



Bliss baby report 2015: hanging in the balance

England

Bliss
for babies born too soon,
too small, too sick



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This report was written by Shona Cleland, edited by Gemma Ellis and designed by Joana Águas.

Foreword



Neonatal services provide specialist care to babies born premature or sick. The care these vulnerable babies receive in their first hours, days and weeks of life is critical to determining not only their chances of survival, but also their long-term outcomes and quality of life.

It has been five years since we published the last *Bliss baby report* in which we explored the progress being made in neonatal care, the challenge ahead, and the important opportunity we had to use new national standards to make further improvements and build a brighter future for vulnerable babies.

These standards, including the government's *Toolkit for high-quality neonatal services* and the NICE *Specialist neonatal care quality standard*, set out a comprehensive and ambitious vision for the care of premature and sick babies. Six years on from the publication of the *Toolkit* it is time to take stock of how far we have come, and it is deeply worrying to find that progress has stalled.

There have been some welcome improvements, but we are falling further behind on several crucial measures of quality and safety, with neonatal units telling us that they are overstretched, understaffed and being pushed beyond their capacity.

A lot has changed in the last five years. The NHS has undergone major reforms and begun to face up to failures in care such as those at Morecambe Bay. We have a newly elected government in place that has made welcome commitments to increase NHS spending in line with the vision set out for the NHS in its *Five Year Forward View*. This represents a new opportunity to turn things around.

Parents often tell us how much they appreciate the commitment of the individual health professionals caring for their baby. However these staff are being pushed to their limit and this report paints a picture of neonatal services that are in trouble. It must be a wake-up call for policy makers and healthcare commissioners to take urgent action to address these challenges so that in another five years we are able to give every baby born in this country the best possible chance of survival and of reaching their full potential.

A handwritten signature in black ink, appearing to read 'Caroline Davey'.

Caroline Davey
Chief Executive

Summary of findings

Bliss received evidence from neonatal units, neonatal transport services and parents across the country about the state of neonatal care in England in 2015. Our findings reveal a system in trouble, with a significant shortage of nurses, doctors and other professionals that are needed to deliver safe and high-quality care to premature and sick babies. The dedicated, hard-working staff at neonatal units across the country are being stretched to breaking point – putting babies' safety and survival at risk and impacting their long-term development.

- **64 per cent of neonatal units do not have enough nurses to meet national standards on safe staffing levels, and two thirds of units do not have enough specialist nurses**
- **2,140 more nurses are needed to care for premature and sick babies in England**
- **Two thirds of units do not have the medical staff they need to meet national standards**

There are several factors underpinning these shortages which need to be addressed, including funding shortfalls, national skills shortages, and problems with training and recruitment.

- **Insufficient funding accounts for three quarters of nursing shortfalls at neonatal units, demonstrating an urgent need for investment in neonatal services**
- **72 per cent of units struggle with at least one aspect of nurse training and development**

Staffing shortages are coupled with a lack of psychological support and facilities for parents, leaving many families without the support they need at a stressful and traumatic time in their lives and making it harder for them to be involved in their baby's care.

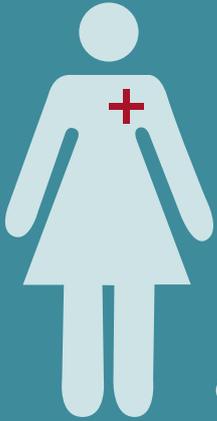
- **At 41 per cent of units, parents have no access to a trained mental health worker**
- **At 30 per cent of units, parents have no access to any psychological support at all**
- **One third of neonatal units are unable to offer accommodation to parents of critically ill babies or those who live many miles from the hospital**

Failure to involve local clinical leaders in the majority of discussions about funded activity levels means that plans put in place by commissioners and Trusts vastly underestimate the demand for care at many units. Coupled with staffing shortages, this is putting units under huge pressure.

- **70 per cent of neonatal intensive care units (NICUs) are consistently caring for many more babies than is considered safe**
- **855 babies were transferred between hospitals last year due to a shortage of staffed cots rather than medical need, putting babies at risk and adding to their families' stress and worry**
- **Over half of neonatal units say that clinical leaders were not included in discussions about funded activity levels for their neonatal service**

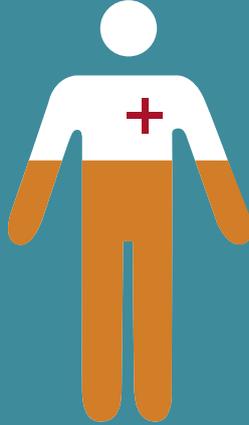
Bliss is calling for urgent action from the government, the NHS and health education bodies to address these problems and ensure neonatal units have the resources they need to meet national standards for quality and safety. Without adequate provision for neonatal units vulnerable babies will not get the care they need.

Neonatal services under pressure: the facts



2,140

More nurses needed to care for premature and sick babies



64%

of units do not have enough nurses to meet standards

65% 

do not have enough nurses with a specialist qualification in neonatal care



2/3

do not have enough medical staff to meet standards

70% of

NICUs

look after more babies than is safe



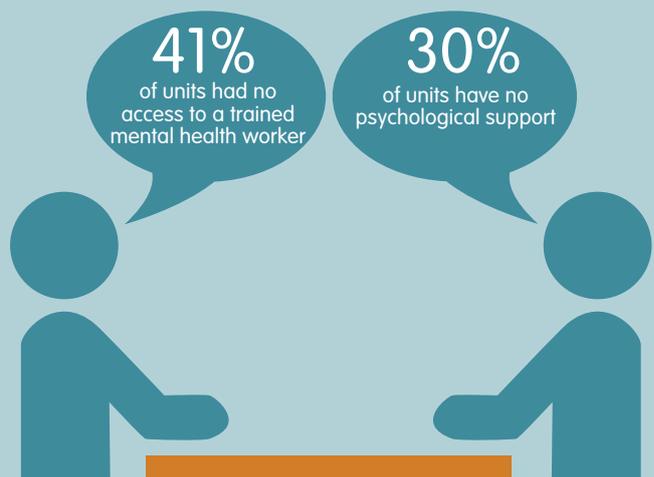
855

babies transferred to another hospital because unit was full



1/3

of units have no overnight accommodation for parents of critically ill babies



41%

of units had no access to a trained mental health worker

30%

of units have no psychological support



Introduction

One in nine babies is born needing neonatal care in England.¹ That's more than 77,000 babies each year who need specialist support to help them survive and thrive.

The number of babies who need this specialist care is rising significantly.² This is due to a combination of factors including an increase in the age at which many women are having babies,³ a general upward trend in the fertility rate since 2000⁴ and advances in medicine which means more babies are surviving than ever before.⁵

However, our findings show that neonatal services do not have the staff or resources they desperately need to keep up with this increased demand for care, putting the babies they look after at risk.

Why are babies admitted to neonatal units?

54 per cent of babies admitted are born full term, but are sick.⁶ For example they may have an infection, difficulty breathing or a genetic condition.

46 per cent of admissions are babies who are born prematurely, at under 37 weeks' gestation. 13 per cent are very premature, born under 32 weeks' gestation.⁷ These babies are born before they are fully developed and often spend the longest time in neonatal care.

Categories of care

There are three different categories of neonatal care within the NHS.

Special care is the least intensive level of neonatal care and is the most common. Babies receiving special care may need to have their breathing and heart rate monitored, be fed through a tube, supplied with extra oxygen or be treated for jaundice.

High dependency care is provided to babies who need continuous monitoring, for example those who weigh less than 1,000g, or are receiving help with their breathing via continuous positive airway pressure or intravenous feeding, but who do not require intensive care.

Intensive care is highly specialised care for the smallest and most seriously ill babies who require constant care and, often, mechanical ventilation to keep them alive.

Some babies also receive transitional care in hospital. This allows babies who need some extra help, but do not need to be admitted to a neonatal unit, to stay with their mother with support from neonatal staff.

Neonatal units

These three categories of care are delivered across three levels of neonatal unit.

Special care baby units provide special care for their local population. Depending on local arrangements, they may also provide some high dependency care.

Local neonatal units provide all categories of neonatal care, but babies who require complex or longer term intensive care are transferred to a neonatal intensive care unit.

Neonatal intensive care units provide the whole range of neonatal care for their local population and the most specialist care for the smallest and sickest babies across their network. They are often co-located with other specialist services such as paediatric surgery.

In 2014/15 there were 161 neonatal units in England⁸ which are organised into 11 neonatal Operational Delivery Networks. These networks are responsible for co-ordinating the care of babies in their area across the range of neonatal units to ensure that babies receive the care that they need, as close to home as possible.

Quality standards

In October 2009, the Department of Health and the NHS published the *Toolkit for high-quality neonatal services*. Bliss campaigned for these essential guidelines and helped to develop them as part of the NHS Neonatal Taskforce. They set out a comprehensive vision for how neonatal services should be organised and delivered.

Along with clear guidelines from the National Institute for Health and Care Excellence (NICE) and the British Association of Perinatal Medicine (BAPM), this *Toolkit* provides a clear set of standards which all neonatal services should meet to deliver safe, high-quality care to the babies they look after.

Standards of care

2009

The Department of Health and the NHS publish the *Toolkit for high-quality neonatal services*, setting down the markers of good practice across neonatal care, from staffing requirements to delivery of family-centred care and clinical governance.

2010

NICE publishes the *Specialist neonatal care quality standard*, defining clinical best practice.

BAPM's *Service Standards for Hospitals Providing Neonatal Care* (3rd edition) includes requirements on the staffing of neonatal units.

Commissioning

There have been positive changes in the commissioning of neonatal care in recent years, with NHS reforms bringing together the commissioning of all categories of neonatal care as a specialised service under NHS England. This has the potential to create much greater consistency of care for babies and families, compared to when responsibility for special care and for high dependency and intensive care sometimes fell to different commissioning bodies.⁹

What is commissioning?

Commissioning is the process of planning, funding and monitoring services. Neonatal care is a specialised service which is commissioned by NHS England. Funding for neonatal care is paid by NHS England to Trusts which, in turn, allocate a budget to the neonatal unit.

Ambitions for a more clinically-led NHS have also led to the welcome establishment of a Clinical Reference Group (CRG) for neonatal critical care – a group of specialised clinicians, commissioners and parent representatives, including Bliss. The CRG advises NHS England on the provision of neonatal care and has developed service specifications which set out what evidence-based, safe and effective care looks like.

However, Bliss' findings show that these promising developments at the national level have not been matched at a local and operational level. The professionals who deliver services and know what babies and their parents need must be involved in all the key stages of the commissioning process. This includes the setting of activity levels which units receive funding for locally. Until this happens we will continue to see funding arrangements that fail to reflect the reality of what local services actually provide.

Our research

This report is based on the responses of 101 neonatal units (63 per cent of the neonatal units in England) and 14 neonatal transport services (100 per cent of the transport services in England) which responded to Bliss' surveys. Bliss also asked parents across the country about their experiences of having a baby in neonatal care and 224 parents in England told us their stories. For more information about how this research was conducted, see p.43.

2013

NHS England sets out what it expects from the services it commissions in its first service specifications for *Neonatal Critical Care* and *Neonatal Intensive Care Transport*.

2014

BAPM's *Optimal Arrangements for Neonatal Intensive Care Units in the UK* including guidance on their *Medical Staffing* expands on the requirements for these specialist units.



Staffing and support

Nursing

Nurses provide the majority of care to babies on a neonatal unit; as the backbone of the service it is crucially important that nurse staffing levels are right. There is clear evidence that having enough nurses to provide direct hands-on care to babies has a big impact on their survival rates and outcomes, so it is vital that neonatal units are able to meet national standards.^{10 11 12 13 14 15}

National standards: nurse staffing

The *Toolkit for high-quality neonatal services* sets out national standards for the number of nurses needed to care for premature and sick babies:

Special care: there should be a minimum staff-to-baby ratio of 1:4 at all times.

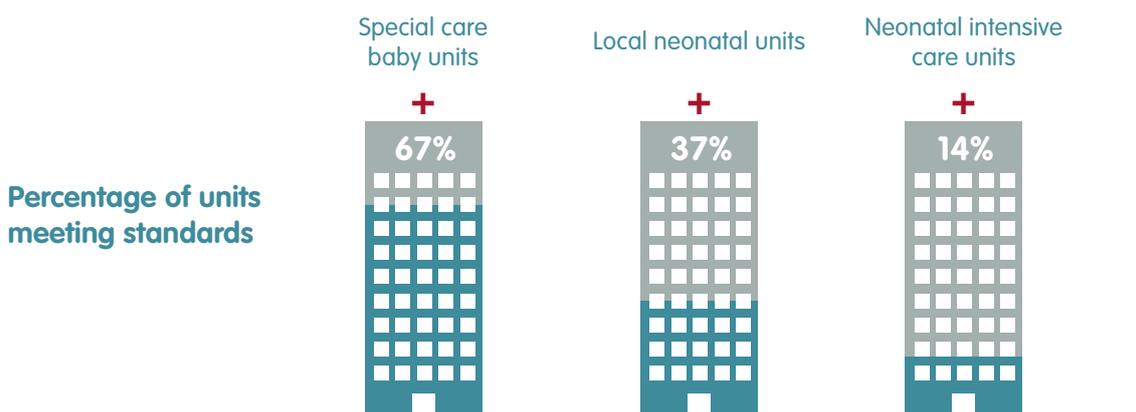
High dependency care: there should be a minimum staff-to-baby ratio of 1:2 at all times.

Intensive care: there should be a minimum staff-to-baby ratio of 1:1 at all times.

Shortfall in nurses

64 per cent (52 out of 81) of the units who told us about their nurse staffing did not have enough nurses in post. Based on the information they provided, Bliss calculates there is **a shortfall of 2,140 neonatal nurses** in England, leaving babies without the nursing care they need.

Units meeting standards on nurse staffing levels



Shortfall in nurses across unit levels

	Estimated nurse shortfall
Special care baby units	30
Local neonatal units	680
Neonatal intensive care units	1,430
Total	2,140

Scaled up to whole of England and rounded to nearest five

Most notably, the vast majority (26 out of 30) of neonatal intensive care units did not have enough nurses. These units fell short by 42 nurses on average, though there is wide variation across the country and one neonatal intensive care unit had to cope with 170 fewer nurses than it needed.

This is a major challenge for commissioners and policy makers. Our findings show that the majority of neonatal units in England do not have the nursing staff the government says is needed to be able to provide safe, high-quality care. This is putting vulnerable babies at risk.

The standards which set out how many nurses are needed to provide a safe level of care are not new. The *Toolkit* was published by the government in 2009 and these standards on nursing levels reflect clinical guidelines going back nearly 20 years.¹⁶ The situation in neonatal intensive care units has worsened since the last *Bliss baby report*, published in 2010, with a worrying ten percentage point rise in the number being unable to meet standards on nurse staffing levels.

The overall shortfall in nurses has also become more acute, rising from an estimated 1,150 nurses five years ago to 2,140 nurses that are needed today.¹⁷ Although there are more nurses providing direct care to babies now than there were in 2010, there are also many more babies in need of neonatal care. The number of nurses in England is failing to keep up with the demand for care, putting neonatal units under growing pressure as they find themselves increasingly understaffed and overstretched.

“

“There were never enough nurses working in the neonatal unit. We were often just left to sit by our baby’s incubator. We were rarely given the chance to hold our daughter and when we did we were left to our own devices.” (Mother of baby born full term but sick)

“Sometimes there was a definite shortage of experienced nurses on the unit and that was very frightening. There was meant to be a minimum of two nurses in these nurseries and sometimes there wasn’t. Our worry was simple – if two babies have emergencies at the same time in different rooms how could one nurse tackle that? [...] This kept us awake at night.” (Mother of baby born at 26 weeks)

”

Specialist nurses

Having the right number of nurses is only one part of the challenge for neonatal units – it is also crucial they have enough nurses with a high level of experience and competence in looking after premature and sick babies. Studies have shown that increasing the number of specialist neonatal nurses in intensive and high dependency care is associated with a 48 per cent decrease in mortality.¹⁸

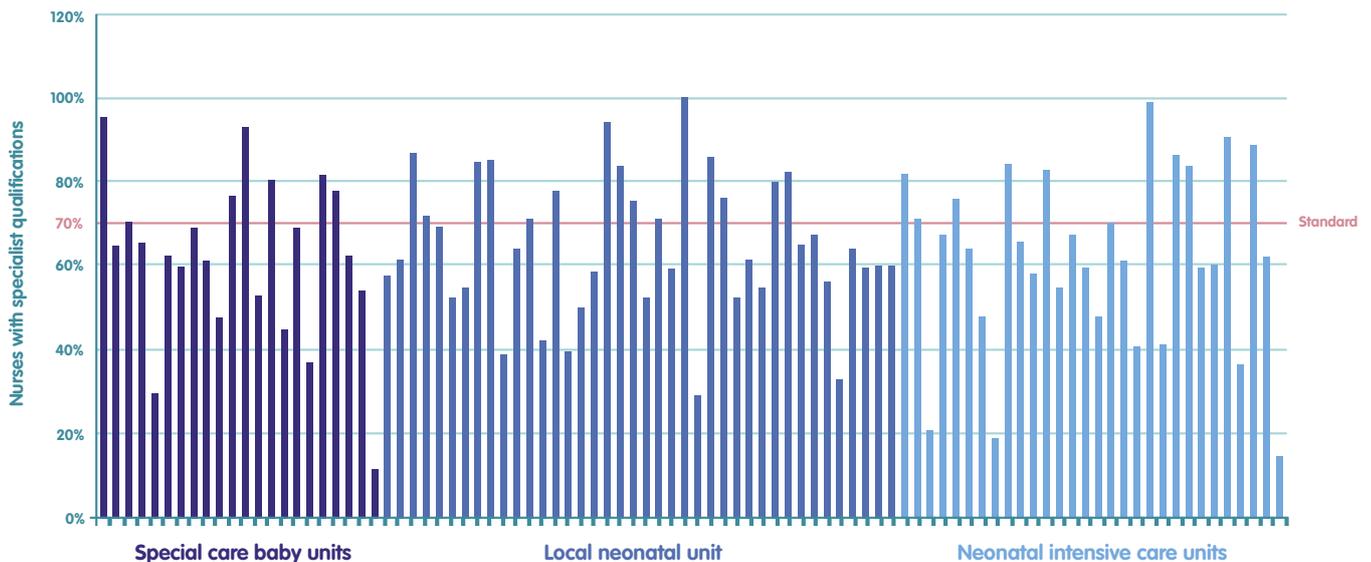
National standard: specialist nurses

The *Toolkit* states that 70 per cent of the registered nursing and midwifery workforce establishment (funded posts) at each unit should hold an accredited post-registration qualification in speciality (QIS) for neonatal care.

Two thirds (59 out of 91) of units who provided information on their nurse staffing do not have enough specialist nurses to be able to meet the national standard, with wide variation in how many specialist nurses there are at different units.

Our findings indicate that **the proportion of nurses with specialist qualifications has fallen by 19 percentage points since 2010**, when the *Bliss baby report* found that just under half (46 per cent) of units were not meeting the standard on specialist nurses. This steep decline echoes the findings of NHS Employers (see p.26) that many hospitals find it hard to recruit experienced nurses. It also highlights an urgent need to address these shortages before the number of specialist nurses falls even further, leaving more babies without the expert care they need to have the best chance of survival.

Proportion of nurses with specialist qualifications at neonatal units in England



Community support

Nurse staffing levels are also an issue when it comes to community outreach nursing, as many babies have continuing medical needs when they are discharged and their families need ongoing support. Good community support can mean that the length of hospital stays are reduced and readmission rates cut.¹⁹

National standard: community support

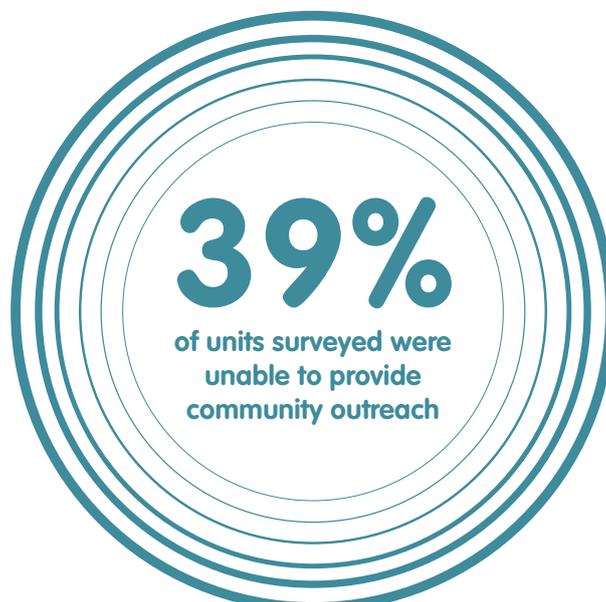
The NHS England service specification *Neonatal Critical Care* makes it clear that community support should be provided by an integrated hospital community neonatal team, or an identifiable team of community health professionals who have neonatal training.

Just 61 per cent (59 out of 96) of units surveyed were able to provide a community outreach service. The majority of the units who do not provide this service themselves say that some community support is available for babies after they are discharged, for example from a children's community nursing team, community midwives or health visitors. However, some of these units told us, unprompted, that the outreach staff do not have neonatal training. This falls short of the standard set by NHS England's service specification, and at some units leaves a worrying gap in specialist support for premature and sick babies and their families after they go home.

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“I think there needs to be more support in the community once your child has left neonatal care. We felt completely alone.” (Mother of baby born at 31 weeks)

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Medical staffing

It is important that neonatal units have the right mix of staff, including medical staff, with the range of skills needed to care for babies so that all elements of a baby's care can be managed safely.

National standards: medical staffing

The British Association of Perinatal Medicine (BAPM) has built on the standards set out in the *Toolkit with its Service standards for hospitals providing neonatal care* (3rd edition, 2010), setting out guidelines for the minimum numbers of medical staff needed at each level of seniority.

All units: medical staffing rotas should have a minimum of eight junior (tier one) staff members such as doctors new to the speciality and advanced neonatal nurse practitioners, eight competent on-site clinicians (tier two) such as speciality doctors and advanced neonatal nurse practitioners, and seven expert (tier three) staff members who are medical consultants. The exact composition of the medical staff needed, and whether these staff should have their time solely dedicated to the neonatal service at each tier, varies between the level of unit.

Special care baby units: medical staff may be on a shared rota with paediatrics, but at least one consultant should have a lead interest in neonatology. In some settings, tiers one and two may be merged.

Local neonatal units: tier one staff should only cover the neonatal unit, though other staff members may be shared with general paediatrics. A minimum of one consultant should have a lead interest in neonatology and the other consultants covering the service must have expertise in neonatal care.

Neonatal intensive care units: all medical staff should be limited to neonatal care at all levels; there should be no crossover with general paediatrics. There should be extra resident consultants on the tier two rota and 24/7 availability of a consultant neonatologist. The largest units will need many more; BAPM's *Optimal Arrangements for Neonatal Intensive Care Units* (2014) sets out the extra medical staff they need to take on.

Shortfall in medical staff

Only 35 per cent (24 out of 68) of neonatal units had the medical staff they needed, **leaving two thirds without enough medical staff to be able to meet minimum standards for safe, high quality care.** 82 per cent (9 out of 11) of special care baby units did not have enough medical staff and 61 per cent (20 out of 33) of local neonatal units are falling short.

Even at neonatal intensive care units – usually the busiest and largest units – the majority (15 out of 24) told us they had to cope without enough medical staff to meet national standards. This is likely to underestimate the problem as the biggest units should have even more staff on their medical rotas (see box p.17). This highlights a widespread challenge across all levels of unit in England to provide the medical care that babies need.

The problem is also reflected by the number of medical vacancies, with 87 per cent (58 out of 67) of units saying they had at least one vacant post. Bliss calculates there are 450 unfilled medical vacancies at neonatal units in England. The highest numbers of vacancies were for staff at tiers one and two, demonstrating shortages of junior and middle grade doctors and advanced neonatal nurse practitioners at units across the country.

Two fifths (14 out of 35) of local neonatal units did not have enough consultants available with the expertise to be accountable for overseeing babies' care and to support more junior staff. Several local neonatal units falling below the standard for tier three staff reported no vacancies at this level, indicating that they are not funded to have the senior staff they need to meet national standards.²⁰

As there are far fewer medical staff working on neonatal units than there are nurses, even just one or two gaps on a medical rota can have a huge impact on the running of the unit and the care that is provided to premature and sick babies.

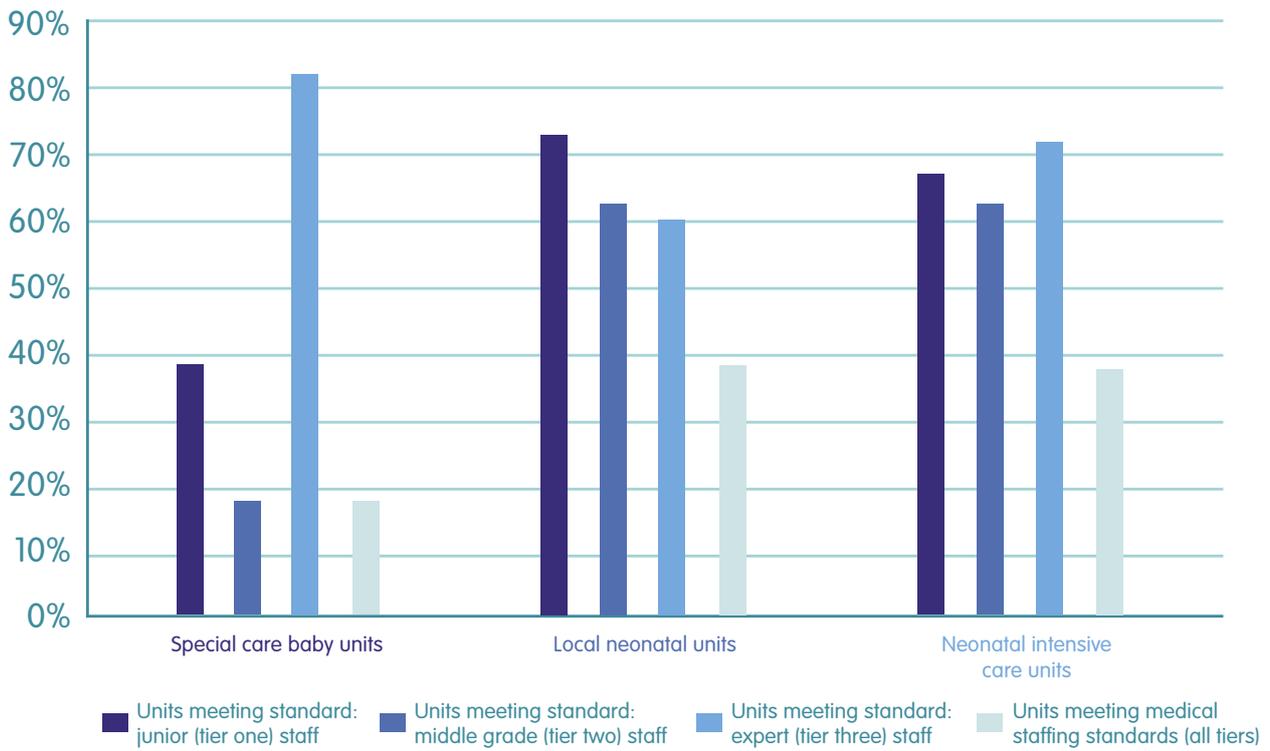
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“Medical rotas are very lean. Being one or two trainees short is a major issue.”
(Consultant Neonatologist at a neonatal intensive care unit)

“Staffing the unit is a day by day challenge. [...] There is no slack at all in the staffing of clinical rotas and so it takes only a sick day or leave for college examinations for the clinical cover to become stretched. Consultants are covering both tier one and two shifts as well as their own on a regular basis.” (Consultant Neonatologist at a neonatal intensive care unit)

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Units meeting national standards on medical staffing



Unfilled medical vacancies

	Junior (tier one) staff	Middle grade (tier two) staff	Expert (tier three) staff
Special care baby units	25	25	5
Local neonatal units	45	130	30
Neonatal intensive care units	65	80	50
Total	130	230	90

Figures have been scaled up for the whole of England and rounded to nearest five, therefore totals are not the sum of these values.

Allied health professionals

Allied health professionals, including physiotherapists, occupational therapists, dietitians and speech and language therapists, form a vital part of the care that babies receive, helping their development and quality of life. These professionals have a diverse range of specialist knowledge and training in the needs of premature and sick babies. As well as providing direct care to babies, many allied health professionals also have a vital role to play in helping parents to understand their babies' needs and supporting other staff.

National standards: allied health professionals

The *Toolkit* and the BAPM *Service standards* set guidelines that all babies should have access to professionals whose job plan must contain time to provide advice and support across the neonatal network. These include physiotherapists, occupational therapists, neonatal dietitians and neonatal speech and language therapists, all of whom play a crucial role in supporting families and promoting babies' neurodevelopment, reducing pain, improving communication and supporting feeding. All units should also have a lead professional for breastfeeding, such as a breastfeeding consultant, and access to a neonatal or paediatric dietitian.

There is wide variation in access to these professionals across different units, with many unable to meet national standards. This includes **43 per cent (38 out of 89) of units who did not have any access to an occupational therapist** and 12 per cent (11 out of 91) who could not access a speech and language therapist, even via referral to another service. Worryingly, one neonatal intensive care unit said that babies had no access to a dietitian, an occupational therapist, a speech and language therapist, or a specialist radiographer – even via referral to another service. An inability to access these professionals at all – even from a service that is provided across several hospitals – would indicate that networks are unable to provide this.

There are also important advantages to having allied health professionals working regularly on a neonatal unit rather than just being available via referral. If they are integrated into the neonatal team, they can influence the way the team works and get to know families. It is not just extremely premature and sick babies who can have long-term problems with their health and development so it can make a real difference when professionals such as occupational therapists, physiotherapists and speech and language therapists are available on a regular basis to look at the needs of all of the babies on a neonatal unit.

Lack of access to these professionals on neonatal units, and for follow up after discharge, can affect the quality and safety of the care provided to babies and make a huge difference to their long-term outcomes. For example, poor nutrition or inadequate pain management may affect babies' neurodevelopment as they get older.^{21 22 23} Investing in the appropriate range of treatment and therapies for babies early on, when and where they need it, can have an impact on the level of care and support they need in later life. It therefore makes sense for the NHS to get this right – both for the babies themselves and for the long-term financial impact on the NHS and social care.

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“During our seven month stay we had no contact with an occupational therapist, physiotherapist, speech and language therapist or a dietitian. I believe the late implementation of these services has affected my son’s abilities.”

(Mother of baby born at 24 weeks)

“We received support from a physiotherapist which I found very helpful while in the unit with my daughter. We have seen the same physiotherapist at a follow up development appointment so it has been great to continue seeing the same person and have ongoing advice from them.”

(Mother of baby born at 24 weeks)

“The occupational therapist helped me through the most difficult time in my life... and I found the input into my child’s development extremely beneficial. The advice and guidance to me was much needed.”

(Mother of baby born at 26 weeks)

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Access to psychological support

Having a baby admitted to hospital because they are premature or sick is a very anxious, stressful and traumatic time for parents, and they often need emotional support to help them cope. They can also be more likely to experience mental health problems as a result of their experience, with up to 40 per cent of mothers of premature babies affected by postnatal depression soon after birth.²⁴

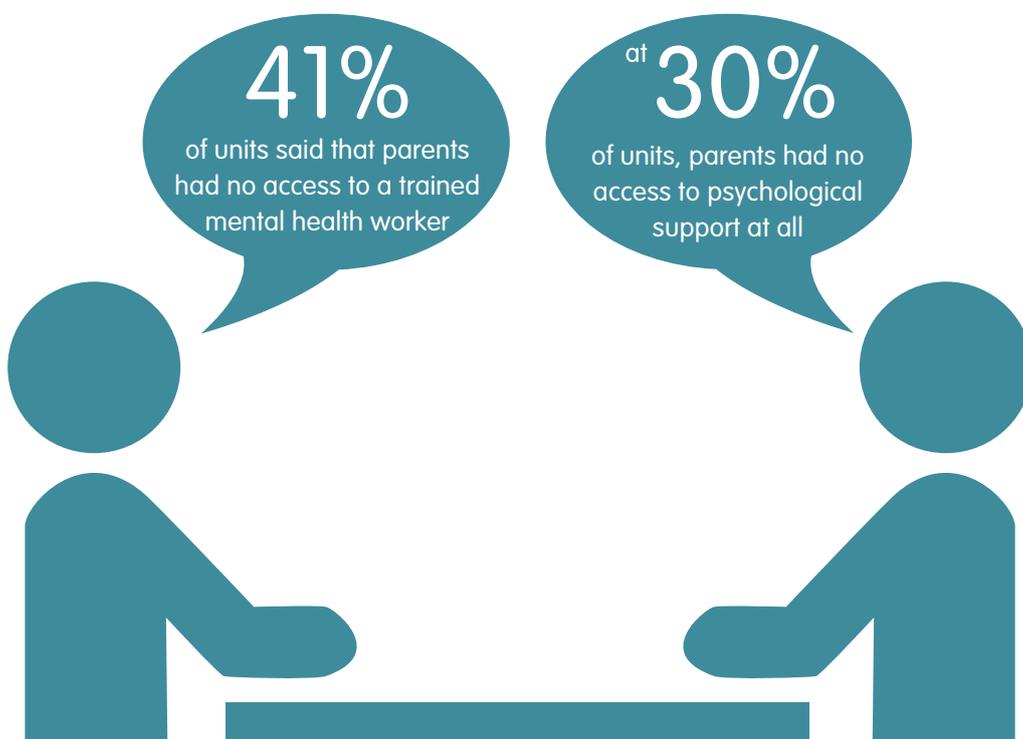
Some parents may also have existing mental health problems prior to the birth of their baby which can be made worse by the trauma of birth and the experience of having a sick baby. The staff who are caring for vulnerable babies and supporting their families also need support to help them cope with this highly stressful environment and do their jobs well.

National standards: psychological support

The *Toolkit* and the *BAPM Service Standards* are clear that all parents should have access to psychological and social support, including a trained counsellor. At neonatal intensive care units, parents should have access to a trained counsellor without delay from the time their baby is admitted, and there should be ongoing support during the parents’ time on the neonatal unit. Another important part of a psychologist’s role is to support other staff on the neonatal unit.

41 per cent (38 out of 93) of units said that parents had no access to a trained mental health worker (such as a clinical psychologist, psychotherapist, trained counsellor or another professional with mental health training) – either on the unit or via referral to services outside of the unit. **At 30 per cent (28 out of 93) of units, parents had no access to psychological support at all.**²⁵

Of particular concern, even parents with the most critically ill babies are often not able to access this vital support. One third (10 out of 30) of neonatal intensive care units were not able to offer parents access to a trained mental health worker and around one in eight (4 out of 30) were unable to provide any psychological support.



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“I had post-traumatic stress disorder after my son was born... I was lucky enough to get amazing support through counselling and my bond with my son is iron strong.”
(Mother of premature baby born at 23 weeks)

“I think speaking to someone would have helped me greatly but no care of this kind was offered. I felt very alone, scared and confused being thrown into an unpredicted and scary situation.” (Mother of baby born at 31 weeks)

“[Psychological support] is woefully inadequate, with no dedicated bereavement support worker.” (Lead clinician at a neonatal intensive care unit)

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Support and facilities for parents

Adequate support and facilities for parents are integral to the provision of family-centred care. Without accommodation near the neonatal unit and access to affordable meals at the hospital, parents have to leave their baby regularly to travel home.

National standards: family-centred care

Family-centred care places parents at the centre of their baby's care. This can lower a baby's stress level, promote better health, shorten hospital stays and reduce hospital readmissions. It helps parents bond with their baby, resulting in better long-term outcomes for the whole family.^{26 27}

The *Toolkit* recognises the importance of family-centred care with principle three, *Care of the baby and family experience*. The markers of good practice include having one room for parents to stay in per intensive care cot. These rooms are different to the 'rooming-in' rooms and should be within a 10 to 15 minute walk. All rooms should be free of charge and have bathroom facilities.

One third (27 out of 86) of units are unable to offer accommodation to families whose baby is critically ill or being cared for many miles from home. While the majority of units (75 out of 86) have some accommodation, a large proportion of this is designated for 'rooming-in', where parents can stay overnight with their baby before they are discharged. This helps them adjust to caring for their baby without the support of nurses and doctors. Units are still falling well short of the *Toolkit* standards on parent accommodation, with only 5 out of 24 neonatal intensive care units meeting the standard of one room for each intensive care cot. However, welcome progress has been made since Bliss surveyed neonatal units in 2013, with 22 per cent of units now able to provide more accommodation for parents. There have also been small improvements in the number of hospitals offering free or reduced cost meals to parents, with 54 per cent (40 out of 74) of units offering some concessions compared to 48 per cent in 2013. However, a worrying 17 units told us that they had reduced support due to a lack of funding or cost-saving initiatives.

Supporting parents to spend time with their baby and provide appropriate care themselves can help to ease the pressure on busy health professionals, and promoting family-centred care has proven benefits for babies. Trusts should take this into account when making funding decisions on support for parents and when building, adapting or acquiring new facilities. With staffing shortages putting units under increasing pressure, it is counterproductive to cut support for parents who are an integral part of their baby's care.

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“At our first hospital we were given a family room where I could stay over to be near my babies. I was expressing milk, hoping to breastfeed eventually. Unfortunately, at the second hospital they didn't have family rooms and I believe this is why I couldn't breastfeed.” (Mother of twins born at 29 weeks)

“Giving parents the opportunity to stay in the individual care rooms has led to an increase in parent satisfaction. This means that parents can now stay for weeks rather than the maximum of two days that was prior to building these rooms.” (Senior Matron at a local neonatal unit)

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Why are neonatal units under pressure?

Staffing shortages in neonatal care are putting babies' lives at risk and leaving families without the support they need. The underlying factors, including funding shortfalls and training and recruitment, must be urgently addressed.

Funding

Neonatal services are not being allocated enough money to fund the number of nurses and doctors required to safely care for the babies they look after. Our findings show that if all funded nursing posts were filled then 60 per cent (50 out of 83) of neonatal units would still not be able to meet national standards on nursing. This represents **a shortfall of 1,640 nurses due to inadequate funding**, which is three quarters (76 per cent) of the total nurse shortfall. Similarly, if all medical vacancies were filled, then half (22 out of 43) of neonatal units would still not be able to meet the standards on medical staffing levels.

Funding is also an issue when it comes to recruiting other types of health professionals, with several units commenting, unprompted, that a lack of funding means they do not have access to the allied health professionals required and they cannot offer parents psychological support.

The extent of the funding shortfall for these essential roles highlights serious failures in the commissioning process and overall resourcing of neonatal services. Additional investment is urgently needed so that services can recruit the nurses, doctors and other professionals that are needed to care for vulnerable babies. A failure to do so will mean services remain unable to meet national standards for safe, high quality care – putting babies' chances of survival and long-term outcomes at risk.

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“There is a need for commissioners to extend the existing funding arrangements across the county – speech and language therapy, occupational therapy, and dietetics service provision need an urgent review and funding allocated.” (Matron at a local neonatal unit)

“Psychological support for parents is currently being prevented by lack of funding.” (Ward Manager at a local neonatal unit)

“There is no funding allocated for family support at present, though the clinicians have been actively trying to access this over the last year.” (Data Co-ordinator at a neonatal intensive care unit)

“The service is not funded for the provision of a neonatal community service as it wasn't agreed by commissioners and the Trust.” (Head of Nursing at a neonatal intensive care unit)

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Recruitment and training

Recruiting nurses

Difficulty filling vacancies is another important element of the shortfall in nurses working on neonatal units, with three quarters (66 out of 89) of neonatal units saying that they had unfilled nursing posts. Bliss calculates that there are around 650 nursing vacancies at neonatal units in England.²⁸

This can be made worse by delays with recruitment, with posts often not being advertised until they become vacant. At large units, which often have a neonatal nursing workforce of well over 100, there is a naturally high turnover of staff, with nurses retiring, moving away or taking maternity leave on a regular basis. To manage this it is essential to proactively recruit to positions before they become vacant – something which is already happening at some Trusts, but this good practice is not universal.

National skills shortages

Research by NHS Employers shows that 83 per cent of NHS organisations surveyed had qualified nursing workforce supply shortages, and children's and neonatal services found it particularly hard to recruit at some levels of seniority.²⁹

The most common reasons organisations struggled to fill these positions were:

- national skills shortages (39 per cent)
- local skills shortages (35 per cent)
- desirability of the speciality (8 per cent)
- geographical location (7 per cent)

Nearly half (45 per cent) of organisations surveyed by NHS Employers said they had actively recruited from outside of the UK in the previous 12 months to fill nursing vacancies, and the Royal College of Nursing has expressed concern that nursing roles have not been placed on the shortage list for recruitment overseas, forming a barrier to recruiting the extra nurses needed from abroad.³⁰

Nurse training

One of the most important factors contributing to the shortage of specialist nurses is access to appropriate training so they can develop high level competencies in caring for very sick and vulnerable babies after they become qualified nurses.

72 per cent (68 of 95) of units said they had difficulty with one or more aspects of neonatal nurse training and development in the last year. This was a particular challenge at neonatal intensive care units where more than four out of five said this.

The most common problem, reported by half (47 out of 95) of units, was difficulty releasing nurses from their frontline duties for training due to an inability to fill these posts while they were away. This suggests a catch-22 situation in some units where there are insufficient staff to cover posts so that nurses can spend time training, but a lack of training is contributing to the shortage of qualified nurses.

Funding for training is also a barrier, with 38 per cent (36 out of 95) of units saying that they lack funding for nurse training and development. Several units told us, unprompted, that support has been cut and study days have been removed. A Nurse Consultant at a neonatal intensive care unit said, “we are not allowed within the Trust to give anyone study time at present, so time is only allowed for the essentials such as [resuscitation], safeguarding and mandatory training.”

Some units also point to problems with the quality of training. A quarter (23 out of 95) of units told us that they have concerns about the time allowed for ‘qualified in speciality’ (QIS) training, with a clinician at one local neonatal unit saying, “placements are too short for staff to learn skills and acquire competence.”

Even when nurses have acquired the skills they need, it can be a challenge to maintain them. 27 per cent (12 out of 44) of local neonatal units and 13 per cent (3 out of 23) of special care baby units said there is a lack of opportunity for nurses to maintain their competency levels and skills because they do not have enough clinical exposure.

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“There is a large deficit of well qualified nurses in post; training was restricted to allow adequate staffing on a daily basis.” (Lead Nurse at a neonatal intensive care unit)

“There are significant cuts to education budgets. Qualified in speciality training is particularly affected.” (Matron at a neonatal intensive care unit)

“Current training [to qualify in speciality] is not appropriate; staff need to be released for longer placements to become competent. Two weeks is not enough.” (Ward Manager at a local neonatal unit)

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Recruiting medical staff

Many units also raised difficulties in taking on enough junior and middle grade medical staff - even when they have funding for the posts. This has resulted in **high numbers of vacancies which threaten units' ability to provide a safe level of care** (see p.19).

The 2014/15 Royal College of Paediatrics and Child Health (RCPCH) workforce survey reported a very high number of vacancies in neonatal care, particularly for middle grade rotas. They found a vacancy rate of 23 per cent for tier two neonatal rotas and six per cent for tier one,³¹ with vacancies for tier two staff significantly higher for neonatal care than paediatric care more generally. This shows a clear shortage of medical trainees (qualified doctors who are training to specialise in paediatrics or neonatology) to fill tier one and particularly tier two medical rotas, leaving neonatal units competing for these funded medical trainee placements which form an important component of the medical workforce.

One of the reasons for this may be that Local Education and Training Boards³² are struggling to cope with workforce planning challenges arising from more flexible working among staff, but are concerned that if more medical training places are allocated now then there will be too many consultant paediatricians and neonatologists in the future.^{33 34} Another issue raised as a contributory factor for difficulties filling medical rotas is the introduction of the 'Working time directive'.³⁵ This was also cited as having an impact on the experience and skills of trainee doctors, which could affect the quality of medical care that neonatal units are able to provide to babies.^{36 37}

Neonatal units are often reliant on locum doctors to fill the gaps, with the RCPCH finding that 40 per cent of tier one and 51 per cent of tier two neonatal and paediatric vacancies in the UK were filled by locums. This had decreased since the previous year, indicating that finding locum cover for vacancies is becoming more difficult.³⁸ Paediatric medicine, which includes neonatal medicine, has high numbers of international medical graduates, so visa restrictions on international workers could also be having a significant impact.³⁹

The severe nurse staffing shortages and training problems make it difficult for units to recruit advanced neonatal nurse practitioners to fill medical rota gaps. This leaves neonatal units struggling without the medical staff they need to meet government standards for the care of premature and sick babies. This is an immediate and urgent problem for many neonatal units and the babies and families that they care for. It is also a long-term challenge that must not be allowed to deteriorate further, putting already stretched neonatal units under even more pressure.

The government, Health Education England and individual Local Education and Training Boards must fully address this broad range of workforce planning issues without delay and develop new and effective strategies to ensure that services are able to meet standards for safe and high quality care.

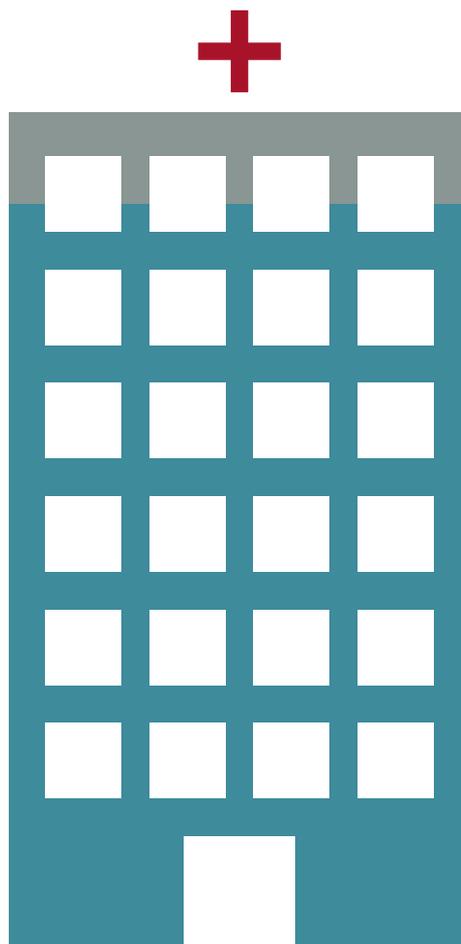
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“Junior medical staffing is a nightmare – gaps and short term sickness is an increasing problem, leaving the service in a very precarious position frequently. We are often saved by our neonatal nurse practitioners.” (Consultant Neonatologist at a neonatal intensive care unit)

“Unfilled training posts are increasingly difficult to recruit due to changes in visa and other regulations.” (Head of Nursing at a neonatal intensive care unit)

“Locums are employed on a regular basis which hinders continuity of care.” (Ward Manager at a special care baby unit)

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87% of units said they had at least one medical vacancy.

Avoidable admissions to neonatal care

A further pressure on services is the admission of babies to neonatal units who would be more appropriately cared for in other settings, or whose need for neonatal care could be avoided by better care before or immediately after birth. These avoidable admissions exacerbate the problems already facing units with a shortage of nurses and doctors.

One way to identify potential avoidable admissions is to look at the proportion of babies admitted to neonatal units at full term who do not have serious birth defects or disorders (congenital malformations). Although some of these babies are very sick and do need to be admitted, our findings highlight considerable inconsistencies in practice as there is wide variation across the country in the number of full-term babies admitted without such birth defects or disorders. At special care baby units for example, this group made up just under half of the total number of babies admitted in 2014/15 on average, ranging from one unit that only admitted two of these babies all year (one per cent of all babies admitted) to another unit that said 74 per cent of babies admitted were full-term and did not have congenital malformations. In 2014 NHS England started a programme of work to reduce full-term admissions to neonatal units, and Bliss supports the prioritisation and ongoing development of this work.⁴⁰

As well as putting extra pressure on neonatal units, admitting babies unnecessarily to neonatal care is stressful and traumatic for families. When babies can stay with their mothers in transitional care, where their mother can look after them with help from neonatal staff, this reduces pressure on neonatal units. It also has benefits for parents and for babies as they are more likely to benefit from breastfeeding and family-centred care (see p.23) and it has been shown to reduce the length of hospital stays.⁴¹ For this to happen, hospitals must have adequate transitional care facilities where mothers and babies can stay together, but access to these facilities is very variable across the country.⁴² Ensuring universal availability of transitional care facilities should be a priority for commissioners and Trusts.

Clinical involvement in commissioning

Failure to provide adequate funding to cope with the number of babies that a neonatal unit cares for indicates that something is going wrong with commissioning. The plans do not match reality.

For funding and resources to keep pace with demand, and to meet national standards, it is essential that clinicians, the people who understand local demand and deliver the services, are involved in discussions about funding. This is at the heart of the previous coalition government's ambitions for NHS reform: a clinically-led NHS that delivers the best possible care for patients.⁴³ NHS reforms led to welcome changes in the commissioning of neonatal care at a national level, as the introduction of clinical reference groups has meant advice from parent and health professionals helps to determine expected outcomes for neonatal care and how it should be provided. However, our survey findings show that there is inconsistency between ambitions for a clinically-led NHS and how decisions are made at a local and operational level.

Only 45 per cent (35 out of 77) of units said that clinical leaders in their neonatal service were included in discussions with specialised commissioners about commissioned activity levels in their Trust for their 2014/15 contract for neonatal services. For 2015/16 contracts, this rose only slightly to 49 per cent (38 out of 77).

Neonatal units who say clinical leaders were involved in commissioning discussions



We are not moving quickly enough towards a more clinically-led NHS. The majority of neonatal service contracts are not being discussed with the professionals who deliver services to patients in their area. Involving these clinicians in discussions about funding arrangements for their service is an essential part of ensuring that funding meets demand – and that neonatal units are able to meet national standards and improve outcomes for babies and their families. A failure to do this will continue to contribute to the staffing shortfalls across all professional groups described in this report, with a mismatch between service planning and the care that units actually deliver.

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“Commissioners and the Trust have never included clinicians or nursing managers in contract discussions – we would very much like to be involved in those conversations.”
(Matron at local neonatal unit)

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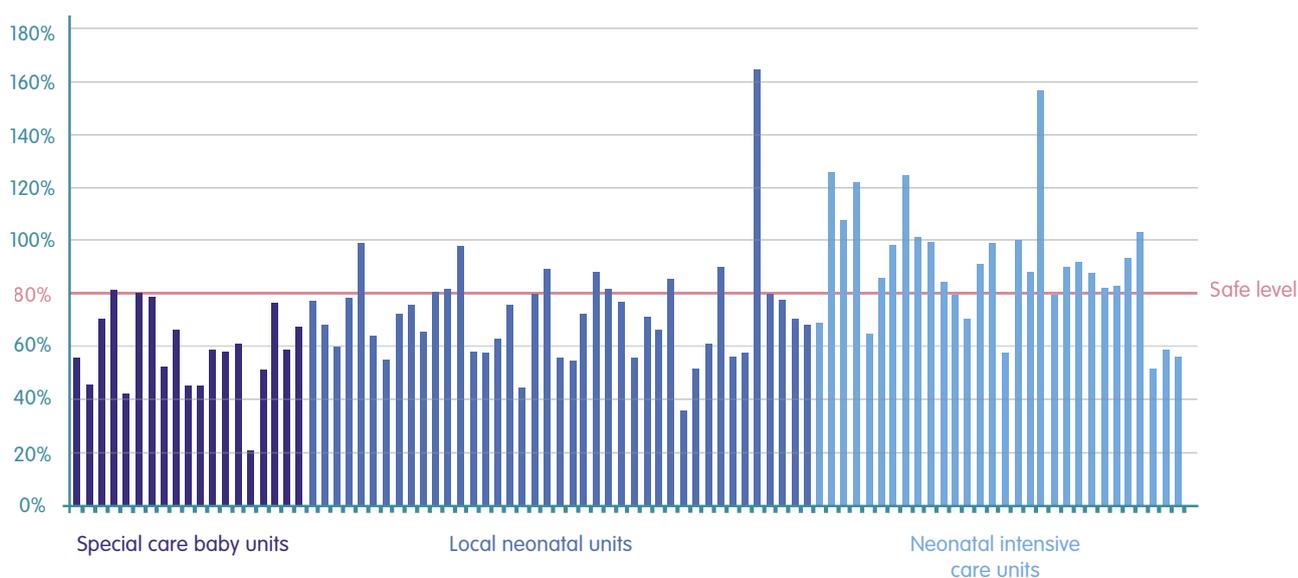
How do units cope?

A combination of factors outlined in this report are contributing to a 'perfect storm', with many neonatal units across the country struggling to cope with increasing demand for care, often without the staff and resources that they need.

Occupancy

Units across England are regularly caring for many more babies than commissioners planned they would. This has resulted in many units consistently caring for more babies than is considered safe by operating at above 80 per cent occupancy on average. Over one third (32 out of 90) of units were running at above the recommended safe level with over 80 per cent of their funded cots occupied throughout 2014/15 on average. Nine per cent (8 out of 90) had over 100 per cent occupancy during the year. This problem was significantly worse in neonatal intensive care units, **70 per cent (21 out of 30) of which were running above safe occupancy levels.**

Average occupancy levels of neonatal units in 2014/15



This was an issue across all categories of care, though some units reported using their cots flexibly so that occupancy levels varied across special care, high dependency care, and intensive care. For example, three neonatal intensive care units said they were providing more than double the amount of intensive care than they were commissioned to provide, at 268 per cent, 313 per cent and a huge 496 per cent respectively. All of these units cared for more babies in total than planned, but they also had lower than planned occupancy of their special care cots. This suggests they were regularly reassigning the level of their funded cots to cope with demand for care from very sick and premature babies, which require a higher level of staffing to deliver the more intensive care these babies need.

These findings demonstrate serious issues with service planning at some of the busiest units in the country. It is crucial that clinical leaders are involved in discussions about the commissioning of local services so that funding arrangements match the actual levels of care that neonatal units provide.

National standards: occupancy levels

Evidence shows that babies are less likely to survive if occupancy is regularly higher than 80 per cent,⁴⁴ so the *Toolkit* recommends that planned capacity should not exceed this occupancy level on average. This means that, on average, no more than 80 per cent of the cots that units are officially funded and staffed to run should be in use.

As well as setting a standard on the maximum safe occupancy level, the *Toolkit* suggests that if services are running, on average, at less than 70 per cent occupancy then this could be a sign that care is not being organised in the most efficient way. However, in some situations, commissioners may decide that services with low occupancy levels are needed to improve local access and prevent families from having to travel long distances, but this must be balanced against the resources available across a network.

Despite lots of units operating at very high occupancy levels, this is not the case at all units. Many others report very low occupancy levels. We found that 74 per cent (14 out of 19) of special care baby units, 46 per cent (19 out of 41) of local neonatal units, and 20 per cent (6 out of 30) of neonatal intensive care units were running at below 70 per cent occupancy in 2014/15, with one unit having an average occupancy level of just 21 per cent (see graph p.33).

Although this suggests that some units are looking after fewer babies than they are able to, at some of these units low occupancy levels reflect reallocation of their special care cots for babies who need high dependency or intensive care and need more attention from staff. Units have pointed out that occupancy of their cots varies widely during the year. One local neonatal unit said that during January they only had 57 per cent occupancy on average, but this rose to 95 per cent in July.

There are several possible reasons for such large variation between occupancy levels at different units, including failure to repatriate babies back to local units at the right time, patient choice in maternity care, or increasing birth rates at the busiest units. Although the smallest and sickest babies should be cared for at the most specialist units, it may be possible for more babies who do not need intensive care to be looked after at units that have more capacity to care for them. Making sure babies are being cared for at the right level of neonatal unit, as close to home as possible, is crucial. This ensures better management of capacity at the busiest units, and reduces the strain on families of having to travel far from home to see their baby if this can be avoided.

Closures

Some units have no choice but to close cots (decide not to use cots that are physically available) or to close their unit to new admissions altogether in their efforts to cope with staffing shortages and high levels of demand.

One third (22 out of 64) of units said that they had to close cots to new admissions at some point during the year, for a total of 2,340 care days. Many of these closures were at two units, with one local neonatal unit closing cots for a total of 900 days during the year, and a neonatal intensive care unit which had to close for 659 days. One care day is equivalent to the use of a cot for one day, so this means that these units had to stop using several of their cots for large parts of the year because of long-term nursing shortages.

This underestimates how often units have to take this kind of measure. Many units who do not record cot closures in this way described similar coping mechanisms, such as the nurse at a neonatal intensive care unit who commented that their “unit has closed as it was at maximum capacity so we couldn’t accept any more admissions.”

These closures are a symptom of chronic staffing shortages at many units and commissioning arrangements which do not reflect the demand for care. This is extremely stressful for the staff who are caring for babies under very difficult conditions, and puts babies themselves at risk as units find themselves unable to meet national standards for safety and quality.

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“We always try to avoid cot closures and operate a traffic light system based on a guideline to control activity based on current activity levels and nurses available. Red means we are closed to internal and external admissions. This, however, is always flexible and we frequently create space even when on ‘red’ by moving babies or making other changes. In the time period 2014/15 we were ‘red’ on 39 occasions.”
(Consultant Neonatologist whose service is across two hospitals)

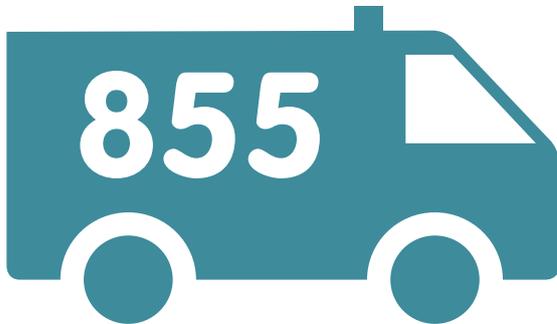
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Transfers

Transfers between hospitals are a crucial part of neonatal care, allowing networks to co-ordinate the care of babies in their area and ensure they receive the care that they need at the right level of unit, as close to home as possible. However, our findings show that many transfers are taking place for non-clinical reasons, with transport services saying that **855 transfers took place in 2014/15 due to lack of capacity** at the transferring neonatal unit – that’s a worrying 17 per cent of all emergency transfers.⁴⁵

142 of these were transfers of ventilated babies who were moved out of neonatal intensive care units due to lack of capacity. This is particularly troubling, as ventilation suggests these babies were very sick and already being cared for at an appropriate level of unit. There is wide variation between services, with five out of 12 saying that this did not happen at all or only happened once in 2014/15, while in other areas these transfers took place as many as 57 times during the year.

This shows that services are under pressure, and is another way in which units cope with being understaffed and over capacity. It means that sick babies are being moved unnecessarily, putting them at risk.^{46 47} It also adds to families’ stress and worry as their baby is moved from a unit they are familiar with, often taking them even further away from home and forcing them to leave behind staff and other parents who they have got to know.



**transfers of babies
took place in 2014/15
due to lack of capacity**

“

“We were transferred after one week due to the unit being full. It completely upset me as I’d bonded with other parents. My son took a dramatic step back during the transfer and in his first few days at the new unit.” (Mother of baby born at 31 weeks)

“I was transferred out of area as there were no intensive care beds. It was quite a horrendous experience for me. I think I got very depressed from only having my own company at such a difficult time.” (Mother of baby born at 28 weeks)

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Conclusions and recommendations

This report lays bare severe neonatal staffing shortages – including nurses, doctors and the full range of professionals who are needed to deliver safe care of the quality that babies deserve. These health professionals are doing an incredible job and demonstrating huge dedication and professionalism in difficult circumstances, but they are spread far too thin.

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“The staff saved my second twin after working tirelessly to save my first – and if I’m honest they saved me too.” (Mother of twins born at 24 weeks)

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Implementation of national standards

The effects of these staffing shortfalls, across nursing, medical, psychological support and other essential specialisms, compound each other. Neonatal services are not just unable to meet national standards on one measure, but across the board. This compromises safety and quality, and leads to units closing to new admissions, shutting down cots, moving babies around the country because they are full, and caring for many more babies than is safe on a regular basis.

This is unsustainable. Without urgent action from government, the NHS and health education bodies the problems highlighted in this report will worsen, widening the gap between national standards and the care that services are actually able to provide – putting babies’ chances of survival and their long-term health at risk.

Recommendation

- 1 The government and NHS England must recommit to all neonatal services meeting national standards for high quality care and set out a clear timetable for this to happen.

Funding

It is clear that not enough funding is reaching neonatal services, despite the government’s welcome commitment to provide funding for the NHS in line with the *Five Year Forward View*. This leaves units unable to recruit the staff they need to meet the government and NHS’s own standards on minimum safe staffing levels.

Recommendation

- 2 The government and NHS England must invest in neonatal care so that hospitals can recruit the nurses, medical staff, mental health workers and allied health professionals they urgently need. Specifically, the national payment system for neonatal services must reflect the staffing required for services to meet government and NHS standards.

Commissioning

Bliss' research shows that national ambitions to move to a more clinically-led NHS are not reflected at a local and operational level. This is despite a welcome move over recent years towards involving clinical and parent representatives in planning services at a national level with the introduction of clinical reference groups.

Recommendations

- 3** Commissioners and Trusts should always involve clinical leaders in discussions about commissioned activity levels locally so that commissioning arrangements reflect local demand for care.
- 4** The government and NHS England should guarantee the continued national oversight of commissioning of all three levels of neonatal care, ensuring all services for premature and sick babies are working to the same service standards and specifications, and are fully integrated across the baby's entire hospital journey.

Workforce challenges

This report has identified a wide range of problems in recruitment and training. Staff turnover, national skills shortages, concerns about the quality of training and limited medical training places are all leaving neonatal units struggling to fill vacancies for the nurses, doctors and other professionals they need to run their service effectively. Short and long-term solutions must be found to this challenge that is facing the NHS and neonatal care especially.

Recommendations

- 5** Health Education England should work with Local Education and Training Boards, in consultation with Royal Colleges, to put medium to long term plans in place which address the skills shortages and training issues identified in this report.
- 6** NHS Trusts and Foundation Trusts must ensure that there is always protected time and sufficient funding available for postgraduate nurse training and development.
- 7** Hospitals with a medium to large neonatal nursing establishment should proactively recruit to positions before they become vacant to manage staff turnover.
- 8** NHS England and Health Education England should look at how to ensure there are enough well-qualified, experienced allied health professionals working across neonatal care so that all babies have the best possible chance of survival, of having a good quality of life, and of realising their full potential.

Support for families

Family-centred care improves babies' outcomes, helps families to bond, shortens hospital stays and reduces the pressure on staff at busy units. However, parents need help to be at the centre of their baby's care, including facilities that allow them to be near their baby and emotional and psychological support to help them cope with the stress and trauma of their baby being admitted to neonatal care.

Recommendations

- 9** All neonatal units should use the Bliss Baby Charter Audit Tool to assess the quality of family-centred care they provide and identify areas for improvement.⁴⁸
- 10** Trusts should ensure all parents of babies in neonatal care are offered free accommodation, facilities for making drinks and preparing simple meals, and meal vouchers or free hospital meals.
- 11** Government and NHS England commitments⁴⁹ on parity of esteem for mental health must be realised in neonatal care, with progress made towards ensuring all parents and staff have access to psychological support in line with national standards.

Maternity and transitional care

Bliss welcomes and supports the work that NHS England is doing around term admissions, and progress must be made in this area. However, it is not enough on its own to ease the huge pressure that neonatal services are under.

Recommendations

- 12** The NHS England National Maternity Review⁵⁰ should explore ways to deliver more joined up maternity and neonatal care, including by addressing midwife training for the care of newborn babies. The review must also clarify the role of maternity services in providing transitional care to help avoid unnecessary admissions to neonatal care and keep more mothers and babies together.
- 13** NHS Trusts and Foundation Trusts should invest in their transitional care facilities so that babies and mothers can stay together where possible, reducing pressure on neonatal units and preventing the trauma of families being separated where this is avoidable.



Methodology

In May 2015, Bliss sent a survey to the 161 neonatal units in England that were operational during 2014/15. 101 (63 per cent) units responded.

Our unit survey included questions about admissions, activity levels, commissioning arrangements, staffing, training, facilities and parent support. Questions about admissions and activity levels were for the financial year 2014/15, though staffing questions related to a single day in April to get a snapshot of nurse and medical staffing across the country. The survey also included space for comments, from which the quotes from healthcare professionals in this report are drawn.

For estimates about staffing and vacancies for the whole of England, we did separate calculations for different levels of unit before scaling up to the whole country, in proportion to the total number of units at each level. These estimates are rounded to the nearest five.

Nursing requirements were calculated according to the nurse-to-baby ratios set out in the *Toolkit* (2009), and took into account annual care days and occupancy rates for different categories of care at each unit.

Bliss also surveyed the 14 transport services in England and all of them responded. The information they provided on transfers is included in this report. The data they gave us on other aspects of their service will be published separately.

In July 2015, Bliss asked parents to tell us about their experiences of neonatal care in an online survey and 224 parents in England responded. The parent quotes in this report come from this survey.

Bliss will also be surveying neonatal units, transport services and parents in Wales, Scotland and Northern Ireland in the coming year for separate reports on neonatal care in each nation.

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¹⁹Dixon, V., Venkatesh, V., May, J., D'Amore, A., Curley, A. (2010) Improving neonatal resource use through early discharge: Experience of a tertiary neonatal unit with a dedicated neonatal community team, *Journal of Neonatal Nursing*, 17(3), pp.111–115

²⁰It may also be that it is harder for local neonatal units to retain senior staff if consultants prefer to work at neonatal intensive care units which see more complex cases on a regular basis. However, this does not account for why fewer special care baby units reported the same problem and why there were not more vacancies for tier three staff at local neonatal units

²¹Eckstein Grunau, R. (2013) 'Neonatal Pain in Very Preterm Infants: Long-Term Effects on Brain, Neurodevelopment and Pain Reactivity', *Rambam Maimonides Medical Journal*, 4(4), published online

²²Prado, E. and Dewey, K. (2012) 'Insight: Nutrition and brain development in early life, *Alive & Thrive Technical Brief*, (4)

²³Ranger, M. and Grunau, R.E. (2014) Early repetitive pain in preterm infants in relation to the developing brain, *Pain Management*, 4(1), pp.57–67

²⁴Vigod, S.N., Villegas, L., Dennis, C.L., Ross, L.E. (2010) Prevalence and risk factors for postpartum depression among women with preterm and low-birth-weight infants: a systematic review, *BJOG*, 117(5), pp.540-50

²⁵Support from someone who is not a trained mental health worker could be from a dedicated family-centred care nurse or a family welfare officer, for example

²⁶POPPY steering group (2009) *Family-centred care in neonatal units: A summary of research and recommendations from the POPPY project*

²⁷O'Brien, K., Bracht, M., Macdonell, K., McBride, T., Robson, K., O'Leary, L., Christie, K., Galarza, M., Dicky, T., Levin, A., Lee, S. (2013) 'A pilot cohort analytic study of Family Integrated Care in a Canadian neonatal intensive care unit,' *BMC Pregnancy and Childbirth*, 13(Suppl 1), S12

²⁸This assumes that if a post is funded but not filled then it is 'vacant,' though there may be some instances where this is not the case (for example, long-term sickness)

²⁹NHS Employers (2014) *NHS Qualified nurse supply and demand survey - findings*

³⁰Statement by Dr Peter Carter, Chief Executive & General Secretary of the RCN, is available at: www.rcn.org.uk/newsevents/news/article/uk/nursing-shortage-is-very-real-rcn-tells-migration-advisory-committee

³¹Royal College of Paediatrics and Child Health (2015) *Rota vacancies and compliance survey: Winter 2014/15*

³²13 Local Education and Training Boards (LETBs), which incorporate the former deaneries, are responsible for educating and training healthcare professionals locally

³³Sources include comments from neonatologists made to Bliss and statements made by the RCPCH: www.rcpch.ac.uk/news/children%E2%80%99s-unit-closure-fears-rota-vacancies-pose-threat-patient-safety

³⁴This may be having a particularly big impact in paediatric medicine, which includes neonatal medicine, as a high proportion (74 per cent) of doctors are female so there are higher numbers of doctors on maternity leave and choosing to work less than full time once they have their own children: General Medical Council (2014) *The state of medical education and practice in the UK*, p.39; Dr Simon Clark, RCPCH: www.rcpch.ac.uk/news/children%E2%80%99s-unit-closure-fears-rota-vacancies-pose-threat-patient-safety

- ³⁵The EU 'Working time directive' restricts workers to a maximum 48 hour working week, averaged over a 6 month period.
- ³⁶The Royal College of Surgeons on behalf of the Independent Working Time Regulations Taskforce (2014) The implementation of the working time directive
- ³⁷Temple, J. (2010) *Time for Training: A Review of the impact of the European Working Time Directive on the quality of training*
- ³⁸Royal College of Paediatrics and Child Health (2015) *Rota vacancies and compliance survey: Winter 2014/15*
- ³⁹General Medical Council (2014) *The state of medical education and practice in the UK*, p.53
- ⁴⁰More information available at: www.england.nhs.uk/ourwork/patientsafety/re-act/red-term-ad/
- ⁴¹Forsyth P (1998) 'New practices in the transitional care center improve outcomes for babies and their families', *J Perinatol*, 18(6 pt 2 SU), S13-7
- ⁴²Bliss (2011) *SOS save our special care babies save our specialist nurses: A Bliss report on cuts to frontline care for vulnerable babies*
- ⁴³As set out by Rt Hon Andrew Lansley CBE, then Secretary of State for Health, in an open letter to NHS Foundation Trust chief executives, available at: www.gov.uk/government/publications/ambition-for-clinically-led-nhs
- ⁴⁴The UK Neonatal Staffing Study Group (2002) 'Patient Volume, staffing and workload in relation to risk-adjusted outcomes in a random stratified sample of UK neonatal intensive care units: a prospective evaluation', *The Lancet*, 359, pp.99-107
- ⁴⁵There were 5,040 'emergency' transfers in 2014: 4,185 were because a baby needed more specialist care and 855 were due to lack of capacity at the transferring unit (based on information provided by 12 out of 14 transport services)
- ⁴⁶Goldsmith, G., Rabasa, C., Rodríguez, S., Aguirre, Y., Valdés, M., Pretz, D., Carmona, D., López Tornow, S., Fariña, D. (2012) 'Risk factors associated to clinical deterioration during the transport of sick newborn infants,' *Archivos argentinos de pediatría*, 110(4), pp.304-309
- ⁴⁷Bastug, O., Gunes, T., Korkmaz, L., Elmali, F. Kucuk, F., Adnan Ozturk, M., Kurtoglu, S. (2015) 'An evaluation of intra-hospital transport outcomes from tertiary neonatal intensive care unit,' *The Journal of Maternal-Fetal & Neonatal Medicine*, published online
- ⁴⁸More information available at: www.bliss.org.uk/baby-charter-audit-tool
- ⁴⁹More information available at: www.england.nhs.uk/ourwork/qual-clin-lead/pe/
- ⁵⁰More information available at: www.england.nhs.uk/tag/maternity-review/



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“Having a premature baby is the worst thing that’s happened in my life and I pray I never need to think about most of the things I learned being a NICU mum again, but if I had to go through it again I’d want the same team behind me because they were amazing.”

(Mother of baby born at 30 weeks)

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We rely on donations to fund our vital work and your support could be life changing to premature and sick babies.

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