NHS 111: Development and Testing of a new Patient Reported Experience Measure for Parents

A report prepared for Royal College of Paediatric and Child Health

November 2015

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Executive Summary

Patient and service-user experience is widely recognised as a key component of health care quality, along with patient safety and clinical effectiveness[1]. It is vital then to assess users' experiences of health and social care services to understand what is most important to them as well as how the quality of care can continually be improved.

The current project forms part of a number of initiatives undertaken by the Royal College of Paediatrics and Child Health (RCPCH) to understand and improve the care pathway of children moving to primary and/or secondary care with NHS 111 as the particular entry point. As part of an evaluation of NHS 111 services for children and young people, RCPCH approached Picker Institute Europe to develop and pilot a Patient Reported Experience Measure (PREM) to gather feedback from parents of children under the age of 16 years, who have called NHS 111 service on behalf of their child for one of four common conditions covered by the NICE guidelines, namely:

- constipation;
- diarrhoea and vomiting;
- fever;
- breathlessness, breathing problems or wheeze

The aim was to understand callers' experiences of the NHS 111 telephone interaction to investigate under what circumstances parents opt to use this service, parents overall experience of using the service, as well as what factors may influence parents' decision to follow the advice given by NHS 111, and to explore whether the most appropriate care pathway is followed. The overall report presents results from the pilot study including statistical validation analysis to test the suitability of the survey, as well as key findings from the data collected.

Methodology

The overall project consisted of two key phases: questionnaire development; as well as a pilot of the questionnaire.

Phase1: Questionnaire Development

- Four focus groups with parents who recently called NHS 111 on behalf of their child aged 0 – 16 years for one of the conditions specified above. The focus groups explored the care pathway, their experiences of using the service, as well as what is important to parents to inform the development of the questionnaire.

[1] *NHS five Year Forward View. 2014.* http://www.england.nhs.uk/ourwork/futurenhs/

- Drawing on the findings from the focus groups, a four page PREM was developed and tested employing telephone cognitive interviews with 27 parents who had recently used the service. This was to ensure the questionnaire was appropriate for the target population, including testing recall, comprehension, and the overall suitability of the questionnaire.

Phase 2: Pilot

- The questionnaire was piloted employing a telephone interview methodology for data collection using a staggered approach to ensure that a similar number of respondents from each of the four conditions were gained. A total of 1000 surveys were completed over a 4 week period of parents who called NHS 111 in North West London between March and June 2015. (Fever n=305; breathlessness n=331; diarrhea and vomiting n=264; constipation n=100).

Key Findings

The validation study showed that overall the newly developed parent questionnaire functions well in enabling respondents to describe their experience of using the NHS 111 service. The telephone interview methodology also proved suitable as the target number of responses was achieved over a short fieldwork period and there was a low dropout rate.

Overall, parents were positive about their experience of calling the NHS 111 service, with less than one in ten reporting that they would not call NHS 111 again if their child had the same problem at the same time of day or night in the future. Parents felt listened to and also had confidence and trust in the advisor that they spoke to. Parents reported that the advisor gave them enough information to assist them and in a number of cases, parents were put in contact with other professionals in order to assist them with further information. However, the results also highlight that it is important for advisors explain why the advice given or action taken is the most appropriate in order for parents to follow it, and this can be improved upon. Respondents' comments support these findings, but also provide further insight into their experience with some parents revealing dissatisfaction with the amount of questions asked and the timeliness of their call back.

Over half of the parents calling the NHS 111 service had done so as it was out of hours for their GP. This may suggest that, had they been available, parents may have ordinarily accessed these services prior to using NHS 111. Since NHS 111 served as a resource for parents when primary care services weren't available then, it may have prevented them from relying on secondary care services such as A&E for non-urgent concerns. This is corroborated by the fact that a fifth of parents called the service for advice or reassurance, and 13% believed the situation wasn't urgent enough for 999.

The composite score created for "experience of the call" indicated associations between a more positive experience of the call with (i) feeling the advice/action was the right thing to do, (ii) feeling that they were clearly told why it was correct, and (iii) ultimately following the advice that they were given by NHS 111. This has important implications in delivering a call service that offers a positive experience, to ensure unnecessary strain is not put on health services such as accident and emergency departments.

The overall impression was that the parents in North West London either fully or partly followed the advice given to them by the NHS 111. The number of callers who did not follow the advice was a relatively small proportion of the overall sample (less than ten percent). Over a third of those who did not follow the advice reported they did not fully agree with the advice given. As noted above having a positive experience of the call was associated with feeling the advice was correct and subsequently following the advice received. That said, a quarter of these callers did not follow the advice due to other options becoming available. A small number did try to follow the advice, but it was unsuccessful. Considering that the proportion not following the NHS 111 advice was so small, this could suggest that overall the service is one to be relied upon and is a successful and useful service for the majority of its users.

Conclusion

Understanding parent and service-user experience is widely recognised as a key component of health care quality. The PREM proved a useful tool to understand parents and carers' experiences of using NHS 111 as well as providing evidence that their overall experience could influence their decision to follow advice and ultimately follow the most appropriate care pathway for their child's needs. Listening to the experiences of parents and carers can and should assist service-providers with improving their services for those who use them and to ultimately ensure the most appropriate care pathway is followed.

Section Two

Introduction

Background

The current project forms part of a number of initiatives undertaken by the Royal College of Paediatrics and Child Health (RCPCH) to understand and improve the care pathway of children moving to primary and/or secondary care, with NHS 111 as the particular entry point. Understanding parent or service-user experience is widely recognised as a key component of heath care quality along with patient safety and clinical effectiveness[2]. It is vital then to assess parents' experiences of the service to understand how the quality can continually be improved to make it accessible and viable for parents to use the service.

As part of an evaluation of NHS 111 services for children and young people, RCPCH approached the Picker Institute to develop and pilot a Patient Reported Experience Measure (PREM) to gather feedback from parents of children under the age of 16 years, who have called NHS 111 service on behalf of their child for one of four common conditions covered by the NICE guidelines, namely:

- constipation;
- diarrhoea and vomiting;
- fever;
- breathlessness, breathing problems or wheeze[3]

The aim of the PREM is to understand callers' experiences of the NHS 111 telephone interaction, to investigate under what circumstances parents opt to use this service, parents overall experience of using the service, as well as what factors may influence parents' decision to follow the advice given by NHS 111, and to explore whether the most appropriate care pathway is followed.

This report presents the findings from the pilot study of the NHS 111 PREM with North West London (NWL), carried out by the Picker Institute on behalf of RCPCH.

Questionnaire Development

The first phase of the project involved conducting four focus groups with parents who recently called NHS 111 on behalf of their child aged 0 – 16 years for one of the conditions specified above, to inform the development of the questionnaire.

The focus groups explored the care pathway, their experiences of using the service, as well as what is important to parents. The main themes from the focus groups were presented in an interim summary report and is available upon request. Focusing on areas that are important to parents, the questionnaire was developed to capture parents' experiences of the 111 service, in addition to facilitate understanding of movements through the care

[2] NHS England. *The NHS Five Year Forward Review.* NHS England; 2014. http://www.england.nhs.uk/ourwork/futurenhs/. Accessed June 20, 2015.
[3] This category is referred to as "breathlessness" for the remainder of the report.

pathway, including where parents were referred to, and where they actually ended up. This is to gain an understanding of what went well, what could be improved, as well as what aspects may influence parents' decisions to follow the advice received from NHS 111.

Drawing on the findings from the focus groups, a four page PREM was developed. The NHS 111 PREM was then tested employing telephone cognitive interviews with 27 parents who had recently used the service over three rounds, with amendments being made between each round according to the feedback obtained. Each interview lasted approximately 35-45 minutes, and participants received £30 for their time.

The cognitive interviews aimed to test the survey questions for comprehension and to ensure that they are interpreted as intended, as well as testing the choice of response options; recall; the instructions, including routing; and the overall suitability of the questionnaire. The questionnaire was updated after each round according to findings from these interviews and re-cognitively tested until researchers were satisfied the final questionnaire was fit-for-purpose. A report of cognitive interviews, including demographics of responders and changes made is available upon request.

The final questionnaire is four pages in length and asks parents about a single, most recent call to the service and was designed to follow the pathway of parents calling NHS 111 on behalf of their child. It captures the reason parents used this service as opposed to another, parents' experience of the call itself including all operators and health care professionals they spoke to, through to the advice they received or the action taken, and finally where they ended up e.g. secondary care. The survey sections are as follows:

- Before the call – including the reason for using the service
- During the call – experience of the call including all persons parents spoke to on the call
- Advice or Action
- After the call – including the reason for following the advice or not, and where they ended up
- Overall impressions
- Demographics
- Open-ended comments

Pilot Methodology – telephone survey

A telephone survey methodology was deemed most appropriate for data collection as future roll-out of the survey by NHS services would most likely employ this methodology. Particularly as this is the mode that parents contact NHS 111 and therefore their telephone details would be most up-to-date. It was therefore important to pilot the survey employing the same methodology to test it is fit-for-purpose.

A sample of 4415 parents who called NHS 111 in NWL between March and June 2015 on behalf of their child (16 years or younger) for one of the four specified conditions, was drawn and underwent a demographic batch trace. This was to ensure no details of children that may have died were included in the sample. Based on their expertise, the Picker Institute advised that 1000 completed responses would be suitable to run reliable analyses on the data, including validation statistics. It was therefore agreed that the fieldwork would continue until at least a total of 1000 responses was achieved. Given the smaller number of parents calling for 'constipation' in the sample, the data collection employed a staggered approach to calling parents to get roughly equal number of responses across the four conditions, and to achieve an overall total of 1000 responses. This was necessary to ensure analysis by condition could be conducted. The survey was implemented using computer-assisted-telephone-interviewing in which interviewers followed a script provided by the Picker Institute and the computerised questionnaire allowed for direct data entry. The script required that interviewers introduced themselves, and provided some background about the project. Interviewers also specified which call to NHS111 the questionnaire referred to (e.g. the date of the call and the reason for the call – in case parents/ callers used the service on more than one occasion or on behalf of more than one child).

In order to maximise response rates interviewers stressed the following at the start of the call:

- Confidentiality - It was made clear to patients that their responses will remain confidential and anonymous.
- Voluntary status of the survey – all participants were told that taking part in the survey is voluntary, and they did not have to take part or answer all questions.
- Callers stated the importance of the survey i.e. that we want to hear their views on the NHS 111 service so it can be improved.

Those who did not answer were called back and those who answered but are were not currently available to participate, were offered a call-back at a more convenient time should they wish to take part at a later date. Breakdowns of the call status at the end of fieldwork are available in table 1, Section two.

Safeguarding protocol

Sometimes during telephone conversations with patients or parents, an interviewer may pick up on something that a respondent has said which may cause concern – for example, asking clinical questions of the interviewers, or raising something that an interviewer may feel is a safeguarding issue. In this instance interviewers were instructed to follow the Picker Institute's safeguarding procedures.

Section Three

Survey Activity

Response Rate

Telephone survey interviews were conducted from the 6th August to the 2nd Sept 2015. A total of 1000 surveys were completed of 4415 eligible participants who were called. Full breakdowns of the call status is presented in table 1.

Table 1 Call status at end of fieldwork: number by condition

	Fever (n)	Diarrhoea and Vomiting (n)	Breathlessness (n)	Constipation (n)	TOTAL
Completed survey	305	264	331	100	1000
Callers who answered the survey call	428	338	458	30	1254
Appointment scheduled to complete survey	58	88	96	16	258
Refusal to complete questionnaire	86	63	128	34	311
Unavailable during study period	82	48	89	22	241
Busy/Call rejected/ No reply	449	493	286	29	1257
Stopped/Terminated the conversation	10	6	5	2	23
Wrong number	12	14	28	2	56
Language barrier	1	9	3	2	15
TOTAL	**1431**	**1323**	**1424**	**237**	**4415**

Table 2 presents the response rate for each of the four conditions.

Table 2 Response rate: by condition

NB. Percentages have been rounded to the nearest whole number here and throughout

Condition	Number called	Number completed	Response rate
Fever	1431	305	21%
Breathlessness	1424	331	23%
Diarrhoea and Vomiting	1323	264	20%
Constipation	237	100	42%*

**Response rate for constipation is higher as efforts were concentrated on this group due to smaller sample size, in order to receive similar numbers across groups*

Table 3 outlines the characteristics of survey respondents. The proportions for each demographic variable are representative of the original sample.

Table 3 Survey respondents' characteristics

Respondent Characteristic	Number	Percentage
Age of child at time of call		
0 – 1 years	510	51%
2 – 3 years	264	26%
4 – 5 years	102	10%
6 – 7 years	54	5%
8 – 11 years	47	5%
12 – 15 years	23	2%
Child gender		
Male	558	56%
Female	435	44%
Child ethnicity		
White British	341	35%
White other	131	13%
Mixed or multiple ethnic group	206	21%
Asian or Asian British	150	15%
Black or Black British	133	14%
Other	25	3%
Number of times parent used the NHS 111 service (for self or any other person)		
This was my first time	137	14%
2-3 times	396	40%
4-5 times	245	25%
6 times or more	219	22%
Main person who completed questionnaire		
Mother of child	773	77%
Father of child	203	20%
Mother and father together	5	1%
Carer/guardian of child	2	<1%
Other	17	2%

Section Four

Survey Results

Results: Format

Findings are arranged by questionnaire section. Full frequency tables are included at the end of the report, which display the number of missing responses for each question, along with details of who and how many people answered, and the proportion of patients that selected each response option. Quotes are displayed throughout the report in *"purple italics",* taken from the 'Any Other Comments' section of the survey. All freetext comments are sent separately in an excel document. Noteworthy comparative breakdowns (e.g. by condition) are included in the findings section of the report.

Throughout the report, and in all tables and graphs, percentages are rounded to the nearest whole number. Totals may not always equal 100% for this reason. Similarly, overall totals may not always add up to 1000, as not all respondents provided an answer to all questions. Missing responses have been excluded from all calculations and where applicable base sizes are presented in tables and graphs. Please refer to the frequency tables for full details.

Confidence Intervals

The survey undertaken was with a sample of parents. As the survey was not of all parents, the results may not be totally representative. However, we can estimate the level of confidence we should have in the results. The table below shows the level of confidence we would have for various numbers of respondents.

Number of respondents	Confidence Interval (+/-)
50	12.0%
100	8.5%
200	6.0%
300	4.9%
400	4.2%
500	3.8%
600	3.5%

Example: For a particular question, 300 patients responded, of which 25% answered 'yes'. From the table above, we can see that for 300 respondents the confidence interval would be +/- 4.9%. We would therefore estimate that the true results could be between 20.1% and 29.9%. However, if only 50 patients responded, and 25% answered 'yes', the confidence intervals would be +/- 12% so the true result could be between 13% and 37%.

Low numbers of respondents

The questionnaire includes some filter questions, whereby only relevant questions are asked of patients. For example, patients that have reported not having spoken to a second advisor, would not be asked subsequent questions about a second advisor. This means that fewer patients will answer particular questions in the questionnaire.

Targeted questions

In the interest of accuracy, we use derived questions to produce more meaningful data for questions that are not applicable to all respondents, but are not preceded by a filter question. For example, Question 8 (*Did you have confidence and trust in the other person(s) you spoke to*?) is not applicable to all patients, i.e. it does not apply to patients that responded 'I did not speak to anyone else on the telephone'. For questions of this nature we have re-calculated the data, excluding those respondents to whom the question does not apply. The new calculation will be illustrated in an additional question (e.g. Q8+). These derived "plus" questions have been calculated for questions 3, 4, 5, 6, 8, 10, 11b, 12, 16, 17.

Validation Study

The validation study addressed the following questions:

- Did respondents complete all questions, or was there evidence of particular questions being skipped?
- Is there scope to create a composite score to represent overall experience of the call? If so, what are the measurement properties of this composite score?

Basic item response frequencies

The overall proportions of respondents giving each answer option, and the proportions not responding, are reported in frequency tables in Appendix one. The proportions of missing responses were low throughout the questionnaire: there was no evidence of questions being skipped when they were appropriate for a respondent and no indication of dropout from the questionnaire. This is fairly typical of a telephone survey methodology.

Question 3 (*When you first called, did the person you spoke to introduce themselves?)* had a high proportion of non-evaluative 'can't remember' responses, which renders it less effective in differentiating levels of experience (and consequently affects the proposed composite score).

The questionnaire appears to function well in enabling respondents to describe their experience of using the service. There is little item non-response and no indication of early dropout.

Composite score

Data for the following questions were entered into a factor analysis:

- (Q3+) whether the first person parents spoke to introduced themselves;
- (Q4+) whether they felt the first person listened to them;
- (Q5+) whether they had confidence and trust in the first person they spoke to;
- (Q6+) whether the first person they spoke to gave enough information to assist them;
- (Q12+) whether parents were involved as much they wanted in the decisions made about their child's care or treatment during the call.

Factor analysis is used to examine whether responses to a number of questions may be explained by one or more common underlying dimensions of experience. Firstly, the number of dimensions was explored using the HULL method (Lorenzo-Seva, Timmerman, & Kiers, 2011)[4]. This indicated that a single dimension best explained the data, but the fit of this

[4] Lorenzo-Seva, U., Timmerman, M., & Kiers, H. (2011). The Hull method for selecting the number of common factors. *Multivariate Behavioral Research*, 46(2), 340–364.

model was not particularly good. Question 6+ (*Did the person that you first spoke to give enough information to assist you?)* was shown to correlate weakly with some of the other questions and to be relatively weakly related to the underlying dimension these questions were measuring. Removing this question improved both the distinctiveness of the underlying dimension and reliability in measuring it. The respondent-level reliability of the resulting composite score was McDonald's Omega = 0.80 / Standardized Cronbach's alpha = 0.80. This represents a good level of reliability. However, it should be noted that because of the relatively large proportion of missing scores for Q3+ (i.e. a high proportion had a non-evaluative response of 'can't remember' and therefore are not scored), the composite is better suited to examining group differences rather than the experiences of individual respondents, as long as it can be reasonably assumed that the 'can't remember' responses are effectively random.

In summary questions 3+, 4+, 5+ & 12+ measure a distinctive aspect of respondent experience and may be averaged to provide a composite score. Q6+ could also be used but this detracts from the reliability of the resulting composite, and because of the high proportion of missing scores on Q3+ the composite may be less consistent in practice. Associations between the composite score and the extent to which NHS 111 callers agreed and followed the advice given by the call advisor are explored in the results section below.

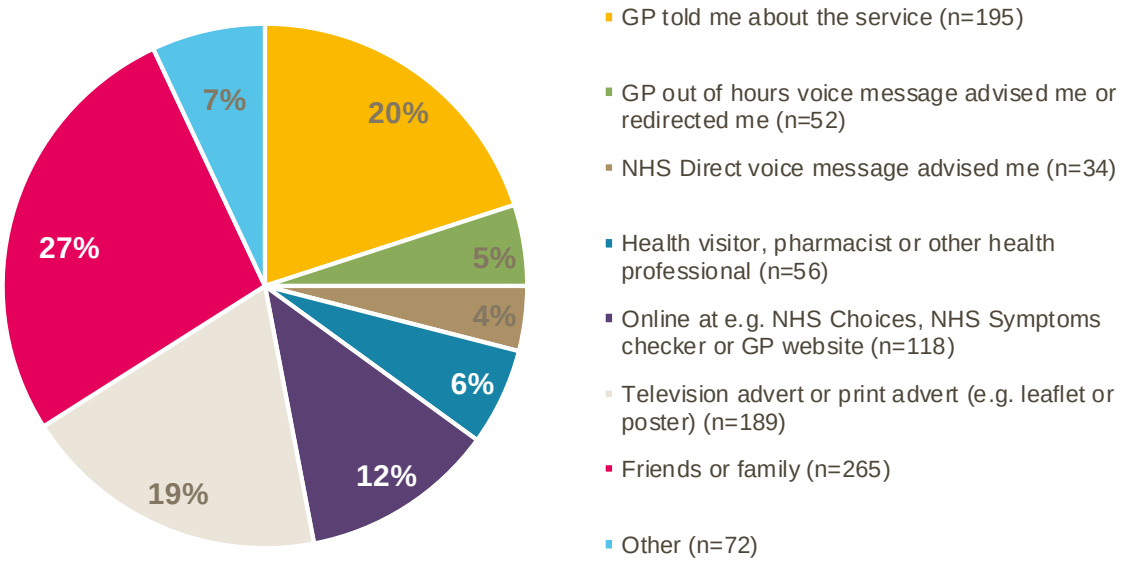
Survey findings

Before the call

The questionnaire follows a typical pathway of a person who calls NHS 111: from before the call was made, to their experience of the call, through to the outcome after the call.

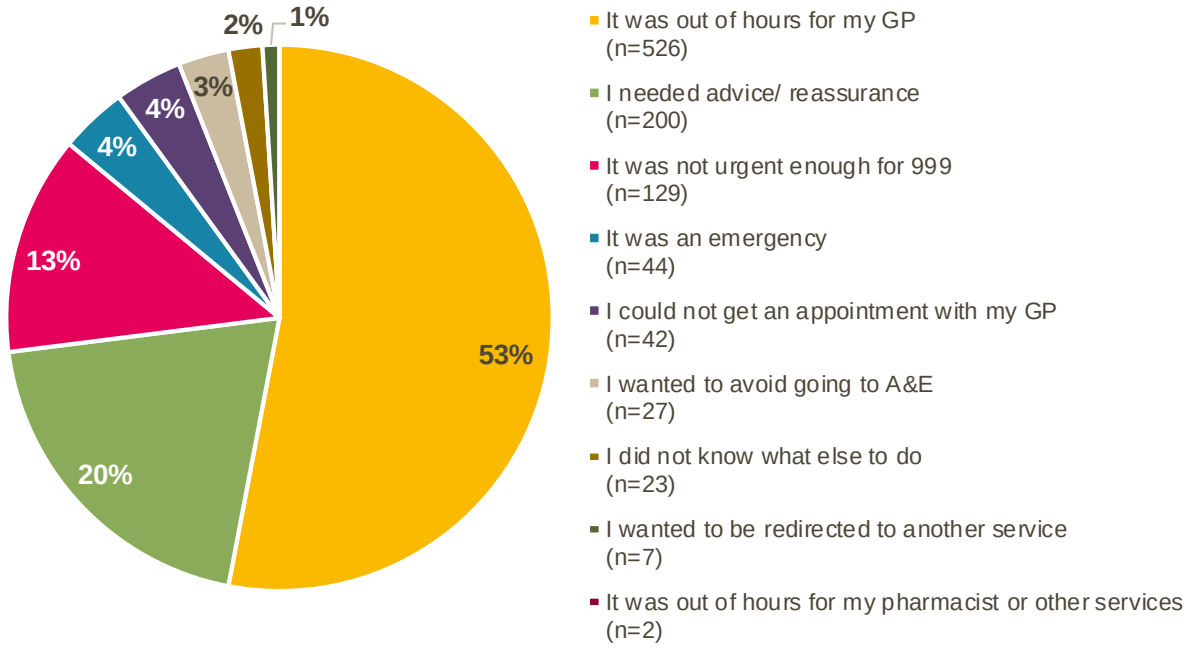
The first question examines how parents/carers first learned about NHS 111. This is important to understand so as to target areas where one can raise awareness about the service and share knowledge of how and when it can be used. Graph 1 below shows that more than a quarter of parents (27%, n=265) first learned about NHS 111 through their friends or family. Further, common ways of finding out about the service was through conversations with their GP (20%, n=195) or from seeing an advert; either printed or on television (19%, n=189).

Graph 1. Q1. How did you first learn about NHS 111? (n=918)



To further understand parents' use of NHS 111, the survey explores the primary reason parents called NHS 111 rather than using another service such as A&E, for their most recent call. The most common reason parents/carers reported calling NHS 111 rather than another service was that it was out of hours for their GP: this was true for over half of survey respondents (53%, n=526). A further 20% (n=200) stated that they called the service for advice or reassurance, and 13% (n=129) believed that the situation was not urgent enough for 999. Responses to this question were similar across the four conditions, by age group and ethnicity of child. The graph below presents the findings.

Graph 2. Q2. Thinking about the most recent time you called NHS 111, what was the **main reason** you called NHS 111 rather than using another service? Please tick one only. (n=1000)



Some freetext comments related to the usefulness of having the service available, particularly at times when other services are difficult to access.

> *"I'm happy with the service. I called in the middle of night and had nowhere to go and no car. I rang up get advice and did what they said. I think it is great to have in an emergency."*
>
> *"I appreciate that the service exists as it can be difficult to get an appointment with the GP. I appreciate that there are alternative roots and I am very happy with the service."*
>
> *"I think it's fantastic always great assistance"*

Freetext comments also identify parents wanting to avoid using A&E where necessary.

> *"Happy to have the service as a mum as with 999 or A+E if I call it may not be an emergency, but with 111 it isn't"*
>
> *"The service is brilliant if you're worried you can get advice for them and you don't want to bother 999 if it isn't a serious emergency"*
>
> *"It was brilliant because it put my mind at ease. And I didn't want to go to A&E and wait. And the advice really helped"*

During the call

Patient and service-user experience is widely recognised as a key component of health care quality, along with patient safety and clinical effectiveness[5]. A parent or carers perceptions and experience of the service and the assistance they received from NHS 111 could influence their decision to follow advice, so it is important to understand their experience of the call.

Parents were asked to reflect on the first person they spoke to and consider certain aspects of the call. On the whole, parents were positive about the first person they spoke to. Of those who could remember (n=739), almost all parents 99% (n=731) recalled that the person they first spoke to at NHS 111 introduced themselves.

For those for whom it was necessary (n=996), the majority definitely agreed that the first person they spoke to listened carefully to what they had to say (93%, n=923) and a further 6% (n=60) agreed that they listened to some extent. Breakdowns showed similar results across all four conditions.

Parents' freetext comments also highlight that they felt listened to during the call:

> *"Always listening and give good advice"*
>
> *"To be honest with you when you can put your point across and they listen to you it's nice I haven't had bad service."*

For those for whom it was necessary (n=986), the majority definitely had confidence and trust in the advisor that they first spoke to (78%, n=772) and a further 18% (n=173) agreed that they had confidence and trust in the first advisor to some extent (presented in graph 3 below). This was similar across all conditions.

The freetext comments reiterate that parents had confidence and trust in the advisor:

> *"It is a fantastic service... When your child is ill, you need someone there and they always call back if they haven't got time. I have 100% trust in them."*
>
> *"Very pleased with the service I received. Speedy process, an appointment was made quickly. I felt the problem was taken very seriously and as it was dealt with quickly, I was able to put my mind at rest."*

However, this was not felt by all parents and some shared their lack of reassurance by the advisor:

> *"… this person didn't help during a worrying time when my son was suffering from breathing problems and vomiting."*
>
> *"Sounds like they talk from a book it would be better if they knew what they were saying"*

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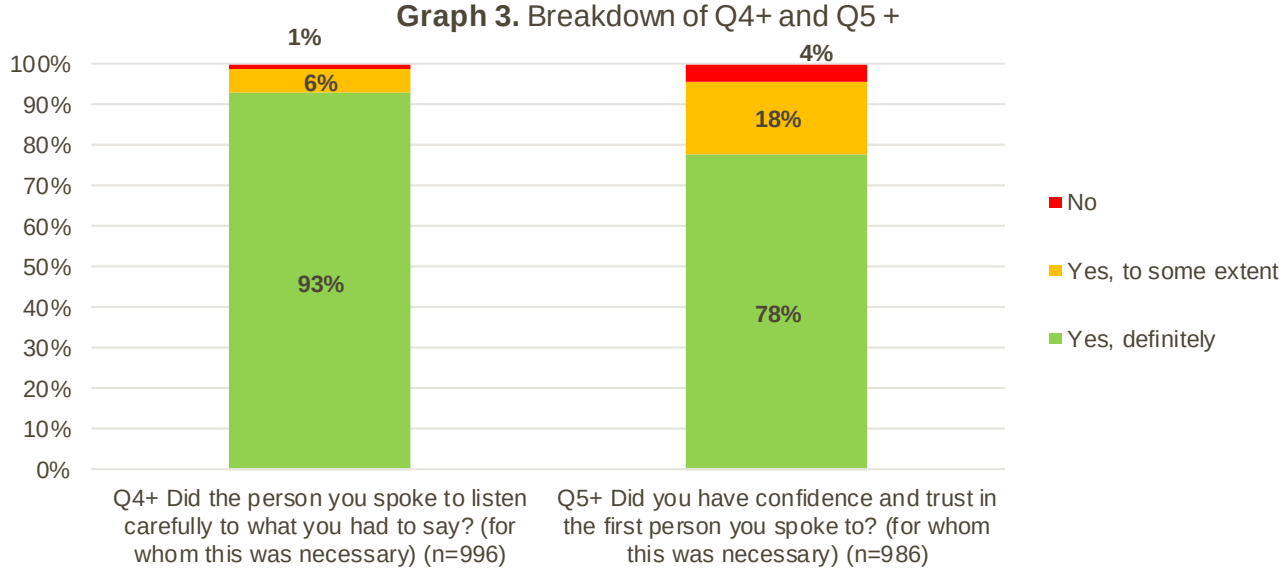
[5] *NHS five Year Forward View. 2014.* http://www.england.nhs.uk/ourwork/futurenhs/

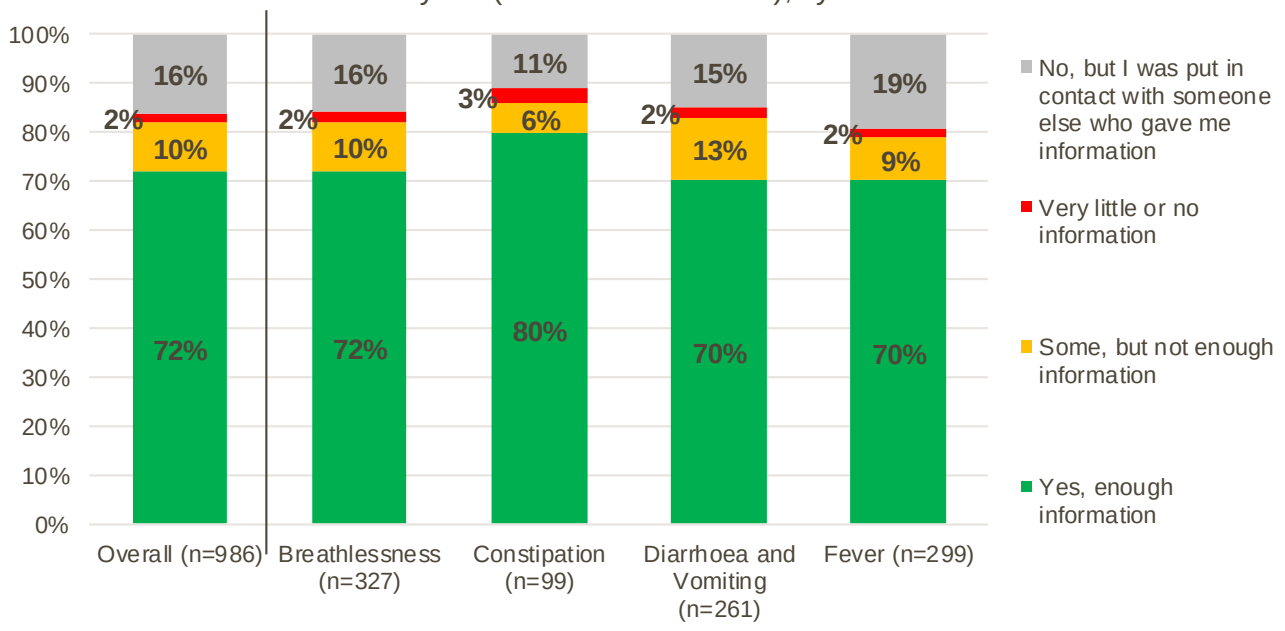
Graph 3 below presents full details for questions regarding listening and confidence.

Graph 3. Breakdown of Q4+ and Q5 +



Parents or carers were also asked about any information given by the first advisor and whether they received enough information to assist them with the condition they called about. Almost three quarters (72%; n=709) of parents reported that they were given enough information, a further 16% (n=158) responded that they weren't given enough information by the initial person they spoke to, but that they were put in contact with someone else who provided sufficient information. Those parents or carers who called for assistance with constipation were more likely to report definitely receiving enough information (80%, n=79) compared to other conditions. Graph 4 below presents the overall results as well as breakdowns by condition.

Graph 4. Q6+ Did the person that you first spoke to give enough information to assist you? (those who were sure), by condition



Being involved in decisions about care and treatment is an important element of person-centred care. A large proportion (85%; n=796) of parents/carers reported that they were definitely involved as much as they wanted in decisions about their child's care or treatment during the call. A further 10% (n=92) agreed that they were involved to some extent, however 50 parents or carers (5%) reported they were not involved as much as they wanted.

There were no marked differences by age or ethnic background of the child with regard to parents or carers feeling listened to or having confidence and trust in the first person they spoke to. However, those parents whose child was from a Black ethnic background were slightly less likely to report definitely being involved in decisions made about their child's care or treatment (79%, n=95), compared to other ethnicities. See table 4 below.

Table 4 Q12+ Were you involved as much as you wanted in the decisions made about your child's care or treatment during the call? (for whom this was necessary), by ethnicity.

	White British (n=322)	White other (n=121)	Mixed or multiple ethnic groups (n=200)	Asian or Asian British (n=143)	Black or Black British (n=121)
Yes, definitely	87% (n=279)	83% (n=101)	86% (n=172)	87% (n=125)	79% (n=95)
Yes, to some extent	8% (n=26)	10% (n=12)	10% (n=19)	9% (n=13)	13% (n=16)
No	5% (n=17)	7% (n=8)	5% (n=9)	4% (n=5)	8% (n=10)

71% (n=701) of parents/carers also spoke to someone else during the 111 call. Of these, 90% (n=633) received a call back and 10% (n=68) were transferred immediately. The majority (86%; n=602) definitely had confidence and trust in the other person(s) they spoke to and a further 11% (n=73) had confidence and trust to some extent. Twenty three parents (3%) stated they did not have confidence and trust in the other person they spoke to.

Overall, 83% (n=831) of callers were definitely satisfied with how quickly NHS 111 assisted them and a further 11% (n=114) were satisfied to some extent. Associations of parents' experiences of the call with their perception of the advice received or action taken by NHS 111, as well as whether they followed the advice, is discussed below.

Advice or Action

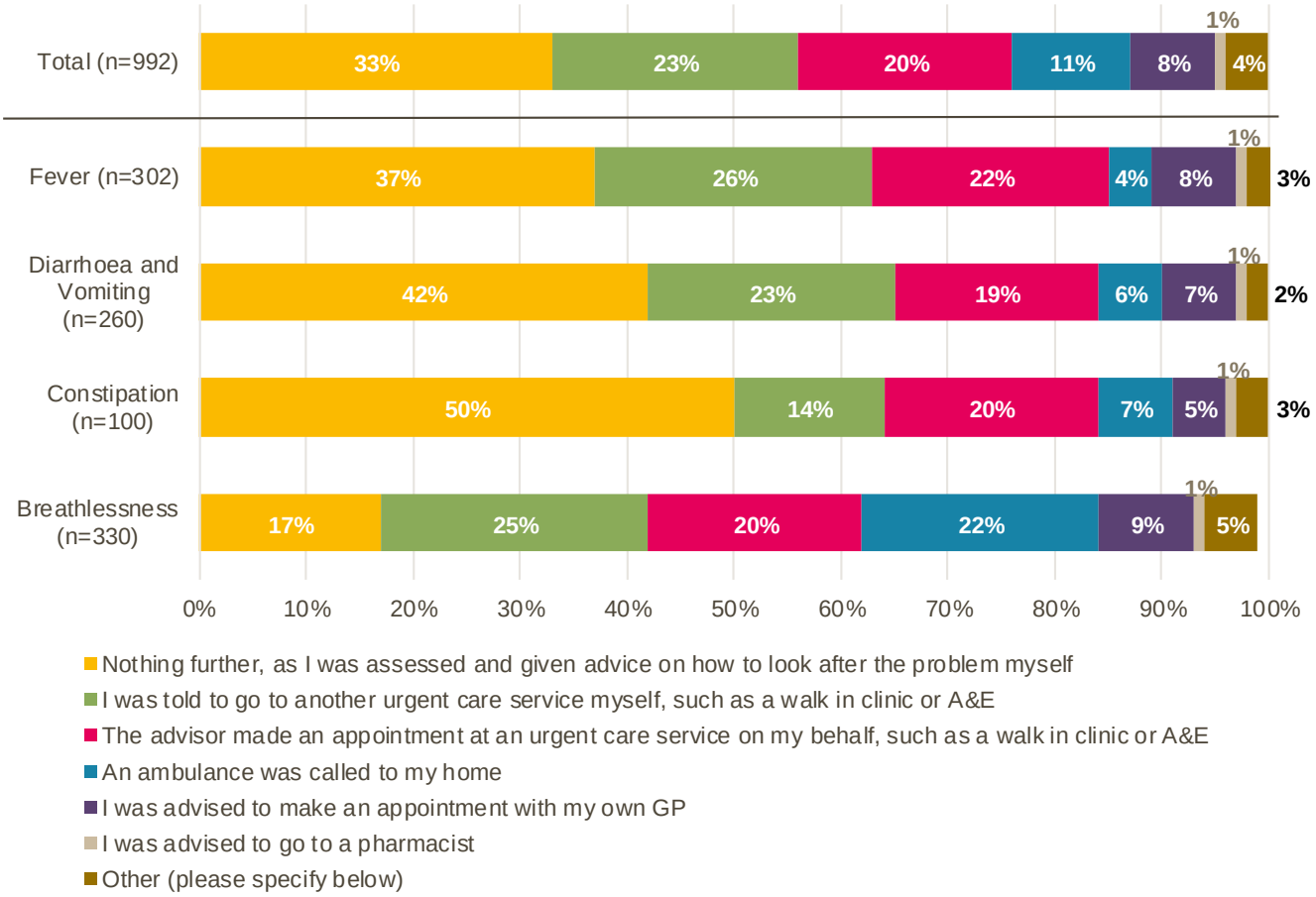
Type of advice or action

One third of parents (33%, n=328) who called NHS 111 reported that they were assessed and given advice on how to look after the problem themselves. A further 23% (n=232) were advised to go to another urgent care service, such as a walk-in clinic or A&E and the next most common outcome was that the advisor made an appointment at an urgent care service on the parents behalf, which was the case for 20% (n=202). These outcomes differed across the four conditions.

As specified by the NICE guidelines and supported by findings from the focus groups, for those parents calling for breathing problems the most common advice or action received was to attend another urgent care service themselves (25%; n=81), or NHS 111 called an ambulance to their home (23%, n=74).

Those who called regarding the other three conditions all reported the most common outcome to be receiving advice on how to look after the problem themselves. Graph 5 below provides breakdowns by condition.

Graph 5. Q9. Advice or action received from NHS 111, by Condition (n=992)



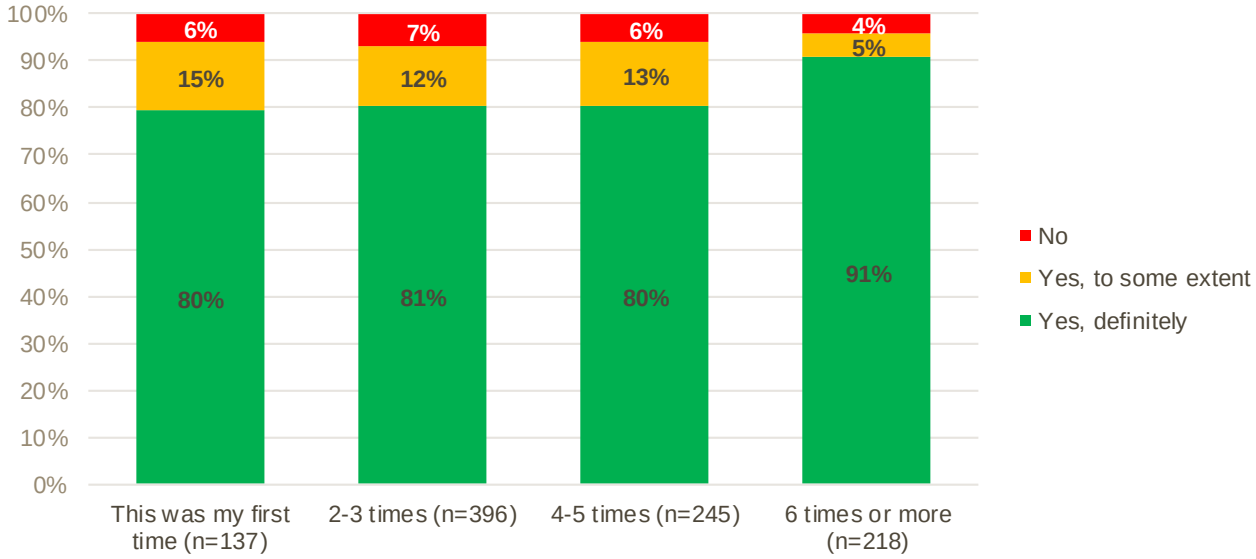
Perception of advice or action

Upon thinking about the advice given or action taken by the NHS 111 service, 83% (n=826) felt that this was definitely the right advice or action to be taken and a further 11% (n=113) agreed to some extent. 74% (n=730) were definitely clearly told why this was the right thing to do and a further 16% (n=159) agreed to some extent that they were clearly told why this was the right thing to do. This was similar across all four conditions. Graph 6 below presents details of these two questions.

Graph 6. Advice given or action taken: Breakdown of Q11a. and Q11b.

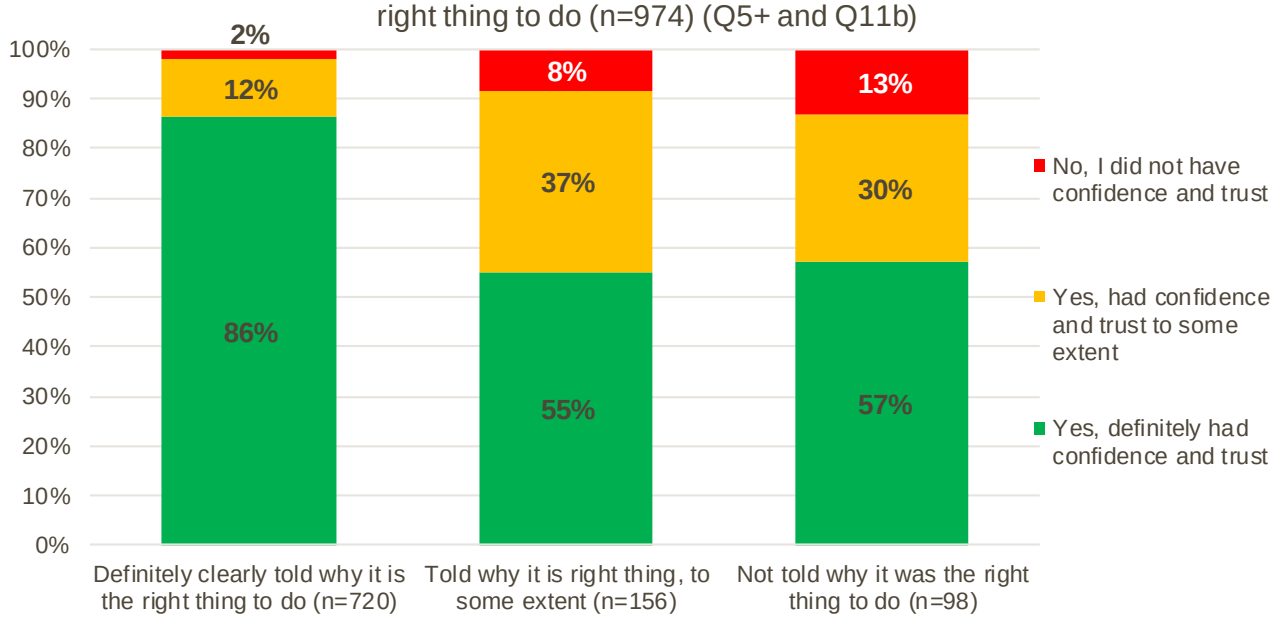
Parents/carers who had used the service six times or more, were more likely to state they felt the advice or action taken was definitely the right thing to do (91%, n=198), compared to those who had used NHS 111 fewer times. Graph 7 below shows full breakdowns.

Graph 7. Q11.a Thinking about the advice given or the action taken by NHS 111 did you feel this was the right advice or action to be taken? by number of calls to NHS 111 (n=996)



Of those who were told clearly why the advice given/action taken was the right thing to do, 86% (n=622) stated that they definitely had confidence and trust in the first person they spoke to. In comparison, of those who were not told clearly why the advice given/action taken was the right thing to do, only 57% (n=56) stated that they had confidence and trust in the first person they spoke to. Please see the graph below for full breakdowns.

Graph 8. Respondents confidence and trust in first person they spoke to, by whether they were clearly told the advice or action taken by NHS 111 was the right thing to do (n=974) (Q5+ and Q11b)



Some parents reported in the freetext that they received thorough explanations which made them feel confident in the advice they received.

> *"Happy and confident to use the service, it's good that you can get someone medically trained to call you back, and it's much quicker than a GP service. They ran through many check lists but explained why the questions were asked. The staff were polite and I felt very confident in the advice I received from them."*

> *"The nurse was reassuring and explained carefully what to look out for."*

> *"They explain everything which sometimes doctors and hospitals don't. They keep reassuring why they have to ask the questions."*

> *"Really good service, it is very helpful when you cannot call GP (as called during the night). They give you lots of advice and explain what actions you should take."*

Some parents who did not feel they were listened to did not have confidence in the advice they received and reported using additional services other than NHS 111.

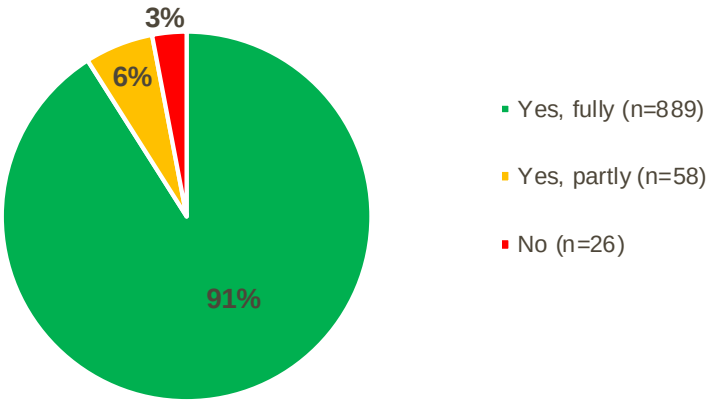
> *"The doctor didn't understand how young my baby was so the advice he gave wasn't acceptable. I needed online advice. I was happy with the call back and time it took. Overall, I was not satisfied as I needed to find another doctor."*

> *"Because I felt they were rude, they didn't listen to what I had to say. I called the NHS 111 service to receive medical advice and I felt everyone I spoke to did not have enough knowledge to advise me appropriately on what actions I should take. I will not be calling the NHS 111 service again - I will go straight to A&E or will call doctors to speak to a GP."*

After the call

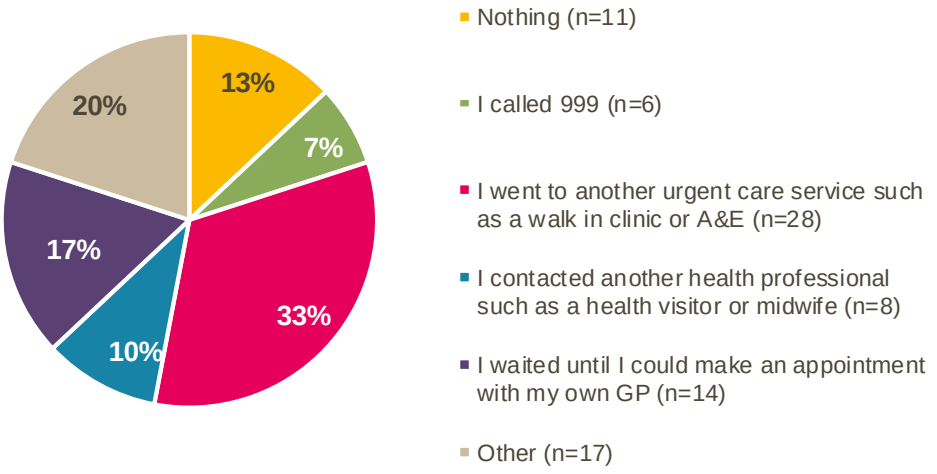
When parents were asked whether they followed the advice or action they received from the NHS 111 the majority (91%; n=889) reported that they did fully follow the advice/action. 6% (n=58) only partly followed the advice or action taken and only 3% (n=26) did not follow the advice at all. There was no marked difference between conditions. The graph below provides these breakdowns.

Graph 9. Q13+. Did you follow the advice or action you received from the NHS 111? (n=973)



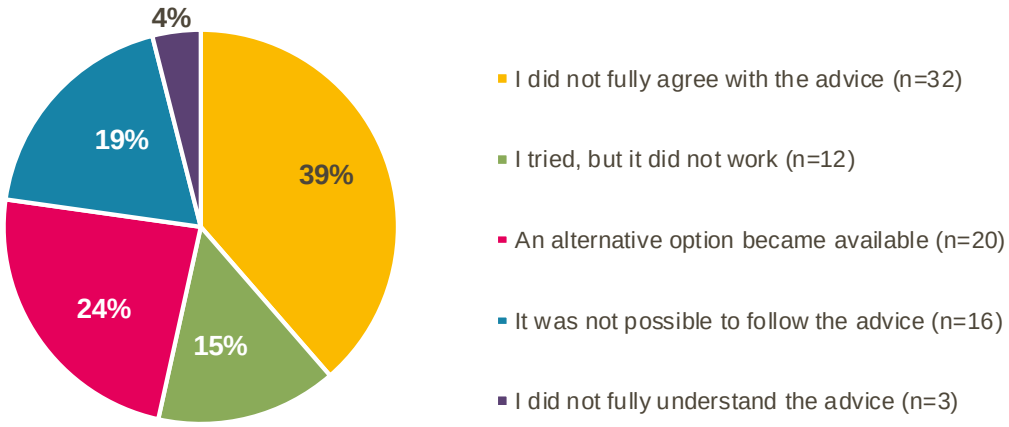
Of those who did not fully follow the advice i.e. only partly followed it or did not follow it at all (n=84), a third (33%, n=28) stated the main action they took instead was to go to another urgent care service, such as a walk in clinic or A&E. Seventeen percent (n=14) waited until they could make an appointment with their own GP, and 13% (n=11) stated they did nothing more. A fifth (20%, n=17) selected 'other' and in many cases, they specified that they gave their child medication or that their child got better after some rest. Breakdowns by condition are not presented as the number of respondents per condition are too small to draw appropriate conclusions. The graph below presents the full breakdowns of what parents did if they did not follow the advice or action by NHS 111.

Graph 10. Q14. What else did you do/ do instead? (n=84)



The main reason parents reported not following the advice received by NHS 111 was because they did not agree with it (39%, n=32). Almost a quarter of parents (24%, n=20) stated that an alternative option became available, such as an out-of-hours pharmacist, and 19% (n=16) said it was not possible to follow the advice (e.g. they couldn't find appropriate care for other children). Breakdowns by condition are not presented as the number of respondents per condition are too small to draw appropriate conclusions. Please see the graph below for full selection of reasons.

Graph 11. Q15. Why did you not follow the advice given fully? (n=83)



Exploring experience of the call and resulting care pathway

In order to explore associations between parents/carers' perceptions and experience of using the NHS 111 service and the resulting care pathway they chose, a composite score of respondents' "experience of the call" was created (please see the "Survey Validation" section above for further details about the composite score calculations).

The resulting "experience of the call" composite score included:

- (Q3+) whether the first person parents spoke to introduced themselves;
- (Q4+) whether they felt the first person listened to them;
- (Q5+) whether they had confidence and trust in the first person they spoke to; and
- (Q12+) whether parents were involved as much they wanted in the decisions made about their child's care or treatment during the call.

To investigate the utility of the composite score, a score was computed for each respondent as the mean of the non-missing responses for the four questions noted above. A lower mean score indicates a more positive overall experience, compared to a higher mean score which indicates a more negative overall experience. This was then used to (i) compare the overall experience of respondents calling for the four different conditions, and (ii) to compare responses to the following questions:

- Q11a Thinking about the advice given or the action taken by NHS 111 did you feel this was the right advice or action to be taken?
- Q11b Thinking about the advice given or the action taken by NHS 111 were you clearly told why this was the right thing to do?
- Q13+. Did you follow the advice or action you received from the NHS 111? (for whom it was necessary)

An analysis of variance (ANOVA) was conducted to explore if there were any differences between the overall experience (composite score) according to responses to the three questions above. The ANOVA are reported here as estimated mean scores for the different groups and the overall statistical significance of the score differences.

Table 5 highlights that those parents who felt the advice or action taken by NHS 111 was "definitely" right, had a mean score of 0.08 on the "experience of the call" composite score, compared to a mean score of 0.429 for those who said "no". Indicating that those with a more positive experience answered they definitely felt it was the right advice, with an overall significance of p<0.0005. Table 2.1 in Appendix two provides breakdowns of the post-hoc pairwise tests and indicates the difference between composite score means for each response option is significantly different. Please see table 5 for the 95% confidence interval.

Table 5 Analysis of variance on whether parents felt the advice or action taken by NHS 111 was right by 'experience of the call'.

Q11.a Thinking about the advice given or the action taken by NHS 111 did you feel this was the right advice or action to be taken? (Q11a)				
	Composite		95% Confidence Interval	
Q11.a: p<0.0005	Mean	Std. Error	Lower Bound	Upper Bound
Yes, definitely	.080	.007	.066	.093
Yes, to some extent	.322	.019	.285	.358
No	.429	.026	.379	.480

Similarly, those who stated they were "definitely" clearly told why the advice given or action taken was the right thing to do had a lower mean score (0.076) compared to other response options, indicating a more positive experience. This was overall significant with p<0.0005. Table 6 below provides the full details of the ANOVA. Table 2.2 in Appendix two indicates that the differences between the response options are all significant.

Table 6 Analysis of variance on whether parents felt they were clearly told why the advice or action taken by NHS 111 was the right thing to do.

Q11.b Thinking about the advice given or the action taken by NHS 111 were you clearly told why this was the right thing to do? (Q11b)				
	Composite		95% Confidence Interval	
Q11.b: p<0.0005	Mean	Std. Error	Lower Bound	Upper Bound
Yes, definitely	.076	.008	.061	.091
Yes, to some extent	.249	.016	.217	.281
No	.310	.021	.268	.351

Table 7 below shows that the 'experience of call" composite score significantly differentiated (p<0.0005) between those parents who followed the advice fully, those who followed the advice partly, and those who did not at all. Those parents who did not follow the advice at all had a much higher mean score for the 'experience of call' (0.497), indicating a less positive experience compared to those who fully followed the advice (mean score = 0.104) . Table 2.3 in Appendix two indicates that the differences between the response options are significant.

Table 7 Analysis of variance on whether parents followed the advice or action received from NHS 111.

Q13+ Did you follow the advice or action you received from the NHS 111? (for whom it was necessary)				
	Composite		95% Confidence Interval	
Q13+: p<0.0005	Mean	Std. Error	Lower Bound	Upper Bound
Yes, fully	.104	.007	.090	.118
Yes, partly	.277	.028	.223	.332
No	.497	.041	.416	.578

Finally, there was no significant difference on the "experience of the call" measure by condition (p>0.05). Table 8 presents the mean of the composite score for each condition as well as the 95% confidence intervals.

Table 8 Analysis of variance by condition.

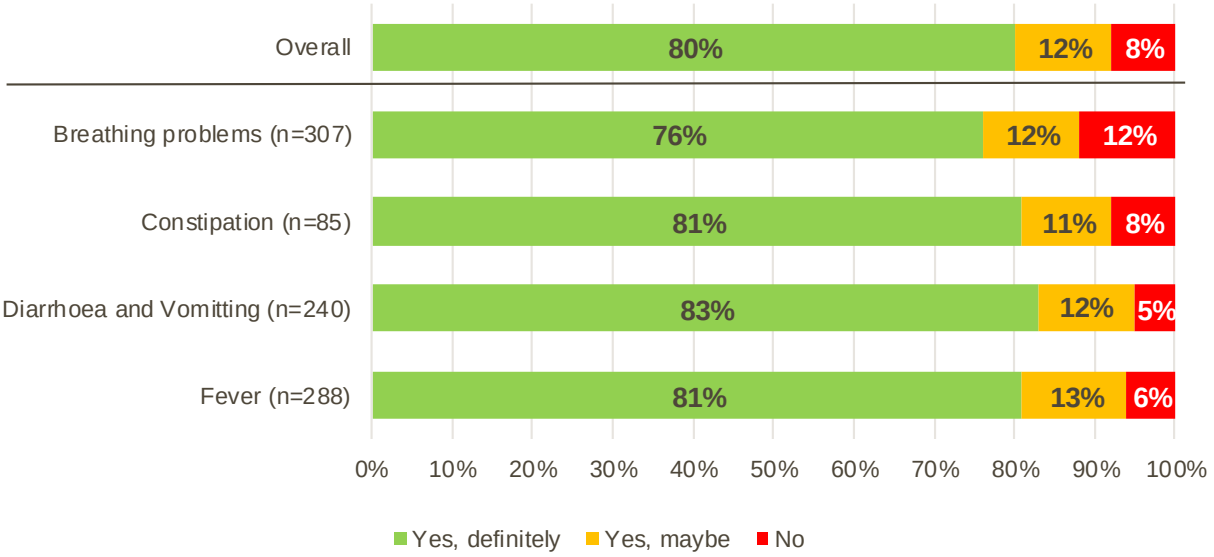
Condition				
	Composite		95% Confidence Interval	
Condition: p=0.596	Mean	Std. Error	Lower Bound	Upper Bound
Breathlessness	.132	.012	.108	.156
Constipation	.117	.023	.072	.161
Diarrhoea and Vomiting	.115	.014	.088	.143
Fever	.139	.013	.113	.164

In summary, “experience of the call” proved capable of differentiating the experience of those who agreed with the advice, of those who did not think that they were clearly told why the advice they were given was appropriate, and of those who did not follow the advice given to them. Those parents who agreed with the advice were associated with having a more positive experience than those who did not agree with the advice. Similarly, having a less positive experience of the call was associated with perceptions that the advice was not appropriate, and with not following the advice given.

Overall

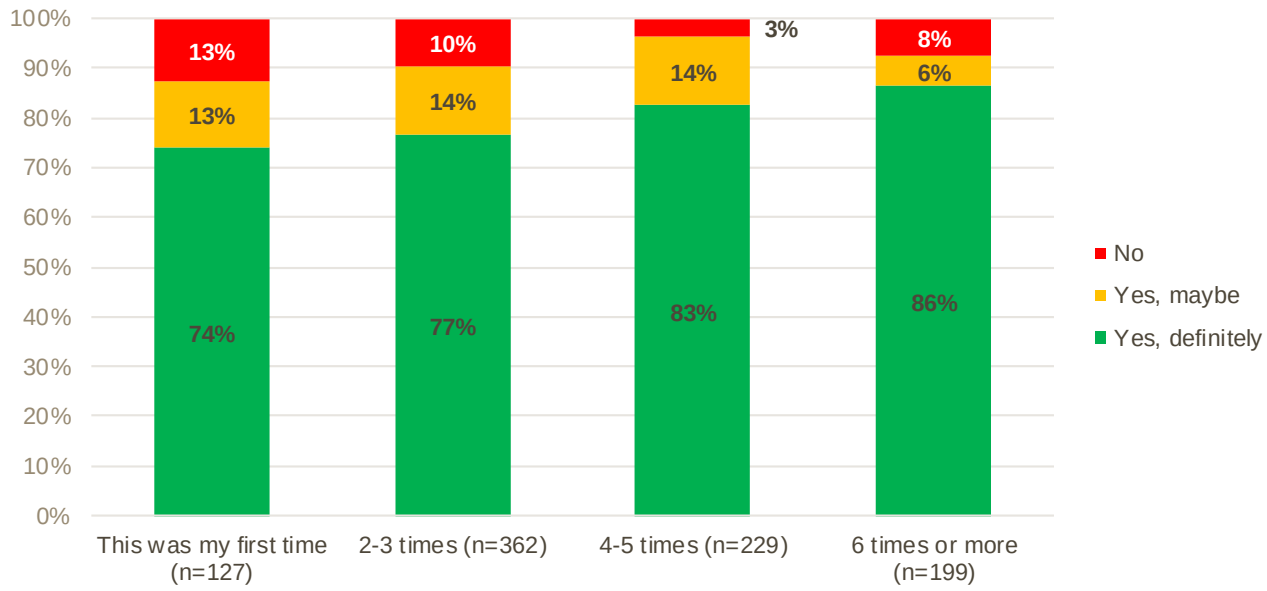
If their child had the same problem at the same time of day or night in the future, 80% (n=735) of parents/carers reported that they would call NHS 111 again, and only 8% (n=74) would not. This was very much the same outcome across the four conditions, although those who had called about their child’s breathing were less likely to agree that they would use the service again.

Graph 12. Q16+. If your child had the same problem at the same time of day or night in the future, would you call NHS 111 again, by condition. (n=920)



Those parents who had more experience of the service were more likely to say they would definitely use the service again. Seventy-four percent (n=94) of those for whom the current call was the first time they had used NHS 111, said they would definitely use the service again if they had the same problem at the same time of day or night in the future, compared to 86% (n=174) of those who had used the service six times or more. The graph below shows full breakdowns.

Graph 13. Q16+. If your child had the same problem at the same time of day or night in the future, would you call NHS 111 again? (for whom it was applicable), by number of calls to NHS 111 (n=917)



Parents who reported they were 'definitely' listened to carefully (Q4+), 'definitely' had confidence and trust in the first person they spoke to (Q5+), and were 'definitely' involved as much as they wanted to be in decisions about their child's care (Q12+) were significantly more likely to state they would 'definitely' use the service again, than those who answered 'yes, to some extent' or 'no' to these questions. In other words, 82% (n=699) of parents who were 'definitely' listened to carefully would also 'definitely' use the service again. Whereas, only four (31%) parents who reported they were *not* listened to, would definitely use the service again. Table 9 below presents the proportion of parents who stated they would 'definitely' use the service again, by the three questions above. Cross tabulations by Q16+ are presented in Appendix two.

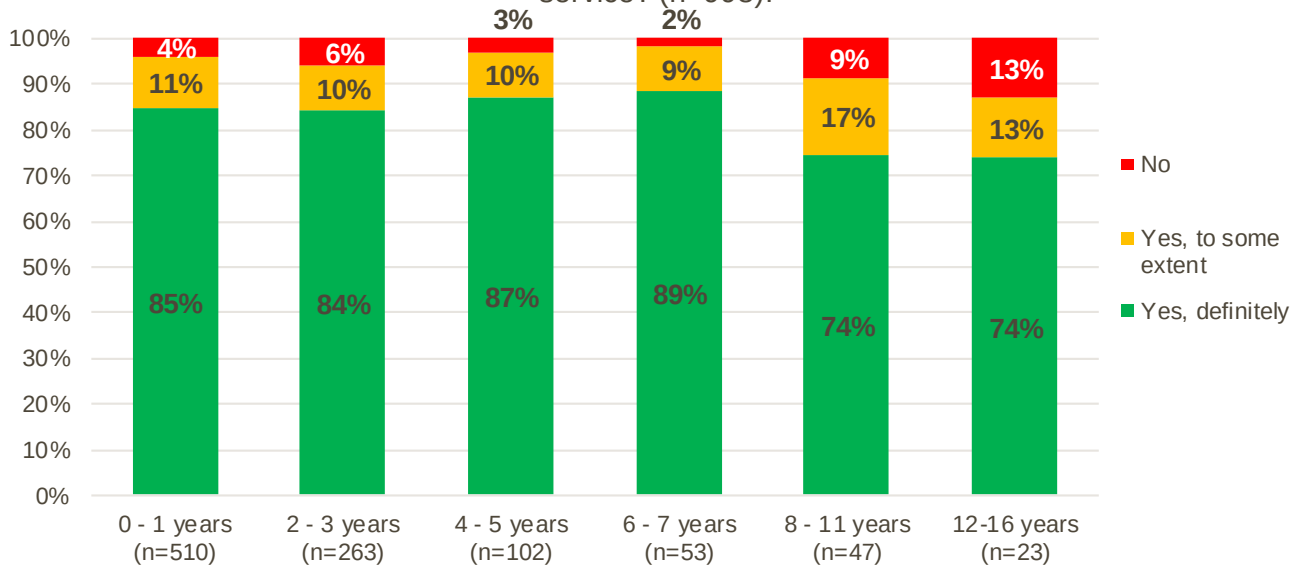
Table 9. Proportion of parents who stated they would 'definitely' use the service again, by whether they were listened to, had confidence and trust, or were involved in decisions about their child's care.

	Yes, definitely	Yes, to some extent	No
Q4+ Were you listened to carefully?	82% (n=699)	56% (n=30)	31% (n=4)
Q5+ Did you have confidence and trust	86% (n=620)	63% (n=95)	27% (n=10)
Q12+ Were you involved in decisions	86% (n=630)	63% (n=54)	36% (n=17)

Overall, 84% (n=842) definitely got what they needed from the NHS 111 service, a further 11% (n=109) agreed that they got what they needed to some extent. Just 5% (n=47) did not get what they needed from using this service. This was similar across all four conditions however there were some differences between parents calling for older children compared to

those calling for younger children. Those parents whose child was over 8 years old were less likely to state that they definitely got what they needed from the service, compared to those parents whose child was under 8 years. See the graph below for full breakdowns.

Graph 14. Q17. Overall, did you get what you needed from the NHS 111 service? (n=998).



The freetext comments also revealed areas that were not covered in the survey questions. These comments were around the speed of answering and assisting, the first operator being medically trained, the number of questions being asked, details being recorded and timeliness of call backs.

Comments were made about the speed of the call being answered and how quickly they were assisted on the call.

> *"The response time was quick and the people are nice when you call up. They calm you down and prevent you from becoming stressed. They ask relevant questions to ensure that there isn't a serious problem although they sometimes don't seem it at the time."*

> *"On the whole it is very good. I use the service where the children are concerned as I want quick service. I like the quickness but I know the service isn't going to stay as good for much longer."*

Many parents suggested that the first person you are in contact with when you call NHS 111 should be medically trained, as this would save a lot of time

> *"The person who first answers the phone should have better medical knowledge as I needed advice immediately"*

> *"I'd prefer all medical experts to answer I think it wastes time people who aren't medically trained answering the phone first they clearly work off a script which feels quite slow luckily the problem wasn't urgent but if it was I would have got frustrated*

that I didn't get to speak to someone medically trained straight away because I repeated a lot of info to the doctor when they called me back"

Others felt that the amount of questions and the content they covered was irrelevant to them; that they would prefer the focus was on symptoms of the child rather than anything else.

"The long list of questions they ask you every time, I think they should save it on the system so when you ring again that information is available so you don't have to repeat it."

"When I first called they asked me multiple questions which I felt were unnecessary."

"I think that it is very scripted and some questions they ask are irrelevant to the actual problem, which makes it a longer process"

A number of parents commented on the callers taking information down and keeping records.

"It should be looked at carefully when they take down the first lot of information -to make sure everything is recorded correctly at the beginning"

"Efficient, details taken down correctly"

Further comments were made about the timeliness of the call back they received.

"The only comment I will make is that I had been told a GP will call me back within an hour. I found that timeframe too long."

"Maybe more people in the service, the time between my first call and when the doctor called me back could be quicker."

"It's pretty good. I have to wait an hour or so for the Doctor to call back and when you are worried that can be added stress but I know they are busy times"

A full list of all the anonymised freetext comments are provided in a separate excel file.

Conclusion

The newly developed parent questionnaire functions well in enabling respondents to describe their experience of using the NHS 111 service. Validation findings mirrored those from the focus groups, whereby there were no marked differences of experience of the call and the influence of this on the care pathway by condition, confirming there was no need to have an individual survey specific to each.

The survey revealed that most parents first heard about NHS 111 from their friends and family, from their GP, or from seeing an advertisement. Knowing where parents receive information about the service is vital to target awareness raising efforts and to share knowledge of how and when the service can and should be used.

Over half of the parents calling the NHS 111 service had done so as it was out of hours for primary care services. This may suggest that, had they been available, parents may have ordinarily accessed these services prior to using NHS 111. Since NHS 111 served as a resource for parents when primary care services weren't available then, it may have prevented them from relying on secondary care services such as A&E for non-urgent concerns. This is corroborated by the fact that a fifth of parents called the service for advice or reassurance, and 13% believed the situation wasn't urgent enough for 999. Research such as that conducted by ESRO for the Department of Health[6], revealed that a major reason parents of under 5s report attending A&E for non-urgent situations, is a desire to act overly cautiously as a result of being uncertain about their child's health or condition. Many parents in these situations could have accessed other services, or received reassurance that the situation was not urgent and avoided going to A&E. Therefore, if implemented appropriately, the NHS 111 service can serve as a source of information and comfort for those parents who are slightly unsure about their child's health or condition.

Overall, parents were positive about their experience of calling the NHS 111 service, with less than one in ten reporting that they would not necessarily call again if their child had the same problem in the future. Parents felt listened to, and the majority felt they were given enough information by the first call advisor to assist them in the care of their child. In other cases, parents were put in contact with other professionals in order to assist them with further information. However, the results also highlight room for improvement in some key areas, including having the advisor provide callers with an explanation as to why the advice given or action taken is the most suitable course of action.

Respondents' comments support these findings, but also provide further insight into their experience with some parents revealing dissatisfaction with the amount of questions asked and the timeliness of their call back. Furthermore, although most parents had a positive experience of the first person they spoke to, the results suggest that more could be done to ensure callers experienced a higher level of confidence and trust in the first advisor. This is

[6] ESRO, 2015. *A&E: Studying parental decision making around non-urgent attendance among under 5s.* Report prepared for the Department of Health.

supported by the free text comments made by the callers, suggesting that they would prefer the first advisor to have a medical background to provide prompt, efficient advice rather than being asked a number of (sometimes irrelevant) routine questions, which does not fill the caller with confidence, trust or reassurance. It may be difficult to change this since the service works by using non-medical advisors to screen and assess symptoms prior to directing service users to the most relevant care. However, providing parents with clearer explanations as to the why the questions are relevant as well as why the advice or action is appropriate could put parents' minds at ease. This was supported by the data and the freetext comments. Those who spoke to another person seemed more likely to have confidence and trust in them, than the first person they spoke to, however the reason for this is not clear. Possible suggestions could be that the additional advisor was medically trained, or instead may have simply confirmed what the first advisor was recommending.

As can be expected, there were slight differences between the conditions parents called for regarding: amount information provided; advice given; and alternative or additional routes taken. There were no marked differences however between parents calling for the different age groups. That said, the majority of callers were parents of children aged 0-1 years therefore meaningful analysis by age was not possible.

The composite score created for "experience of the call" proved capable of differentiating the experience of those who agreed with the advice, of those who felt they were clearly told why the advice they were given was appropriate, and of those who did not follow the advice given to them. This indicated associations between those parents who had a more positive experience of the call with (i) feeling the advice/action was the right thing to do, (ii) feeling that they were clearly told why it was correct, and (iii) ultimately following the advice that they were given by NHS 111. This has important implications in delivering a call service that offers a positive experience, to ensure unnecessary strain is not put on health services such as accident and emergency departments.

The overall impression was that the parents in North West London either fully or partly followed the advice given to them by the NHS 111. The number of callers who did not follow the advice was a relatively small proportion of the overall sample (less than ten percent). Over a third of those who did not follow the advice reported they did not fully agree with the advice given. As noted above having a positive experience of the call was associated with feeling the advice was correct and subsequently following the advice received. That said, a quarter of these callers did not follow the advice due to other options becoming available. A small number did try to follow the advice, but it was unsuccessful. Considering that the proportion not following the NHS 111 advice was so small could suggest that overall the service is one to be relied upon and is a successful and useful service for the majority of its users.

Understanding parent and service-user experience is widely recognised as a key component of health care quality. The PREM proved a useful tool to understand parents and carers' experiences of using NHS 111 as well as providing evidence that their overall experience could influence their decision to follow advice and ultimately follow the most appropriate care pathway for their child's needs. Listening to the experiences of parents and carers can and should assist service-providers with improving their services for those who use them and to ultimately ensure the most appropriate care pathway is followed.

Appendix One

Frequency tables

Frequency Tables

This section shows a breakdown of responses for each question. It also shows the recalculated plus questions where those respondents for whom a question was not applicable have been removed.

Condition

	Frequency	Valid Percent
Breathing Problems, Breathlessness or Wheeze	331	33.1
Constipation	100	10.0
Diarrhoea and Vomiting	264	26.4
Fever	305	30.5
Total	1000	100.0

Q1. Thinking back before you made the call, how did you first learn about NHS 111? (Q1)

	Frequency	Valid Percent
GP told me about the service	195	19.9
GP out of hours voice message advised me or redirected me	52	5.3
NHS Direct voice message advised me	34	3.5
Health visitor, pharmacist or other health professional	56	5.7
Online at e.g. NHS Choices, NHS Symptoms checker or GP website	118	12.0
Television advert or print advert (e.g. leaflet or poster)	189	19.3
Friends or family	265	27.0
Other (please specify below)	72	7.3
Total answered	981	100.0

Q2. Thinking about the most recent time you called NHS 111, what was the main reason you called NHS 111 rather than using another service?

	Frequency	Valid Percent
It was out of hours for my GP	526	52.6
I could not get an appointment with my GP	42	4.2
It was out of hours for my pharmacist or other services	2	.2
It was an emergency	44	4.4
It was not urgent enough for 999	129	12.9
I wanted to avoid going to A&E	27	2.7
I needed advice/ reassurance	200	20.0
I wanted to be redirected to another service	7	.7
I did not know what else to do	23	2.3
Total answered	1000	100.0

Q3. When you first called, did the person you spoke to introduce themselves?

	Frequency	Valid Percent
Yes	731	73.1
No	8	.8
Can't remember	261	26.1
Total answered	1000	100.0

Q3+ When you first called did the person you spoke to introduce themselves? (those who could remember)

	Frequency	Valid Percent
Yes	731	98.9
No	8	1.1
Total answered	739	100.0

Q4. Did the first person you spoke to listen carefully to what you had to say? (Q4)

	Frequency	Valid Percent
Yes, definitely	923	92.4
Yes, to some extent	60	6.0
No	13	1.3
This was not necessary	3	.3
Total answered	999	100.0

Q4+ Did the person you spoke to listen carefully to what you had to say? (for whom this was necessary)

	Frequency	Valid Percent
Yes, definitely	923	92.7
Yes, to some extent	60	6.0
No	13	1.3
Total answered	996	100.0

Q5. Did you have confidence and trust in the first person you spoke to? (Q5)

	Frequency	Valid Percent
Yes, definitely	772	77.8
Yes, to some extent	173	17.4
No	41	4.1
This was not necessary	6	.6
Total answered	992	100.0

Q5+ Did you have confidence and trust in the first person you spoke to? (for whom this was necessary)

	Frequency	Valid Percent
Yes, definitely	772	78.3
Yes, to some extent	173	17.5
No	41	4.2
Total answered	986	100.0

Q6. Did the person that you first spoke to give enough information to assist you? (Q6)

	Frequency	Valid Percent
Yes, enough information	709	71.1
Some, but not enough information	97	9.7
Very little or no information	22	2.2
No, but I was put in contact with someone else who gave me information	158	15.8
Not sure	11	1.1
Total answered	997	100.0

Q6+ Did the person that you first spoke to give enough information to assist you? (those who were sure)

	Frequency	Valid Percent
Yes, enough information	709	71.9
Some, but not enough information	97	9.8
Very little or no information	22	2.2
No, but I was put in contact with someone else who gave me information	158	16.0
Total answered	986	100.0

Q7. Other than the first person who answered the call, did you speak to anyone else on the telephone? (Q7)

	Frequency	Valid Percent
Yes, I was immediately transferred	68	6.8
Yes, I received a call back	633	63.7
No	293	29.5
Total answered	994	100.0

Q8. Did you have confidence and trust in the other person(s) you spoke to? (Q8) (those who spoke to another person(s))

	Frequency	Valid Percent
Yes, definitely	602	85.9
Yes, to some extent	73	10.4
No	23	3.3
This was not necessary	3	.4
Total answered	701	100.0

Q8+ Did you have confidence and trust in the other person(s) you spoke to? (those who spoke to another person(s) and for whom this was necessary)

	Frequency	Valid Percent
Yes, definitely	602	86.2
Yes, to some extent	73	10.5
No	23	3.3
Total answered	698	100.0

Q9. What action or advice did you receive from NHS 111? (Q9)

	Frequency	Valid Percent
An ambulance was called to my home	108	10.9
I was told to go to another urgent care service myself, such as a walk in clinic or A&E	232	23.4
The advisor made an appointment at an urgent care service on my behalf, such as a walk in clinic or A&E	202	20.4
I was advised to make an appointment with my own GP	77	7.8
I was advised to go to a pharmacist	9	.9
Nothing further, as I was assessed and given advice on how to look after the problem myself	328	33.1
Other (please specify below)	36	3.6
Total answered	992	100.0

Q10. Overall, were you satisfied with how quickly NHS 111 assisted you? (Q10)

	Frequency	Valid Percent
Yes, definitely	831	83.3
Yes, to some extent	114	11.4
No	53	5.3
Total answered	998	100.0

Q11.a Thinking about the advice given or the action taken by NHS 111 did you feel this was the right advice or action to be taken? (Q11a)

	Frequency	Valid Percent
Yes, definitely	826	82.7
Yes, to some extent	113	11.3
No	60	6.0
Total answered	999	100.0

Q11.b Thinking about the advice given or the action taken by NHS 111 were you clearly told why this was the right thing to do? (Q11b)

	Frequency	Valid Percent
Yes, definitely	730	74.0
Yes, to some extent	159	16.1
No	98	9.9
Total answered	987	100.0

Q12. Were you involved as much as you wanted in the decisions made about your child's care or treatment during the call? (Q12)

	Frequency	Valid Percent
Yes, definitely	796	79.7
Yes, to some extent	92	9.2
No	50	5.0
This was not necessary	61	6.1
Total answered	999	100.0

Q12+ Were you involved as much as you wanted in the decisions made about your child's care or treatment during the call? (for whom this was necessary)

	Frequency	Valid Percent
Yes, definitely	796	84.9
Yes, to some extent	92	9.8
No	50	5.3
Total answered	938	100.0

Q13. Now thinking about the time after the call, did you follow the advice or action you received from the NHS 111? (Q13)

	Frequency	Valid Percent
Yes, fully	889	89.0
Yes, partly	58	5.8
No	26	2.6
This was not necessary	26	2.6
Total answered	999	100.0

Q13+ Did you follow the advice or action you received from the NHS 111? (for whom it was necessary)

	Frequency	Valid Percent
Yes, fully	889	91.4
Yes, partly	58	6.0
No	26	2.7
Total answered	973	100.0

Q14. What else did you do / or do instead? If more than one, please select the one main action. (Q14) (those who did not fully follow the advice/action given by NHS 111)

	Frequency	Valid Percent
Nothing	11	13.1
I called 999	6	7.1
I went to another urgent care service such as a walk in clinic or A&E	28	33.3
I went to the pharmacist	0	0.0
I contacted another health professional such a health visitor or midwife	8	9.5
I waited until I could make an appointment with my own GP	14	16.7
Other (please specify below)	17	20.2
Total answered	84	100.0

Q15. If you did not fully follow the advice, why was this? (Q15) (those who did not fully follow the advice/action given by NHS 111)

	Frequency	Valid Percent
I did not fully agree with the advice	32	38.6
I tried, but it did not work	12	14.5
An alternative option became available e.g. I found an out of hours pharmacist in another area	20	24.1
It was not possible to follow the advice e.g. I couldn't find appropriate care for other children	16	19.3
I did not fully understand the advice	3	3.6
Total answered	83	100.0

Q16. Overall, if your child had the same problem at the same time of day or night in the future, would you call NHS 111 again? (Q16)

	Frequency	Valid Percent
Yes, definitely	735	73.6
Yes, maybe	111	11.1
No	74	7.4
Not applicable (e.g. I would feel confident about what to do myself)	79	7.9
Total answered	999	100.0

Q16+ If your child had the same problem at the same time of day or night in the future, would you call NHS 111 again? (for whom it was applicable)

	Frequency	Valid Percent
Yes, definitely	735	79.9
Yes, maybe	111	12.1
No	74	8.0
Total answered	920	100.0

Q17. Overall, did you get what you needed from the NHS 111 service? (Q17)

	Frequency	Valid Percent
Yes, definitely	842	84.4
Yes, to some extent	109	10.9
No	47	4.7
Total answered	998	100.0

Q18. Overall, including this call, how many times have you used the NHS 111 service for yourself or any other person? (Q18)

	Frequency	Valid Percent
This was my first time	137	13.7
2-3 times	396	39.7
4-5 times	245	24.6
6 times or more	219	22.0
Total answered	997	100.0

Q19. Who was the main person who completed this questionnaire? (Q19)

	Frequency	Valid Percent
Mother of child	773	77.3
Father of child	203	20.3
Mother and father together	5	.5
Carer/ guardian of child	2	.2
Other	17	1.7
Total answered	1000	100.0

Q20. Is your child male or female? (Q20)

	Frequency	Valid Percent
Male	558	56.2
Female	435	43.8
Total answered	993	100.0

Q22. To which of these ethnic groups would you say your child belongs? (Q22)

	Frequency	Valid Percent
White British	341	34.6
White other	131	13.3
Mixed or multiple ethnic groups	206	20.9
Asian or Asian British	150	15.2
Black or Black British	133	13.5
Other	25	2.5
Total answered	986	100.0

Age at Call - Age Groups

	Frequency	Valid Percent
0 - 1 years	510	51.0
2 - 3 years	264	26.4
4 - 5 years	102	10.2
6 - 7 years	54	5.4
8 - 11 years	47	4.7
12-14 years	23	2.3
Total	1000	100.0

Appendix Two

ANOVA charts and Additional Crosstabs

Analysis of variance with post-hoc test

The following tables present the post-hoc tests for the mean score of the composite "experience of the call" for each of the questions Q11a. Q11b and Q13+. The tables show significant differences between each pair of responses.

Table 2.1 Post-hoc test of "experience of the call" composite score on Q11a.

Multiple Comparisons

Dependent Variable: Composite_3.4.5.12

Tukey HSD

(I) Q11.a Thinking about the advice given or the action taken by NHS 111 did you feel this was the right advice or action to be taken? (Q11a)	(J) Q11.a Thinking about the advice given or the action taken by NHS 111 did you feel this was the right advice or action to be taken? (Q11a)	Mean Difference (I-J)	Std. Error	Sig.	95% Confidence Interval	
					Lower Bound	Upper Bound
Yes, definitely	Yes, definitely					
	Yes, to some extent	-.2419*	.01994	.000	-.2887	-.1951
	No	-.3496*	.02659	.000	-.4120	-.2872
Yes, to some extent	Yes, definitely	.2419*	.01994	.000	.1951	.2887
	Yes, to some extent					
	No	-.1076*	.03176	.002	-.1822	-.0331
No	Yes, definitely	.3496*	.02659	.000	.2872	.4120
	Yes, to some extent	.1076*	.03176	.002	.0331	.1822
	No					

Based on observed means.

The error term is Mean Square(Error) = .040.

*. The mean difference is significant at the .05 level.

Table 2.2 Post-hoc test of "experience of the call" composite score on Q11b.

Multiple Comparisons

Dependent Variable: Composite_3.4.5.12

Tukey HSD

(I) Q11.b Thinking about the advice given or the action taken by NHS 111 were you clearly told why this was the right thing to do? (Q11b)	(J) Q11.b Thinking about the advice given or the action taken by NHS 111 were you clearly told why this was the right thing to do? (Q11b)	Mean Difference (I-J)	Std. Error	Sig.	95% Confidence Interval	
					Lower Bound	Upper Bound
Yes, definitely	Yes, definitely					
	Yes, to some extent	-.1734*	.01814	.000	-.2160	-.1308
	No	-.2340*	.02230	.000	-.2863	-.1816
Yes, to some extent	Yes, definitely	.1734*	.01814	.000	.1308	.2160
	Yes, to some extent					
	No	-.0606	.02662	.060	-.1230	.0019
No	Yes, definitely	.2340*	.02230	.000	.1816	.2863
	Yes, to some extent	.0606	.02662	.060	-.0019	.1230
	No					

Based on observed means.

The error term is Mean Square(Error) = .043.

*. The mean difference is significant at the .05 level.

Table 2.3 Post-hoc test of "experience of the call" composite score on Q13+.

Multiple Comparisons

Dependent Variable: Composite_3.4.5.12

Tukey HSD

(I) Q13+ Did you follow the advice or action you received from the NHS 111? (for whom it was necessary)	(J) Q13+ Did you follow the advice or action you received from the NHS 111? (for whom it was necessary)	Mean Difference (I-J)	Std. Error	Sig.	95% Confidence Interval	
					Lower Bound	Upper Bound
Yes, fully	Yes, fully					
	Yes, partly	-.1730*	.02856	.000	-.2400	-.1059
	No	-.3925*	.04192	.000	-.4909	-.2941
Yes, partly	Yes, fully	.1730*	.02856	.000	.1059	.2400
	Yes, partly					
	No	-.2195*	.04973	.000	-.3362	-.1028
No	Yes, fully	.3925*	.04192	.000	.2941	.4909
	Yes, partly	.2195*	.04973	.000	.1028	.3362
	No					

Based on observed means.

The error term is Mean Square(Error) = .044.

*. The mean difference is significant at the .05 level.

Crosstabulations of Q16+

The following tables present the crosstabulations of whether parents would use the service again for the same problem at the same time (Q16+), by whether the first person listened to them (Q4+); whether they had confidence and trust in the first person they spoke to (Q5+); and whether they were involved in decisions about their child's care and treatment (Q12+).

Table 2.4 Whether parents would use the service again (Q16+), by whether the first person listened to them carefully (Q4+).

Q16+ If your child had the same problem at the same time of day or night in the future, would you call NHS 111 again? (for whom it was applicable) * Q4+ Did the person you spoke to listen carefully to what you had to say? (for whom this was necessary) Crosstabulation

		Q4+ Did the person you spoke to listen carefully to what you had to say? (for whom this was necessary)		
		Yes, definitely	Yes, to some extent	No
Q16+ If your child had the same problem at the same time of day or night in the future, would you call NHS 111 again? (for whom it was applicable)	Yes, definitely	699 82.1%	30 56.6%	4 30.8%
	Yes, maybe	94 11.0%	13 24.5%	3 23.1%
	No	58 6.8%	10 18.9%	6 46.2%
Total		851 100.0%	53 100.0%	13 100.0%

Table 2.5 Whether parents would use the service again (Q16+), by whether they had confidence and trust in the first person they spoke to (Q5+).

Q16+ If your child had the same problem at the same time of day or night in the future, would you call NHS 111 again? (for whom it was applicable) * Q5+ Did you have confidence and trust in the first person you spoke to? (for whom this was necessary) Crosstabulation				
		Q5+ Did you have confidence and trust in the first person you spoke to? (for whom this was necessary)		
		Yes, definitely	Yes, to some extent	No
Q16+ If your child had the same problem at the same time of day or night in the future, would you call NHS 111 again? (for whom it was applicable)	Yes, definitely	620	95	10
		86.0%	63.3%	27.0%
	Yes, maybe	66	35	8
		9.2%	23.3%	21.6%
	No	35	20	19
		4.9%	13.3%	51.4%
Total		721	150	37
		100.0%	100.0%	100.0%

Table 2.6 Whether parents would use the service again (Q16+), by whether they were involved in decisions about their child's care and treatment (Q12+)

Q16+ If your child had the same problem at the same time of day or night in the future, would you call NHS 111 again? (for whom it was applicable) * Q12+ Were you involved as much as you wanted in the decisions made about your child's care or treatment during the call? (for whom this was necessary) Crosstabulation				
		Q12+ Were you involved as much as you wanted in the decisions made about your child's care or treatment during the call? (for whom this was necessary)		
		Yes, definitely	Yes, to some extent	No
Q16+ If your child had the same problem at the same time of day or night in the future, would you call NHS 111 again? (for whom it was applicable)	Yes, definitely	630	54	17
		86.1%	62.8%	36.2%
	Yes, maybe	66	19	10
		9.0%	22.1%	21.3%
	No	36	13	20
		4.9%	15.1%	42.6%
Total		732	86	47
		100.0%	100.0%	100.0%

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