Weight management	1	1	6	26	5	13
Smoking and recreational drugs cessation services	4	2	5	23	5	13
Information on appropriate pre-conceptual folate and vitamin D supplementation	25	1	5	5	3	14

* This question was not asked of sites with A&E facilities only, 39 sites were asked in total

After second miscarriage

Following a second miscarriage, the Lancet series stated that when the graded approach is followed women will be offered an appointment at a miscarriage clinic that could be nurse or midwifery-led, in which tests for full blood count and thyroid function are offered, in addition to discussing lifestyle issues. Referral for specialist care will be arranged if tests are abnormal or if there is chronic medical or mental health concerns. Women will have access to support and early pregnancy reassurance scans in subsequent pregnancies.

After a second miscarriage no Health Board delivers all of the elements of the service provision as outlined in the Lancet series. There was variability in approach within and between Health Board areas (Table 21).

Appointment at a nurse-led or midwife-led miscarriage clinic is not planned to be implemented in many Health Boards as clinics are consultant-led. Women would be seen at a miscarriage clinic but by a consultant rather than a nurse or midwife.

Continuity of care is not offered in all Health Board areas after a second miscarriage with two Health Boards stating this was due to staff recruitment and retention and in some cases lack of specialised nursing staff and staff training. Tests for full blood count and thyroid function and discussions about lifestyle issues in relation to future pregnancies are not routinely offered in all Health Boards or all sites that provide miscarriage care after a second miscarriage.

Access to support and early pregnancy reassurance scans in subsequent pregnancies is available in 12 of the 14 Health Boards but not in all sites included in the survey. Where support and early pregnancy reassurance scans are not offered, sites stated a lack of space, staff recruitment, staff training, finance/cost, lack of equipment and lack of scanning resource as barriers to providing reassurance scans after a second miscarriage.

The Lancet series concludes that there is high-quality evidence showing vaginal micronised progesterone increases livebirth rates, for women who have early pregnancy bleeding and a history of miscarriages. After a second miscarriage vaginal micronised progesterone is offered in 12 of the 14 Health Boards although not all sites that care for women experiencing a miscarriage provide this service. NHS Lothian does not provide vaginal micronised progesterone after a second loss but can provide this after a third miscarriage. NHS Orkney does not provide vaginal micronised progesterone (Table 22).

Table 21: Service provision after second miscarriage	
	Number of Health Boards service provided/accessed
Appointment at a nurse-led miscarriage clinic	6
Appointment at a midwifery-led miscarriage clinic	5
Continuity of carer	11
Test for full blood count offered	11
Tests for thyroid function offered	10
Vaginal micronized progesterone offered to women with early pregnancy bleeding and a history of miscarriage	12
Discussion about lifestyle issues in relation to future pregnancies	13
Referral to specialist care if required	13
Access to support and early pregnancy reassurance scan in subsequent pregnancies	12
Women are asked verbally if they have had a previous miscarriage	14

Table 22: Service provision after second miscarriage*						
	Provided on site	**Can refer/access in Health Board area**	**Can refer/access out with Health Board area**	**Plan to implement**	**No plans to implement**	**Other**
Appointment at a nurse-led miscarriage clinic	5	11	10	1	20	-
Appointment at a midwifery-led miscarriage clinic	4	10	10	1	22	-
Continuity of carer	22	3	1	3	9	1
Test for full blood count offered	24	3	-	2	11	-
Tests for thyroid function offered	21	4	-	2	12	

Vaginal micronized progesterone offered to women with early pregnancy bleeding and a history of miscarriage	17	12	-	3	7	-
Discussion about lifestyle issues in relation to future pregnancies	29	3	-	2	5	-
Referral to specialist care if required	20	6	7	1	4	1 (age criteria used)
Access to support and early pregnancy reassurance scan in subsequent pregnancies	16	4	7	1	6	1 (age criteria used)
Women are asked verbally if they have had a previous miscarriage	35	2	-	-	2	-

* This question was not asked of sites with A&E facilities only, 39 sites in total were asked

After third and subsequent miscarriage

The Lancet series states in the graded model approach to miscarriage, after a third miscarriage, women will be offered an appointment at a medical consultant-led clinic, in which additional tests and a full range of treatments can be offered. Pregnancy tissue from the third and any subsequent miscarriages will be sent for genetic testing. Blood tests for antiphospholipid antibodies and a pelvic ultrasound scan (ideally three-dimensional transvaginal) will be arranged and, if necessary, parental karyotyping will be offered depending on the clinical history and the results of the genetic analysis of pregnancy tissue from previous losses. Appropriate screening and care for mental health issues and future obstetric risks, particularly preterm birth, fetal growth restriction, and stillbirth, will need to be incorporated into the care pathway for couples with a history of recurrent miscarriage[12].

[12] The Lancet: Miscarriage Matters - Recurrent miscarriage: evidence to accelerate action

No Health Board is delivering all elements of the graded approach outlined in the Lancet series after a third or subsequent miscarriage. The service provision is variable, while almost all options are being delivered in all Health Boards this was site dependent and there was variability in approach both within and between Health Board areas (Table 23).

As stated above the Lancet series concludes that there is high-quality evidence showing vaginal micronised progesterone increases livebirth rates, for women who have early pregnancy bleeding and a history of miscarriages. After a third or subsequent miscarriage all Health Boards except NHS Orkney provide this.

The Lancet series stated that as psychological morbidity is common after pregnancy loss, effective screening instruments and treatment options for mental health consequences of miscarriage need to be available[13]. Appropriate screening for mental health issues after a third or subsequent miscarriage is provided in 12 of the 14 Health Boards. It is unclear across all Health Boards if screening is routine for all women and whether a validated tool is being used. Two Health Boards stated that this is not provided. NHS Dumfries and Galloway stated that there is not a formal screening process, but women could be referred to mental health services if required. NHS Forth Valley stated screening for mental health issues is not available due to lack of staff training, however, women are directed to other services if felt they are at risk.

Table 23: Service provision after third miscarriage and subsequent miscarriage

	Number of Health Boards service provided/accessed
Appointment at a medical consultant led clinic	13
Continuity of carer	14
Pregnancy tissue from the third and any subsequent miscarriages will be sent for genetic testing	12
Blood tests for antiphospholipid antibodies	12
Investigative pelvic ultrasound scan arranged (ideally three dimensional – not a pregnancy scan)	12
Parental karyotyping offered depending on the clinical history and results of the genetic analysis of pregnancy tissue from previous losses	12
Vaginal micronized progesterone in women with early pregnancy bleeding and a history of miscarriage	13
Appropriate screening for mental health issues	12
Appropriate care for mental health issues	14

[13] The Lancet Series: Miscarriage Matters - The epidemiological, physical, psychological, and economic costs of early pregnancy loss

Women are recognised as being at an increased risk of obstetric complications including pre-term birth	13
Appropriate screening and care for future obstetric risks	14
Care for mental health issues and future obstetric risk are incorporated into the care pathway for couple with a history or recurrent miscarriage	14
Women are treated as at high risk during antenatal and intrapartum care	14
Women are asked verbally if they have had a previous miscarriage	14

Table 24: Service provision after third miscarriage and subsequent miscarriage*

	Provided on site	Can refer/access in Health Board area	Can refer/access out with Health Board area	Plan to implement	No plans to implement	Other
Appointment at a medical consultant led clinic	18	10	7	2	2	-
Continuity of carer	27	4	-	2	4	-
Pregnancy tissue from the third and any subsequent miscarriages will be sent for genetic testing	18	7	9	1	3	-
Blood tests for antiphospholipid antibodies	27	6	2	1	3	-
Investigative pelvic ultrasound scan arranged (ideally three dimensional – not a pregnancy scan)	11	10	8	1	7	1
Parental karyotyping	19	7	10	-	3	-

offered depending on the clinical history and results of the genetic analysis of pregnancy tissue from previous losses						
Vaginal micronized progesterone in women with early pregnancy bleeding and a history of miscarriage	20	5	7	3	4	0
Appropriate screening for mental health issues	20	10	-	-	8	1
Appropriate care for mental health issues	21	14	1	-	3	1
Women are recognised as being at an increased risk of obstetric complications including pre-term birth	28	5	1	1	3	1
Appropriate screening and care for future obstetric risks	31	5	-	-	2	1
Care for mental health issues and future obstetric risk are incorporated into the care pathway for couple with a history or recurrent miscarriage	30	5	-	-	2	2
Women are treated as at	30	4	-	1	2	2

high risk during antenatal and intrapartum care						
Women are asked verbally if they have had a previous miscarriage	34	3	-	-	2	-

* This question was not asked of sites with A&E facilities only, 39 sites in total were asked

Staff guidance, skills and training

Written clinical guidance

There is written clinical guidance for clinical staff on the appropriate treatment and care for miscarriage at all gestations at 38 of the 44 sites, across 12 Health Boards. In NHS Grampian, written clinical guidance is not available at Peterhead Community Hospital, Fraserburgh Hospital, Jubilee Hospital and Inverurie Health and Care Hub, however women who present here are directed to Aberdeen Maternity Hospital where the guidance is available. In NHS Shetland, clinical guidance is only available for first trimester losses with all women experiencing a loss in the second trimester transferred out of the Health Board area to NHS Grampian where guidance is available in the two sites that treat women for miscarriage. In NHS Western Isles, Uist and Barra Hospital has guidance for first trimester losses only although this site transfers women to Western Isles Hospital for treatment. (Table 25).

Table 25: Written clinical guidance for clinical staff on the appropriate treatment and care for miscarriage

Health Board	Yes – all gestations	Yes – first trimester only	Yes – second trimester only	None
All Health Boards	38 of 44 sites	2 of 44 sites	-	4 of 44 sites
NHS Ayrshire and Arran	3 of 3 sites	-	-	-
NHS Borders	1 of 1 site	-	-	-
NHS Dumfries and Galloway	2 of 2 sites	-	-	-
NHS Fife	1 of 1 site	-	-	-
NHS Forth Valley	1 of 1 site	-	-	-
NHS Grampian	2 of 6 sites	-	-	4 of 6 sites (where miscarriage is not managed but referred to another site in the Health Board area)
NHS Greater Glasgow and Clyde	5 of 5 sites	-	-	-
NHS Highland	5 of 12 sites (7 sites have access to consultant guidelines)	-	-	-
NHS Lanarkshire	3 of 3 sites	-	-	-
NHS Lothian	2 of 2 sites	-	-	-
NHS Orkney	1 of 1 site	-	-	-
NHS Shetland*	-	Yes – 1 site	-	-

NHS Tayside	3 of 3 sites	-	-	-
NHS Western Isles	2 of 3 sites	Yes – 1 site	-	-

*NHS Shetland only provide first trimester care with second trimester care referred to NHS Grampian

Staff skills and training

The Lancet series stated that 'miscarriage care should ideally be given by clinical nurse specialists and doctors with specialist training in early pregnancy care, in the setting of early pregnancy units, which appear to be effective and cost-effective' and 'specific focus on training for clinical nurse specialists and doctors to provide comprehensive miscarriage care within the setting of dedicated early pregnancy units'. The Lancet series also states that medical consultant model might not represent an optimal use of finite health-care resources[14].

The training and skills mix of staff providing miscarriage care varies across Health Boards. Often specialist training is centralised within one or two units within a Health Board area. Some Health Boards operate a medical approach to miscarriage care with consultant led provision and doctors trained to provide comprehensive miscarriage care with fewer Health Boards with nurses or midwives with additional specialist training.

There are staff with additional specialist training to deal with all baby losses from early pregnancy to stillbirth in 13 of the 14 Health Boards in Scotland, in NHS Highland there are plans to implement this in the next 2 years.

Midwives/nurses with additional specialist training to provide comprehensive miscarriage care are available in 11 of the 14 Health Board areas in Scotland. NHS Orkney and NHS Shetland plan to implement this in the next two year and NHS Tayside plans to implement this in one site in the next 2 years.

Midwives/nurses with additional specialist training for recurrent miscarriage care are available in seven of the 14 Health Boards. NHS Borders, NHS Dumfries and Galloway and NHS Forth Valley have no plans to implement this in the future, although NHS Borders stated that if a midwife/nurse showed an interest in training for recurrent miscarriage care it could be provided. NHS Dumfries and Galloway and NHS Borders both indicated that they do not have midwives/nurses with additional specialist training for recurrent miscarriage care due to the small size of the service they provide. NHS Forth Valley reported that although several nurses have a special interest in this training, there are barriers to providing tailored miscarriage services due to a lack of a lead nurse for the EPU. NHS Tayside and NHS Western Isles plan to have midwives/nurses with additional specialist training for recurrent miscarriage care in the next 3 years or longer and NHS Orkney and NHS Shetland can access this in NHS Grampian.

Specialised medical staff are trained specifically for recurrent miscarriage care are available in 12 of the 14 Health Board areas. NHS Shetland refer women to NHS Grampian to access this. NHS Dumfries and Galloway do not have medical staff that are trained specifically for recurrent miscarriage care and do not plan to implement this due to the small size of the service they provide.

Almost all Health Boards have doctors that are trained to provide comprehensive miscarriage care. NHS Shetland refer women to NHS Grampian to access this (Table 26).

[14] The Lancet: Miscarriage Matters - Recurrent miscarriage: evidence to accelerate action

Table 26: Staff training and skills					
Health Board	**There are staff with additional specialist training to deal with all baby losses from early pregnancy to stillbirth**	**There are midwives/nurses with additional specialist training to provide comprehensive miscarriage care**	**There are midwives/nurses with additional specialist training for recurrent miscarriage care**	**Specialised medical staff are trained specifically for recurrent miscarriage care**	**Doctors are trained to provide comprehensive miscarriage care**
All Health Boards	13	11	7	12	13
NHS Ayrshire and Arran	3 of 3 sites	1 of 3 sites	1 of 3 sites	1 of 3 sites	1 of 3 sites
NHS Borders	1 of 1 site	1 of 1 site	Not provided – no plans to implement	1 of 1 site	1 of 1 site
NHS Dumfries and Galloway	1 of 2 sites	1 of 2 sites	Not provided – no plans to implement	Not provided – no plans to implement	1 of 2 sites
NHS Fife	1 of 1 site	1 of 1 site	1 of 1 site	1 of 1 site	1 of 1 site
NHS Forth Valley	1 of 1 site	1 of 1 site	Not provided – no plans to implement	1 of 1 site	1 of 1 site
NHS Grampian	2 of 6 sites	2 of 6 sites	1 of 6 sites	1 of 6 sites	2 of 6 sites
NHS Greater Glasgow and Clyde	1 of 5 sites	1 of 5 sites	1 of 5 sites and 1 site plan to implement in the next 2 years	4 of 5 sites	4 of 5 sites
NHS Highland	Not available	2 of 12 sites	1 of 12 sites	1 of 12 sites	1 of 12 sites
NHS Lanarkshire	1 of 3 sites	2 of 3 sites	1 of 3 sites	1 of 3 sites	1 of 3 sites
NHS Lothian	2 of 2 sites	2 of 2 sites	1 of 2 sites	2 of 2 sites	2 of 2 sites

NHS Orkney	1 of 1 site	Can refer/access – not locally (outwith HB area)	Can refer/access – not locally (outwith HB area)	1 of 1 site	1 of 1 site
NHS Shetland	1 of 1 site	Can refer/access outwith HB area	Can refer/access outwith HB area	Can refer/access outwith HB area	Can refer/access outwith HB area
NHS Tayside	1 of 3 sites	Not provided - plans to implement in 1 site in the next 2 years)	Not provided – plans to implement in 1 site in the next 3 years or longer	1 of 3 sites	1 of 3 sites
NHS Western Isles	1 of 3 sites	1 of 3 sites	Not provided – plans to implement in 1 site in the next 3 years or longer	1 of 3 sites	1 of 3 sites

Data about miscarriages

It is not possible to accurately assess the number of miscarriages that occur in Scotland at present, as only miscarriages that require hospital inpatient or day case treatment are routinely recorded.

The Lancet series on Miscarriage Care recommended that:

- miscarriage data are gathered and reported to facilitate comparison of rates among countries, to accelerate research, and to improve patient care and policy development; and
- every country reports annual aggregate miscarriage data, similarly to the reporting of stillbirth.

The Scottish Government is currently working with Public Health Scotland to find ways to improve miscarriage data recording and to gather a more accurate picture of the number of miscarriages in Scotland. This will be used to facilitate comparison of rates among countries, to accelerate research, and to improve patient care and policy development.

This scoping exercise found that there is variation in what is being recorded as a miscarriage and this varies both across and within Health Boards (Table 27).

Table 27: What sites record as a miscarriage

	Number of sites
All miscarriages - once pre-booking contact made	9
All miscarriages - after positive test (at home or within an NHS service)	8
All miscarriages - including biochemical pregnancies	6
All miscarriages - including self-report	3
All miscarriages – for women that present or access an NHS service	2
Only when confirmed by ultrasound scan	4
Only once a miscarriage has been confirmed by an NHS service	2
Verbal reporting by patient	4
Positive pregnancy test 5-6 weeks after last menstrual period	1
Scan or positive test 6 weeks after last menstrual period	1
Once a pregnancy is confirmed	1
Data not collected	1
Not known	2

Miscarriage data is not collected in all sites or in all Health Boards in Scotland. Some data is collected in 11 of the 14 Health Boards (Table 28).

Table 28: Data collected on miscarriage								
Number of Sites	**Number of miscarriages**	**Miscarriages as proportion of pregnancies**	**Gestation**	**Maternal Age**	**Parity**	**SIMD**	**Ethnicity**	**None**
Scotland Sites	21	15	20	18	16	11	16	22
Health Boards	11	9	11	10	9	7	9	6

In some areas additional characteristics such as those outlined in Table 28 are also captured although this is not uniform both within and across Health Board areas. Data is collected both electronically and on paper. While some Health Boards appear to have a process by which oversight of miscarriage data takes place others do not.

Information technology systems used to collect Miscarriage Data

Across Scotland different IT systems are used by Health Boards to collect data about those accessing miscarriage care. BadgerNet Maternity is used by 11 out of 14 Health Boards to collect miscarriage data. Currently BadgerNet is not used by NHS Borders, NHS Fife or NHS Lothian for miscarriage data. Trakcare is used by eight Health Boards to capture miscarriage data. One Health Board, NHS Borders, stated they do not collect data locally about those accessing miscarriage care. Other systems used by Health Boards include Clinical Portal, Portal, Symphony and Badgernet Early Pregnancy and Gynaecology Unit (EPAGU) (Table 29).

Table 29: Data collection and IT system				
	BadgerNet Maternity	**Trakcare**	**Not Collected**	**Other**
Scotland Sites	40	16	1	4 (Badgernet EPAGU, Symphony, Portal, Clinical Portal)
Health Boards	11	8	1	4

Summary

The overall summary is presented below and is shown in Annex A mapped to the recommendations within the Lancet series on Miscarriage Matters and the Scottish Government Programme for Government commitments. The findings will be used to aid in the development of an improvement plan for miscarriage care in Scotland.

Nationally, the approach to miscarriage care varies both between and within Health Board areas. Most health boards have identified core sites that provide care for women who experience miscarriage, however what is provided at these sites varies across Scotland.

Early pregnancy services are available in all Health Boards in Scotland, 10 of 14 Health Boards have a dedicated early pregnancy unit. The opening times of early pregnancy services varies across Scotland.

All sites said that women are free to choose the management approach that suits their needs, however the geography of provision in Scotland has implications for women in terms of how they can access their chosen approach. While expectant management is often available locally, for medical or surgical management women may have to travel to the nearest site that provides this service and this can be some distance away, particularly in more rural areas.

While progress has been made towards a graded approach to miscarriage care, this approach has not yet been fully adopted in any Health Board in Scotland. That said, where elements of the graded approach have been adopted, progress is being made towards more comprehensive care for women experiencing miscarriage.

After a first, second and third or subsequent miscarriage, the full service provision outlined in the Lancet is not yet being provided in any of the Health Boards in Scotland. Key elements of the graded approach such as the provision of vaginal micronised progesterone and medical management with mifepristone and misoprostol and surgical manual vacuum aspiration have not yet been fully implemented in all Health Boards.

All Health Board areas provide some dedicated facilities for those experiencing unexpected pregnancy complications, although not all have separate rooms or areas away from women with a continuing pregnancy. Those that do not have separate areas indicated that this was mainly due to lack of space and that they plan to implement such facilities in the next two years.

Half of the Health Boards have a separate area to carry out complication/ investigative scans which are separate from women with a continuing pregnancy, while some sites plan to implement this, others stated space and costs as a barrier to implementation.

There is written clinical guidance for clinical staff on the appropriate treatment and care for miscarriage at all gestations at most sites that care for women experiencing miscarriage.

The training and skills of staff providing miscarriage care varied across Health Boards. Often specialist training is centralised within one or two units within a Health Board area. Some Health Boards operate a medically led approach to miscarriage care with consultant lead provision and doctors trained to provide comprehensive miscarriage care with fewer Health Boards with nurses or midwives with additional specialist training.

The gathering of data about miscarriage is variable both within and across Health Board areas, this has been difficult to capture centrally due to women presenting at both primary and secondary health care environments, alongside some women not presenting at all to medical services. A project is underway to better define and capture data on miscarriage nationally in Scotland in line with the Lancet series on miscarriage matters.

Annex A

Table 30: Scottish Government Programme for Government (PfG) Commitments and The Lancet Miscarriage Matters Recommendations

Source	Commitment/ Recommendation	Progress Nationally
PfG	Ensure women's services in Health Boards have dedicated facilities for women who are experiencing unexpected pregnancy complications.	In Scotland 13 of the 14 health boards reported that they have some dedicated facilities for women experiencing unexpected pregnancy complications, these facilities were often provided in the early pregnancy unit where there is an EPU on site. 13 of the 14 Health Boards have a separate room/area/ward available for women experiencing miscarriage. The number of separate rooms ranges between 1 and 12 rooms per site. In most sites these separate rooms are available on the gynaecology ward or on the maternity ward, where rooms are located away from the labour or postnatal rooms. It is noted that some rooms/areas are not solely used for miscarriage care and may be used for other pregnancy complications or loss.
The Lancet: Miscarriage Matters	A graded approach to the treatment of recurrent miscarriage	In Scotland 13 of the 14 Health Board areas said a graded approach to the treatment of recurrent miscarriage is adopted or can be accessed. This covered 26 of the 44 sites included in the scoping exercise, with 17 sites providing this service on site. NHS Shetland stated a graded approach is not provided within the Health Board but is accessible in another Health Board area (NHS Grampian). NHS Forth Valley have not adopted a graded approach and do not have plans implement a graded approach.
After First Miscarriage		(Only sites with an Early Pregnancy Unit, Maternity Unit, Community Maternity Unit and/or Obstetrics and Gynaecology department were asked about information and services provided after a first miscarriage – 39 sites)

After the first miscarriage, women will be guided to information about miscarriage	Provided in all 14 Health Board areas but not within all sites that could encounter women experiencing miscarriage
After the first miscarriage, women will be guided to resources to address their physical needs	Provided in all 14 Health Board areas but not within all sites that could encounter women experiencing miscarriage
After the first miscarriage, women will be guided to resources to address mental health needs following pregnancy loss	Provided in all 14 Health Board areas but not within all sites that could encounter women experiencing miscarriage
After the first miscarriage, women will be guided to ways to optimise their health for future pregnancy	Provided in all 13 Health Board areas but not within all sites that could encounter women experiencing miscarriage
After First Miscarriage - this approach could involve:	(Only sites with an Early Pregnancy Unit, Maternity Unit, Community Maternity Unit and/or Obstetrics and Gynaecology department were asked about information and services provided after a first miscarriage – 39 sites)
Patient support groups	Provided in all 14 Health Board areas but not within all sites that could encounter women experiencing miscarriage
Online self-help strategies for mental health	Provided in 13 Health Board areas but not within all sites that could encounter women experiencing miscarriage.
Weight management	Provided in 13 Health Board areas but not within all sites that could encounter women experiencing miscarriage
Smoking and recreational drugs cessation services	Provided in 13 Health Board areas but not within all sites that could encounter women experiencing miscarriage
Information on appropriate preconceptual folate and vitamin D supplementation	Provided in all 14 Health Board areas but not within all sites that could encounter women experiencing miscarriage
Referral to necessary services for management and optimisation of chronic maternal medical conditions (e.g., diabetes, hypertension, heart disease, and epilepsy)	Provided in all 12 Health Board areas but not within all sites that could encounter women experiencing miscarriage
Screening for mental health issues.	Provided in 11 Health Board areas but not within all sites that could encounter women experiencing miscarriage
After Second Miscarriage	(Only sites with an Early Pregnancy Unit, Maternity Unit, Community Maternity Unit and/or Obstetrics and Gynaecology department were asked about information and services provided after a second miscarriage – 39 sites)

Women will be offered an appointment at a miscarriage clinic nurse or midwifery-led	6 Health Boards provide appointment at a nurse-led miscarriage clinic 5 Health Boards provide appointment at a midwifery-led miscarriage clinic
Continuity of Care	Provided in 11 of 14 Health Board areas but not within all sites that could encounter women experiencing miscarriage
Tests for full blood count are offered	Provided in 11 of 14 Health Board areas but not within all sites that could encounter women experiencing miscarriage
Tests for thyroid function are offered	Provided in 10 of 14 Health Board areas but not within all sites that could encounter women experiencing miscarriage
Discussion about lifestyle issues	Provided in 13 of 14 Health Board areas but not within all sites that could encounter women experiencing miscarriage
Referral for specialist care will be arranged if tests are abnormal or if there is a chronic medical or mental health problem.	Provided in 13 of 14 Health Board areas but not within all sites that could encounter women experiencing miscarriage
Women will have access to support and early pregnancy reassurance scans in subsequent pregnancies.	Provided in 12 of 14 Health Board areas but not within all sites that could encounter women experiencing miscarriage
After Third and subsequent Miscarriage	(Only sites with an Early Pregnancy Unit, Maternity Unit, Community Maternity Unit and/or Obstetrics and Gynaecology department were asked about information and services provided after a third or subsequent miscarriage – 39 sites)
Women will be offered an appointment at a medical consultant-led clinic, in which additional tests and a full range of treatments can be offered.	Provided in 13 of 14 Health Board areas but not within all sites that could encounter women experiencing miscarriage
Pregnancy tissue from the third and any subsequent miscarriages will be sent for genetic testing.	Provided in 12 of 14 Health Board areas but not within all sites that could encounter women experiencing miscarriage
Blood tests for antiphospholipid antibodies will be arranged.	Provided in 12 of 14 Health Board areas but not within all sites that could

	encounter women experiencing miscarriage
A pelvic ultrasound scan (ideally three dimensional transvaginal) will be arranged	Provided in 12 of 14 Health Board areas but not within all sites that could encounter women experiencing miscarriage
If necessary, parental karyotyping will be offered depending on the clinical history and the results of the genetic analysis of pregnancy tissue from previous losses	Provided in 12 of 14 Health Board areas but not within all sites that could encounter women experiencing miscarriage
Appropriate screening for mental health issues	Provided in 12 of 14 Health Board areas but not within all sites that could encounter women experiencing miscarriage
Appropriate care for mental health issues	Provided in all 14 Health Board areas but not within all sites that could encounter women experiencing miscarriage
Overall Recommendations	
Appropriate **screening and care** for future obstetric risks, particularly preterm birth, fetal growth restriction, and stillbirth.	Provided in all 14 Health Board areas but not within all sites that could encounter women experiencing miscarriage
Appropriate screening and care for future obstetric risks and mental health issues will need to be **incorporated into the care pathway** for couples with a history of recurrent miscarriage.	Not assessed
Consider giving vaginal micronised progesterone in women with early pregnancy bleeding and a history of miscarriage	Provided in 10 of 14 Health Board areas after a first miscarriage. Provided in 12 of 14 Health Board areas after a second miscarriage. Provided in 13 of 14 Health Board areas after a third or subsequent miscarriage. Not provided within all sites that could encounter women experiencing miscarriage
We urge health-care funders and providers to invest in early pregnancy care, with specific focus on training for clinical nurse specialists and doctors to provide comprehensive miscarriage care within the setting of dedicated early pregnancy units.	17 dedicated early pregnancy units are available in 10 Health Boards. 11 Health Board areas have midwives/nurses with additional specialist training to provide comprehensive miscarriage care. 13 Health Boards have doctors trained to provide comprehensive miscarriage care.
Early pregnancy services need to focus on providing an effective ultrasound service, as it is central to the diagnosis of miscarriage, and be	6 Health Boards were able to carry out ultrasound scans in the EPU separated

able to provide expectant management of miscarriage, medical management with mifepristone and misoprostol, and surgical management with manual vacuum aspiration	from women with a continuing pregnancy. All health boards offered all expectant, medical and surgical management for the treatment of miscarriage. Not all management options could be accessed in all Health Board areas. Expectant management is available in all Health Board areas but due to the geography in Scotland some women may need to travel significant distances to access expectant management. Medical management and the use of mifepristone and misoprostol is available in all Health Boards except for NHS Fife where multiple doses of misoprostol are provided. Surgical management with manual vacuum aspiration is available in 10 of the 14 Health Boards.
Recommend that miscarriage data are gathered and reported to facilitate comparison of rates among countries, to accelerate research, and to improve patient care and policy development. We recommend that every country reports annual aggregate miscarriage data, similarly to the reporting of stillbirth.	Currently data gathering on miscarriage varies both between and within Health Board areas. There is a lack of consensus on what would be recorded as a miscarriage, what data about miscarriage should be recorded (such as maternal characteristics and gestation) and where data should be reviewed.
Identifying women at risk of psychological distress following miscarriage	Provided in 14 Health Board areas but not within all sites that could encounter women experiencing miscarriage. Assessment of women at risk of psychological distress is often referred to specialist mental health services or GPs.
Identifying women at risk of psychological distress following miscarriage and the development of optimal treatment strategies have been recognised as research priorities.	Not assessed
Women with a history of miscarriage, particularly those with three or more miscarriages, are at an increased risk of obstetric complications including preterm birth. Therefore, these women should be treated as patients at high risk during antenatal and intrapartum care.	Provided in 13 Health Board areas but not within all sites that could encounter women experiencing miscarriage
Miscarriage Management - women should be presented with the available evidence and be	Provided in 14 Health Board areas said that women are free to choose the

free to choose the management approach that suits their needs and preferences		management approach that suits their needs, but not within all sites that could encounter women experiencing miscarriage. The geography in Scotland has implications for women in terms of how they can access their chosen approach. While expectant management is often available locally, for medical or surgical management women may have to travel to another site that provides this service which could be some distance away particularly in more rural areas.
Consider pathways of care for miscarriage management, treatment of women with a history of miscarriage and care following a miscarriage.		Not assessed
The Lancet: Miscarriage Matters Research Recommendations	Key epidemiological research priority 1 - Establishing how we can monitor miscarriage rates on a population basis.	Project underway with Scottish Government and Public Health Scotland
	Key epidemiological research priority 2 - Ascertaining if miscarriage risk and prevalence differ across nations and ethnic groups.	Project underway with Scottish Government and Public Health Scotland
	Key epidemiological research priority 3 - Whether miscarriage rate is increasing, and if so why; what the key outcomes are from women's point of view.	Work to follow from research priorities 1 and 2 above.
	Key epidemiological research priority 4 - Which risk factors for miscarriage are potentially causative and modifiable; and the effect of modification of the risk factor on clinical outcomes	Work to follow from research priorities 1 and 2 above.

Annex B

Table B: Secondary care sites where women experiencing miscarriage in may be seen	
Health Board	**Number of sites**
NHS Ayrshire and Arran Arran War Memorial Hospital University Hospital Ayr (ED) University Hospital Crosshouse (including Ayrshire Maternity Unit)	3
NHS Borders Borders General Hospital	1
NHS Dumfries and Galloway Dumfries and Galloway Royal Infirmary Galloway Community Hospital (A & E)	2
NHS Fife Victoria Hospital	1
NHS Forth Valley Forth Valley Royal Hospital	1
NHS Grampian Aberdeen Royal Infirmary and Maternity Hospital (Foresterhill Site) Dr Gray's Hospital Fraserburgh Hospital Inverurie Health & Care Hub Jubilee Hospital Peterhead Community Hospital	6
NHS Greater Glasgow and Clyde Glasgow Royal Campus – included: Princess Royal Maternity Jubilee Building (A& E) Glasgow Royal Infirmary Inverclyde Campus – included: Inverclyde Royal Hospital Inverclyde Community Maternity Unit Royal Alexandra Campus – included: Royal Alexandra Hospital Royal Alexandra Community maternity Unit Queen Elizabeth University Hospital Campus Vale of Leven Campus – included: Vale of Leven District General Hospital Vale of Leven Community Maternity Unit	5
NHS Highland	12

Belford Hospital Caithness General Hospital Campbeltown Hospital Cowal Community Hospital (A & E) (Dunoon Hospital previously) Dr MacKinnon Memorial Hospital - Broadford Hospital (A & E) Islay Hospital Lorn & Islands Hospital Mid Argyll Community Hospital and Integrated Care Centre Mull & Iona Community Hospital Nairn Town And County Hospital Victoria Hospital Raigmore Hospital	
NHS Lanarkshire University Hospital Hairmyres University Hospital Wishaw University Hospital Monklands	3
NHS Lothian Royal Infirmary of Edinburgh St Johns Hospital	2
NHS Orkney Balfour Hospital	1
NHS Shetland Gilbert Bain Hospital	1
NHS Tayside Arbroath Infirmary Ninewells Hospital Perth Royal Infirmary	3
NHS Western Isles Barra Community Hospital Uist and Barra Hospital Western Isles Hospital	3
Total	44

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The views expressed in this report are those of the researcher and do not necessarily represent those of the Scottish Government or Scottish Ministers.

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