NICE National Institute for Health and Care Excellence

NICE Pathways

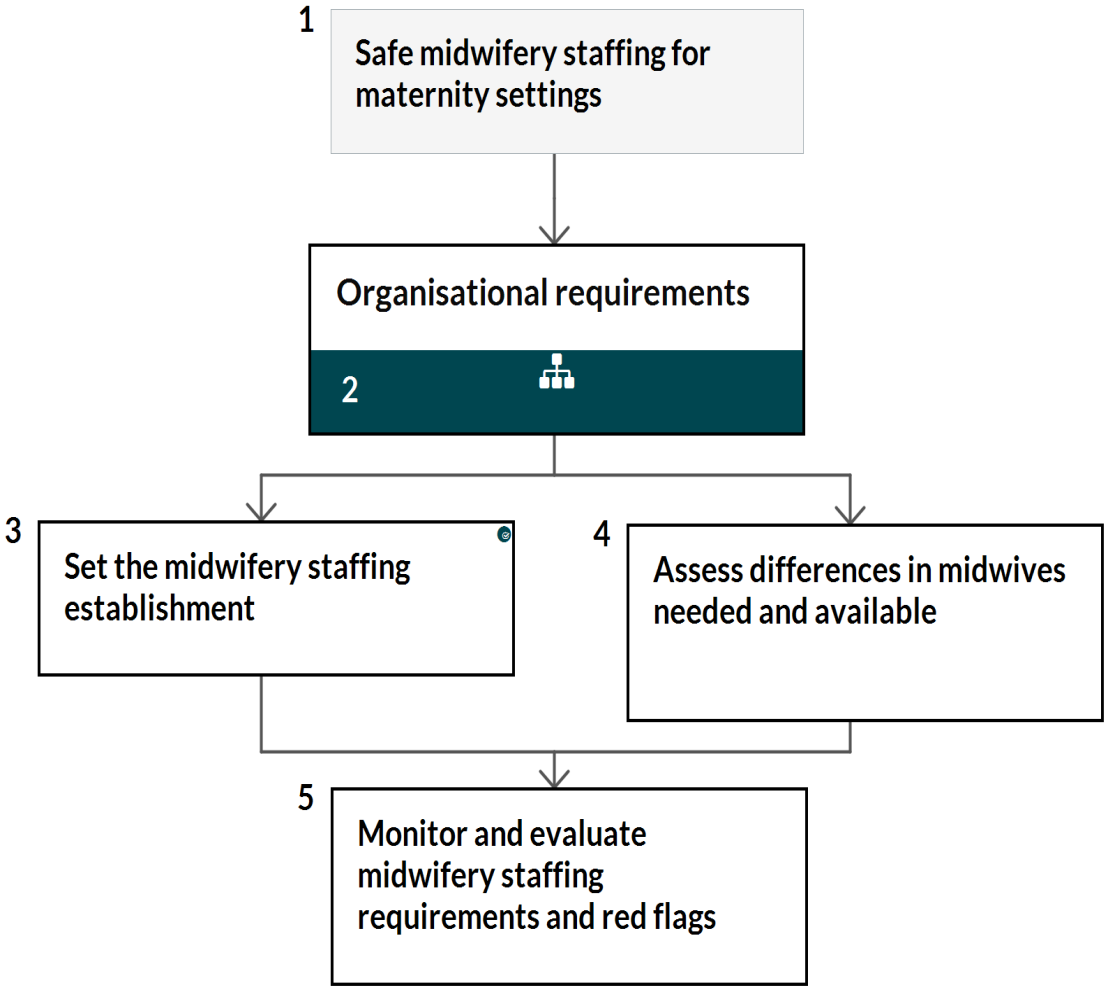
Safe midwifery staffing for maternity settings overview

NICE Pathways bring together everything NICE says on a topic in an interactive flowchart. NICE Pathways are interactive and designed to be used online.

They are updated regularly as new NICE guidance is published. To view the latest version of this NICE Pathway see:

http://pathways.nice.org.uk/pathways/safe-midwifery-staffing-for-maternity-settings
NICE Pathway last updated: 31 March 2021

This document contains a single flowchart and uses numbering to link the boxes to the associated recommendations.



1 Safe midwifery staffing for maternity settings

No additional information

2 Organisational requirements

See Safe midwifery staffing for maternity settings / Organisational requirements for safe midwifery staffing for maternity settings

3 Set the midwifery staffing establishment

These recommendations are for registered midwives (or other authorised people) who are responsible for determining the midwifery staffing establishment.

Determine the midwifery staffing establishment for each maternity service (for example, pre-conception, antenatal, intrapartum and postnatal services) at least every 6 months.

Undertake a systematic process to calculate the midwifery staffing establishment. The process (or parts of the process) could be supported by a NICE endorsed toolkit (if available). The process should contain the following components.

- Use historical data about the number and care needs of women who have accessed maternity services over a sample period (for example, the past 12 months or longer).
- Estimate the total maternity care hours needed over the sample period based on a risk categorisation of women and babies in the service. This should consider the following:
    - risk factors, acuity and dependency (see consider risk, acuity and dependency of each woman and baby when assessing maternity care needs [See page 8] for examples)
    - the estimated time taken to perform all routine maternity care activities (see part A in examples of maternity care activities that affect midwifery staffing [See page 10])
    - the estimated time taken to perform additional activities (see part B in examples of maternity care activities that affect midwifery staffing [See page 10]).
- Divide the total number of maternity care hours by the number of women in the time period to determine the historical average maternity care hours needed per woman.
- Use data on the number of women who are currently accessing the maternity service and the trend in new bookings to predict the number of women in the service in the next 6 months.

- Multiply the predicted number of women in the service over the next 6 months by the historical average maternity care hours needed per woman to determine the predicted total maternity care hours needed over the next 6 months.
- From the total predicted maternity care hours, identify the hours of midwife time and skill mix to deliver the maternity care activities that are required. Take account of:
    - environmental factors including local service configuration (see examples of environmental factors to consider when assessing maternity care needs [See page 9])
    - the range of staff available, such as maternity support workers, registered nurses or GPs, and the activities that can be safely delegated to or provided by them (see examples of staffing factors to consider when assessing maternity care needs [See page 10]).
- Allow for the following:
    - one-to-one care during established labour (unless already accounted for in the historical data)
    - more than one-to-one care during established labour if circumstances require it (unless already accounted for in the historical data)
    - any staffing ratios for other stages of care that have been developed locally depending on the local service configuration and the needs of individual women and babies
    - the locally defined rate of uplift (for example, to allow for annual leave, maternity leave, paternity leave, study leave, special leave and sickness absence).
- Divide the total midwife hours by 26 to give the average number of midwife hours needed per week over the next 6 months.
- Divide the weekly average by the number of hours for a full time working week to determine the number of whole time equivalents needed for the midwife establishment over the next 6 months.
- Convert the number of whole time equivalents into the annual midwife establishment.

See systematic process to calculate the midwifery staffing establishment in the guideline for a summary of this process.

Base the number of whole-time equivalents on registered midwives, and do not include the following in the calculations:

- registered midwives undertaking a Local Supervising Authority Programme
- registered midwives with supernumerary status (this may include newly qualified midwives, or midwives returning to practice)
- student midwives

- the proportion of time specialist and consultant midwives who are part of the establishment spend delivering contracted specialist work (for example, specialist midwives in bereavement roles)
- the proportion of time midwives who are part of the establishment spend coordinating a service, for example the labour ward.

Use professional judgement at each stage of the calculation and when checking the calculations for the midwifery staffing establishment.

Base the midwife roster on the midwifery staffing establishment calculations, taking into account any predictable peaks in activity, and risk categorisation of women and babies (for example, during the day when midwife activities are likely to be planned, or for a service dealing with higher risk category women and babies).

Quality standards

The following quality statement is relevant to this part of the interactive flowchart.

2. One-to-one care

4 Assess differences in midwives needed and available

These recommendations are for registered midwives in charge of assessing the number of midwives needed on a day-to-day basis.

As a minimum, assess the differences between the number of midwives needed and the number of midwives available for each maternity service in all settings:

- once before the start of the service (for example, in antenatal or postnatal clinics) or the start of the day (for example, for community visits), or
- once before the start of each shift (for example, in hospital wards).

This assessment could be facilitated by using a toolkit endorsed by NICE.

During the service period or shift reassess differences between the midwifery staff needed and the number available when:

- there is unexpected variation in demand for maternity services or midwifery care (for example, if there is an unexpected increase in the number of women in established labour)
- there is unplanned staff absence during the shift or service

- women and babies need extra support or specialist input
- a midwifery red flag event has occurred (see midwifery red flag events [See page 13]).

Consider the following when undertaking the assessment:

- risk factors and risk categorisation, acuity and dependency of each woman and baby in the service (use the information in consider risk, acuity and dependency of each woman and baby when assessing maternity care needs [See page 8] as a prompt)
- environmental factors (use the information in examples of environmental factors to consider when assessing maternity care needs [See page 9] as a prompt)
- time taken to perform the necessary midwifery care activities (use the information in examples of maternity care activities that affect midwifery staffing [See page 10] as a prompt).

Follow escalation plans if the number of midwives available is different from the number of midwives needed (see develop escalation plans). Service cancellations or closures should be the last option. Take into account the potential of cancellations or closures to limit women's choice and to affect maternity service provision and the reputation of the organisation.

If a midwifery red flag event occurs (see midwifery red flag events [See page 13] for examples), the midwife in charge of the service or shift should be notified. The midwife in charge should determine whether midwifery staffing is the cause, and the action that is needed. Action may include allocating additional midwifery staff to the service.

Record midwifery red flag events (including any locally agreed midwifery red flag events) for reviewing, even if no action was taken.

5 Monitor and evaluate midwifery staffing requirements and red flags

These recommendations are for senior midwives working in maternity services.

Monitor whether the midwifery staffing establishment adequately meets the midwifery care needs of women and babies in the service using the safe midwifery staffing indicators [See page 13]. Consider continuous data collection of these safe midwifery staffing indicators (using data already routinely collected locally where available) and analyse the results. See indicators for safe midwifery staffing in the guideline for further guidance on these indicators.

Compare the results of the safe midwifery staffing indicators with previous results at least every 6 months.

Analyse reported midwifery red flag events (see midwifery red flag events [See page 13]) and any additional locally agreed midwifery red flag events and the action taken in response.

Analyse records of differences between the number of midwives needed and those available for each shift to inform planning of future midwifery establishments.

Review the adequacy of the midwifery staffing establishment (see monitor the adequacy of midwifery staffing establishment in this pathway) if indicated by the analysis of midwifery red flag events, midwifery staffing indicators or differences between the number of midwives needed and those available.

Consider risk, acuity and dependency of each woman and baby when assessing maternity care needs

Risk

- Age
- Cardiovascular
- Complications (previous)
- Current pregnancy
- Disabilities
- Endocrinological
- Fetal
- Gastrointestinal
- Gynaecological
- Haematological
- Immunological
- Infective
- Learning difficulties
- Neurological
- Obesity
- Psychiatric
- Renal
- Respiratory
- Skeletal
- Substance use

Antenatal acuity/dependency

- No significant intervention required
- Induction of labour
- Requires specialised care
- Requires treatment

Intrapartum acuity/dependency

- Apgar score

- Birth trauma
- Birth weight
- Caesarean section
- Death
- Duration of labour
- Gestation
- Operative vaginal delivery
- Post-delivery emergency

Postnatal acuity/dependency

- Moderate dependency
- Readmission
- Straight forward
- Transfer out

Examples of environmental factors to consider when assessing maternity care needs

Local service configuration or models of care, for example:

- Consultant-led care
- Midwife-led care
- Shared care

Unit/department layout, for example:

- Number of beds, units, bays (and distance between them)

Availability of and proximity to related services, for example:

- Breastfeeding clinics
- Fetal medicine department
- Maternal medicine department
- Other specialist centres

Local geography and availability of neighbouring maternity services, for example:

- Travel time between services

Examples of staffing factors to consider when assessing maternity care needs

Availability of non-midwifery staff, for example:

- Allied health professionals (e.g. sonographers)
- Clerical staff and data inputters
- GPs
- Maternity support workers
- Medical consultants
- Nursery nurses
- Registered nurses
- Temporary staff

Examples of maternity care activities that affect midwifery staffing

Antenatal	Intrapartum	Postnatal	All stages of care
Part A: Examples of routine care activities			
Booking appointment	**Routine intrapartum care** including assessment, support, monitoring, management	**Routine postnatal care** including observations, hygiene, discharge planning	**Routine administration** including care planning, case notes, referrals
Antenatal appointment including assessment, education, lifestyle advice and fetal	**One-to-one care** during established labour	**Newborn assessment/ examination/ screening/ vaccination** (e.g. heel prick, hearing, vitamin	**Checking/ordering/ chasing** (e.g. preparing medication, checking specialist equipment, checking blood results)

monitoring		K administration)	
Antenatal screening and tests (e.g. fetal heart auscultation/ scan)		**Postnatal appointment** including assessment, education, advice and infant monitoring	**Transfers**
Part B: Examples of activities that may need additional time			
Admission to labour ward or day unit	**Additional monitoring/ Interventions** (e.g. cannula, epidural, fetal monitoring, induction of labour)	**Maternal or neonatal death** including arrangements after death and support for relatives and carers	**Case conferences**
Providing additional antenatal screening and tests (e.g. fetal anomaly)	**Managing complications** (e.g. managing fetal distress, complicated birth)	**Managing complications** (e.g. postpartum haemorrhage, difficulty establishing infant feeding)	**Additional time for the following:** • **Consideration of preferred place of birth** (e.g. home birth) • **Providing care for women needing specialist input** (e.g. female genital mutilation) • **Managing specific clinical conditions** (e.g. diabetes) • **Managing specific social issues** (e.g. child protection, safeguarding) • **Communicating** with

			• women and carers/ family including those with sensory impairment or language difficulties • **Providing additional education, training and emotional support** (e.g. new medication, equipment or diagnosis in baby/ mother)
Providing antenatal vaccinations (e.g. flu)	**Specialising/high dependency/ intensive care**		**Coordination of service, or liaison with multidisciplinary team, or other services**
			Escorts/transitional care

Note: these activities are only a guide and there may be other activities that could also be considered.

For further information please see what NICE says:

- antenatal and postnatal mental health
- caesarean birth
- diabetes in pregnancy
- ectopic pregnancy and miscarriage
- fertility
- hypertension in pregnancy
- induction of labour
- twin and triplet pregnancy
- pregnancy and complex social factors: service provision.

Midwifery red flag events

A midwifery red flag event is a warning sign that something may be wrong with midwifery staffing. If a midwifery red flag event occurs, the midwife in charge of the service should be notified. The midwife in charge should determine whether midwifery staffing is the cause, and the action that is needed.

- Delayed or cancelled time critical activity.
- Missed or delayed care (for example, delay of 60 minutes or more in washing and suturing).
- Missed medication during an admission to hospital or midwifery-led unit (for example, diabetes medication).
- Delay of more than 30 minutes in providing pain relief.
- Delay of 30 minutes or more between presentation and triage.
- Full clinical examination not carried out when presenting in labour.
- Delay of 2 hours or more between admission for induction and beginning of process.
- Delayed recognition of and action on abnormal vital signs (for example, sepsis or urine output).
- Any occasion when 1 midwife is not able to provide continuous one-to-one care and support to a woman during established labour.

Other midwifery red flags may be agreed locally.

Safe midwifery staffing indicators

Indicators are positive and negative events that should be reviewed when reviewing the midwifery staffing establishment**, and should be agreed locally.**

Outcome measures reported by women in maternity services

Data for the following indicators can be collected using the Maternity Services Survey:

- Adequacy of communication with the midwifery team.
- Adequacy of meeting the mother's needs during labour and birth
- Adequacy of meeting the mother's needs for breastfeeding support.
- Adequacy of meeting the mother's postnatal needs (postnatal depression and post-traumatic stress disorder) and being seen during the postnatal period by the midwifery team.

Outcome measures

- Booking appointment within 13 weeks of pregnancy (or sooner): record whether booking appointments take place within 13 weeks of pregnancy (or sooner). If the appointment is after 13 weeks of pregnancy the reason should also be recorded, in accordance with the Maternity Services Data Set.
- Breastfeeding: local rates of breastfeeding initiation can be collected using NHS England's Maternity and Breastfeeding data return.
- Antenatal and postnatal admissions, and readmissions within 28 days: record antenatal and postnatal admission and readmission details including discharge date. Data can be collected from the Maternity Services Data Set.
- Incidence of genital tract trauma during the labour and delivery episode, including tears and episiotomy. Data can be collected from the Maternity Services Data Set.
- Birth place of choice: record of birth setting on site code of intended place of delivery, planned versus actual. Data can be collected from the Maternity Services Data Set.

Staff-reported measures

- Missed breaks: record the proportion of expected breaks that were unable to be taken by midwifery staff.
- Midwife overtime work: record the proportion of midwifery staff working extra hours (both paid and unpaid).
- Midwifery sickness: record the proportion of midwifery staff's unplanned absence.
- Staff morale: record the proportion of midwifery staff's job satisfaction. Data can be collected using the NHS staff survey.

Midwifery staff establishment measures

Data can be collected for some of the following indicators from the NHS England and Care Quality Commission joint guidance to NHS trusts on the delivery of the 'Hard Truths' commitments on publishing staffing data regarding nursing, midwifery and care staff levels and more detailed data collection advice since provided by NHS England.

- Planned, required and available midwifery staff for each shift: record the total midwife hours for each shift that were planned in advance, were deemed to be required on the day of the shift, and that were actually available.
- The number of women in established labour and the number of midwifery staff available over a specified period, for example 24 hours.
- High levels and/or ongoing reliance on temporary midwifery staff: record the proportion of midwifery hours provided by bank and agency midwifery staff on maternity wards. (The agreed acceptable levels should be established locally.)

- Compliance with any mandatory training in accordance with local policy (this is an indicator of the adequacy of the size of the midwifery staff establishment).

Note: other safe midwifery staffing indicators may be agreed locally.

Glossary

Acuity

(refers to the seriousness of a woman or baby's condition, the risk of clinical deterioration and their specific care needs)

Antenatal

(the period of time after conception and before birth)

Dependency

(the level to which a woman or baby is dependent on direct care to support their physical and psychological needs and activities of daily living, such as eating and drinking, personal care and hygiene, and mobilisation)

Established labour

(established labour is when there are regular and painful contractions, and there is progressive cervical dilatation from 4 cm)

Establishment

(in the context of these recommendations establishment refers to the number of registered midwives funded to work in an organisation providing maternity care; this includes all midwives in post, as well as unfilled vacancies or vacancies being covered by temporary staff. Midwife establishments are usually expressed in number of whole-time equivalents)

Indicators

(positive or negative signs that can be monitored and used to inform future midwifery staff requirements or prevent negative events related to midwifery staffing levels happening in the future)

Intrapartum

(the period of time from the start of labour to birth of the baby and delivery of the placenta and membranes)

Maternity care

(care and treatment provided in relation to pregnancy and delivery of a baby: it is influenced by the physical and psychosocial needs of the woman, the woman's entire family, and the baby; maternity care is provided by a range of healthcare professionals)

Midwife

(qualified midwives who are registered with the Nursing and Midwifery Council)

Midwifery red flag events

(red flag events are negative events that are immediate signs that something is wrong and action is needed now to stop the situation getting worse; action includes escalation to the senior midwife in charge of the service and the response may include allocating additional staff to the ward or unit)

One-to-one care

(care provided for the woman throughout labour exclusively by a midwife solely dedicated to her care (not necessarily the same midwife for the whole of labour))

Postnatal

(the first 6 weeks after birth)

Pre-conception

(in the context of these recommendations, pre-conception refers to care provided by midwives to women before they are pregnant)

Roster

(the daily staffing schedule for each maternity service)

Skill mix

(the composition of the midwifery team in terms of qualification and experience)

Toolkit

(a practical resource to facilitate the process of calculating midwifery staffing requirements for maternity services; it may be electronic or paper-based)

Uplift

(uplift is likely to be set at an organisational level and takes account of annual leave, maternity leave, paternity leave, study leave (including time to give and receive supervision) and sickness absence)

Sources

Safe midwifery staffing for maternity settings (2015) NICE guideline NG4

Your responsibility

Guidelines

The recommendations in this guideline represent the view of NICE, arrived at after careful consideration of the evidence available. When exercising their judgement, professionals and practitioners are expected to take this guideline fully into account, alongside the individual needs, preferences and values of their patients or the people using their service. It is not mandatory to apply the recommendations, and the guideline does not override the responsibility to make decisions appropriate to the circumstances of the individual, in consultation with them and their families and carers or guardian.

Local commissioners and providers of healthcare have a responsibility to enable the guideline to be applied when individual professionals and people using services wish to use it. They should do so in the context of local and national priorities for funding and developing services, and in light of their duties to have due regard to the need to eliminate unlawful discrimination, to advance equality of opportunity and to reduce health inequalities. Nothing in this guideline

should be interpreted in a way that would be inconsistent with complying with those duties.

Commissioners and providers have a responsibility to promote an environmentally sustainable health and care system and should assess and reduce the environmental impact of implementing NICE recommendations wherever possible.

Technology appraisals

The recommendations in this interactive flowchart represent the view of NICE, arrived at after careful consideration of the evidence available. When exercising their judgement, health professionals are expected to take these recommendations fully into account, alongside the individual needs, preferences and values of their patients. The application of the recommendations in this interactive flowchart is at the discretion of health professionals and their individual patients and do not override the responsibility of healthcare professionals to make decisions appropriate to the circumstances of the individual patient, in consultation with the patient and/or their carer or guardian.

Commissioners and/or providers have a responsibility to provide the funding required to enable the recommendations to be applied when individual health professionals and their patients wish to use it, in accordance with the NHS Constitution. They should do so in light of their duties to have due regard to the need to eliminate unlawful discrimination, to advance equality of opportunity and to reduce health inequalities.

Commissioners and providers have a responsibility to promote an environmentally sustainable health and care system and should assess and reduce the environmental impact of implementing NICE recommendations wherever possible.

Medical technologies guidance, diagnostics guidance and interventional procedures guidance

The recommendations in this interactive flowchart represent the view of NICE, arrived at after careful consideration of the evidence available. When exercising their judgement, healthcare professionals are expected to take these recommendations fully into account. However, the interactive flowchart does not override the individual responsibility of healthcare professionals to make decisions appropriate to the circumstances of the individual patient, in consultation with the patient and/or guardian or carer.

Commissioners and/or providers have a responsibility to implement the recommendations, in their local context, in light of their duties to have due regard to the need to eliminate unlawful discrimination, advance equality of opportunity, and foster good relations. Nothing in this interactive flowchart should be interpreted in a way that would be inconsistent with compliance with those duties.

Commissioners and providers have a responsibility to promote an environmentally sustainable health and care system and should assess and reduce the environmental impact of implementing NICE recommendations wherever possible.