NHS Maternity Survey 2023

Survey Development Report

September 2023

Contents

1 Introduction

The NHS Patient Survey Programme (NPSP), managed by the Care Quality Commission (CQC), invites patients and the public to feed back on their recent experiences of NHS services. The programme currently comprises the Maternity Survey, Adult Inpatient Survey, Community Mental Health Survey, Children and Young People's Survey and Urgent and Emergency Care Survey.

The Maternity Survey series is designed to capture the views of individuals across the maternity pathway, providing important insights into their experiences and the quality of the care they receive.

Following the initial Maternity Survey in 2007, other surveys were carried out in 2010, 2013, 2015, 2017 and 2018, 2019, 2021 and 2022. Where possible, the overall survey design remained the same to allow for comparisons over time. However, following a successful pilot in 2019, the survey transitioned from a postal methodology to a mixed mode approach; a push-to-web method, using online methods alongside a postal approach, in 2021.

Changes to questions included in the Maternity Survey have been limited to allow for trend-tracking and measuring change. However, the introduction of new policies or guidelines relating to maternity care invariably impacts on maternity service users' experiences, and each year it is important to reflect on the impact these may have. This was highlighted in 2021 and 2022 to facilitate reporting of experiences during the coronavirus pandemic and subsequently revised this year as measures introduced in response to the pandemic are removed.

The 2023 questionnaire has been updated in line with current policy and practice, to ensure the content reflects the way in which maternity services are currently delivered and to meet the objective of improving the capture of health inequalities data.

The purpose of this report is to provide full details of the survey development process for the 2023 Maternity Survey. This report outlines the methodology, materials, and results of this process. The main changes are summarised in Table 1.

Table 1: Overview of 2023 Maternity Survey development

Strand	Summary of development	Section of report
Methodology	▪ Mixed mode methodology; a push-to-web method, using online methods alongside a postal approach. ▪ Shortened fieldwork length.	Section 2
Materials	▪ Minor change to wording of the mail-out letter. ▪ No further changes to note.	Section 2
Sampling	▪ Three changes since 2022: - Introduction of the Booster Sample. - Addition of Booster Sample variable. - Removal of coronavirus treatment variable.	Section 3
Booster sample development	▪ Initial feasibility exploration. ▪ Options for conducting the booster and recommendations. ▪ Agreed approach.	Section 4
Questionnaire	▪ The questionnaire was reviewed ahead of the 2023 survey with the aims of: - Ensuring the content remained in line with current policy and practice. - Retaining, where possible, the ability to track changes in experiences over time. - Obtaining better understanding of health inequalities and disparities within maternity services. ▪ Summary of amendments: - Seven questions added. - Seven questions deleted. - Fourteen amendments to wording or formatting. - Three routing amendments.	Section 5
Accessibility	▪ No changes to note.	Section 6

2 Methodology

2.1 Push-to-web methodology

Following the successful pilot in 2020, the 2021 Maternity Survey transitioned to a push-to-web method, using online methods alongside a postal approach. It improved accessibility and resulted in improved response rates (more details in section 2.3.1).

For the 2023 Maternity Survey we have built on the solid foundations of the 2021 and 2022 iterations and retained the mixed-mode methodology. This approach will maximise the proportion of respondents who complete the survey online while continuing to offer the option of completing a paper questionnaire.

The successful four-mailing protocol used for the 2021 and 2022 Maternity Surveys will be replicated in 2023 (as detailed in Table 2). All letters and SMS reminders contain a URL providing access to the survey – either by typing in the website address (in the letters) or by clicking on the link (in the SMS).

Each mailing also contains a multi-language sheet which provides links to the online survey for nine non-English languages. It also directs participants to a helpline number, where they can access a telephone assisted survey using Language Line, in ten further languages (as detailed in Section 2.2.6).

Table 2: Mailing protocol for the 2023 Maternity Survey

Mailing	Mode of contact
Mailing 1 (Week 1)	Letter with URL Multilanguage sheet
SMS1 (+3 days)	SMS after Mailing 1 (if phone number available)
Mailing 2 (Week 2)	Letter with URL Multilanguage sheet
SMS2 (+3 days)	SMS after Mailing 2 (if phone number available)
Mailing 3 (Week 5)	Letter with URL Paper questionnaire with freepost envelope Multilanguage sheet
Mailing 4 (Week 7)	Letter with URL Multilanguage sheet
SMS3 (+3 days)	SMS after Mailing 4 (if phone number available)

2.2 Materials

Given the cognitive testing of all materials prior to the 2020 pilot survey and the comprehensive review ahead of the 2021 Maternity Survey, the decision was made to retain the same materials for the 2023 Maternity Survey. Copies of all materials have been uploaded to the NHS Surveys website.

Small wording changes were made to the invitation letter for the survey, outlined in Table 3. For proposed changes that were not taken forward, please see section 5.5.5.

Table 3: Summary of changes to 2023 Maternity Survey materials

Position	2023 Maternity Survey	2022 Maternity Survey	Reason for change
Second paragraph	'The survey asks questions about your recent experience of giving birth, and the care you received during pregnancy and after your birth'	'The survey asks questions about your recent experience of giving birth, antenatal care, and the postnatal care you received.'	Concerns about understanding of the terms antenatal and postnatal care.
Third paragraph	'What went well…'	'What was good about…'	Changed to more neutral language.

2.2.1 Covering letters

Maternity service users sampled for the survey are sent up to four letters. Their wording reflects the mixed-mode approach, making it clear that participants can complete online and encouraging them to do so, with log-in details for the online survey at the centre of the letter. They include encouraging messaging across letters, to tap into participants' motivation to take part in the survey.

Additionally, relevant information on data protection and confidentiality is included. All the above meets accessibility guidelines, such as using a minimum of font size 12, and signposting to the accessible survey options such as availability of translated, braille or easy-read questionnaires. Aside from the change highlighted above, the covering letters will remain unchanged from the version developed for the 2021 Maternity Survey.

2.2.2 SMS reminders

The reminders include a personalised URL which take participants directly into the online survey (without the need to input their login details) in order to encourage online completion.

During the cognitive interviews for the 2019/20 Maternity Pilot, a particular focus was on how individuals felt about the use of their mobile phone number (if provided) for contact purposes. Participants welcomed the ease of accessing the survey directly from the SMS rather than typing in the URL and were happy with the content of the messages.

The participants fed back that they would be more likely to open and trust the SMS message if it came from a named contact rather than an unknown number. Following this feedback, it was decided that the SMS reminder should come from 'NHS Survey' to reassure recipients of the legitimacy of the contact.

2.2.3 Online survey

The online survey is designed to be device-agnostic, meaning that its layout and appearance automatically adapt to the device the survey is opened on, be that a mobile phone, laptop, tablet, or desktop computer. The online survey has been developed to meet accessibility guidelines e.g. it is possible to change the font size, background colour, and the questions are compatible for screen-readers. The online survey is available in English and nine non-English languages.

2.2.4 Dissent poster

As with previous Maternity Surveys, a dissent poster should be displayed during the sampling month. This makes individuals aware of the survey and provides an opportunity for them to ask questions or give dissent if they wish to be excluded from taking part. At the request of trusts, the poster has been made available in English and eleven other commonly spoken languages to ensure the information is accessible to their maternity service users.

2.2.5 16-17-year-olds leaflet

To meet Section 251 requirements, it is necessary for midwives or other staff to provide all 16- and 17-year-olds who give birth in the sampling period with a leaflet and to discuss the survey with them. Any requests to opt out of the survey are logged at the trust and referred to when drawing the sample to ensure they are excluded from selection.

2.2.6 Multilanguage sheet

The multilanguage sheet for the 2023 Maternity Survey remains unchanged from the previous year. It includes links to the online survey for nine non-English languages:

1. Arabic
2. Bengali
3. French
4. Gujarati
5. Polish
6. Portuguese
7. Punjabi
8. Spanish
9. Urdu

The multilanguage sheet also includes the languages below, directing the participant to a helpline number. Although a translated online survey is not available in these languages, a telephone assisted survey using Language Line will continue to be offered.

10. Cantonese (Traditional Chinese)
11. Mandarin (Simplified Chinese)

12. Turkish
13. Italian
14. Russian
15. Kurdish
16. Tamil
17. Thai
18. Farsi
19. Somali

As shown in Figure 1, the multilanguage sheet also includes signposting to accessible formats. Section 6 provides further information on accessibility features of the survey.

Figure 1: Accessibility signposting on multilanguage sheet.

LEARNING DIFFICULTY OR ACCESSIBILITY NEEDS?

If you need some help to fill in this survey, or if you want a copy of the questionnaire in easy read, large print or Braille, please call us [for free] on [INSERT HELPLINE] or email [INSERT HELPLINE EMAIL].

Image contains a woman looking at an easy read booklet

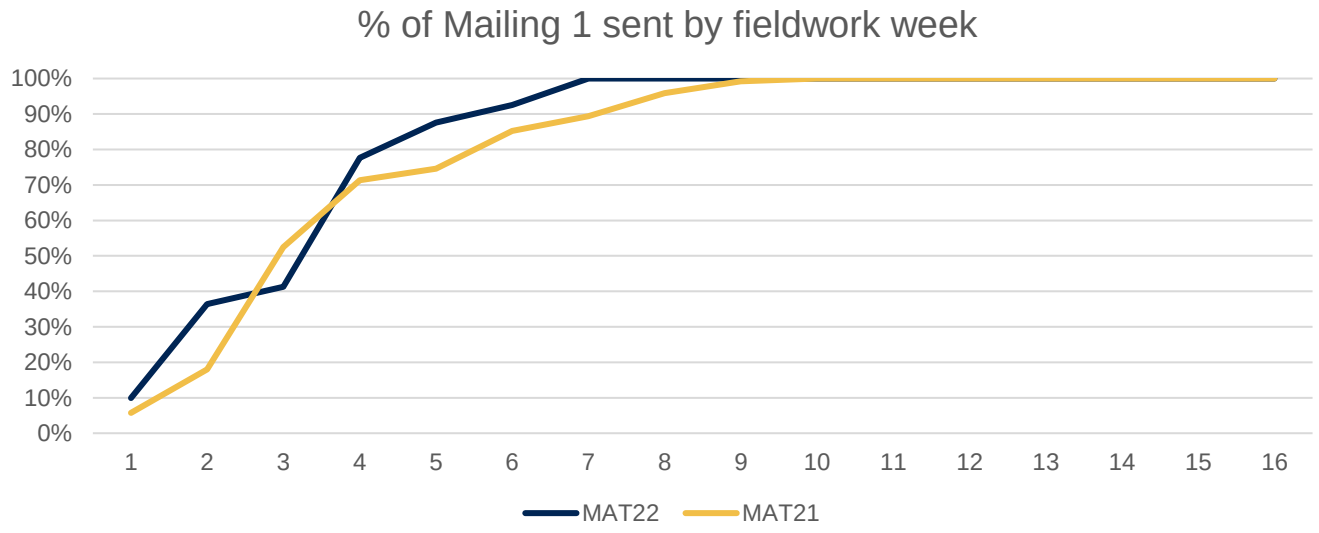
2.3 Shortening fieldwork

The fieldwork period for the 2023 Maternity Survey has been shortened from 16 to 13 weeks to reduce the time lag between the care episode and publication, which is recognised as a key priority for the programme. Four key areas were taken into consideration before making the decision. Each of these considerations is outlined in more detail below.

2.3.1 Impact on response rates

The main factor impacting response rate progress for this survey is how quickly contractors can obtain sample sign off and send out the first mailing. During the 2021 Maternity Survey, there were several trusts which were delayed in starting fieldwork. Figure 2 below illustrates that some trusts did not enter fieldwork until Week 9 in 2021, but this was much improved for 2022 Maternity Survey, with all trusts in field by Week 7.

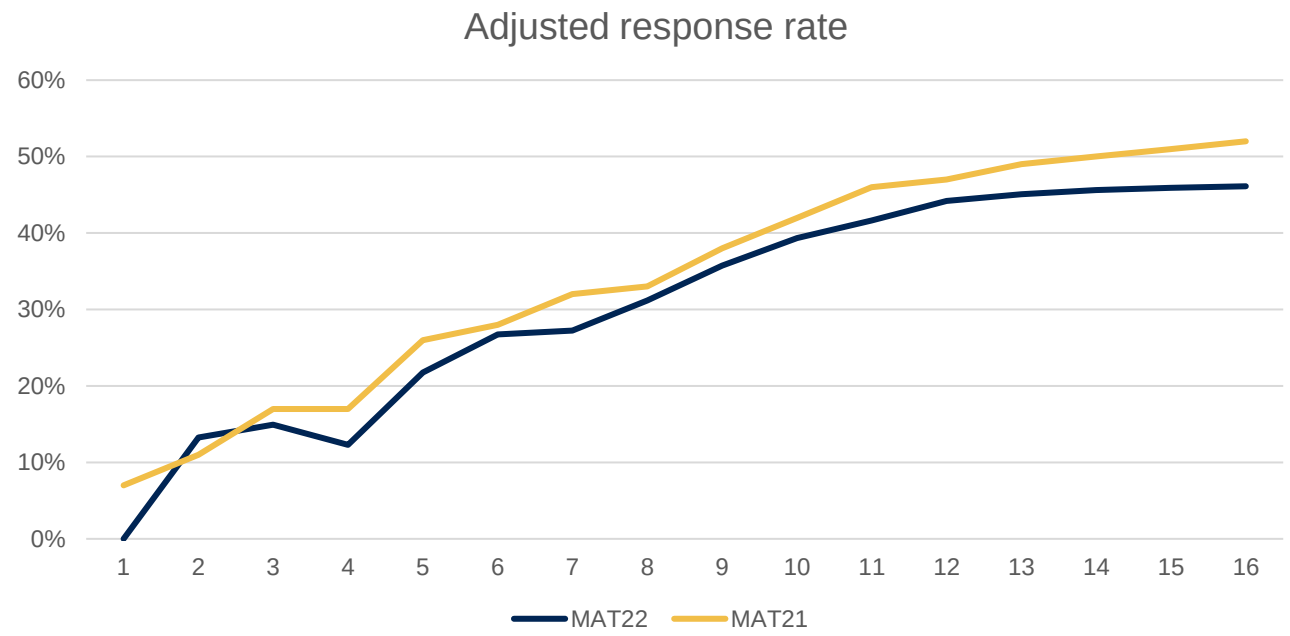
Figure 2: Chart showing percentage of trusts who had started fieldwork in each week.



Source: MAT22 fieldwork monitoring report.

As shown in Figure 3 the impact of trusts sending out their initial invite letter within the first 7 weeks of fieldwork was a plateau in response rate in the final 4 weeks of fieldwork. This shaped CCMM's thinking in terms of reducing the overall fieldwork length. However, delays in starting fieldwork could be a risk for future surveys, which will need to be mitigated and contingency plans put in place.

Figure 3: Chart showing a plateau in response rate[1] from week 13 onwards for MAT22, compared to an increase during this time for MAT21.



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Source: MAT22 fieldwork monitoring report.

[1] Adjusted response rate – response rate adjusted to take into account the ineligible sample, for example where a participant was excluded due to a DBS check (where a mother or baby were deceased after the first mailing)

2.3.2 Impact on the profile of respondents

The length of a fieldwork period can have an impact on the profile of those who respond. With this in mind, we have reviewed the demographic profile of respondents at the end of fieldwork (Week 12, 13 and 14).

Table 4 outlines where there are differences in respondent profile compared to the final sample if fieldwork were to be cut off at Week 12, 13 and 14. **The largest change in sample profile is– 0.4% (namely those aged 33+)**. Reduction to 12 weeks saw a much bigger change in profile of respondents, with seven groups affected by 0.2% or more, including some ethnic groups. In comparison, reduction to 13 weeks only saw two groups (age bands 27-32 and 33+) affected.

Given the very minor change in profile and the fact that low-responding groups are not impacted, CCMM did not consider this to be a barrier to reducing the length of fieldwork to 13 weeks.

Table 4: Change in profile of respondent depending on fieldwork length.

	Reducing to 12 weeks	Reducing to 13 weeks	Reducing to 14 weeks
Ethnic group			
White	+ 0.2%	+ 0.1%	0.0%
Mixed	0.0%	0.0%	0.0%
Asian or Asian British	- 0.2%	- 0.1%	0.0%
Black or Black British	- 0.1%	0.0%	0.0%
Arab or other ethnic group	0.0%	0.0%	0.0%
Not known	+ 0.1%	+ 0.1%	0.0%
Age band			
16-26	+ 0.1%	+ 0.1%	0.0%
27-32	+ 0.3%	+ 0.2%	+ 0.2%
33+	- 0.4%	- 0.2%	- 0.2%
Number of babies			
Single	+ 0.1%	+ 0.1%	+ 0.1%
Twins	0.0%	0.0%	0.0%
Triplets, quads, or more	0.0%	0.0%	0.0%
Parity			
Monoparous	- 0.1%	- 0.1%	0.0%
Multiparous	+ 0.1%	+ 0.1%	0.0%
Type of birth			
Vaginal birth	0.0%	0.0%	0.0%
Caesarean birth	0.0%	0.0%	0.0%

Table 4 (cont'd)	Reducing to 12 weeks	Reducing to 13 weeks	Reducing to 14 weeks
What is your religion?			
No religion	+ 0.2%	+ 0.1%	0.0%
Buddhist	0.0%	0.0%	0.0%
Christian (including Church of England, Catholic, Protestant, and other Christian denominations)	- 0.1%	- 0.1%	0.0%
Hindu	0.0%	0.0%	0.0%
Jewish	0.0%	0.0%	0.0%
Muslim	- 0.1%	- 0.1%	0.0%
Sikh	0.0%	0.0%	0.0%
Other	0.0%	0.0%	0.0%
I would prefer not to say	0.0%	0.0%	0.0%
Do you have any of the following physical or mental health conditions, disabilities or illnesses that have lasted or are expected to last 12 months or more?			
Autism or autism spectrum condition	0.0%	0.0%	0.0%
Breathing problem, such as asthma	- 0.1%	0.0%	0.0%
Blindness or partial sight	0.0%	0.0%	0.0%
Cancer in the last 5 years	0.0%	0.0%	0.0%
Dementia or Alzheimer's disease	0.0%	0.0%	0.0%
Deafness or hearing loss	0.0%	0.0%	0.0%
Diabetes	0.0%	0.0%	0.0%
Heart problem, such as angina	0.0%	0.0%	0.0%
Joint problem, such as arthritis	+ 0.1%	+ 0.1%	+ 0.1%
Kidney or liver disease	0.0%	0.0%	0.0%
Learning disability	0.0%	0.0%	0.0%
Mental health condition	0.0%	0.0%	0.0%
Neurological condition	0.0%	0.0%	0.0%
Stroke (which affects your day-to-day life)	0.0%	0.0%	0.0%
Another long-term condition	0.0%	0.0%	0.0%
None of the above	+ 0.1%	0.0%	+ 0.1%
I would prefer not to say	0.0%	0.0%	0.0%
Thinking about the condition(s) you selected, do any of these reduce your ability to carry out day-to-day activities?			
Yes, a lot	+ 0.1%	0.0%	0.0%
Yes, a little	- 0.2%	0.0%	0.0%
No, not at all	+ 0.2%	+ 0.1%	+ 0.1%
I would prefer not to say	0.0%	0.0%	0.0%
Sexuality			
Heterosexual / straight	0.0%	- 0.1%	- 0.1%
Gay / lesbian	0.0%	0.0%	0.0%
Bisexual	0.0%	0.0%	0.0%
Other	0.0%	0.0%	0.0%
Prefer not to say	0.0%	0.0%	0.0%

2.3.3 Impact on contractor processing time

Reducing the length of fieldwork gives contractors less time to process returns, particularly for paper returns which need to be scanned and cleaned. However, given most responses are received in weeks 1-11, reducing fieldwork to 13 weeks should not pose a problem. Ahead of making this decision for the Inpatient Survey and Maternity Survey, we consulted with contractors, and they were happy with this change.

We may need to allow more time for them to process once fieldwork is closed. However, if we reduce fieldwork by 3 weeks and give them an extra 3 days for processing it will still result in a time saving overall.

2.3.4 Impact on availability of attribution data

Some trusts have raised the issue of long waits for attribution data[2] to become available in their local systems. Reducing the length of fieldwork shortens the time that trusts have to collate the attribution data. However, for the 2022 Maternity Survey, trusts had to submit attribution data 8 weeks before the end of fieldwork, with the deadline extended by a further 4 weeks. Therefore, shortening the fieldwork by 3 weeks would not impact on the availability of attribution data to trusts, and would be able to still accommodate an extension for those who encounter issues.

2.3.5 Outcome

Taking the above evidence on the reduction in fieldwork weeks on response rates, profile of respondents, contractor processing time and availability of attribution data into consideration, CQC confirmed that they were happy with CCMM's proposal to reduce fieldwork to 13 weeks.

[2] Attribution data allows CCMM to identify maternity service users that received their antenatal and/or postnatal care from a specific trust. It is required if a trust is to receive results for the antenatal and postnatal sections of the survey.

3 Changes to sampling

The 2023 Maternity Survey sample design remains largely the same as the 2021 and 2022 Maternity Surveys. However, to address the aim of better understanding health inequalities within maternity services, this year the Maternity Survey is piloting a booster sample. It is not applicable to all trusts and is expected to direct future survey development. The sample declaration form, sample construction spreadsheet, survey handbook and sampling instructions have all been updated to reflect the above, as well as the removal of one variable and addition of one variable (as outlined below).

3.1 Introduction of the booster sample

The 2023 Maternity Survey includes a booster sample, targeting maternity service users from ethnic minority backgrounds. It only applies to trusts who can compile their core sample (minimum 300 births) from February 2023. These trusts are required to additionally sample all ethnic minority service users who gave birth in January and March 2023.

The booster sampling approach is being piloted as part of the 2023 Maternity Survey and recommendations on its future use will be documented in the final Quality and Methodology report. More detail on the development behind the booster sample can be found in Section 4.

3.2 Removal of coronavirus treatment variable

With all government restrictions related to the coronavirus pandemic lifted during the sample months of the 2023 Maternity Survey, CQC decided to remove all references to coronavirus from the survey. This included the removal of the coronavirus treatment variable, which aimed to capture potential scenarios in which people had a negative test (or were not tested) but were assumed to have coronavirus and treated as such during labour and birth. It was used in the multivariate analysis[3] in the 2021 and 2022 Maternity Surveys to compare subgroups.

3.3 Addition of the booster sample variable

For the 2023 Maternity Survey, a booster sample variable was introduced. It will play a key role in multiple ways. Most importantly, it will allow for an accurate application of a selection weight (see section 4.2) before any further analysis. It will also aid in the quality assurance of samples by differentiating the January births from the core sample of small trusts, from January births from the booster sample.

[3] Multivariate techniques refer to the statistical analysis when more than one variable is taken into account at a time. Common multivariate techniques include correlation analysis, analysis of variance, multiple regression analysis, cluster analysis, conjoint and choice based conjoint, and factor analysis.

4 Booster sample development

4.1 Background

With an increasing focus on understanding the different experiences faced by various demographic groups and the impact on health inequalities, there is appetite to consider boosting certain groups to facilitate additional analysis. In 2022, CQC engaged CCMM in initial conversations exploring the possibility of a booster sample for the 2023 Maternity Survey. Two other surveys from the programme (Children and Young People and Urgent and Emergency Care surveys) already incorporate various boosts in their sample design.

Prior research carried out as part of the National Patient Survey Programme has shown that certain demographic groups are less likely to respond, including young people, people from ethnic minority groups, and people from deprived areas.[4,5,6] These groups also often report more negative experiences of care, meaning that by underrepresenting these groups, results may underrepresent their experiences, leading to non-response bias.[7] As such they should be the key focus of any potential sub-group boosting.

While data taken from the most recent Maternity Survey (2022)[8] indicated a small, but noticeable increase in the proportion of respondents from every ethnic group, except from the White ethnic group (see Table 5 below), this change was minor, representing a redistribution of approximately three percentage points from the White ethnic group, across the other four ethnic groups. In addition, the results of the 2022 Maternity Survey did not identify poorer experiences for women from ethnic minorities, despite consistent reports of disparities in maternity care.[9]

Table 5: Respondent ethnic profiles for the 2013 to 2022 Maternity Survey

Ethnic group	Survey Year						
	2013	2015	2017	2018	2019	2021	2022
White	82.2%	82.1%	81.7%	83.2%	82.0%	79.1%	77.0%
Mixed	1.8%	1.7%	2.0%	2.4%	2.4%	2.8%	3.1%
Asian or Asian British	8.3%	8.6%	8.4%	7.9%	8.5%	11.1%	11.3%
Black or Black British	3.7%	3.4%	3.1%	3.0%	3.5%	3.8%	4.8%
Arab or other ethnic group	0.6%	0.7%	0.8%	0.7%	0.8%	1.3%	1.5%
Not Known	3.4%	3.5%	4.0%	2.8%	2.9%	2.0%	2.3%

Note: Percentages are rounded to the nearest 0.1%. Totals may add up to more than 100%.

The above evidence together with stakeholder feedback led CQC to identify two areas of key interest to explore: boosting numbers to allow for analysis at ICS level and boosting by ethnicity and/or deprivation to allow for more detailed analysis of disparities of care.

[4] nhssurveys.org/Filestore/documents/Increasing_response_rates_literature_review.pdf
[5] nhssurveys.org/Filestore/documents/Review_BMEcoverage_HCC_surveys.pdf
[6] nhssurveys.org/Filestore/documents/Increasing_response_rates_stakeholder_consultation_v6.pdf
[7] www.england.nhs.uk/ltphimenu/definitions-for-health-inequalities/
[8] See the 2022 Maternity Survey Quality and Methodology Report https://nhssurveys.org/surveys/survey/04-maternity/year/2022/.
[9] See the 2023 Maternity Survey Scoping Report

4.2 Initial exploration

CCMM initially explored boosting the sample based on the two characteristics of ethnicity and deprivation described above and concluded that sample data is accurate enough for boosting for both. CCMM devised two methods of boosting the sample:

Option 1

Extend the sampling window for boost populations only: This would involve maintaining the current sampling approach for the main population, and then asking trusts to include all births in the target boost populations in the extended window. For example, including all eligible births in February, and all eligible births of mothers from ethnic minority backgrounds in January and/or March.

Option 2

Extend the sampling window for all births and use a random probability sampling approach: This would involve taking all eligible births across an extended window, and then using a random sampling approach that disproportionately selected those from target boost populations. For example, taking all births in January and February and then selecting all births from mothers in the most deprived quintile, but every other mother from the other deprivation quintiles.

Each method of boosting would result in different levels of responses for these groups. Table 6 models the impact on the respondent profile. For Option 1, it assumes including all eligible births in one month and all eligible births in an additional month from non-white ethnic groups and the most deprived quintile. For Option 2, it assumes selecting half of births from across two months but selecting 1.5 times the proportion of mothers from the most deprived quintile and ethnic minority groups. In consultation with CQC, CCMM considered the implications of both options, outlined in Table 7.

Table 6: Modelling the impact of suggested boost samples on ethnicity and deprivation

	Original sample (2021 data)		Un-boosted (2021 data)		Modelled if Option 1 boost implemented		Modelled if Option 2 boost implemented	
	Count	*%*	*Count*	*%*	*Count*	*%*	*Count*	*%*
White / Not stated ethnic group	36,343	80.0%	19,316	82.3%	22,468	73.0%	16,138	72.1%
Non-white, stated ethnic groups	9,102	20.0%	4,163	17.7%	8,326	27.0%	6,245	27.9%
Most deprived quintile	10,846	23.9%	4,359	18.6%	8,718	28.3%	6,539	29.2%
All but most deprived quintile	34,489	76.1%	19,120	81.4%	22,075	71.7%	15,844	70.8%

Table 7: Implications of option 1 and option 2 on various parts of the project

Implications	Option 1	Option 2
For trusts	More straightforward, can be done relatively simply, relatively easy to quality assure.	Would make sampling process more complicated, but a similar approach already used for CYP and UEC so wouldn't be completely new.
Costs	Increase in costs due to additional postage, printing, scanning.	Potential increase in costs depending on the selection approach used.
Analysis	Doesn't break trends when boost sample used for sub-group analysis only. Introduction of potential timing effects due to differences in boosted sample giving birth in a different month, although feedback suggests this doesn't occur in the months proposed[10] as seasonal peaks are later in the year.	Likely to break trends.
Other	Presentational questions about targeting, as only specific groups would be invited to take part from certain months.	Move away from the census approach, increasing the number of statistical assumptions that must be made to ensure sample is representative of the population.

Lastly, when conducting analysis with the boost sample, CCMM pointed out that it would be important to review the weighting scheme, by adding a selection weight to avoid over-representing boosted groups. This weight adjusts the sample to remove any differences between the sample profile and the population profile that have been introduced by the booster.

Taking the above into consideration, CCMM recommended implementing a boost using Option 1 (extending the sampling window) for service users from ethnic minority groups. This decision

[10] ONS, 2015. "How popular is your birthday?", Online [Available here: https://www.ons.gov.uk/peoplepopulationandcommunity/birthsdeathsandmarriages/livebirths/articles/howpopularisyourbirthday/2015-12-18]

reflects the objective of increasing numbers of service users responding from minority ethnic backgrounds to help explore disparities in maternity care experiences.

4.3 Additional considerations and recommendation

4.3.1 Deciding on month for the booster

Before deciding on the parameters of the booster sample, it was important to consider the implications of selecting specific months. January was an obvious choice for one of the booster months, as it is already widely used by trusts who cannot compile a core sample of 300 births from February. This means that comparability would not be an issue.

However, CQC indicated that they would like to explore boosting over two months. CCMM indicated that two things would need to be considered: comparability (potential problems with sub-group analysis) and profile of those who give birth. The considerations focused on the differences between choosing December and March for the second booster month. Table 8 below outlines the profiles of birth across December 2021 – March 2022.

Table 8: Numbers of births across England per month

Month	Number of days	Number of births	Birth per day	Spontaneous vaginal	Instrumental assistance	Elective caesarean	Emergency caesarean
Dec-21	31	44,710	1,442	51%	11%	16%	19%
Jan-22	31	42,975	1,386	52%	11%	15%	19%
Feb-22	28	40,675	1,453	53%	11%	15%	19%
Mar-22	31	45,445	1,466	52%	11%	16%	20%

CCMM identified the following potential problems with using December as the second booster month:

- It would go back beyond 2023.
- Christmas closure or staff absence over Christmas / New Year period could impact on experience.
- Level of recall – if surveys were sent in May or June, we'd be asking service users to think back up to 6 months from the birth, and a year since antenatal care began. If length of time does impact on positive or negative recall, it will only impact on the responses from the ethnic minority groups. There is evidence in 2022 Maternity Survey data that respondents from January are slightly more likely to be positive on measures such as respect and dignity, being listened to, or confidence and trust.

- Posters need to be up on the wards during sampling months, as the development of the booster approach was taking place in the late Autumn of 2022, trusts would not have enough time to print and distribute these ahead of December.

Whilst most of the above problems would be mitigated by choosing March as the second booster month, the drawback was that fieldwork would have to start a month later than in previous years. Shortening the fieldwork to 13 weeks would lessen this impact, but the overall timetable for the project would be pushed back by at least a week.

4.3.2 What would the booster offer at each level of analysis

Using 2022 Maternity Survey data, CCMM calculated the implications of the boost for analysis at various levels[11]. These implications vary by level and granularity of ethnicity reported, for example whether it is a specific ethnic group such as Black Caribbean or a combined ethnic group such as Black/Black British. Implications at each level of analysis are explained below.

Implications at trust level

Whilst reporting differences at Trust level is not within scope of CCMM work, trusts would be able to look at the data themselves. However, most trusts will still be unable to conduct analysis for specific ethnic groups, as base sizes are too small. With the boost method (based on this modelling) 44 trusts would be able to analyse the experiences of at least one additional specific ethnic group (e.g., Indian) and 43 trusts would be able to analyse the experiences of at least one additional combined ethnic group (e.g. Asian/Asian British).

In 2022, 52 of the 121 trusts had to sample back into January in order to achieve the minimum sample of 300 births. This means, that if the suggested booster approach was used for the 2022 Maternity Survey, 43% of the trusts would not be able to take part.

Implications at region and ICS level

The most significant impact of the boost is the potential ability to look at individual ethnic groups at regional level. Currently, only one region (London) is able to look at all individual groups. All other regions will potentially improve from a boosting approach using this modelling.

For example, the South East and East Regions will potentially be able to analyse all groups, North West, North East and Yorkshire all groups except White Irish, Mixed White and Black African and Black Caribbean, and South West, as well as Bangladeshi and Chinese. The remaining 11 individual ethnic groups will potentially be able to be analysed in every region. That is more than twice the number of individual groups that can be analysed in every region (5), using the 2022 Maternity Survey data.

Like trusts-level, ICS-level analysis using the proposed booster option would still have too few cases for ethnicity analysis in most cases. However, using this modelling, 28 ICSs would have at least one additional individual ethnic group available for analysis, and 24 would have at least one extra combined ethnic group available.

[11] The estimates were based on 2022 Maternity Survey data, and on sampling the booster in January. They were based on January and February births matching exactly, which is unlikely to be the case.

Implications for subgroup analysis

The proposed booster will allow for more confidence in analysis, giving us better power to detect differences by ethnicity, which is a key priority for the 2023 Maternity Survey. It would also potentially allow us to analyse by specific ethnic groups (e.g. Black Caribbean) rather than combined ethnic groups (e.g. Black/Black British), giving us more understanding how experiences vary between specific groups.

4.3.3 Accuracy of NHS ethnicity records

CQC raised a concern with the potential gaps in recording ethnicity in health records, after reading an article that highlighted it as an issue.[12] However, investigation of the 2022 Maternity Survey sample data shows that only 6.6% of individuals were assigned a “Not known” ethnicity.

Additionally, the match between the sample data and self-reported ethnicity is very close, especially when looking at the overarching ethnic groups. Comparing sample and questionnaire data (where both were available) for ethnicity showed that 96.4% of responses were correctly identified as either White or from a non-White ethnic background. While this dropped when identifying specific ethnic groups (e.g. Pakistani, African, Asian, and White mixed) these are still accurate enough to use for boosting, as the vast majority of those boosted would be within the target group. In conclusion, sample data is accurate enough for boosting for ethnicity.

In the 2022 Maternity Survey, only nine out of 121 trusts had more than 10% missing / not stated ethnicity data in their sample. CCMM suggested that targeted communications from CQC to these trusts could help ahead of the 2023 sampling period. Overall, CCMM did not perceive NHS ethnicity records as a problem that could impede the booster sample.

4.4 Agreed approach

The booster sample was agreed in late November 2022. Due to timelines, months selected for the booster were January and March. Only trusts who can compile their core sample (minimum 300 births) from February will take part in the booster. Smaller trusts, who already have to sample back to January for the core sample have small populations and it was felt that boosting in these trusts would not be practical.

It was agreed that all ethnicities apart from codes A, B, C and Z would be boosted.

White

A = British

B = Irish

C = Any other White background

Mixed

D = White and Black Caribbean

E = White and Black African

[12] https://blog-ons-gov-uk.cdn.ampproject.org/c/s/blog.ons.gov.uk/2023/01/16/how-ethnicity-recording-differs-across-health-data-sources-and-the-impact-on-analysis/amp/

F = White and Asian

G = Any other mixed background

Asian or Asian British

H = Indian

J = Pakistani

K = Bangladeshi

L = Any other Asian background

Black or Black British

M = Caribbean

N = African

P = Any other Black background

Other Ethnic Groups

R = Chinese

S = Any other ethnic group

Z = Not stated

The booster data will be included in national (England-level) analysis, by using a relatively simple weighting scheme. Where a boost is used, it is important to use a “selection weight”, to account for the fact that those from the booster sample had a higher chance of being selected for the sample. When this weight is applied, the proportion in the sample from minority ethnic backgrounds are weighted down to their correct population proportions. All results calculated by the CCMM will include a selection weight, to ensure it is comparable with previous years and accurately represents births occurring. Effectively, the weight will make the data look like we only sampled in February (to ensure it is comparable), while giving us a larger base of those from ethnic minorities to support more detailed analysis.

5 Changes to the questionnaire

5.1 Questionnaire development

Ahead of the 2023 Maternity Survey the questionnaire was reviewed with the aims of:

1. Maintaining (or if possible, reducing) the length to both reduce the burden on participants and to meet best-practice guidelines for online surveys.
2. Ensuring the content of the questionnaire reflected the way in which maternity services were being delivered (in line with current policy and practice).
3. Better understanding health inequalities within maternity services.

The questionnaire development process involved five stages, as set out in the chart below (Figure 4) and is discussed in more detail in the following section.

Figure 4: The questionnaire development process

5.2 Reviewing the 2022 Maternity Survey questionnaire

Early stages of the development of the questionnaire for the 2023 Maternity Survey involved analysing data for specific questions from the 2022 Maternity Survey. These analyses looked for ceiling and floor effects[13] as well as correlations[14] between items, all of which were reviewed to understand question performance.

[13] Ceiling and floor effects occur when a high proportion of participants have maximum scores on an observed variable (ceiling effect) or minimum scores (floor effect).

[14] Correlation is a statistical term describing the degree to which two variables move with coordination with one another.

There were no unexpected ceiling/floor effects compared to last year, and most correlations were between questions which were related, but asked about different things, for example:

> **D4. Thinking about the care you received in hospital after the birth of your baby, were you given the information or explanations you needed?**
>
> **D5. Thinking about the care you received in hospital after the birth of your baby, were you treated with kindness and understanding?**

No changes were made on the basis of the above analysis.

5.3 Methods of engagement

During the questionnaire development process, maternity care stakeholders, NHS England, and maternity service users were invited to provide their opinions. All revisions to the questionnaire were then cognitively tested with maternity service users who had recently given birth to ensure comprehension and relevance. We describe each of these stages in the sub-sections that follow.

5.3.1 Scoping interviews conducted by CCMM

Between 10 and 21 October 2022, CCMM carried out scoping interviews with 20 maternity service users who gave birth in the last six months. This exercise was crucial to gain understanding of what the current experiences of the services are, and specifically the experience of people from ethnic minority groups.

The services users involved in the scoping exercise had all given birth within the last six months, were from different ethnic backgrounds and a spread of ages, geographical locations, and socio-economic groups. Table 9 overleaf shows the distribution of characteristics.

From this exercise, CCMM noted some post-pandemic changes to the maternity journey that could feed into the later stages of questionnaire development. Namely, most service users were accessing care via a self-referral online, rather than via primary care, and some still noted that their partner could not be present at all times that they wanted to be. Areas of maternity care highlighted as needing improvement by the service users were:

- Continuity of carer.
- Postnatal support, including availability of staff and food, and support with breastfeeding.
- Process of being admitted to hospital, especially being listened to when in early stages of labour.

Table 9: Characteristics of the services users interviewed during the scoping stage

Demographic		Number of interviews
Age of mother	25 years or under	2
	26-30 years old	8
	31-35 years old	7
	36 years or over	3
Birth type	By caesarean section	6
	Induced labour	8
	Previously given birth	6
	Not previously given birth	14
Social grade	ABC1	12
	C2DE	8
Mother's ethnicity	Black African	2
	Black Caribbean	3
	Indian	3
	Pakistani	2
	White and Black Caribbean	5
	White British	5

In addition, CCMM consulted a wide range of stakeholders during the development phase. These interviews helped CCMM to understand how the survey data is being used, and what the organisations perceived as priority areas for the 2023 Maternity Survey. CCMM carried out eleven interviews with various Stakeholders, including six interviews with representatives of five trusts, and non-government organisations such as the National Perinatal Epidemiology Unit (NPEU) and charities and campaign groups such as Birthrights, FiveXMore and National Maternity Voices.

Stakeholders agreed that the coronavirus-related questions could be removed for this iteration of the survey. They also highlighted several areas of potential improvement to the questionnaire, including, but not limited to:

- Complaints
- Issues of safety, which are not extensively covered within the questionnaire.
- Continuity of carer questions should be amended to better reflect the model of care.

5.3.2 Scoping interviews conducted by the CQC Research Team

The CQC Research Team also interviewed a number internal and external colleagues working on regulating, monitoring, and improving maternity care. From the CQC, they interviewed: the

National Professional Advisor, Director and Deputy Director of Regulatory Leadership for Secondary and Specialist Healthcare; Regulatory Lead for Integration, Inequalities and Improvement; Maternity Inspection Team Managers; Maternity Policy Lead; Operational Insights Analysts; and Maternity Engagement Teams. The Research Team consulted the Ethnic Minority Service User Group at various stages, both in multiple group discussions and via self-completed questionnaires which identified areas of care most likely to show disparities, as well as suggestions for how to reach and promote the survey to maternity service users. CQC also shared the Maternity 2022 questionnaire with multiple stakeholders, including CQC colleagues, NHSE and Trust midwives to identify priority questions to retain in 2023.

The above consultations resulted in the following proposals to take forward in the 2023 Maternity Survey questionnaire design.

Proposals for new questions

Stakeholders identified the following priority areas informed by the concerns raised in the Ockenden and East Kent inquiries as well as other work that identified inequalities in maternity care.

- Access to translators, translated materials, accessibility. A new question was proposed on how well communication needs were met during pregnancy care.
- Kindness and Compassion. Whether mother was treated with ‘kindness and understanding’ in hospital after birth was included in the 2022 Maternity Survey. A new question was proposed on whether the services user was treated with ‘kindness and compassion’, to be added to both antenatal and postnatal sections of the questionnaire.
- Concerns Being Taken Seriously. Whether concerns were taken seriously during labour and birth was already asked in the 2022 Maternity Survey. A new question was proposed about whether concerns were taken seriously during antenatal and postnatal care.
- Pain relief requests. New questions were suggested on how health care professionals handled requests for pain relief.
- Partner involvement. Whether partner was involved as much as they wanted during labour and birth was asked in the 2022 Maternity Survey. A new question was proposed on whether the partner was involved as much as they wanted during antenatal care.
- Individual needs being met. Due to cultural or religious beliefs, mothers may need specialised care. A new question was proposed on how well these needs were accommodated.
- Triage. New questions were proposed to measure concerns about whether risks were assessed at triage and how long mothers had to wait to be admitted to hospital.
- Making complaints. New questions were proposed, asking mothers if they were aware of how to make a complaint about their maternity care.

- Pregnancy Related Health Conditions. A new question was proposed on whether the mother had any pregnancy-related health conditions affecting current pregnancy care.

Proposals for question removal

The following questions were flagged by stakeholders as either not relevant, not useful, or low priority.

- Questions related to Coronavirus – restrictions are less relevant now.
    - B5. At the start of your care in pregnancy, did you feel that you were given enough information about coronavirus restrictions and any implications for your maternity care?
    - C13. During labour and birth, were there any coronavirus restrictions in place that affected how involved your partner, or someone else close to you, could be?
- Induction – stakeholders suggested to remove the question below and prioritise a question on whether the mother was given enough information during induction.
    - C6. Were you involved in the decision to be induced?
- Pain Relief – it was suggested to replace existing questions on pain relief with new questions on how well pain relief requests were accommodated.
    - C8. During your labour, what type of pain relief did you use?
    - C9. Did the pain relief you used change from what you had originally wanted (before you went into labour)?
    - C10. Why did you not use the pain relief that you had originally wanted (before you went into labour)?
- Mother's birthing position.
    - C11. What position were you in when your baby was born?
- Cleanliness of ward.
    - D8. Thinking about your stay in hospital, how clean was the hospital room or ward you were in?
- Reasons for discharge delay.
    - D3. What was the main reason for the delay (to be discharged)?

Proposals to test questions

Some areas of care were mentioned as high priority during the scoping interviews, but existing questions may already capture maternity service users' experiences. Hence, the cognitive interviews phase (outlined in section 5.3.4) tested comprehension of the wording of these questions to ensure they were easily understood. The suggestions included testing wording around questions that touch on the following subjects:

- Maternity care teams working together. In interviews with mothers conducted by CCMM, it was found that information is not being shared and service users had to inform midwives about their medical history. 2022 Maternity Survey questions measure whether staff were aware of service users' medical history at different stages of maternity care. CQC suggested to test how 'medical history' is understood by mothers to see whether it captures elements relevant to current pregnancy care, such as pre-existing conditions, prior pregnancies, or discussions with other midwives about care choices and decisions.

- Are providers listening to mothers? Testing of existing questions on whether the provider 'listened' to the mother to see whether they captured the quality of listening.

- Weeks pregnant at first contact with health professional. New response options were proposed that measure key milestones in antenatal care. For example, service users are advised to see a health professional by 10 weeks to check for sickle cell and thalassemia which are more likely to affect those from ethnic minority backgrounds.

- Mental Health. Mothers' understanding of 'mental health' may vary. Some may think it suggests a diagnosis and, therefore, does not represent the range of difficulties a mother may face. Others may be unfamiliar with the term. Thus, CQC proposed testing mothers' understanding of the term 'mental health' to see how it is interpreted.

- Feeling judged about feeding choices. Stakeholders were concerned that questions on feeding the baby could make mothers feel judged about their choices. Hence, these questions were tested to see how mothers interpreted the intent of the questions.

Reasons for retention of existing question wording

There were suggestions we could not act upon for a variety of reasons. We explained to stakeholders the factors that informed our decisions, some of which included:

- How the question is used. Many of the 2022 Maternity Survey questions are used by the CQC, NHSE and trusts to monitor trends and drive improvements. Hence, any changes to these questions were considered very carefully and some were retained, as they provide useful trend data showing significant changes over time.

- Repetition of questions at different stages of care. There are questions covering similar content across each phase of the maternity care journey. For example, the Maternity Survey asks questions whether mother had 'confidence and trust' in the staff, at each stage of care: antenatal, labour and birth, and postnatal. The difficulty with collapsing this

question into one concerning overall care, is that Trusts do not always provide antenatal or postnatal care. Therefore, the results could not be used by Trusts unless they provided care at all three stages.

- References to ‘GP’, ‘doctor’, and ‘health visitor’. Whist the work of GPs and health visitors are not under the control of trusts, these questions are useful for understanding how well Integrated Care Systems are working and overall experiences of the broader maternity pathway.

- Measuring continuity of carer (named midwife). Trusts were recently advised that there would be no requirement to provide continuity of care with a named midwife, but, instead, to provide continuity through a midwifery team. The Maternity Survey data consistently shows that mothers who do not have a named midwife report worse experiences of care across a wide range of areas.

Areas to consider in the future

For the future iterations of the survey, stakeholders proposed to explore the issue of access to care, including: access to information, knowledge of when and how to access care, constraints on choice, and access to in-person appointments. It was suggested that there may be variation by culture, familiarity with the English healthcare system, socioeconomic status, migrant status, and other factors.

5.3.3 Advisory group

On 30 November 2022, CCMM hosted and chaired an advisory group workshop to gather feedback from key maternity service stakeholders. Key stakeholders represented bodies such as CQC and NHSE, charities and campaign groups such as Birthrights and Ethnic Minorities Service User Steering Group, academics such as NPEU, and regional organisations such as Birmingham Women’s and Children’s Trust and NHS Cornwall and the Isles of Scilly ICB, alongside recent users of maternity services. Stakeholders shared their knowledge and expertise to advise on the development of the questionnaire for the 2023 Maternity Survey. Discussions were centred around three topic areas namely safety, disparities of care and demographic questions.

Exploring ‘safety’

Initially discussions centred around whether maternity service users feel that they and their baby are receiving a level of care that makes them feel ‘safe’ and whether maternity care is responsive to needs/risk associated at all stages of the maternity journey.

Safety was further explored in the context of continuity of care (such as liaison between providers or having the same midwife/ team), availability of pain relief, being listened to and raising concerns as well as triage and latent phase care.

Reflecting on the issue of not feeling listened to, multiple stakeholders, including a maternity service user, highlighted that the survey was missing questions relating to birth planning. One proposal was to ask whether a midwife or doctor discussed, with the maternity service user, the

risks and benefits of their options for how and where to birth their baby (mode of birth), including an induced labour.

Several advisory group members welcomed the idea of adding a question about triage services and/or latent phase care, as this was an area many units want to improve on. This also reflects several issues raised by maternity service users in the scoping phase interviews.

Exploring 'disparities of care'

Topics discussed included: language barriers and cultural sensitivity. Some stakeholders queried the need for an explicit question about whether an individual could speak English.

The group also discussed cultural sensitivity issues that relate to safety concerns i.e., a maternity service user being fearful that requests to only be seen by a female member of staff not being understood and/ or accommodated.

Exploring demographic questions

There was recognition of the sensitivity of certain demographic questions which could be quite difficult to answer, or people might be reluctant to answer i.e., refugee/ migrant status, number of previous pregnancies, or long-term health conditions.

One proposal was to add additional information to reassure maternity service users that the survey is anonymous and why it is useful to share this information. This can be dealt with by including a 'Prefer not to say' response. Discussions also focused on the addition of pregnancy-related health conditions.

Following the advisory group workshop, CCMM and CQC revised the questionnaire incorporating feedback received during the session. NHSE was consulted as the questionnaire underwent cognitive testing. The first version of the questionnaire was shared before cognitive testing, results of cognitive testing were discussed, and the final version was approved.

5.3.4 Cognitive interviews with mothers

Following feedback from stakeholders, CQC and CCMM revised the questionnaire. All revisions were then cognitively tested with recent service users. The cognitive interviews were conducted through an online platform. A "think aloud" technique was used whereby the participant talked through their thought processes as they navigated through the paper questionnaire (shared on screen) and completed the survey. The interviewer asked participants about specific aspects of the question to understand how they chose their answer to ensure that questions were understood as intended. Participants' feedback was then used to clarify question meaning where necessary and improve the survey as a whole.

Testing was conducted between 19 January and 15 February 2023. The approach involved three rounds of cognitive interviewing with maternity service users so that changes introduced after the first round could be made and tested. In total 18 interviews were completed, with six interviews in each round. Service users were recruited using a detailed screening questionnaire, to identify those who had given birth within six months of the cognitive interview. Quotas were

also set on demographic characteristics to ensure service users from a range of different backgrounds and birthing experiences were interviewed. These included:

- Parity
- Type of birth (caesarean section and / or induction)
- Social class
- Ethnicity
- Religion
- Educational attainment
- Pregnancy-related health condition.

Following the completion of each round of interviews, an analysis session was held internally at CCMM, as well externally with CQC. Due to the new aim of improving the understanding of health inequalities within maternity services, as well as the large number of stakeholders involved in the reviewing of the questionnaire, the process across three rounds of cognitive testing was not linear. A large amount of testing was also requested by various stakeholders to check the understanding of established questions. Table 10 below summarises the extent of testing in each round.

Table 10: Questions tested in each round of cognitive testing

	Round 1	Round 2	Round 3
Existing questions being tested to check understanding / New questions being tested again	17	24	15
New questions added per round	18	7	2

Table 10 illustrates the number of new questions added at each round of cognitive testing. A further change was made post-cognitive testing to G4 (new answer code “Physical mobility”), on the recommendation of CQC.

5.4 Changes to the questionnaire

Following the survey development stages, described above, changes were made to the final questionnaire for the 2023 Maternity Survey. Seven questions were removed, seven new questions were added, and fourteen existing questions were amended (either wording or formatting). The changes are detailed in the rest of this section.

5.4.1 Deletions

Question **B5** from the 2022 questionnaire was deleted, as it focused on care during the coronavirus pandemic therefore no longer relevant.

> **B5. At the start of your care in pregnancy, did you feel that you were given enough information about coronavirus restrictions and any implications for your maternity care?**
>
> 1. Yes, definitely
> 2. Yes, to some extent
> 3. No
> 4. Don't know / can't remember

Question **C8** from the 2022 questionnaire was deleted as it was deemed not essential to the questionnaire.

> **C8. During your labour, what type of pain relief did you use?**
>
> 1. Natural methods (e.g. hypnosis, breathing, massage)
> 2. Water / birthing pool
> 3. TENS machine (with pads on your back)
> 4. Gas and air (breathing through a mouthpiece or mask)
> 5. Injection of pethidine or a similar painkiller
> 6. Epidural (injection in your back, given by an anaesthetist)
> 7. Other
> 8. I did not use pain relief

Question **C9** from the 2022 questionnaire was deleted due to the confusing question structure. Proposed to replace with a more direct question.

> **C9. Did the pain relief you used change from what you had originally wanted (before you went into labour)?**
>
> 1. Yes
> 2. No
> 3. Don't know / can't remember

Question **C10** from the 2022 questionnaire was deleted (replaced with a more direct question, **D7** detailed in section 4.5.2).

> **C10. Why did you not use the pain relief that you had originally wanted (before you went into labour)?**
>
> 1. For medical reasons
> 2. I changed my mind
> 3. I did not need to use the pain relief I originally wanted
> 4. There was not time to use the pain relief I originally wanted

5. The original pain relief did not work
6. An anaesthetist was not available to provide my chosen pain relief
7. I am not sure why I could not have my choice of pain relief
8. Other

Question **C11** from the 2022 questionnaire was deleted. While the data from this question has previously been used in analysis, CQC confirmed that the data was not required going forwards.

C11. What position were you in when your baby was born?

1. Sitting / sitting supported by pillows
2. On my side
3. Standing, squatting or kneeling
4. Lying flat / lying supported by pillows
5. Lying with legs in stirrups
6. Other

Question **C13** from the 2022 questionnaire was deleted as it focused on care during the coronavirus pandemic, therefore it was no longer relevant.

C13. During labour and birth, were there any coronavirus restriction in place that affected how involved your partner, or someone else close to you, could be?

1. Yes
2. No
3. Don’t know / can’t remember

Question **D3** from the 2022 questionnaire was deleted as the list was not comprehensive but could not be extended. This was also not flagged as a priority in the development work.

D3. What was the main reason for the delay?

1. I had to wait for **medicines**
2. I had to wait to **see the midwife**
3. I had to wait to **see the doctor**
4. I had to wait for **test results**
5. I had to wait for **a check to be done on my baby**
6. Something else
7. I was **not told the reason**
8. Can’t remember

5.4.2 Additions

In total, seven new questions were included in the questionnaire for the 2023 Maternity Survey. These are outlined below:

Question **B18** was added, as it helps to identify disparities of care, which was a key consideration for this year's questionnaire development. This question aligns with the labour (**C13**, 2023 numbering) equivalent and is an indicator of how well continuity of care has been delivered.

B18. If you raised a concern during your antenatal care, did you feel that it was taken seriously?

1. Yes
2. No
3. I did not raise any concerns

Question **C8** was added to replace the 2022 question C9 (detailed in section 4.5.1). Pain relief was highlighted as a potential area of disparity in maternity care during the scoping stage and by the advisory group. Participants in the cognitive testing welcomed the inclusion of this question.

C8. Do you think your healthcare professionals did everything they could to help manage your pain <u>during labour and birth</u>?

1. Yes, definitely
2. Yes, to some extent
3. No
4. I did not need any help with pain relief
5. Don't know / can't remember

Question **C21** was added, as stakeholders advocated for a measure on kindness and compassion. Cognitive testing revealed that this was regarded as distinct from "respect and dignity" (B17, C17), but seen more as a "nice-to-have", with respect and dignity more important. Therefore, the decision was made to only include this question in the labour and birth section, where it was deemed most important.

C21. Thinking about your care <u>during labour and birth</u>, were you treated with kindness and compassion?

1. Yes, always
2. Yes, sometimes
3. No
4. Don't know / can't remember

Question **D7** was added to capture the experience of pain management after birth. This question has been moved to the end of the section of scored questions in case it impacts on trends. 'In hospital after the birth' has been underlined to highlight the stage this question is asking about.

D7. Do you think your healthcare professionals did everything they could to help you manage your pain <u>in hospital after the birth</u>?

1. Yes, definitely
2. Yes, to some extent
3. No
4. I did not need any help with pain relief
5. Don't know / can't remember

Question **F21** was added, as evidence suggests that those from ethnic minority backgrounds are more likely to consider making a complaint. From scoping interviews, it transpired the proportion of service users considering making a complaint is much higher than those formally filing a complaint. Therefore, a decision was made to measure intention, as it is a better indicator of the care experience. This data will be used for analysis.

F21. At any point during your maternity care journey, did you consider making a complaint about the care you received?

1. Yes
2. No
3. Don't know / can't remember

Question **G6** was added, as it was identified at the scoping stage as a key area for analysis in terms of identifying disparities of care. It was also a question highlighted in the development stage of the 2022 Maternity Survey as one to re-visit in the future.

G6. Did you have any of the following pregnancy-related health conditions during pregnancy?

1. Deep vein thrombosis
2. Gestational diabetes
3. Group B Strep
4. High blood pressure (hypertension)
5. Hyperemesis gravidarum (severe nausea and vomiting during pregnancy)
6. Intrahepatic cholestasis of pregnancy (ICP), also known as obstetric cholestasis (OC)
7. Pre-eclampsia
8. Pelvic health problems (such as, leakage of wee or poo, or vaginal changes such as heaviness)
9. Vitamin or iron deficiency
10. Another pregnancy-related health condition
11. None of the above
12. I would prefer not to say

Question **G10** was added, as it was identified at the scoping stages as a key area for analysis in terms of identifying disparities of care.

G10. Is English your main language?

1. Yes
2. No
3. I would prefer not to say

5.4.3 Amendments

Feedback from the scoping stage and cognitive interviews highlighted the requirement for a small number of amendments to the questionnaire. This included amending question wording to improve the consistency of language and terminology, adding additional question response options and removing any coronavirus-related instructions. All amendments are detailed below, alongside the rationale for any changes.

Introduction:

The second sentence of the first paragraph now reads **"*Your views are very important in helping us to understand what went well with your maternity care and how it could be improved in the future*"**. This change was to make it clearer that the aim of the survey is for the responses to contribute to positive change in the future. This change also corresponds to alterations to the invitation letter, see section 2.2.

Section B: Care while you were pregnant (antenatal care):

Question **B1** health professional is now underlined. This is to aid understanding and improve quality of data. Feedback from the cognitive interviews indicated that, post-pandemic, some service users only speak to a GP receptionist before self-referring to the hospital. Underlining "health professional" helped to focus the service users recall and reduced confusion.

B1. Who was the <u>first health professional</u> you saw or spoke to when you thought you were pregnant?

1. GP / family doctor
2. Midwife
3. Other

Question **B2** response options have been amended to reflect NHSE requirements for an individual to see a health professional in the first 10 weeks. This is due to the requirement of several pregnancy-related tests to be done before 10 weeks, such as sickle cell or thalassaemia.

B2. Roughly how many weeks pregnant were you when you <u>first</u> saw or spoke to this health professional about your pregnancy care?

1. When I was 0 to 6 weeks pregnant
2. When I was 7 to 10 weeks pregnant
3. When I was 11 to 14 weeks pregnant
4. When I was 15 or more weeks pregnant
5. Don't know / can't remember

Questions **B3** has had code 6 '*No – I had limited choices due to coronavirus'* removed, as it focused on care during the coronavirus pandemic, therefore no longer relevant.

B3. Were you offered a choice about where to have your baby?

1. Yes – a choice of hospitals
2. Yes – at home
3. Yes – other
4. No – I was not offered any choices
5. No – I had no choices due to medical reasons
6. Don't know / can't remember

The **Antenatal check-up introductory text** has been amended to remove reference to coronavirus in the third sentence "*due to coronavirus restrictions*". The introductory text now reads:

"A 'check-up' is any contact with a doctor or midwife to check the progress of your pregnancy. When face-to-face they usually include having your blood pressure and urine checked. It is possible that some antenatal check-ups may have been by phone or video call."

Question **B5** response options have been amended to ensure a greater level of granularity regarding continuity of care and to reflect the change in the model for continuity of care. Changed from the 2022 option codes: 1. Yes, 2. No, 3. I did not see or speak to a midwife, 4. Don't know / can't remember

B5. <u>At your antenatal check-ups</u>, how often did you see or speak to the <u>same</u> midwife?

1. All of the time
2. Most of the time
3. Some of the time
4. Never, it was a different midwife every time
5. I did not see or speak to a midwife
6. Don't know / can't remember

Section C: Your labour and the birth of your baby

Amended routing in question **C2** and **C22** to reflect removal of questions about pain relief and birth position and the consequent changes to question numbers.

Questions **C4** has been amended to focus on whether appropriate information and advice on the <u>benefits</u> of induced labour were provided. NHSE were keen to understand whether both the risks (**C5**) and benefits are outlined to those who have an induced labour. **C4** answer codes have been amended to align with the risk question equivalent (**C5**).

C4. Before you were induced, were you given appropriate information and advice on the <u>benefits</u> associated with an induced labour?

1. Yes
2. No
3. Don't know / can't remember

Question **C20** '*During your labour and birth'* is now underlined to make it clearer which stage of the pregnancy journey is being asked about.

C20. <u>During your labour and birth</u>, did your midwives or doctor appear to be aware of your medical history?

1. Yes, always
2. Yes, sometimes
3. No
4. Don't know / can't remember

Section D: Care in the ward after birth (Postnatal Care)

Question **D2** routing has been deleted as there is no longer a follow-up question.

Question **D6** has had code 4 '*No, they were not able to stay due to coronavirus restrictions'* removed, as it focused on care during the coronavirus pandemic, therefore it is no longer relevant.

D6. Thinking about your stay in hospital, if your partner or someone else close to you was involved in your care, were they able to stay with you as much as you wanted?

1. Yes
2. No, as they were restricted to visiting hours
3. No, as there was no accommodation for them on the maternity ward
4. No, they were not able to stay for another reason
5. I did not have a partner / companion with me

Section F: Care after birth

Question **F4** question wording has been amended to ensure a greater level of granularity regarding continuity of care and to reflect the change in the model for continuity of care.

F4. <u>At your postnatal check-ups</u>, how often did you see or speak to the <u>same</u> midwife?

1. All of the time
2. Most of the time
3. Some of the time
4. Never, it was a different midwife every time
5. I did not see or speak to a midwife

Questions **F19** and **F20** have updated code 4 to include "*with GP* ". The cognitive testing phase highlighted that some service users had their check-up from sources other than their GP, therefore this amendment will help to provide better and more accurate data to measure it.

F19. At the postnatal check-up (around 6-8 weeks after the birth), did the GP spend enough time taking to you about your own <u>physical</u> health?

1. Yes, definitely
2. Yes, to some extent
3. No
4. I have not had a postnatal check-up with a GP
5. Don't know / can't remember

F20. At the postnatal check-up (around 6-8 weeks after the birth), did the GP spend enough time taking to you about your own <u>mental</u> health?

1. Yes, definitely
2. Yes, to some extent
3. No
4. I have not had a postnatal check-up with a GP
5. Don't know / can't remember

Section G: You and your household

Question **G4** has new answer code 14 ("physical mobility") as requested by NHSE.

G4. Do you have any of the following physical or mental health conditions, disabilities or illnesses that have lasted or are expected to last 12 months or more?

1. Autism or autism spectrum condition
2. Breathing problem, such as asthma
3. Blindness or partial sight
4. Cancer in the last 5 years
5. Dementia or Alzheimer's disease
6. Deafness or hearing loss
7. Diabetes
8. Heart problem, such as angina
9. Joint problem, such as arthritis
10. Kidney or liver disease
11. Learning disability
12. Mental health condition
13. Neurological condition
14. Physical mobility
15. Stroke (which affects your day-to-day life)
16. Another long-term condition
17. None of the above
18. I would prefer not to say

Question **G11** has been amended to reflect the ONS census question. New codes 4 (Roma), 15 (Caribbean) and 16 (African background) have been added.

The final version of the 2023 Maternity Survey questionnaire is available on the NHS Surveys website.

5.5 Future considerations

During the scoping stage for the 2023 Maternity Survey several new areas were identified for inclusion in the survey questionnaire. Given that a thorough re-development exercise ahead of the 2023 survey was not in scope, large-scale changes which require extensive testing could be considered ahead of future waves of the Maternity Survey. Below, we outline potential areas to explore:

5.5.1 Triage

New questions around triage were explored in the scoping interviews, as it is a stage of the pregnancy journey that is not currently reflected in the questionnaire. However, the complexity of this particular stage made it difficult to formulate a question which was understood by all. Evidence suggests that it would be most suitable to pinpoint any future question about triage to a location (such as “at the hospital”) as communication can take place over the phone and multiple times. It should also focus on the quality of triage, such as being listened to or being taken seriously. Multiple service users recalled being turned away from hospital only to be readmitted within hours at a later stage of labour. This issue is connected to health inequalities, therefore, should remain a priority for further development of the survey.

5.5.2 Pain relief

Pain relief was a topic of priority for this iteration of the Maternity Survey, as it has been identified as an area affected by health inequalities. Two new questions were added to the survey to capture experiences of pain management. During the advisory group, suggestions were made to also include questions which focused on whether patients were able to use the type of pain relief they wanted, and why. The questions tested for the 2023 Maternity Survey, which performed well, are outlined below.

TEST 4. During labour, did you have a discussion with a midwife or doctor about your options for pain relief?
1. Yes
2. No
3. Don’t know / can’t remember

TEST 5. During labour, were you able to use the type of pain relief you wanted?
1. Yes
2. No
3. Don’t know / can’t remember

TEST 6. Why did you not use the type of pain relief you wanted?
1. For medical reasons
2. There was no time to use the pain relief I wanted

3. The pain relief I wanted would not have worked
4. An anaesthetist was not available to provide my chosen pain relief
5. My request was refused
6. I did not need to use pain relief
7. I am not sure why I could not have my choice of pain relief
8. Other

5.5.3 Complaints

During scoping phase, the evidence showed that there are two distinct phases to making the decision to make a complaint which would be interesting to explore. Before any service users file a complaint, many **consider** doing it, but decide against it. Reasons that were quoted were: not knowing how to make a complaint, feeling like it would be too much “hassle”, and wanting to put experiences behind them after arriving home with their baby. Due to limited space in the questionnaire, only one question about complaints was added (**F21**), see below.

TEST 8. At any point during your maternity journey, did you make a complaint about the care you received?

1. Yes
2. No
3. Don’t know / can’t remember

5.5.4 Communication needs

Stakeholders were keen to understand whether communication needs of service users were met, whether that was through provision of materials in a language they understood, or via an interpreter. Due to the multifaceted nature of this issue and limited access to similar, well-tested questions, this was not a priority for the 2023 Maternity Survey.

5.5.5 Changes considered but not implemented to the survey materials

The survey materials were redeveloped ahead of the 2021 Maternity Survey and cognitively tested to ensure thorough understanding. Thorough testing was crucial, as the materials are sent out to more than 45,000 people. Some changes to the wording of invitation letters were suggested by CQC, however, as thorough redevelopment of the survey materials was not in scope for the 2023 Maternity Survey, only small changes were made (section 2.2) to reduce impact on the comprehension of the letter and remove need for cognitive testing. The proposed changes which were not implemented (detailed in Table 11) could be taken into consideration the next time the materials are being thoroughly examined.

Table 11: Changes to Survey materials that were not implemented

Suggestion	Reason
Moving the sentence "None of the staff who cared for you will know who has taken part and it will not affect your care in any way." to	Section 251 and ethics approval requires this wording.

immediately after "with support from your trust".	
Changing “straight forward” – concerns about this being plain English and being understood in other languages.	This was tested extensively and purposefully chosen.
Addition of extra accessibility guidance on front page, suggested right aligning text box with log in details and having text around it.	This was tested extensively and purposefully chosen.

5.5.6 Changes introduced to review prior to the next survey

As detailed above, due to the non-linear nature of cognitive testing, some changes to the 2023 Maternity Survey questionnaire should be reviewed ahead of a future iteration to ensure that they are working as intended, and to establish their impact. These include:

- Removal of pain relief-related questions (C8, C9, C10 in the 2022 Maternity Survey) which means there is no data monitoring this process
- Addition of “Physical mobility” in G4
- Addition of G10 – ‘Is English your main language’ – to check completion rates and value in terms of analysis.

6 Accessibility

Ahead of the 2021 Maternity Survey, desk research was undertaken looking into best practice guidelines for survey accessibility, and the approaches taken by other national surveys. The research was used to identify the most appropriate accessible options to offer and how to signpost these options most effectively. The 2023 Maternity Survey maintains all of the following accessibility features that were introduced as a result of this research in 2021:

1. Participants are able to **change the font size and background colour** of the online survey.
2. The online **survey is screen reader compatible**.
3. The **online survey** is available in English and translated into **nine non-English languages**.
4. **Dissent posters are** available in **eleven non-English languages** as per the request of trusts.
5. Mothers can request a **telephone assisted interview** in English or in 10 non-English languages using a service such as Language Line.
6. The availability of a **large print questionnaire** is signposted on the letters and administered at the request of the respondent.
7. The availability of an **Easy Read questionnaire** is signposted on the letters and administered at the request of the mother.
8. The availability of a **Braille questionnaire** is signposted on the letters and administered at the request of the mother.

The uptake of each of these accessible options, as well as requests for any additional accessible options will be recorded throughout the 2023 Maternity Survey. The results will be reviewed to inform whether any additional options are required for the survey in the future.

6.1.1 Additional languages for the survey materials

Ahead of the 2023 Maternity Survey, some trusts requested posters in additional languages. Whilst it was not within the scope of development for this iteration of the survey, these requests could be considered in the future. The languages requested were:

- Tetum
- Cantonese
- Russian
- British Sign Language

7 Appendix: Questionnaire changes

Table 12 summarises changes to the questionnaire since the 2022 Maternity Survey was developed, with question numbers and wording corresponding to the 2023 Maternity Survey. The page number in the table refers to the page in this report where the change is detailed. The 2022 questionnaire is available as a separate annex to this report; the 2023 questionnaire is available from the NHS Surveys website.

Table 12: Questionnaire changes

2023 Question number	2023 Question wording	Summary of change since 2022	Page number
A1.	Did you give birth to a single baby, twins or more in your most recent pregnancy?	No change	N/A
A2.	Roughly how many weeks pregnant were you when your baby was born?	No change	N/A
B1.	Who was the first health professional you saw or spoke to when you thought you were pregnant?	Health professional underlined	29
B2.	Roughly how many weeks pregnant were you when you first saw or spoke to this health professional about your pregnancy care?	Response codes amended – not comparable with previous datasets	32
B3.	Were you offered a choice about where to have your baby?	Response code removed	33
B4.	Did you get enough information from either a midwife or doctor to help you decide where to have your baby?	No change	N/A
B5.	At your antenatal check-ups, how often did you see or speak to the same midwife?	Response codes amended and repositioned (question B6 in 2022) – not comparable with previous datasets	33

B6.	How did your antenatal check-ups take place?	Repositioned (question B7 in 2022)	N/A
B7.	During your antenatal check-ups, did your midwives or doctor appear to be aware of your medical history?	Repositioned (question B8 in 2022)	N/A
B8.	During your antenatal check-ups, were you given enough time to ask questions or discuss your pregnancy?	Repositioned (question B9 in 2022)	N/A
B9.	During your antenatal check-ups, did your midwives listen to you?	Repositioned (question B10 in 2022)	N/A
B10.	During your antenatal check-ups, did your midwives ask you about your mental health?	Repositioned (question B11 in 2022)	N/A
B11.	Were you given enough support for your mental health during your pregnancy?	Repositioned (question B12 in 2022)	N/A
B12.	During your pregnancy, if you contacted a midwifery team, were you given the help you needed?	Repositioned (question B13 in 2022)	N/A
B13.	Thinking about your antenatal care, were you spoken to in a way you could understand?	Repositioned (question B14 in 2022)	N/A
B14.	Thinking about your antenatal care, were you involved in decisions about your care?	Repositioned (question B15 in 2022)	N/A
B15.	During your pregnancy did midwives provide relevant information about feeding your baby?	Repositioned (question B16 in 2022)	N/A
B16.	Did you have confidence and trust in the staff caring for you during your antenatal care?	Repositioned (question B17 in 2022)	N/A

B17.	Thinking about your antenatal care, were you treated with respect and dignity?	Repositioned (question B18 in 2022)	N/A
B18.	If you raised a concern during your antenatal care, did you feel that it was taken seriously?	NEW for 2023	29
C1.	Thinking about the birth of your baby, what type of birth did you have?	No change	N/A
C2.	Before your caesarean, did you go into labour?	Amended routing	33
C3.	Thinking about the birth of your baby, was your labour induced?	No change	N/A
C4.	Before you were induced, were you given appropriate information and advice on the benefits associated with an induced labour?	Question wording and response codes amended – not comparable with previous datasets	33
C5.	And before you were induced, were you given appropriate information and advice on the risks associated with an induced labour?	No change	N/A
C6.	Were you involved in the decision to be induced?	No change	N/A
C7.	At the start of your labour, did you feel that you were given appropriate advice and support when you contacted a midwife or the hospital?	No change	N/A
C8.	Do you think your healthcare professionals did everything they could to help manage your pain during labour and birth?	NEW for 2023	28
C9.	If your partner or someone else close to you was involved in your care during labour and birth, were they able to be involved as much as they wanted?	Repositioned (question C12 in 2022)	N/A

C10.	Did the staff treating and examining you introduce themselves?	Repositioned (question C14 in 2022)	N/A
C11.	Had any of the midwives who cared for you been involved in your antenatal care?	Repositioned (question C15 in 2022)	N/A
C12.	Were you (and / or your partner or a companion) left alone by midwives or doctors at a time when it worried you?	Repositioned (question C16 in 2022)	N/A
C13.	If you raised a concern during labour and birth, did you feel that it was taken seriously?	Repositioned (question C17 in 2022)	N/A
C14.	During labour and birth, were you able to get a member of staff to help you when you needed it?	Repositioned (question C18 in 2022)	N/A
C15.	Thinking about your care during labour and birth, were you spoken to in a way you could understand?	Repositioned (question C19 in 2022)	N/A
C16.	Thinking about your care during labour and birth, were you involved in decisions about your care?	Repositioned (question C20 in 2022)	N/A
C17.	Thinking about your care during labour and birth, were you treated with respect and dignity?	Repositioned (question C21 in 2022)	N/A
C18.	Did you have confidence and trust in the staff caring for you during your labour and birth?	Repositioned (question C22 in 2022)	N/A
C19.	After your baby was born, did you have the opportunity to ask questions about your labour and the birth?	Repositioned (question C23 in 2022)	N/A
C20.	During your labour and birth, did your midwives or doctor appear to be aware of your medical history?	‘During labour and birth’ underlined and repositioned	34

		(question C24 in 2022)	
C21.	Thinking about your care during labour and birth, were you treated with kindness and compassion?	NEW for 2023	30
C22.	Did you have a home birth?	Routing amended and repositioned (question C25 in 2022)	33
C23.	Did you require hospital care immediately after your home birth?	Repositioned (question C26 in 2022)	N/A
D1.	How long did you stay in hospital after your baby was born?	No change	N/A
D2.	On the day you left hospital, was your discharge delayed for any reason?	Routing removed	34
D3.	If you needed attention while you were in hospital after the birth, were you able to get a member of staff to help you when you needed it?	Repositioned (question D4 in 2022)	N/A
D4.	Thinking about the care you received in hospital after the birth of your baby, were you given the information or explanations you needed?	Repositioned (question D5 in 2022)	N/A
D5.	Thinking about the care you received in hospital after the birth of your baby, were you treated with kindness and understanding?	Repositioned (question D6 in 2022)	N/A
D6.	Thinking about your stay in hospital, if your partner or someone else close to you was involved in your care, were they able to stay with you as much as you wanted?	Response codes amended and repositioned (question D7 in 2022)	34

D7.	Do you think your healthcare professionals did everything they could to help manage your pain in hospital after the birth?	NEW for 2023	30
D8.	Thinking about your stay in hospital, how clean was the hospital room or ward you were in?	No change	N/A
E1.	In the first few days after the birth how was your baby fed?	No change	N/A
E2.	Were your decisions about how you wanted to feed your baby respected by midwives?	No change	N/A
E3.	Did you feel that midwives and other health professionals gave you active support and encouragement about feeding your baby?	No change	N/A
F1.	Thinking about your postnatal care, were you involved in decisions about your care?	No change	N/A
F2.	If you contacted a midwifery or health visiting team, were you given the help you needed?	No change	N/A
F3.	Since your baby's birth have you been visited at home by a midwife?	No change	N/A
F4.	At your postnatal check-ups, how often did you see or speak to the same midwife?	Amended question wording and response codes – not comparable with previous datasets	34
F5.	Would you have liked to have seen or spoken to a midwife…	No change	N/A
F6.	Did the midwife or midwifery team that you saw or spoke to appear to be aware of the medical history of you and your baby?	No change	N/A
F7.	Did you feel that the midwife or midwifery team that you saw or spoke to always listened to you?	No change	N/A

F8.	Did the midwife or midwifery team that you saw or spoke to take your personal circumstances into account when giving you advice?	No change	N/A
F9.	Did you have confidence and trust in the midwife or midwifery team you saw or spoke to after going home?	No change	N/A
F10.	Had any midwives who cared for you postnatally also been involved in your labour and antenatal care?	No change	N/A
F11.	Did a midwife or health visitor ask you about your mental health?	No change	N/A
F12.	Were you given information about any changes you might experience to your mental health after having your baby?	No change	N/A
F13.	Were you told who you could contact if you needed advice about any changes you might experience to your mental health after the birth?	No change	N/A
F14.	Were you given information about your own physical recovery after the birth?	No change	N/A
F15.	In the six weeks after the birth of your baby did you receive help and advice from a midwife or health visitor about feeding your baby?	No change	N/A
F16.	If, during evenings, nights, or weekends, you needed support or advice about feeding your baby, were you able to get this?	No change	N/A
F17.	In the six weeks after the birth of your baby did you receive help and advice from health professionals about your baby's health and progress?	No change	N/A
F18.	After the birth of your baby, how did your check-ups with the midwife or midwifery team take place?	No change	N/A

F19.	At the postnatal check-up (around 6-8 weeks after the birth), did the GP spend enough time talking to you about your own physical health?	Response code amended	35
F20.	At the postnatal check-up (around 6-8 weeks after the birth), did the GP spend enough time talking to you about your own mental health?	Response code amended	35
F21.	At any point during your maternity care journey, did you consider making a complaint about the care you received?	NEW for 2023	31
G1.	In what year were you born?	No change	N/A
G2.	Have you had a previous pregnancy?	No change	N/A
G3.	How many babies have you given birth to before this pregnancy?	No change	N/A
G4.	Do you have any of the following physical or mental health conditions, disabilities or illnesses that have lasted or are expected to last 12 months or more?	New response code added	35
G5.	Do any of these conditions reduce your ability to carry out day-to-day activities?	No change	N/A
G6.	Did you have any of the following pregnancy-related health conditions during this pregnancy?	NEW for 2023	31
G7.	What is your religion?	Repositioned (question G6 in 2022)	N/A
G8.	Which of the following best describes how you think of yourself?	Repositioned (question G7 in 2022)	N/A
G9.	Is your gender the same as the sex you were registered as at birth?	Repositioned (question G8 in 2022)	N/A

G10.	Is English your main language?	NEW for 2023	31
G11.	What is your ethnic group?	Response codes amended	36