Research report March 2024

Review of North Central London's Start Well maternity and neonatal care

Reconfiguration proposals against the Mayor's first four tests

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nuffieldtrust

As part of a role in collaborating with the NHS and other health partners on behalf of all Londoners, the Mayor of London developed six tests to apply to major healthcare transformation and reconfiguration programmes in the capital. The tests are designed to help challenge the NHS to ensure that major changes are in the best interests of all Londoners, with the six tests covering: inequalities; healthcare capacity; financial sustainability; integration with other care services including social care; clinical engagement; and patient and public involvement.

The Nuffield Trust has been involved in supporting development and evolution of these tests, including through the 2022 review of the Mayor of London's health inequalities test which resulted in that test being updated in November 2022.

In December 2023, the Mayor commissioned the Nuffield Trust to undertake a review of proposals by North Central London Integrated Care Board to consolidate maternity and neonatal care services within its geographic area. The following report sets out our assessment of these proposals against the first four of the Mayor's tests, and is made in respect of materials published as part of the public consultation on the proposals, including the pre-consultation business case. An updated assessment of the proposals will be made once the decision-making business case has been published, which is expected later in 2024. At that point we will also assess the proposals against the Mayor's last two tests.

In the course of undertaking this review we have benefited from the engagement we have received from North Central London Integrated Care Board, who have patiently explained their plans in greater detail to us and provided us with additional information. We are grateful for this generous assistance and the insights we have been able to gather as a consequence.

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Contents

1 Summary of the proposals

There are currently five maternity and neonatal units in North Central London (NCL). These are at Barnet Hospital, North Middlesex Hospital, Royal Free Hospital, University College London Hospital (UCLH) and the Whittington Hospital. Alongside this, there are five neonatal units: one special care neonatal unit (level 1 for newborns typically born after 34 weeks gestation located at the Royal Free Hospital); three level 2 units (for babies born typically born between 27 and 31 weeks gestation); and one neonatal intensive care level 3 unit (for the most premature and unwell babies) located at UCLH. There is an additional standalone midwife-led birth unit at Edgware Birth Centre as well as an NCL-wide home birth service, which is provided by each of the five maternity units.

Proposed changes hinge around reducing the number of maternity and neonatal units to four. Each neonatal unit would be located alongside an obstetrics-led maternity unit and a midwife-led maternity unit. Three of the neonatal units would be level 2 units. Under both options consulted on, UCLH would retain its level 3 neonatal intensive care unit.

NCL has proposed two options: option A is to close the maternity and neonatal units at the Royal Free Hospital, and option B is to close the units at the Whittington Hospital. Separately, NCL are proposing to close the birthing suites at the Edgware standalone midwife birthing centre. NCL's proposal is to do this irrespective and independent of the decision made on the other proposals.

2 Wider London and national context in which the proposals are made

The proposals are made against a backdrop of stark inequalities nationally, and particularly within London in maternal and neonatal healthcare outcomes. Nationally, Black women are four times more likely to die during pregnancy or up to 6 weeks after childbirth than white women, while Asian women are twice as likely. Furthermore, women living in the most deprived fifth of neighbourhoods in England are twice as likely to die during this period than those living in the fifth least deprived.[1] Across the country, and in London in particular, people whose ethnicity is not described as "white" are far more likely to live in the most deprived areas – a geographical pattern driven by the pervasive role of structural racism throughout society, and reflected in the very significantly heightened risk faced by Black and Asian women and people during the maternity period, as well as in broader inequalities in healthcare access, experience and outcomes. These issues are explored in more depth in our 2022 report to the Mayor on his health inequalities test.[2]

For maternal healthcare, the October 2023 surveillance report on UK-wide inequalities in maternal mortality highlighted the severe and multiple disadvantages that drive increased risk of maternal death, in particular: a mental health diagnosis, substance use, domestic abuse and deprivation. While some of these underlying causes are beyond the NHS's direct control, the report also highlighted the significant scope for improved NHS practice across the entire maternity pathway. This included the observation that almost half of the women who died in the 2018–2020 period reviewed in the latest surveillance report had not received the recommended level and timeliness of antenatal care.[3]

Data on inequalities in maternal mortality is not available at a local or regional level. However, NCL's own analysis found that within the NCL integrated care system (ICS), babies born to Black women are between two and two-and-a-half times more likely to be admitted into neonatal care units than babies born to White mothers. This is an inequality which mirrors the picture nationwide.[4]

In addition to these inequalities, both nationally and in London, there is evidence that maternity services deteriorated over the course of the pandemic and that the quality of patient experience has not yet returned to that of pre-pandemic times.[5] Patients report a 'postcode lottery' in standards and practice, which the London Assembly health committee recently highlighted smakes it hard for patients to know what standard of care they should expect and how to advocate to for themselves to receive better care.[6]

Severe workforce shortages are likely to be a key contributor to this, with staffing levels frequently falling below levels deemed to be safe. Many providers nationally and in London in particular struggle to recruit and retain permanent staff.

Beyond hospital-based maternity care, the 2023 London Assembly health committee report details difficulties women and other people currently experience in accessing mental health support in the crucial perinatal period.[7] Nationally, suicide is the most common cause of death for women in the period 6 weeks to a year after giving birth – a statistic that underlines the importance of the wider pathway of care around maternity services.[8]

In mid-2022, the London Assembly health committee commissioned a survey of women and people who had used maternity services in London since March 2020, to learn more about their experiences and thoughts on the care they had received. 140 people responded. Of these, 18% described their antenatal care as either 'poor' or 'very poor' and 25% reported that the quality of care they received during labour and birth was either 'poor' or 'very poor.' For postnatal and later maternity-related care, 46% described care as 'poor' or 'very poor.'

Further, 27% of respondents reported they experienced discrimination or unfair treatment during the maternity pathway, with racial discrimination being most frequently mentioned.

Many of these systemic concerns are either explicitly or implicitly acknowledged in the materials and documentation published as part of the Start Well proposals, which aim to improve maternity and neonatal care for all, including through addressing staffing shortfalls through consolidating provision from five main sites to four. One of our interests as a test review team has been to assess the extent to which the proposals address these concerns and inequalities directly.

Over the course of our review of the first four of the Mayor's tests, we have met with the NCL Start Well team multiple times. We are extremely grateful for their patient engagement and response to our queries and the time they have spent answering them.

3 Summary of primary concerns

In the sections that follow, we provide our assessment against the first four of the Mayor's tests. The nature of assessments like these – and the supplementary test questions which guide it – is that we focus on areas where we have found current plans lack detail or may benefit from further work. This is not to diminish the work that has gone into bringing plans to this stage and the multiple merits of the proposals, not least the attempt to improve the overall safety and quality of maternity and neonatal care in NCL by consolidating currently overstretched resources on one fewer core site. NCL is clear that it is consulting on two options, but that it has a preferred option – option A, which involves the closure of services at the Royal Free Hospital. The prime driver of this preference is the significantly lower impact that change would have on NHS staff working in the relevant services. This is a valid priority, particularly in the context of service pressures primarily driven by workforce shortages.

Many of the issues faced by maternity and neonatal care services are interrelated, so the tests should be read together. However, there are a number of issues that we want to highlight as particular concerns that the Mayor may wish to seek further information and reassurance on.

These are:

- **The lack of local, disaggregated data on maternal and neonatal health and healthcare inequalities.** This gap is not unique to NCL, but the Mayor may want more information on how NCL and its neighbouring health systems propose to address it

- **The lack of clear and quantified commitments around addressing healthcare inequalities for maternity and neonatal care services in NCL.** NCL have been clear the ICS has strong commitments in this area and that improvement ambitions are embedded throughout wider strategies.

However, it would be useful if these could be made clear as part of the current proposals, particularly where they relate or intertwine with the acute pathway for these services, which is the focus of current proposals. Making these commitments clearer and measurable may also help alleviate local concerns about the impact of the proposals, as stakeholders will know these are ambitions for which NCL is prepared to be held to account

- **The robustness of population need modelling.** This is a complex area and we recommend further sensitivity checks on the analysis that has been carried out so far.

4 The inequalities test

The Mayor's inequalities test is designed to ensure proposed changes have maximised the opportunities available to the health system to reduce health status and healthcare inequalities. The Mayor understands that a prerequisite to addressing these inequalities is a clear understanding of where they fall, which is transparently set out to both help build the case and support for change and also to provide a baseline against which commitments for change can be set, and planned improvements can be tracked and monitored. The Mayor expects this action to cover both preventative work to reduce health status inequalities and also inequalities in access, experience and outcomes from healthcare services.

The supplementary questions in this test are as follows.

Do proposals:

- Set out the current systemic health inequalities issues in their local population, including those driven by socio-economic deprivation and structural racism?
- Consider the contribution of these inequalities to the Healthy Life Expectancy gap and other relevant measures of health status inequality?
- Set out current systemic healthcare inequalities issues – in access, experience and outcomes – in their local populations and healthcare services, including those driven by socio-economic deprivation and structural racism? Is the contribution of these inequalities to the Healthy Life Expectancy gap and other relevant measures of inequality considered?
- Consider their impact on the health and healthcare inequalities identified in their baseline analyses in a systematic, documented way?
- Ensure that services become more accessible to vulnerable groups, including those identified as experiencing the worst health and healthcare inequalities?

- Set out specific, measurable goals for narrowing health and healthcare inequalities and how health and healthcare equity is weighted in the options appraisal process? Are there plans to address information gaps on inequalities and population groups where such gaps exist?

- Set out plans to maximise the role of the NHS as an anchor institution by considering the following: widening access to quality employment and work; making local purchases for social benefit; using building and spaces to support communities; reducing environmental impact; and working with local partners to advance a collective 'anchor institutions' mission?

Our key recommendation to the Mayor in this area are as follows:

Ask NCL to identify specific ambitions for a reduction in inequalities in maternal and neonatal healthcare access and outcomes, segmented at the level of ethnicity and deprivation. These ambitions should be specific and include detail on how progress against them will be tracked and monitored – mindful that some interventions will require experimentation and so will need to be iterative and informed by rich local analysis to ensure relevance and effectiveness.

Seek further reassurance that the needs of the Harlesden and Willesden geographic population that would lose access to the Royal Free Hospital under option A and likely flow into North West London (NWL) hospital providers have been properly understood, including through sensitivity checks on the population need projection.

Baseline health inequalities in NCL

The Start Well Case for Change (CfC) document [9], which preceded the publication of the pre-consultation business case (PCBC) , states that the "urgent need" to address health inequalities forms one of several drivers behind the current proposals, alongside patient safety.

A number of baseline inequalities in health status are set out at a local level, although at the end of this section we have included a note on some imprecise language around deprivation deciles, which risks undermining attempts to understand and address health and healthcare inequalities in a systematic way.

Baseline health status inequalities set out in the CfC include smoking prevalence at time of delivery for pregnant mothers and people, which is over twice as high (7.8%) amongst NCL neighbourhoods falling in the most deprived quintile nationally as in those that fall in the least deprived nationally (3%). Stark differences in obesity rates during pregnancy between the most and least deprived quintile are also noted, as are ethnic inequalities in diabetes prevalence during pregnancy, with rates for Asian mothers and pregnant people being more than twice the rate of white women and pregnant people. The intersection between marginalised ethnicity and deprivation is also noted, with some ethnic groups – particularly Somali, Turkish, Black Caribbean, Black African and Bangladeshi being more likely to live in the most deprived areas of NCL, meaning these population groups face multiple forms of disadvantage, not all of which can be captured or disaggregated in the available data.

The CfC notes that the health status inequalities summarised in the report are highly relevant to the drivers of maternal and neonatal care complexity, and so are therefore also of healthcare need, with babies born to Black mothers or people in NCL having up to two-and-a-half times the rate of admission to a neonatal unit as babies of white ethnicity. As an indication of the impact such inequalities have on the healthy life expectancy gap in NCL, the CfC document describes how the inequalities found in maternal and neonatal health status are apparent also in long-term condition prevalence in children and young people in NCL, including asthma and diabetes, with significantly higher prevalence of both asthma and learning disability among children living in the NCL neighbourhoods that fall within the most 20% of neighbourhoods in England, and also for children identified as part of some minoritised ethnic groups, including Bangladeshi, mixed heritage, Black African and Black Caribbean.

Some borough-level inequalities are also reported, including the stillbirth rate which between 2018 and 2020 was almost twice as high in Haringey as in Camden. The CfC document includes the statement: “NCL is committed to taking a population needs-based approach. This means fully understanding the needs of our local population to ensure that we are delivering care and distributing our resources to those areas that need it most”.

Baseline healthcare inequalities in NCL and specific measurable goals and commitments to address these

The Interim Integrated Impact Assessment (IIA) identifies geographical and other population groups that may be deemed at particular risk of experiencing unequal and unfair levels of poor health and levels of healthcare access, experience and outcomes. We were pleased to note that this analysis went beyond the protected characteristics set out in the 2010 Equalities Act and also included population groups highlighted in NHS England's CORE20 approach to tackling inequalities, such as people living in areas of deprivation and those with serious mental illness. The impact assessment further identifies at-risk groups as people with low rates of English proficiency as well as areas with relatively high concentrations of lone parents. This is important analysis which should serve as a starting point for identifying population groups of interest, assessing current levels of healthcare access and outcomes relative to need for these groups, and exploring what barriers may be experienced in securing equitable access.

However, very little data is provided on how maternal and neonatal healthcare access and outcomes actually do differ according to these identified population groups, which means very little baseline information is given against which to track progress or set ambitions for change. Although some information is provided on how levels of access to perinatal mental health care across NCL falls significantly below ambitions set out in the 2019 NHS Long Term Plan and varies significantly between boroughs, this data is not presented disaggregated by population group, which makes it hard to identify the drivers of this inequality and target resources and improvements to address it.

With the exception of midwife continuity of care, we have not been able to identify within the proposal documents or other materials published alongside them any maternity or neonatal care quality or access metrics segmented at the level of deprivation or ethnicity.

As noted in the PCBC, continuity of midwife care has been identified in national policy as an input target and access indicator intended to monitor and improve maternity outcomes and experience for women and pregnant people from deprived communities and Black and Asian minoritised ethnicities. The CORE20Plus5 initiative set a target for NHS organisations to

ensure that 75% of that population was receiving continuity of midwife care by April 2024[10], although the target was subsequently dropped following the concerns about midwife staffing levels set out in the 2022 Ockenden Reports. In place of a firm national target, ICSs have been asked to develop local plans that prioritise first safe staffing levels and then, where these are met, progress to improve continuity of care for target population groups.[11]

Information on NCL trust performance against this ambition to May 2022 presented in the CfC suggests that the ICSs still had far to go at that point, with the highest performance at the Royal Free London NHS Foundation Trust [12], where 35% of the target population received midwife continuity of care – well below the 75% ambition. Data quality for continuity of midwife care is poor, but Nuffield Trust analysis of available data to September 2023 suggests that although still some way short of the 75% target, NCL outperforms other London ICSs in its attainment of this standard.[13] During meetings with NCL, the Start Well team confirmed NCL is committed to increasing midwife continuity of care for target groups – extending the target to cover women and pregnant people living in neighbourhoods falling in the 40% most deprived in England – but that no specific target date or achievement level had been set due to concerns about midwife staffing levels and availability.

This absence of baseline metrics on inequalities on maternal and neonatal care broken down by the key structural drivers of racism and deprivation is also accompanied by an absence in the consultation documents of specific commitments to reduce current healthcare inequalities for underserved population groups. This is at odds with the stated ambition in the CfC document.

We raised this with the NCL Start Well team who spoke passionately about the ICS's commitment to improve maternal and neonatal outcomes for the most underserved or deprived groups, but described how data quality issues hinder their ability to identify baseline inequalities. They also explained that much of the specific plans and changes designed to improve care for deprived and minoritised ethnic groups sat outside the current reconfiguration plans, for example in wider plans around mental health – which is a priority area for the ICB – and community healthcare services.

The Start Well team also highlighted how, as part of the pre consultation public engagement, NCL had identified a number of common equity concerns raised, which it was committed to addressing. Required actions in these areas are set out at the end of the interim IIA and include improving staff understanding of different cultural needs and addressing racist attitudes and other forms of prejudice, access to interpretation services, and support for people with learning disabilities. NCL states that these improvement areas will be addressed as part of 'business as usual' within maternity and neonatal care services and so are not specific or contingent on the proposed reconfiguration going forward.

Some of this work has been set out in a separate 'Responding to the Start Well case for change' document[14], which outlines work NCL is doing to improve care quality for all as well as targeted improvements for currently underserved groups. Of particular note are:

- A £1.6m increase in funding in 2023–24 to support the expansion of mental health support for women and people who have experienced a traumatic pregnancy or birth

- The introduction in October 2022 of antenatal classes at the Royal Free Hospital designed for Black women and people, and led by midwives with a Black or mixed ethnic heritage. The classes are specifically focused on providing culturally appropriate care, and on the healthcare needs of Black women and babies

- Additional central funding for the extension of midwife continuity of care at the Whittington, which has funded a midwife support worker who is focused on addressing both wider healthcare needs such as around smoking cessation, as well as helping patient access the additional support they need, such as interpretation services.

This work represents an important attempt to increase the level of resource targeted at underserved groups. The Mayor may wish to confirm with NCL that this resource will be available on a recurrent basis into 2024–25 and beyond. He may also wish to ask NCL to be clearer about how planned work and resource commitments will be translated into improvements for underserved groups and how their effectiveness will be monitored and measured.

To understand NCL's commitments in this area better, we have reviewed NCL's Outcomes Framework, updated in summer 2023, which includes the high level ambitions to "improve maternal health and reduce inequalities in perinatal outcomes" and to "reduce inequalities in infant mortality". These ambitions will be monitored through a set of indicators that are currently in development. Relevant indicator plans for maternal and neonatal care shared with us (and dated September 2023) are as below.

Improved maternal health & reduced inequalities in perinatal outcomes	Placeholder #1/2–to be worked up 23/24	Continuity of maternity care - for people from Black Asian and Minority Ethnic (BAME) groups and more deprived groups (adult Core20PLUS5 measure)
	4	Smoking status at time of delivery
	5	Low birth weight of term babies
	6	Premature births (less than 37 weeks gestation
Reduced inequalities in infant mortality	7	Infant mortality rate

It is noteworthy that only the national CORE20PLUS5 measure of midwife continuity of care is currently planned to be disaggregated by ethnicity and deprivation. This is something the Mayor may seek to explore further with NCL and we note that the interim IAA describes maternity data and data quality as a "significant priority" within the wider ICS digital strategy, including improving trust use of existing data collections to inform practice and priorities. We also note that the need for improved London-level data on maternal health outcomes, particularly on inequalities within these outcomes by ethnic group, has been highlighted as a key action point for NHS and Mayoral collaboration, in the recent London Assembly Health Committee report, and so might be seen as a priority area for the Mayor, and one which will help leverage further progress and transparency on inequalities.[15]

The Mayor may also seek to explore with NCL if the indicators currently included in its outcomes framework could be supplemented with further indicators – again disaggregated by ethnicity and deprivation. Doing so would allow the ICS to both track progress against its commitment to reduce maternal and child health inequalities, but also to better understand the

relationship between healthcare inputs and those outcomes, which will be a crucial first step in tackling the stark inequalities in maternal and neonatal health outlined in the Case for Change. Areas which could be explored include rates of access to antenatal and postnatal care (the former potentially proxied by gestation at booking-in date, which is a metric already collected by all NHS trusts, but not currently disaggregated by ethnicity and deprivation).

Further, NCL's wider outcomes framework includes developing indicators around reducing ethnic and social inequalities in mental health. As noted in our introduction, improved access to support for maternal mental health has been raised as a priority by the London Assembly and so maternal care-specific indicators attached to NCL's mental health improvement programme, accompanied by specific resource and improvements commitments around these services and outcomes may be particularly welcome.

Although these parts of the maternity pathway are not part of the current acute care reconfiguration proposals, there may be rich opportunities inherent within the proposals to improve the integration of acute and community care aspects of the maternity pathway, including better signposting and referral of women and people to appropriate additional services during the acute and obstetrician or midwife-led period of their pathway. More information on these opportunities and specific commitments to grasp them as part of the reconfiguration process would be useful in the next planning stage. We note that when the London Clinical Senate reviewed the proposals in July 2023 (the report was published in November 2023), it similarly asked for a clearer articulation of how services and outcomes would be improved for marginalised groups, including through better integration of the maternity and related pathway.[16]

Midwife continuity of care and home births

While there is no specific commitment to increase midwife continuity of care for deprived and minoritised ethnic groups within the reconfiguration proposals, the PCBC does appear to commit to making choice of home birth a practical reality for more women and pregnant people, through addressing patchy provision for home births across the NCL geography and addressing workforce shortages that currently lead to planned home births being cancelled.

Guidance on midwife staffing levels issued by NHS England and pre-dating the Ockenden Reports suggests that the 'Birthrate Plus' model recommended a ratio of 1 full-time equivalent (FTE) midwife to every 36 home births or births in stand-alone midwife units and a higher ratio of 1 FTE to 42 births for hospital-based births.[17] This suggests that home birth services require a higher level of midwife staffing than hospital services – although overall the overall cost of a home birth is usually considered to be lower than a hospital birth, due to a lower level of medical staffing input and higher overheads within a hospital setting. NCL confirmed with us that as standard, women and people in labour at home are attended to by two midwives, whereas for hospital-based births the ratio is one-to-one.[18]

We queried the implicit commitment to extend home birth provision with NCL, asking whether it was an equitable use of scarce midwife resources in the context of a national emergency where Black women in Britain face a four-fold risk of death during pregnancy compared to white women, and their babies – in NCL – experience up to a two-and-a-half times greater risk of requiring admission to a neonatal unit. As home births are only recommended for women and people expecting low-risk (often second) pregnancies, we are concerned that an extension of home birth provision, while midwife numbers remain below safe and desired standards and the midwife continuity of care target has been suspended, will have the effect of prioritising midwives towards population groups that, as indicated by their clinical suitability for home birth, already experience good health outcomes and are likely to be less deprived and less marginalised than women and people who need to give birth in a hospital setting and who are expected to benefit from increased continuity of midwife care.

NCL's response to this challenge was two-fold: First, NCL expressed that increasing midwife continuity of care for underserved groups remained a key priority for the ICS, which had extended the definition of target groups to include those of mixed ethnicity and IMD deciles 3 and 4 (in addition to deciles 1 and 2 as indicated in national guidance). Two trusts in NCL had recently been successful in securing additional funding from NHS England to improve performance in this area and NCL stated the belief that the reconfiguration from five hospital providers of inpatient maternity care to four would help stabilise the midwife workforce and so increase the ability of trusts to improve performance around targeted midwife continuity of care.[19]

In addition to this, the ICS itself is one of two ICSs nationally (the other being North East London) that has been invited to be part of the NHS Race and Health Observatory Learning and Action Network on maternal and neonatal health outcomes. The focus of the network is to share learning on addressing key drivers of unequal healthcare outcomes, listed as haemorrhage, pre-term birth, post-partum depression and gestational diabetes, to develop new equitable policy recommendations for maternity providers and build a repository of best practice for potential replication across the country.[20]

Second, NCL also challenged the stereotype that home births were solely used by women and people enjoying more comfortable material and social circumstances and highlighted that choice of birth setting was available to all. NCL particularly highlighted national work to extend the feasibility of choice of home birth to those with high-risk pregnancy and said it was committed to making choice of home birth a feasible option for women and people from deprived and minoritised communities.[21]

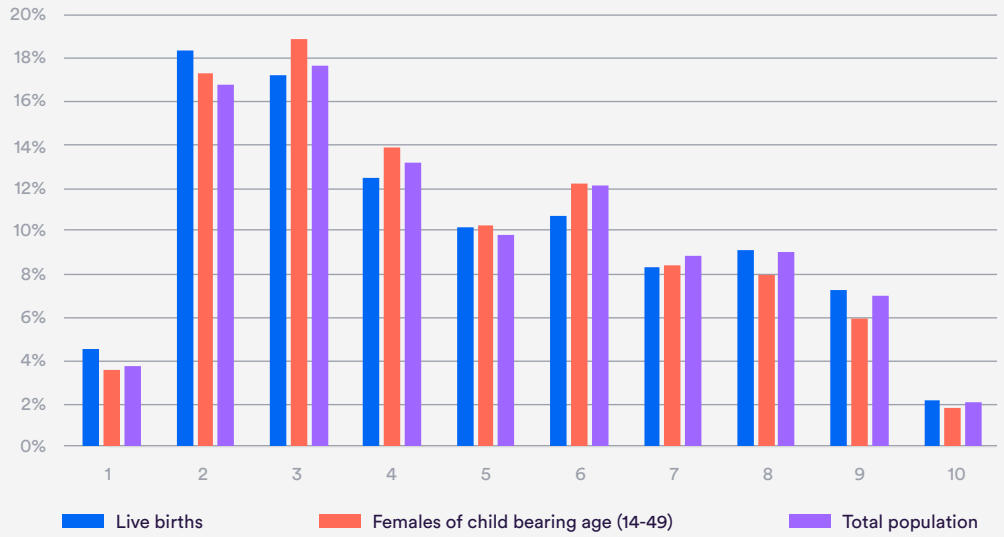
This is an area the Mayor may want to ask NCL to be more specific about in terms of interim targets around midwife continuity of care and tracking the social demographics of women and people who are able to benefit from home midwife teams, including the ability of such teams to meet the specific needs of a diverse range of women and pregnant people, including those who do not have straightforward pregnancies. This is a particularly pertinent area in light of the comment highlighted in our 2022 review of the Mayor's inequalities test, where a senior NHS leader in London commented with regard to the midwife continuity of care target: "Change won't come from national targets, as there's no point having continuity if you're still being bullied, or the care is culturally inappropriate or racist"[22]. It will be important to learn the extent to which an extension of home births to marginalised women may or may not have the potential to counteract experiences of racism when birth takes place in hospitals.

Note on accuracy of language used in inequalities analysis

We note that throughout the Start Well reconfiguration documents, Index of Multiple Deprivation (IMD) deciles are frequently misdescribed as pertaining to equal one-tenth shares of the NCL population. This appears to be a common error which we have also identified in one other recent London reconfiguration.[23] Unless re-weighted to describe local relativities in deprivation score (which we understand has not been carried out for the analyses presented by the Start Well programme) IMD deciles denote where a neighbourhood or other geographic unit falls in the England-wide distribution of deprivation. Areas falling in the first decile thus represent the most deprived tenth of geographic units in England (most typically lower super output areas (LSOAs) which represent neighbourhoods of 1000–3000 people) and the tenth decile the least. As IMD deciles represent where geographic units fall in the national distribution of the deprivation scale, it is rare to find an ICS or local authority with equal tenths of its component LSOAs falling in each national decile. Like many ICSs, NCL's population is therefore skewed when presented against the national distribution. In NCL's case, it has a nominal under-representation (compared to the national average) of LSOAs falling in the most deprived tenth of England, but over-representation of LSOAs falling in the next most deprived three deciles. At the other end of the distribution, NCL is nominally under-represented again by LSOAs falling in the least deprived decile nationally, and only around 2% of its population lives in LSOAs designated such.

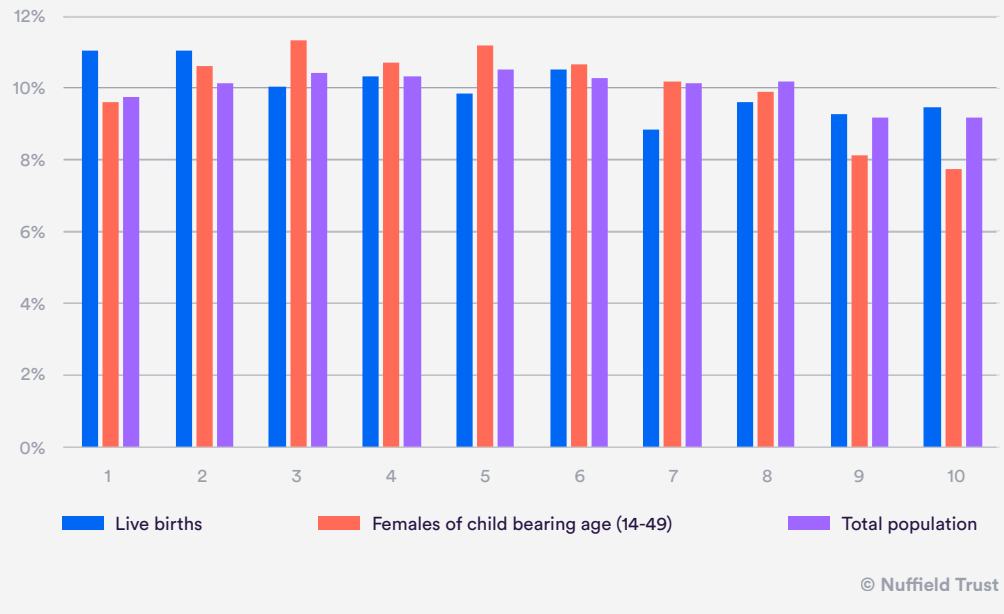
We illustrate this below with two separate charts showing the distribution of the relevant NCL population and live births in 2020 according to LSOA IMD decile, first on the national distribution (showing the proportion of the NCL population that lives in LSOAs that fall into each national decile) and then by reweighting NCLs LSOAs to show the relevant population sizes and number of live births according to the distribution of deprivation within NCL alone.

Figure 1: percentage of NCL population and live births by national deprivation decile of neighbourhood (LSOA).
1 = within most deprived 10% of LSOAs nationally



Source: ONS mid year estimates and live births data for small areas, 2020, showing NCL lower super output areas by IMD 2019 decile.

Figure 2: NCL LSOAs reweighted in local deprivation deciles.
1 = most deprived 10% of NCL LSOAs



Source: Nuffield Trust analysis of ONS mid-year estimates and live births data for small areas, 2020, showing NCL lower super output areas by reweighted to show relative distribution of deprivation within NCL, using IMD 2019 score

It is important that information about relative deprivation is properly articulated as confused or miscommunicated information can obscure the salience of points being made, and risk inequalities being undetected or poorly understood. For instance, the statement in the PCBC that "over half of all births in NCL in 2019–20 were in the 40% most deprived areas" is potentially misleading as it implies a significant geographic skew in the share of NCL births between LSOAs, whereas it rather reflects the fact that just over 51% of the total population and 54% of the female population of child bearing age live in neighbourhoods of NCL that fall within the 40% most deprived neighbourhoods in the national distribution.[24] On the other hand, the statement in the CfC document that 60% of neonatal admissions are from the 40% most deprived deciles is potentially more significant, particularly when it is understood that birth numbers are not particularly skewed towards the more deprived deciles, yet neonatal emergencies are.[25] We recommend that future analysis should consider weighting deprivation deciles relative to the local distribution, which will provide additional insights into how deprivation and other forms of structural disadvantage intersect in NCL and drive health and healthcare inequalities.

Maternity (and other healthcare services) in NCL need to cater for a population that is, on average, more deprived than the population of England as a whole, but locally, maternity services are only marginally more likely to be used by people living in the more deprived areas than the least deprived areas of NCL itself. This also implies that improving maternity services in and of themselves will not necessarily lead to an increase in the distribution of healthcare resources or benefits accruing to the more deprived populations of NCL. To achieve that, more targeted initiatives will be needed to cater for the specific needs of those groups. It may be noted in this context that NCL's extension of the midwife continuity of care target to those living in LSOAs identified as within the 40% most deprived in the country [26] in effect means the ambition is less targeted, as these geographic populations encompass over 50% of the NCL population.

Impact of reconfiguration proposals on specific population groups

The Interim IIA assesses the direct impact of the proposals to close maternity and neonatal services at either the Royal Free Hospital (preferred option A) or the Whittington (option B) on population groups at particular risk of health and healthcare inequalities. It finds that under option A, the geographical

population most at risk falls within the Harlesden and Willesden area of NWL. This is an area of high deprivation, with poor levels of population health, a comparatively high birth rate, where 76% of the population is from a minoritised ethnic group and where 15% of parents are lone parents.

Impact on Harlesden and Willesden in NWL under preferred option A

Under the option A proposals, people living in Harlesden and Willesden would lose access to the Royal Free Hospital for maternity and neonatal care. They would instead need to travel to Northwick Park or St Mary's Hospitals, both of which fall in NWL. As shown in the Interim IIA, these are areas with a high concentration of vulnerabilities to health status and healthcare inequalities, including deprivation, poor health status and a large percentage of the population from minoritised ethnicities.

The IIA does not give an assessment of the numbers of people from Harlesden and Willesden who would be affected, although in subsequent engagements NCL have stated that the figure is "less than half" of the 1,034 births and 640 neonatal care days are expected to flow out of NCL where they happen at present (at the Royal Free Hospital) and into NWL hospitals, largely St Mary's and Northwick Park hospitals. This does not strike us as an insignificant proportion, but more precise detail from NCL would be useful on clarifying this point. (NCL have also provided us with an estimate that in 2021–22, 16% of births to Brent residents were in NCL hospitals, although this will include hospitals other than the Royal Free Hospital.[27])

We are concerned at the current lack of detailed information about how the needs of this geographic population will be served if option A were implemented. We note that, as residents of NWL, this population is not technically the responsibility of NCL ICS, nor are the hospital care providers to whom the population is most likely to flow. Providers in this area include Northwick Park which, like the Royal Free Hospital, is rated 'requires improvement'. That potentially leaves this population doubly vulnerable to the proposed changes, and the Mayor will want to be assured that there is detailed joint working between NWL and NCL ICSs to ensure the healthcare needs of this specific population not only avoid worsening, but are actively improved as a result of the proposed changes.

We note that NCL states that diverting this population group from the Royal Free Hospital in NCL to hospitals within NWL could present an opportunity for care quality improvements for the group, in so far as pregnant women and people would receive both antenatal care and maternity care in the borough and ICS in which they live, as Royal Free Hospital midwives do not provide ante and postnatal care over the borough boundary into Brent. Detailed engagement and joint working with NWL ICS – including the Brent borough – and care providers will be needed to make this claim and ambition a reality. The Mayor may wish to seek more information on how this is progressing.

Specific concerns about the need modelling with respect to the NWL outflow population

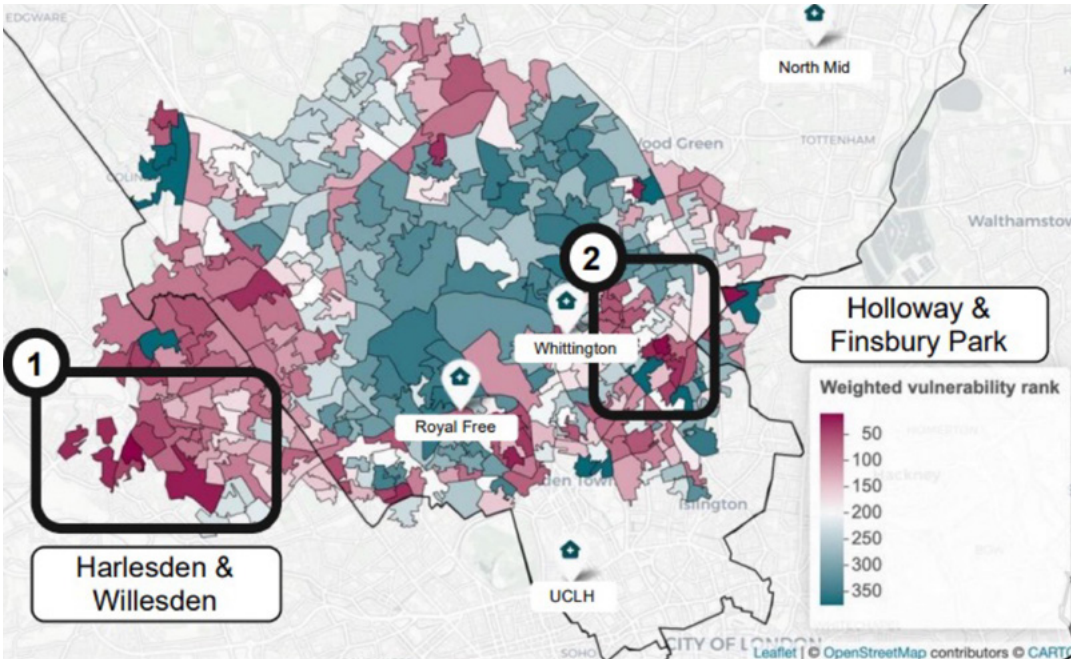
As described in more detail in the bed test below, the projected population needs assessment carried out to inform reconfiguration plans is based on the birth rate and projected changes in age structure in the NCL ICS geographic population, rather than the slightly different and wider NCL hospital provider catchment area, which includes a substantial part of NWL (including those parts of NWL served by Barnet hospital) and a small area of North East London (NEL). The decision to base projected needs on the NCL population was pragmatic for ease of analysis and is reasonable as a broad guide, although we note particular concerns about population estimates further below in the bed test.

However, this means there is a potential information gap about the specific needs of NWL patients flowing out of NCL providers and into NWL providers, and a risk that the volumes and complexity of this caseload has been understated.

Our exploratory analysis in this area has found that while 52% of births in 2020 to NCL residents were registered as living in lower super output areas (LSOAs) which fall into the 40% most deprived LSOAs in England, in Brent the figure rises to 59%. The rate of births to women of childbearing age that year was also 31% higher in Brent than for the NCL population.[28]

These figures relate to the demographics and socio-economics of the entirety of Brent, so may not reflect the specific parts of Brent most affected by the proposals under option A.[29] Mapped data presented in the Interim IIA suggests that further analysis on those areas of Brent may result in even starker

differences compared to other parts of the Royal Free Hospital catchment area, particularly those around Hampstead, where the borough boundary line in effect demarcates a socio-economic divide which will be reflected in levels of healthcare need.



From the Interim Integrated Impact Assessment, p15. Although unclear in the document, the black line segmenting the drawn areas and starting from the top left-hand corner appears to be the boundary with NWL ICS area. Areas shaded red represent areas facing the highest levels of structural disadvantage and poor health. Blue/green areas represent areas facing the lowest levels of these.

We recommend that further work is done to better understand the needs of this geographic population, its demographic structure, and the impact closing the Royal Free Hospital's maternity and neonatal care facilities will have on the demand for healthcare from other hospital providers, to ensure that adequate resources are in place to cater for those needs, including adequate staffing levels – with a key risk potentially being neonatal nurses which we understand are in shorter supply in NWL than NCL.

In conversation, the NCL team have acknowledged the need for further work in this area, including work to explore mitigations to the impact longer, more expensive and more complicated journeys to receive care may have on the NWL geographic areas most affected, if option A is selected. While not discounting these concerns, the team have also been keen to stress the extent

to which neonatal care for this population group under present arrangements is suboptimal. This is because the level of neonatal care currently provided at the Royal Free Hospital (level one special care unit (SCU) appropriate only for babies born after 34 weeks) is such that women and people with high-risk pregnancies, or who experience complications during birth at the Royal Free Hospital currently experience very late urgent transfers to other hospitals, which are better able to cater for them and their babies. The PCBC describes how such transfers affected 24% of admissions to the Royal Free Hospital SCU in 2020–21 – a significantly higher proportion than any of the other NCL hospitals. Such transfers can risk poor healthcare outcomes for patients and certainly reduce the quality of experience for families.

Alternative, well-staffed provision of a higher level of neonatal care has the potential to bring benefits to vulnerable population groups living in the area highlighted, but only if those facilities are capable of meeting local needs and longer travel distances are mitigated or avoided.

Impact on Camden, Chalk Farm, Holloway and Finsbury Park under option B

Under option B – where the Royal Free Hospital retains maternity and neonatal care but these services are removed from the Whittington Hospital, the most vulnerable population groups are in the Holloway and Finsbury Park areas. Both of these areas are also areas of high deprivation with high concentrations of people from minoritised ethnic groups. Under option B, people living in these areas would need to travel further to receive maternity and neonatal care at the Royal Free Hospital. This would involve increased travel costs of up to £11 if carried out by private taxi – the highest assessed increased travel cost from the two proposals. We noted as part of our review that significant thought had been put into exploring the impact on travel time and cost as part of the Interim IIA, which was explored in terms of both public and private transport, and importantly included an understanding of current (status quo) travel costs and times, for all relevant geographies and both options. Mitigations committed to the PCBC to counter the greater travel costs found for particular at-risk geographies under both options include better sign-posting people to existing travel cost reimbursement schemes, but do not currently extend beyond that or to committing specific additional resources, either to address travel concerns or to reduce current inequalities in infant and

maternal outcomes in this population. NCL have assured us that further work on this is planned for the post-consultation phase.

Inequalities and the Edgware Birth Centre

Independently of the plans to consolidate in-patient maternity and neonatal care, NCL is also planning to close the standalone midwife birthing unit at Edgware Community Hospital. As stated in the introduction, this proposal is independent of options A and B. Edgware Community Hospital hosts a variety of other community maternity services which will continue, with only the birthing unit being planned to close.

As detailed further in the bed test below, current use of the Edgware Birth Centre is so extremely low, and geographic catchment so wide (including outside of London) that statistics on the deprivation level and ethnic make-up of mothers and people who give birth at it are not reliable as a basis for forecasting future trends. In broad terms, however, the clinical criteria for giving birth at a stand-alone birthing centre will tend to exclude populations at higher risk of birth complications, resulting in a skew in the population that is able to make use of the facilities towards the better off. For this reason (and the relatively low level of use at present) we do not view the closure of the birthing centre as having significant equality impacts in and of itself.

However, we have explored with NCL how the resources freed up by the closure of the birthing unit will be redeployed to tackling health and healthcare inequalities, as the unit is located in an area of relatively high need. There is a lack of detail in the published document as to the extent of resources involved – for instance the numbers of midwives, midwife support workers, other healthcare professionals and administrative staff, but NCL have confirmed during meetings that these will be minimal. More detail on this is discussed in the bed test.

Equity concerns relating to specific healthcare conditions

There are a number of clinical specialities or services which are disproportionately used by population groups who experience structural disadvantage which may be affected by the proposed changes. These include: a sickle cell disease and pregnancy specialism at the Whittington, an FGM and pregnancy specialism at the same hospital, and a kidney disease specialism

at the Royal Free Hospital. NCL has confirmed that the impact on these specific patient groups will be explored further in the final inequalities impact assessment that will accompany the decision-making business case (DMBC), which may include specific proposals around travel mitigations for affected population groups who may need to travel further to access specialist clinics during pregnancy, although the operation of satellite clinics may reduce the need for this.[30]

Anchor institutions and environmental sustainability

PCBC notes how the changes could offer potential to improve the environmental sustainability of services. There will be impacts on the environment for both options including increased carbon emissions due to extended travel time and increased carbon emissions from construction work. Option A is expected to have more of an impact due to considerable construction work. Throughout the PCBC there are suggestions on ways to mitigate these impacts, and individual trusts as well as NCL as a whole have work already in place to reduce carbon footprint from travel and construction.

Environmental impact of travel

The PCBC outlines the environmental impact of travel changes under both options. There is potential for increased carbon emissions for both options due to increased travel times. With option A, the potential increase in carbon emissions is estimated to be an additional 216g per average journey; for option B it is slightly less, at at 195g per average journey.

The PCBC outlines that the travel impact will have to be evaluated from a net-zero perspective. Travel amounts to large contribution to carbon footprint in NCL and is a key point of focus in the NCL green strategy. The strategy sets the ambition for carbon neutral travel by staff, patients and visitors by 2028, so additional carbon emissions resulting from the proposals should be considered in this context.

There are already a number of schemes in place to help NCL reach its carbon-neutral travel target, and these could be expanded to help mitigate the identified potential impact stemming from the reconfiguration proposals. Each trust already has its own net-zero travel plan. For instance,

the Whittington has incorporated electric vehicles for business travel and provided oyster cards to community staff. The Royal Free NHS Foundation Trust has a number of schemes already in place to help improve carbon output from travel, including encouraging active travel and a cycling funding scheme.

Notably, both of the options consulted on will entail an increase in emissions (carbon, nitrogen oxide and particulates) in an Air Quality Management area. The PCBC states this environmental impact may have to be further mitigated as a result. This is particularly relevant as asthma prevalence in NCL is 10%. However, there are as yet no details on what these further mitigations may involve for inpatient maternity and neonatal care specifically.

Environmental impact of building plans

Both options would require buildings to be refurbished, with the PCBC noting how this could form an opportunity to make buildings more energy efficient. NCL and individual trusts are committed to ensuring sustainability is maximised in new buildings and refurbishments, outlines this across number of wider documents and strategies.

Under option A, construction work at the Whittington would be significant.

NHS operating planning and construction guidance says all NHS buildings must be built to carbon neutral standards. The NCL Green Plan supports this by stating that no capital investment for building will be approved unless active measures to reduce energy consumption are in place. Both the Whittington and Royal Free NHS Foundation Trust outline plans for ensuring sustainability is factored into future capital projects, including refurbishments.

For option A, the Whittington NHS Trust says that from the onset of planning permission process net zero concepts were involved in the design of the maternity and neonatal refurbishments. For option B, the Royal Free NHS Foundation Trust have committed to delivering carbon neutral buildings, in line with NHS planning guidance.

Anchor institutions

The PCBC considers the impact of proposals on the NHS's role as an anchor institution only in the narrow sense of staff employment. As only 127 staff will be required to move employer under option A, and 168 under option B, the PCBC asserts there will be little impact in this area. There may be scope for wider considerations here, including actively recruiting more maternity staff from the local population – this is particularly important given the reported experience of racism by maternity care users in London. The impact on local businesses whose footfall may be impacted by the closure of maternity units could also be considered.

5 The bed test

The Mayor's bed test is designed to provide assurance that proposed changes do not lead to a reduction in the level of hospital beds compared to demographic projections, or that where they do, this is on the basis of well-evidenced plans that alternative provision is either already in place, or can be put in place in good time. Alternatively, a reduction in hospital capacity beyond that implied by demographic projections may be reasonable, if there are credible plans to use new treatments or therapies to reduce the level of need for hospital admission, or where a reasonable level of efficiencies can be made to reduce bed use.

The supplementary questions associated with this test are as follows:

Do the proposals:

- Reflect the implications of the latest demographic projections?
- If not, is suitable alternative provision in place alongside or ahead of changes, with the required workforce?
- Are there new treatments and therapies which will reduce specific categories of admissions?
- Are there credible plans to improve bed use efficiency where currently less than the national average, without affecting patient care?

Our key recommendations to the Mayor in respect of this test are as follows.

Seek further reassurance that sensitivity checks on the population need projections will be carried out at the next stage of planning. This should include (A) checks on the sensitivity of the current core projections to assumptions made about static age-band fertility rates; (B) use of most up-to-date baseline population counts, age-sex data and recent trends (published in November 2023); and (C) separate checks relating to the need of the NWL

population projected to outflowing from the Royal Free Hospital and into NWL hospitals.

Ask NCL to detail plans to address the "toxic" workplace culture described by NHS maternity staff in London and in particular the experience and impact of racism on staff which hinders staff recruit and retention but also undermines staff wellbeing and ability to address healthcare inequalities experienced by patients.

Respond to the London Clinical Senate recommendation to assess the potential impact on emergency departments, both at the site losing obstetric care and at other local A&Es to which emergency presentations may be diverted.

In considering the Start Well proposals against this test, we first examined how NCL modelled projected need for both inpatient maternity care and neonatal care for the PCBC. We then assessed how NCL converted this need into an assumption about required resource capacity – delivery suites in the case of inpatient maternity care, and cots for neonatal care. We then considered the workforce implications of the proposed changes and projected capacity needs before outlining our assessment of the potential for plans to impact on wider hospital-based services, in particular gynaecology.

Demographic projections and need modelling

For maternity care, the modelling projects a decline in deliveries in NCL hospitals (reflecting a decline in the projected total number of births in the NCL population) which is partially offset by an increase in complexity for maternity care, resulting in an assumption that demand for inpatient deliveries will reduce by an average 0.2% a year under a 'do nothing' (no change) scenario, for the five hospitals in NCL that currently provide inpatient maternity services. There is some variation between the projection for each of the five hospital sites, ranging from +0.1% annual growth a year for North Middlesex Hospital to -0.5% annual reduction at UCLH.

For neonatal care days, the plans project an annual do-nothing increase in need for care of 1.1% a year across NCL. This also includes an adjustment for complexity which can be expected to reflect both an increase in underlying complexity of need, but also of growing clinical capabilities in the area of

neonatal care. The projected growth in neonatal care need is also subject to variation between the five hospital sites, ranging from +2.5% annual growth at the Whittington, to -3% at the Royal Free Hospital.

NCL has provided us with some detail on their approach to projecting future birth numbers at NCL hospitals, on which both maternity and neonatal care need projections are based.[31] The approach observes the recent historic birth-rate trend by five-year age bands for women of childbearing age living in NCL, with future birth numbers estimated using population projections for those age bands, based on the latest Office For National Statistics projections available at the time of modelling. These estimates are then applied to current birth numbers, neonatal care days and maternal age profiles (in five-year bands) at each hospital. The modelling approach is based on the NCL population rather than the wide NCL provider catchment area, which includes a substantial proportion of births to residents of two of the NWL boroughs (16% of all births resident in Brent and 19% of all births resident in Harrow, during 2021–22).[32] We have already discussed a potential limitation in relation to this aspect of the modelling under the inequalities test, further above.

A benefit to the modelling approach adopted is that it produces a projection for each of the five current hospital providers, which may be useful for local resource planning. However, a potential limitation is that it holds age-specific fertility rates constant and so does not reflect the tendency for these to change over time (for example the historic trend for women to tend to give birth at an increasingly older age). This may result in a flawed projection of future birth numbers, as well as of future neonatal complexity. There are a number of factors which may influence future trends in age-specific fertility rates – including recent changes in working patterns following the pandemic – and we would recommend that NCL undertake some sensitivity analysis on their projections as well as keep actual trends under close review.[33]

A further potential problem and complication in modelling future births relates to material inaccuracies between the Office for National Statistics' regular mid-year population estimates and the Census 2021 population count, which might be regarded as a more 'accurate' measure of total population and its demographic breakdown. While nationally just under 90% of population estimates at local authority level were within +/- 5% of the Census figure, two NCL boroughs – Camden and Islington – showed a particularly high

discrepancy between the Census and previous official estimates, with the earlier estimates overstating their population size by 25% (Camden) and 12.5% (Islington) respectively.[34] As the ONS did not publish revised local authority population estimates based on the Census until November 2023, NCL was obliged by NHS England to use the previous ONS population estimates in their modelling that is contained within the PCBC. We therefore recommend NCL perform additional checks to ensure its modelling is consistent with the Census population data. To be clear: there is a risk that modelling that incorporates borough or smaller area ONS population estimates for the period before the 2021 Census will result in an underestimate of the birth rate, particularly for Camden and Islington, and particularly if this data is combined with separately sourced data on births. In conversation on this point, NCL's external support (Carnall Farrar) advised that births in 2023 had actually been lower than forecast in the model used in the PCBC, so they were confident that revised modelling would not result in a material difference in assumptions about future need, but this revised modelling would be carried out in time for the DMBC.

NCL also shared with us a summary of their approach to assessing maternity need complexity – which is based on observing the trend in complexity of delivery – for example between unassisted deliveries and emergency caesarean sections.[35] From the information provided, this appears to have been projected forward on the basis of five-year age bands, in a similar fashion to the demographic growth noted above and so may risk similar limitations. The analysis found a trend for increasing complexity which has been factored into the maternity care future needs assessment for each hospital under the do-nothing scenario, although the precise level of this (ie the adjustment factor to demographic-only growth) has not been shared with us. We agree that complexity in maternity care is increasing, and that this is likely to continue into the future, but we have not seen the full workings or details of the analysis of this carried out for NCL by their commissioned external support Carnall Farrar, and so have not been able to assess the method or validity of the results and adjustment factor further.

A final step in NCL's population needs assessment modelling was to estimate the impact of patient flows out of NCL and into NWL and NEL hospitals, as well as outflows further afield, including to Hertfordshire, which can be expected as a result of women and people giving birth opting to do so at their

next-nearest hospital provider in the event that the Royal Free Hospital ceased to provide maternity care (under option A) or the Whittington ceased to do so (under option B). Modelled assumptions for outflows for maternity care provide the basis for assumptions about outflows for neonatal care too.[36]

The PCBC explains how these patient flows were modelled on the assumption that patients would opt for their nearest open maternity provider unless 80% or more of patients within their LSOA of residence were currently opting for an alternative provider, in which case the maternity and neonatal caseload was modelled as flowing to that provider. NCL have assured us (through their external analytical support at Carnall Farrar) that the patient flow modelling was also tested at a much lower threshold at which patients were modelled to flow to their current unit of choice if more than 20% in the LSOA had not given birth at the first nearest. We were told this sensitivity testing did not result in any material changes to the patient flow modelling.[37]

Given the uncertainties around modelling on static age-specific fertility rates we cannot be certain that the population needs assessment in the proposals is in line with demographic projections, although we accept this is a complex area. We recommend further sensitivity checks in addition to close monitoring of actual trends.

Future capacity plans – maternity care

NCL has described to us how the maternity and neonatal population needs assessment was used to project future capacity requirements at each of the remaining hospitals (including those outside NCL) by calculating the current ratio of deliveries to birthing suites (in effect fully staffed beds on obstetric or midwife-led wards) and then applying this to the projected future deliveries. Our concerns about potential uncertainties in the population need assessment to one side, this method for converting projected need into a future capacity requirement on the basis of current delivery to resource ratios appears to safeguard against overly optimistic assumptions about efficiencies through technological advancements.

There would not be a reduction in bed/cot capacity under either option, although the specific distribution of birthing suites and neonatal care facilities would change between NCL and its neighbouring ICSs in NWL and NEL.

Under the proposals, NCL plans to reduce the net number of birthing suites (in effect fully staffed beds on obstetric or on alongside-midwife led wards) at NCL-hosted hospitals by 3 (from 76 to 73) under option A (where the Royal Free Hospital ceases to provide in patient maternity care) and by 4 (from 76 to 72) under option B (where the Whittington ceases to provide this care).

However, as both plans would involve outflows of women and people giving birth from NCL to hospitals in either NWL (under option A) and NEL (under option B) NCL's modelling assumes that the reduction in capacity in NCL hospitals would be offset by an increase in capacity in St Mary's and Northwick Park hospitals under option A, and in Homerton under option B. The PCBC notes that NCL has been assured that this additional capacity can be sustainably provided for under option A but would be more problematic for option B due to capacity limitations at Homerton.

In addition, although NCL envisages a small reduction in birthing suite capacity at the remaining four hospital providers within NCL compared to at present, they note that this is in part due to under-use of some existing commissioned capacity – particularly at the North Middlesex Hospital, which creates scope for some patient flows to be absorbed (from the closure of either the Royal Free Hospital or Whittington capacity) without the provision of additional activity. There will be some uncertainties around the extent, time frame and financial impact of this assumption which will need to be kept under review, including the impact of patient choice of maternity provider.

There are also uncertainties around the current (baseline) use of alongside-midwife units and therefore also the likely future need for these, in so far as this is projected from an uncertain baseline. This is because midwives and other staff nominally deployed in along-side units are at present frequently redeployed in consultant-led obstetric units when these have insufficient staff, entailing that along-side units have to limit the activity they take on. This creates an uncertainty in the need and capacity modelling as it is hard to ascertain the underlying level of demand for along-side units as the extent to which current activity is curtailed by limited supply (as opposed to patient choice or clinical suitability) is unknown. NCL have assured us that part of this uncertainty can be managed on the basis that midwife capacity can be flexed between both consultant-led and midwife-led facilities, but it is an uncertainty that will require further review and tracking to ensure that staff resources are allocated and planned for appropriately.

Maternity capacity and the Edgware Birth Centre

In 2022–23 only 34 babies were born at the Edgware stand-alone midwife birthing centre, down from 87 in 2017–18. The low level of use in part reflects periods of closure due to Covid-19, the need to shut the centre to temporarily resolve staffing levels elsewhere, and also London Ambulance Service capacity shortfalls which left the service unable to provide assurance that emergency transfers to local hospitals would be available if needed. However, only women and pregnant people with low-risk second pregnancies are generally deemed clinically appropriate to give birth in a standalone midwife unit, and the increased prevalence of long-term conditions as well as the trend for women to have babies later in life makes it unlikely that there will be an increase in need for the unit in the future. In the face of this current and forecast level of use and current workforce challenges, the rationale to close the unit and redeploy the staff resources elsewhere is clear and well evidenced.

Given the very low numbers of women and people who have given birth at the centre in recent years, and the very wide catchment area from which they come (including outside of London) the impact of the closure on demand for other services is likely to be minor and hard to model. The impact of potential flows from the unit to other hospitals has therefore not been included in the activity modelling, and this is reasonable.

However we note research that finds the socio-demographic characteristics of women and people choosing to give birth in a standalone midwife unit are broadly similar to those choosing to give birth at home, with the exception that home births are more likely to recommended by clinicians for women who have both low-risk pregnancies and who are giving birth for the second time.[38] It may therefore be reasonable to expect that a substantial share of the women and people who would have previously chosen to give birth at the Edgware Centre may now opt for a home birth and we note various commitments stated in the PCBC to facilitate and extend access to home birth as a choice. While the impact of the Edgware unit closure on demand for NCL's home birth services may be too small and uncertain to model, there are potentially broader equity implications around the commitment to extend access to home births which we have raised further in the inequalities test.

We asked NCL to clarify how freed-up staff currently engaged at the Edgware unit would be redeployed and whether there would be opportunities to use this resource to provide additional services for under-served population groups. Although NCL is consulting the local population on the use of the physical space that would potentially be freed up by the closure, representatives of the ICB confirmed that in practice the level of use of the birthing unit in recent years – coupled with the fact staff nominally engaged at the Edgware unit both also provided the home birth service and in addition were frequently diverted to Barnet Hospital to make up for staffing shortfalls on midwife and obstetric wards there – meant its closure would have only a very minimal impact on workforce capacity available for deployment elsewhere.[39]

Future capacity plans – neonatal care

To convert the modelled estimate of future neonatal care need (expressed as bed or neonatal care days) into an understanding of future neonatal capacity needs, NCL's plans assume that units will need to have average occupancy rates at 80%, in line with the standard set in the Neonatal Critical Care Review, which aims to ensure clinicians are able to maintain their competencies through treating sufficient volumes of patients.[40]

This level of occupancy is substantially higher than the low occupancy rate currently experienced at the Royal Free Hospital neonatal unit (43% in 2022–23). It is also higher than the current occupancy rate at the North Middlesex which has had to close cots due to understaffing.

The estimated future neonatal capacity needs are also impacted by an assumption about enhanced provision of community neonatal care across NCL (known as 'hospital at home') which is expected to reduce the need for neonatal inpatient care days as well as improve patient and family experience. NCL have informed us that the reduction in inpatient activity has been modelled based on the experience at Whittington Health, which it regards as providing the best local practice in this area. Details about the adjustment in inpatient cot days stemming from this assumption have not been provided and so we cannot comment further on it.

A final assumption made about capacity modelling for neonatal care is to increase the baseline level of activity expected at the Royal Free Hospital to reflect the fact that, were it to stay open, the unit would be upgraded to a level 2 unit and therefore be able to admit a higher number of babies than it does at present. On the face of it, this assumption would appear to provide some reassurance that neonatal capacity will not be reduced below the current need-to-provision ratio.

These assumptions – together with the modelled patient flows – result in a reduction in neonatal cot capacity hosted by NCL under option A of 5 cots (compared to a modelled current capacity of 123) which would be offset by an increase of 5 cots in non NCL providers, which would be at St Mary's and Northwick Park Hospitals. Under option B there would be a reduction in NCL hosted cot capacity of 12, which would be partially offset by an increase of 6 cots at Homerton Hospital. A summary of the modelling approach provided to us by NCL states that these assumptions about future additional neonatal cot needs take into account the current under-utilisation of cots at some NCL and non NCL providers, with the expectation that some of the modest annual growth in care days will be absorbed through hospitals increasing their occupancy rates to the 80% standard.[41] This is not an unreasonable assumption, but it should be noted that the ability to increase occupancy rates at some providers – in particular the North Middlesex – will be contingent on it recruiting and retaining additional staff. This leads us to consider the staffing implications as set out in the PCBC.

Hospital staffing implications

Existing and planned future capacity needs for birthing suites and neonatal cots will only be met if staffing levels are sufficient.

Midwives

The PCBC refers to the NICE and NHS England-endorsed Birthrate Plus tool for understanding the minimum number of midwives needed to support different levels of birth activity, and bases its current and future capacity requirements on this tool. However, the PCBC makes some unclear statements about the current level of midwife capacity compared to the minimum level recommended by Birthrate Plus. Through discussions with the NCL team

we have gathered that current midwife staffing levels across NCL as a whole (although not necessarily at each individual provider) do meet the Birthrate Plus requirement, but that this includes the use of temporary staff. In order to meet safe staffing standards sustainably there is an understanding that these temporary staff need to be converted into (or replaced by) 87 permanent FTEs (the equivalent of in the region of a 10% gap between funded establishment and Birthrate Plus standard). Further information on what is needed to make this happen, and the pay bill implications (which may result in a net saving, if temporary cover is being funded all year round) will be useful for the next stage of planning.

The stated need to recruit 87 permanent midwives may be regarded as an area of risk as the number of full-time equivalent midwives in permanent post in NCL provider trusts has fallen by over 6% in the three years since September 2020.[42] This may indicate a challenges for midwife retention within NCL, particularly as the workforce reaches retirement age, which is reflected both in the wider London area and in England.

Challenges in midwife recruitment and retention were explored last year by the London Assembly's health committee who were told by the executive director of the Royal College of Midwives that the factor driving this in London could be summarised as "shortages, toxic culture, being burned out and exhausted, feeling undervalued"[43]. The committee's report on maternal health and care in London further highlighted the experience of racism and workplace discrimination against London's maternity workforce as a further factor undermining staff recruitment, retention, as well as wider staff and patient well-being.[44] NCL have expressed hopes that the consolidation of the workforce on four rather than five sites will help address some concerns around shortages and staff burn out. Further work detailing plans to tackle staff experiences of racism and discrimination will be useful for understanding how these deeper and more systemic issues will be addressed.

A further risk to midwife retention – acknowledged in the PCBC – is the extent to which midwives will be required to move work location as a result of the proposals. Under option A, 61 midwives will need to move location, and under option B, 143 will be required to move. A lower level of staff movements required under option A compared to option B is highlighted in the PCBC as a key reason for it being a preferred option.

Obstetric consultants

The PCBC sets out how at present, two of the five NCL maternity care providers have a significant shortfall in consultant presence on delivery units compared to Royal College of Obstetricians and Gynaecologists guidelines (based on number of deliveries). Two NCL providers – the Whittington and North Middlesex – currently have a slightly higher level of cover than required under the standards (see table below, from PCBC).

Current consultant hours presence on a labour ward per week by site.

Site	Current deliveries (21/22)	Current consultant hours presence per week (21/22)	Recommended number of consultant hours presence on a labour ward per week	Current gap
Barnet	5,152	98 hrs	168 hrs	70 hrs
North Mid	3,868	98 hrd	84 hrs	-
Royal Free	2,560	82.5 hrs	84 hrs	1.5 hr
Whittington	3,391	98 hrs	84 hrs	-
UCLH	5,101	97 hrs	168 hrs	71 hrs

From the Pre Consultation Business Case

Under the proposals, there would be a change in the level of consultant obstetrician cover required in some of NCL's maternity units. This may involve some of the consultant time currently scheduled at the Royal Free Hospital moving to Barnet and UCLH under option A, and some of the time currently scheduled at the Whittington moving to Barnet, North Middlesex and UCLH under option B, although NCL have stressed that no decision on this has yet been made. If these movements were successfully implemented, they would reduce the size of NCL's consultant workforce gap in obstetrics, but would still require a further net increase in consultant hours of 58.5 hours a week for option A, and 114.5 extra hours a week for option B. The PCBC analysis implies that this gap would only be experienced in NCL hospitals and there would not be a consultant cover gap in either the NWL or NEL hospitals expected to absorb patient flows from NCL.

Neonatal consultants

The PCBC states that across NCL there are already sufficient consultant neonatologists in post (21 WTEs) to meet British Association of Perinatal Medicine (BAPM) minimum staffing level guidance. However current special care baby unit at the Royal Free Hospital only has (and only requires as a minimum) one WTE consultant. Were option B to be implemented, six consultants would required to move from other NCL sites to help bring the Royal Free Hospital unit up to a higher capacity for specialist neonatal care, consistent with a level 2 local neonatal unit.

Neonatal middle grade doctors

Neonatal middle grade doctors are those who have completed specialty training in neonatology, or are part of a general paediatric training programme. The PCBC refers to British Association of Perinatal Medicine (BAPM) guidance on minimum levels for these doctors, which the current level of activity in NCL would set at 32 WTE. The PCBC states that there are currently 35.5 WTE middle grade doctors in training across NCL as a whole, although the North Middlesex unit is currently 0.5 WTE below minimum staffing level (as others are, in effect, over the minimum requirement). There are no mid-level doctors at the Royal Free Hospital's neonatal unit at present as the level of care provided in its unit does not require this as a minimum standard. Therefore, were option B implemented, all eight of the neonatologist WTE doctors currently working at the Whittington would need to transfer to the Royal Free Hospital. If option A were implemented, only the 0.5 WTE current gap at North Middlesex would need to be addressed through a transfer of staff.

Neonatal nurses

NCL faces a significant challenge around the neonatal nursing care workforce, with the PCBC outlining 38 vacancies across the five hospitals at time of writing, with vacancy rates above 20% for both North Middlesex and Barnet Hospitals – based on BAPM guidance on minimum staffing levels. These vacancies are at times filled with temporary staff, but when these are unavailable, units are forced to close to new admissions, which also involves closing to some deliveries. The PCBC sets out how the agreed future model of care for hospital neonatal services will require a further 55 WTE above the 262

currently in post.[45] The planned consolidation of neonatal care on four rather than five sites will also involve the transfer of neonatal nurses, with 19 needing to transfer under option A and 45 needing to move under B. The PCBC notes that this is an area which will need further detailed work once an agreed option is in place, including assessing the impact on neonatal units outside NCL, which experience an even higher level of vacancies in this workforce.

Wider implications: Gynaecology

The PCBC notes a clinical co-dependency between obstetric/maternity services and gynaecology and states that some gynaecological services will be affected at the hospital that loses in patient maternity care. This 'de-coupling' of obstetric and gynaecological care can also be expected to have some impact on clinical training opportunities for staff on training rotations. While the PCBC notes the potential impact on both staff training and access to care for patients, it does not explore this further at this stage.

We have sought further information on this from NCL as the Royal Free NHS Foundation Trust is a significant provider of gynaecological care in NCL (along with UCLH) which could indicate a significant impact on this form of care were option A implemented. We have been reassured that a large proportion of elective gynaecology care under the rubric of the Royal Free Foundation Trust takes place at its Barnet Hospital and Chase Farm Hospital sites, and so would not be affected by the proposals to end maternity care at the Royal Free Hospital site. However, complex gynaecological procedures that require intensive care facilities on site currently take place at the Royal Free Hospital, and these may be affected by the proposed changes under option A.

NCL have acknowledged that further detailed modelling on the potential impact will be required, once an option has been selected. The Start Well team have already engaged with the head of the school of Obstetrics and Gynaecology to discuss the impact on training posts. The NCL Start Well team also expressed their belief – based on work done to date – that it would be feasible to continue to have a gynaecology service from a site that no longer also provided obstetrics, and noted that this was already the case for Chase Farm Hospital, although noted that was an elective-care only service. However, the team acknowledged this would require further thought once an option had been selected, including on the sustainability of emergency and out-of-hours gynaecological care, job

planning, cross-site working, coordination with London Ambulance Service; and access to early pregnancy units.

Impact on accident and emergency services

The London Clinical Senate (LCS) reviewed NCL's proposals in July 2023 and queried the potential impact on the Emergency Department (A&E) at the hospital site that ceased to provide obstetric care, as well as the potential knock-on effects for emergency presentations at other A&Es in the area, particularly in respect to early pregnancy.[46] Knock-on effects at other providers could include an increase in emergency presentations of women of child-bearing age (pregnant or otherwise) at other NHS providers in the event that London Ambulance Service, or patients individually, felt it inappropriate to attend a provider without obstetric support. The LCS recommended that the implications of such a potential change in emergency care pathways be explored and clarified. This does not yet appear to have been included in the PCBC and we recommend that it be given full consideration within the DMBC.

The need for further exploration on this point was acknowledged in our conversations with the NCL Start Well Team, but they stressed that there were multiple examples of A&E departments across the country located at sites that did not support inpatient maternity care, and so the overall sustainability or clinical viability of an A&E service was not contingent on the retention of obstetrics on-site.[47]

6 Financial investment and savings test

The purpose of this test is to ensure that proposals are fully funded and financially sustainable, for both revenue and capital, and that assumptions about efficiency savings are realistic and achievable. The test is also intended to ensure that where activity flows from one part of the health system to another (either to a different geography or healthcare setting) that adequate funding flows also.

Supplementary questions attached to this test are:

- Are plans to make efficiency savings sufficiently detailed and credible?
- Have plans secured capital and revenue investment to deliver in full, and are the sources of funding credible?
- Do plans include increased investment in primary and community care, including moving resources from acute care where appropriate?
- Do plans include specific, increased investment in the prevention of ill health?

Our key recommendations in respect of this test are:

Request that NCL provide further detail as to how the risk of stranded costs will be managed within the NCL health economy

Request further assurance that the resource intensity of potentially high-need patients flowing out of NCL and into NWL under option A in particular have been adequately estimated

The detail provided within published plans to date on the financial implications of the proposals and assumptions within them are very brief. We would expect further information to be provided at the DMBC stage, at which point we will be able to update our assessment. However, the PCBC states that NHS England has assessed both options and agreed the capital and revenue requirements entailed by both are affordable.

Capital funding

Estimated capital costs for options A and B are broadly similar, with option A requiring £42.4m to deliver over a four-year period and option B, £39.4m, also over a four-year period. For both options, capital would be funded through the ICB's capital spending envelope. There are some differences in the way capital costs have been estimated between the schemes – to reflect the different stages planning for them is at – and it is not clear whether or not a sensitivity analysis on these different treatments might result in a wider capital cost differential between them.

Revenue funding

There is no information provided about how the revenue implications of the proposed changes will be managed and the impact this will have on the individual hospital sites who will cease to provide maternity and neonatal care, nor those who will see a significant increase in patient volumes and staff working from their sites.

The PCBC does note a risk that providers who cease to provide maternity and neonatal care may experience stranded costs. The PCBC does not quantify the scale of potential risk but states that further work in this area will be necessary by the impacted trust once a decision has been made. It is commonplace in these situations for health economies to discuss a period where risks such as these are shared within the economy rather than born by one single provider. Further detail on financial flows and the balance of risk and benefits between different providers within NCL would be useful for the DMBC.

As discussed in the bed and inequalities test, there is a risk that patients outflowing from NCL providers to NWL under option A in particular will represent a more complex caseload than those who will remain at NCL

providers. This is an area that will need to be monitored and managed closely as it may result in additional, unfunded costs for providers in NWL. Similar monitoring would be required for outflows to NEL under option B, although the expected differences in healthcare need within the outflowing population under that option appears to be less stark than for option A.

There is a lack of clarity within the PCBC relating to actual levels of midwife staffing and the Birthrate Plus standard. In particularly, it is not always clear what effective staffing levels – including staff provided on a temporary basis – are. It will be important to clarify this to be clear what, if any, gap there is between the current cost of actual (permanent and temporary) midwife staffing, and the cost of meeting the staffing standard through an increase in permanent staff.

Efficiency savings

The PCBC outlines expected efficiency savings and other cash-releasing benefits of £11m for option A and £9m for option B.

The significant components of these savings are:

- Reduced Clinical Negligence Scheme for Trusts premiums across all maternity units as a result of improved quality of care (£4.2m for option A and £3.7m for option B). Assumptions here are based on the NWL experience and are phased from year 7. Savings are based on providers who currently pay above the median level of premium being able to reduce this to the median and do not appear to assume reductions in those that are already below the median level. These appear to be reasonable assumptions.

- Savings through workforce consolidation. This annual saving comprises of £2.7bn for option A and £5.1bn for option B. We have been told the difference between these savings under the two options are driven between inner and outer London salary weightings, and the level of additional midwives required under each of the options. Further information to help us understand this will be useful at the DMBC stage.

- Efficiency savings relating to improved facilities and estates. These have only been included for option A, with an anticipated saving of £3.6m a year. We have been told this is because under option A, capital works required to increase capacity for maternity and neonatal care would mean backlog estate capital spend at the Whittington was no longer required. NCL have further clarified that these savings will be available for two years.[48]

7 The social care (and local authority) impact test

To assess the proposals under this test, we have examined what local authority services may be impacted by the reconfiguration; what, if any, plans are in place to mitigate the impact on existing pathways of care involving local authorities; and how local authorities in the ICS and neighbouring boroughs have been involved in developing the proposals. We have also considered under this test parts of the maternity and neonatal pathway that are to be provided by NHS community services.

Relevant supplementary questions attached to this test are:

Do proposals:

- Take into account (a) the full financial impacts on local authority services (including social care) of new models of healthcare, and (b) the funding challenges they are already facing?

- Is sufficient investment is available from Government to support the added burden on local authorities and primary care?

Our key recommendations for this test are:

Seek further assurance that the implication of proposals for health and social care services in neighbouring London ICBs and boroughs have been fully understood and that the leaders and staff of those services have been adequately engaged as part of the consultation process and will continue to be so as and when proposals move to implementation

Seek assurance that the full range of healthcare services along the maternity and neonatal care pathway in NWL and NEL are able to expand to fully address the needs of patients who would flow into those services as a result of the proposed changes.

To assess the proposals under this test, we have examined what local authority services may be impacted by the reconfiguration; what, if any, plans are in place to mitigate the impact on existing pathways of care involving local authorities; and how local authorities in the ICS and neighbouring boroughs have been involved in developing the proposals. We have also considered under this test parts of the maternity and neonatal pathway that are to be provided by NHS community services.

Do plans include a full and credible assessment of the financial impact on social and community care?

There are a large number of services in neonatal and maternity pathways that fall under the responsibility of local authorities. These include health visiting, safeguarding, supporting parenthood and early weeks, maternal mental health, and breastfeeding and other preventive services.[49] The PCBC sets out an expectation that certain services provided by the local authority and other community partners, such as home visits, or community antenatal and maternity services, will be standardised and provided in close proximity to patients as much as possible, but little detail is provided in the consultation documents themselves as to how this will be achieved and the resources needed to do this. This is information that may be available as part of wider NCL strategies, but it would be useful if this could be pulled together to support the ongoing engagement exercises with patients and local communities.

The PCBC acknowledges as a risk (Figure 78 p.130) that the new service configurations as part of the Start Well programme could disrupt established relationships with local authorities and their teams, such as health visiting, which could also lead to a financial impact on social and community services. The London Clinical Senate has also recommended referencing more detailed plans for approaches to ensuring these pathways are not disrupted during implementation (14.3 Appendix C: London Clinical Senate recommendations).

NCL has argued that under the proposals being consulted on, many of the patients who would be diverted to hospitals in neighbouring ICS footprints, would in future be receiving care in a hospital situated in their own borough, and this appears to be particularly significant for the NWL outflows discussed above in the inequalities and bed test. We received assurances from NCL (meeting taking place Friday 26th January) that there are potential benefits to a greater number of women and people giving birth in a hospital located in a borough in which they are resident. For instance, as community midwifery is arranged on a borough footprint, NCL have argued that women and people giving birth are more likely to be seen by a team who can access prior notes and know them better. There is an aspiration for ICS-led and local authority-led services such as health visiting to be better joined up.

NCL have assured us that the maternity lead for NWL had confirmed that there was sufficient capacity within NWL providers to absorb the potential outflows of patients were the Royal Free Hospital to close. The maternity lead for NWL had also confirmed there may be opportunities for better joined up local care for Brent residents that are accessing maternity services at the Royal Free Hospital currently. However, we would like to ensure that the consultation documents use clear language to differentiate between 'opportunities for improvement' that will need to be carefully managed, rather than de facto benefits that will accrue as a result of the reconfiguration.

In addition, it is not clear how many of the 385 and 465 patients who will be diverted to St Mary's and Northwick Park hospitals, and 322 to Homerton hospital are resident in NCL boroughs and who may therefore experience disruptions to or additional obstacles to accessing services by receiving care in a borough where they are not resident. NCL have committed to putting in place a monitoring system to understand and address any potential unintended consequences, which is encouraging. It is essential that those patients formerly at the Royal Free Hospital or Whittington who will now be receiving care in a different borough do not experience more disjointed care as a result.

Community healthcare services around the Edgware Birth Centre

We also looked specifically at the community services that are currently hosted at the Edgware Birth Centre that may be impacted by its planned closure. There are three main teams based at this unit: (a) a community midwifery

team, who are based at the unit and also run antenatal and postnatal clinics for local women and people, and pregnant women who deliver at the Centre and at home; (b) Mill Hill community midwifery team who run a home birth service, ante- and post-natal clinics; (c) a core antenatal team which supports ante- and postnatal clinics and multidisciplinary team clinics, and are a satellite from Barnet hospital.

As part of the plans to close the birth centre and redeploy these teams across other areas, the PCBC identifies an opportunity to expand more (community) ante-, post- and maternity services that more closely meet the needs of the local population. The consultation plans recognise the need for further engagement to understand how these services may be configured and staffed, as well as a need for further engagement with local neighbouring boroughs such as Harrow and Hertfordshire. Proposed services include local antenatal classes for complex needs. We discussed the engagement NCL are undertaking around the reconfiguration of services at Edgware Birth Centre [50] (meeting taking place Wednesday 24th January). NCL acknowledged the discussions around the future use of the birth centre were in their early stages and gave additional details on the list of community services they were considering which would have synergy with the maternity pathway. However, NCL also acknowledged that the scope of additional services or improvements may be limited due to the relatively small level of resource practically released by the closure of the birthing unit.

Are there credible, funded, joint NHS/local authority plans to meet any additional costs?

The PCBC identifies a large number of services that will be provided by community organisations across the proposed new care models (see Figures 15 and 17). There is a recognition that community provision is currently variable across boroughs (e.g. the community neonatal outreach service). We inquired about what plans are in place to expand and improve the community services. NCL provided us with the presentation to the NCL Joint Health Overview and Scrutiny Committee (JHOSC) which outlines the work undertaken to deliver a core offer for community and mental health services and falls outside of the scope of the consultation. This includes working with integrated partners to equalise services across each of the five boroughs that make up the NCL footprint, and a greater role for place-based partnerships

to integrate continuity of care into business as usual. NCL have committed £25.1m for mental health and £57.7m over five years, although this pertains to all services in NCL, not just maternity.

Do plans fit with local health and wellbeing board strategies?

The PCBC outlines some significant engagement with the local authorities which make up NCL in the development of the Start Well programme, and NCL have additionally outlined further engagement with neighbouring health and wellbeing boards. It is positive that Start Well's governance board includes representation of local authorities, children and young people's commissioning and mental health commissioning, and there is also local authority representation on various programme oversight boards such as the system management board.

The plans for reconfiguration have also been presented at the NCL JHOSC, local Health and Wellbeing Boards, Children's Partnership Boards, and there has been individual engagement with Directors of Public Health and Directors of Children's Services. Further engagement is planned at future JHOSC meetings as well as at the individual Health and Wellbeing Boards of each borough. NCL have also planned engagement with neighbouring ICBs such as North East London, North West London, Hertfordshire and West Essex ICBs.

We have been made aware of some open letters of opposition from local leaders including from Brent over the proposals for option A, and Haringey and Islington for the proposals in option B. NCL have assured us that they have undertaken significant engagement with London Borough of Brent and NWL ICS – as much as the engagement with NCL boroughs – including to the relevant Health and Wellbeing Boards in Brent and Harrow.

NCL have highlighted that they will be evolving their Interim Impact Assessment to take into account engagement during the consultation, including their engagement with neighbouring boroughs.

References

1. MBRRACE-UK_Maternal_Compiled_Report_2023.pdf (ox.ac.uk); see also MBRRACE data brief, Maternal mortality 2019-2021 | MBRRACE-UK | NPEU (ox.ac.uk)

2. For more information on structural racism and the intersection of ethnic marginalisation and deprivation, and the relevance of this to health status and healthcare in the NHS, please see our 2022 report to the Mayor on his health inequalities test. Throughout this report we use the terms 'ethnic marginalisation' and 'ethnic minoritisation', rather than variations on the term 'ethnic minority', as an attempt to capture how structural racism works through the way organisations – including those that make up the NHS – and individuals actively marginalise the interests and needs of particular groups and perpetuate that marginalisation through cultural norms, processes and behaviours. In this way, when we describe a group as marginalised or minoritised we do not primarily describe its mathematical proportion relative to the population whole, but rather its position within a society which is blighted by structural racism and other forms of structural disadvantage. This is particularly pertinent in London where there are many areas in which so called 'ethnic minority' groups in fact comprise the statistical majority of the population.

3. MBRRACE-UK_Maternal_Compiled_Report_2023.pdf (ox.ac.uk)

4. Start Well Case for Change (CfC). The CfC presents NCL neonatal admission unit data for 2020-21. This shows that babies born to mothers identified as "Black other" (which is a separate categorisation to those identified as "Black African") were 2.1 times more likely to be admitted into such a unit as babies born to mothers identified as "White (British)" and 2.5 times more likely than babies born to mothers identified as "White (Irish/other)". Ethnicity coding across the NHS can be poor and inconsistent, particularly with regards to subcategories and the treatment of non-White ethnicities. It is also important to note that ethnic group categorisation expressed in NHS data cannot be assumed to consistently reflect the identities with which patients and service users view themselves. For more information see: Scobie S, Spencer J, Raleigh V (2021) Ethnicity coding in English health service datasets. Research report, Nuffield Trust, Ethnicity coding in English health service datasets (nuffieldtrust.org.uk)

5. Maternity survey 2022 - Care Quality Commission (cqc.org.uk); See also: London Assembly Health Committee, *Maternal Health and Care in London*, 2023, https://www.london.gov.uk/media/100732/download

6. London Assembly Health Committee, *Maternal Health and Care* in London, 2023, https://www.london.gov.uk/media/100732/download

7. London Assembly Health Committee, *Maternal Health and Care in London*, 2023, https://www.london.gov.uk/media/100732/download

8. MBRRACE-UK_Maternal_Compiled_Report_2023.pdf (ox.ac.uk)

9. The CfC document is undated but appears to have been written in early 2022.

10. core20plus5-online-engage-survey-supporting-document-v1.pdf (england.nhs.uk)

11. B2011-Midwifery-Continuity-of-Carer-letter-210922.pdf (england.nhs.uk)

12. Among multiple other services, the Royal Free London NHS Foundation Trust runs Royal Free Hospital, Barnet Hospital and Chase Farm Hospital. In patient maternity and neonatal care is provided at The Royal Free and Barnet Hospitals.

13. Nuffield Trust analysis of monthly MSDS dataset, published by NHS Digital, 6 month average attainment to September 2023.

14. Received from NCL February 7, 2024. Following drafts of this report an online dashboard for the outcomes framework has been published here: https://nclhealthandcare.org.uk/our-working-areas/population-health/ncl-outcomes-framework/

15. London Assembly Health Committee, *Maternal Health and Care in London*, 2023, https://www.london.gov.uk/media/100732/download16. Recommendation 4. London-Clinical-Senate-Review-North-Central-London-Start-Well-Programme-Report.-FINAL-v1.0-.pdf (londonsenate.nhs.uk)

17. Implementing-better-births.pdf (england.nhs.uk)

18. Meeting between Nuffield Trust and NCL Start Well Team and NCL midwife MCoC champion, 31 January 2024

19. Meeting between Nuffield Trust and NCL Start Well Team and NCL midwife MCoC champion, 31 January 2024

20. New Learning Network Set to Improve Maternal and Neonatal Health Outcomes - NHS – Race and Health Observatory (nhsrho.org)

21. Care_outside_guidance.pdf (rcm.org.uk)

22. 1667818147_nuffield-trust-mayor-of-london-s-health-inequalities-test-web.pdf nuffieldtrust.org.uk).

23. nwl-report-march-v3.pdf (nuffieldtrust.org.uk)

24. These figures are based on ONS mid year estimates (dated 2020) for small areas and have not been corrected/adjusted for the 2021 Census results as these have not yet been published for small areas. We would not expect a significant change in the distributions shown here

25. We cannot however be completely certain of the significance as the data appears to be based on hospital admissions which will represent a wider catchment area – and therefore a potentially different deprivation distribution – than just NCL.

26. This extension was expressed in a meeting between Nuffield Trust and NCL Start Well Team and NCL midwife MCoC champion, 31 January 2024

27. Slide pack prepared by Carnall Farrar (on behalf of NCL) entitled "Maternity projections modelling approach 16 February 2024", provided to Nuffield Trust on the same date

28. Nuffield Trust unpublished analysis of ONS live births and population estimates for small geographic areas. Downloaded from NOMIS, January and February 2024. This is data is based on the ONS's population estimates dated 2020 and has not been updated to reflect the results of the 2021 Census, as these are not yet available for small areas. Analyses based on the 2021 Census may result in significant differences, underling the need for sensitivity checks (see Reconciliation of mid-year population estimates with Census 2021 at local authority level - Office for National Statistics (ons.gov.uk))

29. It should be noted that as we do not have access to NCL hospital catchment area data our exploratory analysis was not able to assess this potential issue at a more detailed level. However, this is data we would expect NCL to be able to access and produce.

30. Meeting between Nuffield Trust and NCL Start Well Team on clinical model, 26 February 2024

31. Slide packed prepared by Carnell Farrar (providing analytical support to NCL Start Well programme) shared with Nuffield Trust Jan 30, 2024. Further detail was also provided in a supplementary slide pack shared on February 16, 2024

32. Slide pack on modelling methodology, dated February 16, 2024.

33. Further information on trends in the age-specific fertility rate is available here National population projections, fertility assumptions: 2020-based interim - Office for National Statistics

34. For more information on this, see Reconciliation of mid-year population estimates with Census 2021 at local authority level - Office for National Statistics (ons.gov.uk)

35. Slide packed prepared by Carnell Farrar (providing analytical support to NCL Start Well programme) shared with Nuffield Trust Jan 30, 2024

36. Slide pack prepared by Carnell Farrar (providing analytical support to NCL Start Well programme) shared with Nuffield Trust Jan 30, 2024

37. Meeting between the Nuffield Trust, GLA, NCL and Carnall Farrar, 24/01/2024.

38. *Birthplace cost-effectiveness analysis of planned place of birth: individual level analysis Birthplace in England research programme: final report part 5*, Liz Schroeder,1 Stavros Petrou, Nishma Patel, Jennifer Hollowell, David Puddicombe, Maggie Link to report

39. Meeting between the Nuffield Trust, GLA, NCL and Carnall Farrar, 24/01/2024.

40. NHS England » Implementing the Recommendations of the Neonatal Critical Care Transformation Review

41. Slide packed prepared by Carnell Farrar (providing analytical support to NCL Start Well programme) shared with Nuffield Trust Jan 30, 2024

42. Nuffield Trust analysis of *Table 3: NHS Hospital & Community Health Service (HCHS) monthly workforce statistics: HCHS Staff by NHS England region, Integrated Care System (ICS), Organisation and main staff group - Full Time Equivalent Staff in NHS Trusts and other core organisations*, NHS Digital, September 2023

43. London Assembly Health Committee, *Maternal Health and Care in London*, 2023, https://www.london.gov.uk/media/100732/download

44. London Assembly Health Committee, *Maternal Health and Care in London*, 2023, https://www.london.gov.uk/media/100732/download

45. We would be grateful if NCL could confirm if the 317 required figure included additional nurses needed to staff the extension of the neonatal hospital-at-home service.

46. London-Clinical-Senate-Review-North-Central-London-Start-Well-Programme-Report.-FINAL-v1.0-.pdf (londonsenate.nhs.uk)

47. Meeting between Nuffield Trust and NCL Start Well Team on clinical model, 26 February 2024

48. NCL comment on draft of this report

49. Healthy child programme - GOV.UK (www.gov.uk)

50. Meeting between the Nuffield Trust, GLA, NCL and Carnall Farrar, 24/01/2024.

Nuffield Trust is an independent health charity. We aim to improve the quality of health care in the UK by providing evidence-based research and policy analysis and informing and generating debate.

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Published by the Nuffield Trust.

Design by Soapbox: soapbox.co.uk

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