



Evaluation of NHS 111 pilot sites

First Interim Report

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Executive Summary

Introduction

Consultation with the general public around accessing urgent care has identified problems of confusion about the most appropriate service to contact, and the need for a service with a memorable telephone number to ease access. NHS 111 has been conceived as a new, free to use telephone based service for accessing urgent care encompassing telephone clinical assessment and advice or referral to an appropriate healthcare provider within a single contact. Approval of the 111 number for use was made in 2009 and four pilot sites have implemented this new service in 2010. The perceived benefits of this new service are to relieve some of the pressure on emergency care services, reduce duplication and inefficiency in the emergency and urgent care system and enhance the quality of service for patients. The Medical Care Research Unit at the University of Sheffield, in collaboration with the Department of Health (DH) Commissioning and Intelligence Team, were commissioned to carry out an independent evaluation of the costs and benefits of this new service to inform future policy decision making. The main aims of the evaluation are to describe use of the new service and the experiences of users, evaluate the impact on the emergency and urgent care system and measure the associated costs so that a robust assessment can be made of whether NHS 111 is a useful and cost-effective addition to the emergency and urgent care system.

Pilot site progress

The four pilot sites, overseen by a national programme board and Strategic Health Authorities, are

- An ambulance led service in Durham and Darlington Primary Care Organisation
- An NHS Direct led service in Nottingham City, Lincolnshire PCT and Luton PCT

A number of issues led to some delays in service “go live” including implementing telephony services, developing the required technological links, ensuring appropriate clinical governance procedures and building Directories of Services to support processes. However all 4 pilot sites are now operating with public launches of the service taking place in Durham and Darlington in August 2010, Nottingham City and Lincolnshire in November 2010 and Luton in December 2010.

Early results on activity

A controlled before and after study is being used to assess the impact of NHS 111 on the emergency and urgent care system. For this report early data from the first 4

months of operation in the Durham & Darlington pilot site has been used to make a preliminary assessment of activity. The main findings are:

- Call volumes have been steady at around 14,000 calls per month
- Initially about half of these calls were triaged but this has increased to almost 70%
- National quality requirements for call answering have been exceeded but more call backs than desired have been needed
- Over 60% of assessed calls are directed to primary care or urgent care centres and about 13% require an ambulance response
- The only identifiable clear system impact in the pilot area is a reduction in calls to NHS Direct when compared to a control area. No clear impact has been detected on ambulance calls or ED attendances but the effects on the system may not become clear until the service is established and a longer period of assessment is available for analysis

Urgent care system use

We have conducted telephone administered population surveys in each of the 4 pilot areas and 3 matched control areas to measure urgent care contacts immediately before NHS 111 was implemented. The results of the first population surveys provide a broad picture of utilisation of emergency and urgent care services across the pilot and control areas. The key findings are:

- The demographic profiles of pilot sites and their matched controls were broadly similar indicating that the choice of control areas is correct
- There was similar reporting of urgent care problems between pilot areas and matched controls although variation between pilot areas. Between 6% and 11% of local populations reported seeking help for an urgent health problem with a range of 1-7 (mean 1.5) contacts required to resolve their problem
- There was variability between pilot sites in terms of satisfaction with use of the system.

The surveys will be repeated at each pilot and control site one year after implementation of NHS 111 (June – September 2011) and the results compared to these baseline data.

Lessons learned so far

In October 2010, the DH initiated a rapid review of the implementation of NHS 111 in each of the four pilot sites to enable an early exchange of views and ideas between those stakeholders at the 'vanguard' of designing, implementing and providing NHS 111 and provide information that may be of value to the next wave of sites. Six focus

groups were held with a wide range of stakeholders involved in the design, set up, implementation and provision of NHS111. The key lessons that emerged were:

- The processes involved in delivering the service, strategic, - management and operations,- have been much more complex, difficult and time consuming than expected
- The service specification needs to be clear and explicit
- Success will be dependent on the committed engagement of all the relevant agencies and a dedicated project team to manage the process from start to implementation and subsequent maintenance
- There are significant technical issues around licensing, adaptation and integration of the different telephone and IT systems that need to be linked to deliver seamless call handling
- A robust period of testing to ensure consistency of assessment, alignment of dispositions to services and system resilience is critical before a service goes live
- The development of the directory of services linked to dispositions is a crucial activity and the effort required to do this accurately and comprehensively cannot be underestimated
- The capacity of NHS Pathways to provide system support and training needs to be increased if this is the preferred assessment system for national roll out
- Aligned national and local marketing strategies that provide a consistent and explicit message about the purpose of NHS 111 and how it should be used will be key to a national service
- 111 is just a telephone number – it is what is behind it that is important and how it operates as part of an integrated 24/7 urgent care system.
- Greater clarity is required on the NHS 111 key performance indicators including National Quality Requirements for OOHs services
- Greater understanding of the opportunities for economies of scale in light of a tighter financial environment

Next Steps

This first interim report brings together a summary of the progress of NHS 111 pilot sites and the evaluation activities carried out so far. As with all new service innovation there has been some change in the timetable for key activities. However all 4 pilot services are now up and running and the remaining evaluation tasks can progress during the rest of 2011. A further interim report will be published in the autumn providing details of more detailed analysis of NHS 111 use and dispositions, system impact and the results of the first user surveys carried out during February and March 2011.

1. Introduction

1.1 Background

The Chief Medical Officer's review of developing emergency services in the community in 1997 recommended that telephone access using a simple three digit number should be introduced into the NHS¹. This was based on focus groups with the general population who reported confusion about which service to attend when they had an urgent health problem. NHS Direct was established to meet this need in three pilot sites in 1998, expanding to a national service by 2000 with the telephone number 08454647. In 2006 consultation with the general public around the Direction of Travel for urgent care identified the same problems of confusion about the most appropriate service to contact, and the need for a service with a memorable telephone number to ease access². The ambulance service receives 7.85 million 999 calls per year of which 2.5 million (32%) are classified as urgent rather than emergency (<http://www.ic.nhs.uk/statistics-and-data-collections/audits-and-performance/ambulance/ambulance-services-england-2009-10>). Similarly 37% of Emergency Department (ED) attendances are classed as "minor" problems. The potential solution of a three digit number service for urgent calls to relieve some of the pressure on emergency care services and reduce duplication and inefficiency in the emergency and urgent care system was discussed in The Next Stage Review in 2008³. DH commissioned three pieces of research to explore the public's views of a new service (including the service, the number and the cost of the call). The positive responses led to DH approaching Ofcom to request a new three digit number and Ofcom conducted a consultation exercise which led to 111 being allocated to the DH for UK-wide use.⁴ The Department of Health set up a programme board in 2009 to oversee the development and implementation of a new telephone based service for accessing urgent care. As part of this process NHS services were invited to become pilot sites for this new service and 4 pilot areas were identified. At the same time the Medical Care Research Unit at the University of Sheffield, in collaboration with the Department of Health (DH) Commissioning and Intelligence Team, were commissioned to carry out an independent evaluation of the costs and benefits of this new service to inform future policy decision making.

Following then change in Government in 2010 a decision was taken to roll out the NHS 111 service across the country

http://www.dh.gov.uk/en/MediaCentre/Pressreleases/DH_118861

However the planned evaluation is continuing to provide information and evidence to support future service development.

1.2 Objectives of the evaluation

The primary research question for the evaluation is: is a three digit number for access to services for urgent healthcare problems a useful and cost effective addition to the emergency and urgent care system in England? The objectives are:

- i) To synthesise the qualitative and quantitative literature on telephone services directing people to appropriate healthcare.
- ii) To assess the processes within each pilot site to describe who uses urgent care services, 111 call activity and processes including timings and referral patterns, and practical lessons around implementation.
- iii) To evaluate the impact of the introduction of the NHS 111 service on care pathways, public confidence and patient experiences, equity of access and changes in demand for related services across the emergency and urgent care system.
- iv) To explore the feasibility of using routine call data to assess the appropriateness of triage decisions in a 111 service.
- v) To assess the costs and cost consequences of the NHS 111 service.
- vi) To compare and contrast different models of service provision and explore the impact on local health economies to identify lessons on the best ways of developing the service and rolling it out across the country.

1.3 Status of this report

This is the first interim report of the evaluation. The main items of the report are:

- A summary description of the processes leading to the pilot sites becoming live services
- A summary of the different research methods designed to fulfil the objectives and progress of the evaluation to date
- Presentation of results for completed tasks and early findings for ongoing tasks
- Results of population surveys of urgent care use before service implementation
- Early analysis of activity in the first NHS 111 site to go live
- A series of focus groups to identify the practical lessons learned so far by NHS 111 pilot sites
- Timetable for the next stages of the evaluation.

2. Service implementation and site progress

The underlying principle of the NHS 111 service is that patients who request urgent medical care should be assessed and directed to the “right service first time”. The main features of the service are that:

- The number is free to use
- Calls are assessed using an approved clinical assessment system to determine the most appropriate course of action for the patient. In each of the current pilot sites the system used is NHS Pathways operated by non clinical call advisors but with clinical supervision available
- Calls assessed as requiring an emergency ambulance response can be immediately directed to ambulance dispatch without the need for re-assessment or repeat requests for information from the patient (“warm transfer”). The call advisor stays on the line until the ambulance response arrives.
- Other calls can be given health information, self care advice or directed to the most appropriate service available at the time of the call using an up to date skills based Directory of Services (DoS) for the patient’s local area
- Where possible the 111 service should develop real time links with urgent care providers so that appointments can be made for callers at the time of their call to NHS 111.

Four pilot sites, overseen by the national programme board and Strategic Health Authorities, were identified to take these plans forward:

- North East England. An ambulance led service in Durham and Darlington Primary care organisation (PCO) to begin July 2010;
- East Midlands. A NHS Direct led service and in Nottingham City working in partnership with a GP out of hours service (Nottingham Emergency Medical Service – NEMS) to begin September 2010;
- East Midlands. A joint ambulance service and NHS Direct led service in Lincolnshire PCTs to begin October 2010;
- East of England. An NHS Direct led service in Luton PCT to begin October 2010.

A number of key events occurred prior to implementation that had an impact on the original timetable of events.

- In May 2010 there was a change of government. Whilst NHS 111 development continued at a local level, centrally there was a period of change whilst decisions about NHS 111 and new policy were made. These decisions saw a shift in policy from NHS 111 as a pilot project to an intention to roll out

a national service, subject to evaluation. The need to renegotiate business plans for allocation of central funds for national activities such as the communications and marketing strategy for NHS 111 meant that production of the national marketing materials were delayed and out of step with go live plans within the pilot sites.

- There was some anxiety about the quality of the clinical governance arrangements made in each of the pilot sites. These were reviewed and steps taken to strengthen the processes before services went live. This review process within the pilot sites provided valuable understanding of the special challenges which NHS 111 sites face in ensuring clinical governance.
- Telephony was complex particularly around the technical issues of defining areas where the service should and should not be switched on.
- In Lincolnshire there were difficulties in setting up NHS Pathways to handle NHS 111 calls in a shared environment with a separate 999 assessment system including contractual issues with the 999 system provider.
- NHS Direct had concerns about the impact of NHS pathways content on referral rates to face-to-face and they commissioned a separate field trial of NHS Pathways to test the effectiveness of using NHS Pathways within NHS Direct. The use of the NHS Direct Clinical Sorting and Prioritisation Tool (CSPT) to triage NHS 111 calls was also considered but it had not been developed or accredited to be used in ambulance control centres or to enable warm transfer for calls requiring a 999 ambulance. As a result NHS Pathways was selected as the assessment system of choice in all pilot sites as it is the only currently available clinical content system that can meet the service specification requirements for warm transfer of calls requiring an ambulance.
- The launch of NHS 111 in the North East by the Secretary of State for Health and subsequent questions about the future of NHS Direct as a national service brought more focus on NHS Direct involvement in NHS 111. The difficulties in establishing an ambulance service based provider in Lincolnshire meant that NHS Direct is now the sole provider of NHS 111 call handling in East Midlands and East of England although NEMS continues to have a clinical involvement in Nottingham City.
- Within East Midlands the perception from early results from the North East pilot and internal testing led to an initial lack of confidence about the ability of NHS Direct to effectively handle warm transfers to the ambulance service and the ratios of calls assigned to dispositions that were speak to a clinician or see a clinician referrals. A period of extensive testing was required to ensure resilience of the system and to restore confidence in referrals. This led to a delay in going live but having completed this high level testing in Nottingham City the service subsequently rolled out very quickly in Lincolnshire and Luton.

The consequence of these events is that the timetable for some of the NHS 111 pilot sites to become live services slipped although all are now operating. North East became a live service in August 2010, Nottingham City and Lincolnshire in November 2010 and Luton and December 2010 respectively. This means that some of the planned evaluation activities have also now moved from the original timetable.

3. Evaluation progress and results to date

In this section we report on progress for the planned evaluation activities with the results where some work has been completed.

The main evaluation activities are:

1. Evidence synthesis on telephone access to healthcare
2. Using routine data from NHS 111 to describe processes of care and from other services to assess the impact of pilot sites on activity across the emergency and urgent care system
3. Measuring the impact of pilot sites on users of the emergency and urgent care system
4. Assessing patient experiences of NHS 111
5. Describing the different service models and the effect of pilot sites on the local health economy
6. Measuring the impact of pilot sites on inequalities in access and use of services
7. Measuring the costs and cost consequences
8. Measuring the fit of NHS 111 triage decisions with the principle of “right place first time”

Work on items 5-8 have not yet started and are planned for 2011 so will not be considered further in this report.

3.1 Evidence synthesis on telephone access to healthcare

We stated in the proposal that “MEDLINE and other relevant databases will be searched for research evidence about telephone services directing people to appropriate healthcare. International literature will be relevant, with attention paid to the context in which any service operated e.g. attention to the health systems

operating in different countries and their relevance to NHS 111 within the English NHS.”

We are in the process of undertaking three systematic reviews on:

- The accuracy or *appropriateness* of the triage recommendation
- User *compliance* with telephone triage recommendation
- The *impact* of the telephone triage service on other services

We have completed the searches and located 30 papers on appropriateness, 29 on compliance and 32 on impact. We have completed data extraction and are in the process of synthesising the literature on appropriateness. The evidence base on appropriateness is mainly on nurse triage with some comparison of nurses with doctors. The proportion of calls rated as appropriate varied between 50% and 98% and this appears to be dependent on the methods used to assess appropriateness. Proportions appear to be higher where patients are asked to state the appropriateness of the triage recommendation and lower where mock patients or expert panels are used. Our first assessment of the evidence base on compliance shows a similar level of variation between studies: 44% to 97% compliance with advice given, with a wide variety of approaches to assessing compliance.

Our plan is to analyse and write the three reviews in the order displayed. Our original timetable was to complete the reviews by July 2010. The researcher went on maternity leave and the reviews did not progress. Progress started again in January 2011 for completion within two months. A full report on the reviews will be submitted as part of the next interim report.

3.2 Using routine data to describe processes of care and emergency and urgent care system impact

Background

For this report we present the first whole system analysis of the impact of the North East NHS 111 pilot on its emergency and urgent care system. This was the first pilot to go live and for which we have therefore accrued some activity data. The North East (NE) NHS 111 pilot is located in County Durham and Darlington (CD&D) Primary Care Organisation (PCO). CD&D PCO consists of County Durham PCT and Darlington PCT managed jointly by the same team. As part of a wider urgent care strategy, a Single Point of Access (SPA) telephone service has operated in CD&D PCO since October 2009. This service was transformed into the NHS 111 service with a soft launch on 12th July 2010 and a public launch on 03/08/2010. North East Ambulance Service (NEAS) was the provider of the SPA and is operating the new NHS 111 service with health information being provided by NHS Direct. NEAS have

been using NHS Pathways as the assessment system for 999 calls for a number of years providing a higher degree of confidence and experience with this system than the other pilot sites which started later.

The wider urgent care strategy in the NE and the introduction of the SPA had some effects on the urgent care system and these have been described separately in a report to DH. This report describes the first three months of service delivery and changes in the urgent care system since the public launch of NHS 111.

The intended purpose of NHS 111 is to deliver a range of benefits across the urgent care system as a whole. The potential benefits are that NHS 111 will:

- Advise patients of which service to access and for this to be the right place first time or provide self care advice. This should be delivered with no call backs and be free to caller to shift calls from other emergency and urgent care call handling services towards NHS 111.
- Reduce calls, particularly category C, to the ambulance service since patients may redirect themselves to an equally accessible but non-emergency service. This in turn should result in fewer aborted ambulance dispatches, where an ambulance response (fast response car, ambulance etc) is dispatched and then stood down, as at present an ambulance response is dispatched as soon as an address is obtained and then stood down when it is apparent that it is not a category A or B call.
- Reduce attendances at Emergency Departments (ED), particularly minors and self-referrals, since people may ring NHS 111 before they go and be advised to attend primary care instead.
- Reduce calls to NHS Direct as people may migrate to the free service with no call backs
- Increase urgent care centre / walk in centre and GP OOH appointments as patients are advised to attend these services rather than ED. However, there may also be no change as some patients will be advised towards GP routine and self-care
- Reduce zero bed day admissions as a knock on effect of there being fewer attendances at ED.

This initial whole system impact analysis begins the investigation of the first four of these specific impacts. The latter two will be investigated as data becomes available.

Methods

We have designed a controlled before and after study using routine data on the utilisation of key emergency and urgent care services in the 4 pilot sites and 4 matched control sites. This will allow for control of other factors which may be also having an effect on activity across the emergency and urgent care systems. Full data

from the NHS Pathways software system servicing each pilot site will also be obtained on a monthly basis. It will be used to describe processes of care, trends over time, and performance against Key Performance Indicators.

For this analysis call data for NHS 111 is obtained directly from the Durham & Darlington NHS 111 service provider. Ambulance service data is provided by North East Ambulance Service NHS Trust and routine data on monthly usage of emergency departments (including urgent care centres, walk in centres, minor injury units if possible) from the Secondary Users Service (SUS) collection from April 2008 to the start of the first pilot site and will continue to one year later. The control site is North of Tyne PCO.

The implementation of NHS 111 in the NE has happened after the prior roll-out of an urgent care strategy and particularly the SPA in the same area. The effects observed in the pilot area are therefore additional to those already generated by the introduction of the SPA.

Results

Results are given from the first four months of service delivery in the NE pilot site. The charts in this report are augmented with two vertical lines: the earlier indicating the introduction of the SPA and rollout of the urgent care strategy and the latter indicating the public launch of NHS 111.

The NE pilot design involved switching through GP, GP OOH and other local urgent care call handling provider's calls to the NHS 111 service. This has ensured a known working volume of calls for go live and enabled the NE to re-commission their urgent care call handling.

i) NHS 111 activity and performance

The total call volume has remained steady over the first four months of operation but the number of direct dialled calls, that is those using the NHS 111 phone number rather than being switched through, has gone up from around 4000 to around 6000 per month since launch. The number of calls answered has remained steady, whilst the number of calls triaged has grown slightly, perhaps indicating that the service is being used more appropriately for true clinical problems. These are illustrated in Figure 1.

The difference between calls received and calls answered may be explained by people being switched through from their GP first thing in the morning and hanging up during the message when they realise they are not getting through to their GP surgery. This high rate of automatic diverts resulted in a falsely high call volume in the early days of the service. The commissioners of the service have worked with

Primary care colleagues to reduce the number of automatic diverts, replacing these with messages, informing the public that they should call 111 to access urgent care. More detailed data is given in Table 1.

Figure 1: The number of calls received, dialled directly, answered and triaged to the NE NHS 111 service.

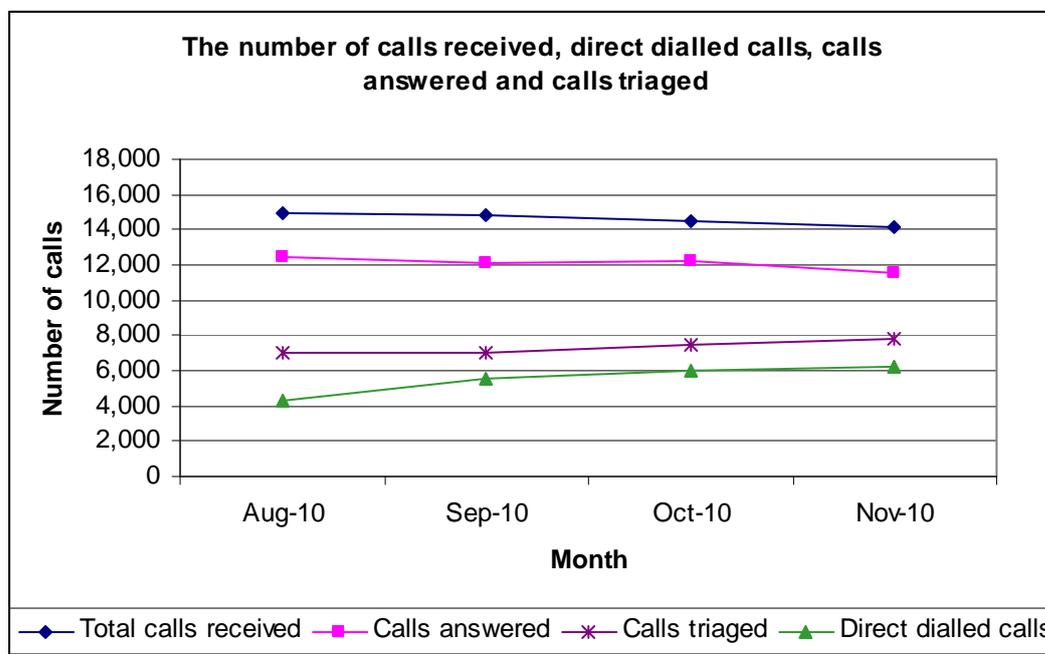


Table 1: The number and percentage of calls received, dialled directly, answered and triaged to the NE NHS 111 service.

Calls Data	Aug-10	Sep-10	Oct-10	Nov-10
Total calls received	14972	14774	14480	14136
Direct dialled calls	4,261	5,565	6,043	6,226
% calls received that are direct dials	28%	38%	42%	44%
Calls answered	12409	12133	12228	11508
% calls received that are answered	83%	82%	84%	81%
Calls triaged	7,063	6,980	7,528	7,770
% calls answered that are triaged	57%	58%	62%	68%

Table 2 shows performance data for the pilot, detailing the National Quality Requirements (NQR) for GP OOH for calls answered and calls abandoned which were met in all four months. The service design specifies that NHS 111 should be delivered without ring backs except in very exceptional circumstances in which case the call should be queued and a call back made within 10 minutes. The service is operating with 200-400 ring backs per month, which is equivalent to 2-3% of calls answered but 15-30% of calls transferred for clinical advice.

Table 2: performance data for NHS 111 in the NE Pilot

Performance data (specification indicated in brackets)	Aug-10	Sep-10	Oct-10	Nov-10
NQR % calls answered within 60s of end of message (>95%)	97%	98%	98%	97%
NQR % calls abandoned 30s after the end of the message (<5%)	1%	1%	1%	1%
Number of calls that are rung back by a clinical advisor (0) *	384	201	236	255

*There is no NQR for call backs but this is part of the service specification for NHS 111

Table 3 shows the disposition data for triaged calls. The majority of calls are advised to contact or speak to primary care (62-64%), with ambulance referrals and self care accounting for another 25-27% and the remainder being referred to ED or other services. Of the 7% triaged to ED over half are referred to an urgent care centre by matching services with DoS to clinical need. Triaged calls accounted for 57-68% of calls answered over the period.

Table 3: Disposition data for the NE NHS 111 pilot

Disposition data as a percentage of triaged calls	Aug-10	Sep-10	Oct-10	Nov-10
ED/Urgent Care Centre	7%	7%	7%	7%
Ambulance	12%	13%	13%	14%
Primary Care	62%	62%	64%	64%
Other service referral	6%	4%	4%	4%
No further action/self care	13%	14%	12%	11%

ii) Other services

Ambulance Service

Calls to the ambulance service continue to follow the seasonal trend and there is little evidence, as yet, of callers switching between 999 and NHS 111 (Figure 2).

However, comparing the growth in calls in the pilot site with the growth experienced in the control site (Tables 4 & 5) we can see that call volume is marginally declining in the pilot area and marginally growing in the control. This difference may be due to natural correction of the high growth rates experienced in Oct 2009 in the pilot site.

This was identified as associated with inexperienced call takers over-prioritising calls and was managed through the CQI audit process. There are no other differences identified. Differences in the 'Category C' and 'Other' are likely to be due to a change in recording.

Figure 2: The total number of ambulance calls received by the pilot and control by month, April 2008 – October 2010.

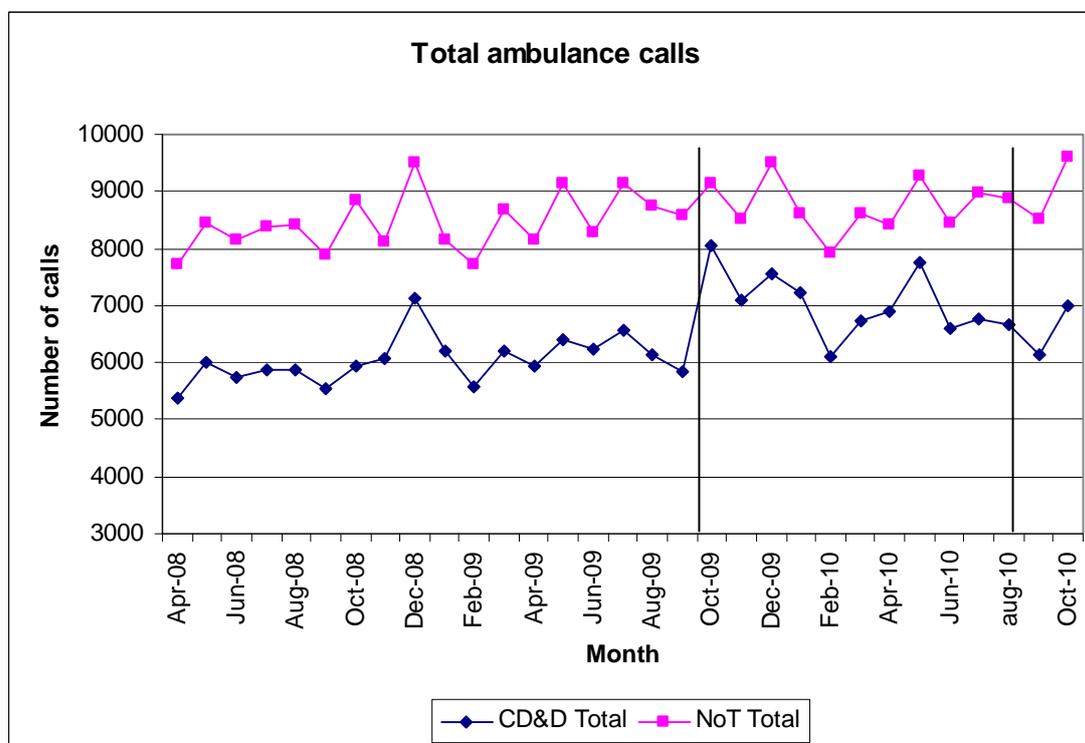


Table 4: The number of and % change in Ambulance Service activity in County Durham and Darlington (pilot) comparing 3 months following NHS 111 public launch with same period of previous year

Category	Calls		Incidents		Responses		Transports		Aborts	
A	-156	-3%	-138	-2%	-82	-1%	141	3%	25	2%
B	207	2%	322	4%	620	6%	646	11%	121	6%
C	1615	49%	386	25%	494	26%	272	28%	1333	239%
Other	-	-	-	-	-	-	-	-	-	-
	1876	100%	-196	100%	-207	100%	-27	100%	1086	100%
Total	-210	-1%	374	2%	825	4%	1032	9%	393	8%

Table 5: The number of and % change in Ambulance Service activity in North of Tyne (control) comparing 3 months following NHS 111 public launch with same period of previous year

Category	Calls		Incidents		Responses		Transports		Aborts	
	Number	% Change	Number	% Change	Number	% Change	Number	% Change	Number	% Change
A	-396	-5%	-377	-5%	-232	-2%	181	3%	-104	-6%
B	360	3%	431	4%	1056	8%	1090	14%	279	11%
C	2573	52%	673	30%	784	30%	375	28%	1842	227%
Other	-	-	-	-	-	-	-	-	-	-
	2058	100%	-381	100%	-388	100%	-31	100%	1561	100%
Total	479	2%	346	2%	1220	5%	1615	11%	456	7%

Emergency Department

The total activity data shown in Figure 3 seems to be following the same seasonal pattern. However, there is a downward trend in the data from October 2009 in the pilot site that is not apparent in the control site. Table 6 illustrates the difference in growth rates for total ED attendances since the launch of NHS 111.

Figure 3: The total activity at EDs for pilot and control by month, April 2008 – November 2010

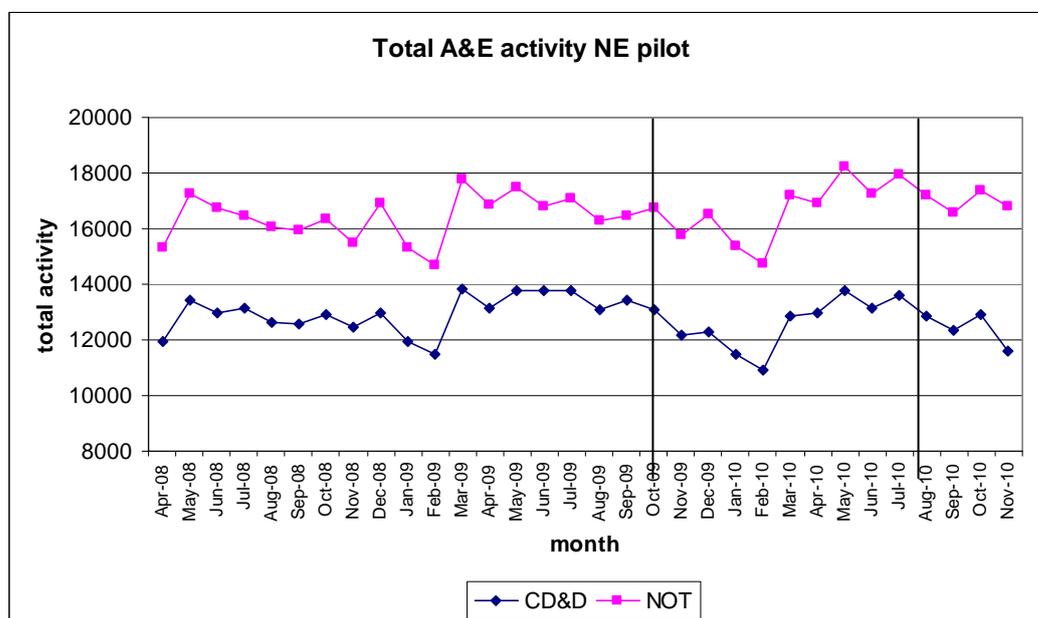


Table 6: The growth in total ED attendance for September – November 2010 compared with the same month in 2009.

	September 2010	October 2010	November 2010
County Durham and Darlington	-8%	-1%	-5%
North of Tyne	1%	4%	6%

iii) NHS Direct

Both the pilot and control sites have seen a substantial reduction in calls to NHS Direct, which follows on from a period of declining usage. The dip in the control site may be due to publicity around the public launch of NHS 111 in the NE that mistakenly said the NHS 111 was replacing NHS Direct. Patients may have become confused, thinking that the switch had already happened and so not used NHS Direct as a result. Table 7 shows that the reduction in usage is more marked in the pilot site than the control but it is too early to draw any definite conclusions, particularly as the 2009 figures may be influenced by the swine flu event.

Figure 4: The total number of NHS Direct calls by month, April 2008- Nov 2010

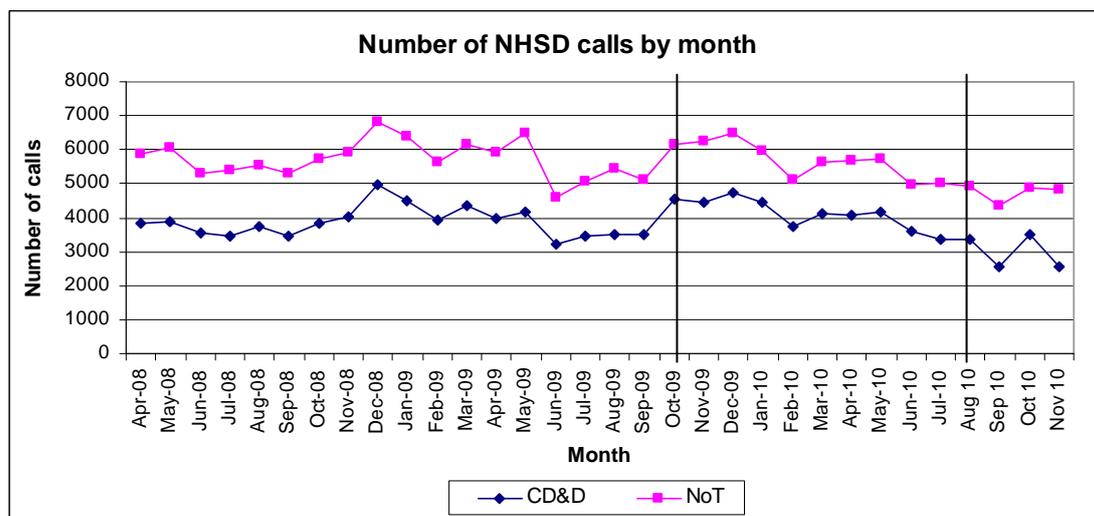


Table 7: The total number of calls answered for NHS Direct for September – November 2009 compared with September – November 2010

	Total Calls answered		
	Sept - Nov 2009	Sept - Nov 2010	% Change
County Durham and Darlington	12497	8637	-31%
North of Tyne	17553	14086	-20%

Other data to be included in later analyses

Data concerning activity at GP OOH, Urgent Care Centres and Walk in Centres, together with zero bed day non-elective admissions will be included in later reports as it becomes available.

Conclusions

Over the first four months of service delivery, the NE pilot showed steady call volume with increasing numbers of calls being directly dialled through the NHS 111 phone number. The number of calls being triaged is also increasing suggesting the service is being used more appropriately over time. It met the GP OOH National Quality Requirements for calls answered and calls abandoned but generates ring backs for clinical advice, which is contrary to the service design but may be resolved as the service beds in.

The clearest change shown in the early system data is a potential shift from NHS Direct to NHS 111. There are no other changes additional to those that occurred after the rollout of the Urgent Care Strategy and SPA but results reported here are of the service in its infancy. This initial analysis shows an early snapshot of call volumes only and within one pilot site where the pattern of dispositions may be a feature of the local system and therefore cannot yet be generalised to NHS 111 as a whole service. It is too early to demonstrate the impact on the whole system. We will continue to monitor whole system data and include more detailed analyses in later reports, when more information is available, which will examine more closely the relationship between NHS 111 and the rest of the urgent care system.

3.3 Impact of pilots on users of the emergency and urgent care system: Preliminary results from the ‘before pilot’ 2010 population surveys

Introduction

When introducing a new service such as NHS 111, it is important to assess the impact it has on the wider emergency and urgent care system, both from a service perspective and a population perspective. Although a service may operate effectively in isolation, it may not operate effectively as part of the system and in turn impact on the smooth transfer of patients along their care pathway. In order to assess the impact of 111 on the emergency and urgent care system from a population perspective we planned to undertake a controlled before and after population survey prior to the launch of NHS 111 and again 12 months later.

Methods

In each NHS 111 site, a matched control site was identified based on similarities in terms of demographics and health profiles. (Table 8) It was also important that any potential control sites were not planning to introduce 111 within their locality during the course of the data collection.

Initially, Nottingham City and Lincolnshire were identified as a single pilot site, given that they shared a strategic health authority (East Midlands). However, as these sites evolved it became apparent that they would implement differing operational models and we made the decision to identify each one as an independent site. The inclusion of an additional 111 site, and identifying a further matched control site, had practical implications given the probability that many sites would be planning the set up of 111 following the announcement of a national roll out. Also, an additional 111 site and further control site would incur additional research costs. Nottingham City and Luton shared similar demographic profiles and so to optimise resources it was decided that these sites would ‘share’ a control site (Leicester).

Table 8: NHS 111 site and matched control site

111 site	Matched control
Durham and Darlington PCO	North of Tyne PCO
Nottingham City PCT	Leicester PCT
Luton PCT	
Lincolnshire PCT	Norfolk PCT

A market research company was engaged to undertake a telephone survey of the general population in each area. We identified the relevant postal districts within each area boundary and the proportion of the population residing within each postal district. This, alongside the age/sex demographic of the population formed the frame for quota sampling. The market research company undertook random digit dialling

with one attempt to contact a landline telephone number, aiming to identify 2000 respondents, representative of the age/sex profile of the PCT population. Standard market research procedures were followed to identify an adult to speak to within a household who was aged 16 and over. An adult or a child in the household was selected as the focus of the interview in line with meeting the quota sample.

As the study did not recruit participants from the NHS, NHS ethics approval was not required. Ethical approval was obtained from the University of Sheffield, and relevant NHS R&D departments were sent a courtesy letter informing them of the study.

In each area the survey was undertaken approximately one month prior to the launch of the 111 service. The surveys were administered between June and September 2010. (Table 9)

Table 9: Population survey dates

	Durham & Darlington	Nott. City	Luton	Lincolnshire
Planned launch date	July 2010	September 2010	October 2010	October 2010
Actual launch date	July 2010	November 2010	December 2010	November 2010
Survey date	June 2010	August 2010	August 2010	September 2010
Three month re-call period	April-June	June -August	June -August	July-September

Questionnaire

The questionnaire was developed based on qualitative research with recent users of the emergency and urgent care system.⁵ The survey methodology was tested and validated in a pilot study.⁶ The validated Urgent Care system Questionnaire measures how people access the emergency and urgent care system, the length of any pathway, the services used on the pathway and satisfaction with entry, progress and patient convenience.⁷ All participants are asked a screening question about whether they had sought help for a recent urgent health problem, and some socio demographic questions. If they had sought help urgently from health services in the last three months they were asked to complete the remainder of the questionnaire in relation to their most recent urgent health problem. They were asked to describe their care pathway and their satisfaction with different aspects the emergency and urgent care system. Additional questions were included relating to awareness and use of the 111 service. A copy of the questionnaire can be found in Appendix 2.

Analysis

Data were analysed using SPSS version 16.0. We present some early descriptive findings.

Results

Response rates

The response rates were broadly similar across areas, ranging from 27% to 30% (Table 10). The response rates were higher than our earlier pilot study⁶ and other published telephone surveys using a similar approach⁸.

Table 10: Response rates to population surveys

Durham & Darlington	North of Tyne	Luton	Nott. City	Leicester	Lincs.	Norfolk
30% (2001/6841)	28% (2027/7088)	28% (2000/7057)	27% (2008/7203)	28% (2013/7201)	28% (2000/7203)	28% (2000/7234)

All calls that were made where the respondent did not have the opportunity to participate were removed from the response rate denominator. For example the number was unobtainable, engaged, a wrong number, a duplicate call, or if the quota had been filled. Unanswered calls remained in the denominator if there was a potential for screening of calls. For example, the telephone went unanswered, went through to an answer-phone, was answered but was told there was no one available to speak who matched the quota, or the phone was answered but the potential participant refused to take part.

Quota sampling

Demographic (age and sex) quotas were supplied for each of the sites. The surveys had similar respondent profiles to the area demographic profiles apart from Nottingham City. The Nottingham demographic profile had a high concentration of the population within the 20-24 age range (16% of the population). This was driven by the concentration of students studying, and living, within the city boundary. The survey fieldwork was carried out in August, when the student population had largely left the city and therefore provided difficulties in matching the quota requested in the 20-24 age group. The market research company were able to capture 9% of the population in this age range. The survey will be repeated in August 2011, again when students are away from the city. For comparative purposes it will be best to ensure a demographic profile which matches that achieved in 2010.

Comparison of respondent profiles of pilots and controls

The demographic profiles were similar in Durham & Darlington and North of Tyne, and in Lincolnshire and Norfolk. (Table 11) Luton and Leicester had similar demographic profiles. However, the profile in Nottingham differed in that there was a higher proportion of respondents reporting their ethnicity as 'white' than in its control area. Any necessary adjustment will be made when comparing Nottingham City with its control in future analyses.

Table 11: Respondent demographic profiles

	Durham & Darlington % (n)	North of Tyne % (n)	Luton % (n)	Nott. City	Leicester	Lincs	Norfolk
Age							
0-4	6 (110)	5 (110)	7 (130)	7 (139)	6 (117)	5 (102)	5 (96)
5-19	17 (347)	18 (371)	26 (529)	18 (359)	23 (471)	19 (371)	17 (345)
20-44	32 (639)	29 (590)	33 (658)	40 (802)	35 (702)	29 (574)	29 (578)
45-64	28 (557)	29 (586)	21 (422)	23 (460)	23 (455)	28 (554)	28 (558)
65+	17 (348)	18 (370)	13 (261)	12 (248)	13 (268)	20 (399)	21 (423)
Sex							
Male	48 (960)	47 (955)	47 (933)	48 (967)	46 (923)	49 (986)	48 (954)
Ethnicity							
White	98 (1956)	96 (1937)	69 (1388)	80 (1609)	65 (1314)	98 (1962)	98 (1956)

System use

A similar proportion of the population had sought help for an urgent health problem in the previous three months within each matched site. (Table 12) Durham & Darlington/ North of Tyne respondents were more likely to report seeking health care than respondents in other sites. This is likely to be due to seasonal differences in health seeking behaviour; the recall period for these matched covered spring when respiratory disease is prevalent compared with the summer months in all other sites.

Table 12: Proportion of population seeking health care urgently

	Number of respondents	Had a health problem in the last 3 months % (n)
Durham & Darlington	2001	11 (226)
North of Tyne	2027	11 (223)
Luton	2000	6 (120)
Nottingham	2008	6 (114)
Leicester city	2013	7 (142)
Lincolnshire	2000	8 (161)
Norfolk	2000	7 (140)

System users were asked about the number of contacts that had been made with services during their most recent unplanned health episode. System users reported between 1 and 7 contacts. (Table 13) The mean number of contacts made during an episode was similar in each matched site.

Table 13: Length of pathway reported in population surveys

Length of pathway	One service only % (n)	Mean	Range
Durham & Darlington	56 (127)	1.56	1-7
North of Tyne	56 (125)	1.59	1-5
Luton	68 (81)	1.43	1-4
Nottingham	56 (64)	1.56	1-6
Leicester city	57 (81)	1.58	1-5
Lincolnshire	63 (101)	1.47	1-6
Norfolk	61 (85)	1.52	1-4

System users were asked to identify all of the services that they made contact with during their most recent use of the system. For reporting we have included the main services contacted and some additional services with only small numbers of contacts are not reported here. The majority of system users made use of a doctor during the daytime. (Table 14).

Table 14: Services contacted during most recent use of the system

Services used for most recent episode	GP in hours % (n)	GP OOH % (n)	ED % (n)	Ambulance % (n)	WIC % (n)	NHSD % (n)
Durham & Darlington	53 (119)	9 (21)	19 (43)	9 (21)	17 (38)	5 (12)
North of Tyne	48 (108)	10 (23)	30 (66)	9 (19)	13 (29)	9 (20)
Luton	54 (65)	8 (9)	28 (34)	5 (6)	12 (14)	10 (12)
Nottingham	40 (46)	5 (6)	24 (27)	13 (15)	17 (19)	16 (18)
Leicester city	52 (74)	8 (11)	23 (33)	6 (9)	18 (25)	9 (12)
Lincolnshire	53 (86)	9 (14)	26 (42)	10 (16)	3 (5)	11 (17)
Norfolk	55 (77)	9 (13)	20 (28)	14 (20)	6 (8)	9 (12)

System users were asked to identify the first three services on their care pathway during their most recent use of the system. (Table 15) Across all sites, the majority of system users reported contacting a doctor during the daytime as the first service contacted.

Table 15: First service contacted during most recent use of the system

Help first sought from	GP in hours % (n)	GP OOH % (n)	ED % (n)	Ambulance % (n)	WIC % (n)	NHSD % (n)
Durham & Darlington	47 (106)	7 (15)	12 (26)	5 (12)	13 (29)	4 (10)
North of Tyne	44 (99)	8 (17)	16 (36)	5 (12)	8 (17)	6 (14)
Luton	52 (62)	6 (7)	20 (24)	4 (5)	7 (8)	9 (11)
Nottingham	40 (45)	4 (4)	10 (11)	11 (13)	10 (11)	16 (18)
Leicester city	47 (67)	6 (8)	13 (18)	6 (8)	11 (16)	9 (12)
Lincolnshire	45 (73)	7 (11)	19 (30)	8 (12)	3 (4)	10 (16)
Norfolk	49 (68)	8 (11)	12 (17)	11 (15)	3 (4)	8 (11)

User satisfaction

System users were asked to rate their overall care for their most recent use of the system. (Table 16) There were some differences within matched sites, in terms of the percentage of system users reporting they had received 'excellent' care overall. More consistency, across sites, was found for those users reporting that their overall rating of care was 'poor' or 'very poor'.

Table 16: System users overall rating of care

Overall rating of care	Excellent % (n)	Very good - fair % (n)	Poor - very poor % (n)
Durham & Darlington	47 (106)	50 (111)	4 (9)
North of Tyne	49 (110)	46 (101)	6 (12)
Luton	37 (44)	57 (69)	6 (7)
Nottingham	47 (54)	46 (52)	8 (8)
Leicester city	35 (49)	59 (82)	8 (11)
Lincolnshire	41 (66)	51 (82)	8 (13)
Norfolk	43 (60)	48 (67)	9 (13)

Psychometric testing of the questionnaire identified three discrete domains of system satisfaction: entry into the system, patient convenience of the system, and progress through the system⁷. Each domain has a maximum score of 5. Overall, patient convenience of the system received lower scores than the other domains, whilst entry into the system achieved the highest mean scores. (Table 17)

Table 17: Domains of satisfaction

Domains of satisfaction	Entry into the system	Convenience of the system	Progress through the system
Durham & Darlington	4.25	3.89	4.21
North of Tyne	4.20	3.94	4.09
Luton	4.20	3.83	3.94
Nottingham	4.10	3.93	4.06
Leicester city	4.10	3.79	3.89
Lincolnshire	4.22	3.69	3.87
Norfolk	4.10	3.78	4.00

Awareness and use of the 111 service

All respondents, regardless of whether they had recently used the emergency and urgent care system, were asked if they had heard of, or used the 111 telephone service. (Table 18) Although the 111 was not 'live' at the time of the surveys, there had been national media stories regarding 111. This may have also been picked up by local media and this may have influenced the control group areas as well as the pilot areas i.e someone may have attempted to dial 111 even though the service is unavailable.

Respondents in one of the intervention sites (Lincolnshire) were more likely to have heard of 111 when compared with their control site. This was not the case in Durham & Darlington or Luton which had lower awareness levels than their comparator control sites (North of Tyne and Leicester). Overall, awareness was greater in Lincolnshire and Norfolk. These sites were surveyed in September, following the official launch of 111 in late August 2010.

Table 18: Awareness and use of the 111 service

	Ever heard of the 111 telephone service? % (n)	Ever used the 111 telephone service? % (n)
Durham & Darlington	14 (271)	1 (29)
North of Tyne	21 (431)	2 (33)
Luton	17 (343)	1 (20)
Nottingham	22 (450)	1 (19)
Leicester city	21 (424)	1 (26)
Lincolnshire	33 (364)	2 (33)
Norfolk	27 (539)	2 (48)

Summary

The results of the first population surveys provide a broad picture of utilisation of emergency and urgent care services across the 4 pilot areas and 3 matched control areas. The key findings are:

- The demographic profiles of pilot sites and their matched controls were broadly similar indicating that the choice of control areas is correct
- There was similar reporting of urgent care problems between pilot areas and matched controls although variation between pilot areas. Between 6% and 11% of local populations reported seeking help for an urgent health problem with a range of 1-7 (mean 1.5) contacts required to resolve their problem
- There was variability between pilot sites in terms of satisfaction with use of the system.

The surveys will be repeated at each pilot and control site one year after implementation of NHS 111 (June – September 2011) and the results compared to these baseline data. The full analysis will be presented in the final report.

3.4. Patients' views and experiences of NHS 111

Patient experiences of NHS 111 will be measured using a postal survey. The plan was to conduct a user survey in each of the 4 pilot sites. In each site, 1200 recent users of the 111 service will be identified and sent a postal questionnaire. The questionnaire will address users' experience of, and satisfaction with, the service.

Questionnaire development

Development of the questionnaire for the survey has taken place in several steps.

1) An initial draft was constructed based on the key issues relevant to NHS 111 including how people accessed the service, the usefulness of the advice received, whether users felt they got to the right service first time, compliance with that advice, good and poor aspects of their contact with the service, overall satisfaction with the service, the value of the service, and the value of having a three digit number, whether it felt like use of the service was 'an extra step', the pathway followed, time to symptom resolution, whether the problem was resolved to their satisfaction at 7 days after the call, and if they had to re-contact a service about the same condition within 48 hours. We drew on previous questionnaires used to measure users views and experiences of NHS Direct, 999 call prioritisation and management of low priority ambulance calls by nurse advice.

2) The draft questionnaire was widely circulated to NHS 111 project teams, the national programme team and our public and patient involvement (PPI) representative to elicit their views.

3) Prior to administering the user survey, we hoped to undertake between 8-12 telephone interviews with recent users of the service in County Durham and Darlington to ensure all relevant questions were included and the language used throughout the questionnaire was appropriate. Staff at the 111 service contacted recent users of the service who had previously indicated that they would be happy to take part in research activities. 18 service users indicated that they would take part in a telephone interview and were sent a questionnaire and a consent form, both to be completed and returned to the research team. Questionnaires were sent out in November 2010. Three completed questionnaires were returned along with a signed consent form. A further two completed questionnaires were returned without a signed consent form. The questionnaire was sent immediately prior to exceptional snowfall in the North East and this may have been a factor in the low response rate. Telephone interviews were carried out with the three users who had returned a signed consent form. The telephone interviews and completed questionnaires were used to inform the final version of the questionnaire: minor amendments were made

to the language used in the questionnaire. The final version of the questionnaire can be found in Appendix 3.

User surveys

A 111 user survey will take place in each of the four sites. Our original proposal indicated that a user survey would be undertaken at two time points post launch: the first one at three months to provide some early feedback to policymakers ('early' survey), and, as patient experience and views can change over time as new services get busier and become more embedded in the health care system, a second one at nine months ('later' survey).

A number of delays have occurred in administering the early survey. The length of time taken to obtain a research passport for EK meant the final questionnaire was not available until December 2010 which delayed conducting the 3 month survey in Durham and Darlington. We did not want to conduct the survey over the Christmas and New Year period as activity over this time was likely to be atypical. There was a technical problem with the NHS 111 service in early January. The revised dates for the early survey are as follows (the later survey dates in brackets):

- Durham and Darlington: 7th February 2011 (April 2011)
- Nottingham City: 21st February 2011 (September 2011)
- Lincolnshire: 28th February 2011 (September 2011)
- Luton: 7th March 2011 (September 2011)

With the exception of Durham & Darlington the first survey will take place at 3 months from go live as originally planned. The results of the first user experience survey will be reported in the next interim report in April.

3.5 Describing the different service models and the effect of pilot sites on the local health economy: Lesson learned

Background

Our evaluation plan includes interviews with a range of stakeholders either involved directly with NHS 111 implementation and service delivery or indirectly as providers or commissioners of services across the emergency and urgent care system. The aim of this work is to explore in more depth the impact of NHS 111 across local health economies and is planned to take place during 2011 after the pilot services have had a period of time to become established. However, because of the policy shift towards a national roll-out, subject to evaluation, and the invitation of a second wave of pilot sites, there was an urgent need to provide some early results about the experiences of the pilot sites. In October 2010, the DH initiated a rapid review of the

implementation of NHS 111 in each of the four pilot sites. The benefits of having a consultation at this stage were to:

- enable an early exchange of views and ideas between those stakeholders at the 'vanguard' of designing, implementing and providing NHS 111;
- inform the implementation of NHS 111 in the next wave of sites.

As the proposed consultation overlapped considerably with the MCRU plans to interview stakeholders in each of the pilot sites six months after the respective 'go live' dates, two MCRU researchers (JT and PC) offered to assist the DH to deliver their 'lessons learnt' objectives.

Aims and objectives

The main aim of the exercise was to draw on the first hand experiences and observations of key participants in the NHS 111 implementation to understand what was working well and identify where additional measures might be required to support the process. The core question to be considered was:

“What have been your experiences so far of commissioning or being commissioned to deliver the NHS 111 service?”

Methods

A series of focus groups in three of the four NHS 111 pilot sites and with an NHS Direct senior management team were arranged. To enable participant views to be expressed freely within each setting, the groups were arranged on the basis of their organisational role in NHS 111 (for example, commissioner-related, NHS 111 providers or stakeholder).

Separately, a face-to-face and a telephone interview were arranged with two members of the national NHS 111 team who provided strategic telephony and readiness testing expertise in the pilot sites.

To guide the focus group discussion, the DH and the MCRU developed a topic guide. (Appendix 4). This guide, together with a schedule designed for our original stakeholder study in the evaluation, formed the basis for the two interviews. The respective documentation was circulated to all participants in advance of the interview

With agreement the ensuing discussions were digitally recorded using conferencing digital audio equipment, backed up with handwritten notes. The researchers listened to the recordings, cross-checked their understanding against their notes, and adapted the experiences into transferable lessons to inform future development of NHS 111. Summaries of the lessons emerging in each session were sent to the

participants either to confirm the accounts as reasonable representations, or correct any misunderstanding.

The aim was to identify and report the key lessons *which stakeholders themselves raised* rather than analyse their responses by considering why each stakeholder raised an issue.

Results

Five focus groups, two in the North East (commissioner and provider), three covering Nottingham City and Lincolnshire in the East Midlands (commissioner, provider and stakeholder, East Midlands SHA 111 team and also including an East of England representative), and one with NHS 111 provider NHS Direct were undertaken. Each session was well attended by staff with key responsibilities in the areas flagged up for discussion in the topic guide. A member of the DH team was present at three of the five groups. The discussions proceeded freely and openly. Overall the summaries fed back to each group by the research team were endorsed as reasonable accounts with only minor adjustments being made by participants in one session.

The key messages were:

Third party/ Stakeholder engagement

NHS 111 providers must be in touch with their local health economies. Engagement with GPs and other third parties from the outset is crucial. Stakeholders should not be 'jumping on board' as the NHS 111 project gains momentum. There should be a 'passenger list' of all groups and organisations that should be on board and included in discussions from the outset. Agreements with third parties need to be signed off at the SHA/PCT level. Business processes need to be in place and backed up with capacity and resources at local level. Contingency plans must be in place. Strategies identified as being associated with enabling closer engagement were as follows:

- ❖ The availability of a consistent and cohesive model of urgent care and community transport.
- ❖ Engaging with third parties at an ongoing and very detailed level – letters to every general practice and pharmacy, followed up by a personal visit by PCT 111 staff.
- ❖ Learning workshops with the NHS Pathways team including practical demonstrations.
- ❖ Renegotiating and re-commissioning service contracts with urgent care providers.
- ❖ National brokerage to facilitate co-operation and collaboration between the NHS 111 sites, and between all the different stakeholders.

- ❖ Participation of all relevant PCTs in the region covered by a specified NHS 111 service at key meetings has given unity of focus and strengthened the network of providers across different organisations.
- ❖ Establishing links with providers, patient and charitable groups such as Age Concern, to encourage direct feedback about the appropriateness of NHS 111 to supplement the routine auditing of a sample of calls for quality control purposes.

Service design and specification

To avoid variation in standards in a plural marketplace, the service specification needs to be very tight. Who can become an NHS 111 provider needs to be explicit.

Project management, organisation and governance

The different roles, responsibilities and accountability in DH programme team/board/commissioners and providers need to be clear. A lack of clarity about the role of the national programme board and the complex relationships between providers, commissioner and Strategic Health Authorities had caused some tensions early on. NHS 111 providers must have clear strategic direction at a senior level about what the service will deliver, clear lines of communication and explicit agreement on who is responsible for what.

NHS 111 needs a central, overarching regulatory, governance and operational framework with clearly defined processes, including plans for contingency and technical support.

NHS Pathways licensing is a long and protracted process that needs to be streamlined and responsive to provider experience of delivering a national service.

NHS Pathways has been demonstrated to be a good clinical assessment tool. However, the size of the team and scalability of the resource required for the intensive support required for roll out and ongoing technical support that NHS 111 providers will need has to be considered. Successful implementation nationally will depend on investment in the NHS 111 infrastructure. The capacity of national and regional support teams needs to be strengthened.

Locally there needs to be a focused, dedicated, NHS 111 project team, (for example project lead, CMS lead, clinical governance lead, dedicated admin support) that fully understands what NHS 111 is about and how it links with the whole emergency and urgent care system, in place from the outset. This needs to be properly resourced and be the main activity for at least some of the team.

It is essential that providers appreciate the importance of the whole NHS 111 package of training and ensure that it is done rigorously and to a sufficiently high level. Training manuals and support materials including 'hands on' end to end call

handling practice are essential to build staff confidence. Implementing a national NHS 111 service will need clear direction about what this means for workforce training and capacity, funding, costs and time involved to launch.

IT, telephony and data

Management processes need to include IT system providers for both NHS 111 development and the ongoing management and maintenance of the service and there needs to be more clarity nationally about issues around interoperability should be addressed. How NHS 111 calls that cross commissioning boundaries, organisations and transitional periods are to be managed needs to be considered. All the sites reported that clinical content, populating the Capacity Management System (CMS) and Directory of Services (DoS) and embedding NHS Pathways within other call handling IT systems was a major challenge. NHS 111 pilot sites have had to overcome complex technical issues to get the service up and running. The scale of the challenges was unforeseen. Clarity is also needed on the level of resilience the required and the recovery times from service outage needs to be defined as this will impact on service costs.

Accurate dispositions are crucial for NHS 111 credibility and stakeholder and public confidence in the service. For example, before advising a NHS 111 caller to ring the district nurse, the call-handler needs to be confident that the district nurse is the right service, and that the NHS 111 referral will be accepted as appropriate by the district nurse. The directory of services needs to be more robust with clear management and governance procedures. Providers within the DoS need to agree explicitly what is available, when and within what timescales and the referral protocols to access the services. Readiness needs to be formalised. Content, system-handling, and process issues need to be resolved and a requirement for population and regular updating of the DoS should be built in to contracts between commissioners and providers.. Populating CMS DoS is an ongoing and time-consuming process if it is to be kept up to date and fit for purpose. 'Gap analysis' to examine why a caller was directed to ED instead of another suitable provider in one site showed that how the CMS discriminators have been ticked can skew a disposition in one direction rather than another. As CMS DoS has to be populated locally, it needs to be consistent and have local flexibility to accommodate variations in services.

Possible triggers to overcome some of the challenges raised were:

- ❖ Knowledge and experience of how the NHS Pathways system operates before becoming a NHS 111 provider.
- ❖ An overarching framework and central co-ordination of populating the CMS DoS and linking these dispositions to NHS Pathways
- ❖ Assurance and governance processes to demonstrate that the CMS DoS is 'fit for purpose'.
- ❖ A pooled regional resource team dedicated to NHS Pathways and CMS DoS.

For planning, security, smooth working, confidence and contingency, how upgrades to the CMS DoS architecture will operate need to be covered by clear management processes governing how and when changes are going to take place and backed up with good communication with the sites. NHS 111 sites need to know when changes are expected to take place and when those changes have been made.

Clinical governance

Clinical governance should be incorporated at each stage of the implementation. As 111 covers multiple services the variations in quality standards between providers need to be clarified and an integrated clinical governance policy agreed between the NHS 111 provider and receiving providers to reduce risk in referring callers between services. A common theme within the focus groups was that clinical governance issues had been identified late and there had been substantial duplication of effort. A possible strategy is the development of an overarching process for clinical governance with a NHS 111 national board to take responsibility for a collective approach but not to duplicate governance procedures where these already exist at individual service levels.

Marketing and communication

To avoid misunderstanding about what NHS 111 is and how it should be used communication needs to be improved. The soft and public launch of 111 needs to be preceded and accompanied by clear messages to third parties and to the public about exactly what 111 is. PCTs need to work through whatever media works best locally to raise the profile of NHS 111 amongst other health professionals. The delays in the national marketing strategy had been a missed opportunity and had not met the expectations of the pilot sites.

Site specific findings

To avoid confusing the public, it may be better if the boundaries of the NHS 111 sites are determined by STD codes rather than PCT commissioning boundaries that the public don't recognise. The experience in East Midland is that the 111 boundary between Nottingham City and the wider Nottinghamshire suburbs have introduced more telephony, technical and publicity complexity than may occur in sites with tighter telephony or geographical boundaries.

'Warm transfer' of a 111 caller to emergency ambulance dispatch is a condition of NHS 111 provision and crucial to patient safety and public confidence in NHS 111 sites particularly for non-ambulance service providers. The technological implications of operationalising this activity is a significant challenge particularly where the NHS 111 provider is not the ambulance service and should not be under-estimated.

Planned shared call handling sites (East Midlands Ambulance Service and NHS Direct in the East Midlands) provided an interesting but more complex model that has proved not to be feasible at this stage as integrated IT systems and shared access to patient records is required to ensure patient safety and prevent serious untoward incidents as in, for example, the Penny Campbell case

(http://www.dh.gov.uk/prod_consum_dh/groups/dh_digitalassets/@dh/@en/documents/digitalasset/dh_078344.pdf)

Future

Potential NHS 111 providers that are open to the benefits of NHS 111 and are willing to identify challenges and respond appropriately to overcome them are crucial to the successful implementation of 111 nationally.

A purchasing framework for the UK government to establish a preferential list of 111 providers will enable a faster and more cost effective procurement process but it is key that NHS 111 is seen as an integral part of the local urgent care system and not as a standalone service.

Given the proposed changes to move commissioning arrangements from PCTs to GP consortia, NHS 111 funding is uncertain. To avoid fragmentation of urgent care in the future, the commissioning of regional services will need to be governed by regional arrangements.

Summary

The participants in the focus groups and telephone interviews provided us with frank and detailed commentaries on the significant issues they had faced in getting NHS 111 to an operational service. We have synthesised the main issues they raised as important lessons to learn. The main recurrent headline issues that they consider future NHS 111 developments need to carefully consider are:

- The processes involved in delivering the service, strategic, - management and operations,- have been much more complex, difficult and time consuming than expected
- The service specification needs to be clear and explicit
- Success will be dependent on the committed engagement of all the relevant agencies and a dedicated project team to manage the process from start to implementation and subsequent maintenance
- There are significant technical issues around licensing, adaptation and integration of the different telephone and IT systems that need to be linked to deliver seamless call handling

- A robust period of testing to ensure consistency of assessment, alignment of dispositions to services and system resilience is critical before a service goes live
- The development of the directory of services linked to dispositions is a crucial activity and the effort required to do this accurately and comprehensively cannot be underestimated
- The capacity of NHS Pathways to provide system support and training needs to be increased if this is the preferred assessment system for national roll out
- Aligned national and local marketing strategies that provide a consistent and explicit message about the purpose of NHS 111 and how it should be used will be key to a national service
- 111 is just a telephone number – it is what is behind it that is important and how it operates as part of an integrated 24/7 urgent care system.
- Greater clarity is required on the NHS 111 key performance indicators including National Quality Requirements for OOHs services
- Greater understanding of the opportunities for economies of scale in light of a tighter financial environment

4. Next steps

This first interim report brings together a summary of the progress of NHS 111 pilot sites and the evaluation activities carried out so far. As with all new service innovation there has been some change in the timetable for key activities. However all 4 pilot services are now up and running and the remaining evaluation tasks can progress during the rest of 2011. With respect to the research and evaluation process there are two issues worth commenting on here:

1. The process for gaining ethical approval for the study was straightforward. However the processes for gaining NHS R&D approvals has been complex, difficult and has taken much longer than the expected timeframes set out in the national co-ordinating system for permissions framework. This was mainly due to the same problem identified by the “lessons learned” focus groups of a lack of clear lines of responsibility and accountability in a project that has so many different organisations involved. As a result there was confusion about which organisations needed to be included as participating sites and within organisations, particularly PCT commissioners and NHS 111 providers, and about who was responsible for site specific R&D approvals.

2. A crucial part of the evaluation is the analysis of NHS 111 activity and activity of related emergency and urgent care services in the pilot and control sites. Early performance data from the pilot sites was incomplete and fragmented although this

has now been resolved. In addition, despite early agreement from pilot site and control site PCTs to provide the routine data needed for the baseline analysis and continued analyses over the duration of the evaluation it has been extremely difficult to obtain these data in a timely manner with a particular risk around whole system data from Norfolk & Luton. .

Table 19 sets out the timetable for the rest of the evaluation. The next interim report will be submitted in April 2011 and will mainly report the initial findings of the 4 service user surveys

Table 19 – Timetable for NHS 111 evaluation

Month (2011)	Activity
February	3 month user surveys Nottingham City & Lincolnshire Site visits Nottingham City & Lincolnshire Project steering group meeting Monday 28 th February
March	3 month user survey Luton Site visit Luton Stakeholder interviews Durham & Darlington
April	9 month user survey Durham & Darlington Stakeholder interviews Nottingham City & Lincolnshire 2nd interim report – results of 3 month user surveys and routine NHS 111 and system activity to date
May	Stakeholder interviews Luton Agree case identification for appropriateness study
June	After population survey Durham & Darlington + control Retrieve cases for appropriateness study Begin data collection for cost study Steering group meeting
July	Expert panel assessment for appropriateness study Analysis of stakeholder interviews Evidence review report
August	After population survey Nottingham City & Luton + control Lincolnshire + control Analysis of appropriateness study data
September	9 month user surveys Nottingham City, Lincolnshire & Luton Analysis of after population surveys Appropriateness study report Steering group meeting
Oct 2011 – Jan 2012	Complete 1 year activity monitoring Nottingham City, Lincolnshire & Luton Analysis and report writing
Feb 2012	Final report to DH

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Appendix 2 – Population Survey Questionnaire

UNIVERSITY OF SHEFFIELD NHS RESEARCH

**"I am [name of interviewer] calling from [name of market research company] on behalf of the University of Sheffield and [insert name of PCT]. They are looking for your views on using health services. The information you give will help to plan health services in your area. It will take 10 minutes at the most. Although we would be grateful if you could help us with this important research, you are not obliged to take part. Can you help?
Thank you.**

S1a Are you over 16?
Yes - go to S1c
No - go to S1b

S1b Can I speak to someone who is?
Yes - GO TO S1c
No - **CLOSE** (Do not count towards quota)

Your telephone number has been randomly selected. This is a genuine market research survey, which is conducted in accordance with the Market Research Society Code Of Conduct. No one will try to sell you anything during the interview or as a result of taking part . Any information that you do provide today will be anonymised, and kept in the strictest confidence. Your future NHS care will not be affected by anything you tell us today. The data that I collect today will only be used for the purpose that I have described here. Neither the PCT nor the University of Sheffield will have access to your identity.

If you have any concerns about the validity of this research you can contact the Market Research Society. Here is their Freephone number if you would like to take a note of it: 0500 39 69 99

Health issues can be a sensitive area. In the unlikely event that any of our questions cause you distress you can stop the interview. During the course of this interview you have the right to end the interview at any time." [Interviewer – in the event of someone getting upset, please suggest that they can stop the interview and may wish to contact their GP].

First Name _____

Postcode _____ (first part only e.g. DE5)

Telephone number _____

Date of interview _____

S1c How many adults (16 years and over) are there in total (including yourself) in your household?
Adults (write in) _____

S1d How many children under 16 years of age are there in your household?
Children under 16 (write in) _____

S1e What ages are your children
 1st child _____
 2nd child _____
 3rd child _____
 4th child _____
 5th child _____
 6th child _____

CHECK QUOTA OF INTERVIEWS WITH ADULTS VS CHILDREN

S1f AGE OF INTERVIEW SUBJECT _____

S1g GENDER OF INTERVIEW SUBJECT MALE .1 FEMALE.2

S1h POSTAL DISTRICT (EG "S61") _____

CODE INTERVIEW WITH ADULT RESPONDENT .1
 INTERVIEW ON BEHALF OF CHILD .2

INTERVIEWER: IF CHILD INTERVIEW, SELECT ONE CHILD AT RANDOM

Say "I would like to concentrate in this interview just on the experiences relating to one of your children. Can you please just think about your 1st/2nd/3rd etc child. I would just like you to focus on them for the rest of this interview."

RECORD WHICH CHILD CHOSEN

1st child .1
 2nd child .2
 3rd child .3
 4th child .4
 5th child .5
 6th child .6 name of child chosen _____

S2 In the last 3 months have you sought help for an urgent health problem for yourself/your child _____ (if child quota, refer to the name of the child from above)

Say "this includes trying to contact a service such as a General Practice, accident and emergency, Chemist, 999 ambulance, NHS Direct, walk-in centre, minor injuries unit, dentist etc where you felt help or advice was needed on the same day"

Yes - GO TO Q1
 No - GO TO Q24

Q1 In the last 3 months how many times have you sought help for an urgent health problem for yourself/your child (name of child)?
 _____ (write in number of times)

Say "I would like you to think about the most recent occasion when you have sought help for an urgent health problem for yourself/for (name of child)".

Q2 Thinking about the most recent time that help was needed urgently, how many weeks ago was that?
 _____ (write in number of weeks)

Q3 How long after thinking this health problem was urgent, was help sought?
(read out, single code)

- Immediately .1 > MOVE TO Q5
- Less than 2 hours .2 > MOVE TO Q5
- Between 2 and 12 hours .3 > MOVE TO Q5
- Between 12 and 24 hours .4 > MOVE TO Q5
- More than 24 hours .5 > **ASK Q4**

Q4 How long after thinking about the health problem was the urgent help sought?
 _____ (write in verbatim)

Q5 Was the health problem ... **(read out, single code)**

- A respiratory illness .1
- Another type of illness .2
- An injury .3
- Other .4**
- Refused to answer* (do not read out) .5

Q6 Still thinking about the most recent health problem, please tell me which of the following services were involved in giving help or advice.
 Please include all those who you tried to contact, even if this was not successful?

(Read out, multi code possible)

- Doctor at general practice, in hours .1
- Nurse at general practice, in hours .1
- GP out of hours .1
- Accident and Emergency/casualty .1
- 999 Ambulance Service .1
- Walk-in Centre .1
- Minor Injuries Unit .1
- A Pharmacist or Chemist .1
- NHS Direct .1
- '111' telephone service .1
- Other .1 Please state

(note for interviewer: 'nurse at my general practice includes district nurse and practice nurse, '999 ambulance service' includes paramedics)

Q7 How many services were involved altogether? _____ services

NOTE FOR INTERVIEWER: this question relates to how many contacts were made. If a respondent reports going to see their GP on two occasions, the number of services would be "2".

CHECK Q7.

IF JUST ONE SERVICE USED ASK Q8A, USING THE WORD "SERVICE"

IF MORE THAN ONE SERVICE USED ASK Q8A USING PHRASE "FIRST SERVICE".

ASK Q8B, Q8C UP TO THE FIRST THREE SERVICES THEY USE AT Q7

NOTE FOR INTERVIEWER: Q8 should tally with Q7. For example if a respondent reports 1 service used in Q7 then only Q8a should be completed. If Q7=2 then Q8a and Q8b should be completed and so on.

Q8a What was the service/first service you contacted or tried to contact?

Q8b What was the second service?

Q8c What was the third service?

(Read out, single code)

	1 st	2 nd	3 rd
Doctor at general practice, in hours	.1	.1	.1
Nurse at general practice, in hours	.2	.2	.2
GP out of hours	.3	.3	.3
Accident and Emergency/casualty	.4	.4	.4
999 Ambulance Service	.5	.5	.5
'111' telephone service	.6	.6	.6
Walk-in Centre	.7	.7	.7
Minor Injuries Unit	.8	.8	.8
A Pharmacist or Chemist	.9	.9	.9
NHS Direct	.10	.10	.10
Other	.11	.11	.11 Please state

(note for interviewer: 'nurse at my general practice includes district nurse and practice nurse, '999 ambulance service' includes paramedics)

CHECK Q7. IF MORE THAN ONE SERVICE USED, SAY "I would like you to think about the first service you used which was _____ (name of 1st service from Q8a)

FIRST SERVICE

Q9 When was help sought from _____ (name of 1st service from Q8a)?

(Read out, single code)

Monday to Friday between 8.30am and 6pm	.1
Monday to Friday outside these hours	.2
Saturday or Sunday, anytime	.3
Bank holiday	.4
Can't remember	.5

Q10 How did you get the health advice that you needed?

(Read out, single code)

By telephone only	.1
In person	.3
By internet	.4
Other	.5

CHECK Q7. IF ONLY ONE SERVICE USED, GO TO Q17, OTHERWISE GO TO Q11

SECOND SERVICE

Say "I would now like you to think about the contact you had with the second service, which was _____ (name of 2nd service from Q8b)

Q11 Why did you contact the second service _____ (name of 2nd service from Q8b)?

Say "I will read out some options, please tell me which of these you think apply. You may think that more than one applies"

(Read out, multi code possible)

I could not get access to the first service (name of 1 st service from Q8a)	.1
I was not satisfied with the response from the first service (name of 1 st service from Q8a)	.1
I was told to do so by the first service (name of 1 st service from Q8a)	.1
I wanted another opinion	.1
The treatment did not work	.1
The health problem changed	.1
Other, please state: _____	.1

(note to interviewer:

'I could not get access to the service' includes the response 'it was out of surgery hours'

'I was told to by the service' includes the response 'to get a prescription'

'the health problem changed' includes the response 'the health problem got better or worse')

Q12 When was help sought from _____ (name of 2nd service from Q8b)?

(Read out, single code)

- Monday to Friday between 8.30am and 6pm .1
- Monday to Friday outside these hours .2
- Saturday or Sunday, anytime .3
- Bank holiday .4
- Can't remember .5

Q13 How did you get the health advice that you needed?

(Read out, single code)

- By telephone only .1
- In person .3
- By internet .4
- Other .5

CHECK Q7. IF ONLY TWO SERVICES USED GO TO Q17, OTHERWISE GO TO Q14

THIRD SERVICE

Say "I would now like you to think about the contact you had with that third service, which was _____ (name of 3rd service from Q8c)

Q14 Why did you contact the third service _____ (name of 3rd service from Q8c)?

Say "I will read out some options, please tell me which of these you think apply. You may think that more than one applies"

(Read out, multi code possible)

I could not get access to the first service (name of 1 st service from Q8a)	.1
I was not satisfied with the response from the first service (name of 1 st service from Q8a)	.1
I was told to do so by the first service (name of 1 st service from Q8a)	.1
I could not get access to the second service (name of 2 nd service from Q8b)	.1
I was not satisfied with the response from the second service (name of 2 nd service from Q8b)	.1
I was told to do so by the second service (name of 2 nd service from Q8b)	.1
I wanted another opinion	.1
The treatment did not work	.1
The health problem changed	.1
Other, please state: _____	.1

(note to interviewer:

'I could not get access to the service' includes the response 'it was out of surgery hours'

'I was told to by the service' includes the response 'to get a prescription'

'the health problem changed includes the response 'the health problem got better or worse')

Q15 When was help sought from _____ (name of 3rd service from Q8c)?

(Read out, single code)

Monday to Friday between 8.30am and 6pm	.1
Monday to Friday outside these hours	.2
Saturday or Sunday, anytime	.3
Bank holiday	.4
Can't remember	.5

Q16 How did you get the health advice that you needed?

(Read out, single code)

By telephone only	.1
In person	.3
By internet	.4
Other	.5

OVERALL

Say "I would now like you to think about how your case was managed overall"

Q17 Do you think your case was managed with sufficient urgency?

(Read out, single code)

- Definitely not .1
- No I don't think so .2
- Yes I think so .3
- Yes definitely .4

Q18 How long did it take from the time the first service was contacted until the help you wanted was received?

(Read out, single code)

- less than 1 hour .1
- between 1 and 6 hours .2
- between 6 and 12 hours .3
- between 12 and 24 hours .4
- more than 24 hours .5
- still haven't received the help I required .6

Q19 How do you feel about the number of services you had to contact?

(read out, single code)

- Too many services .1
- Too few services .2
- The right number of services .3

Say "Again, I would now like you to think about how your case was managed overall. I am going to read out some statements. Please say if you strongly agree, agree, neither agree or disagree, disagree or strongly disagree with each one. If the statement is not applicable to you, please say. "

(read out, single code each statement)

Q20 "The following statements relate to where you sought help"

	Strongly agree	Agree	Neither agree/ disagree	Disagree	Strongly disagree	Not applicable
a. I did not know which service to go to about this problem	.1	.2	.3	.4	.5	.9
b. I felt that the first service I tried was the right one to help me	.5	.4	.3	.2	.1	.9
c. I felt sometimes I had ended up in the wrong place	.1	.2	.3	.4	.5	.9

Q21 "The following statements relate to the convenience of the system"

	Strongly agree	Agree	Neither agree/	Disagree	Strongly disagree	Not applicable

			disagree			
a. Travelling to the services I needed was easy	.5	.4	.3	.2	.1	.9
b. I was told how long I'd have to wait	.5	.4	.3	.2	.1	.9
c. Services had the information they needed about me	.5	.4	.3	.2	.1	.9
d. I had to repeat myself too many times	.1	.2	.3	.4	.5	.9
e. Services understood that I had responsibilities, like my need to look after my family	.5	.4	.3	.2	.1	.9

Q22 "The following statements relate to the care that you received"

	Strongly agree	Agree	Neither agree/ disagree	Disagree	Strongly disagree	Not applicable
a. My concerns were taken seriously by everyone	.5	.4	.3	.2	.1	.9
b. I was made to feel like I was wasting everyone's time	.1	.2	.3	.4	.5	.9
c. I had to push to get the help I needed	.1	.2	.3	.4	.5	.9
d. I moved through the system smoothly	.5	.4	.3	.2	.1	.9
e. It took too long to get the care needed	.1	.2	.3	.4	.5	.9
f. I felt that no one took responsibility and sorted out my problem	.1	.2	.3	.4	.5	.9
g. I saw the right people	.5	.4	.3	.2	.1	.9
h. I felt I was given the wrong advice	.1	.2	.3	.4	.5	.9
i. Services did not seem to talk to each other	.1	.2	.3	.4	.5	.9
j. At each stage I was confident in the advice services gave me	.5	.4	.3	.2	.1	.9

Q23 Overall, how would you rate the care you received? (read out, single code)

- Excellent .1
- Very Good .2
- Good .3
- Fair .4
- Poor .5
- Very Poor .6

“Before we finish here are some general questions about yourself.”

- Q24 What is your ethnic group **(read out, single code)**
- | | |
|------------------------|----|
| White | .1 |
| Black or Black British | .2 |
| Asian or Asian British | .3 |
| Mixed | .4 |
| Chinese | .5 |
| Other | .6 |
- If other, how would you describe your ethnic group_____
- Refused **(do not read out)** .7

- Q25 Do you have any long-term illness, health problem or disability which limits your daily activities or the work you can do? (includes problems which are due to old age)
- | | |
|-----|----|
| Yes | .1 |
| No | .2 |

- Q26 Does your household own or rent your accommodation? **(read out, single code)**
- | | |
|----------------------------------|----|
| Owens outright | .1 |
| Owens with a mortgage or loan | .2 |
| Pays part rent and part mortgage | .3 |
| Rents | .4 |
| Lives here rent free | .5 |

“Just to finish I’d like to ask a couple of questions about your satisfaction with the NHS and your use of the 111 telephone service.”

- Q27 All in all, how satisfied or dissatisfied would you say you are with the way in which the National Health Service runs nowadays **(read out, single code)**

Very satisfied	.1
Quite satisfied	.2
Neither satisfied nor dissatisfied	.3
Quite dissatisfied	.4
Very dissatisfied	.5

- Q28 All in all, how satisfied or dissatisfied would you say you are with the way in which the National Health Service runs when you need to seek help urgently ie want help or advice on the same day **(read out, single code)**

Very satisfied	.1
Quite satisfied	.2
Neither satisfied nor dissatisfied	.3
Quite dissatisfied	.4
Very dissatisfied	.5

Q29 Have you heard of the '111' telephone service?

Yes .1
No .2
Not sure .3

Q30 Have you ever used the '111' telephone service?

Yes .1
No .2
Not sure .3

Q30a **If yes**, about how many times have you used the 111 service in the past 4 weeks?

_____ times

“On behalf of [name of market research company] we would like to thank you for taking part in this survey”

Appendix 3 – User Survey Questionnaire



When it's less urgent than 999



University of Sheffield

Your views about the 111 telephone service

In the last few weeks you sought health advice using the telephone. You may have called the 111 telephone service directly or you may have been transferred from another service (eg the GP out of hours service). This questionnaire asks you about your experience of the 111 service on this occasion.

Please complete all the questions as best you can. If someone made the call on your behalf, it may be helpful for the caller to assist you, if possible, when completing the questionnaire.

Your name and address do not appear on this booklet and the information you give will only be seen by the research team at the University of Sheffield (see enclosed information booklet).

Once you have completed this questionnaire please return it in the envelope provided, which does not need a stamp.

Thank you.

Section A: Getting through

Q1. How did you get through to the 111 service?

- I dialled 111
- I'm not sure
- I called another service and they put me through to 111

Please say what type of service this was (eg GP out hours) _____

- I called another service and a message told me to call 111

Please say what type of service this was (eg GP out hours) _____

Q2. How quickly did you get through to a 111 advisor? (please tick one)

- The call was answered immediately (within one minute)
- The call was answered after being held in a queue (over one minute)
- I'm not sure
- I hung up before talking to someone, and tried again later

Q2a. How many times did you try before getting through to a 111 advisor?

_____ times

Q3. When you got through to an advisor, what happened? (please tick one)

- I was assessed only by the advisor who answered the telephone
- I was transferred to a nurse advisor for further assessment
- I was told that the 111 nurse would call me back
- I'm not sure

Section B: The advice you were given

Q4. At the end of the call what did 111 tell you? (please tick one)

- My call would be transferred to the 999 ambulance service
- That an ambulance was on its way
- The 111 service arranged an appointment for me, with an urgent care centre/walk in centre/GP practice or other health professional.
- Go to one of the following by myself: A&E department/Walk-in centre/Urgent Care Centre/Minor Injuries Unit
- Contact my GP or someone else at my usual general practice myself
- Contact another health professional myself eg (midwife, dentist)
Please say who _____
- Visit a pharmacy
- Other, please say what _____
- I was told how to look after the problem myself without contacting another health service ⇒ **please move to Q6**
- I don't know/can't remember ⇒ **please move to Q8**

Q5. How soon after the call were you told to get the help you were advised about in Q4? (please tick one)

- Immediately (eg within the next hour)
- Sometime during the same day
- The following day
- In the next few days
- The 111 advisor did not tell me when I should seek help

Q6. How helpful was the advice given by the 111 service? (please tick one)

- Very helpful
- Quite helpful
- Not very helpful
- Not helpful at all

Q7. Did you follow the advice given by the 111 service? (please tick one)

- Yes, all of it (please move to Q8)
- Yes, some of it
- No

Q7a. If you did not follow the advice, why was this? (please tick one)

- I did not agree with the advice
- I did not understand the advice
- I tried to follow the advice but it did not work
- I was unable to follow the advice
- Other, please say _____

Section C: After the call

Q8. During the five days AFTER the call was made to the 111 service did you have contact with any health service for the same problem? (this includes services that the 111 service told you to contact, or contacted on your behalf)

- No \Rightarrow please move to Q11
- Yes

Q9. If there was contact between you and any of the following services within five days of your 111 call for the same problem please can you indicate the first, second, and third service you had contact with (please tick one box in each column)

	1 st service after 111	2 nd service after 111	3 rd service after 111
A doctor/nurse at general practice	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
GP, out of hours	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
A&E department	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
999 Ambulance Service	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Urgent Care Centre	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Walk in Centre	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Minor Injuries Unit	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Pharmacist or Chemist	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
NHS Direct	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
'111' telephone service	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Other, <i>please state:</i>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Q10. What was your main reason for contact with the first service above (please tick one)

- I was told to do so by the 111 service or the 111 service did it for me
- I wanted another opinion
- I didn't agree with the advice given by the 111 service
- The health problem changed (worsened/improved)
- Other, *please say* _____

Q10a. If you had contact with a second service, what were your reasons for this? (please tick all that apply)

- The first service told me to contact the second service or they contacted it for me
- The health problem changed (worsened/improved)
- Other, *please say* _____

Q11. Seven days after the call to the 111 service, how was the problem? (please tick one)

- Completely better
- Improved
- The same
- Worse

Section D: Satisfaction

Q12. Below are comments showing how people might feel about the service they received. From your experience of the 111 service on this occasion please mark the boxes that seem closest to your views (please tick one box on each line).

	<i>strongly agree</i>	<i>agree</i>	<i>Neither agree nor disagree</i>	<i>disagree</i>	<i>strongly disagree</i>
The 111 staff were helpful	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
The questions asked by the 111 service were relevant	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
The 111 service dealt with my problem quickly	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
The advice I was given by the 111 service worked well in practice	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
The 111 service helped me to make contact with the right health service	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Using the 111 service reassured me	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
I was completely happy with the 111 service	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
The 111 service is a valuable addition to the NHS	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Q13. Overall, how satisfied or dissatisfied were you with the way the 111 service handled the whole process? (please tick one)

- Very satisfied
- Fairly satisfied
- Neither satisfied nor dissatisfied
- Fairly dissatisfied
- Very dissatisfied

Q14. Please describe any things about the 111 service that you were particularly satisfied and/or dissatisfied with on this occasion

Section E: Your use of the 111 telephone service and your satisfaction with the NHS

Q15. How did you hear about the 111 telephone service? (please tick all that apply)

- Media (tv, radio, newspaper etc)
- Leaflet
- Friend/relative
- Health service telephone message
- Online (computer, laptop etc)
- Other healthcare provider (eg GP)
- Other, please say _____

Q16. Are you clear about when to use the 111 service instead of another service?

- Yes, definitely No I'm not sure

Q17. If you faced a similar health problem in the future would you call the 111 service?

- Yes No I'm not sure

Q18. If the 111 service had not been available, would you have contacted another service about your health problem? (please tick one)

Yes, I would have contacted:

- A doctor/nurse at general practice
- Urgent Care Centre
- 999 Ambulance Service
- A&E department
- Minor injuries unit
- Walk-in centre
- NHS Direct

Someone else, please say _____

- No, I would not have contacted anyone else**
- This question is not relevant as I did not call 111 directly

Q19. All in all, how satisfied or dissatisfied would you say you are with the way in which the National Health Service runs when you need to seek help URGENTLY (ie needing help on the same day)?

- Very satisfied
- Quite satisfied
- Neither satisfied nor dissatisfied
- Quite dissatisfied
- Very dissatisfied

Q20. All in all, how satisfied or dissatisfied would you say you are with the way the National Health Service runs in GENERAL nowadays?

- Very satisfied
- Quite satisfied
- Neither satisfied nor dissatisfied
- Quite dissatisfied
- Very dissatisfied

Section G: So we can understand how the new 111 service works for different types of people, here are some questions about the CALLER (the person who made the phone call to 111)

Q21. How old is the caller?

_____ years old

Q22. Is the caller:

- Male Female

Q23. What is the caller's ethnic group?

- I don't know White Black or Black British
 Asian or Asian British Mixed Chinese
 Other, how would you describe their ethnic group _____

Q24. Does the caller have any long-term illness, health problem or disability which limits their daily activities or the work they can do? (includes problems which are due to old age)

- Yes No I don't know

Q25. Does the caller's household own or rent their accommodation? (this is a standard question used in other surveys)

- I don't know Owns outright
 Owns with a mortgage or loan Pays part rent and part mortgage
 Rents Lives there rent free

We would like to examine some of the calls made to 111 to help us to improve the service. If you are happy for us to examine your 111 record which relates to the health problem you describe in this questionnaire, please tick here:

Thank you for your help.
Please return this form in the envelope provided, no stamp is required.

**Medical Care Research Unit,
ScHARR,
University of Sheffield**

Appendix 4 – Question schedule for lessons learned exercise

Draft/ Briefing paper for consultation with key stakeholders involved in the implementation of 111.

The DH wishes to understand the important lessons that can be learned by drawing on the experiences of key participants in the 111 pilot sites.

We can see several benefits of having a consultation at this stage. Firstly, it will enable an early exchange of views and ideas between those involved at the 'vanguard' of commissioning and providing 111. Secondly, it will assist the Sheffield research team who are currently evaluating the pilot sites, and thirdly, it will help to inform the development of the next wave of sites which are now likely to be before the evaluation is completed.

Given the overlap between the likely content of the discussions and some of the evaluation, a researcher from Sheffield has been invited attend to help facilitate the discussions.

Our core question is to learn:

“What have been your experiences so far of commissioning or being commissioned to set up and deliver the 111 service?”

To guide the discussions, we have identified the following broad topic areas:

- ❖ Is engagement with local stakeholders, the national programme and CfH, and the evaluation, running smoothly?
- ❖ Service design – in what ways could the specification and planning be improved?
- ❖ What do you see as the costs and benefits of making the business case?
- ❖ Do you think the project management, organisation and governance arrangements in place are sufficient?
- ❖ Are there any particular challenges with IT, telephony and the data?
- ❖ What are your experiences of setting up the clinical governance requirements?
- ❖ What challenges do you see around marketing and communications?

It is planned to explore each of these topics in more detail by asking you to consider the following:

- ❖ How did you approach this?
- ❖ What do you think went well? What went less well? What was the effect of this? In the light of your experience, would you have approached this differently?
- ❖ How important do you think this topic is to the overall success of 111 and why?
- ❖ What do you see as the main triggers and barriers to successful implementation?
- ❖ Have you experienced particular challenges in this site that may not pertain to other sites?

Are there any other topics that you feel should be flagged up for discussion in this way?

Participants will be asked to distil their top five lessons or recommendations for implementing 111 successfully.

The notes of the proceedings will be summarised and circulated for agreement within 10 days of the meeting.