DEVELOPMENT AND PILOT TESTING OF A SURVEY AND MANUAL ON FIRE SAFETY

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DEVELOPMENT AND PILOT TESTING OF A SURVEY AND MANUAL ON FIRE SAFETY

1. OBJECTIVES

The purposes of this project are to develop and pilot test a survey on fire safety and to develop methods for its administration. A procedural manual will be constructed to describe these methods.

The survey on smoke alarm ownership and maintenance and on fire safety awareness is to be conducted as part of a randomised controlled trial evaluating a smoke alarm give-away programme carried out in the London boroughs of Camden and Islington in 1997. It is intended to measure the intermediate outcomes for the programme.
2. NEED FOR THE QUESTIONNAIRE

2.1 Fires and fire-related injuries

Residential fires are a major cause of injury and death for all age groups. They resulted in 512 fatal casualties in the UK in 1996, accounting for three quarters of all fire-related deaths (Collier and Watson, 1996). They are the second most important cause of unintentional injury death in children in England and Wales (DiGuiseppi, 1997). The most common cause of death and of non-fatal injury from a fire incident is being overcome by smoke or gas (Collier and Watson, 1996). Children and the elderly are the most likely to die in a dwelling fire from the inhalation of gas or smoke. A study of those who die and those who survive residential fatal fires in North Carolina (Marshall, 1998) showed that the subjects with the greatest vulnerability were young children less than five years and people over 64 years with neither a potential rescuer nor a smoke detector.

In 1996, there were 53500 accidental dwelling fires in England and Wales, an increase since the previous year mainly due to an increase in chip pan fires (Collier and Watson, 1996). The major cause of accidental fires in dwellings was the misuse of appliances or equipment excluding chip pans. Most fatal fires were caused by the careless handling of fire or hot substances (for example the careless disposal of cigarettes), by placing articles too close to heat, or by chip or fat pan fires. The sources of dwelling fires included cooking appliances, other electrical appliances (such as washing machine), electric blankets or bed-warmers and smokers’ materials.

Mortality statistics show that there is a steep social gradient in the risk of fire-related death, with the rates in children aged 1-15 years in social class V fifteen times greater than for those children in social class I (Roberts, 1996). Over the past decade, child death rates from fires have decreased in social class I and II, but have substantially increased in class IV and V. There is a higher risk of residential fire occurrence in
rented accommodation, in council estates, in areas of greatest hardship, in single parent families and in homes that are in poor condition (Budd, 1997).

2.2 Smoke alarms

Smoke alarms appear to be a potentially effective intervention to reduce fire-related deaths and injuries. Runyan (1992) showed that one of the most important risk factors for death in the event of a house fire is the absence of a smoke alarm. Dwelling fires discovered by smoke alarms are discovered more rapidly after ignition, are associated with lower casualty rates and cause less damage as they were more often confined to the item first ignited (Home Office, 1995). Smoke detectors reduce fire deaths by providing a greater amount of escape time. The chance of death in one and two family homes without a smoke detector is 2.5 times higher than those with a detector (Council on Scientific Affairs, 1987). Children, the elderly and those who could not escape are the major proportion of casualties. A non-randomised controlled trial of a smoke alarm give-away programme (Mallonee, 1996) showed an 80% reduction in the incidence of fire injuries four years later, when compared with such injuries in the city population as a whole.

A national cross sectional survey (Roberts, 1996) found that 41% of rented homes compared with 17% of owner occupied homes do not have smoke alarms and that the households most likely to lack alarms were single parent and low income families living in rented accommodation. Householders who had heard of National Fire Safety Week or a TV smoke alarm advertising campaign were significantly more likely to have a smoke alarm. In a survey of households randomly selected in Camden and Islington (Adams, 1998), 53% did not have a smoke alarm and 65% of council houses were without alarms.

In 30% of fires in dwellings with smoke detectors (Collier and Watson, 1996), the system did not raise the alarm. The major causes of non-function were missing batteries, fires in which the fire products did not reach alarm, the alarm being turned off, flat battery and incorrect installation.
2.3 *A programme to prevent fire injuries and deaths*

In 1997, a single blind, randomised controlled trial of a smoke alarm give-away programme to prevent fire-related injuries and deaths, was commenced in the London boroughs of Camden and Islington (DiGuiseppi C, personal communication, 1998). The aim was to quantify the effectiveness and cost effectiveness of a door to door distribution programme of free smoke alarms. In these two boroughs are 40 wards with a Jarman index of 20 or more. They were randomly allocated to the intervention or control group within pairs matched by Jarman score. In the following seven months 20,050 alarms were distributed together with educational material containing information on the installation and maintenance of smoke alarms, fire prevention and fire escape (Appendix 10). About two thirds of the alarms went to council housing tenants in the two boroughs.

The primary outcome for this study will be the rate of residential fires reported to the fire brigade, and the rates of residential fire-related casualties. The intermediate outcomes for the smoke alarm give-away programme are: the percentage of households with installed and functioning alarms 12 months after the intervention; smoke alarm testing and maintenance behaviour; false alarms and fire safety knowledge.

Studies of other safety devices, including car seat belts and bicycle helmets suggest that self-reported use tends to exaggerate actual use (Ni, 1997; Robertson, 1992). Hence we chose the personal interview from of survey technique in order to be able to inspect and test the alarm. The data will therefore be collected at a home inspection visit where the interviewer is blind to ward intervention status. In order to assess these intermediate outcomes, a questionnaire was developed and a manual for its delivery produced.
3. BACKGROUND - QUESTIONNAIRE DEVELOPMENT

The basic steps in the development of a questionnaire are first to decide what data is necessary for the study, then to select the items for inclusion and design the individual questions. The question wording can then be composed and the questionnaire layout designed, taking the need for coding of the responses into consideration (Stone, 1993).

3.1 Use of validated instrument
Fallowfield (1995) suggests that the first consideration should be whether a suitable questionnaire already exists. She notes that it is “probably better to use a well validated, standardised measure that seems more or less up to the job than to add yet another naively constructed measure to the existing confusing pool.”

3.2 Questionnaire format

3.2.1 Data selection
The minimum number of questions necessary to obtain the data set of information required to meet the study objectives should be included in the questionnaire (Oppenheim, 1992).

3.2.2 Question ordering and wording
Beginning each module of the questionnaire with a very broad question allows the subsequent questions to be funnelled down to specific end-points. Filter questions are used to exclude those respondents to whom the questions might be irrelevant (Oppenheim, 1992). Questions that are brief, relevant and unambiguous with no vague words or leading questions (Fallowfield, 1995) improve the reliability of responses. The possibility of bias caused by the respondent wishing to give the
"correct" or socially acceptable answer is reduced when the question is worded so that the incorrect or low-prestige answer is equally possible (Oppenheim, 1992).

3.2.2 Type of question
Open questions allow the respondent freedom to reply. They are easy to ask but may be difficult to answer and require further coding. In the closed form of questions, alternative answers are offered. They are easier and quicker to answer and require no further coding. Closed questions are better for recall items including periodic behaviour. However there is a loss of spontaneity and also of the opportunity to probe (Oppenheim, 1992).

3.2.3 Questionnaire delivery
To minimise bias from interviewer error (Armstrong, 1992) the interviewer must not omit or change the wording of any questions, fail to probe where necessary, use leading questions as probes, record the response inaccurately or openly cheat.

3.2.4 Link statements and skips
Link statements are best when kept simple, brief and do not bias the respondent in his or her response to the subsequent questions (Oppenheim, 1992). Skips that are clearly indicated on the interview schedule ensure that the interviewer does not miss out any relevant questions.

3.3 Response rates and reducing non-response
3.3.1 Letter of introduction
The use of an introductory letter improves the response rate obtained at interview, particularly when it can be addressed personally to the respondent (Armstrong, 1992). Letters that contain details of the research organisation undertaking the study, assurances of confidentiality and a description of how the respondent’s name was obtained have also been shown to improve the response rate. It is useful to emphasise the importance of the respondent to the survey and state the aim of the study. Access
at the door is improved when an identification badge from the research organisation is worn by the interviewer.

### 3.3.2 Incentives
Armstrong (1992) notes that incentives can increase the response rate in postal surveys, where they can be included as a token of good faith. They may sometimes be effective in persuading people to participate in personal interviews.

### 3.3.3 Confidentiality and anonymity
Reassurances of confidentiality the letter of introduction and at the start of the interview improve response rates and may need to be repeated before the respondent is willing to answer questions. Where the respondent is uncomfortable with the questions the interview may need to be abandoned. When he or she refuses to answer, his or her right to privacy should be respected (Oppenheim, 1992).

### 3.3.4 Rapport
Oppenheim (1992) advises that engaging the respondent’s interest and creating rapport improves the respondent’s motivation to answer the questions. However, when Armstrong (1992) reviewed studies looking at the development of rapport in interviews he found that in structured interviews it does not influence the response rate.

### 3.3.5 Interviewer selection
Personal interviews give a higher response rate than either postal or telephone surveys (Armstrong, 1992) and create the opportunity to correct misunderstandings. A questionnaire delivered by interviewer can also succeed with respondents who have reading or language difficulties. Oppenheim (1992) advises that the selection, training and performance of interviewers need consideration so that the potential response rate can be maximised. The optimum age for an interviewer is 30 to 40 years and women have been found to have better response rates than men (Armstrong, 1992). Response rates can be improved if, where possible, the accent and ethnicity of the interviewer
matches that of the population being interviewed and when the interviewer attempts
to convey the impression of respectable social neutrality.

3.3.6 Interviewer training
It is important to train the interviewers in the delivery of the questionnaire so that all
questions are asked in the same way and all respondents understand a given question
in the same way (Oppenheim, 1992). Interviewers require training in probing and
other interviewing techniques, the recording of answers and editing the questionnaire
and the call-back strategy. Armstrong (1992) recommends that the production of an
interviewer’s manual is an essential part of interviewer training and survey
development. He suggests that the manual should include a description of the sample
survey, the role of the interviewer and an introduction to the interview; using the
questionnaire as well as giving details of sampling principles and procedures.
Administrative procedures, ethical principles for interviewers and the maintenance of
confidentiality are also essential parts of interviewer training and should form part of
the interviewer’s manual (Armstrong, 1992). When sufficient study details are given
to the interviewers they can justify the interview to the respondent without
influencing the way in which they deliver the survey. A copy of the questionnaire,
with detailed instructions for its use, should be included in the manual.

3.3.7 Interviewer performance
The performance of the interviewer in the delivery of the questionnaire can be
assessed by tape-recording a sample of interviews, by re-interviewing a sample of
respondents or by a senior researcher accompanying the interviewer on a sample of

3.4 Pilot study
Only after the draft questionnaire has been prepared and pre-tested, can it be piloted
and evaluated (Oppenheim, 1992; Stone, 1993). Oppenheim recommends a sample
size of twenty to fifty as being sufficient to evaluate the questionnaire performance in
pilot testing, the purpose of which is not the collection of data but to test out
questions and procedures and aid the construction of appropriate response categories (Armstrong, 1992). Even where validated questions will be used they must be piloted on the population currently under study, to ensure that they will work as required on that population (Oppenheim, 1992).

Subsequent evaluation of the pilot study is important to allow any necessary modifications to be made to the survey technique. When this stage has been completed it is feasible to proceed with the survey. In the pilot study the interviewer must check that all questions are interpreted in the same way by all respondents and that each closed question has an answer that applies to each respondent (Oppenheim, 1992).
4. METHODOLOGY

4.1 Study design
Using previously validated questions, a draft questionnaire was developed, pre-tested, revised then pilot tested on a sample of the study population. A letter of introduction was drafted and pilot tested on the same sample. Based on the results of the pilot testing, a letter of introduction, questionnaire and interviewer manual was prepared. These will be used in a randomised controlled trial designed to quantify the effect of a door-to-door free smoke alarm distribution programme on: smoke alarm installation, function and maintenance behaviour; fire safety awareness and the incidence of false alarms twelve months after distribution. These outcomes will be assessed at home visits to a sample of the population living in council housing belonging to the London boroughs of Camden and Islington.

4.2 Study population
The target population for the free smoke alarm distribution programme is inner-city householders living in Camden and Islington, with emphasis on the elderly and low income groups and those in rental accommodation. The majority of smoke alarms distributed in the free smoke alarm distribution programme were given out to council tenants. The target study population is council housing tenants in the London boroughs of Camden and Islington. All households listed as council tenants in the 40 study wards in the two boroughs are available for inclusion in the main survey.

4.3 Study sample
The sampling frame is the Council housing tenancy lists from the London boroughs of Camden and Islington. A systematic sample of 500 addresses of tenants were provided by Camden Housing department according to identification numbers assigned by a random number generation programme. In the pilot study, a computer generated random sample of twenty households was chosen from the 500 council tenants.
Although Islington residents will be included in the main study, they were not included in the pilot sample as the list from the Islington council was not initially available. The sample of respondents in the pilot should nevertheless still be representative of the population from which the study subjects will be drawn because the populations of Camden and Islington are similar. Both are ethnically diverse with similar levels of material deprivation.

4.4 **Letter of introduction**

A letter of introduction was drafted based on the principles described previously in the reviewed literature. The grammar check included in Microsoft Word 7 software package was used to assess ease of reading and reading level with the aim of keeping the Flesch Reading Ease score above 70% and the Flesch-Kincaid Grade Level at less than or equal to Year 6 equivalent. For the pilot study, the letter was prepared in English. I monitored any reported problems with the language of the introductory letter.

4.5 **Questionnaire development**

4.5.1 **Data selected for inclusion**

The areas selected for inclusion in the questionnaire were: self-reported smoke alarm installation and maintenance behaviour and false alarms; fire safety knowledge; fire and fire injuries in the home; and demographic details. The four domains were ordered within the document in the order of salience to the main trial.

4.5.1.1 **Smoke alarm installation and maintenance behaviour and false alarms**

Smoke alarm installation and maintenance behaviour is the main intermediate outcome of the ongoing smoke alarm give-away programme in Camden and Islington. The data on this and the incidence of false alarms are self-reported and are collected to see the effect of the programme on smoke alarm function and if there is any adverse effect from the trial.
4.5.1.2 Fire safety knowledge
Those taking part in the smoke alarm give-away programme were given a smoke alarm and leaflets published by the Home Office (Appendix 10). These leaflets contain information on smoke alarm installation and fire safety. This questionnaire therefore seeks to assess whether subjects in the intervention group that received the leaflets are more knowledgeable about recommended fire safety behaviour than are those in the comparison group and whether there is diffusion of that knowledge within the study wards to subjects that did not receive alarms. Photographs of three poster and television fire safety campaigns were included to assess their influence on smoke alarm ownership.

4.5.1.3 Fires and fire injuries in the home
We also wished to query any fires in the preceding one year, including how they were discovered and controlled and whether anyone sustained injury as a result. This is to assess whether experience of fires influences smoke alarm ownership and maintenance but is not a principal outcome of the trial. It is not anticipated that the sample size will be sufficient to compare these results between study groups. However, data on the cost of property damage and casualties will be used as an added data source for the cost effective analysis of the main trial.

The correct answers to questions on fire safety were taken from Home Office Publications (Bosely, 1997; Collier and Watson, 1996; Hume 1997) and from the Home Office leaflets (Home Office 1996; Home Office 1997), that were given out during the smoke alarm distribution phase of the study (Appendix 10).

4.5.1.4 Demographic details
Demographic details are collected to assess the representativeness of the sample and whether there is a difference in smoke alarm ownership with respect to demography. Details of the household, including the numbers of children and elderly living at the selected address, will give an indication of the presence and use of smoke alarms in the most vulnerable households. Information on the number of floors will assist in the estimation of adequacy of the number of smoke alarms present.
4.5.2 Validity of the questions

The questions included in the pilot survey questionnaire were based on validated, repeatedly tested questionnaires used in the British Crime Survey, 1994 (White and Malbon, 1994) and in the OPCS Omnibus Survey 1995.

The British Crime Survey was carried out by the Social Survey Division of OPCS on behalf of the Home Office and included questions on fires in the home within the preceding two years. In 1994 it was delivered to a core sample population of 14500 adults over 16 years of age and living in private households in England and Wales with a booster sample of more than 2000 ethnic minority adults, also living in private households in England and Wales. Inner city areas were over sampled. The OPCS Omnibus survey has been used repeatedly on similar populations. The BCS and OPCS questionnaires have therefore been used repeatedly on populations similar to our inner city, ethnically diverse population of council housing tenants in the London boroughs of Camden and Islington.

4.5.3 Format of the questionnaire

4.5.3.1 Question ordering

Questions were funnelled so that at the start of each section, there was a general question to which the respondent could answer “yes” or “no.” If giving a positive response, the respondent was asked further questions in the section and if negative, the interviewer moved to the next section.

4.5.3.2 Type of questions

The majority of the questions included in the questionnaire were closed or pre-coded as this type of question greatly simplifies analysis. Answers to open-ended questions can be difficult to interpret and necessitate coding of responses. In the OPCS Survey, for some questions, respondents were shown cards containing a set of possible responses. We anticipated problems with the physical manipulation of such showcards. Therefore, half of the pilot group was asked these particular questions in an open-ended form, with coding of the answer done by the interviewer at the time and the other half of the pilot group was shown the cards and asked to choose a response from the card. The interviewer assessed the time and effort required for each strategy.
4.5.3.3 Answer categories
For all closed questions, a “don’t know” or “other” category of answer was included, ensuring that all questions can be answered by all respondents. With the pre-coding of answers to most questions, the possibility of uninterpretable answers was limited to those open-ended questions which were included in half of the forms. With the judicious use of non-directive probing questions, the answer could be clarified and coding performed in the field by the interviewer. In areas of doubt, the problem with the answer was recorded so that it could be discussed with the supervisor later. This will also take place as required in the main study.

4.5.4.4 Coding
Coding was considered during the construction of the questionnaire. As it was to be delivered by personal interview, it was decided that the most rapid way of recording the respondent’s answer was to ring the appropriate number corresponding to the answer.

One half of the questionnaires used in the pilot survey contained only pre-coded answers, so no further field-coding of responses was required. The remaining questionnaires contained three open questions, the answers to which required coding in the field by the interviewer. In this case, pre-coded responses were included in the questionnaire but were not shown to the respondent. The full response was recorded and the interviewer immediately ringed the code for that response. If the response did not fit clearly into one of the categories provided, further non-directive probing questions could be used to clarify the answer.

4.5.4.5 Simplification
The basic questions from the British Crime Survey 1994 are written in clear but at times complicated or stilted language. The current study is aimed at an ethnically diverse group of council housing tenants. Some may be materially disadvantaged and others will not have English as their first language. We therefore simplified some of the questions, for example we replaced “installed” with “put up.” We made further changes to the questions that required clarification after pre-testing.

4.5.4.6 Appearance
The questionnaire was designed to be delivered by interviewer. Hence the layout was planned to allow rapid completion by a trained interviewer.
4.5.4.7 Link statements and skips
Link statements were included for use by the interviewer. All skips were clearly indicated with instructions to the interviewer. Where the skip might involve missing out many questions, the subsequent question was printed on a new page in order that it might be quickly found, with minimum disruption to the flow of questions. Skips and instructions to the interviewer were printed in bold font to ensure that no questions were missed during the interview.

4.5.5 Inspection procedures
Following delivery of the questionnaire, there is a section for completion by the interviewer including the testing of the smoke alarm or alarms where present. The principal purpose of the inspection is to determine the current prevalence of functioning smoke alarms, based on actual smoke testing. Methods for the functional testing of smoke alarms were developed in the course of the pre-pilot testing of the study, using information provided by the Home Office (Home Office 1997; Bosely, 1997; Hume, 1997). These methods were described in detail in the Interviewer’s Manual (Appendix 10).

The interviewer was instructed to locate the alarm, observe its general appearance, assess whether it had been installed correctly and if not to describe why it was incorrectly installed. The interviewer then pressed the battery test button and recorded the response. If the alarm sounded, it was then tested using a smoke source and the response again recorded. If the alarm did not sound when the battery test button was pressed, the battery was removed and checked using a battery tester. The response was recorded.

4.6 Pre-testing of questionnaire
Prior to piloting the questionnaire, it was pre-tested on a convenience sample of family, friends and colleagues to assess the flow of questions and to eliminate any obvious ambiguities, repetitions or similar problems. The revised questionnaire was
tested on additional peers to ensure that these problems were resolved and no new ambiguities were introduced.

4.7 Reducing non-response

4.7.1 Letter of introduction
To increase response rates, we provided a letter of introduction as advance warning to the questionnaire. The letter was printed on the letterhead of Institute of Child Health/Great Ormond Street Hospital, a widely recognised and respected charitable organisation. Letters were personally addressed to the occupants in the pilot study. (Names will be available only for Camden residents in the main survey.)

4.7.2 Improving access
Interviewers in the BCS found it helpful, after the initial letter of introduction, to contact the respondent on the telephone to arrange a convenient appointment time to conduct the survey. Advice on this issue was sought from interviewers who had participating in an earlier survey performed as part of the give-away programme or in other studies involving a door-to door questionnaire presentation in Camden and Islington.

4.7.3 Incentives
The use of incentives was discussed with colleagues involved both in this trial and similar previous trials in the target community area. Although incentives have been shown to increase response rates (Oppenheim, 1992), particularly for postal questionnaires, they also may add substantially to the cost of the survey. The pilot study was conducted without the use of incentives in order to assess the response rate accordingly.

4.7.4 Length
In order to increase the response rate by keeping the questionnaire short (Armstrong, 1992), we aimed for the minimum number of questions which would produce answers
to the questions stated in the objectives of study. The topic was not felt to be of a sufficient degree of personal interest to the respondent to hold his or her attention for more than about 10 minutes. Therefore, results of pre-testing were used to determine the maximal length of the questionnaire.

4.7.5 Confidentiality
We attempted to reassure the respondent of confidentiality at each step in the process, including in the letter of introduction, at the door and during the questionnaire.

4.7.6 Anonymity
Anonymity was maintained by the use, on the interview schedule, of study numbers as respondent identifiers. The corresponding names were known only to the researchers and did not appear on any responses. Study numbers were essential, to allow quality control and the maintenance of records as the survey progressed.

4.8 Interviewer
4.8.1 Interviewer selection
The pilot interviewer was a paediatrician with extensive training and experience in patient interviews, and with additional training in community paediatrics and public health.

4.8.2 Interviewer training
In a cascade training process Dr Carolyn DiGuiseppi, principal investigator in the main trial, trained the interviewer on fire risk, smoke alarm installation and maintenance and fire safety. Dr DiGuiseppi had previously been trained by a fire officer from the London Fire Brigade. Home Office materials on smoke alarms and fire safety were also provided to and discussed with the interviewer.

The interviewer was accompanied by her supervisor to the first three (15%) households visited and was observed interviewing the first two subjects, 13% of completed interviews. The supervisor independently coded the answers for these two
subjects. After each visit, the approach to the subject was discussed, the results of the completed interviews were compared and any differences in results were discussed to ensure consistent coding.

4.8.3 Blinding
The interviewer was blind to ward intervention status in the pilot survey in order to avoid systematic bias in the way the questions were asked or the answers recorded.

4.8.4 Rapport
In this study the interviewer needed to establish a climate of trust at the door, in order that the respondent should not only allow her into the house, but also to go around the home to check all smoke alarms. We therefore designed introductory remarks to the respondent to attempt to open up the conversation and establish such trust.

4.8.5 Interviewer’s instructions
Prompts were developed and clearly indicated on the questionnaire schedule. The interviewer was required to use only non-directive probes. The order of questions in the schedule could not be varied. Routing instructions were clearly indicated for the interviewer to follow. The interviewer was required to deliver the questionnaire in a similar manner on each occasion.

Suggested responses to queries that might arise and also some answers that might be given to “problem” respondents were developed and included in the interviewer’s manual (Appendix 10).

4.8.6 Impression management
Impression management and dress code were discussed with the interviewers experienced in delivering surveys to a similar group of residents in the boroughs of Camden and Islington.
4.8.7 Interviewer’s manual
Detailed instructions were prepared for the use of the questionnaire in the pilot and main studies.

4.8.8 Consultation with experts
Interviewers experienced in delivering personal interview type of surveys in Camden and Islington were consulted with regards to route planning and mapping, the best time of day and day of the week to find someone at home, access to blocks of flats and entry at the door.

4.9 Assessment of outcomes
Frequencies of responses on smoke alarm ownership and maintenance, fire safety behaviour, awareness of fire safety campaigns, the incidence of fires and fire-related injuries and socio-demographic variables were calculated by hand for the pilot study. From the pilot sample, the responses to the letter of introduction and questionnaire were assessed, as well as any problems occurring during the delivery.

4.9.1 Approach and consent
The letter of introduction indicated that the researcher would visit within about two weeks. The number of visits that the interviewer could realistically make within the following two weeks was assessed from the pilot survey. This determined the size of each batch of letters. The number of householders in the pilot sample consenting to complete the questionnaire give an indication of the response rate for the main study.

4.9.2 Responses
The response to each question was monitored in the pilot survey. Any difficulties with the questionnaire were recorded and adjustments made to the final version for use in the main study.
4.9.3 Logistical considerations
The pilot interviewer revisited on at least two further occasions all those households for which a questionnaire was not completed on the first visit. Where no contact had been made with the householder, the interviewer attempted to contact the neighbouring householders who might have known of a more suitable time to visit.

In the pilot study the interviewer recorded the length of time taken for each interview, timed from entering to leaving the estate. From this the amount of time needed to complete the main study was assessed.

At the start of each day, the interviewer planned an itinerary in order to minimise the distance to be travelled.

4.10 Ethics
The Great Ormond Street Hospital for Sick Children NHS Trust/Institute of Child Health Research Ethics Committee approved the survey of smoke alarm maintenance and fire safety knowledge, as part of the randomised controlled trial evaluating the smoke alarm give-away programme. They advised that a letter should be sent to households in the sample explaining the project and this was incorporated in the letter of introduction. (Appendix 9)
5. RESULTS - A REPORT ON THE FINDINGS OF THE PILOT STUDY

5.1 Consultation with expert interviewers
The advice of experienced interviewers was that the interviewer’s mode of dress should be casual and not too smart and there should be no obvious display of wealth. An introduction that the interviewer was from Great Ormond Street Hospital, with the appropriate identification badge, was recommended as being helpful in gaining acceptance and admission into the respondent’s home. They suggested that the success rate would be increased if the interviewer could bypass the intercom at the entry door of the block and reach the door of the flat, because it is easier to decline an interview over the intercom than at door. They recommended that it is sometimes helpful to meet the Estate manager who may allow entry to the block and that the interviewer should avoid making visits on Thursday mornings (pension day) or Friday afternoons. They found that Saturdays were often the best time to find people at home. The itinerary for the day should be planned ahead using street maps of the area. If these can be laminated, their repeated use in the survey is possible.

5.2 Results of the questionnaire

5.2.1 Results of pre-testing of the questionnaire
During the pre-testing stage, some of the questions were found to be ambiguous and the wording was changed to make the question as clear as possible. The initial versions of the questionnaire took more than twenty minutes to complete. Several of the questions were therefore omitted, keeping the survey time as short as possible while still addressing the principal study objectives.

5.2.2 Results of the questionnaire
Out of 20 households in the pilot sample 15 (75%) completed questionnaires at the first or subsequent visit. The main results are summarised in Table 1, below.
Table 1. Main results of the questionnaires.

<table>
<thead>
<tr>
<th>QUESTION NUMBER</th>
<th>POSITIVE RESPONSE</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Smoke alarm owned (including 2 subjects who refused)</td>
<td>8/17 (47%)</td>
</tr>
<tr>
<td>2. Smoke alarm put up</td>
<td>4/15 (27%)</td>
</tr>
<tr>
<td>8. Smoke alarm gone off:</td>
<td></td>
</tr>
<tr>
<td>- trivial reasons</td>
<td>3/15 (20%) 2 installed</td>
</tr>
<tr>
<td>- false alarms only</td>
<td>1/15 (7%) 0 installed</td>
</tr>
<tr>
<td>- never gone off</td>
<td>3/15 (20%) 2 installed</td>
</tr>
<tr>
<td>9. Fire safety improvement made</td>
<td>5/15 (33%)</td>
</tr>
<tr>
<td>11. Correct first action in kitchen fire</td>
<td>5/15 (33%)</td>
</tr>
<tr>
<td>12. Correct next action in kitchen fire</td>
<td>4/15 (27%)</td>
</tr>
<tr>
<td>13. Correct first action in lounge fire</td>
<td>8/15 (53%)</td>
</tr>
<tr>
<td>14. Had a fire</td>
<td>2/15 (13%)</td>
</tr>
<tr>
<td>24. Had a fire injury</td>
<td>0</td>
</tr>
<tr>
<td>28. Aware of fire safety campaign</td>
<td>10/15 (67%)</td>
</tr>
<tr>
<td>29-31. Recall fire safety photograph</td>
<td>12/15 (80%)</td>
</tr>
<tr>
<td>37. Household with &gt;65 year old (including 2 subjects who refused)</td>
<td>6/17 (35%)</td>
</tr>
<tr>
<td>39. Household with &lt;5 year old</td>
<td>0</td>
</tr>
</tbody>
</table>

5.3 **Letters of introduction**

In the introductory letter used in the pilot survey (Appendix 2), I introduced myself as a doctor working at Great Ormond Street Hospital and emphasised the importance of the respondent to the survey. The letter stated that the aim of the study was to look at safety within the home. There was deliberately no mention of the smoke alarm distribution study as this might prompt the householder to go and purchase or install an alarm, or check the battery prior to the visit. The letter described how the recipient’s name had been chosen randomly by computer from the Council Housing lists of Camden and gave assurances of confidentiality. Details of whom to contact for further information were included, as well as an answer-phone number where he or she could leave a message requesting that I call at a particular time. Finally the letter thanked them for their co-operation.

I sent letters of introduction to all 20 randomly chosen addresses in the pilot sample. I addressed them to the householder named as the council tenant or “the occupant” in case the tenancy had changed. Three respondents stated that they had called the voice mail-box listed in the letter but had been unable to leave a message. The line was
subsequently checked and it appeared to be working satisfactorily. Two respondents contacted Dr DiGuiseppi for further information. One called because she had no children and wondered about the significance of the survey to her. The other person was calling for a person unable to speak English. Both of these callers agreed to make an appointment for interview.

5.4 Making contact by telephone

Although Camden Council did not release the telephone numbers for the households involved, efforts were made to obtain the telephone numbers from the directory. In addition, respondents were offered the facility to call to make an appointment.

I obtained the telephone numbers of four of the respondents, two from the telephone directory and two from the respondents themselves. As a result, I made an appointment with one respondent, with the help of a volunteer translator. I could not contact the other respondent, but she was at home when I visited without an appointment. Of the two householders that had numbers listed in the telephone directory and of these, one agreed to an appointment and the other refused to participate in the survey.

5.5 Interviewer performance

To ensure the appropriate delivery of the questionnaire, the interviewer was accompanied by her supervisor on her initial three visits for the pilot survey. Approach to the subject, delivery of the questionnaire and coding of responses were discussed afterwards to ensure that the methods used by the interviewer were appropriate.

5.6 Response to questionnaire

Questionnaires were completed by 15 respondents. Three addresses were visited on two or more occasions but no-one was at home. At one address the neighbours had no knowledge of the occupants nor of their times of coming and going from home. All neighbours were out at the second address. At the third address, two neighbours
advised that the respondent was deaf, did not speak English, and that it would be unwise for an unaccompanied female interviewer to visit him. Two householders refused to participate.

5.6.1 Number of visits
I successfully completed eleven of fifteen questionnaires at the first visit. I revisited those who were not at home on my first attempt at a different time or on a different day and completed a further four questionnaires (Table 2).

Table 2. Number of visits to each household.

<table>
<thead>
<tr>
<th>Total homes visited</th>
<th>One</th>
<th>Two</th>
<th>Three</th>
<th>Four</th>
<th>One</th>
<th>Two</th>
<th>Three</th>
<th>Four</th>
<th>One</th>
<th>Two</th>
<th>Three</th>
<th>Four</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>20</td>
<td>11</td>
<td>2</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>2</td>
<td>0</td>
<td>1</td>
<td>0</td>
<td>1</td>
<td>0</td>
</tr>
</tbody>
</table>

One home was visited on three occasions because an appointment to return was made on the second. One home received four visits because I passed his door frequently and he was at home on my fourth visit.

5.6.2 Day of visit
Visiting on Saturdays was the most efficient use of interviewer time, with 12 out of 21 visits to household addresses (57%) finding somebody at home, compared with five out of 13 visits on weekdays (38%).

Table 3. Day of visit.

<table>
<thead>
<tr>
<th>Total visits</th>
<th>Saturday (n=21)</th>
<th>Weekday (n=13)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Appointment</td>
<td>Cold call</td>
</tr>
<tr>
<td>Appointment</td>
<td>34</td>
<td>1 (5%)</td>
</tr>
<tr>
<td>Cold call</td>
<td>1 (5%)</td>
<td>11 (52%)</td>
</tr>
<tr>
<td>Not at home</td>
<td>9 (43%)</td>
<td>1 (8%)</td>
</tr>
</tbody>
</table>

5.6.3 Non-response
There were five non-responders. Two refused to complete the questionnaire but answered at the door that they did not have an alarm. Another was not at home after
two visits and two were not at home after three. In the main study, non-responders will be assessed by ward intervention status.

5.7 Logistical considerations

5.7.1 Time spent on home visiting
The average time per visit, from entering to leaving the estate was 15 minutes with the length of time taken ranging from five to 35 minutes. This includes both refusals and visits where the questionnaire was completed.

In total, including travel time within the boroughs, I spent 19 hours on 34 visits to 20 addresses. On Saturdays, 21 visits to 19 addresses took 12 hours. This gives an average of 34 minutes per call. On week-days, I spent seven hours on 13 visits, giving a call-rate of 32 minutes per address visited. Thus weekday was similar to weekend travel times.

5.7.2 Mapping
By planning my route in advance, using a street map of Camden and Islington, I was able to minimise the amount of time spent travelling between addresses and also to use public transport most efficiently.

5.7.3 Entry to buildings
Entry to the buildings, to allow me to enter the block and approach the householder face-to-face at the door of the flat, was accomplished by using the “Tradesman’s” bell whenever possible. This is usually operational before 11am each weekday and also on Saturday mornings. Other ways of entry included waiting for someone to enter or leave the block or calling a neighbour on the intercom. One refusal was from the only household to whom I spoke via the intercom as I was unable to get past the intercom and enter the building.
5.8  **Detailed assessment of problems with questionnaire**

After the questionnaire was delivered to those in the pilot study group, the respondents were told that they were taking part at an early stage of the study and that we were still looking at the questions we asked and the way in which we asked them. They were invited to comment on these aspects. They were asked specifically if they understood all the questions or had particular difficulty with any of them. If the interviewer noted that the respondent had a problem with a question, she highlighted that question and later asked why the respondent had found it difficult.

5.8.1  **Questions 4, 5, 6 and 7**

In these questions, householders were offered a prompt card if they had difficulty answering how long ago they had installed or maintained the alarm. None required a prompt. Coding of these questions was therefore straightforward. Questions 5 to 7 caused problems with one respondent who had more than one installed alarm. In this case, it was not possible to accurately complete these questions without clarifying to which alarm the question referred.

5.8.2  **Questions 9 and 10**

These applied to all respondents. Only five respondents reported that they had made any of the fire safety improvements to their home. One of the categories, “replaced electrical equipment” needed explanation for two householders, in terms of replacement of equipment that could be “plugged in” but there was still the possibility of confusion over the time span specified in the question involved.

5.8.3  **Questions 11, 12 and 13**

Two respondents found the show-cards in questions 11, 12 and 13 difficult to use, because English was not their first language. Another respondent commented that the show-cards complicated things for her. She found that she was concentrating on trying to give the “correct” answer from the card, rather than thinking of what her action would be in the circumstances described.
5.8.4 Questions 29, 30 and 31
All respondents were shown the photographs in questions 29, 30 and 31. In the pilot, 12 householders had seen some or all of them. The question was of interest to those who had seen them and prompted them to try to remember where that was. This prolonged the questionnaire by an extra one to two minutes. Those who did not recognise the photographs did not report any distress caused by them.

5.8.5 Question 32
Section C applied to all respondents. Question 32, asking how many floors in the home caused a little confusion. Four homes had an entry on one level with stairs leading to the flat on another level and respondents were unsure whether to count this as one or two floors.

5.9 Version of questionnaire
I used two versions of the same questionnaire during the pilot survey. In version A, in questions 11, 12 and 13, I asked the respondent for fire safety information and wrote down the responses verbatim. I coded the answers on site, using the same coding frame as on the show-cards in version B. In version B, I used the show-cards for 11, 12 and 13. Here the replies required no further coding. Seven questionnaires of type A and eight of type B were completed.

From the point of view of the interviewer, the Type A version without show-cards was simpler to use, despite the need for separate coding of the answers. I found that using the show-cards was difficult within the home, unless I could interview the respondent sitting at a table. Unfortunately few of the homes visited had tables that could be used for the interview. In addition, two of the respondents answered the questions at the door, making the act of handling the cards very difficult.

Table 4 shows the frequency of the replies made to these questions. The correct answers are marked* in the table. Two answers given in the “other” category for question 13 were also considered correct.
Table 4. Response to questions without (A) and with showcards (B).

<table>
<thead>
<tr>
<th>Response</th>
<th>Question 11</th>
<th>Question 12</th>
<th>Question 13</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>A</td>
<td>B</td>
<td>A</td>
</tr>
<tr>
<td>1</td>
<td>2</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>3*</td>
<td>2*</td>
<td>2</td>
</tr>
<tr>
<td>3</td>
<td>2</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>4</td>
<td></td>
<td>1</td>
<td>3*</td>
</tr>
<tr>
<td>5</td>
<td>2</td>
<td>4</td>
<td>1*</td>
</tr>
<tr>
<td>6</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>7</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>8</td>
<td>2</td>
<td>2</td>
<td>3</td>
</tr>
</tbody>
</table>

The total correct responses were similar for the two groups, with 8/21 (38%) correct using version A of the questionnaire and 9/24 (37.5%) using version B.

5.10 Language and literacy

One respondent spoke little English and an appointment was arranged and the interview delivered with the help of a Spanish translator. Another householder spoke Arabic but her 12 year old son was able to translate for her. One respondent from the Phillipines spoke sufficient English to allow her to complete the questionnaire. These respondents had some difficulty with the showcards because they first had to translate them before they could answer.

5.11 Smoke alarms

5.11.1 Smoke alarm ownership

Smoke alarm ownership within the pilot study group as a whole was reported in eight (8/17) survey homes. One householder had two alarms, neither of which appeared to have been installed, although she claimed that she had taken them down to allow redecoration of her hall. There were no signs either of any redecoration. In two households, alarms had been taken down because they had been (incorrectly) installed in the kitchen and caused frequent false alarms.
5.12.2 Inspection

The logistical issues of inspection were straightforward, although as some climbing on chairs to reach those alarms installed on the ceiling was necessary, the interviewer needs to be agile. Of the eight households that stated that they owned alarms, on inspection only seven households had an alarm. Four were installed but only three contained alarms that were actually installed and functioning (Table 5). One was installed incorrectly and did not contain a battery. In three households, alarms were found on the floor or in cupboards. Two of these contained functioning batteries. One householder was unable to find her alarm and this was coded as “no alarm” in the assessment. All smoke alarms that contained a battery responded to the smoke source.

Table 5. Smoke alarm testing.

<table>
<thead>
<tr>
<th>SMOKE ALARM (in home)</th>
<th>CORRECT LOCATION</th>
<th>FUNCTIONING BATTERY</th>
<th>RESPONDS TO SMOKE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yes</td>
<td>No</td>
<td>Yes</td>
<td>No</td>
</tr>
<tr>
<td>Installed</td>
<td>2</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>Not installed</td>
<td>0</td>
<td>2</td>
<td>2</td>
</tr>
<tr>
<td>Total</td>
<td>2</td>
<td>5</td>
<td>5</td>
</tr>
</tbody>
</table>

No person with a smoke alarm objected to having it tested. Inspection of the alarms took one or two minutes. Two householders lived in buildings with an integral alarm system outside their flat, in the main corridor but had no sensor inside the flat. The building’s alarm system was not tested because it automatically alerts the fire brigade to attend.

5.11.3 Smoke alarm ownership in vulnerable households

Of the 17 homes visited, seven (41%) were households with adults aged over 65 years. Only one of these households with an elderly occupant had an installed and functioning smoke alarm. Two others had alarms that were non-functional: one had been taken down and battery disconnected and one was installed but had no battery. No household had children under five years resident but one respondent was a childminder for children under two years old. She had two alarms, neither of which were installed.
5.11.4 Smoke alarm ownership and fire safety campaigns
Six out of ten householders who had heard of any fire safety campaigns owned smoke alarms, but only two were functional. Two out of the five who had not heard of any campaign had a smoke alarm, and only one was functional.

5.11.5 Smoke alarm ownership and fire safety photographs
Twelve of the 15 householders who completed the survey had seen one or more of the fire safety photographs shown to them. Three of these owned functioning and installed smoke alarms, three had alarms that were not installed or lost and six had no alarm. Of the three who did not recall having seen any of the photographs, two had non-functioning alarms and one did not have an alarm.
6. DISCUSSION

6.1 Proposed modifications to the survey

6.1.1 Letter of introduction
The letter of introduction should be amended to make clear that the survey includes people of all ages and is not just relevant to families with children. The telephone message line must be checked so that those wishing more information or to make an appointment can do this quickly and simply.

6.1.2 Questionnaire
The response frequencies obtained in the pilot survey can be used to eliminate or rephrase questions that produce undesirable response distributions.

6.1.2.1 Questions 5, 6 and 7
We need to clarify whether the smoke alarm maintenance questions, numbers 5, 6 and 7 refer to all smoke alarms in the home or just the most recently installed one.

6.1.2.2 Questions 9
Clarification of the time period for electrical equipment replacement would make question 9 clearer.

6.1.2.3 Questions 11, 12 and 13
Where the correct answer to question 11 is option “2” and to question 12 is option “5” similar numbers using each version answered correctly. Both answers are however important and if the order they are given in is not taken into account, six (6/14) correct answers were given using the open question compared with 11 (11/16) when using the showcard. This suggests that the use of the showcard prompts some respondents to give the correct answer and exaggerates the number of correct responses.

In addition, questions 11, 12 and 13 were easier for the interviewer in the format that did not require the manipulation of prompt cards. Therefore the questionnaire should be amended and the fire safety questions asked in open format. The interviewer will then code the response using the validated precoded answers as on the showcard.
Two answers given in the “other” category on the showcard in question 13 were also correct and a separate code was provided for them in the final questionnaire.

6.1.2.4 Questions 29, 30, 31
The time taken to look at all three fire photographs was disproportionate to the time taken to deliver the other questions in the survey and to their salience to the main study. Eleven respondents recognised the photograph series that had been used on television. The other two photographs that had been used in an advertising campaign were each recognised by four respondents. Only the most frequently recognised photograph from the pilot study and one other should be included in the final questionnaire (Appendix 10).

6.1.2.5 Question 32
The number of floors in the home should be defined as the number of floors with living space, so that a small entry hall with stairs leading to the living area is coded as “one floor.”

6.2 Amendment of interview schedule
Following the pilot work, the interviewer’s manual (Appendix 10) should be amended to reflect the changes in the questionnaire and letter of introduction as discussed above.

6.3 Improving response rate
The sample numbers calculated for the main survey are based on a 75% response rate. I achieved this in the pilot survey in which there was no-one at home in only three out of twenty (15%) households on two or more occasions and where only two respondents (10%) who were at home when visited refused to co-operate. The remaining 15 showed a high degree of goodwill and interest in the study. This non-response rate of 25% is similar to that found overall in the British Crime Survey (23%), and less than that found in the inner city areas in the same survey (29%).
6.3.1 Incentives
None of the respondents who completed the questionnaire sought a reward. It is possible that an incentive would have made a difference to the householders who refused to participate, although in both cases it is unlikely (see case histories).

6.3.2 Response at first visit
In an earlier survey performed as part of the smoke alarm distribution programme, (Adams, 1998), out of 312 households there was a 50% response rate to cold-calling. 10% returned the questionnaire that was left for them if they were not at home and 10% refused to participate when contacted. In the smoke alarm maintenance pilot study, the response rate on the first visit to cold calling was similar at 55%.

6.3.3 Repeat visits
The response rate was improved by repeated visits to the household addresses and ultimately a response rate of 85%, was obtained in the pilot study. This includes the two refusals (10%). This suggests that the proposed response rate of 75% in the main study is achievable. For the main study with 300 addresses to be visited, guidance must be given to the interviewer as to the number of visits to be paid to any one address. The pilot survey suggests that in the main study we could expect to complete about half of the questionnaires at the first visit. At least one more visit must be paid to the remaining 150 addresses to complete the further quarter of the questionnaires needed to achieve the 75% response rate.

6.3.4 Day of visit
If the findings in the pilot study are reflected in the main study, there is a greater chance of finding someone at home on Saturdays as was found on similar previous surveys. If an appointment for a weekday visit cannot be made it appears that Saturday is the best day for home visiting.

6.3.4 Telephone contact prior to visit
I achieved only limited success by telephoning prior to my visit. I was able to make only two appointments from four conversations. With such small numbers it is
difficult to comment with any degree of certainty. However, obtaining the telephone numbers and calling the respondent took a fair amount of time and is probably not worth the effort involved, unless the respondent calls first to make an appointment.

6.3.5 **Entry to block of flats**
Using the "Tradesman's" bell before 11am allowed me to enter the block of flats and approach the householder face-to-face at the door of the flat. Only one person refused at the door to complete the questionnaire when asked. The other refusal was from the only householder that I spoke to on two occasions via the intercom. This was the only address where I was unable to get past the intercom and enter the building. Therefore using the intercom should be kept as a last resort. Most buildings can be entered either by using the "Tradesman's" bell or by waiting for someone to enter or leave and let you in.

6.4 **Time needed to complete survey**
The questionnaire is short and the average time spent in the pilot study in each estate or block of flats was only about 15 minutes. However, much time was spent travelling from one household address to the next. From the pilot study we can estimate that, for the main study, each visit will take approximately 30 minutes, that about 14 visits can be made per day and that about half the homes will need at least two visits. Thus a minimum of 32 days can be estimated as necessary to make the required 450 visits.

The main survey of smoke alarm maintenance and fire safety awareness in 300 council householders in the London boroughs of Camden and Islington will therefore now proceed. The interviewer's manual (Appendix 10) will be used in interviewer training. The interviewer will send to the random sample of householders the amended letter of introduction (Appendix 3). She will then visit the homes to deliver the questionnaire schedule (Appendix 5) using the showcards for use inside the home or at the door (Appendix 7) and at the end of the interview will leave the survey information sheet (Appendix 8). The data collected will then be entered on computer and analysed as described at the Institute of Child health.
7. ACKNOWLEDGEMENTS

I would like to thank Dr Carolyn DiGuiseppi of the Institute of Child Health for all the help and guidance that she has given to me throughout the project and also for her forbearance as I struggled with the logistics of questionnaire development as well as word-processing. I thank also Ian Roberts, Phil Edwards and Catherine Goddard for their helpful comments on both questionnaire development and computing.

I would also like to thank Steve Lumb, Divisional Officer Fire Safety Education Department, London Fire Brigade, for the provision of the photographs of the three television and poster fire safety campaigns that were used in the pilot study.

Thank you to Mr Paul McKnight of 00 1st Call Sure Fire Safe Systems, for the provision of the smoke source for smoke alarm testing and to Jehovanna Riofrio of The Latin American Disabled People’s Project for her help as a translator.

Many thanks also to Suzanne Slater, Lucy Adams and Helen Turner for their very helpful suggestions about home visiting in Camden and Islington.

Finally I would like to thank my friends and family on whom I have experimented with this questionnaire for their time and understanding.
8. REFERENCES


9. APPENDICES

9.1 APPENDIX 1 - CASE HISTORIES

Home visits paid to the 20 addresses of the pilot sample are described below:

001
This elderly lady from the Philippines was at home on my second visit. She lived in a one room flat on the fourth floor of a modern purpose built block, the entry to which was simple, using the "Tradesman's" bell. She was very pleased to have some company even for a short time and answered my questions to the best of her ability, although her English was not good. Although I had called unannounced, she was apologetic for not having cleared away her bed. She had problems with her leg and was unable to walk far. Her flat did not have a smoke alarm, but there was an integral alarm system outside her front door, in the corridor. She showed me the photographs of her family in the Philippines, whom she had visited recently. She would have liked me to stay longer, but I had an appointment with another respondent, in an adjoining block of flats.

002
This lady telephoned Dr DiGuiseppi, when she received my letter of introduction, as she had no children. She was reassured that we did want to see her. After numerous attempts to call her by phone, I visited her flat unannounced and found her at home, in an old house converted into four flats. The front door of the house was standing open because decorators were renovating one of the flats. The respondent was very happy to let me into her flat and complete the survey, although she was still in her night attire. She did not have a smoke alarm despite being a smoker and having had a fire in her lounge recently.

003
This was my first visit on a Saturday morning, to a block of flats where the front door was open for removal men. The respondent, in a first floor flat, was up and doing her housework. She said that she had tried to contact our phone-line to say that she did not want to take part in the survey, as she was out at work all week. However she did
not mind letting me in and happily answered all my questions, but wanted to know how I had got her name. She did not have a smoke alarm.

004
This elderly gentleman was also at home, in his first floor flat of a purpose built block. Finding the block of flats took some time, but again, entry to the block was straightforward, using the “Tradesman’s” bell. He remembered receiving the letter of introduction and was happy to let me into his flat. He had lived alone since his sister died 18 months previously and was obviously rather frail. He was the only person in the pilot sample aged over 65 years to have a functioning smoke alarm. This was checked occasionally by his nephew.

005
This family living in a purpose built first floor modern maisonette and were at home on my first visit. I was let into the house without question. The family were Arabic and mother spoke little English. She woke her eldest son, of about 12 years, who translated for her. The household contained six people, two adults and four children under 16 years of age. The respondent said that she did have a smoke alarm, but that it had never been installed and she had no idea where to find it for me to test.

006
This was my first successful home visit and I was accompanied by Dr DiGuiseppi, so that she could assess my performance. The visit was arranged by phone, as the respondent was one of two people for whom I obtained telephone number from the directory. The respondent and his extended family were happy for us both to come in and to answer our questions. He was obviously knowledgeable about fire prevention, saying that he had had lectures on the subject at work. This flat had a functioning smoke alarm, placed rather too close to the kitchen, but he had been advised to place it there. We advised an alternative placement. After we left the flat we discussed whether we should routinely give advice to replace the alarm in a more appropriate position. We agreed that it was appropriate to do so.
This respondent, a man in his late thirties, was at home on my fourth visit to his flat, on the ground floor of a block with open walk-ways. He received so many visits because his address happened to be on my way to other addresses. I called on his neighbour on one occasion, but she knew nothing about him other than that he was male. He answered my questions in his entry hall, rather than sitting down, and this made the manipulation of show-cards very difficult. He had no smoke alarm. He had recently had a fire in his kitchen and had put it out using an extinguisher. He had not read my letter of introduction and did not recall receiving it.

This lady and her daughter of about 10 years were at home when I visited for the first time. They lived in a first floor maisonette and a neighbour let me in to the block. They both seemed knowledgeable about and interested in fire safety. They had two smoke alarms installed, one in a correct position and the other too close to the kitchen door, so that there were many false alarms. Both alarms were clean and functional. The questionnaire went smoothly and they appeared to enjoy my visit.

At my first visit, the respondent arrived back from a shopping trip, just as I was knocking at his door. The interview was conducted on his door step as he was reluctant to let me in, but he later consented to my going inside to check his smoke alarm. The house showed signs that the respondent collected and hoarded rubbish which was piled high around the rooms and was an obvious fire and possible health hazard. The alarm was upstairs in his maisonette, uninstalled and the battery was disconnected. The council had installed it in the kitchen originally but he had taken it down two months previously because of the false alarms. The battery was still functional. As I left, he informed me of the reasons for his wife leaving him. As his information was of a lewd nature, I left promptly. I did not feel threatened by him, but was discomforted by his conversation.
010

Despite two visits on two different days, I was unable to find anyone at home. I was allowed into the flats by his neighbours on my second visit. They informed me that the man in question was from Bangladesh, was extremely deaf and spoke no understandable English. The elderly gentleman living next door advised me strongly not to return as not only would the occupant of the flat be unable and unwilling to answer my questionnaire, but also that he was a “menace to the ladies” and it would be unsafe for me to return alone. He said that I was lucky not to have caught the person at home. He then asked me to convey to Great Ormond Street Hospital his disappointment that his offer of help several years ago had gone unanswered. I left, promising to pass this information to Dr DiGuiseppi.

011

This lady contacted the Latin American Disabled People’s Foundation when she received the letter of introduction, as she was concerned about a stranger visiting her at home particularly as she spoke little English. She had had problems with her neighbours and was worried that the letter concerned them. The Foundation contacted Dr DiGuiseppi for further information and agreed to help arrange an appointment. After many attempts at telephoning the organisation, this was successfully accomplished and I visited the respondent together with a representative of the organisation who was known to her. Entry to the flats was simple, using the “Tradesman’s bell.” This elderly lady was originally from Bolivia and conversed with me in broken English whilst we waited for Jehovanna, the translator. She has lived in England for many years, mostly in a convent, and is very afraid of strangers. She lived in the block of flats adjoining that of respondent 001. Like the respondent 001, she had no alarm in her flat, but there was an integral alarm system in the corridor outside her front door. Because of the need to translate all questions and answers, this interview took 35 minutes to complete. The respondent was lonely and received few visitors. She would happily have talked more to myself and Jehovanna.
This survey was completed on my third visit. The respondent lives with her daughter of about eight years in a purpose-built maisonette on the fourth floor of a block of flats, the entry to which was gained by use of the “Tradesman’s bell.” On the second visit, the door was answered by a friend staying with the respondent, who spoke only Spanish. She could speak enough English to ask me to return on the following Monday at 9 am. The respondent was also Spanish-speaking but could understand enough English to answer my questions. She had no smoke alarm in her house.

This lady and her nine year old daughter were at home at my first visit. I was again accompanied by Dr DiGuiseppi. A neighbour let us in to the block of flats when we said that we were from Great Ormond Street Hospital. The respondent was initially reluctant to let us into the house, saying that she was a child-minder and that it was inconvenient. She had tried to call the telephone number given in the letter of introduction, but had been unable to leave a message. We politely persuaded her to invite us in. She had two alarms which she said had been taken down for redecoration, but neither showed signs of having ever been used. The screws in one were unused and the battery was dead on testing. The other alarm was still in the bag in which it had been received and the battery was still in its cellophane wrapper. After leaving this house, we discussed each answer and agreed on the coding of them.

This respondent was an elderly lady living alone in a fifth floor flat. She was at home at first visiting. A neighbour let me into the block as she was leaving it. It was afternoon and although the respondent was still in pyjamas she let me into her house. She was over 65 years, overweight and mobility was an obvious problem for her. She did not have a smoke alarm in her home and was unaware of any fire safety campaigns. She had some problems with the show-cards, as she felt that she had to pick the “correct” answer, rather than just think of what she might do in the event of fire.
This flat was empty on the three occasions that I visited it, at different times on two Saturdays. A neighbour could give no information regarding when the occupants were likely to be at home.

On my first unsuccessful visit to this address, Carolyn DiGuiseppi accompanied me. After much ringing of the intercom at the front door of the four storey house, the window at the top was opened and we were informed that the resident was trying to get some sleep after working a night-shift and could we please leave him alone. He would answer no questions but informed us that the resident named on the council list as tenant would be back in two weeks. I called back in a couple of weeks but this time there was no-one at home in the entire building and on the third occasion the same resident was at home and declined to be interviewed for the same reasons as before. He reported that there was no smoke alarm in the house.

Entry to this block of flats was simple, as there was no outside door. There was an iron grill guarding the door to the flat. The respondent at this address, at home on my first visit, was not the council tenant, but his cousin who was “looking after the flat for him.” He knew little about the flat and smelt rather strongly of alcohol, early in the day. He answered my questions on the doorstep, again making the manipulation of show-cards very difficult. He let me inside to inspect the smoke alarm, which was attached to the wall at the top of the stairs. The button test was negative and on opening the alarm I found that the battery had been removed. He said that he would get a replacement battery for it.

Despite visiting on three occasions, at different times and on different days, I did not find anyone at home. On both occasions I was let into the block of flats by a resident who was leaving it. This was the only high-rise block in the pilot sample. On each
visit, I knocked on the doors of the neighbouring three flats to ask for information, but these also were unoccupied.

019
This was the second respondent that I contacted by telephone, trying to arrange an appointment time. He replied that his wife had broken her arm, that he was too busy visiting her in hospital and that he had no time to answer any questions. After about two weeks, hoping that his wife might be discharged to home by then, I paid a visit whilst en route to another address. Entry to the block of flats was easy as there was no outside door. His flat was on the fourth floor. He was at home and answered the door. He again refused to answer my questions, but did tell me that he had no smoke alarm and that he “had no need of one.” He was an elderly man of around seventy and smelt strongly of alcohol, at mid-day.

020
This was the last address in my pilot study. I gained entry to the modern two storey block using the “Tradesman’s bell.” On my second visit, the respondent and her partner were at home. The respondent was very happy to answer my questions. She owned a smoke alarm but it was not installed at present, having been taken down six months previously. It had been put up in the kitchen and she had become fed up with frequent false alarms. There was only a small entry hall and when it had been tried temporarily, the false alarms had continued. As she was a smoker she wanted to replace the alarm perhaps with one of a different type, responsive to flames rather than heat and smoke.
9.2 APPENDIX 2 - PILOT LETTER OF INTRODUCTION
4th August 1998

Dear «Name»

I am a doctor from Great Ormond Street Hospital. I am studying how people of all ages prevent home accidents. These are an important cause of injuries. I would like to visit you to ask about how you keep your home safe.

It is important to our research that you take part. A computer chose your address randomly from a list of council homes. It will take less than 10 minutes to answer our questions. We will not show your answers to the council or to anyone else.

The Ethics Committee has approved this research. Dr Carolyn DiGuiseppi is supervising it. If you have questions you can ring her on 0171-242-9789.

I will visit you in about 2 weeks. If you prefer to set a time to meet, please ring 0171-242-9789 ext. 2107 and leave your name and number.

I hope you will be able to help.

Yours sincerely,

Dr Norma Speirs
Community Paediatrics
9.3 **APPENDIX 3 - LETTER OF INTRODUCTION**
Dear «Name»

I am a doctor from Great Ormond Street Hospital. I am studying how people prevent home accidents. These are an important cause of injuries. We are interested in people from all age groups and not just in children. I would like to visit you to ask about how you keep your home safe.

It is important to our research that you take part. A computer chose your address randomly from a list of council homes. It will take less than 10 minutes to answer our questions. We will not show your answers to the council or to anyone else.

The Ethics Committee has approved this research. Dr Carolyn DiGuiseppi is supervising it. If you have questions you can ring her on 0171-242-9789.

I will visit you in about 2 weeks. If you prefer to set a time to meet, please ring 0171-242-9789 ext. 2107 and leave your name and number.

I hope you will be able to help.

Yours sincerely,

Dr Norma Speirs
Community Paediatrics
9.4 APPENDIX 4 - PILOT QUESTIONNAIRE
PILOT QUESTIONNAIRE ON FIRE SAFETY
AND FIRE OCCURRENCE
Hello, my name is Dr Norma Speirs, from Great Ormond Street Hospital. Here is my identification badge.

We are doing home safety research in this neighbourhood. I would like to come in and ask some questions about home safety. This would take only about 5 to 10 minutes. Would that be all right?

(If the householder is still hesitant):

This project is approved by Great Ormond Street Hospital and if you would like to check my identity, please call Dr Carolyn DiGuiseppi at the Institute of Child Health, telephone number 0171-242-9789 Ext. 2693.

(If the householder is hesitant about your coming in):

If you prefer, I can ask the questions right here at the door. It will only take a few minutes.

(If the respondent refuses to answer the questionnaire, or they do not have the time available and do not wish to make a further appointment, ask):

a) SmAlar  Could I just ask, do you have a smoke alarm in your home now?

1.  Yes
2.  No
3.  Refuse to answer

b) Would you mind if I just test the alarm for you?

1.  Test - working
2.  Test - not working
3.  Not tested (refuse)
4.  Not installed

c) Or could you go and press the test button so that I can determine if the alarm is working?

1.  Test - working
2.  Test - not working
3.  Not tested (refuse)

d) Or do whole testing as for responders........(see back)
“First I would like to ask you some general questions about fire safety. If you have previously taken part in any fire safety programme please do not tell me, to avoid influencing the questions or answers.”

A. Fire Safety

1. SmAlar [ASK ALL]
   May I just check, do you have a smoke alarm in your home now?
   1. Yes
   2. No

   [INTERVIEWER: IF NO TO SmAlar, GO TO Page 6, Question 9 Improve]

2. NmSmAl [ASK IF YES TO SmAlar]
   How many do you have?
   1. One
   2. Two
   3. Three or more

3. NmSAInst Has this alarm been put up?
   [OR]
   How many of your smoke alarms have been put up?
   1. None
   2. One
   3. Two
   4. Three or more

   [INTERVIEWER: IF NONE TO NmSAInst, GO TO Page 5, Question 8 Alarms]

4. Timelnst (Thinking of the alarm you put up most recently:)
   How long ago did you put up this alarm?

   ........................................................................
   [INTERVIEWER: if “don’t know” SHOW CARD A1]
   Would this card help you to answer?

   [INTERVIEWER: code answer]
   1. Within the last 4 weeks
   2. At least 4 weeks but less than 1 year ago
   3. At least 1 year but less than 2 years ago
   4. At least 2 years ago
5. Maint1a  Apart from when your smoke alarm was first put up have you, or anyone in your household, replaced the battery?

1. Yes
2. No
3. Don't know
4. Not applicable (wired in)

5a. Timelmpa  [ASK IF YES IN Maint1a]
How long ago did you replace the battery?

[INTERVIEWER: if “don’t know” SHOW CARD A1]
Would this card help you to answer?

[INTERVIEWER: code answer]

1. Within the last 4 weeks
2. At least 4 weeks but less than 1 year ago
3. At least 1 year but less than 2 years ago
4. At least 2 years ago

6. Maint1b  Apart from when your smoke alarm was first put up have you, or anyone in your household, pressed the battery test button?

1. Yes
2. No
3. Don't know

6a. Timelmpb  [ASK IF YES IN Maint1b]
How long ago did you press the battery test button?

[INTERVIEWER: if “don’t know” SHOW CARD A1]
Would this card help you to answer?

[INTERVIEWER: code answer]

1. Within the last 4 weeks
2. At least 4 weeks but less than 1 year ago
3. At least 1 year but less than 2 years ago
4. At least 2 years ago
7. Maint1c Apart from when your smoke alarm was first put up have you, or anyone in your household, vacuumed the inside of the smoke alarm?

1. Yes
2. No
3. Don't know

7a. Timeimpc [ASK IF YES IN Maint1c]
How long ago did you vacuum the smoke alarm?

..........................
[INTERVIEWER: if “don’t know” SHOW CARD A1]
Would this card help you to answer?

[INTERVIEWER: code answer]

1. Within the last 4 weeks
2. At least 4 weeks but less than 1 year ago
3. At least 1 year but less than 2 years ago
4. At least 2 years ago

8. Alarms Will you please look at this card and tell me all the answers that apply to your smoke alarm(s)?
(SHOW CARD A2 - offer to read)

1. It has gone off because of a fire
2. It has warned of smoke for a trivial reason, for example burning toast or someone smoking near the alarm.
3. It has only given false alarms, when there was no smoke or fire
4. It has never gone off (except when tested).
9. Improve [ASK ALL]
Here is a list of other improvements people might make to their homes for the sake of fire safety (SHOW CARD A3 - offer to read).
Have these or any other improvements been made to your home, either by your household or by previous occupants?

1. Yes
2. No

[INTERVIEWER: IF NO, GO TO Question 11 ChipFi2a]

10. Spectmpr [ASK IF YES IN Improve]
Spectmpr0-
Spectmpr9 Please could you tell me which improvements have been done from this card?
(SHOW CARD A3 - offer to read)

1. Got a fire extinguisher
2. Got a fire blanket
3. Replaced electrical equipment
4. Got a fire escape ladder
5. Other.................................................................
6. Don't know
If you went into a kitchen and found a chip pan on fire, what do you think you should do first?

[A] [FOR 10 RESPONDENTS IN PILOT SAMPLE] 
[note full answer] ....................................................................................
.............................................................................................................

OR

[B. [FOR 10 RESPONDENTS IN PILOT SAMPLE] 
(SHOW CARD A4 - offer to read. CODE ONE ONLY)

1. Call the Fire Brigade
2. Turn off cooker/electricity/gas
3. Use water on it
4. Move pan somewhere (inside or outside)
5. Cover pan with lid/towel/blanket etc.
6. Use an extinguisher
7. Don't know
8. Other....................................................................................

And what do you think you should do next?

[A. [FOR 10 RESPONDENTS IN PILOT SAMPLE] 
[note full answer] ....................................................................................
.............................................................................................................

OR

[B. [FOR 10 RESPONDENTS IN PILOT SAMPLE] 
(SHOW CARD A4 - offer to read. CODE ONE ONLY)

1. Call the Fire Brigade
2. Turn off cooker/electricity/gas
3. Use water on it
4. Move pan somewhere (inside or outside)
5. Cover pan with lid/towel/blanket etc.
6. Use an extinguisher
7. Don't know
8. Other....................................................................................
13. LivFi1a [ASK ALL]
If you went into the living room and found the couch, chair and curtains on
fire, what do you think you should do first?
[INTERVIEWER: DO EITHER A or B]

A. (FOR 10 RESPONDENTS IN PILOT SAMPLE)
[Note full answer] ..............................................................................................
......................................................................................................................
......................................................................................................................
OR

B. (FOR 10 RESPONDENTS IN PILOT SAMPLE)
(SHOW CARD A5 - offer to read. CODE ONE ONLY)

1. Call the Fire Brigade
2. Try to put out the fire with water or an extinguisher
3. Try to rescue any valuable belongings
4. Get everyone outside quickly
5. Open windows and doors to let out smoke
6. Don't know
7. Other........................................................................................................

B. Fires

14. AnyFire [ASK ALL]
I would now like to ask about fires in the home. This means all sorts of fires,
including chip pan fires and very minor fires. Has there been a fire of any
sort in the place where you were living in the past one year, since the
beginning of September 1997?

1. Yes
2. No

[INTERVIEWER: IF NO to AnyFire, GO TO PAGE 12, Question 28 AnyCamp]

15. NumFires [ASK IF YES TO AnyFire]
How many fires since September 1997?

1. One
2. Two
3. Three
4. Four
5. Five or more
16. WhenFire  
[ASK IF YES TO AnyFire]
Thinking about the past one year, that is the time since September 1997, in which month did the (last) fire you had occur?

1. January
2. February
3. March
4. April
5. May
6. June
7. July
8. August
9. September
10. October
11. November
12. December

17. CausFire  
[ASK IF YES TO AnyFire]
Thinking about this (last) fire you had, what was the cause of the fire?

[INTERVIEWER: note full answer] ...........................................
..............................................................................................
[INTERVIEWER: code answer]
1. Arson
2. Carelessness with cigarettes/pipes/cigars/lighters
3. Adult’s carelessness with matches
4. Children playing with fire/matches
5. Pan of cooking fat/oil catching fire
6. Electric blanket faults or misuse
7. Electric wiring (faulty or worn out)
8. Leaving things too close to the fire or heater
9. Chimney fire
10. Washing machine (faults)
11. Blowlamp (misuse)
12. Other electrical appliances
13. Other ....................................................................................

18. FirStarl  
[ASK IF YES TO AnyFire]
Did the fire first start inside or outside your home?

1. Inside
2. Outside

[INTERVIEWER: IF OUTSIDE FIRE, GO TO Question 21 FirDisc1]
19. InsidFi 1 [ASK IF FIRE STARTED INSIDE HOME]
Where inside the home did the fire begin?
1. Kitchen
2. Lounge, reception, living room, dining room
3. Bedroom
4. Bedsitter, bedsitting room
5. Elsewhere in house............................................

20. FirSpr1a [ASK IF FIRE STARTED INSIDE THE HOME]
Did the fire spread beyond the ............(InsidFi 1)?
1. Yes
2. No

21. FirDisc1 [ASK IF YES IN AnyFire]
How was the fire discovered?
1. Person
2. By a smoke alarm
3. Other............................................................

22. FBrigCal [ASK IF YES TO AnyFire]
Was the Fire Brigade called?
1. Yes
2. No

23. FirDamag [ASK IF YES TO AnyFire]
What was the total cost of the damage done by the fire? (INTERVIEWER, RECORD AMOUNT)
1. (£0 - £99999999) £..............................
2. Don’t know

24. FirInjH [ASK IF YES TO AnyFire]
Was anyone who was in your home at the time of the last fire injured in the fire?
1. Yes
2. No
25. FirlnjE  [ASK IF YES TO AnyFire]
Was anyone who was elsewhere in the building or outside your home at the
time of the last fire injured in the fire?

1. Yes
2. No

[Interviewer: If no to FirlnjE or E, go to question 28 AnyCamp]

26. Numlnj  [ASK IF YES TO Firlnj]
How many people were injured in the last fire?

1. One
2. Two
3. Three
4. Four
5. Five or more

27. Serlnj  [ASK IF YES TO Firlnj]
Think of the person who was most seriously injured in the fire. How was the
injury of that person treated, if at all?

1. No treatment needed
2. Treated at home
3. Treated by GP
4. Treated at Accident and Emergency Department and sent home
5. Hospitalised
6. Died
7. Other..................................................................................
28. AnyCamp  [INTERVIEWER: ASK ALL]
Please look at this card, which of the campaigns aimed at fire safety in the home have you heard of? (SHOW CARD A6 - offer to read)

1. TV smoke alarm advertising campaign
2. National Fire Safety week
3. "Let's Get Alarmed!" campaign
4. Other campaigns ..........................................................
5. Have not heard of any campaigns

Finally in this section, I would like you to look at a few photographs.

29. FirPhoto  [ASK ALL]
Do you recall having seen this photograph before, either on TV or elsewhere? (SHOW FIRE PHOTOGRAPH NO. 1)

1. Yes
2. No

30. FirPhoto  [ASK ALL]
Do you recall having seen these pictures before, either on TV or elsewhere? (SHOW FIRE PHOTOGRAPH NO. 2)

1. Yes
2. No

31. FirPhoto  [ASK ALL]
Do you recall having seen this photograph before, either on TV or elsewhere? (SHOW FIRE PHOTOGRAPH NO. 3)

1. Yes
2. No
“Could I ask you a few questions now about your home?”

C. Household

32. NumFlr [INTERVIEWER: ASK ALL OR CODE]
   How many floors are there in your home?
   1. One
   2. Two
   3. Three or more

33. YrsAddr [ASK ALL]
   How many years have you lived at this address?
   1. Less than one year
   2. 1 but less than 2 years
   3. 2 years or more

[INTERVIEWER: IF 2 YEARS OR MORE, GO TO Question 36 Adults]

34. ResYrAgo [ONLY APPLIES IF YrsAddr IS ANSWERED 1 OR 2]
   Can I check were you (personally) living at this address on 1st September 1997?
   1. Yes
   2. No

35. MThMove [ONLY APPLIES IF ResYrAgo = NO]
   In what month did you move to this accommodation?
   1. January
   2. February
   3. March
   4. April
   5. May
   6. June
   7. July
   8. August
   9. September
   10. October
   11. November
   12. December
"I just have a few more questions about you and your household. All these answers will be kept confidential and will not be reported to the council."

D. Demographics

36. Adults [ASK ALL]
May I just check, how many adults aged 16 or older are there in your household?
0-00  .....................

37. Elders [ASK ALL]
And how many of these adults are aged 65 or older?
0-00  .....................

38. NumChi [ASK IF YES IN Child]
How many children under 16 years, if any, live in your household?
0-00  .....................

39. Child04 [ASK IF YES IN Child]
And how many of these children are aged less than 5 years?
0-00  .....................
"That is all the questions that I have for you today. But before I finish, I would just like to check for you that your smoke alarm is working properly. Could you show me where your smoke alarm(s) is (are)\n\n**SMOKE ALARM** | **ONE** | **TWO** | **THREE** | **FOUR**
---|---|---|---|---
**OWNED** (Circle one) | Y | N | Y | N | Y | N | Y | N
**INSTALLED** (Circle one) | Y | N | Y | N | Y | N | Y | N
**CORRECTLY INSTALLED** (Circle one) | Y | N | Y | N | Y | N | Y | N
**LOCATION (describe)** | |
**CLEAN CONDITION** (Circle one) | Y | N | Y | N | Y | N | Y | N
**BUTTON TEST POSITIVE** (Circle one) | Y | N | Y | N | Y | N | Y | N
**BATTERY TEST POSITIVE** | Y | N | Y | N | Y | N | Y | N
**SMOKE TEST POSITIVE** (Circle one) | Y | N | Y | N | Y | N | Y | N

"Thank you very much for your help. Do you have any questions that you would like to ask me?"

Comments (householder):

Comments (interviewer):

INTERVIEWER: LEAVE STUDY INFORMATION SHEET WITH RESPONDENT
[INTERVIEWER TO COMPLETE]:

41. Accommodation Type of accommodation:

1. Flat - purpose built
2. Flat - converted
3. Flat - unspecified
4. Maisonette
5. Mobile home
6. Room/bedsitter
7. Mid or unspecified terrace
8. End terrace
9. Semi-detached
10. Whole house - detached
11. House - unspecified
12. Other........................................

[INTERVIEWER: FOR PILOT STUDY]:

We are still working on this survey, both the questions and how we ask them.

☐ Were there any questions you thought were hard to answer?

☐ It seemed to me that a couple of questions were not very clear or were hard to answer. Could I just ask why (Question............) was a problem?

☐ Do you have any comments to make on the letter of introduction that was sent to you a couple of weeks ago?

THANK RESPONDENT FOR THEIR HELP WITH THE SURVEY.
9.5 APPENDIX 5 - FINAL QUESTIONNAIRE
QUESTIONNAIRE FOR
SMOKE ALARM MAINTENANCE
BEHAVIOUR AND FIRE SAFETY
AWARENESS STUDY
INTRODUCTION:

Hello, my name is from Great Ormond Street Hospital. Here is my identification badge.

We are doing home safety research in this neighbourhood. I would like to come in and ask some questions about home safety. This would take only about 5 to 10 minutes. Would that be all right?

(If the householder is still hesitant):

This project is approved by Great Ormond Street Hospital and if you would like to check my identity, please call Dr Carolyn DiGuiseppi at the Institute of Child Health, telephone number 0171-242-9789 Ext. 2693.

(If the householder is hesitant about your coming in):

If you prefer, I can ask the questions right here at the door. It will only take a few minutes

(If the respondent refuses to answer the questionnaire, or they do not have the time available and do not wish to make a further appointment, ask):

a) SmAlar Could I just ask, do you have a smoke alarm in your home now?

1. Yes
2. No
3. Refuse to answer

b) Would you mind if I just test the alarm for you? (If possible do whole testing as for responders...see back)

1. Test - working
2. Test - not working
3. Not tested (refuse)
4. Not installed

c) Or could you go and press the test button so that I can determine if the alarm is working?

1. Test - working
2. Test - not working
3. Not tested (refuse)
"First I would like to ask you some general questions about fire safety. If you have previously taken part in any fire safety programme please do not tell me, to avoid influencing the questions or answers."

A. Fire Safety

1. SmAlar [ASK ALL]
   May I just check, do you have a smoke alarm in your home now?
   1. Yes
   2. No

[INTERVIEWER: IF NO TO SmAlar, GO TO Page 6, Question 9 Improve]

2. NmSmAl [ASK IF YES TO SmAlar]
   How many do you have?
   1. One
   2. Two
   3. Three or more

3. NmSAInst Has this alarm been put up?
   [OR]
   How many of your smoke alarms have been put up?
   1. None
   2. One
   3. Two
   4. Three or more

[INTERVIEWER: IF NONE TO NmSAInst, GO TO Page 5, Question 8 Alarms]

4. Timelnst (Thinking of the alarm you put up most recently:)
   How long ago did you or anyone else put up this alarm?

   [INTERVIEWER: if “don’t know” SHOW CARD A1 (if inside home) or ASK (if outside home)]
   Would this card help you to answer? (Or ask:)
   [INTERVIEWER: code answer]
   1. (Did you put it up...) Within the last 4 weeks
   2. (Did you put it up...) At least 4 weeks but less than 1 year ago
   3. (Did you put it up...) At least 1 year but less than 2 years ago
   4. (Did you put it up...) At least 2 years ago
5. **Maint1a**  
(Thinking of the alarm you put up most recently:)
Apart from when your smoke alarm was first put up, have you or anyone else replaced the battery?

1. Yes  
2. No  
3. Don't know  
4. Not applicable (wired in)

5a. **Timelmpa**  
[ASK IF YES IN Maint1a]
How long ago did you or someone else replace the battery?

[INTERVIEWER: if “don’t know” SHOW CARD A1 (if inside home) or ASK (if outside home)]
Would this card help you to answer? (Or ask:)

[INTERVIEWER: code answer]

1. (Did you replace it...) Within the last 4 weeks  
2. (Did you replace it...) At least 4 weeks but less than 1 year ago  
3. (Did you replace it...) At least 1 year but less than 2 years ago  
4. (Did you replace it...) At least 2 years ago

6. **Maint1b**  
(Thinking of the alarm you put up most recently:)
Apart from when your smoke alarm was first put up, have you or anyone else pressed the battery test button?

1. Yes  
2. No  
3. Don't know

6a. **Timelmpb**  
[ASK IF YES IN Maint1b]
How long ago did you or someone else press the battery test button?

[INTERVIEWER: if “don’t know” SHOW CARD A1 (if inside home) or ASK (if outside home)]
Would this card help you to answer? (Or ask:)

[INTERVIEWER: code answer]

1. (Did you test it...) Within the last 4 weeks  
2. (Did you test it...) At least 4 weeks but less than 1 year ago  
3. (Did you test it...) At least 1 year but less than 2 years ago  
4. (Did you test it...) At least 2 years ago
7. Maint1c (Thinking of the alarm you put up most recently:)
Apart from when your smoke alarm was first put up, have you
or anyone else vacuumed the inside of the smoke alarm?

1. Yes
2. No
3. Don't know

7a. Timelmpc [ASK IF YES IN Maint1c]
How long ago did you or someone else vacuum the smoke alarm?

[INTERVIEWER: if “don’t know” SHOW CARD A1
(if inside home) or ASK (if outside home]
Would this card help you to answer? (Or ask:)

[INTERVIEWER: code answer]

1. (Did you vacuum it...) Within the last 4 weeks
2. (Did you vacuum it...) At least 4 weeks but less
   than 1 year ago
3. (Did you vacuum it...) At least 1 year but less
   than 2 years ago
4. (Did you vacuum it...) At least 2 years ago

8. Alarms [INTERVIEWER (if inside home): SHOW CARD A2 and offer to read]
Will you please look at this card and tell me all the answers that apply to your
smoke alarm(s)?

OR

[INTERVIEWER (if outside home): ASK]
Which of the following apply to your smoke alarm(s)?
[record all answers that apply]

1. It has (Has it) gone off because of a fire
2. It has (Has it) warned of smoke for a trivial reason, for example
   burning toast or someone smoking near the alarm.
3. It has (Has it) only given false alarms, when there was no smoke
   or fire
4. It has (Has it) never gone off (except when tested).
9. Improve

[ASK ALL]

[INTERVIEWER (if inside home): SHOW CARD A3 - offer to read
OR (if outside home): read all the options on CARD A3 and ASK:]
Here is a list of other improvements people might make to their homes for the sake of fire safety.
Have these or any other improvements been made to your home, either by your household or by previous occupants?

1. Yes
2. No

[INTERVIEWER: IF NO, GO TO Question 11 ChipFi2a]

10. SpecImp

[ASK IF YES IN Improve]

[INTERVIEWER (if inside home): SHOW CARD A3 - offer to read]
SpecImp0-
SpecImp9 Please could you tell me which improvements from this card have been made for the sake of fire safety?
OR

[INTERVIEWER (if outside home): ASK]

1. (Have you...) Got a fire extinguisher
2. (Have you...) Got a fire blanket
3. (Have you...) Replaced electrical equipment
4. (Have you...) Got a fire escape ladder
5. (Have you...) Other .................................................................
6. (Have you...) Don’t know
11. ChipFi2a  [ASK ALL]
If you went into a kitchen and found a chip pan on fire, what do you think you should do first?
[INTERVIEWER: if two answers given, ask again “which do you think you should do first?”]

[note full answer] ....................................................................................
............................................................................................................
............................................................................................................

[INTERVIEWER: CODE ONE ONLY]
1. Call the Fire Brigade
2. Turn off cooker/electricity/gas
3. Use water on it
4. Move pan somewhere (inside or outside)
5. Cover pan with lid/towel/blanket etc.
6. Use an extinguisher
7. Don't know
8. Other.................................................................

12. ChipFi2b  [ASK ALL]
And what do you think you should do next?
[note full answer] ....................................................................................
............................................................................................................
............................................................................................................

[INTERVIEWER: CODE ONE ONLY]
1. Call the Fire Brigade
2. Turn off cooker/electricity/gas
3. Use water on it
4. Move pan somewhere (inside or outside)
5. Cover pan with lid/towel/blanket etc.
6. Use an extinguisher
7. Don't know
8. Other.................................................................
13. LivFila

[ASK ALL]
If you went into the living room and found the couch, chair and curtains on fire, what do you think you should do first?

[INTERVIEWER: if two answers given, ask again “which do you think you should do first?”]

[Note full answer]
....................................................................................................................
....................................................................................................................

[INTERVIEWER: CODE ONE ONLY]

1. Call the Fire Brigade
2. Try to put out the fire with water or an extinguisher
3. Try to rescue any valuable belongings
4. Get everyone outside quickly
5. Open windows and doors to let out smoke
6. Close door if possible
7. Don't know
8. Other....................................................................................................

B. Fires

14. AnyFire

[ASK ALL]
I would now like to ask about fires in the home. This means all sorts of fires, including chip pan fires and very minor fires. Has there been a fire of any sort in the place where you were living in the past one year, since the beginning of September 1997?

1. Yes
2. No

[INTERVIEWER: IF NO to AnyFire, GO TO PAGE 12, Question 28 AnyCamp]

15. NumFires

[ASK IF YES TO AnyFire]
How many fires since September 1997?

1. One
2. Two
3. Three
4. Four
5. Five or more
16. WhenFire [ASK IF YES TO AnyFire]
Thinking about the past one year, that is the time since September 1997, in which month did the (last) fire you had occur?

1. January
2. February
3. March
4. April
5. May
6. June
7. July
8. August
9. September
10. October
11. November
12. December

17. CausFire [ASK IF YES TO AnyFire]
Thinking about this (last) fire you had, what was the cause of the fire?

[INTERVIEWER: note full answer]..................................................
..............................................................................................
[INTERVIEWER: code answer]
1. Arson
2. Carelessness with cigarettes/pipes/cigars/lighters
3. Adult's carelessness with matches
4. Children playing with fire/matches
5. Pan of cooking fat/oil catching fire
6. Electric blanket faults or misuse
7. Electric wiring (faulty or worn out)
8. Leaving things too close to the fire or heater
9. Chimney fire
10. Washing machine (faults)
11. Blowlamp (misuse)
12. Other electrical appliances
13. Other..............................................................................

18. FirStar1 [ASK IF YES TO AnyFire]
Did the fire first start inside or outside your home?

1. Inside
2. Outside

[INTERVIEWER: IF OUTSIDE FIRE, GO TO Question 21 FirDisc1]
19. InsidFi1  [ASK IF FIRE STARTED INSIDE HOME]
Where inside the home did the fire begin?
1. Kitchen
2. Lounge, reception, living room, dining room
3. Bedroom
4. Bedsitter, bedsitting room
5. Elsewhere in house

20. FirSpr1a  [ASK IF FIRE STARTED INSIDE THE HOME]
Did the fire spread beyond the .................(InsidFi1)?
1. Yes
2. No

21. FirDisc1  [ASK IF YES IN AnyFire]
How was the fire discovered?
1. Person
2. By a smoke alarm
3. Other

22. F BrigCal  [ASK IF YES TO AnyFire]
Was the Fire Brigade called?
1. Yes
2. No

23. FirDamag  [ASK IF YES TO AnyFire]
What was the total cost of the damage done by the fire? (INTERVIEWER, RECORD AMOUNT)
1. (£0 - £99999999) £......................
2. Don’t know

24. FirlnjH1  [ASK IF YES TO AnyFire]
Was anyone who was in your home (flat) at the time of the last fire injured in the fire?
1. Yes
2. No
25. FirlnjE [ASK IF YES TO AnyFire]
Was anyone who was outside your home (flat) at the time of the last fire injured in the fire?

1. Yes
2. No

[INTERVIEWER: IF NO TO FirlnjH or E, GO TO Question 28 AnyCamp]

26. Numlnj [ASK IF YES TO Firlnj]
How many people were injured in the last fire?

1. One
2. Two
3. Three
4. Four
5. Five or more

27. Serlnj [ASK IF YES TO Firlnj]
Think of the person who was most seriously injured in the fire. How was the injury of that person treated, if at all?

1. No treatment needed
2. Treated at home
3. Treated by GP
4. Treated at Accident and Emergency Department and sent home
5. Hospitalised
6. Died
7. Other.............................................................................
28. AnyCamp [INTERVIEWER: ASK ALL]

Please look at this card. Which, if any, of these campaigns aimed at fire safety in the home have you heard of? (SHOW CARD A4 - offer to read)

1. Any TV smoke alarm advertising campaign
2. National Fire Safety week
3. "Let's Get Alarmed!" campaign
4. Other campaigns..............................................................
5. Have not heard of any campaigns

Finally in this section, I would like you to look at a few photographs.

29. FirPhoto [ASK ALL]

Do you recall having seen this photograph before, either on TV or elsewhere? (SHOW FIRE PHOTOGRAPH NO. 1)

1. Yes
2. No

30. FirPhoto [ASK ALL]

Do you recall having seen these pictures before, either on TV or elsewhere? (SHOW FIRE PHOTOGRAPH NO. 2)

1. Yes
2. No
“Could I ask you a few questions now about your home?”

C. Household

31. NumFlr  [INTERVIEWER: ASK ALL OR CODE]
How many floors are there in your home, that is floors with living space?

1. One
2. Two
3. Three or more

32. YrsAddr  [ASK ALL]
How many years have you lived at this address?

1. Less than one year
2. 1 but less than 2 years
3. 2 years or more

[INTERVIEWER: IF 2 YEARS OR MORE, GO TO Question 35 Adults]

33. ResYrAgo  [ONLY APPLIES IF YrsAddr IS ANSWERED 1 OR 2]
Can I check were you (personally) living at this address on 1st September 1997?

1. Yes
2. No

34. MThMove  [ONLY APPLIES IF ResYrAgo = NO]
In what month did you move to this accommodation?

1. January
2. February
3. March
4. April
5. May
6. June
7. July
8. August
9. September
10. October
11. November
12. December
"I just have a few more questions about you and your household. All these answers will be kept confidential and will not be reported to the council."

D. Demographics

35. Adults [ASK ALL]
   May I just check, how many adults aged 16 or older are there in your household?
   0-00 ......................

36. Elders [ASK ALL]
   And how many of these adults are aged 65 or older?
   0-00 ......................

37. NumChi [ASK IF YES IN Child]
   How many children under 16 years, if any, live in your household?
   0-00 ......................

38. Child04 [ASK IF YES IN Child]
   And how many of these children are aged less than 5 years?
   0-00 ......................
"That is all the questions that I have for you today. But before I finish, I would just like to check for you that your smoke alarm is working properly. Could you show me where your smoke alarm(s) is (are)?"

<table>
<thead>
<tr>
<th>SMOKE ALARM</th>
<th>ONE</th>
<th>TWO</th>
<th>THREE</th>
<th>FOUR</th>
</tr>
</thead>
<tbody>
<tr>
<td>OWNED (Circle one)</td>
<td>Y N</td>
<td>Y N</td>
<td>Y N</td>
<td>Y N</td>
</tr>
<tr>
<td>INSTALLED (Circle one)</td>
<td>Y N</td>
<td>Y N</td>
<td>Y N</td>
<td>Y N</td>
</tr>
<tr>
<td>CORRECTLY INSTALLED (Circle one)</td>
<td>Y N</td>
<td>Y N</td>
<td>Y N</td>
<td>Y N</td>
</tr>
<tr>
<td>IF N: INCORRECT ROOM? (Circle all)</td>
<td>Y N</td>
<td>Y N</td>
<td>Y N</td>
<td>Y N</td>
</tr>
<tr>
<td>IF N: INCORRECT SURFACE? (Circle one)</td>
<td>Y N</td>
<td>Y N</td>
<td>Y N</td>
<td>Y N</td>
</tr>
<tr>
<td>IF N: INCORRECT LOCATION? (Circle one)</td>
<td>Y N</td>
<td>Y N</td>
<td>Y N</td>
<td>Y N</td>
</tr>
<tr>
<td>IF N: INCORRECT LEVEL? (Circle one)</td>
<td>Y N</td>
<td>Y N</td>
<td>Y N</td>
<td>Y N</td>
</tr>
<tr>
<td>BUTTON TEST POSITIVE (Circle one)</td>
<td>Y N</td>
<td>Y N</td>
<td>Y N</td>
<td>Y N</td>
</tr>
<tr>
<td>BATTERY TEST POSITIVE (Circle one)</td>
<td>Y N</td>
<td>Y N</td>
<td>Y N</td>
<td>Y N</td>
</tr>
<tr>
<td>SMOKE TEST POSITIVE (Circle one)</td>
<td>Y N</td>
<td>Y N</td>
<td>Y N</td>
<td>Y N</td>
</tr>
</tbody>
</table>
"Thank you very much for your help. Do you have any questions that you would like to ask me?"

Comments (householder):

Comments (interviewer):

INTERVIEWER: LEAVE STUDY INFORMATION SHEET WITH RESPONDENT AND THANK RESPONDENT FOR THEIR HELP WITH THE SURVEY.

[INTERVIEWER TO COMPLETE]:

39. Accom Type of accommodation:

<table>
<thead>
<tr>
<th></th>
<th>Type of accommodation</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Flat - purpose built</td>
</tr>
<tr>
<td>2.</td>
<td>Flat - converted</td>
</tr>
<tr>
<td>3.</td>
<td>Flat - unspecified</td>
</tr>
<tr>
<td>4.</td>
<td>Maisonette</td>
</tr>
<tr>
<td>5.</td>
<td>Mobile home</td>
</tr>
<tr>
<td>6.</td>
<td>Room/bedsitter</td>
</tr>
<tr>
<td>7.</td>
<td>Mid or unspecified terrace</td>
</tr>
<tr>
<td>8.</td>
<td>End terrace</td>
</tr>
<tr>
<td>9.</td>
<td>Semi-detached</td>
</tr>
<tr>
<td>10.</td>
<td>Whole house - detached</td>
</tr>
<tr>
<td>11.</td>
<td>House - unspecified</td>
</tr>
<tr>
<td>12.</td>
<td>Other.....................................</td>
</tr>
</tbody>
</table>
9.6 APPENDIX 6 - PILOT SHOWCARDS AND PHOTOGRAPHS
1. Within the last 4 weeks

2. At least 4 weeks but less than 1 year ago

3. At least 1 year but less than 2 years ago

4. At least 2 years ago
1. It has gone off because of a fire

2. It has warned of smoke for a trivial reason, for example burnt toast or someone smoking near the alarm.

3. It has only given false alarms, when there was no smoke or fire

4. It has never gone off (except when tested).
1. Got a fire extinguisher

2. Got a fire blanket

3. Replaced electrical equipment

4. Got a fire escape ladder

5. Other

6. Don’t know
1. Call the Fire Brigade
2. Turn off cooker/electricity/gas
3. Use water on it
4. Move pan somewhere (inside or outside)
5. Cover pan with lid/towel/blanket etc.
6. Use an extinguisher
7. Don't know
8. Other
A5

1. Call the Fire Brigade

2. Try to put out the fire with water or an extinguisher

3. Try to rescue valuable belongings

4. Get everyone outside quickly

5. Open windows and doors to let smoke out

6. Don't know

7. Other
1. TV smoke alarm advertising campaign

2. National Fire Safety week

3. "Let's Get Alarmed!" campaign

4. Other campaigns

5. Have not heard of any campaigns
WOULD YOU RATHER HEAR THE SCREAM OF A SMOKE ALARM?

GET A SMOKE ALARM
YOU ONLY HAVE MINUTES TO GET OUT.

IF YOU HAVEN'T GOT A WORKING SMOKE ALARM, YOU HAVEN'T GOT A CHANCE.

GET A SMOKE ALARM. AND GET OUT.
CHECK YOUR SMOKE ALARM

A DEAD BATTERY IS EASIER TO REPLACE.
9.7 APPENDIX 7 - SHOWCARDS
1. Within the last 4 weeks

2. At least 4 weeks but less than 1 year ago

3. At least 1 year but less than 2 years ago

4. At least 2 years ago
1. It has gone off because of a fire

2. It has warned of smoke for a trivial reason, for example burnt toast or someone smoking near the alarm.

3. It has only given false alarms, when there was no smoke or fire

4. It has never gone off (except when tested).
1. Got a fire extinguisher

2. Got a fire blanket

3. Replaced electrical equipment

4. Got a fire escape ladder

5. Other..............................

6. Don’t know
1. Any TV smoke alarm advertising campaign

2. National Fire Safety week

3. "Let's Get Alarmed!" campaign

4. Other campaigns

5. Have not heard of any campaigns
SHOWCARD A4

FOR USE AT INTERVIEW OUTSIDE HOME
1. Any TV smoke alarm advertising campaign

2. National Fire Safety week

3. "Let's Get Alarmed!" campaign

4. Other campaigns

5. Have not heard of any campaigns
9.8  APPENDIX 8 - SURVEY INFORMATION SHEET
A SURVEY OF FIRES AND FIRE SAFETY IN CAMDEN AND ISLINGTON

The purpose of this survey is to learn what people do to prevent fires and fire injuries in their homes.

We would like to ask you questions about fire safety and about fires in your home. It usually only takes about 10 minutes to answer the questions. If you have a smoke alarm fitted we would like to test it. If it is not working, we will tell you so. You do not have to answer any questions if you do not want to.

We will keep all your answers confidential. A Research Ethics Committee has approved this research. Dr. Carolyn DiGuiseppi is directing the survey. Please contact her if you have complaints or questions. Her address is: Department of Epidemiology, Institute of Child Health, 30 Guilford Street, London, WC1N 1EH. Her telephone number is 0171-242-9789. You may also contact the Chairman of the Research Ethics Committee, Dr. Duncan Macrae by post via the Research and Development Office, Institute of Child Health (address as above). If you have urgent questions, you may call him on 0171-242-9789 ext. 2620.
9.9 APPENDIX 9 - ETHICS COMMITTEE APPROVAL
Effect of smoke alarm give-away programme on residential fires and fire-related injuries in an inner-city population: Dr CG DiGuiseppi.

Notification of ethical approval

The above research has been given ethical approval after review by the Great Ormond Street Hospital or Sick Children NHS Trust / Institute of Child Health Research Ethics Committee subject to the following conditions.

1. Your research must commence within twelve months of the date of this letter and ethical approval is given for a period of 30 months from the commencement of the project. If you wish to start the research more than twelve months from the date of this letter or extend the duration of your approval you should seek Chairman’s approval.

2. You must seek Chairman’s approval for proposed amendments to the research for which this approval has been given. Ethical approval is specific to this project and must not be treated as applicable to research of a similar nature, i.e. using the same procedure(s) or medicinal product(s). Each research project is reviewed separately and if there are significant changes to the research protocol, for example in response to a grant giving bodies requirements you should seek confirmation of continued ethical approval.

3. It is your responsibility to notify the Committee immediately of any information which would raise questions about the safety and continued conduct of the research.

4. Specific conditions pertaining to the approval of this project are:

   • That a copy of the signed consent form must be kept by you with the research records.

Yours sincerely

Anna Jenkins
Secretary to the Research Ethics Committee
Research and Development Office
Dear Carolyn

96EB19 Randomised Controlled Trial of a Smoke Alarm give-away Programme to Prevent fire-related Injuries & Death

Dr Macrae has asked me to respond to your letter requesting Research Ethics Committee approval to modify the protocol for the above study. He is happy to approve the change. He did, however, suggest that you might consider writing to the households to explain the project and that you will be visiting them rather than cold calling.

Best wishes

Barbara

Dr Barbara Byth
Head, R&D Office

Research and Development Office
9.10 APPENDIX 10 - INTERVIEWER'S MANUAL
INTERVIEWER’S MANUAL

FOR

SMOKE ALARM MAINTENANCE BEHAVIOUR AND FIRE SAFETY AWARENESS STUDY

Norma Speirs
Institute of Child Health
September 1998
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<td>12.5</td>
<td>Summary information sheet</td>
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<tr>
<td>12.6</td>
<td>Home Office leaflets</td>
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INTERVIEWER’S MANUAL FOR
THE SMOKE ALARM MAINTENANCE
BEHAVIOUR
AND FIRE SAFETY AWARENESS SURVEY

This manual is constructed for the interviewers involved in the smoke alarm
maintenance behaviour and fire safety awareness study, conducted as part of a smoke
alarm give-away programme in Camden & Islington.

1 Background information

☐ Fires occur most often in rental and council households.
☐ There is a marked social gradient for fire deaths in children, with those in social
classes IV and V being 15 times more at risk than those in social class I.
☐ Children under the age of five years and the elderly are most at risk from fire
fatalities.
☐ Researchers from the Institute of Child Health, in conjunction with Camden and
Islington councils, distributed 20,050 smoke alarms between June 1997 and
February 1998. As well as the alarm, leaflets giving advice on fire safety and
smoke alarms were also given out. These were printed in five languages.
☐ The current study is one of the interim outcome measures of the intervention trial.
   It looks at smoke alarm installation and maintenance, fire safety awareness, fires
   and fire-related injuries.
☐ The interviewer is blind to the study status of households visited, to reduce any
   bias which might otherwise occur if intervention status were known.

2 The survey

☐ Smoke alarm maintenance and fire safety knowledge in a randomised controlled
   trial evaluating the use of smoke alarms one year after a give-away programme in
   Camden and Islington.
☐ An interview and inspection in the home lasting about 10 minutes including testing
   of battery and smoke test of alarm.
3 Sampling principles and procedures

☐ The sampling frame of council house tenants in Camden and Islington was obtained from the councils.

☐ Council house tenants have been chosen as previous studies have shown that those in rented accommodation are at high risk from fires and least likely to have smoke alarms and the intervention was primarily offered to council tenants.

☐ The sample size, as advised, will be 150 in each group in the study.

☐ The letter of introduction is sent to the person named as householder on the council house lists, or to the current occupant if the tenancy has changed.

☐ The questionnaire can be answered by any adult, aged 16 years or over, currently residing at that address, even if not the named householder.

4 The role of the interviewer

☐ Send a letter of introduction to the random sample of Camden and Islington council tenants chosen from the borough council housing lists.

☐ Visit the household to deliver the questionnaire, record the answers, and inspect and test the alarm.

☐ Record the information at interview and code answers where necessary.

5 Administrative procedures and records

☐ Sample names, sorted by post-code, are given to the interviewer, who then plots the addresses on a map of area and plans travel arrangements for each day.

☐ The questionnaire is delivered to the study sample.

☐ The interviewer maintains a log of all those interviewed and those for whom call-back is necessary. Each address receives a study number to be included on the log.

☐ Identification of the household by study number must be noted on the outer cover of the questionnaire. This will be separated later from the answers and serve to maintain an account of those in study who have been interviewed and those still to be interviewed.

☐ Completed questionnaires will be returned to Dr DiGuiseppi at the Institute of Child Health for review, and then passed on to secretarial staff for data-entry.

6 Introduction to the interview

☐ Initial contact is by letter of introduction (attached).

☐ Letters of introduction will be sent out in batches of 40 every two weeks, based on the number of visits possible within that period, as calculated from the pilot study.

☐ Secure the interview by home visiting. Home telephone numbers are not available. Appointment for interview is offered in the letter, if the responder wishes.
7  Call and call-back strategy

☐ Each home will be visited within two weeks after the letter of introduction has been sent. If no-one is at home, the interviewer should return on at least two further occasions to try to secure an interview. If the interviewer fails to meet the householder on the second visit, he or she should ask the neighbours when it might be possible to make contact with the householder.

☐ Within the interview schedule are prompts to be used successively with the reluctant respondent. Finally an offer can be made to call back another time when it would be more convenient. If the respondent refuses, the interviewer then seeks only to ascertain if they have a smoke alarm and if so asks permission to test it. If the respondent is reluctant, the interviewer leaves. An attempt is made to avoid refusals. A more experienced interviewer may still have success.

8  Using the questionnaire

Detailed instructions are included in the attached copy of the questionnaire.

☐ Questions in the survey are based on questions validated in the British Crime Survey, 1994 and OPCS Omnibus Survey, 1995. These were pre-tested, revised, pilot tested on twenty Council households in Camden and the questionnaire then finalised.

☐ Questions should be asked as written in the questionnaire, with introductions to each section as noted also.

☐ Skips are clearly marked. Where there are a number of questions to be skipped if the responder replies in a particular way, the subsequent question begins on a new page that can be easily identified.

☐ Most questions are closed, with straight-forward yes/no/don’t know type of answer.

☐ Complex questions such as those requiring the use of showcards have clear instructions.

☐ Questions 4, 5a, 6a, 7a, 8 and 10 have accompanying showcards to act as prompts when necessary. These have been validated in the OPCS Omnibus Survey, 1995, and give alternative answers, from which the respondent chooses the most appropriate. If the interview is being delivered on the doorstep, an alternative to the question is given and the use of these showcards avoided.

☐ In question 28, the showcard is used for all.

☐ The photographs in questions 29 and 30 are shown to all respondents.

☐ On the questionnaire, circle the number of the answer given when it is a closed question or where a show-card is used.

☐ For open questions, record the answer as given by the responder and then encircle the answer that best fits. If it does not fit clearly into one of the pre-coded responses, probe further to clarify and code response.

☐ Editing of the questionnaire will only be necessary where there is uncertainty about the coding of answers by the interviewer. Such difficulties should be discussed with the supervisor.

☐ A reliability check on 10% of the sample will be undertaken by the supervisor.
9 Probing and other interviewing techniques

□ Where the answer to the question is unclear or where it does not fit easily into one of the pre-coded answers, the interviewer should probe to ensure he/she understands the responder correctly. The probe should be a non-directive, open question.
□ If the responder requests feedback, such as what is “the correct answer” he should be told that the interviewer will come back to that at the end of the questionnaire and attempt to answer any queries.

10 Inspection and testing of smoke alarms

□ After delivery of the questionnaire, the interviewer requests permission to inspect and test all smoke alarms in the household. Detailed instructions for this are attached.
□ The results of alarm inspection and testing are recorded on the table provided.
□ The following advice is taken from the Home Office Communication Directorate publication, “Wake up! Get a smoke alarm” 1997.

10.1 Smoke alarm ownership

Ask to see the alarm. Record “Y” in column one if an alarm is present and in columns 2-4 for each additional alarm.

10.2 Smoke alarm installation

10.2.1 Installed

Record “Y” if smoke alarm is attached to a household surface.

10.2.2 Correct Installation

Record “Y” if the alarm installation meets all these requirements.

The alarm should be:
□ screwed to the ceiling
□ 30 cm minimum from a wall or light fitting
□ close to the centre of the room or landing, or in the midline of the long axis of the hallway
□ if home on one level, alarm should be between living and sleeping areas
□ if home on more than one level, and more than one alarm is to be used, at least one alarm should be near the sleeping area and no alarms should be in the kitchen or bathroom
□ if a single alarm is to be used in a home on more than one level, position it where it can be heard when household asleep, i.e. at the top of the stairs.
10.2.3 How Incorrect
Record “N” if the alarm is not correctly installed as above and record its incorrect location in terms of:
☐ room - e.g. in kitchen or bathroom
☐ surface - e.g. on wall not ceiling
☐ location - e.g. too close to wall or light fitting
☐ level - e.g. alarm on the wrong floor of 2-storey home (or in houses of more than one storey with more than one alarm, but all on same level)
Circle “Y” for the appropriate reason for incorrect installation.

10.3 Smoke alarm condition
Check the external and internal condition of the alarm. Record “Y” if it is clean and free from dust.

10.4 Smoke alarm button test
Check if the alarm responds when the test button is pressed. Record “Y” if the alarm sounds.

10.5 Smoke alarm battery test
If the battery test is failed, record “N” then remove the battery and check its function using the battery tester. Record “Y” if the battery test is positive.

10.6 Smoke source test of alarm
If there is a functioning battery in the alarm, check the response of the alarm to the smoke source, by spraying a small amount from the canister held approximately 10 inches from the alarm. Record “Y” if the alarm sounds.

11 Ethical principles and confidentiality
☐ Both in the letter of introduction and when the interviewer visits the home, the respondent must be assured of the maintenance of confidentiality. This is repeated, as written in the questionnaire, when demographic details are asked at the end of the questionnaire, with emphasis that the council in particular will not be informed of the answer.
☐ If the respondent is not comfortable with the interviewer entering the house, the interview may be conducted at the door. At the end of the questionnaire, if the respondent has been sufficiently reassured that the interviewer is well meaning, then testing of smoke alarm may still be possible. If still reluctant, then the
interviewer should ask the respondent to go and press the battery test button of the smoke alarm, and record the result appropriately on the form.

12 Attachments

12.1 *Letter of introduction*

This letter is sent out in batches to all householders in the study sample.
Dear «Name»

I am a doctor from Great Ormond Street Hospital. I am studying how people prevent home accidents. These are an important cause of injuries. We are interested in people from all age groups and not just in children. I would like to visit you to ask about how you keep your home safe.

It is important to our research that you take part. A computer chose your address randomly from a list of council homes. It will take less than 10 minutes to answer our questions. We will not show your answers to the council or to anyone else.

The Ethics Committee has approved this research. Dr Carolyn DiGuiseppi is supervising it. If you have questions you can ring her on 0171-242-9789.

I will visit you in about 2 weeks. If you prefer to set a time to meet, please ring 0171-242-9789 ext. 2107 and leave your name and number.

I hope you will be able to help.

Yours sincerely,

Dr Norma Speirs
Community Paediatrics
12.2 Questionnaire for smoke alarm maintenance and fire safety awareness study
INTRODUCTION:

Hello, my name is , from Great Ormond Street Hospital. Here is my identification badge.

We are doing home safety research in this neighbourhood. I would like to come in and ask some questions about home safety. This would take only about 5 to 10 minutes. Would that be all right?

(If the householder is still hesitant):

This project is approved by Great Ormond Street Hospital and if you would like to check my identity, please call Dr Carolyn DiGuiseppi at the Institute of Child Health, telephone number 0171-242-9789 Ext. 2693.

(If the householder is hesitant about your coming in):

If you prefer, I can ask the questions right here at the door. It will only take a few minutes

(If the respondent refuses to answer the questionnaire, or they do not have the time available and do not wish to make a further appointment, ask):

a) Smoke Alarms

Could I just ask, do you have a smoke alarm in your home now?

1. Yes
2. No
3. Refuse to answer

b) Would you mind if I just test the alarm for you? (If possible do whole testing as for responders...see back)

1. Test - working
2. Test - not working
3. Not tested (refuse)
4. Not installed

c) Or could you go and press the test button so that I can determine if the alarm is working?

1. Test - working
2. Test - not working
3. Not tested (refuse)
INTERVIEWER INSTRUCTIONS:

**Question 1.** Ask all respondents

If “No” go to Question 9

**Question 2, 3** Ask if “yes” to question 1.

If “None” go to Question 8

**Question 4.** Ask if “yes” to question 2.
If the respondent has difficulty remembering and the interview is being conducted inside the home, offer the prompt showcard A1 and read through it if necessary.
If the respondent has difficulty remembering and the interview is being conducted outside the home, read the entire question, “Did you put it up...”
Record the answer given and code as appropriate by circling the corresponding number 1-4.
First I would like to ask you some general questions about fire safety. If you have previously taken part in any fire safety programme please do not tell me, to avoid influencing the questions or answers.

A. Fire Safety

1. SmAlar [ASK ALL]
   May I just check, do you have a smoke alarm in your home now?
   1. Yes
   2. No

[INTERVIEWER: IF NO TO SmAlar, GO TO Page 6, Question 9 Improve]

2. NmSmAl [ASK IF YES TO SmAlar]
   How many do you have?
   1. One
   2. Two
   3. Three or more

3. NmSAInst Has this alarm been put up?
   [OR]
   How many of your smoke alarms have been put up?
   1. None
   2. One
   3. Two
   4. Three or more

[INTERVIEWER: IF NONE TO NmSAInst, GO TO Page 5, Question 8 Alarms]

4. Timelnst (Thinking of the alarm you put up most recently:)
   How long ago did you or anyone else put up this alarm?

[INTERVIEWER: if “don’t know” SHOW CARD A1 (if inside home) or ASK (if outside home)]
   Would this card help you to answer? (Or ask:)
   [INTERVIEWER: code answer]
   1. (Did you put it up...) Within the last 4 weeks
   2. (Did you put it up...) At least 4 weeks but less than 1 year ago
   3. (Did you put it up...) At least 1 year but less than 2 years ago
   4. (Did you put it up...) At least 2 years ago
INTERVIEWER INSTRUCTIONS:

Question 5. Ask if “yes” to question 2.

Question 5a. Ask if “yes” to question 5.
If the respondent has difficulty remembering and the interview is being conducted inside the home, offer the prompt showcard A1 and read through it if necessary.
If the respondent has difficulty remembering and the interview is being conducted outside the home, read the entire question, “Did you replace it...”
Record the answer given and code as appropriate by circling the corresponding number 1-4.

Question 6. Ask if “yes” to question 2.

Question 6a. Ask if “yes” to question 6.
If the respondent has difficulty remembering and the interview is being conducted inside the home, offer the prompt showcard A1 and read through it if necessary.
If the respondent has difficulty remembering and the interview is being conducted outside the home, read the entire question, “Did you test it...”
Record the answer given and code as appropriate by circling the corresponding number 1-4.
5. Maint1a  (Thinking of the alarm you put up most recently:)
Apart from when your smoke alarm was first put up, have you
or anyone else replaced the battery?

1. Yes
2. No
3. Don't know
4. Not applicable (wired in)

5a. TimeImpa  [ASK IF YES IN Maint1a]
How long ago did you or someone else replace the battery?

.......................................................
[INTERVIEWER: if “don’t know” SHOW CARD A1
(if inside home) or ASK (if outside home)]
Would this card help you to answer? (Or ask:)

[INTERVIEWER: code answer]

1. (Did you replace it...) Within the last 4 weeks
2. (Did you replace it...) At least 4 weeks but
   less than 1 year ago
3. (Did you replace it...) At least 1 year but less than 2 years ago
4. (Did you replace it...) At least 2 years ago

6. Maint1b  (Thinking of the alarm you put up most recently:)
Apart from when your smoke alarm was first put up, have you or
anyone else pressed the battery test button?

1. Yes
2. No
3. Don't know

6a. TimeImpb  [ASK IF YES IN Maint1b]
How long ago did you or someone else
press the battery test button?

.......................................................
[INTERVIEWER: if “don’t know” SHOW CARD A1
(if inside home) or ASK (if outside home)]
Would this card help you to answer? (Or ask:)

[INTERVIEWER: code answer]

1. (Did you test it...) Within the last 4 weeks
2. (Did you test it...) At least 4 weeks but less than 1 year ago
3. (Did you test it...) At least 1 year but less than 2 years ago
4. (Did you test it...) At least 2 years ago
INTERVIEWER INSTRUCTIONS:

**Question 7.** Ask if “yes” to question 2.

**Question 7a.** Ask if “yes” to question 7.
If the respondent has difficulty remembering and the interview is being conducted inside the home, offer the prompt showcard A1 and read through it if necessary.
If the respondent has difficulty remembering and the interview is being conducted outside the home, read the entire question, “Did you vacuum it...”
Record the answer given and code as appropriate circling the corresponding number 1-4.

**Question 8.** Ask all those who respond “Yes” to question 1.
If the interview is being conducted inside the home, offer the showcard A2 and read through it if necessary.
If the interview is being conducted outside the home, read all the options and record the answer given by circling the corresponding number 1-4.
A fire, as compared to a trivial incident, is one which has the potential to cause damage to the home or injury, or to get out of control.
7. Maint1c

(Thinking of the alarm you put up most recently:)
Apart from when your smoke alarm was first put up, have you or anyone else vacuumed the inside of the smoke alarm?

1. Yes
2. No
3. Don't know

7a. Timelmpc

[ASK IF YES IN Maint1c]
How long ago did you or someone else vacuum the smoke alarm?

[INTERVIEWER: if "don't know" SHOW CARD A1 (if inside home) or ASK (if outside home)
Would this card help you to answer? (Or ask:)]

[INTERVIEWER: code answer]

1. (Did you vacuum it...) Within the last 4 weeks
2. (Did you vacuum it...) At least 4 weeks but less than 1 year ago
3. (Did you vacuum it...) At least 1 year but less than 2 years ago
4. (Did you vacuum it...) At least 2 years ago

8. Alarms

[INTERVIEWER (if inside home): SHOW CARD A2 and offer to read]
Will you please look at this card and tell me all the answers that apply to your smoke alarm(s)?

OR

[INTERVIEWER (if outside home): ASK]
Which of the following apply to your smoke alarm(s)?
[record all answers that apply]

1. It has (Has it) gone off because of a fire
2. It has (Has it) warned of smoke for a trivial reason, for example burning toast or someone smoking near the alarm.
3. It has (Has it) only given false alarms, when there was no smoke or fire
4. It has (Has it) never gone off (except when tested).
INTERVIEWER INSTRUCTIONS:

Question 9. Ask all respondents.
If the interview is being conducted inside the home, offer the showcard A3 and read through it if necessary.
If the interview is being conducted outside the home, read all the options on the card and record any positive answers given by circling “Yes” and the corresponding number 1-6 in question 10.

Question 10. Ask if “Yes” to question 9.
Record the answer given by circling the corresponding number 1-6.
9. Improve

[ASK ALL]

[Interviewer (if inside home): SHOW CARD A3 - offer to read]

OR (if outside home): read all the options on CARD A3 and ASK:]

Here is a list of other improvements people might make to their homes for the sake of fire safety.

Have these or any other improvements been made to your home, either by your household or by previous occupants?

1. Yes
2. No

[Interviewer: IF NO, GO TO Question 11 ChipFi2a]

10. SpecImpr

[ASK IF YES IN Improve]

[Interviewer (if inside home): SHOW CARD A3 - offer to read]

SpecImp0-

Please could you tell me which improvements from this card have been made for the sake of fire safety?

OR

[Interviewer (if outside home): ASK]

1. (Have you...) Got a fire extinguisher
2. (Have you...) Got a fire blanket
3. (Have you...) Replaced electrical equipment
4. (Have you...) Got a fire escape ladder
5. (Have you...) Other........................................................................................................
6. (Have you...) Don’t know
INTERVIEWER INSTRUCTIONS:

Question 11. Ask all and record in full the answer. If two answers given, ask again, “Which would you do first?” Code the answer immediately using the categories 1-8 provided. If the coding is difficult, clarify the answer using non-directive probing questions.

Question 12. Ask all and record in full the answer. Code the answer immediately using the categories 1-8 provided. If the coding is difficult, clarify the answer using non-directive probing questions.
11. ChipFi2a  [ASK ALL]
If you went into a kitchen and found a chip pan on fire, what do you think you should do first?
[INTERVIEWER: if two answers given, ask again "which do you think you should do first?"]

[full answer]

[INTERVIEWER: CODE ONE ONLY]

1. Call the Fire Brigade
2. Turn off cooker/electricity/gas
3. Use water on it
4. Move pan somewhere (inside or outside)
5. Cover pan with lid/towel/blanket etc.
6. Use an extinguisher
7. Don't know
8. Other

12. ChipFi2b  [ASK ALL]
And what do you think you should do next?
[full answer]

[INTERVIEWER: CODE ONE ONLY]

1. Call the Fire Brigade
2. Turn off cooker/electricity/gas
3. Use water on it
4. Move pan somewhere (inside or outside)
5. Cover pan with lid/towel/blanket etc.
6. Use an extinguisher
7. Don't know
8. Other
INTERVIEWER INSTRUCTIONS:

**Question 13.** Ask all and record in full the answer. If two answers given, ask again, “Which would you do first?” Code the answer immediately using the categories 1-8 provided. If the coding is difficult, clarify the answer using non-directive probing questions.

**Question 14.** Ask all. Replace “September” 1997 with the appropriate month, 12 months previously, as necessary.

If “No” to question 14 go to question 28.

**Question 15.** Ask if “Yes” to question 14. Replace “September” 1997 with the appropriate month, 12 months previously, as necessary.
13. LivFila

[ASK ALL]
If you went into the living room and found the couch, chair and curtains on fire, what do you think you should do first?

[Interviewer: if two answers given, ask again “which do you think you should do first?”]

[Note full answer] .................................................................................................................................
..............................................................................................................................................................

[Interviewer: Code one only]
1. Call the Fire Brigade
2. Try to put out the fire with water or an extinguisher
3. Try to rescue any valuable belongings
4. Get everyone outside quickly
5. Open windows and doors to let out smoke
6. Close door if possible
7. Don’t know
8. Other ..............................................................................................................................................

B. Fires

14. AnyFire

[ASK ALL]
I would now like to ask about fires in the home. This means all sorts of fires, including chip pan fires and very minor fires. Has there been a fire of any sort in the place where you were living in the past one year, since the beginning of September 1997?

1. Yes
2. No

[Interviewer: If no to AnyFire, go to page 12, Question 28 AnyCamp]

15. NumFires

[ASK IF YES TO AnyFire]
How many fires since September 1997?

1. One
2. Two
3. Three
4. Four
5. Five or more
INTERVIEWER INSTRUCTIONS:

Question 16. Ask if “Yes” to question 14. Replace “September” 1997 with the appropriate month, 12 months previously, as necessary. Ring number corresponding to month.

Question 17. Ask if “Yes” to question 14.
Note answer in full and code immediately using the categories 1-13 provided.
If the coding is difficult, clarify the answer using non-directive probing questions.

Question 18. Ask if “Yes” to question 14.

If “Outside” to question 18, go to question 21.
16. WhenFire

[ASK IF YES TO AnyFire]
Thinking about the past one year, that is the time since September 1997, in which month did the (last) fire you had occur?

1. January
2. February
3. March
4. April
5. May
6. June
7. July
8. August
9. September
10. October
11. November
12. December

17. CausFire

[ASK IF YES TO AnyFire]
Thinking about this (last) fire you had, what was the cause of the fire?

[INTERVIEWER: note full answer]

[INTERVIEWER: code answer]
1. Arson
2. Carelessness with cigarettes/pipes/cigars/lighters
3. Adult's carelessness with matches
4. Children playing with fire/matches
5. Pan of cooking fat/oil catching fire
6. Electric blanket faults or misuse
7. Electric wiring (faulty or worn out)
8. Leaving things too close to the fire or heater
9. Chimney fire
10. Washing machine (faults)
11. Blowlamp (misuse)
12. Other electrical appliances
13. Other

18. FirStart

[ASK IF YES TO AnyFire]
Did the fire first start inside or outside your home?

1. Inside
2. Outside

[INTERVIEWER: IF OUTSIDE FIRE, GO TO Question 21 FirDisc1]
INTERVIEWER INSTRUCTIONS:

Question 19.  Ask if “Inside” to question 18.

Question 20.  Ask if “Inside” to question 18.


Question 22.  Ask if “Yes” to question 14.

Question 23.  Ask if “Yes” to question 14.

19. InsidFi1 [ASK IF FIRE STARTED INSIDE HOME]
Where inside the home did the fire begin?

1. Kitchen
2. Lounge, reception, living room, dining room
3. Bedroom
4. Bedsitter, bedsitting room
5. Elsewhere in house..............................................

20. FirSprla [ASK IF FIRE STARTED INSIDE THE HOME]
Did the fire spread beyond the ..................(InsidFi1)?

1. Yes
2. No

21. FirDisc1 [ASK IF YES IN AnyFire]
How was the fire discovered?

1. Person
2. By a smoke alarm
3. Other........................................................................

22. FBrigCal [ASK IF YES TO AnyFire]
Was the Fire Brigade called?

1. Yes
2. No

23. FirDamag [ASK IF YES TO AnyFire]
What was the total cost of the damage done by the fire? (INTERVIEWER, RECORD AMOUNT)

1. (£0 - £99999999) £..............................
2. Don’t know

24. FirInjH [ASK IF YES TO AnyFire]
Was anyone who was in your home (flat) at the time of the last fire injured in the fire?

1. Yes
2. No
INTERVIEWER INSTRUCTIONS:

**Question 25.** Ask if “Yes” to question 14. Specify “flat” rather than “home” where appropriate.

If “No” go to question 28.

**Question 26.** Ask if “Yes” to question 25.

**Question 27.** Ask if “Yes” to question 25.
Code answer immediately using the categories 1-7 provided. If the coding is difficult, clarify the answer using non-directive probing questions.
25. FirInjE  [ASK IF YES TO AnyFire]
Was anyone who was outside your home (flat) at the time of the last fire injured in the fire?

1. Yes
2. No

[INTERVIEWER: IF NO TO FirInjH or E, GO TO Question 28 AnyCamp]

26. NumInj  [ASK IF YES TO FirInj]
How many people were injured in the last fire?

1. One
2. Two
3. Three
4. Four
5. Five or more

27. SerInj  [ASK IF YES TO FirInj]
Think of the person who was most seriously injured in the fire. How was the injury of that person treated, if at all?

1. No treatment needed
2. Treated at home
3. Treated by GP
4. Treated at Accident and Emergency Department and sent home
5. Hospitalised
6. Died
7. Other........................................................................................................
INTERVIEWER INSTRUCTIONS:

Question 28. Ask all respondents.
Offer the showcard A4 and read through it if necessary.
Record the answer(s) given by circling the corresponding number 1-5.

Question 29 and 30. Ask all respondents.
Show fire safety photographs and record response.
28. AnyCamp [INTERVIEWER: ASK ALL]
Please look at this card. Which, if any, of these campaigns aimed at fire safety in the home have you heard of? (SHOW CARD A4 - offer to read)

1. Any TV smoke alarm advertising campaign
2. National Fire Safety week
3. "Let's Get Alarmed!" campaign
4. Other campaigns.................................................................
5. Have not heard of any campaigns

Finally in this section, I would like you to look at a few photographs.

29. FirPhoto [ASK ALL]
Do you recall having seen this photograph before, either on TV or elsewhere? (SHOW FIRE PHOTOGRAPH NO. 1)

1. Yes
2. No

30. FirPhoto [ASK ALL]
Do you recall having seen these pictures before, either on TV or elsewhere? (SHOW FIRE PHOTOGRAPH NO. 2)

1. Yes
2. No
INTERVIEWER INSTRUCTIONS:

Questions 31 and 32. Ask all respondents.

If “more than two years” in question 32, go to question 35.

Questions 33 and 34. Ask if “less than two years” in question 32. Replace “September” 1997 with the appropriate month, 12 months previously, as necessary.
“Could I ask you a few questions now about your home?”

C. Household

31. NumFlr  [INTERVIEWER: ASK ALL OR CODE]
How many floors are there in your home, that is floors with living space?

1. One
2. Two
3. Three or more

32. YrsAddr  [ASK ALL]
How many years have you lived at this address?

1. Less than one year
2. 1 but less than 2 years
3. 2 years or more

[INTERVIEWER: IF 2 YEARS OR MORE, GO TO Question 35 Adults]

33. ResYrAgo  [ONLY APPLIES IF YrsAddr IS ANSWERED 1 OR 2]
Can I check were you (personally) living at this address on 1st September 1997?

1. Yes
2. No

34. MThMove  [ONLY APPLIES IF ResYrAgo = NO]
In what month did you move to this accommodation?

1. January
2. February
3. March
4. April
5. May
6. June
7. July
8. August
9. September
10. October
11. November
12. December
INTERVIEWER INSTRUCTIONS:

Questions 35 - 38. Ask all respondents. Record answers in space provided.
“I just have a few more questions about you and your household. All these answers will be kept confidential and will not be reported to the council.”

D. Demographics

35. Adults [ASK ALL]
May I just check, how many adults aged 16 or older are there in your household?

0-00 .................

36. Elders [ASK ALL]
And how many of these adults are aged 65 or older?

0-00 .................

37. NumChi [ASK IF YES IN Child]
How many children under 16 years, if any, live in your household?

0-00 .................

38. Child04 [ASK IF YES IN Child]
And how many of these children are aged less than 5 years?

0-00 .................
INTERVIEWER INSTRUCTIONS:

Reassure respondent that all the questions have been asked.

Check smoke alarm presence, installation and function as described in the manual and record findings on the table provided.
"That is all the questions that I have for you today. But before I finish, I would just like to check for you that your smoke alarm is working properly. Could you show me where your smoke alarm(s) is (are)?"

<table>
<thead>
<tr>
<th>SMOKE ALARM</th>
<th>ONE</th>
<th>TWO</th>
<th>THREE</th>
<th>FOUR</th>
</tr>
</thead>
<tbody>
<tr>
<td>OWNED (Circle one)</td>
<td>Y</td>
<td>N</td>
<td>Y</td>
<td>N</td>
</tr>
<tr>
<td>INSTALLED (Circle one)</td>
<td>Y</td>
<td>N</td>
<td>Y</td>
<td>N</td>
</tr>
<tr>
<td>CORRECTLY INSTALLED (Circle one)</td>
<td>Y</td>
<td>N</td>
<td>Y</td>
<td>N</td>
</tr>
<tr>
<td>IF N: INCORRECT ROOM? (Circle all)</td>
<td>Y</td>
<td>N</td>
<td>Y</td>
<td>N</td>
</tr>
<tr>
<td>IF N: INCORRECT SURFACE? (Circle one)</td>
<td>Y</td>
<td>N</td>
<td>Y</td>
<td>N</td>
</tr>
<tr>
<td>IF N: INCORRECT LOCATION? (Circle one)</td>
<td>Y</td>
<td>N</td>
<td>Y</td>
<td>N</td>
</tr>
<tr>
<td>IF N: INCORRECT LEVEL? (Circle one)</td>
<td>Y</td>
<td>N</td>
<td>Y</td>
<td>N</td>
</tr>
<tr>
<td>BUTTON TEST POSITIVE (Circle one)</td>
<td>Y</td>
<td>N</td>
<td>Y</td>
<td>N</td>
</tr>
<tr>
<td>BATTERY TEST POSITIVE (Circle one)</td>
<td>Y</td>
<td>N</td>
<td>Y</td>
<td>N</td>
</tr>
<tr>
<td>SMOKE TEST POSITIVE (Circle one)</td>
<td>Y</td>
<td>N</td>
<td>Y</td>
<td>N</td>
</tr>
</tbody>
</table>
“Thank you very much for your help. Do you have any questions that you would like to ask me?”

Comments (householder):

Comments (interviewer):

INTERVIEWER: LEAVE STUDY INFORMATION SHEET WITH RESPONDENT AND THANK RESPONDENT FOR THEIR HELP WITH THE SURVEY.

[INTERVIEWER TO COMPLETE]:

39. Accom Type of accommodation:

1. Flat - purpose built
2. Flat - converted
3. Flat - unspecified
4. Maisonette
5. Mobile home
6. Room/bedsitter
7. Mid or unspecified terrace
8. End terrace
9. Semi-detached
10. Whole house - detached
11. House - unspecified
12. Other.................................
12.3  *Showcards and fire safety photographs*

12.3.1  *Showcards A1 - A4*  For use at interview within the home
1. Within the last 4 weeks

2. At least 4 weeks but less than 1 year ago

3. At least 1 year but less than 2 years ago

4. At least 2 years ago
1. It has gone off because of a fire

2. It has warned of smoke for a trivial reason, for example burnt toast or someone smoking near the alarm.

3. It has only given false alarms, when there was no smoke or fire

4. It has never gone off (except when tested).
1. Got a fire extinguisher

2. Got a fire blanket

3. Replaced electrical equipment

4. Got a fire escape ladder

5. Other..............................

6. Don’t know
1. Any TV smoke alarm advertising campaign

2. National Fire Safety week

3. "Let's Get Alarmed!" campaign

4. Other campaigns

5. Have not heard of any campaigns
12.3.2 Showcard A4 for use at interview outside the home
1. Any TV smoke alarm advertising campaign

2. National Fire Safety week

3. "Let's Get Alarmed!" campaign

4. Other campaigns

5. Have not heard of any campaigns
12.3.3 Fire Safety Photographs
YOU ONLY HAVE MINUTES TO GET OUT.

GET A SMOKE ALARM. AND GET OUT.

IF YOU HAVEN'T GOT A WORKING SMOKE ALARM, YOU HAVEN'T GOT A CHANCE.
A DEAD BATTERY IS EASIER TO REPLACE.

CHECK YOUR SMOKE ALARM
12.4 Commonly asked questions

12.4.1 How did you get my address? Who gave you my name? Why do you need my name?
The council provided a list of names and addresses, only after strict ethical approval had been given, of people living in council-owned property. Your name was on the list they gave us and was selected at random by computer. We do not need your name for the study.

12.4.2 I do not want to take part. Can you take my name off the list, and if so will you give it to anyone else?
We would never pass on your name to anyone.
If you do not wish to take part, we will happily remove your name from our files.

12.4.3 I want to take part but what if I change my mind?
This survey will take only about 5-10 minutes to complete. If you do not want to answer any of the questions just say so and I will stop.

12.4.4 Have the researchers and support staff been properly trained and vetted?
All researchers and support staff work in the Institute of Child Health. They are under the supervision of Dr DiGuiseppi. This study was approved by the Great Ormond Street Hospital Research Ethics Committee.

12.4.5 What if I have difficulty understanding you?
The questions are simple.
If a family has a different language then we will try to provide an interpreter if necessary.

12.4.6 I really don’t know anything about this!
It is a very simple questionnaire. Is there anybody else at home who could help?

12.4.7 Why don’t you talk to my wife – she knows more about this than I do?
Is she at home, then?
The questions are very simple. I am sure you can help.
(Any information you could give would be very helpful.)
12.4.8 What's all this about, anyway?
This is part of a research project being done by doctors at Great Ormond Street Hospital, looking at safety within the home. The study was approved by the Great Ormond Street Hospital Research Ethics Committee.

12.4.9 What good will it do?
The answers you give will help us to find ways of reducing injuries caused by accidents within the home.

12.4.10 What's the catch?
There is no catch.
I will ask you a few simple questions. Your answers will be kept confidential.

12.4.11 What else am I going to have to do?
Just answer a few questions for about 5-10 minutes.
At the end, I would like to see your smoke alarm and check that it is working properly. I will tell you if it isn't so that you can arrange to fix it.

12.4.12 If I have more questions, who can I talk to?
You can write to Dr Carolyn DiGuiseppi at the Institute of Child Health, 30 Guilford Street, London, WC1N 1EH or telephone her on 0171 242 9789 and she will be happy to answer your questions. If you wish to make a complaint, please contact either Dr Carolyn DiGuiseppi or else contact the Chairman of the ethics committee, Dr Duncan Macrae, at the same address. I will give you a paper with some names addresses and ph n**

12.4.13 How can I be sure that you won't tell anyone else what I tell you?
Your answers will be seen only by the researchers at Great Ormond Street Hospital. They will not pass on any information to the council or anyone else. This project has been approved by the Ethics Committee.

12.4.14 What happens to the information I have given you at the end of the study?
When we have completed our survey, all the answers will be combined and will be looked at to see how we can prevent home injuries, in particular fire-related injuries.
12.5 *Summary information sheet*

This leaflet is left with the respondent at the close of the interview.
A SURVEY OF FIRES AND FIRE SAFETY IN CAMDEN AND ISLINGTON

The purpose of this survey is to learn what people do to prevent fires and fire injuries in their homes.

We would like to ask you questions about fire safety and about fires in your home. It usually only takes about 10 minutes to answer the questions. If you have a smoke alarm fitted we would like to test it. If it is not working, we will tell you so. You do not have to answer any questions if you do not want to.

We will keep all your answers confidential. A Research Ethics Committee has approved this research. Dr. Carolyn DiGuiseppi is directing the survey. Please contact her if you have complaints or questions. Her address is: Department of Epidemiology, Institute of Child Health, 30 Guilford Street, London, WC1N 1EH. Her telephone number is 0171-242-9789. You may also contact the Chairman of the Research Ethics Committee, Dr. Duncan Macrae by post via the Research and Development Office, Institute of Child Health (address as above). If you have urgent questions, you may call him on 0171-242-9789 ext. 2620.
12.6  *Home Office leaflets*

Copies of the enclosed leaflets were distributed to the intervention group in the smoke alarm give-away programme in Camden and Islington.

12.6.1  “Wake Up! Get Smoke Alarm”

(Home Office Communication Directorate 1997)

12.6.2  “Fire Safety in the Home”

(Home Office Communication Directorate 1996)
Wake up!
Get a smoke alarm
pans, and will detect this type of fire before the smoke gets too thick. They are marginally less sensitive to slow burning and smouldering fires which give off larger quantities of smoke before flaming occurs.

**Optical:** These are more expensive but more effective at detecting larger particles of smoke produced by slow-burning fires, such as smouldering foam-filled upholstery and overheated PVC wiring. They are marginally less sensitive to free burning flaming fires.

Each type looks similar and is powered either by a battery, or mains electricity (or a combination of both). Some are interconnectable so that any smoke detected at one point can raise the alarm at all the others. Some have additional facilities, such as emergency lights and silence buttons, for use where false alarms can be a nuisance e.g. when cooking.

### What type of smoke alarm should I choose?

When deciding which type of alarm to buy you should consider which type of fire is most likely to occur in your home. Generally, both types of fire are common so the best form of protection would be to choose at least one smoke alarm of each type. Ideally, and to ensure continuity of supply, mains powered alarms with a back up power supply (e.g. battery, rechargeable capacitor) are the best option but simple battery powered alarms of either type will give good minimum protection.

You can buy smoke alarms at DIY stores, hardware and electrical shops, and at some supermarkets. Always buy an alarm which conforms to the British Standard. This means the alarm has achieved a standard acceptable to the British Standards Institution (BSI). Smoke alarms should meet BS 5446 Part 1, and carry the well-known Kitemark.

![BS5446 Part 1](image)

### How many smoke alarms should I fit?

The number of smoke alarms to fit in your home depends on your particular circumstances. Fires can start anywhere, so the more that are fitted, the higher the level of protection.

For maximum protection an alarm should be fitted in every room (except kitchen, bathroom and garage). You should choose the type most suited to the risk in each room (see above). For minimum protection the number to be fitted will depend on the type of home you live in:

- if your home is on one floor, one smoke alarm, preferably of the optical
Every year the fire brigade is called out to over 600,000 fires which result in over 800 deaths and over 17,000 injuries. 60,000 of these fires are in the home, killing nearly 500 people and injuring over 11,000.

Many of these deaths and injuries could be prevented if people had early warning and were able to get out in time. Buying and fitting smoke alarms could help save your home and the lives of your family.

This leaflet tells you about smoke alarms – what they are, what they do, where you should fit them and how to look after them. If you want more information, get in touch with your local fire brigade.

What is a smoke alarm?

Smoke alarms are self contained devices that incorporate a means of detecting a fire (smoke detector) and giving a warning (alarm). They are about the size of a hand and are normally fitted to the ceiling. They can detect fires in their earliest stages and sound a loud warning alarm. This alarm can give you those precious few minutes for you and your family to get out safely.

What types of smoke alarm are there?

There are two types of smoke alarm currently on the market - ionisation and optical (also described as photoelectric or photoelectronic).

Ionisation: These are the cheapest and can cost from under £5. They are very sensitive to small particles of smoke produced by flaming fires, such as chip
type, may be enough to provide you with early warning of a fire

• if your home has more than one floor, at least one alarm should be fitted on each level. In this case a combination of optical and ionisation alarms, preferably interconnected, will give the best protection.

Do not fit an alarm in the kitchen or bathroom, as cooking fumes or steam may trigger the alarm. Similarly, do not fit an alarm in a garage where exhaust fumes are likely to set it off. Cigarette smoke will not normally set off an alarm.

Where do I fit my smoke alarm(s)?

Smoke alarms are simply screwed into the ceiling and should normally be fitted at least 30 centimetres (12 inches) away from any wall or light fitting and as close to the centre of the room, hallway or landing ceiling as possible. (Always read the manufacturers' instructions before fitting.)

If your home is on one level, for minimum protection you should fit an alarm in the hallway between the living and sleeping areas.

smoke alarm placement in homes with one floor
If your home has more than one floor, for minimum protection one alarm should be fitted at the bottom of the staircase with further alarms fitted on each upstairs landing.

If you choose to fit a single alarm in a home on more than one level, care should be taken to ensure that it is fitted where it can be heard throughout your home - particularly when you are asleep. Normally this would be at the top of the stairs. Although ionisation and optical alarms are equally effective, optical alarms may be preferred in this particular situation as they are especially good at detecting slow-burning or smouldering fires.

Important: The manufacturers' instructions should be followed at all times, particularly where mains powered alarms are to be installed.
How do I look after my smoke alarm?

Follow the manufacturers’ instructions – smoke alarms need very little maintenance. A few minutes of your time during the year will ensure that your alarm is working and could help save your life and the lives of your family.

You should:

**Once a month**

Check the alarm by pressing the test button.

You can also test the detector by using one of the testing sources currently on the market for this purpose.

**Once a year**

Change the battery in the alarm.

Vacuum and wipe the casing and slots to ensure that dust isn’t blocking the sensor chamber. (For mains wired alarms, switch off first.)

**REMEMBER:**

Buying and fitting smoke alarms, and ensuring they are carefully and properly maintained, could give you those precious few extra minutes in which to make your escape safely.

Plan an escape from your home in advance and talk about it with your family. If a fire occurs you may have to get out in dark and difficult conditions. Escaping will be a lot easier if everyone knows where to go. Make sure your route(s) remain free of any obstructions and that there are no loose floor coverings that could trip you.

Always check the battery regularly, replacing it when necessary, and never remove it for other purposes. Should you encounter nuisance/false alarms you may need to site the alarm away from the source of fumes (usually from cooking) or you may consider buying a model that has a built-in silence facility which enables the audible signal to be cancelled temporarily.

False alarms may also be caused by poor maintenance leading to a build up of dust and dirt.
Fire safety in the home

PROTECT YOUR HOME FROM FIRE
Fire safety – advice for all

Every year the fire brigade is called out to over 60,000 fires in the home. And every year around 500 people die in these fires and over 10,000 are injured.

If a fire occurs in your home, your chances of survival will depend on how quickly and safely you are able to get out. This booklet gives you advice on how to prevent a fire, and how to protect yourself should one occur.
How to stop a fire starting in your home

Almost all fires in the home can be prevented. Here are some fire safety tips which could help prevent a fire from starting in your home.

Chip pans/Deep fat fryers

These are one of the most common causes of fire in the home but if you follow some simple guidelines you'll keep your kitchen safe. Before putting food in the pan dry the food, and test the temperature of the oil by putting in a small piece of bread. If the bread crisps up quickly the oil is ready.

And remember:

■ Never fill a pan more than one-third full of fat or oil.

■ Never leave the pan unattended when the heat is switched on.

■ Never put the food in the pan if the oil begins to give off smoke. Turn off the heat and leave the oil to cool, otherwise it could catch fire.
If the pan does catch fire:

- Do not move it.
- Turn off the heat if it is safe to do so, but never lean over the pan to reach the cooker controls.
- Cover the pan with a damp cloth or damp tea towel and leave it to cool for at least 30 minutes – never throw water onto the fire.

If you are in any doubt about whether to try to put out a chip pan fire yourself then don’t – leave the room, close the door and call the fire brigade.
Open fires
These should always have a fireguard round them, but never rest clothes or place newspapers on the guard.

Portable heaters
Don’t sit closer than three feet to a heater. Never put a heater near clothes or furnishings.

Smoker’s materials
- Never leave a lit cigarette or pipe unattended – it may fall onto an armchair or carpet which will soon catch fire and start to give off dense smoke and fumes.
- Never smoke in a chair if you think you may doze off in it.
- Always keep matches and lighters well out of the reach of children.
Bedtime routine

Many fires in the home start at night. Make sure you have a bedtime fire safety routine to help keep you and your family safe.

Here are a few simple things you should do every night:

■ Switch off and unplug all electrical appliances not designed to stay on. (There are specially designed plugs available which can be very easily inserted and removed. Details of these devices are available from the Disabled Living Foundation – address at the back of this booklet.)

■ Make sure no cigarettes or pipes are still burning. Never smoke in bed.

■ Before emptying ashtrays make sure the contents are cold.

■ Switch off portable heaters.

■ Close the doors of all rooms.
Get a smoke alarm

A smoke alarm can give you those precious few minutes of warning which could help you and your family to get out safely.

Smoke alarms cost around £5 and are simple to install. They are widely available from DIY, hardware and electrical shops and some supermarkets. Choose an alarm which meets British Standard BS5446 Part 1 and carries the Kitemark.

Follow the manufacturers instructions on how to fit and position the alarm. If you have difficulties, local voluntary organisations may be able to make arrangements to have the alarm fitted for you. The instructions will also give you guidance on battery replacement and maintenance.
Smoke alarms for people with hearing impairment

Many people whose hearing is not severely impaired are still able to hear a conventional smoke alarm. It is a good idea to link two or more alarms. This way smoke detected in the living room will set off another alarm in the bedroom. An electrician will be able to advise you about linking the alarms.

For people who would not be able to hear a conventional smoke alarm there are special devices available which make use of a vibrating pad or flashing light instead of the auditory signal - the vibrating pad alarms are particularly useful for deaf-blind people.

These devices are available from:

Universal Aids Ltd
8-14 Wellington Road
South, Stockport,
Cheshire SK4 1AA
Tel 0161 480 9228

Summit CP
6 Key Hill Drive, Hockley,
Birmingham B18 5NY
Tel 0121 554 6946

Arc Fire Protection
14 Mitchell Close,
Segensworth East
Industrial Estate, Fareham,
Hampshire PO15 5SE
Tel 014895 82789

Further information is available from the Royal National Institute for Deaf People who are listed at the back of this booklet. You may also find it useful to contact local voluntary organisations or the Social Services Department who may be able to offer advice and assistance on products specially designed to help people with disabilities.
Planning your escape route

If a fire occurs in your home you may have to get out in dark and difficult conditions. Escaping from a fire will be a lot easier if you have already planned your escape route and know where to go.

Make sure that your planned escape route remains free of any obstructions and that there are no loose floor coverings that could trip you. Everyone in the house should be made aware of the escape route.
If you have serious mobility difficulties you may wish to consider having your bedroom on the ground floor, if this is practical, and as near as possible to an exit. If you would need assistance to make your escape, it is vital that you have some means of summoning help by your bed, i.e. a buzzer, intercom or telephone.

There are also systems available which will automatically dial out on your telephone line to summon help or send a signal to a manned control room. Details of the many emergency call/alarm systems available can be obtained from the Disabled Living Foundation who produce a booklet on the subject (address at the back of this booklet).
What to do if a fire starts

We all try to prevent fire starting in our home. But it only takes an unguarded or careless moment for a fire to start. A couple of minutes later and your home could be filled with smoke. Smoke and fumes can kill – particularly the highly poisonous smoke from some furnishings. You will only have a short time to get out. Use it wisely and try not to panic.

If possible close the door of the room where the fire is and close all doors behind you as you leave. This will help delay the spread of fire and smoke.

Before opening a closed door use the back of your hand to touch it. Don’t open it if it feels warm – the fire will be on the other side.
Get everyone out as quickly as possible. Don't try to pick up valuables or possessions. Make your way out as safely as you can and try not to panic. It will help if you have planned your escape route rather than waiting until there is a fire.

Telephone the fire brigade on 999 from a neighbour's house or a telephone box. Clearly state the address of the fire.

Never go back into the house until a fire officer has told you it is safe to do so.
If you are cut off by fire

Try to remain calm.

If you are unable to use the door because of flames or smoke, close the door and use towels or sheets to block any gaps. This will help stop smoke spreading into the room.

Try to make your way to the window.

If the room becomes smoky, crawl along the floor where it’s easier to breathe because smoke rises.

Open the window and try to attract the attention of others who can alert the fire brigade. Wait for the fire brigade to arrive.

The fire brigade should arrive in a matter of minutes. If you are in immediate danger and your room is not too high from the ground, drop cushions or bedding to the ground below to break your fall from the window. If you can, get out feet first and lower yourself to the full length of your arms before dropping.
For further information, help and advice

Your local council or your fire brigade will be happy to advise you on fire prevention and safety.

If looking for a good electrician, for example, ask friends and neighbours to introduce you to trustworthy people they know about. Elderly people especially should try to have someone they know with them when they have asked someone they don't know to call at their home. Your local Age Concern or Citizens Advice Bureau can give advice on what local voluntary groups there may be which can help you, and what benefits may be due to you – their addresses and telephone numbers can be obtained from your local telephone directory or public library.

The following addresses may be useful for people with disabilities:

**Disabled Living Foundation**
380–384 Harrow Road,
London W9 2HU
Tel 0171 289 6111 Fax 0171 266 2922

**National Federation of the Blind of the UK**
Unity House,
Smyth Street,
Westgate,
Wakefield,
West Yorkshire WF1 1ER
Tel 01924 291313

**Royal Association for Disability and Rehabilitation (RADAR)**
Unit 12,
City Forum,
250 City Road,
London EC1V 8AF
Tel 0171 250 3222 Fax 0171 250 0212
Textphone 0171 250 4119 (Minicom)

**Royal National Institute for the Blind**
224 Great Portland Street,
London W1N 6AA
Tel 0171 388 1266 Fax 0171 388 2034

**Royal National Institute for Deaf People**
9–23 Featherstone Street,
London EC1Y 8SL
Tel 0171 296 8000 Fax 0171 296 8199
Textphone 0171 296 8001 (Minicom)
This booklet is available in large print and Braille versions.

An audio-cassette called 'Fire safety in the home' (Reference FPT1) is also available from the Home Office. This tape gives general advice on fire prevention and what to do in the event of a fire.

Other fire safety leaflets produced by the Home Office are:

'Electrical safety leads to fire safety' (Ref FL04)

'Fire safety in high rise flats' (Ref FL05)

'Wake up! Get a smoke alarm' (Ref FB2)

'How to choose and use fire extinguishers for the home' (Ref FB3)

The above material is free to individuals and publicly funded organisations. A charge will be made to commercial organisations. Orders can be made by telephoning 0171 273 2756 quoting the appropriate reference.