

Birthrate Plus®:

What it is and why you should be using it



The Royal College of
Midwives

Jean A Ball and Marie Washbrook & The RCM

WORKING WITH BIRTHRATE PLUS®

How this midwifery workforce planning tool can give you assurance about quality and safety

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Every NHS Trust must decide for itself how best to staff its maternity service taking into consideration the needs of women, local geography and patterns of care. Every Chief Executive must be able to assure the trust Board that staffing levels are adequate to provide safe high quality services that maximise productivity and efficiency.

In England the CNO's Compassion in Practice strategy includes 'ensuring we have the right staff, with the right skills in the right place'. It recommends that Boards sign off and publish evidence based staffing levels at least every six months, providing assurance regarding the impact on quality and experience of care. Heads of Midwifery and Directors of Nursing should agree appropriate staffing levels through the application of evidence based tools such as Birthrate Plus®. All nursing and midwifery staffing levels and quality experience metrics should be discussed at public board meetings.

Birthrate Plus® is currently the only midwifery specific, national, tool that gives the intelligence and insights needed to be able to model midwifery numbers, skill mix and deployment and to inform decision making about safe and sustainable services. Based in a sound evidence base, more than 20 years of application and used by over 100 Trusts I believe Birth Rate Plus® is a valuable resource that can routinely support operational and strategic decision making in maternity.

For a more detailed 'how to' guide see WORKING WITH BIRTHRATE PLUS® A User's Manual, available from www.rcm.org.uk

Why Use Birthrate Plus®?

Staffing levels, deployment and skill mix are key elements of a safe and quality service. In maternity, workforce planning poses a unique set of problems: each care 'episode' spans around 6-7 months, crossing hospital and community settings, involving a series of scheduled appointments but a high likelihood of additional unscheduled care and often involving an unexpected inpatient admission as well as the birth itself. This pathway is in the main provided by midwives whose role and responsibilities are defined in statute and which cannot therefore be legally delegated. However midwives work alongside a range of clinicians: GPs, obstetricians and paediatricians and deliver care with the support of colleagues from nursing, care assistant/support workers and others. This all means that traditional nursing based approaches to determining appropriate numbers and deployment will not work. As demand in maternity services cannot be managed and with the high costs of litigation, getting it wrong in terms of midwifery staffing is extremely high risk.

Birthrate Plus® is the only national tool available for calculating midwifery staffing levels. It was developed 24 years ago and has now been applied in the majority of NHS Trusts in the UK and Ireland often on several occasions, being modified and developed to reflect changing models of care and working patterns. The use of Birthrate Plus® has been recommended in all recent DH maternity policy; is endorsed by the Royal College of Midwives and is incorporated within CNST standards issued by the NHS Litigation Authority. Using Birthrate Plus® enables individual Trusts to calculate their staffing requirements based on their specific activity, case mix, demographics and skill mix. It enables commissioners to compare the staffing, skill mix and models of care in their local providers with neighbours or units of a similar size. It provides workforce planners with robust data on which to commission student midwife numbers and advise on workforce establishments.

IMPORTANT NOTE

Birthrate Plus® calculations are based on clinical midwifery contributions only, that is midwives who provide direct care to women. Midwives in a management, governance or service development role, whose contribution is vital to maintaining safe high quality services, are excluded from the calculations. Analysis of data by Birthrate Plus® suggests that on average 8% of the total midwifery workforce in Trusts and 10% of the midwifery workforce in tertiary centres will have non-clinical roles that should be excluded from calculations of local staffing requirements to deliver safe clinical care.

The Basis of Birthrate Plus®

The Birthrate Plus® methodology is based on an assessment of clinical risk and the needs of women and their babies during labour, delivery and the immediate post-delivery period, utilising the accepted standard of 1 midwife to 1 woman, in order to determine the total midwife hours, and therefore staffing required, to deliver midwifery care to women across the whole maternity pathway using NICE guidance and acknowledged best practice. This includes all:

- **Antenatal outpatient activity including community and hospital based clinics and care in the home, including parent education.**
- **Antenatal inpatient activity and ward attenders.**
- **Delivery in all settings, differentiated by complexity and interventions, including escorted transfers to other units.**
- **All postnatal care in hospital including readmissions and ward attenders, transitional care and neonatal examination of the newborn.**
- **Community based postnatal care until handover to health visiting.**

From these quantifiable needs of women Birthrate Plus® provides insights and intelligence to inform decisions about staffing numbers, staff deployment, models of care and skill mix. It takes account of the different workloads and working patterns of midwives based primarily in hospital settings and those based primarily in community settings and it takes account of the contribution to quality services of midwifery staff not involved in direct hands of care or women such as managers, clinical governance midwives etc.

At its simplest Birthrate Plus® can provide any given service with a recommended ratio of clinical midwives to births in order to assure safe staffing levels. It is this Birthrate Plus® ratio that is most often quoted and most often misunderstood.

Understanding the Ratio

The ratio of clinical midwives to births for any given maternity unit expressed by Birthrate Plus® is a composite that takes account of:

- **The different levels of clinical need of women birthing in any given unit. Maternity units that care for higher risk populations or which have high levels of interventions in childbirth are likely to require more staff than those with low risk populations and high levels of normal births.**

- The different numbers of midwives to births required in hospital and community settings, recognising that often the number of women receiving antenatal and postnatal care will be different to the number of actual births, due to cross boundary flows between neighbouring units. ***NB: Because Birthrate Plus® is expressed as a ratio of midwives to births; one common mistake made by managers and commissioners is to omit the work associated with community antenatal and postnatal care for women who do not deliver at a given unit.***
- Midwifery time not available to direct clinical care of women including: sickness, annual and study leave. Birthrate Plus® recognises that this varies from Trust to Trust, but current data indicates that the % allowance ranges from 17 to 25% and is subject to local decision and configuration. The more recent average % allowance is 22% although the frequently reported births to midwife wte ratios are based on 21% allowance. ***Application of an allowance other than 21% will affect the ratio so there needs to be an adjustment to the final total establishment to reflect the actual allowance used, either lower or usually higher than 21%.***
- Time associated with the statutory supervision of midwives. Once the clinical establishment is calculated, 1% is added to cover clinical supervision so is implicit within the clinical wte.
- Skill mix to ensure midwives are effectively deployed and supported by other colleagues, such as Maternity Support Workers who are giving clinical care. Birthrate Plus® recognises that this will vary from Trust to Trust, but current data and the consensus of expert midwifery opinion is that a 90%/10% split between midwives and non-midwifery support staff allows for flexible and sustainable services. This skill mix adjustment is based on the support staff replacing midwifery hours only in postnatal services, including transitional care of babies. ***NB: support staff not involved in clinical work such as housekeeping and administration functions should NOT be included within these ratios.***

The use of Birthrate Plus® over many years means that ratios are widely quoted but often misunderstood. In particular benchmarking data used for overall workforce planning purposes at a regional or national level is often erroneously applied to individual maternity units.



Used correctly Birthrate Plus® can support:

Individual Trusts:

Individual units that have undertaken the Birthrate Plus® analysis have received a recommended number of clinical midwives to births across the whole of the service, regardless of where they are deployed. Ratios are dependent on demographics; case mix, models of care, total number of community cases and the differing needs of women, but most usually range between 1:26 at the higher end and 1:34 at the lower end. This means that for every 26 births, 1 clinical wte midwife is required. **NB: the reference to 1 clinical wte midwife will also include the contribution from support staff (see above paragraph). This means that to calculate a clinical establishment using births to wte ratio, the total wte produced can then be adjusted to cater for 90/10% skill mix.**

Workforce Planning: To assist regional and national workforce planning Birthrate Plus® has provided an average ratio based on the accumulated data. In 2003 a ratio of 1:28 was derived from 54 studies in England. This means that taken overall to provide safe high quality maternity services, the NHS in England needs 1 clinical midwife for every 28 births. More recent evidence from Birthrate Plus® (Ball and Washbrook 2010) suggests that with changing patterns of care this ratio could now be 1:29.5, suggesting slightly fewer midwives are required overall. This ratio will cover all ante, intra and postnatal care of women in the community and hospital settings and who birth in hospital. For women who have a birth at home or in a free standing midwife unit, the ratio is 35 births to 1 clinical wte.

Example of Using Birthrate Plus®

Southmouth NHS Trust is a middle sized non-teaching Trust covering a suburban population in the South of England. The population is generally affluent and healthy there is a higher than average number of older women delivering, but fewer than average teenage pregnancies, smoking and perinatal mortality rates are low and breastfeeding is high. The caesarean section rate is coming down and is now at around national average.



The service delivers 5765 women a year: 4594 in the obstetric unit, 665 in the alongside midwifery led unit and 334 in the free standing midwifery led unit which is 20 miles away from the main unit. The home birth rate is around national average, 172 women last year. In addition the service provides some elements of the antenatal and postnatal care pathways to a further 900 women who deliver in neighbouring units. The Head of Midwifery has determined that she loses 21% of her clinical midwives available time to annual leave, sickness and professional updating. Taking this into account and using the Birthrate Plus® methodology to assess total workload given the complexity of the women, Birthrate Plus® suggests this unit is short of almost 32 midwives.

Total births	Total community workload	Birthrate Plus® calculation of clinical midwives required	Birthrate Plus® Adjustment allowing 90:10 split mws & MSWs	Birthrate Plus® ratio for this unit	Actual wte clinical midwives in post	Shortfall
5765	6705	206.4	185.7	1:28	153.74	31.96

This analysis should prompt some consideration within the Trust regarding:

- Quantifying the activity associated with the 900 women receiving antenatal/postnatal care but not delivering at this unit. Is this activity being accurately captured and if so why is its impact not factored into staffing numbers?
- The use of support workers (also low in this organisation) to provide additional help to the midwives. By improving skill mix could the organisation increase productivity?
- The midwifery establishment and the roles and bands within the midwifery workforce. Has the Trust got the right number of midwives, in the right place at the right time doing the right thing?
- How confident are the Board that with existing levels of staffing and workload the service can continue to provide a safe, high quality service in which staff are not facing unreasonable demands, such as failing to take adequate breaks, cancelling study leave, working beyond shift etc.
- What discussions are on-going with commissioners about ensuring this service is appropriately resourced for the activity it undertakes?

Additional Functionality of Birthrate Plus®

In addition to an overall clinical midwife to birth ratio across a whole maternity service, the Birthrate Plus® methodology can provide more detailed analysis including:

- **Differentiating between the workforce needs of hospital and community services based on the different levels of care that women will require based on their obstetric/medical needs.**
- **Differentiating between types of maternity units.**
 - tertiary hospital obstetric units that provide specialist maternal and fetal medicine and neonatal services to women from neighbouring units,
 - maternity services delivered through an obstetric unit and/or an alongside midwife led unit and
 - maternity services delivered through freestanding midwife led units or home births
- **An acuity tool for assessing clinical risk in order to deploy staff effectively within individual delivery suites to ensure safe staffing levels for intrapartum care.**

Making Use of Birthrate Plus® Ratios

Applying the Birthrate Plus® methodology will provide a specific ratio for any given unit that Trust managers, commissioners and workforce planners can have confidence in as based on robust evidence of best practice and focusses on the effective deployment of staff.

Where current funded establishment of clinical midwives falls short of the Birthrate Plus® recommended ratio, the methodology can help provide the route map for the organisational and staffing changes required to ensure safe high quality services. This will support not just investment in the service, but also focus attention on the potential to change models of care and develop/improve on the skill mix of staff.

Staffing levels are not in themselves an indicator of a high quality service. Any maternity service operating with a staffing establishment significantly different to the Birthrate Plus® ratios must be able to demonstrate quality and safety through key performance indicators including:

- **The number of women having one-to-one care in labour. This is proven to lead to improved outcomes and reduce interventions in labour and is dependent on adequate staffing in the hospital setting.**

- The number of women booked before the 13th week of pregnancy. Early booking is associated with early identification of risk and ensure appropriate care planning and referral to other medical expertise and support services. It is dependent on adequate staffing levels in community settings.
- Availability of continuity of carer during the antenatal and postnatal periods This ensures women are able to get to know the midwives caring for them, maximising the potential to detect any unexpected complications and requires adequate deployment of community based midwives.
- Availability of a supernumary ward coordinator to oversee safety on delivery suites is recommended in CNST guideline. Staffing levels and skill mix must be sufficient to ensure an experienced midwife able to provide advice, support and guidance whilst also managing the workload and activity on the labour ward is available on all shifts.
- Employment of sufficient specialist roles such as safeguarding lead, breastfeeding advisor, governance, audit and other midwives who do not always just provide direct clinical care to women, but who contribute to the safe underpinning of a service, by ensuring that all pathways and protocols are up to date and who maintain relationships with other agencies that protect maternal and child welfare.
- That there is adequate capacity to meet the service needs of consultant midwives, practice development midwives and midwife educators who keep local policies and protocols under constant review and who are the focus of innovation and developing both the service and staff.
- Confidence that levels of staff turn over, recruitment, staff morale and sickness are not putting the service under unacceptable strain.
- The ability of the service to adequately respond to peaks of activity caused either by increased activity or increased complexity without resorting to temporarily closing a unit or diverting women to neighbouring units.



How to access Birthrate Plus®

The pressure on midwifery staffing establishments is set to continue, projections are that the birth rate will continue to rise and pregnancy and births are becoming more complex. Birthrate Plus® is an independent and authoritative tool for providing assurance that staffing levels meet service need. It also allows for benchmarking between maternity services. The RCM and Birthrate Plus® have jointly authored a detailed Users Manual for the tool explaining the basis for the calculations and the parameters and criteria used. To download it visit www.rcm.org.uk.

BIRTHRATE PLUS® AT A GLANCE

- Birthrate Plus® is NOT owned or developed by the RCM. It is an independent tool developed by experienced workforce planners.
- Birthrate Plus® is NOT about a single ratio that applies in all circumstances. BR+ when applied gives individual maternity services an indication of the ratio that is right for them. Used at strategic level it gives planners parameters for commissioning workforce numbers.
- Birthrate Plus® is NOT only about midwives. The tool makes allowance for the use of support workers and other non-midwifery staff who make a valuable contribution to quality maternity care.
- Birthrate Plus® IS all about the clinical midwives required to deliver safe services. It excludes and leaves for local decisions the contribution of non-clinical roles such as managers, practice development and specialist midwives.
- Birthrate Plus® DOES reflect time lost to non-clinical care such as leave, mandatory training and statutory supervision. However, it accommodates individual units making judgements about the appropriate % of time lost.
- Birthrate Plus® IS sophisticated enough to account for different patterns of maternity care and differences between tertiary units, obstetric led services, stand alone midwife led units and the differences between community based antenatal and postnatal care and hospital based deliveries.

To contact Ball & Washbrook go to <http://www.birthrateplus.co.uk> or email: mariewashb@aol.com

The Birthrate Plus® Programme is managed via Birthrate Plus® Consultancy Limited.

Led by Marie Washbrook Programme Director, Jean A Ball Research Director and midwife facilitators seconded part time from the NHS, the programme provides expert advice and support to maternity services and health authorities seeking to use Birthrate Plus® to assess and review their staffing needs and quality outcomes. Birthrate Plus® Consultancy Limited also provides information on midwifery workload/workforce issues to Government Departments, such as the National Workforce Review Team and the DH Group on Recruitment and Retention of Midwives.

Where next for Birthrate Plus®?

Birthrate Plus® is an independent tool which because it is owned and used under license has been able to collect a huge amount of information in order for services to benchmark themselves against.

Birthrate Plus® has not itself set parameters such as the appropriate ratio of midwives to MSWs or the appropriate allowance for time lost to clinical care. Rather it has reported arrangements as it finds them in hospitals and from these has allowed others to see norms and outliers. It is for the midwifery profession to reach a consensus based on evidence of the standards it believes are most likely to result in high standards of care and the Royal College of Midwives is committed to facilitating this in order to add further guidance to the use and application of Birthrate Plus® in individual units.



See also:

WORKING WITH BIRTHRATE PLUS® A User's Manual



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