UK Biobank: Report of the integrated pilot phase

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1 Executive summary

1.1 The integrated pilot for UK Biobank was conducted between February and June 2006. Its aim was to test the entire recruitment process at the throughput required for the main phase of the project: accessing contact details of potentially eligible individuals from NHS registries; inviting such individuals to attend provisional appointments at a local assessment centre; confirming or changing appointments, and providing further information, via a dedicated telephone service; consenting and assessing more than 100 participants per day; and collecting and processing data and biological samples using bespoke systems.

1.2 Nearly 60,000 primary invitations were mailed, and about 4,000 participants attended the single pilot assessment centre located in Altrincham, Cheshire. The integrated pilot was successful in addressing the main issues identified prior to its conduct, and the findings have informed the design of the main phase of recruitment in a number of ways. Key findings include:

- ***Identification of eligible people:*** Access through Primary Care Trusts (PCTs) was variable for the contact details of eligible people required for efficient central invitation. Data were requested simultaneously from four PCTs covering the area around the assessment centre: one PCT provided them within a few days of the request; one only after several weeks' delay; and the final two did not do so at all by the end of the pilot (i.e. within 4-6 months). ***In order to maintain high throughput in multiple peripatetic assessment centres throughout the UK during the main phase of recruitment (which is essential for the project to remain within budget), just a few national points of access to contact details are required*;**

- ***Approach to invitation:*** Very few of the 60,000 people approached had any issues with their contact details being used to invite them or with the inclusion of provisional appointments (as used routinely by NHS screening services). Moreover, after receiving further information, the majority of those few who did raise such concerns then went on to attend the assessment centre. Post-visit feedback obtained systematically from a random sample of participants indicated that the information provided with the invitation materials and through the dedicated call centre was clear. ***Further clarification of the invitation materials for the main phase of recruitment should minimise any residual uncertainties. This experience provides strong support for the acceptability of the planned recruitment approach and materials*;**

- ***Invitation and appointment processes:*** The centralised invitation mailing and appointment scheduling process worked well during the integrated pilot. It provides a flexible approach to invitation scheduling that allows assessment centre throughput to be optimised, while also facilitating the over-sampling of harder-to-reach groups in order to increase the generalisability of the resource (and, hence, its public health value). After adjusting for the impact of the planned termination of the pilot (which prevented willing individuals from attending), the attendance rate was about 10%. This rate was achieved despite a number of sub-optimal characteristics imposed on the pilot (e.g. delays in obtaining contact details prevented invitations being sent out with sufficient notice; contact details for people living within 2 miles could not be obtained; continuous local awareness-raising was not feasible). ***As well as the need for ready access to contact details, piloting identified various clarifications for revised invitation material (e.g. participation only requires a single visit; not an interventional clinical trial; people with medical conditions or disabilities are eligible; weekend and evening appointments to help working people; travel expenses available). A number of other lessons learnt during the pilot will also be implemented, including: advanced mapping methods to optimize the location of assessment centres; internet option to confirm or change appointments; and local PR campaigns to support ongoing activity at each assessment centre*;**

- ***Assessment centre visit:*** The assessment centre processes worked well and the average visit length for participants was about 90 minutes. Analysis of the participant population indicates that a heterogeneous group attended and that evening and weekend appointments were of value for people in employment. Post-visit feedback from a random sample of participants was very positive: the consent procedures and touch-screen questionnaire were highly acceptable; the amount of information sought and length of the visit were well received (although a longer visit might not have been); and the vast majority would encourage friends and family to participate. By gradually increasing throughput of participants during piloting to a peak of about 100 per day, the processes and staffing model were tested and refined. Efficient centre operations can be maintained by 13 on-duty staff, but smoother flow can be achieved and delays for participants minimised by adding a further member of staff to deal with any short-term bottlenecks or problems that arise. ***Further enhancement of the bespoke assessment centre IT systems for the main phase of recruitment should improve assessment visit processes. The budget model is based on 14 on-duty staff in each assessment centre in order to maintain smooth visit flow and enhance the experience for participants*;**

- ***Sample handling:*** The sample collection, transport and processing procedures worked efficiently. All six of the required blood collection tubes were obtained from 94% of participants, and blood could not be collected from only 2% of participants. Similarly, it was possible to obtain a urine sample from 95% of participants, and this rate was not reduced by streamlining the process of urine collection during piloting. A dedicated staff member dealing with sample processing in the assessment centre was found to ensure that correct procedures were carried out. Collection of samples at the end of each day by the contracted courier company worked smoothly, with all shipments being delivered in good condition to the coordinating centre by 8 am on the following day. Less than 0.5% of sample collection tubes had less than the required amount of blood and there was no sample coagulation or haemolysis in the tubes. ***Various minor process improvements will be incorporated for the main phases of recruitment*.**

1.3 **Conclusions:** The integrated pilot has shown that the planned procedures work well and allow the UK Biobank resource to be established within the available budget. Sensitivity analyses indicate that the main cost drivers relate to the ability to maintain high throughput of participants in the assessment centres. Various small modifications to assessment centre procedures, and the addition of an extra staff member, will facilitate the smooth flow of participants through their visit. Central coordination of the invitation procedure helps to ensure that all available assessment visit appointment slots are filled. The integrated pilot has shown that central invitation to attend a provisional appointment (as with breast cancer screening) is well received, and that minor modifications to the invitation material should enhance this positive response. Access to contact details through a few national points of access (rather than large numbers of PCTs) would facilitate high throughput in the multiple assessment centres needed throughout the UK during the main phase of recruitment.

2 Participant recruitment

2.1 NHS registers of contact details

2.1.1 Names and addresses of people aged 40-69 were sought from local NHS Primary Care Trusts (PCTs) within the vicinity of the Assessment Centre in Altrincham, Cheshire. The initial processing of the NHS registry data by UK Biobank included removal of any duplicate records, enhancement of postal addresses, sampling based on various characteristics (e.g. age, sex, location), and assignment of provisional appointments (and is likely to include vital status checks in the main phase of recruitment).

2.1.2 The response from the four local PCTs to the request to release contact details was highly variable, despite explicit prior approval from the Department of Health (specifically, the DoH Caldicott Guardian) and the North West MREC. One PCT provided the data rapidly. For another PCT, the Chief Executive gave approval rapidly, but local data controllers delayed sending the data for several weeks due to issues related to research governance that had already been covered by the MREC. Partly as a consequence of this delay, there was a fall in the numbers of people invited to attend the assessment centre during late April and early May (see Table 1.1 in Annex) and, subsequently, in the numbers attending during May (Figure 4.1). For the two other PCTs, despite several months of negotiations, contact details could not be obtained before the pilot ended. This was particularly unfortunate since those PCTs covered the area immediately adjacent to the assessment centre, which resulted in few people living within 2 miles being invited (as well as complaints from several local people who wished to participate, including a journalist, and from a GP concerned that "*local NHS bureaucracy was yet again impeding an important initiative*").

2.1.3 ***Key observations:*** This experience reinforces the value of obtaining access to contact details for the main recruitment phase from single national data sources for England, Scotland and Wales (as was proposed to UK Biobank by the Department of Health in December 2005, subject to successful piloting). Experience from the pilot indicates that approaching individual PCTs in England and Wales and Community Health Practices (CHPs) in Scotland would be impractical for the main phase of recruitment. As in the pilot, contact details would not be received from some of these authorities and would be delayed from others. This would impact on the available pool of eligible participants in certain areas of the country, and prevent us from filling available slots in the assessment centre, which would have a serious financial impact (as well as reducing generalisability). Managing relations with the numerous groups involved in research governance in the large number of individual PCTs/CHPs would

be a costly administrative task. Moreover, we would need to deal with issues around varying data standards and the inevitably more complex security issues involved in the transfer of multiple data files, with an increased risk of data leaking beyond the control of the project.

2.2 Central invitation mailing

2.2.1 A total of 59,383 primary invitation letters (with accompanying information materials) were sent during the integrated pilot, and 22,517 re-invitation letters were sent to some of the people who did not respond within 3 weeks of the initial invite. This mailing activity is summarised in Table 1.1.

2.2.2 A simulation model was used to assign provisional appointments based on the number of participants to be assessed each day and the probability that each invitee would confirm and attend their provisional appointment. These probabilities change with time from invitation, and the system aims to fill available assessment time as completely as possible. The pilot experience has allowed fine-tuning of the appointment system and various enhancements (e.g. allocating provisional appointments together for people living in the same household since many couples changed their appointments accordingly in the early part of the pilot). This centralised system also facilitates over-sampling based on certain factors (including age, sex, socioeconomic status) to make allowance for lower response rates among certain groups (see Section 2.3).

2.2.3 Restricted details of selected individuals with their allocated provisional appointments were provided to a mailing house with previous experience in other large epidemiological studies (such as the CR-UK/MRC-funded Million Women Study). The mailing house worked under confidentiality contract with UK Biobank (in accordance with the Data Protection Act) to produce the invitation letter and related materials for mailing. Experience of this cost-effective approach has informed the budget estimates and invitation to tender for mailing during the main phase of recruitment.

2.2.4 Delays in gaining access to NHS registry data resulted in invitation letters having to be sent about 3-4 weeks before the provisional appointments. Previous experience suggests that notice of about 6-8 weeks yields higher response rates and also provides sufficient time to send further invitations to fill any empty appointment slots. The delays in accessing contact details also resulted in an uneven mailing pattern (see Table 1.1) which had a significant logistical impact on the Appointment & Information service. In particular, the resultant large infrequent mailings were followed by very high peak numbers of calls during the subsequent 1-3 days (i.e. daily averages of 300-500 calls: Figure 1.1). Increased waiting times for callers during these busy periods may have adversely affected the response rate.

2.2.5 For the main phase of recruitment, it is intended that weekly mailings of around 5,000 primary invitations will be sent for each of the 5-6 concurrent assessment centres and that these mailings will be spread throughout the week. Consequently, the call volumes for the Appointment & Information service (see Section 2.3) should be smoothed, and steady staffing levels can be maintained that avoid increased call waiting. In addition, the first phase of primary invitations will typically be sent out 6-8 weeks before the scheduled appointments, and a second phase of primary invitations then sent out at about 3-4 weeks to help fill any remaining assessment time. Based on early pilot experience, the appointment system now aims to offer the earliest available appointments when invitees call to make a change since these appointments are hardest to fill by primary invitation mailings.

2.2.6 ***Key observations:*** As indicated in Section 2.1, the chief need for the main recruitment phase is ready access to contact details from a few national data sources in order to allow invitation and appointment activities to be managed effectively and the response rate to be maximised.

2.3 Response to invitation mailing

2.3.1 Overall, 25% of the people who were invited to participate responded to the primary invitation letter (Table 2.1). Although a higher proportion of invitees responded by returning the reply form (15%) than by telephoning the Appointment & Information centre (10%), a higher proportion of telephone responders booked an assessment appointment (over 50%) compared to postal responders (less than 20%: Table 2.2). Nearly half of the people who agreed to attend the assessment centre confirmed the provisional appointment sent with their invitation letter (Table 2.2 footnote); and more than one-third of them were able to do so without calling the Appointment & Information centre for further information. This indicates the efficiency of sending a provisional appointment with the invitation letter (which is the chief reason such an approach is used by NHS breast cancer screening services). Detailed analysis of mail and telephone responses, as well as a survey of participants, also provides support for the acceptability of this approach (see below).

2.3.2 The overall rate (8%) of confirming an appointment to attend an assessment visit was slightly lower than the pre-pilot estimate of around 10%, chiefly due to convenient appointments not being available around the scheduled end of the pilot for people who wished to participate. This conclusion is supported by analyses restricted to invitations sent prior to May 2006, which yielded a confirmation rate of 10% (Table 2.3), as well as by review of the people recorded as not being able to attend because a convenient appointment was not available (Table 3.1 footnote).

2.3.3 Table 2.3 indicates the impact of various factors on the rates of confirming appointments. The confirmation rate tended to be somewhat higher in older people and in women. There was little apparent difference between confirmation rates for those living 2-5 or 5-10 miles from the assessment centre; but, due to the failure to obtain relevant PCT contact details, too few people living within 2 miles were invited to determine whether their confirmation rates would have been significantly higher. The combination of Census data and the post codes of invitees was used to estimate invitees' levels of material deprivation based on the Townsend index. Those with higher deprivation levels had lower confirmation rates (as anticipated), especially when invited from more than 5 miles away (Table 2.3 footnote). As can be seen in Table 2.3, this lower attendance rate was compensated for by inviting proportionally more people from those more deprived groups (as is also indicated by the distribution of socioeconomic indices in the questionnaire data collected at the assessment visit: see Table 2.4). This illustrates the ability of the centralised system to monitor the ongoing composition of participants and to adjust the over-sampling of particular groups accordingly so that a widely generalisable population is recruited. In addition, during the main phase of the study, the location of assessment centres will be informed by geographic mapping to take account of population density, practical considerations (e.g. ease of access via public and private transport) and the potential to reach certain hard-to-reach groups (e.g. ethnic minorities, deprived populations).

2.3.4 An additional objective of the pilot was to determine whether Saturday and early morning/evening opening hours for the assessment centre would facilitate the recruitment of working people. About 60% of participants indicated that they were currently in paid employment, and Figure 2.1 shows that they represented a significantly higher proportion of people who attended the assessment centre in the evening or on a Saturday. Consequently, it is intended to continue flexible opening of assessment centres during the main phase of recruitment. The integrated pilot was not designed to assess strategies for enhancing recruitment of people from ethnic minority groups (e.g. through location of assessment centres; targeted promotion within particular communities; translated materials). Even so, about 5% of participants attending the assessment centre during the pilot described their ethnic group as other than "white", with most originating from the Indian subcontinent (Table 2.5).

2.3.5 Random allocation of the inclusion of a request in the invitation letter to fast for 3-4 hours prior to the assessment appointment found little impact on the confirmation rate (Table 2.3), but nor was there much impact on the time since last food recorded during the assessment visit (Figure 2.2). On the other hand, a number of participants allocated to "fasting" indicated that it was inconvenient or unpleasant, staff observed that it was related to

certain problems (e.g. dizziness during spirometry; more difficult blood collection) and, in a few instances, people with diabetes fasted for potentially serious periods (despite being explicitly advised not to do so). Consequently, it was decided not to ask potential participants to fast prior to the assessment visit in the main phase of recruitment.

2.3.6 The integrated pilot was also used to evaluate some other measures that might increase the attendance rate (Table 2.6). A re-invitation letter sent to about 20,000 people who had not responded within three weeks of their initial invitation yielded only a 2% confirmation rate, which is not likely to be cost-effective for the main phase of recruitment. By contrast, sending a similar re-invitation letter to the much smaller number of people who failed to attend an appointment that they had previously confirmed generated a 6% response, and may be worth including in the main phase (particularly since more deprived groups of people were more likely to miss their confirmed appointments). Non-attendance at confirmed appointments is likely to reduce the ability of assessment centres to maintain smooth flow at high throughput. Consequently, the pilot included an assessment of the impact of sending a pre-visit reminder via email or text message on the day prior to confirmed appointments. These reminders were found to halve the number of people who failed to attend their confirmed appointments (Table 2.6). A high proportion of people were willing and able to provide such contact details when confirming their appointment, and consideration will be given to using a mailed pre-visit reminder for the remainder who do not have an email address or mobile telephone.

2.3.7 ***Key observations:*** Centralised mailing of invitation letters with provisional appointments was found to be both efficient and acceptable to invitees. It is anticipated that confirmation rates for assessment visits can be increased above 10% through a number of strategies:

- *Better access to contact details:* Smooth operation of invitation mailing, appointment scheduling and assessment visits is highly dependent on timely access to contact details for eligible people living close to the assessment centres;

- *Sufficient notice of provisional appointment*: Previous experience suggests that notice of about 6-8 weeks yields higher response rates and also provides sufficient time to send further invitations to fill any empty appointment slots;

- *Further improvements to invitation materials:* Based on review of questions and comments from invitees (see below), the invitation materials will be further enhanced for the main phase of recruitment;

- *Internet appointment confirmation and scheduling:* More than 50% of participants indicated that they had access to the internet, with even higher rates among younger people. Consequently, a facility will be provided to confirm and change appointments (as well as obtain more information and ask questions) via the internet. This may increase participation among people with certain disabilities (e.g. deafness) and non-English speakers, as well as helping those who need to change appointments at short notice, while being less costly than the telephone or postal approaches;

- *Pre-visit reminder of confirmed appointment:* The integrated pilot demonstrated that a pre-visit reminder sent the day before a confirmed appointment reduced the non-attendance rate. People will be asked for email details or mobile phone numbers when confirming appointments, and the remainder will be sent reminders by mail (as is customary in similar circumstances; e.g. dental surgeries).

- *Convenient assessment centre locations:* Small area geographical mapping will be used to determine the optimal locations for the assessment centres in order to take account of population density and structure (e.g. ethnic minorities, deprived populations) and practical considerations (e.g. ease of access);

- *Local public relations campaigns:* Anecdotal evidence from the pilot indicated that hearing about UK Biobank via the media (particularly local media) positively influenced people's decision to take part. Media activity was only associated with the start of the pilot, and no special efforts were taken to stimulate local interest subsequently. For the main phase of recruitment, local media campaigns will be maintained before and during recruitment in each area (working in collaboration with local media professionals and volunteer groups).

2.4 Appointment & Information centre

2.4.1 The Appointment & Information centre was responsible for providing the freephone appointment booking service, for providing further information about UK Biobank, and for processing prepaid mailed reply forms. During the integrated pilot, a total of nearly 6,000 telephone calls and 8,500 reply forms were processed. The type and duration of these calls (Table 2.7), and the distribution of responses between telephone and mail, has helped to inform the budget of the dedicated Appointment & Information centre for the main phase of recruitment. The pilot study confirmed the value of basing it within an academic environment with experience of such studies

(rather than out-sourcing to a commercial call centre) and of using a standardised approach to call handling and the provision of information.

2.4.2 The appointment scheduling system developed and validated for the pilot worked well, although further enhancements will be added for the main phase of recruitment. Appointment & Information centre staff were given full training on the use of the scheduling system, and a question and answer manual was developed for their use (which will be modified in light of the pilot experience and also added to UK Biobank's website). The appointment scheduling system includes a facility for recording questions that telephone responders ask (either in pre-defined categories or as free text entries). Staff training emphasised the importance of capturing the detail of all questions asked by invitees, particularly any concerns related to how a person's contact details had been obtained or a person was selected for invitation. A procedure was in place for staff to refer promptly any serious concerns raised by invitees, or any questions they were unable to address, to a senior member of the UK Biobank team.

2.4.3 A Further Information Leaflet (FIL) was available during the integrated pilot to supplement the information in the main Participant Information Leaflet (PIL) included with the mailed invitation materials. The FIL was available via the Appointment & Information centre, from the study website, and in the assessment centre. During the course of the pilot, the FIL proved useful as a source of additional information: although it was mailed to relatively few people (about 50), about 1200 people downloaded it from the UK Biobank website and it was found to be helpful in the assessment centre during discussions prior to obtaining consent. (A leaflet produced by the independent Ethics & Governance Council that explained its role was also available in the assessment centre and found to be useful).

2.4.4 Apart from questions relating to confirming or changing appointments, nearly 600 questions were recorded during more than 8,500 calls made to the Appointment & Information centre in the integrated pilot (Figure 2.3). The majority of these questions related to practical issues about the assessment visit (e.g. how to get to it and what would happen during it), which it is intended be addressed in the main phase of recruitment through appropriate modification of the invitation material. Fewer than 50 of the recorded questions related to how a person's contact details had been obtained or a person had been selected for invitation. As indicated above, the centre staff were specifically trained to address such questions, and also to indicate that a senior member of the team could telephone the caller to discuss any residual concerns. An analysis of such enquiries indicates that the majority of those callers confirmed their assessment centre appointment and joined UK Biobank (Figure 2.4). Section 3.3 below includes further analysis of the specific questions asked by responders relating to use of contact details.

2.4.5 In addition to review of these questions, a 10% random sample of people who attended an assessment centre appointment were asked to complete an anonymous postal survey about (among other things) the quality of the invitation materials and of the service provided by the Appointment & Information centre. A 65% response to this survey was achieved (Table 2.8), and the characteristics of responders and non-responders were generally similar. Figure 2.5 a-g indicates that participants were very positive about the length and content of the invitation materials, that their concerns and questions were addressed satisfactorily, and that there was good understanding of the measurements and samples to be collected. For the small proportion with questions not addressed beforehand by the invitation materials or Appointment & Information centre, participants indicated that these were addressed by staff at the start of the assessment visit.

2.4.6 ***Key observations:*** Feedback from invitees through review of telephone calls to the Appointment & Information centre (as well as the written comments on reply forms: see Sections 2.4 & 3.0), and from participants based on the systematic post-visit survey, has helped to identify a number of improvements for the invitation and information materials. These include making it clearer that: UK Biobank only has access to contact details (and not to medical information); the appointment is only provisional, and can be changed/cancelled (or ignored); there are weekend and evening appointments to make it easier for working people; people with medical conditions and disabilities are eligible; participation only requires a single assessment visit (and does not involve any treatment intervention); and travel expenses are available. In addition, following discussion with an invitee who was seriously ill, and with her GP (who was supportive of UK Biobank's aims and approach), a sentence was added to the invitation letter during the pilot to reiterate that UK Biobank did not have access to medical information and to apologise in advance in case an invitation arrived at a difficult time. Some of these modifications were introduced successfully during the pilot (with the agreement of the MREC) and others will be introduced before starting the main phase of recruitment.

2.5 Response from GPs and other health professionals

2.5.1 Prior to inviting people to attend assessment centre appointments, the general practices with which they were registered were sent a standard letter (along with copies of the Participant Information Leaflet) indicating that such invitations were about to be sent. GPs were encouraged to call UK Biobank's freephone number, or write to the coordinating centre, regarding any questions or concerns.

2.5.2 Fewer than 10 telephone calls or letters were received by UK Biobank from GPs or other healthcare professionals during the integrated pilot. Specific enquiries included: confirmation that the invitation letter had been approved by an ethics committee (i.e. North West MREC had done this); whether an abnormal blood test had been sent to a practice by UK Biobank (which was not the case since there is no such feedback); discussion of an invitation received by a seriously ill person (which resulted in an agreed amendment to the invitation letter to apologise in advance in such circumstances); and a GP whose practice was close to the assessment centre asking why his patients were not being invited to participate (due to the lack of access to contact details from this PCT).

2.5.3 The Department of Health (as well as other funders) has confirmed that it has not received any complaints from people invited to participate or from their GPs during the integrated pilot. A number of healthcare professionals who participated in the pilot did provide positive feedback on the invitation materials (including suggestions for clarification) and on the assessment visit (which was generally considered to be well designed and conducted by informed and friendly staff).

2.5.4 The Royal College of General Practitioners has endorsed the UK Biobank aims and approach (allowing its logo to be added to invitation materials) and has indicated its enthusiasm to assist in keeping GPs informed about the project (starting with a recent article on UK Biobank in the New Generalist, which is sent to all RCGP members). The Department of Health has also suggested that the NHS Direct website could be used to provide information to potential participants and their GPs during the main phase of recruitment.

2.5.5 ***Key observations:*** The approach of direct invitation of participants, without initial review of lists by general practices, was well received. Moreover, health professionals who took part commended the invitation materials, appointment system and assessment visit.

3 Reasons for not participating

3.1 Methods of assessment

3.1.1 A major objective of the integrated pilot study was to identify the main determinants of participation and, importantly, whether the centralised approach used to invite participation caused any serious concerns in the general population. The participant information leaflet included a section entitled *"Who do I contact if I have any concerns?"*, which included both the freephone number of the Appointment & Information centre (with extended opening times: Monday to Saturday; 8am to 7pm) and address

details for the coordinating centre. Appointment & Information centre staff were trained to ask people who called to decline participation if they would be willing to give their main reasons for not participating (and the responses were recorded in the appointment management system). The pre-paid reply form included with the invitation letter also asked people who declined for their main reasons for not participating (and these responses were also entered into the management system). Whenever the invitee raised any serious concerns or requested feedback, a senior member of the team contacted the person to discuss these issues.

3.1.2 Subsequent analysis involved an anonymised review of all of these free text entries obtained from responders by telephone or reply form (with free text recorded, rather than pre-defined response categories, to minimise bias). Following the end of the pilot, the responses were manually grouped into relevant categories of reasons for not participating, with those involving no discernible reason (e.g. *"just don't want to participate"*) recorded as "no reason given." No limit was set on the number of reasons for not participating recorded from any individual (e.g. *"Don't have time; can't afford travel costs; and centre is too far"* would have been recorded in three separate categories).

3.2 Results on non-participation

3.2.1 About 70% of nearly 10,000 people who responded to the invitation letter by declining to participate were willing to provide their reasons. Of these 7,000 people, around two-thirds had replied by post and one-third had replied by telephone (compared with only one-quarter of those who cancelled doing so by telephone: Table 2.2). Careful review of these responses identified about 7,000 classifiable reasons for not participating (Figure 3.1), with a few respondents providing multiple reasons and some providing responses that were too general/vague to classify.

3.2.2 Although Figure 3.1 indicates that several categories of reason for not participating are as might have been expected beforehand, this analysis does help to quantify the relative importance of the different reasons given and, thereby, can help to direct actions towards reducing avoidable obstacles to participation (see Section 3.2.5). Most importantly, only 57 of the 10,000 respondents indicated that they did not want to take part because of concerns about the way in which they had been invited to participate. Continuous recording and analysis of reasons for not taking part may also provide an "early warning" of emerging issues (e.g. at the start of the pilot, there was widespread media coverage about several participants in a drug trial being made seriously ill, and a number of the respondents gave this as their reason for not joining UK Biobank). In such circumstances, a rapid response can be initiated (e.g. targeted media

coverage and special guidance for staff taking calls) in order to reduce the impact of such issues on the participation rate.

3.2.3 As indicated above, fewer than 60 people (i.e. about 1 per 1000 invitees) who did not want to participate indicated by mail or telephone that this was because of concerns about their contact details being provided to UK Biobank by the NHS for the purposes of invitation mailing or about the approach being an invasion of privacy. It is of note that a few additional people raised such concerns during calls to the Appointment and Information centre but, after being provided with further information by the specially trained staff, decided to take part in UK Biobank (see Figure .2.4). In light of this feedback during the pilot, the invitation letter was amended accordingly to make it clearer that the NHS had provided, in confidence, UK Biobank with only very limited contact details (with no access to any medical information) and that the processing of this information for the sole purpose of sending invitations complied with the Data Protection Act. Only 10 people who did not take part raised concerns over being sent a provisional appointment (not shown in Figure 3.1, which only lists those reasons given by >20 people), further emphasising the acceptability of the recruitment approach used, and the invitation letter was changed during the early phase of the pilot to emphasise the provisional nature of the appointment. Any serious concerns were rapidly escalated to a senior member of the team who would generally telephone the person to ask if they would like to discuss their concerns. Most of these calls also resulted in the resolution of any issues and subsequent participation.

3.2.4 Analysis of the reasons for not participating also indicated that some of the potentially complex issues that needed to be conveyed in the invitation materials were readily comprehended (as did the systematic survey of participants: see Section 4.0). These issues included the information: that the assessment visit was not a health check (with a small number of people not taking part because there would be no feedback of results); and that long-term access to medical records would be needed (with, again, a small number of people not taking part because of concerns about the security of such data).

3.2.5 ***Key observations:*** As well as confirming the general acceptability of the approach used in UK Biobank to invite participation, analysis of the most frequent reasons for not participating (Figure 3.1) highlighted a number of opportunities for enhancing the invitation materials for the main phase of recruitment. These include making it much clearer about:

- *Appointments outside normal working hours:* The most frequently recorded reason for not participating was “too busy”, and the response often made reference to the fact that the person was working. The

invitation letter will be amended to emphasise the availability of early morning/evening and Saturday appointments (which were found to be more popular with working people (see Figure 2.1), and consideration will be given to running appointments on Sundays. Systems are also being investigated that may help estimate whether a person is likely to be working so that they can be sent a provisional appointment for a time that is more likely to be convenient;

- *UK Biobank <u>not</u> being a "healthy volunteer" study:* The next most common reason given for not participating was that the person was "too unwell". Some respondents indicated that this was because serious illness/disability would make it difficult for them to attend the assessment centre. But, other respondents incorrectly believed that a serious illness or lifestyle factor (such as heavy smoker/drinker) would exclude them from taking part), and a number of telephone calls from such people indicated that many would have liked to participate. The invitation letter and information leaflet will be amended for the main study to emphasise that UK Biobank is not a healthy volunteer study and that access is available for people with disabilities (see below);

- *Convenient locations for assessment:* As well as emphasising the availability of appointments outside working hours (see above), special efforts will be made to determine optimal locations for assessment centres, taking particular account of ease of access (e.g. transport links and parking);

- *People moving within UK or emigrating:* The information leaflet will be amended to make it clear that, whereas people permanently emigrating from the UK should not take part, those who are moving within the UK can do so (since their health can still be followed);

- *Taking part in another study:* The information leaflet will be amended to reiterate the observational nature of UK Biobank, and to indicate that people can take part even if they are taking part in other studies (including clinical trials of investigational drugs);

- *Reassurance about assessment visit procedures:* While the majority of people who indicated a "fear" of one or more procedures mentioned the blood sample, some were concerned about the urine sample or certain physical measurements. The information leaflet will be revised to re-emphasise that urine sampling and physical measures are optional, and that participants need not answer questions that they find too intrusive. In addition, a few responders mentioned a "fear of hospitals" or "mistrust of doctors", and the revised information leaflet will describe the non-clinical nature of the assessment centre (which

was found to be pleasant by participants in the pilot) and the staffing by nurses and healthcare technicians (rather than doctors).

- *Eligibility of people who are disabled or have learning difficulties:* The information leaflet will emphasise that all assessment centres have full disabled access and that additional travel costs will be reimbursed. In accordance with the Mental Capacity Act (2005), clear guidance will be provided on the participation of people who lack mental capacity (drawing on recent Department of Health guidelines for research);

- *Concerns over travel expenses:* The invitation letter and information leaflet were amended during the early stages of the pilot to highlight that travel expenses could be claimed, and this will be further reviewed ahead of the start of the main phase of recruitment.

3.3 Overall response to use of contact details: analysis of telephone questions and reasons given for not participating

3.3.1. As discussed above, few concerns were raised in response to 60,000 people being sent an invitation letter to participate in UK Biobank. Of the questions raised by telephone, less than 50 related to how people had been selected for invitation or how their name and address had been obtained (Figure 2.3). Importantly, analysis of those respondents showed that the majority (30/48; 63%), took part after discussion of their specific concern (Figure 2.4). More detailed review of the specific questions asked by telephone respondents indicated that a number related to simple curiosity as to how the person's name and address had been obtained. Consequently, as indicated above, a number of these people decided to participate following discussion. Some people asked that the relevant name and address be removed from the mailing, either because they did not want to be asked again (first example below) or because the PCT records were incorrect (second example):

Respondent 1: "Wanted to be sure we wouldn't contact anyone at this address again"

Respondent 2: "Informed us that person has never lived at the address and asked us to inform local PCT and not contact her again"

Both of these respondents were reassured by confirmation that the mailing list would be amended accordingly.

3.3.2. Further examples demonstrate the value of the Freephone telephone service, with flexible opening (Monday-Saturday, 8am-7pm), experienced staff based in a research environment, and an escalation procedure to

ensure that a senior member of the study team is available when necessary to help resolve an invitee's concerns rapidly. Two examples illustrate the kind of questions that benefited from this system:

Respondent 3: "Questioned whether the study was legal? Was it market research?"

Respondent 4: "Question about how was selected as this was the fourth study have recently been invited to participate in?"

Both of these respondents were spoken to by a senior member of the study team and subsequently went on to participate. This escalation procedure worked well in the pilot and will be carried forward into the main phase of recruitment. In addition, the invitation materials have been modified to help address some of the questions that arose during the pilot.

3.3.3. Another example demonstrated the value of invitee feedback which resulted in a rapid amendment to the invitation letter during piloting (approved by NW MREC):

Responder 5: "Informed us had terminal cancer and was not at all happy about receiving a letter of invitation at this time and was going to speak with her GP and get the local press involved."

Again, this invitee was immediately spoken to by a senior member of the study team and, following discussion with her and her GP, it was agreed that the invitation letter would be amended to make it clear that UK Biobank only had access to contact details (with no confidential medical data) and to include an apology in case letters arrived at a difficult time:

"People to invite are being identified from contact details in central records (without access to any medical information), which have been processed in confidence on behalf of the NHS. Our invitation letters are going to some millions of people in the UK and sometimes, unfortunately, may arrive at difficult times in people's lives: if this is the case for you, please accept our sincere apologies."

3.3.4. Feedback from invitees and participants has resulted in a number of other improvements to the invitation materials; most notably, reducing the amount of information in the primary invitation letter by following it with a confirmation letter for those who indicate that they will attend the assessment centre. This debulking of the initial invitation letter should help to ensure that key information is more obvious to invitees (for example, how the person was identified and selected, and the compliance of the invitation method with the Data Protection Act).

3.3.5. As well as responding via the Freephone service (Monday-Saturday, 8am-7pm), invitees were able to decline participation by returning a Freepost

reply form in response to the initial invitation letter and the re-invitation letter sent to non-respondents. It seems likely, therefore, that people with any serious concerns about being approached in this way would have responded. Of the nearly 10,000 people who responded to the invitation letter by declining to participate, 7052 gave their reasons: around two-thirds by post and one-third by telephone (Figure 3.1). Analysis of these reasons for not participating indicated that only 57 (i.e. 0.1% of 60,000 mailed) expressed any concern over being invited, or regarded the invitation as an invasion of privacy, or asked that their name and address be removed from future mailings. As discussed above, detailed analysis of these reasons indicated that very few of these 57 people actually had any serious concerns. Moreover, the Department of Health and one of the PCTs who provided contact details have confirmed to us that they received no complaints during the course of the pilot.

3.3.6. Perhaps not surprisingly, invitees preferred to decline to participate by returning the postal reply form rather than by telephoning the freephone service. Even so, it is reasonable to expect that the improvements made to the invitation material will help to reduce the sort of concerns recorded on these forms during the pilot. In the main phase of recruitment, an internet reply service will also be available for invitees to decline to participate (or confirm their appointment) and to record their reasons for not participating. In appropriate cases, this internet service will aim to address invitees' questions interactively so that (as with the telephone reply service) they may then decide to take part.

3.3.7. ***Key observations:*** The integrated pilot found that sending a letter of invitation to around 60,000 people resulted in about 0.1% asking how they had been selected or how their name and address had been obtained. Very few of these people had serious concerns, and the majority of the telephone respondents went on to participate following discussion of their questions. If this frequency of enquiries was observed in the main phase of recruitment, then up to 5,000 people might respond with questions or concerns about how they were selected for invitation (assuming the 10% participation rate seen in the pilot requiring around 5 million invitations; but, see strategies to increase this rate in section 2.3.7). Over the 4 year recruitment period, this would equate to around 100 enquiries about these issues per month, which could be managed readily with the planned information telephone centre based at the Welsh Regional Coordinating Centre and the system of escalation in place for more complex enquiries. Moreover, it is anticipated that improvements in the invitation materials resulting from the feedback from responders during the pilot will lead to a substantially lower rate of these and other types of enquiry.

4 Assessment visit

4.1 Assessment centre arrangements

4.1.1 A single assessment centre for the integrated pilot was located in the centre in the market town of Altrincham (South Manchester) opposite the main public transport links. It was established within 1,800 sq ft of serviced space in a commercial office building using freestanding partitioned booths designed to be robust, to provide privacy for participants, and to be relatively easy to assemble and dissemble. In order to achieve enrolment rates of over 100 participants per day in each assessment centre (while also maintaining participant satisfaction), it was considered essential to optimise flow through the assessment centre visit. During the 3 month period that the assessment centre was operational for the integrated pilot, the invitation mailing schedule was carefully managed in order to achieve a gradual escalation in the daily throughput of participants while alternative arrangements were assessed (Figure 4.1).

4.1.2 *Centre layout:* Based on initial experience during the integrated pilot, dedicated seating areas were set up by each of the sequential visit stations in order to assist the ordered flow of participants through their visit. It was found that the space available was about 400 square feet less than would have been ideal. In particular, more space was required to allow for reception and waiting areas between stations, to make the assessment centre less cramped, to improve privacy, and to include dedicated urine collection facilities. Some problems were encountered with room temperatures due to lack of built-in air cooling and, occasionally, with the building's internet connection (which identified the need for back-up cooling and data transfer systems). Otherwise, the serviced office model was shown to work well, which increases the flexibility available to UK Biobank for convenient location of assessment centres. Participants frequently commented to monitors on the friendly and informal, yet highly professional, service provided by the nurse-led assessment centre staff.

4.1.3 *Visit flow:* The visit model evaluated in the integrated pilot generally worked well, and was shown to allow more than 100 participants to be seen each day by about 12-13 specially trained nurses, healthcare technicians and clerical staff (but see below for ideal staffing level). Some issues arose with the length of the visit and with delays at certain parts of the visit (and information about the slightly longer visit than originally anticipated was corrected in revised invitation material). The average duration for the first 1,000 participants was around 100 minutes, and refinements have been introduced in order to reduce this to about 90 minutes. It was considered important that it be clear both to participants and staff where they should be at any time during the visit, with a simple system to avoid people progressing "out of turn". Several small changes to

the lay out and sequence of the assessment were implemented in light of the experience from the early attendees, and further improvements are planned for the main phase of recruitment (see Section 4.2.4).

4.1.4 *Centre staffing:* A major cost of recruitment relates to the staffing levels in the assessment centre, and a balance must be struck between the cost and skill levels of the staff to ensure the appropriate quality of the assessment visit within the available budget. Initially the staffing mix in the integrated pilot predominantly involved nurses, but a more cost-effective mix with more healthcare technicians and clerical staff was subsequently found to work well. Thirteen staff are required to be on duty throughout each centre's opening hours to cover all of the visit stations, but the pilot found that high participant throughput was more readily achieved if an additional senior member of staff was present to ensure participants move smoothly through the visit, to direct staff to address short-term bottlenecks, and to conduct any of the stations when required during busy periods. Consequently, this 13+1 staffing level is planned for each assessment centre during the main phase of recruitment.

4.1.5 ***Key observations:*** The integrated pilot has helped to identify the main requirements for assessment centres in terms of space (about 2200 square feet), facilities (e.g. dedicated reception and urine sampling areas; air cooling) and staffing. Further changes to improve flow during the visit will include: removal of some cognitive function tests from the interview (and, ideally, incorporating them in the touch-screen system); using the rest period between blood pressure measures to complete the interview; combining some stations to reduce waiting times (e.g. physical measures and spirometry; and blood sampling and exit); and extending the assessment centre IT system (e.g. automatic validation of spirometry; alerting the processing station when samples are collected).

4.2 Assessment visit duration

4.2.1 Table 4.1 shows that the median visit time throughout the piloting period was 95 minutes, with 10th and 90th centiles of about 75 and 125 minutes respectively. Visit times were similar in men and women, but increased slightly with increasing age. As described in section 2.3.6, a random sample of 10% of participants were asked to complete an anonymous postal survey: about half of the respondents described the visit length as "just right", but a similar proportion found the visit to be longer than ideal (Figure 4.2a). Partly this can be explained by the fact that the invitation materials sent during the first few weeks of the pilot indicated that the visit would be only about an hour. But, even when this analysis was restricted to people who received revised material indicating that the visit would take

about 90 minutes, a sizable proportion still considered the visit to be too long (which argues against extending it by adding extra procedures).

4.2.2 Table 4.2 provides a breakdown of times taken for each of the separate stations during the visit. This indicates that most time was taken while participants were completing the questionnaire and cognitive function tests on the touch-screen. The integrated pilot showed that one member of staff was generally able to manage about 12 participants during these touch-screen sections, so this is a very cost-effective part of the visit. Even so, in order to reduce the duration of the visit for participants (and increase throughput), staff were asked during the latter part of the pilot to advise people at the start of touch-screen questionnaire that they should aim to take around 30 minutes to complete it, not to dwell for too long on any question, and to skip any they are unable to answer readily. For the main phase of recruitment, a prominent indicator of time elapsed and of progress through the questionnaire will be added on the computer screen.

4.2.3 The timings for the individual components of the touch-screen questionnaire (including cognition tests) and of the interviewer-completed questionnaire are shown in Tables 4.3 and 4.4 respectively. These were as anticipated from previous pilot experience, except that the various cognitive function tests provided opportunities for some shortening (see Section 4.6) As part of the post-visit survey, participants were asked about the amount of information sought in the questionnaires and about the ease of using the touch-screen system. Figure 4.3 clearly shows that the great majority of respondents found the amount of information asked “just right” (Figure 4.3a), and completing the questionnaire using the touch-screen to be “easier” than pen and paper (Figure 4.3b).

4.2.4 About 15-20 minutes of the assessment visit involved waiting between visit stations. A breakdown of these delays indicated that they occurred chiefly before the interview/blood pressure and venepuncture stations (Table 4.5), and were particularly long in some cases (i.e. upper 90th percentiles of 18 minutes for each). Staff shortages at times during the pilot played a significant part in these delays, and highlighted the need to train a larger pool of staff in order to be able to main consistently high throughput. Monitoring of assessment centre processes also identified a number of changes to reduce wait times, including:

- *Dedicated waiting seating:* During the pilot, the layout of the floor space was reconfigured to create dedicated seating for each of the stations so that it was clear who was next to be seen at each station. After completing a station, staff were instructed to take the person to the next station and, if free, to seat them in the station (or, if occupied, to seat them in one of these dedicated seats). More space is required for the assessment centre than was available in the pilot;

- *Combining venepuncture and exit stations:* At the start of the pilot, participants went back to reception in order to complete their visit and exit. This caused confusion between people arriving and leaving, and introduced delay, which was eliminated by combining the venepuncture station with the exit procedures (i.e. printing of consent/report card and, if required, dealing with travel expenses). Further review of the waiting times suggested that delays could be reduced further by combining other stations (e.g. physical measures and spirometry);

- *Moving urine collection to end of visit:* It was also observed that the original approach of collecting urine samples at any of several points during the visit caused confusion. Instead, therefore, this too was added to the blood/exit station, when participants were given a urine collection pot and asked to provide a sample before leaving to the sample processing technician. This modification greatly improved the smooth running of the visit, without reducing the number of participants who left without providing a urine sample;

- *Senior nurse to ensure smooth participant throughput:* During the last few weeks of the pilot, an additional senior nurse was added to help ensure smooth flow through the visit, to address short-term bottlenecks and to conduct any of the stations when required during busy periods;

- *Additional stations:* Extra stations (as at supermarket checkouts) that can be used to undertake visit procedures (with the exception of the touch-screen) will be included for the main phase of recruitment. These stations will be used for training new staff and, during busy times, will be available for dealing with any temporary bottlenecks.

4.2.5 ***Key observations:*** The integrated pilot suggests that the assessment visit should ideally not exceed an average duration of about 90 minutes. A number of opportunities were identified for reducing delays during the assessment visit in order to maintain smooth flow and high throughput, and to enhance the experience for participants.

4.3 Participant understanding & views

4.3.1 Written consent from each participant was obtained at the beginning of the assessment visit using the touch-screen system with an electronic signature pad (and a printed copy of the signed consent form was given to the participant at the end of the visit). The computer screens displayed immediately prior to seeking consent summarised the main points relating to participation and helped to prompt questions. A member of staff guided the participant through the consent process and was available at all times

to answer any questions that might arise. (The Further Information Leaflet and Ethics & Governance Council brochure were useful to support these discussions.) If staff were unsure about the answer to a specific question, a senior member of UK Biobank's coordinating team could be contacted by telephone to discuss the question.

4.3.2 Obtaining consent electronically allows more cost-effective and secure long-term storage of consent forms compared with traditional paper forms, and is likely to facilitate retrieval of specific forms in the future if that is needed (e.g. to confirm the original consent). Almost all of the respondents to the post-visit survey rated the consent procedure "just right" in terms of complexity (Figure 4.4a). Similarly, for those participants who had questions during the consent process, the vast majority (68/72) responded that these were addressed by the assessment centre staff.

4.3.3 The post-visit survey included questions about participants' understanding of what taking part in UK Biobank involves. As described above (Section 2.3.6), participants indicated a high degree of comprehension prior to the assessment visit about the measurements that would be undertaken and samples that would be collected (Figures 2.5f & g). Similarly, almost all respondents correctly recollected that the consent process indicates that participation involves providing blood and urine samples (Figure 4.4b). Three quarters recalled that they were allowed to skip some questions if they wished, but fewer than half recalled that they did not need to undergo all of the physical measurements. Consequently, this information will be clarified in the revised participant materials for the main phase of recruitment (including adding messages to this effect at the beginning and end of the touch-screen phases of the visit).

4.3.4 Turning to participants' understanding of the long-term implications of taking part, Figure 4.4c shows that almost all participants were well informed. Most participants recognised that they could withdraw at any time and for whatever reason (and, for the main phase of recruitment, the options for different levels of withdrawal will be moved into the main information leaflet provided to all participants from the further information leaflet which is only available on request). Moreover, they were able to distinguish subtle, but important, differences: for example, participation involves allowing access to their own medical records, but not those of family members. Participants' understanding of the purposes of the project is further highlighted by analysis of their stated reasons for participation, with almost all indicating that they did so *"to help improve the health of future generations"* (Figure 4.4d).

4.3.5 At the end of the survey, participants were asked how they would respond if a close friend or family member asked them about taking part in UK Biobank. Figure 4.4e indicates that the vast majority were very willing to

recommend participating and only a very small minority (2%) expressed any concerns. Analysis of additional comments provided by this latter group of respondents indicated that these concerns mainly related to practical issues (such as the visit duration and waiting times), which are being addressed ahead of the main phase based on experience during the pilot (as discussed in Section 4.2).

4.3.6 ***Key observations:*** The consent procedures used during the pilot worked well and, generally, there were high levels of comprehension about what taking part involves both during and after the assessment visit. The post-visit survey has helped to identify some opportunities for improving the participant materials, as well as other aspects of the recruitment and assessment procedures. It is intended to continue the post-visit survey during the main phase of recruitment (albeit in a smaller random sample) as part of the central procedures for monitoring assessment centres.

4.4 Questionnaire responses

4.4.1 Both the touch-screen questionnaire and the computer-assisted personal interview (CAPI) allow internal consistency checks (e.g. for implausible or impossible values), automated coding (e.g. for diseases, drugs, and occupations), immediate access to data, and continuous monitoring and audit. Moreover, the system only asks questions that are directly relevant to a particular participant (e.g. reproductive history and oral contraceptive use for women). As discussed in Section 4.2.3, participants were generally comfortable with the amount of questionnaire information asked and rated the touch-screen system very highly.

4.4.2 The questionnaire involves about 200 questions, with the exact number depending on participants' responses (selected questionnaire responses on physical activity, smoking, alcohol, diet, drugs and medical history are shown in Figure 4.5 and Table 4.6; with a full listing of responses to the touch-screen questionnaire provided in Annex Section 5.0). Review of responses indicated not only that the distributions were plausible for the population recruited, with good internal validity, but also that they were very complete The computer system helps to ensure that all relevant questions are addressed, although there are options to answer *"do not know"* or not to answer questions considered sensitive by participants. Only five of the questions were answered *"do not know"* by 10% or more of eligible participants (Table 4.8). Moreover, perhaps because the touch-screen system involves direct computer entry by participants which enhances privacy, only 8% of participants opted to skip the section on sexual history (see Annex Section 5.0).

4.4.3 A pre-visit aide memoire was provided to participants with their invitation to attend the assessment centre so that they could record certain information (e.g. medications, operations, family history, and birth weight) that might be difficult or time-consuming for them to recall during the visit. This aide memoire was completed by 88% of participants in the integrated pilot and, as indicated above, few participants were not able to answer such questions. Certain improvements to the aide memoire were identified during piloting which will be introduced for the main phase of recruitment.

4.4.4 Participants were asked whether they had internet access and were willing to be re-contacted by email in order to assess the potential for using this approach for further assessments (e.g. administering repeated 24-hour dietary recall and activity questionnaires remotely via the internet). Figure 4.6 shows that more than half (54%) of all participants were willing to be re-contacted via email for such purposes, and the proportion was even higher among younger individuals.

4.4.5 ***Key observations:*** The touch-screen and CAPI systems worked well and require only minor modifications. The questionnaires have been modified slightly in the light of the pilot experience, and the revised versions will be circulated to relevant experts before finalising them for the main phase of recruitment (as recommended by the International Review Panel).

4.5 Cognitive function responses

4.5.1 The cognitive tests on the touch-screen format also worked well; and, at a qualitative level, participants found them enjoyable and easy to perform. Three tests were included: a “pairs” visual memory test, a “windows” visual memory test and a “snap” reaction time test. In addition, there was a word fluency test during the subsequent interview.

4.5.2 Figure 4.7 shows the response distributions for the four cognitive function tests. The distributions for responses to the pairs, snap and verbal fluency tests appeared potentially informative, whereas the distribution for the windows visual memory test was very skewed (with participants finding it too easy to complete successfully). Review of the time taken for these cognitive tests during both the touch-screen and interview phases of the visit (see Tables 4.2-4.4) also indicated that they were time-consuming.

4.5.3 ***Key observations:*** Following analysis of the data from these tests, it was decided that some redundancy could be removed (without compromising the value of the cognitive function data) by removing the windows test, reducing the duration of the snap test, and replacing the verbal fluency test with an approximately equivalent test on the touch-screen.

4.6 Physical measurement results

4.6.1 Direct data entry was used either to transfer results directly from the measurement device (such as blood pressure, weight, body impedance, spirometry) or, where not possible to connect the device (e.g. height), to record it using a keyboard into the assessment centre computer system (which included validation checks). For the purposes of monitoring and identifying the need for further training, these data can be analysed by time of collection and staff member (e.g. during the pilot, such monitoring identified one member of staff who was persistently using manual entry, rather than direct transfer, for blood pressure).

4.6.2 Table 4.9 and Figure 4.8 provide a summary of the distributions of the physical measurements (except spirometry: see section 4.7). All of these values are as might be expected for such a population.

4.6.3 ***Key observations:*** The procedures for physical measures worked well in the integrated pilot, although some of the equipment used was not found to be sufficiently robust or easy to use (in particular, the devices for measuring sitting and standing height). Again, as recommended by the International Review Panel, relevant experts will be asked to consider the physical measures that have been included before finalising plans for the main phase of recruitment.

4.7 Spirometry

4.7.1 Significant intra-subject variability in the spirometry measures had been observed in the phase 1 pilot, with fewer than half of the flow curves reaching acceptable criteria for reproducibility. As a consequence, in the integrated pilot, a standardised staff training programme was implemented and data capture was supported by improved IT systems to allow staff to assess the quality of each participant's procedure. In addition, only three blows were sought from each participant (whereas there was no maximum in the earlier pilot), with the aim of recording two reproducible curves.

4.7.2 Figure 4.9 shows that plausible distributions of FVC and FEV1 were obtained and the reproducibility of the flow curves was high. Independent review by a respiratory physiologist (Table 4.10) found that more than 90% of the flow curves obtained during the integrated pilot (compared with <50% in the phase 1 pilot) met the accepted reproducibility criteria (ie. difference of <5% in FEV1 and FVC). The reproducibility of curves was somewhat greater between the second and third blows than between the first and second blows

4.7.3 ***Key observations:*** The spirometry procedures worked well during the integrated pilot. They will be further enhanced for the main phase of recruitment by inclusion of immediate analysis of the acceptability and reproducibility of flow curves in the assessment centre IT system (which should help improve quality further and avoid the need for a third blow by a proportion of participants). In addition, a video will be available to facilitate demonstration of the correct procedure to participants.

4.8 Blood & urine sample collection

4.8.1 Only nurses and registered phlebotomists with previous experience of blood collection were permitted to undertake blood sampling. These staff all received full training on venous blood sampling, use of the Vacutainer system, health and safety issues, and participant welfare. Blood was usually /to be collected from a vein in the elbow and, only if this failed, from the back of the hand. Participants were advised beforehand in the information materials that participation involved providing a blood sample equivalent to 2-3 tablespoons (i.e. 40-50ml), as well as a sample of urine.

4.8.2 As indicated by the post-visit survey, participants clearly understood that taking part involved blood collection (Figure 4.4b) and only a few invitees gave this as a reason for not participating (Figure 3.1). Figure 4.10 shows that complete collection of the blood sample was achieved for 94% of

participants. Moreover, a partial sample was collected for most of the other participants, with no blood sample collected from only 2% of participants.

4.8.3 A urine sample was also obtained from about 95% (3637/3826) of participants. During the course of the pilot, urine collection was moved to the end of the visit to improve the smooth flow of the visit (see Section 4.2.4). This change did not result in any reduction in the proportion of participants who provided a sample.

4.8.4 Blood and urine samples collected from the participants in the integrated pilot were picked up by the courier in the late afternoon for overnight transport to the central processing laboratories. In the main phase of recruitment, processing of samples at the required throughput and quality will be a highly automated process. But, although much of the sample processing for the integrated pilot was manual, it still allowed many of the laboratory process and systems to be successfully tested and validated.

4.8.5 ***Key observations:*** The procedures for collection and processing of blood and urine samples worked well and will be carried forward into the main phase of recruitment. The assessment centre IT system will be modified in order that the sample processing station is alerted when samples have been collected and are ready for preliminary processing.

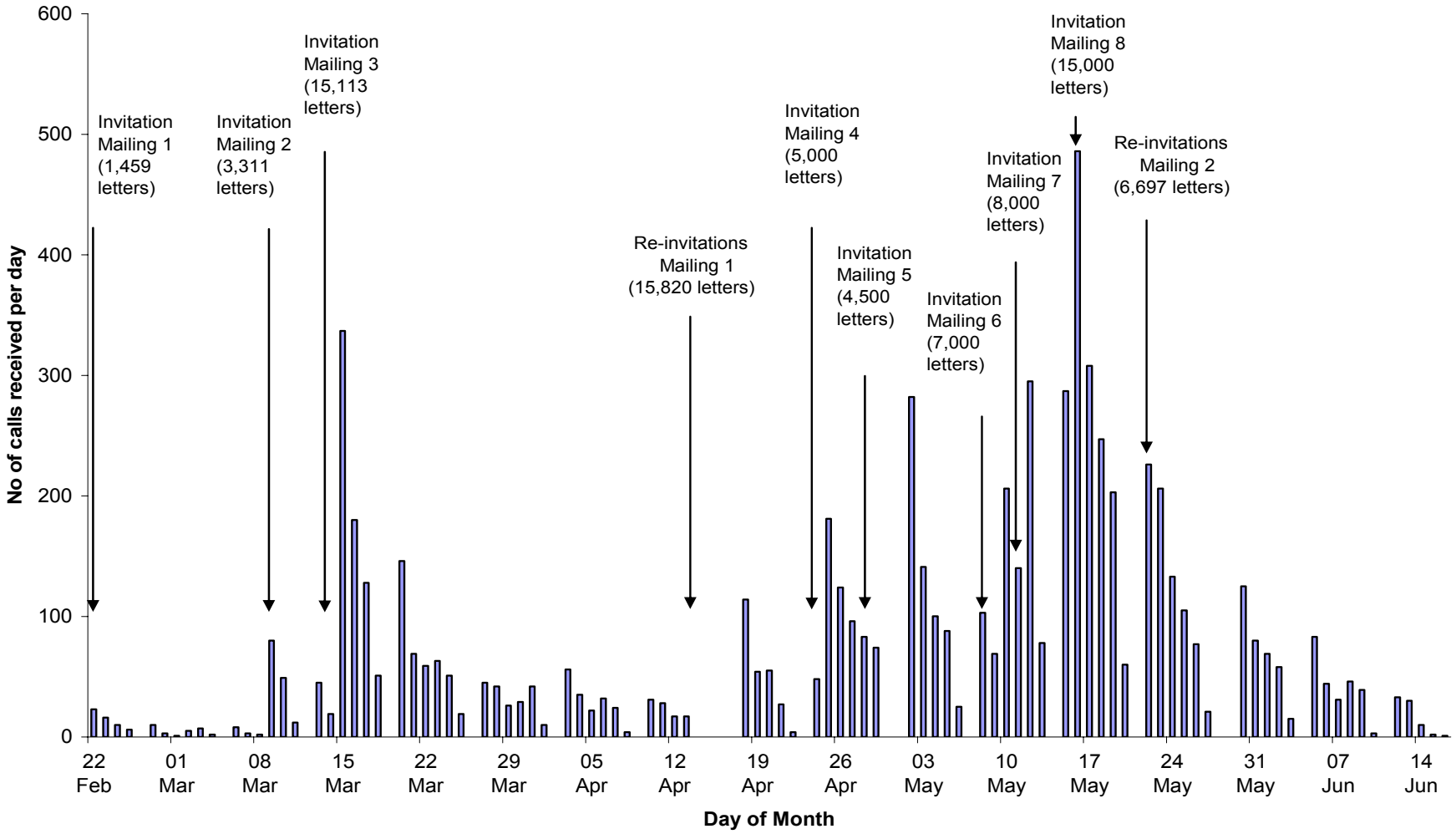
Results annex

A1.0 Invitation mailing & recruitment centre operations

Table 1.1: Invitations mailings undertaken during integrated pilot

Date	Number of letters	
	Primary invitations	Re-invitations
21/02/06	1 459	
09/03/06	3 311	
14/03/06	15 113	
13/04/06	-	15 820
24/04/06	5 000	
28/04/06	4 500	
08/05/06	7 000	
11/05/06	8 000	
15/05/06	15 000	
22/05/06	**-**	6 697
Total	**59,383**	**22,517**

Figure 1.1: Daily call volumes to recruitment centre



A2.0 Response to the invitation mailing

Table 2.1: Response to the primary invitation letter

Method of response	Number	%
Phone	5 904	10%
Post	8 639	15%
No response	43 916	74%
Undelivered	924	1%
Total	59 383	100%

Table 2.2: Confirmation rates in response to the primary invitation letter by method of response

Method of response	Confirm		Cancel		Total
	Number	%	Number	%	
Phone	3 140	5%	2 764	5%	5904
Post	1 461	3%	7 178	12%	8 639
No response	-		-		43 916
Undelivered	-		-		924
Total	4 601*	8%	9 942	17%	59 383

* 49% (1,461 post & 804 phone) of people who confirmed accepted the provisional appointment sent

Table 2.3: Confirmation rates in response to primary invitation letters sent prior to 1 May 2006 (in order to avoid impact of assessment centre closure on rates)

Characteristic	Numbers invited	Confirmation	
		Number	%
Age			
40-49	12016	855	7%
50-59	9836	1069	11%
60-69	6960	936	13%
Sex			
Male	14081	1293	9%
Female	14731	1567	11%
Distance			
<2 miles	611	82	13%
2-4.9 miles	16203	1488	9%
5-9.9 miles	11998	1290	11%*
Deprivation			
High	11746	1060	9%
Medium High	5295	925	17%
Medium Low	6393	1296	20%
Low	5708	1428	25%
Fast requested			
Yes	14446	1465	10%
No	14369	1395	10%
Total	**28812**	**2860**	**10%**

* additional analysis showed that the least deprived people living more than 5 miles away were about twice as likely to confirm an appointment as their most deprived counterparts.

Table 2.4: Participant questionnaire responses for common indices of socioeconomic status (N=3,778)

Indicator of socioeconomic status	%
Do you own or rent the accommodation that you live in?	
Own outright	44%
Own mortgage	43%
Rent local authority	8%
Rent private	2%
Others	3%
Total annual household income before tax?	
<£18,000	20%
£18-30,999	22%
£31-51,999	23%
£52-100,000	17%
>£100,000	4%
Dont know	5%
Declined to answer	9%
Does your work involve heavy manual or physical work?	
Never/rarely	66%
Sometimes	21%
Usually	7%
Always	6%
At what age did you complete your continuous full time education?	
≤15	37%
16	32%
17	10%
18	11%
Which of the following qualifications do you have?	
College or university degree	38%
A-levels/AS-levels	28%
O-levels/GCSEs	47%
CSEs	12%
NVQ/HND	19%
None of the above	20%

Table 2.5: Self reported ethnic group in UK Biobank participants (N=3,767)

Ethnic group	Frequency (%)
White	3,597 (95.5%)
Mixed	28 (0.7%)
Asian	61 (1.6%)
Black	26 (0.7%)
Chinese	13 (0.3%)
Other ethnic group	39 (1.0%)
Do not know	3 (0.1%)

Figure 2.1: Percentage of participants currently employed by day/time of attendance at assessment centre

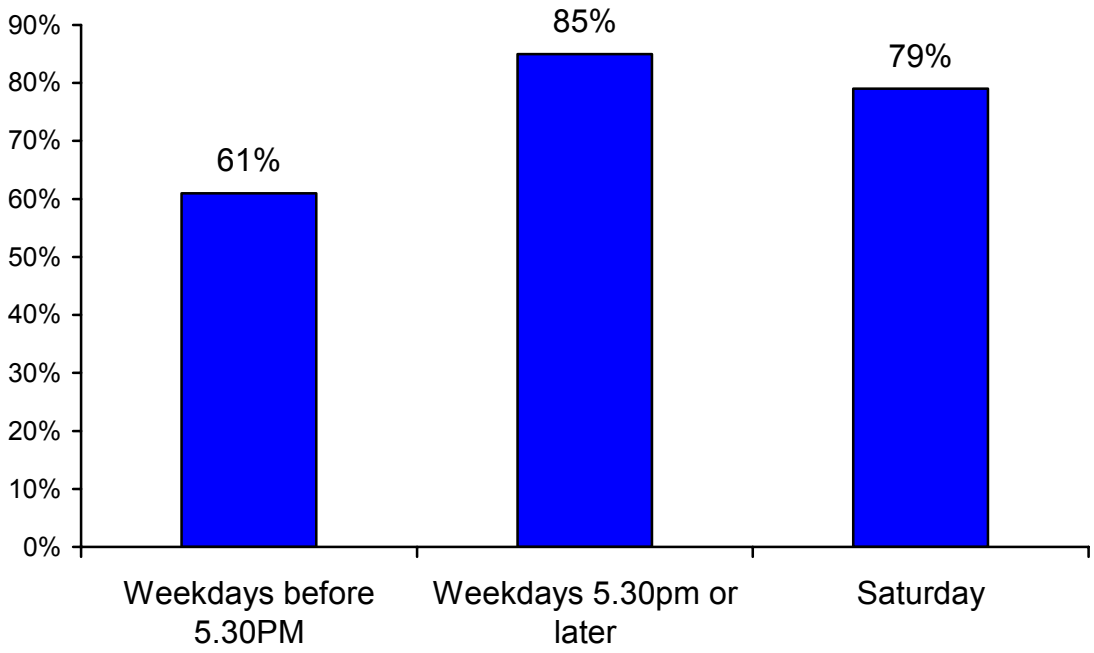
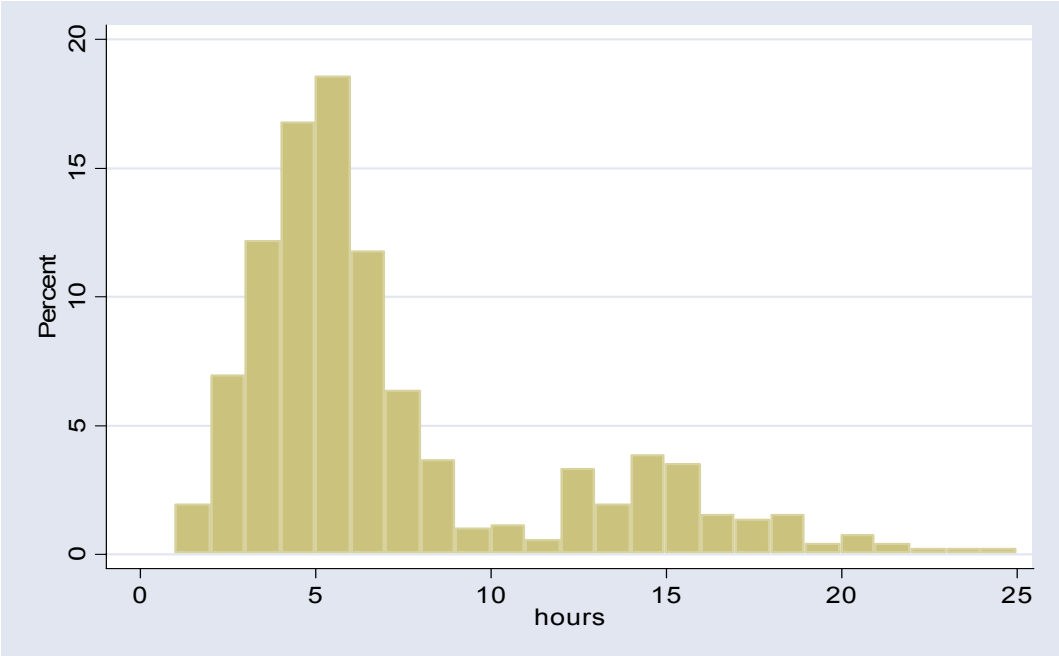


Figure 2.2: Assessment of impact of request to fast on fasting time

(a) Invitation letter requested to fast (N=518)



(b) Invitation letter with no request to fast (N=479)

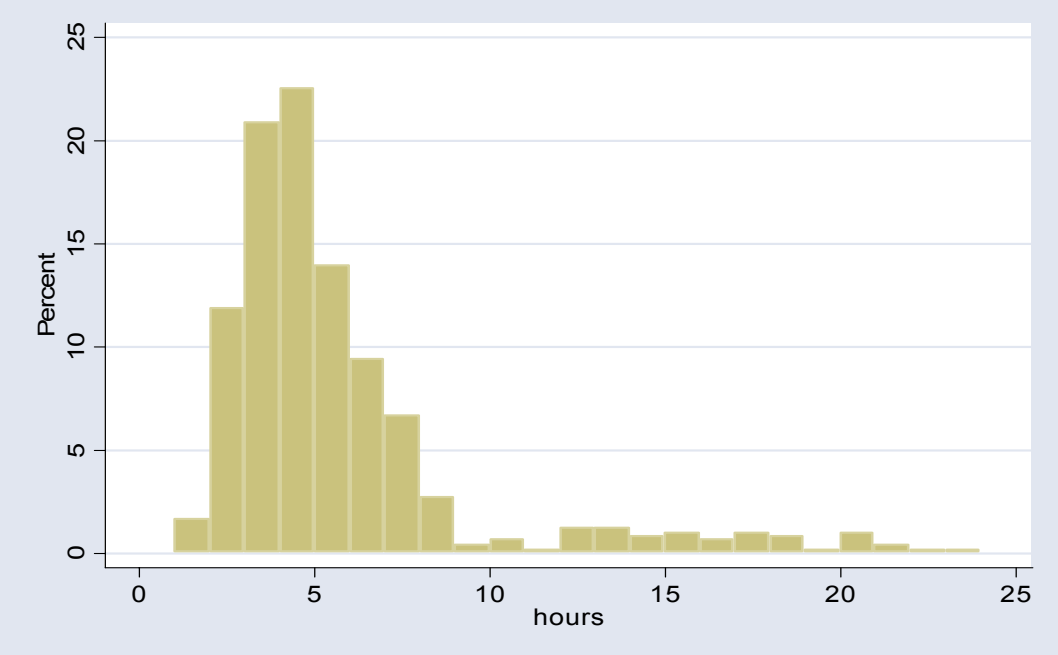


Table 2.6: Additional measures to increase response and attendance rates

Type of letter	Number invited	No response		Cancel		Confirm	
		Number	%	Number	%	Number	%
Re-invite	22517	21570	96%	405	2%	542	2%
Did-not-attend	697	592	86%	62	8%	43	6%

Pre-visit reminder	Number	Did-not-attend		Attended	
		Number	%	Number	%
No	4254	861	20%	3393	80%
Yes	483	50	10%	433	90%

Table 2.7: Call durations during integrated pilot

Call type	Integrated pilot		Pre-pilot estimates
	Number	Duration (mins)	Duration (mins)
Accept appointment	804	3.3	4.0
Change appointment	2336	4.1	7.5
Cancel appointment	2814	3.1	4.0

Figure 2.3: Frequency of questions asked by telephone responders (N=579)
(Excludes questions relating to confirming or changing appointment times)

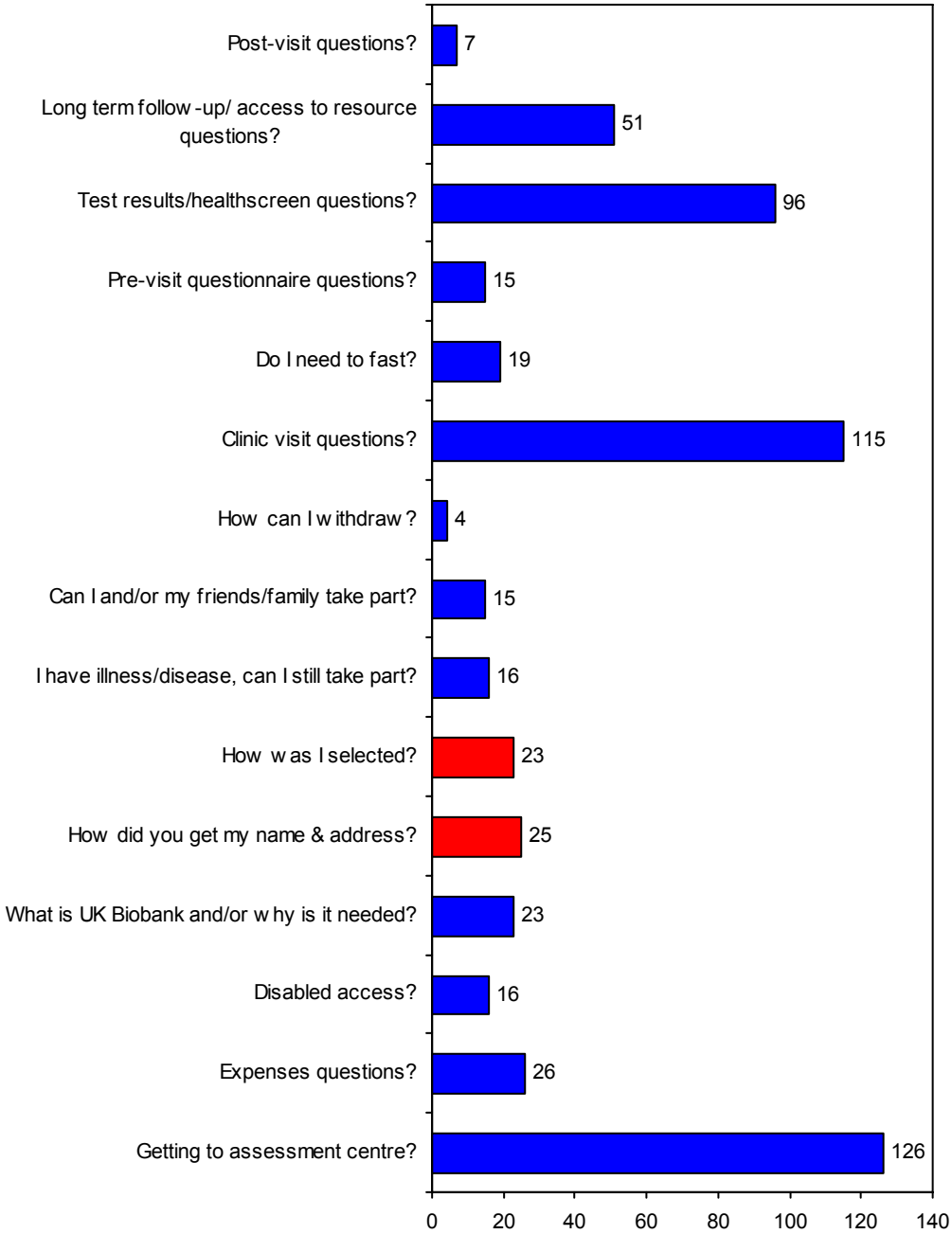


Figure 2.4: Frequency of participation outcome for telephone responders (N=48) following discussion of specific questions

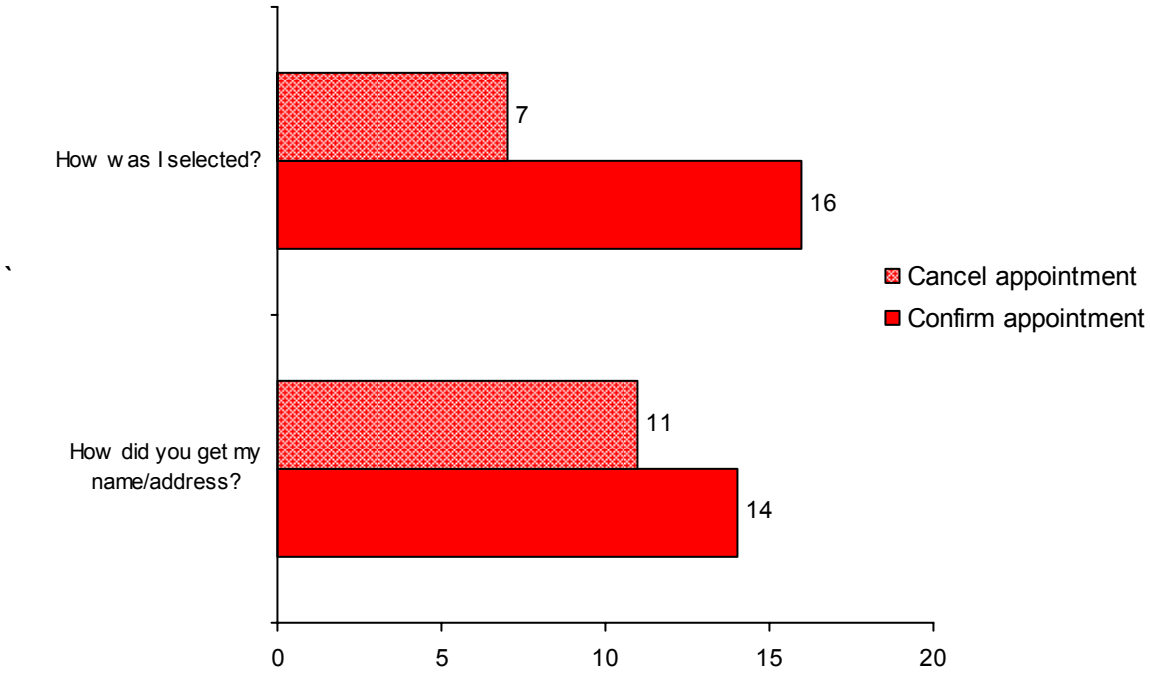


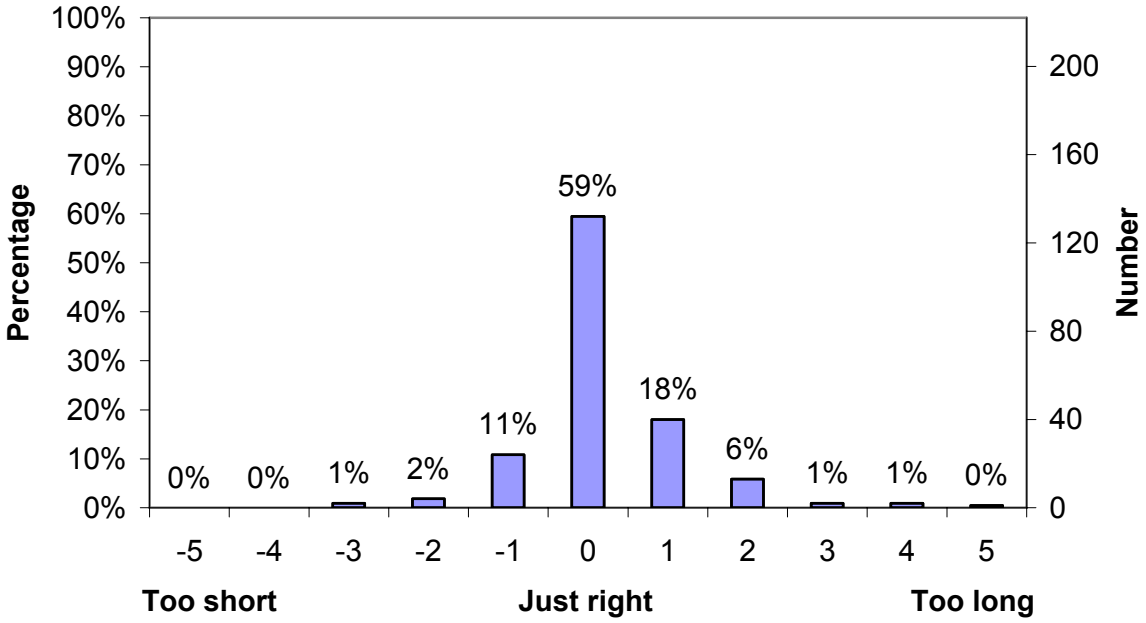
Table 2.8: Postal survey to assess participant's views on invitation materials and telephone recruitment centre (n=222)

(a) Age/sex distribution of postal survey responders (N=222/340)

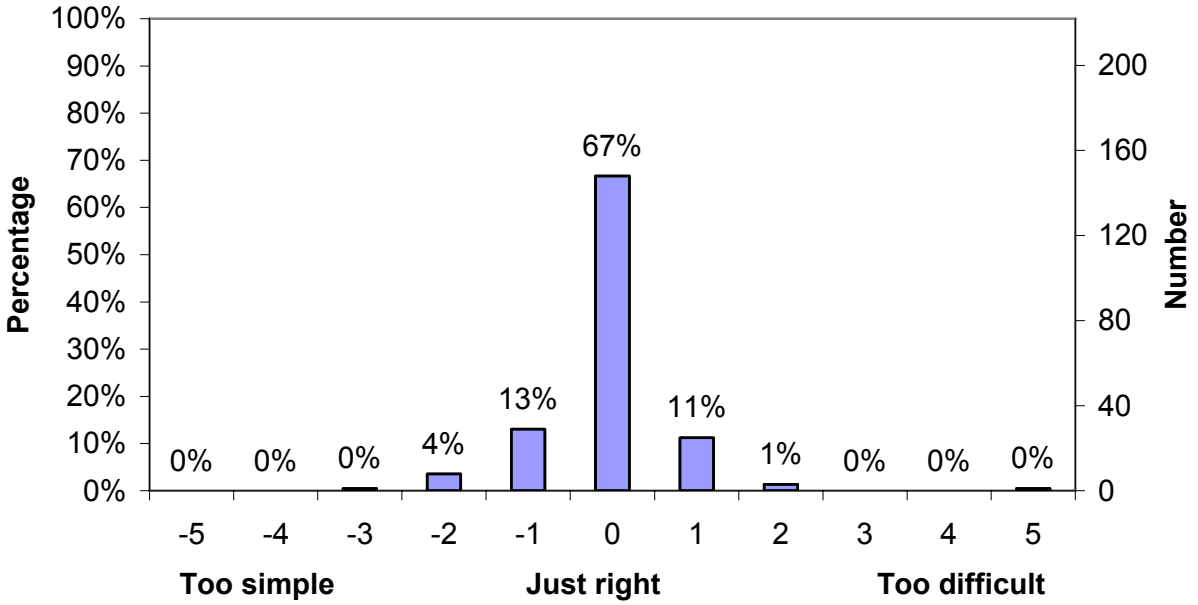
	Frequency (%)
Age	
40-49	53 (24%)
50-59	77 (35%)
60-69	91 (41%)
Not known	1 (0%)
Sex	
Male	98 (44%)
Female	123 (56%
Not known	1 (0%)

Figure 2.5 Postal survey to assess participant's views on invitation materials and telephone recruitment centre (n=222)

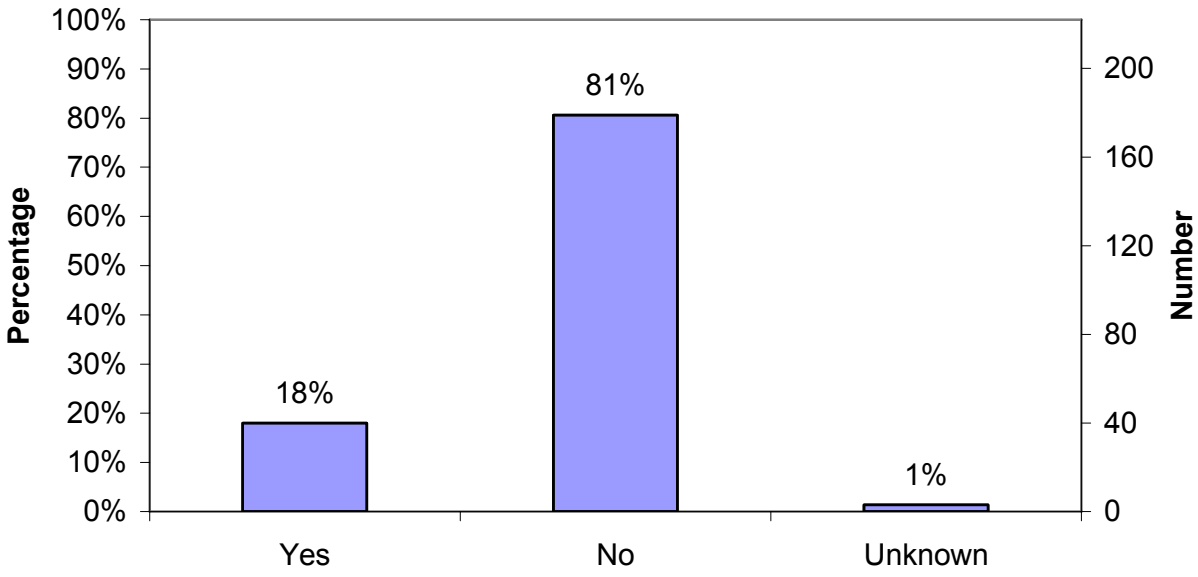
(a) *"If you read the Participant Information Leaflet, was the leaflet?"*



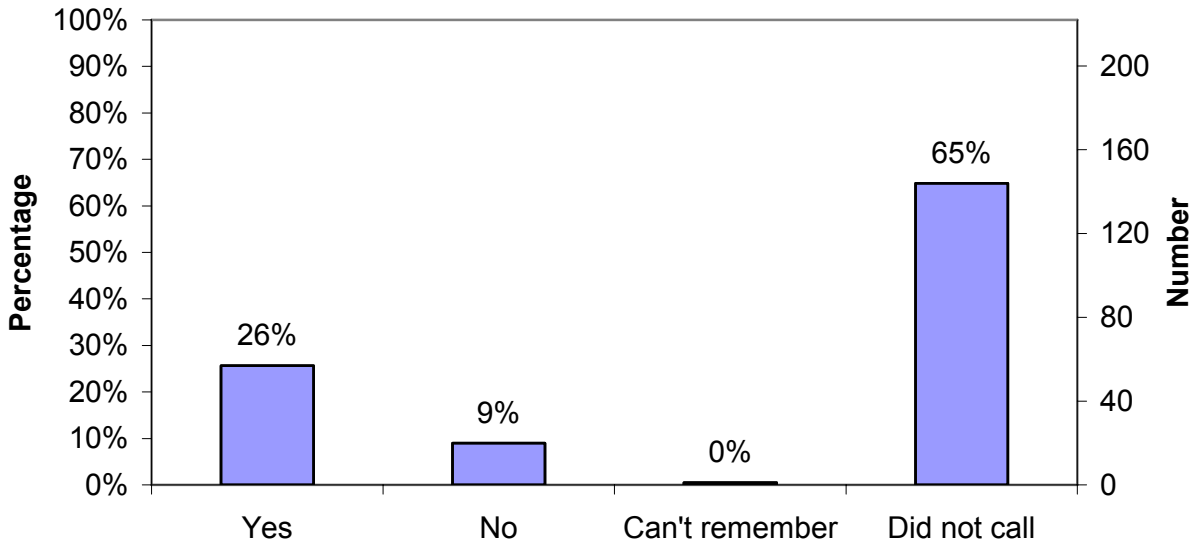
(b) ***"If you read the Participant Information Leaflet, did you find the content of the leaflet?"***



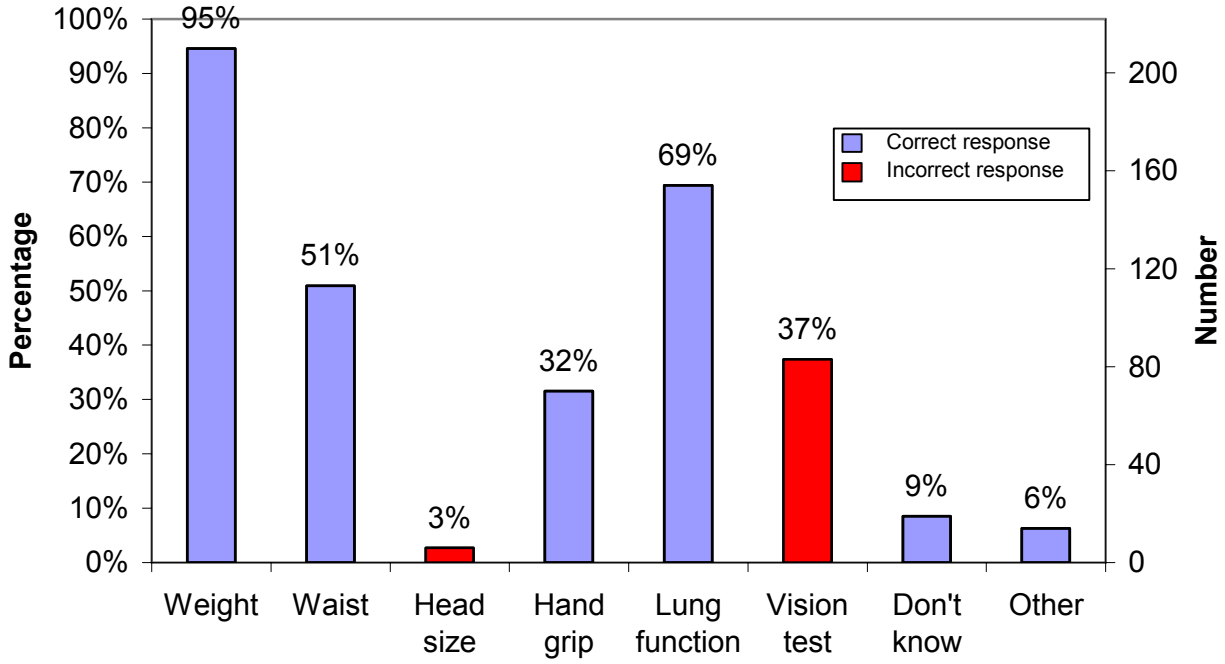
(c) ***"Did you have any concerns or questions before you attended the assessment visit?"***



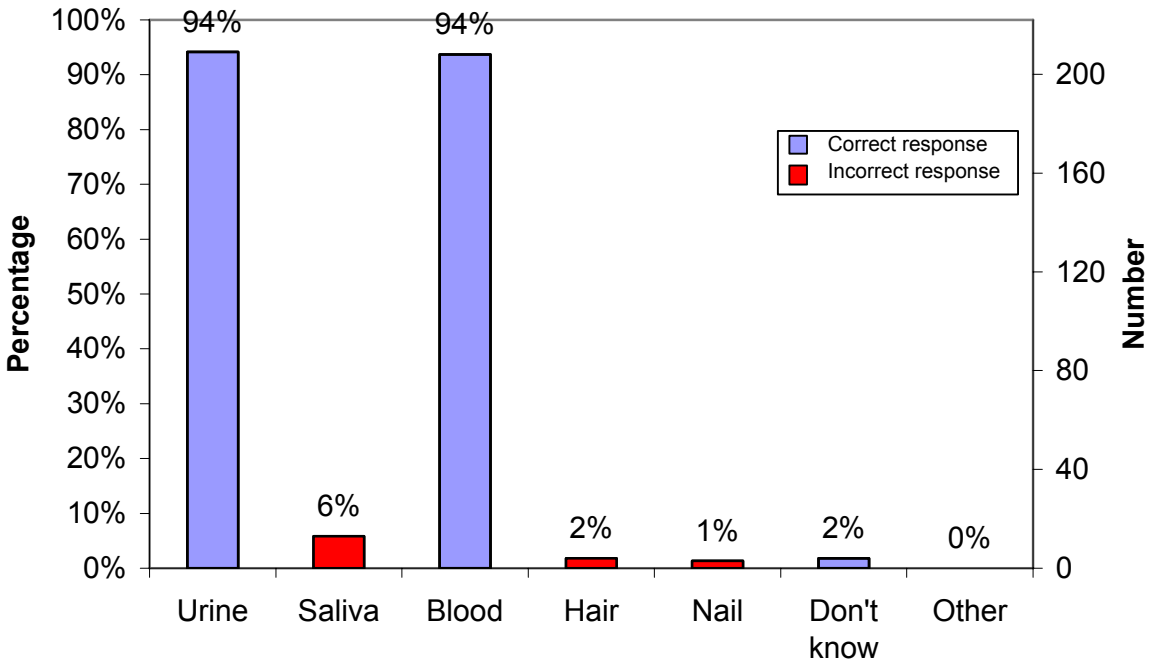
(d) ***"Did the call centre team answer any questions or concerns you had ahead of the visit?"***



(e) ***"Before you attended the assessment centre, which of the following physical measurements did you think would be taken during your visit?"***

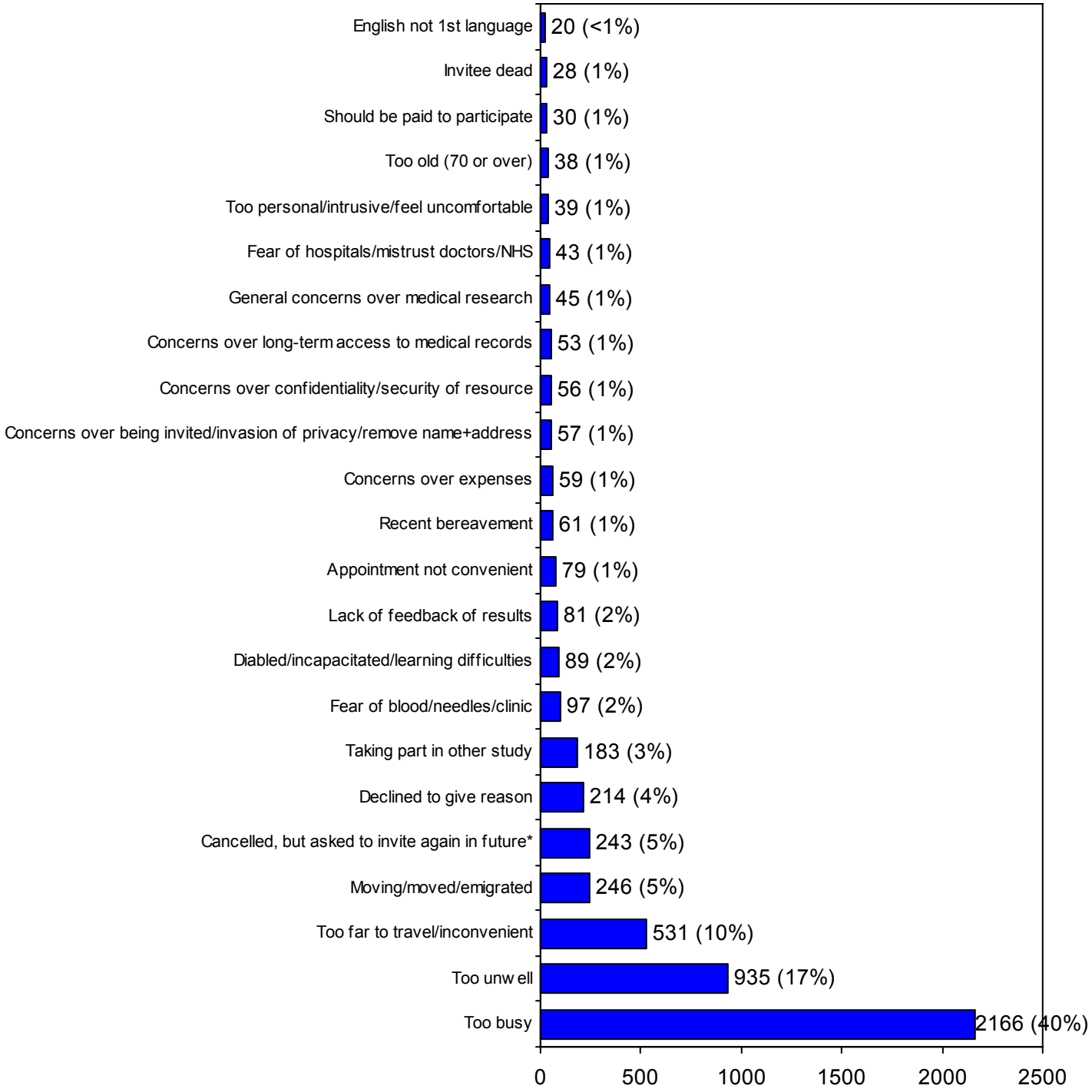


(f) ***"Before you attended the assessment centre, which of the following samples did you think would be collected during your visit?"***



A3.0 Reasons for not participating

Figure 3.1: Frequency of main reasons given for not participating (N= 7,052 respondents); with reasons given by <20 not shown



* Convenient appointment not available due to planned closure of pilot assessment centre

A4.0 Assessment centre visit

Figure 4.1: Number of participants attending assessment centre per day

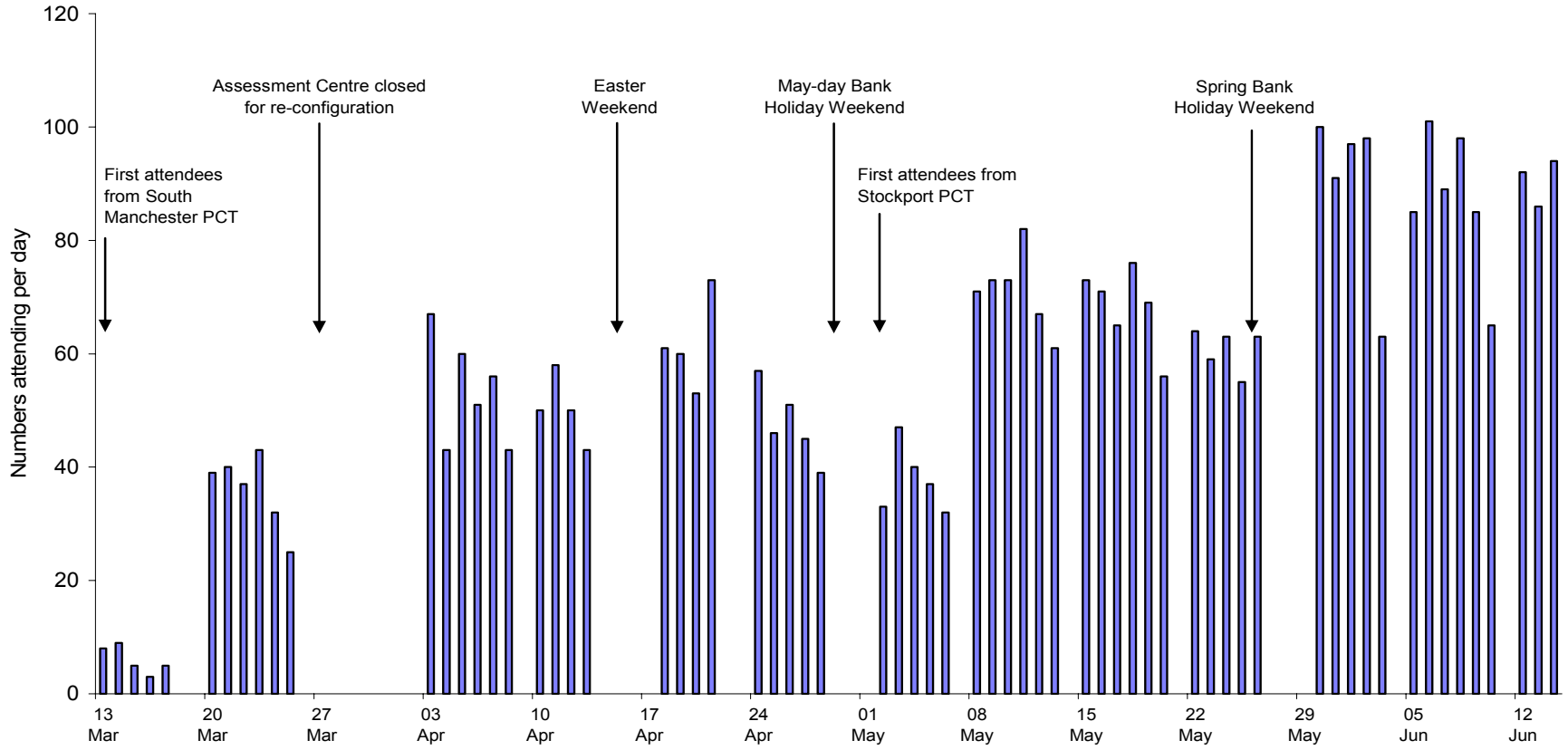


Table 4.1: Overall assessment visit time† by age (times in minutes)

Overall visit time	Number*	Median	10th centile	90th centile
All participants	3421	95.9	74.3	126.2
40-49yrs	934	89.5	71.4	117.6
50-59yrs	1255	95.4	74.0	126.5
60-69yrs	1232	101.6	79.6	130.5

† Times do not include time at welcome station (generally less than 5 minutes)
* Represents number of participants for whom timings were available (which excludes participants from first 2 weeks because computer clocks were not synchronised).

Figure 4.2: Postal survey to assess participant's views on assessment centre visit

(a) ***"Was the length of the visit?"***

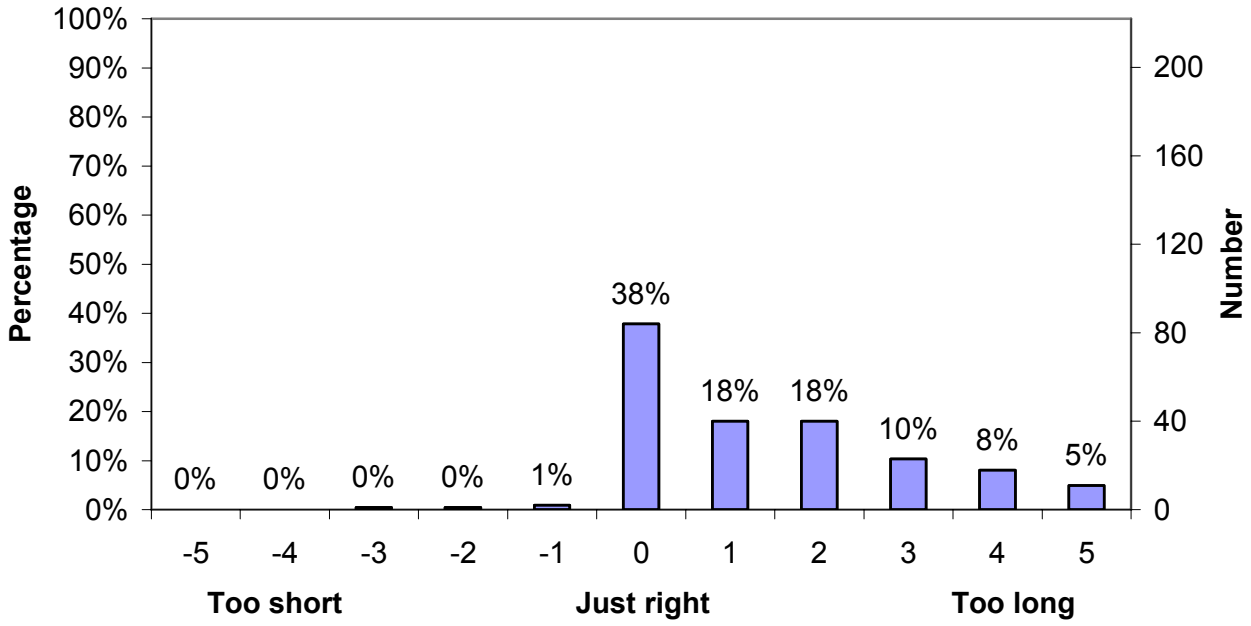


Table 4.2: Time to complete each visit station (minutes)

Station	Median	10th centile	90th centile
Total time (excl waiting)	67.7	54.3	89.0
Consent	4.6	3.0	7.4
Touch-screen	30.4	21.6	45.0
Cognitive tests	8.8	7.1	11.7
Interview & blood pressure	9.6	6.6	15.2
Physical measurements	5.4	3.8	7.8
Spirometry	4.3	2.8	6.4
Venepuncture*	3.4	0.6	6.9

*Under-estimate since staff did not always log the start of this station until after blood had been collected

Table 4.3: Touchscreen questionnaire times by section (minutes)

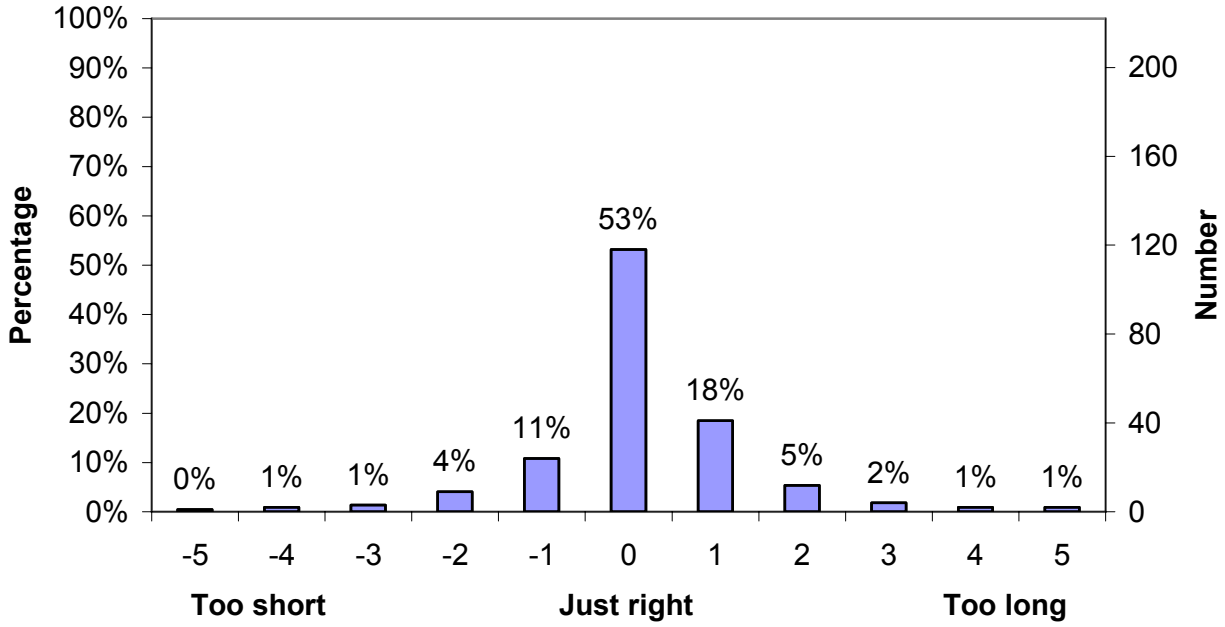
Section	Median	10th centile	90th centile
Introduction/demonstration	0.3	0.1	0.8
Household	1.6	1.0	2.8
Employment	0.8	0.2	1.6
Education	0.3	0.1	0.8
Physical activity	1.9	1.2	3.4
Social contacts	0.5	0.3	1.0
Driving	0.4	0.2	0.7
Mobile phones	0.8	0.3	1.5
Sleep	0.8	0.5	1.5
Smoking	0.5	0.2	1.7
Passive smoke	0.4	0.2	0.7
Alcohol	1.1	0.3	2.1
Diet	4.2	2.8	6.7
Early life factors	1.0	0.7	1.7
Skin cancer factors	0.4	0.2	0.7
Family history	1.9	1.2	3.2
Psychological	2.7	1.8	4.6
Sexual history	0.6	0.3	1.1
General health	2.0	1.3	3.5
Medical history	2.3	1.4	3.9
Male questions (N=1719)	0.1	0.1	0.3
Female questions (N=2059)	2.6	1.6	4.5
Internet/email	0.3	0.2	0.5
Cognition (lights)	2.2	1.4	3.5
Cognition (pairs)	2.9	2.3	3.9
Cognition (reaction time)	2.3	1.6	2.7
Log out	0.2	0.1	0.3

Table 4.4: Interviewer questionnaire by section (minutes)

Section	Mean (SD)	Median	10th centile	90th centile
Check page	0.1(0.2)	0.1	0.1	0.2
COB or residence at birth	0.7(0.7)	0.5	0.2	1.5
Parents' name & birth day/month	0.7(0.3)	0.7	0.5	1.1
Birth weight & occupation	0.7(0.7)	0.5	0.1	1.6
Cancers	0.1(0.3)	0.0	0.0	0.0
Illnesses	0.4(1.2)	0.0	0.0	1.3
Operations	0.9 (1.5)	0.1	0.0	2.6
Treatments	0.8(1.4)	0.3	0.0	2.3
Total time for medical history	2.2(2.9)	1.3	0.0	5.4
Blood pressure	4.1(1.7)	3.9	2.2	6.0
Verbal fluency	1.7(0.5)	1.6	1.4	2.1

Figure 4.3: Postal survey to assess participant's views on assessment centre visit (n=222)

(a) ***"Was the amount of information you were asked during the visit?"***



(b) ***"Compared to a pen and paper questionnaire, did you find the touch-screen computer?"***

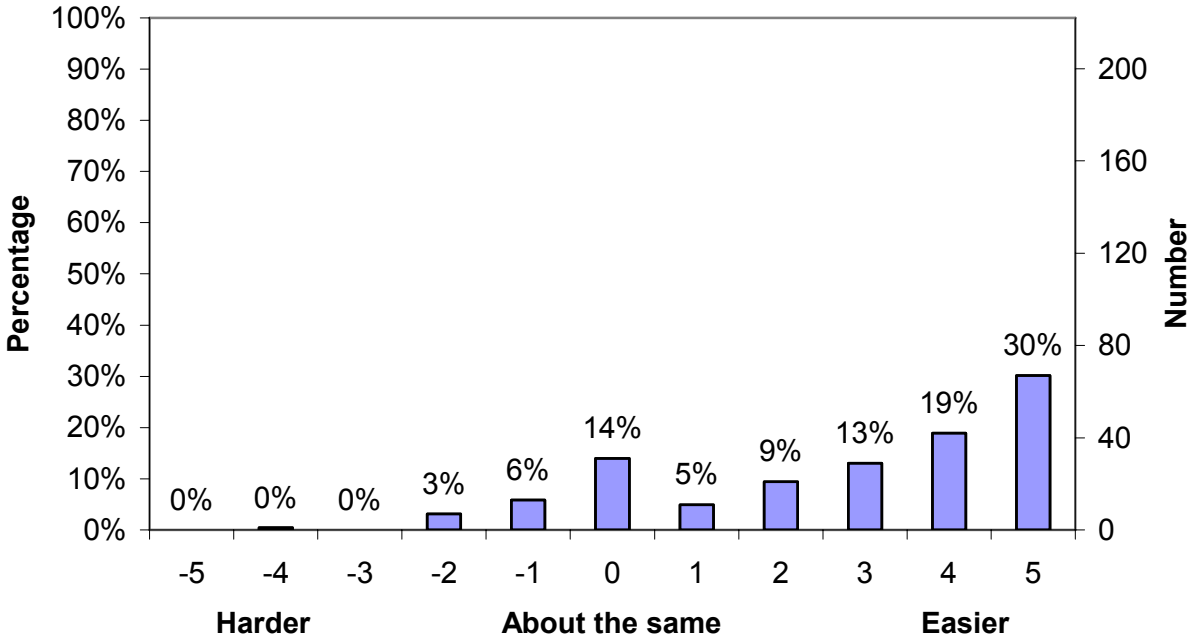


Table 4.5: Visit wait times by station (minutes)

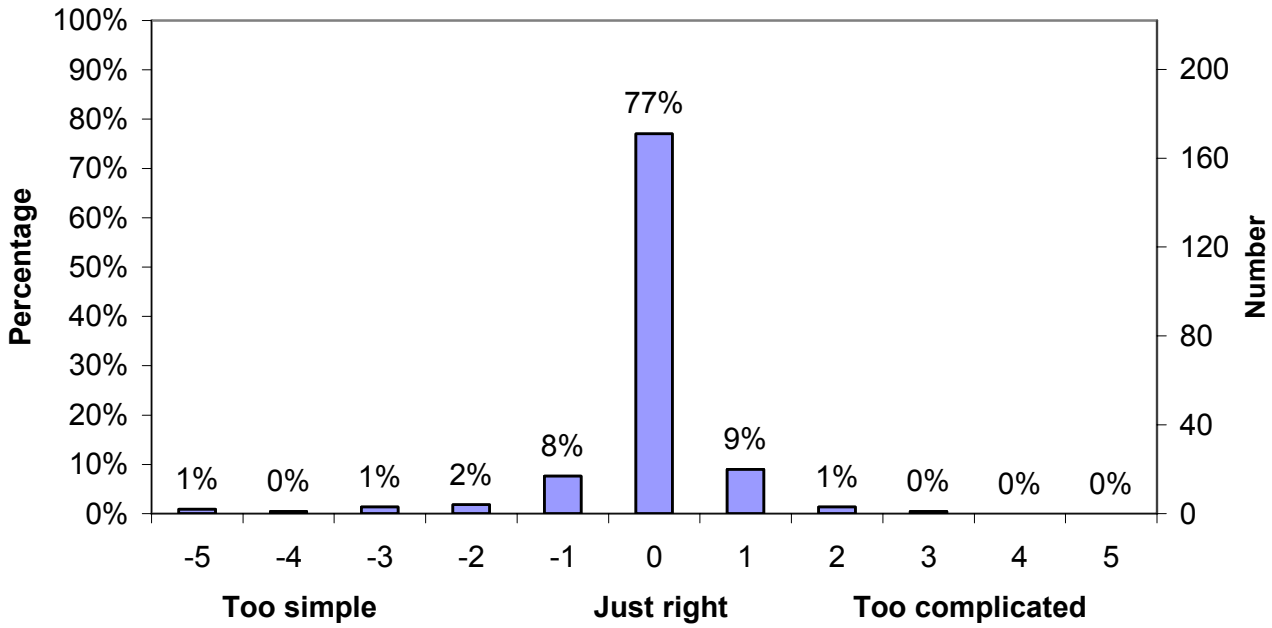
Station	Median	10th centile	90th centile
Consent	1.3	0.6	4.0
Touch-screen	0.1	0.0	0.1
Cognitive tests	0.1	0.0	0.2
Interview & blood pressure*	5.3	1.5	17.5
Measurements	2.9	1.2	11.5
Spirometry	2.9	1.3	9.3
Venepuncture**	6.0	1.4	17.7

* Wait time during intial phase of pilot due to participants providing urine sample between these stations

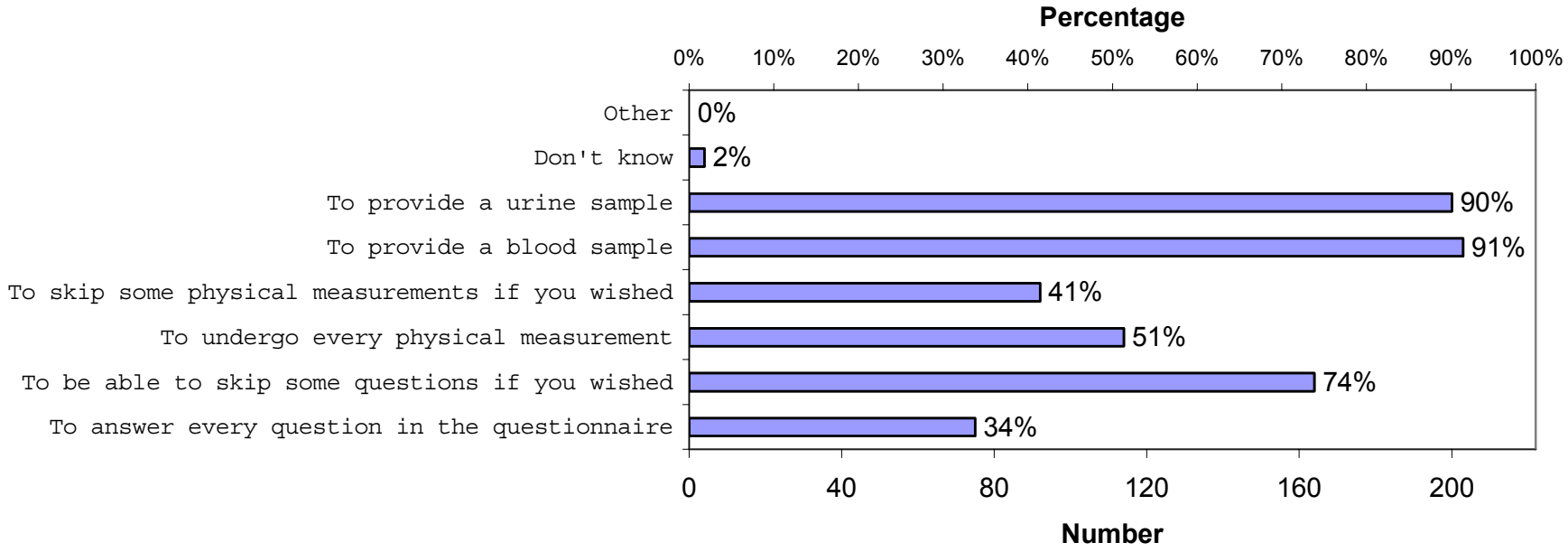
** Over-estimate since staff did not always log the start of this station until after blood had been collected

Figure 4.4: Postal survey to assess participant's views on consent process (n=222)

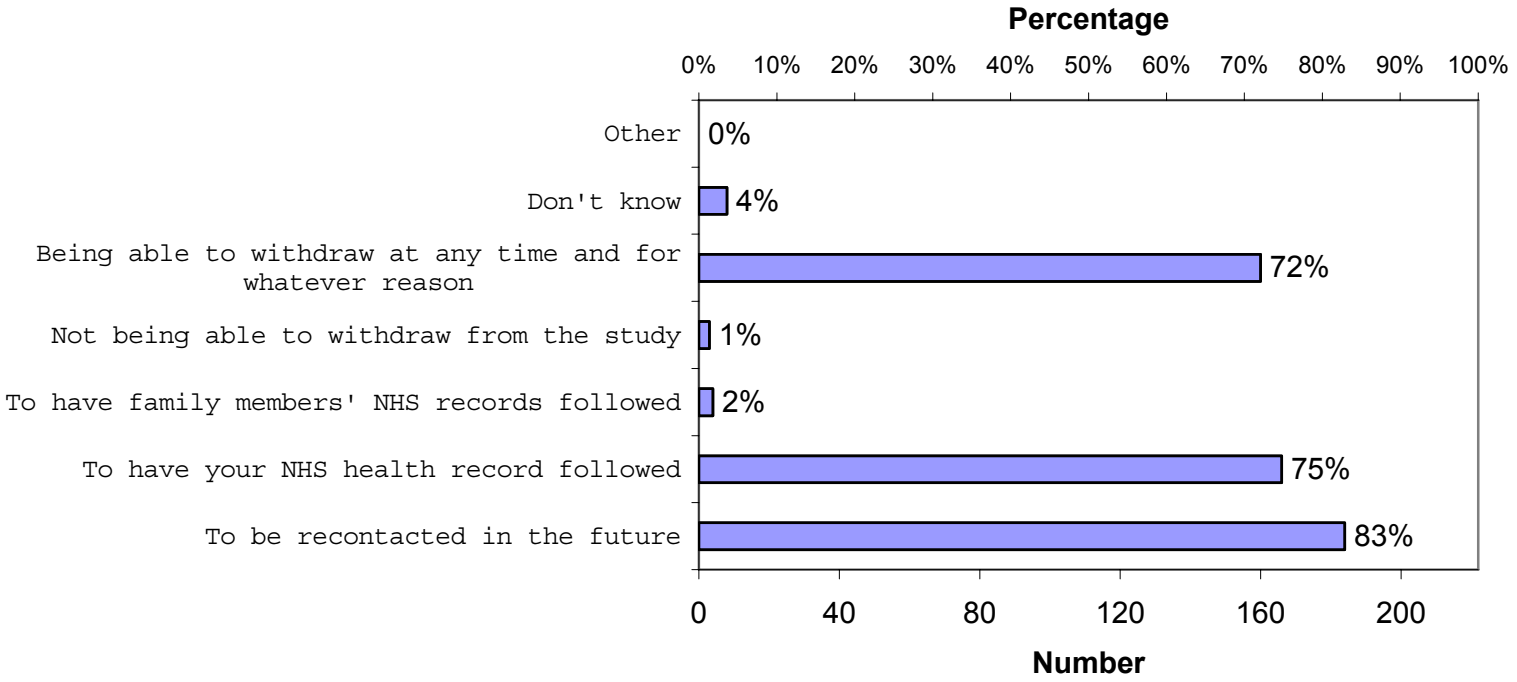
(a) ***"Your visit started with you being asked to give your written agreement (consent) to participate – did you find this?"***



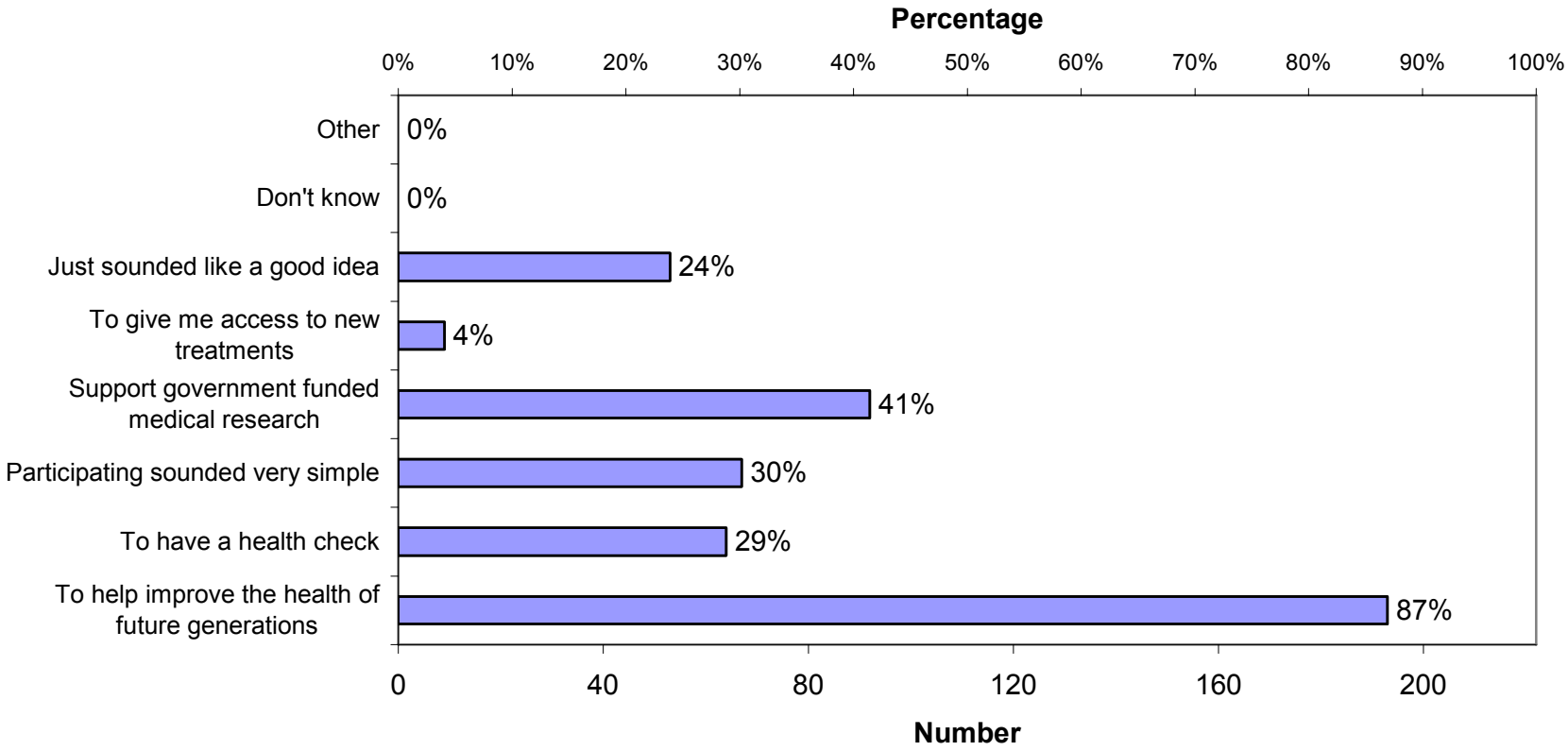
(b) ***"As far as you are concerned, when you consented to participate, which of the following did you agree to have during the clinic visit?"***



(c) "As far as you are concerned, when you consented to participate, which of the following did you agree to after the visit?"



(d) ***"What were your main reasons for taking part in the Biobank study?"***



(e) ***"How would you answer if a close friend or family member were to ask you 'Should I participate in UK Biobank?'"***

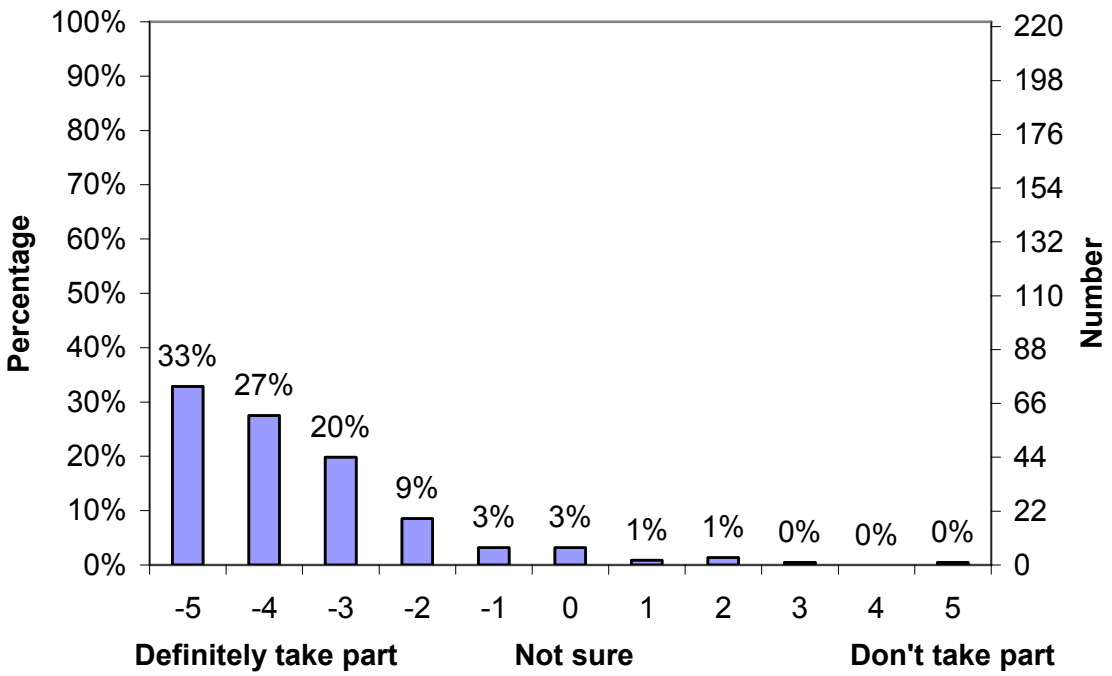
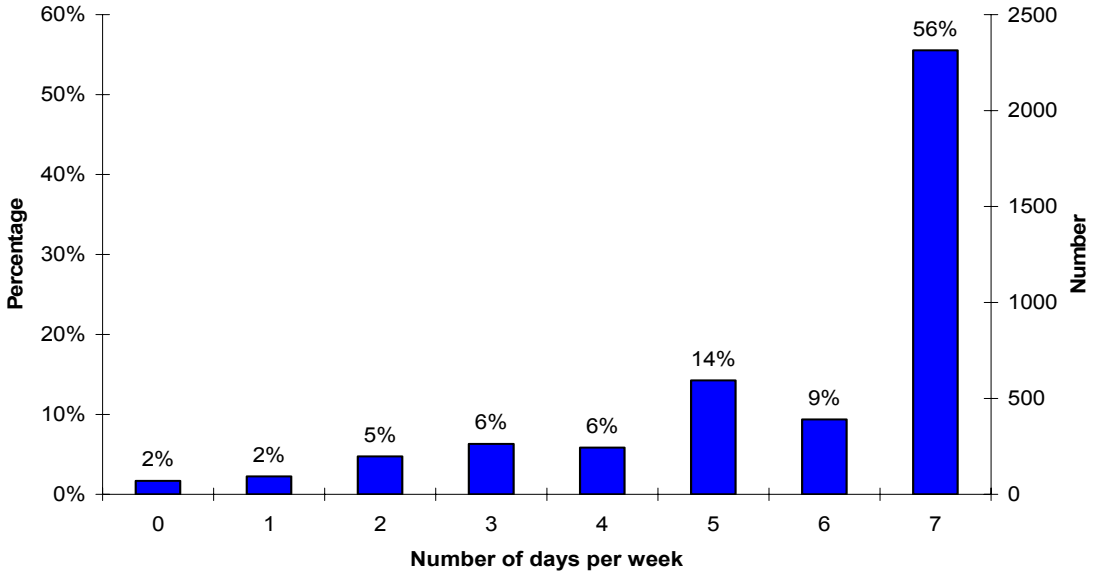
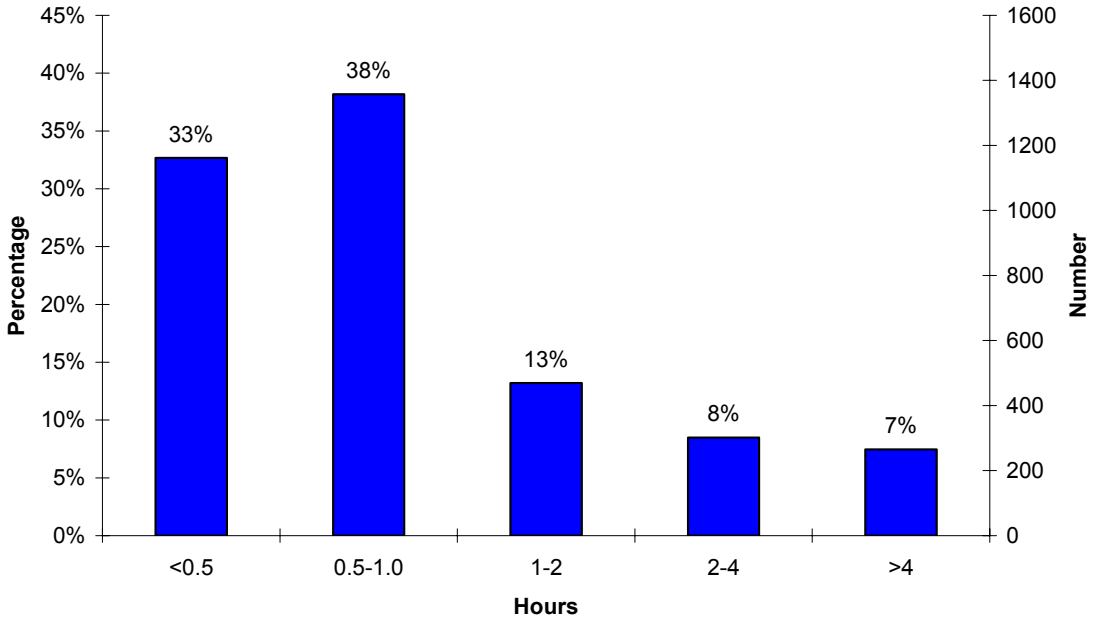


Figure 4.5 Selected questionnaire responses (see Annex for complete responses)

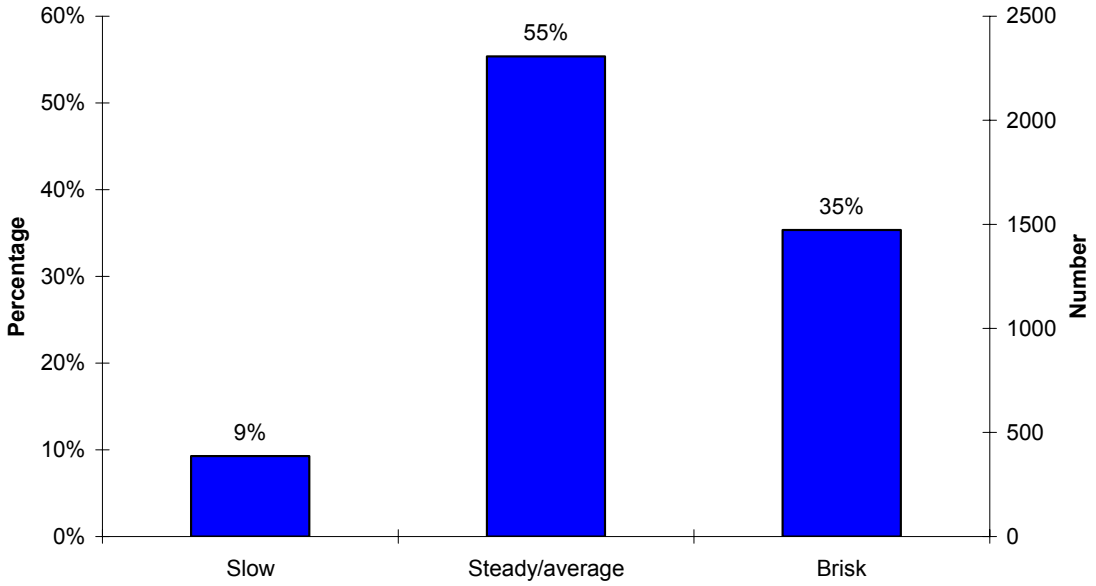
"In a typical week, how many days do you spend doing 10 minutes or more of walking?"



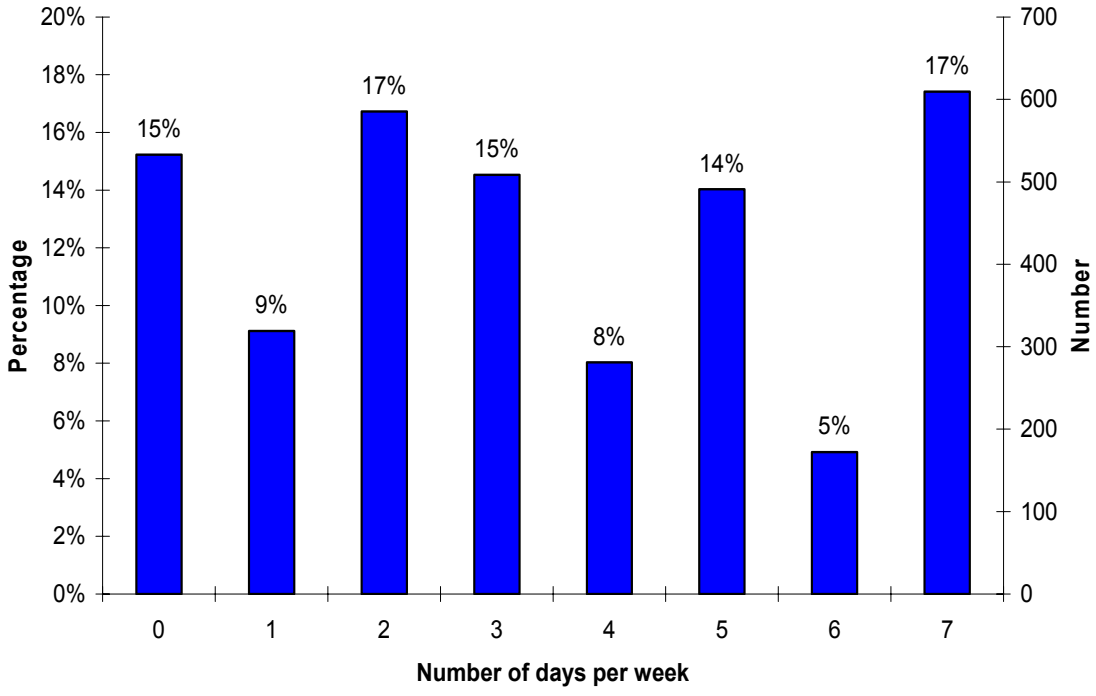
"How much time (hours) do you usually spend walking on one of those days?"



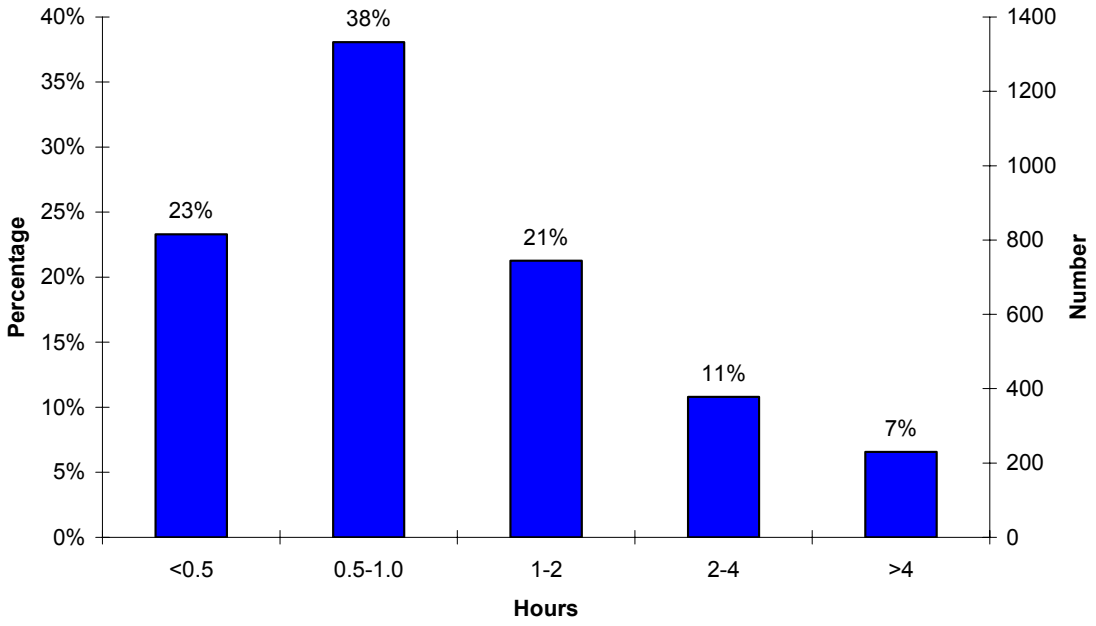
"How would you describe your usual walking pace?"



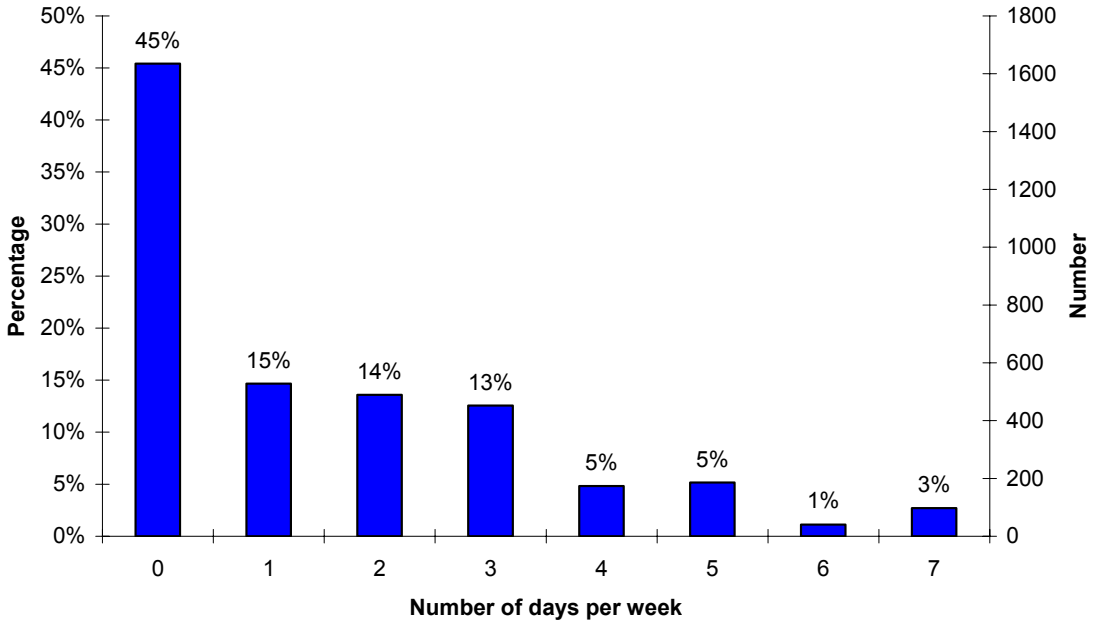
"In a typical week, how many days do you spend doing 10 minutes or more of moderate physical activities?"



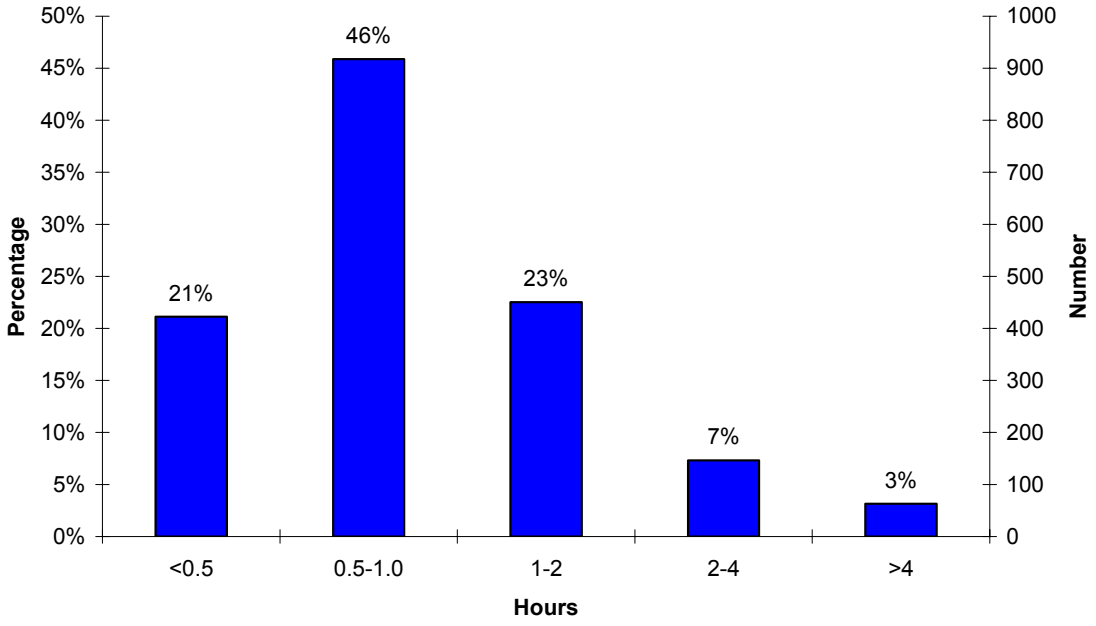
"How much time do you usually spend doing moderate physical activities on one of those days?"



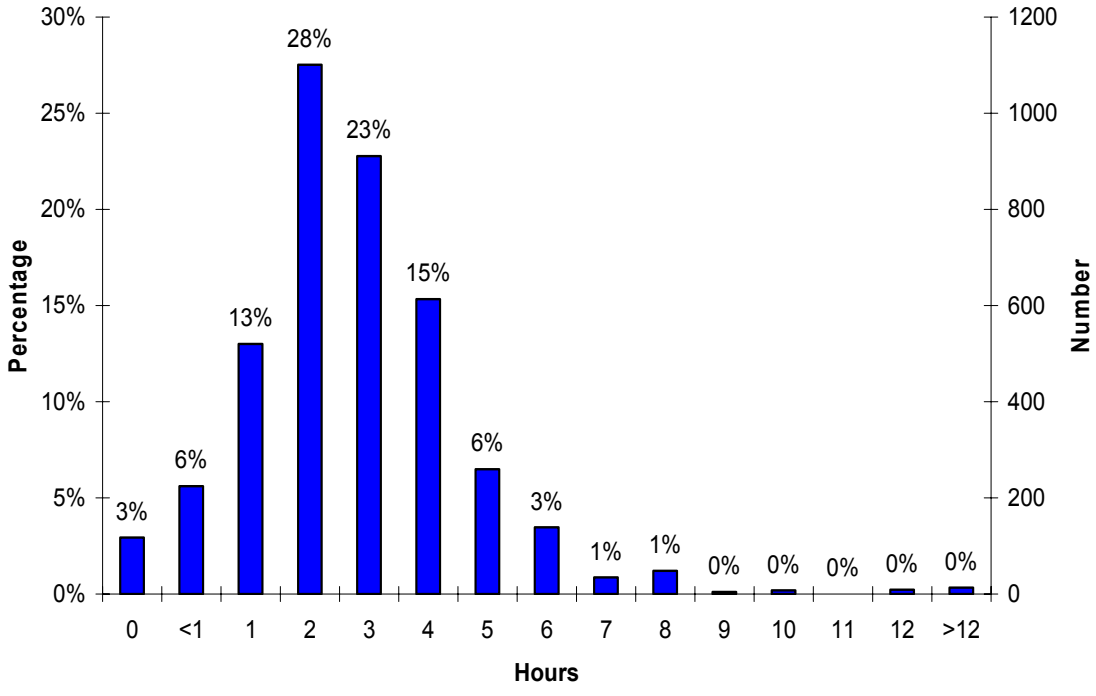
"In a typical week, how many days do you spend doing 10 minutes or more of vigorous physical activity?"



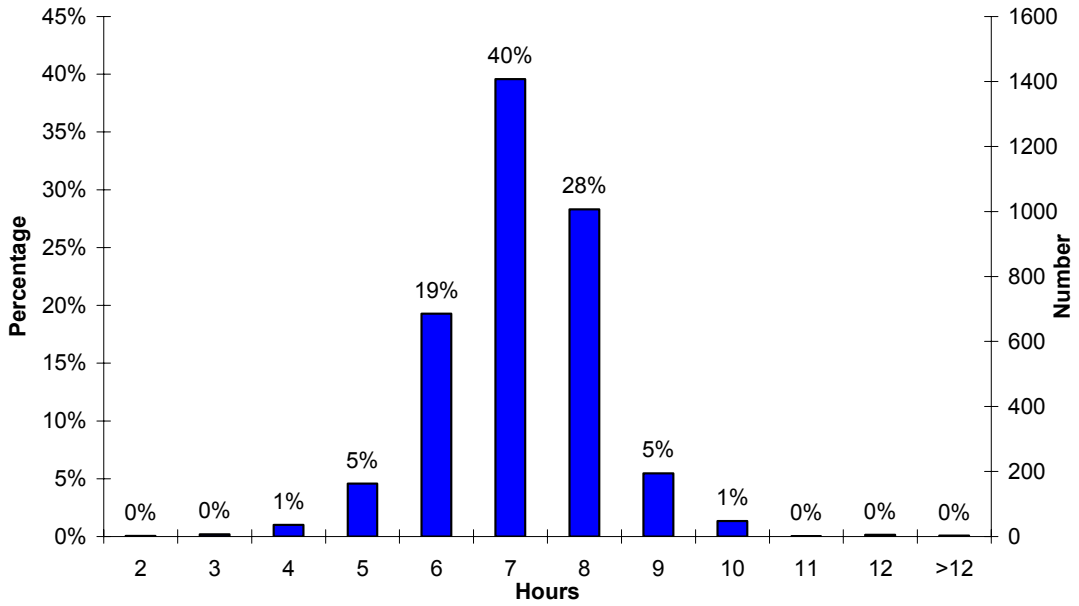
"How much time do you usually spend doing vigorous physical activity?"



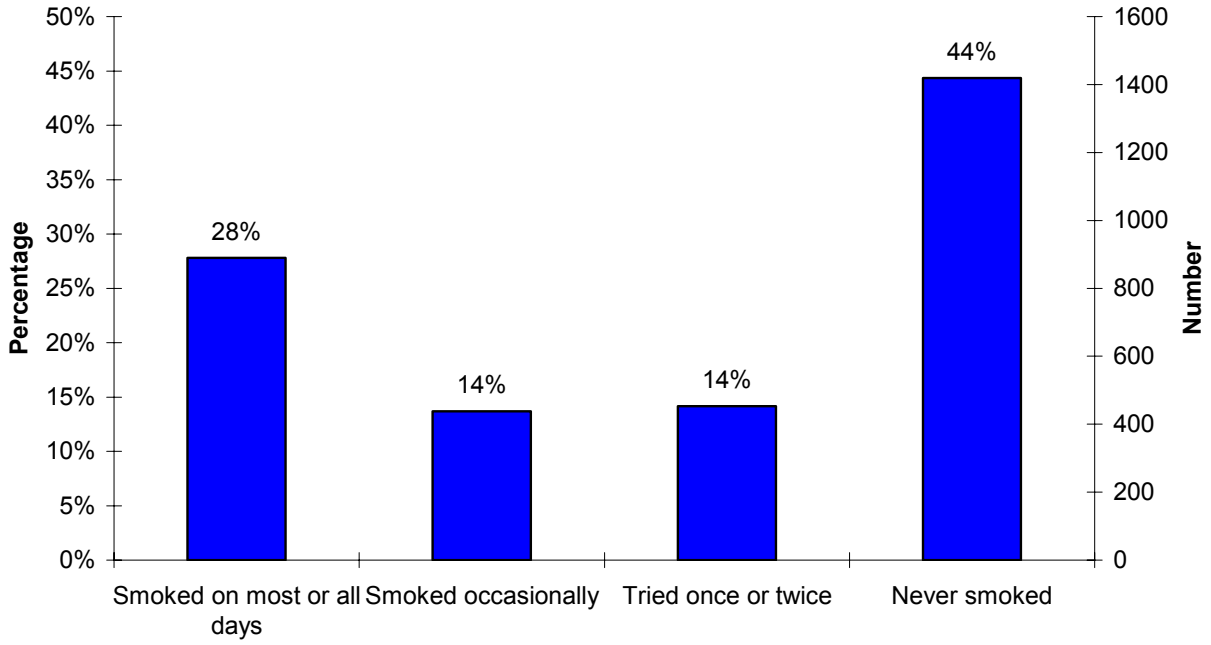
"In a typical day, how many hours do you spend watching TV?"



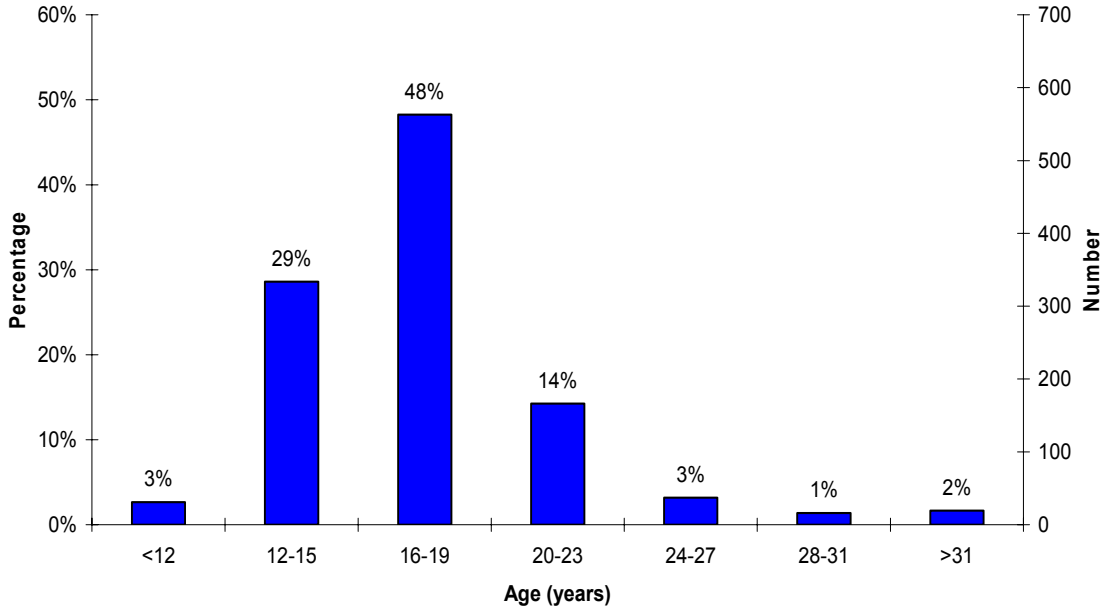
"About how many hours sleep do you get in every 24 hours?"



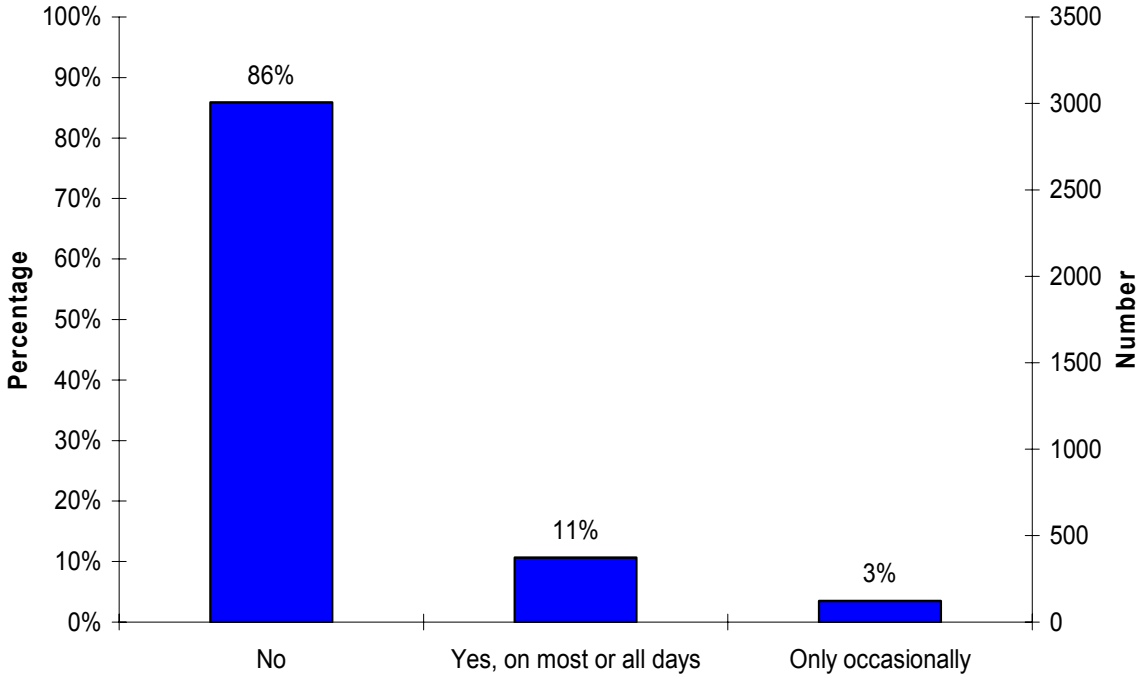
"In the past, how often have you smoked?"



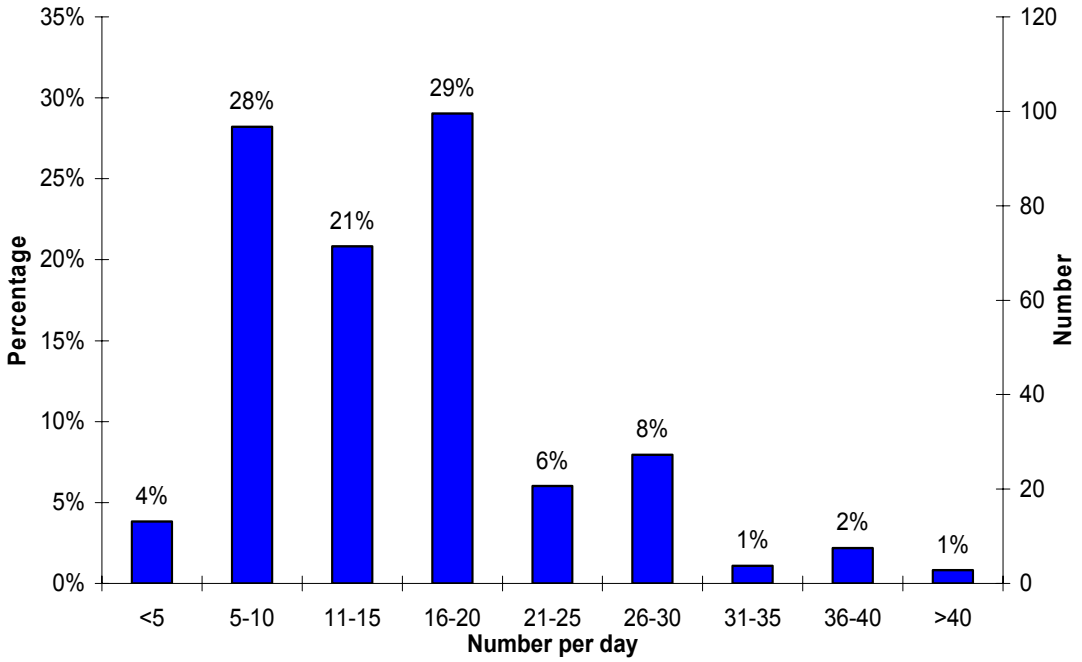
"How old were you when you first started smoking on most days?"



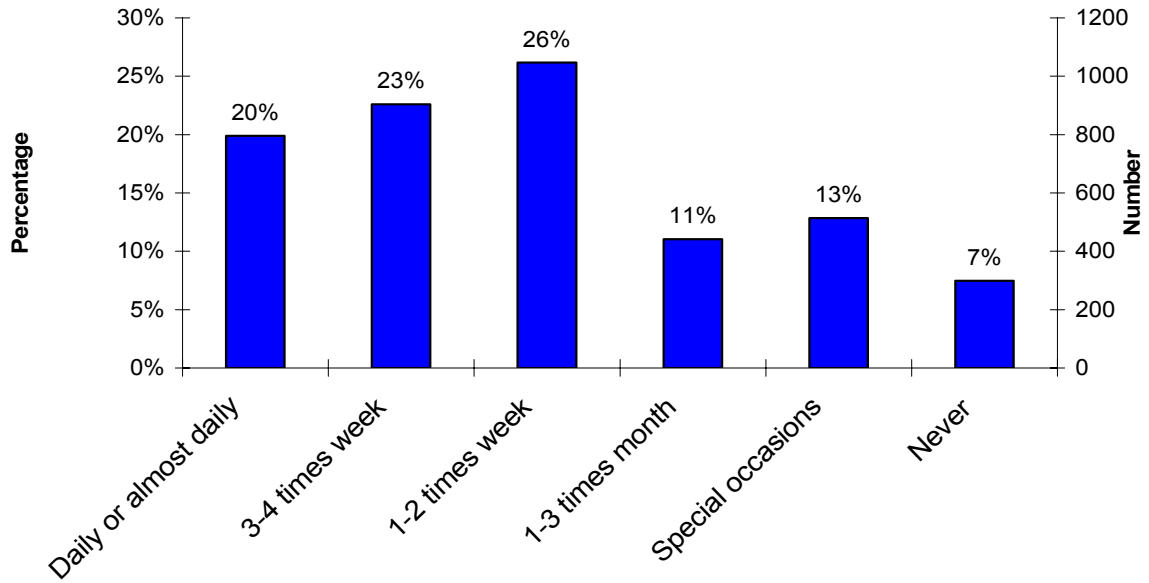
"Do you smoke tobacco now?"



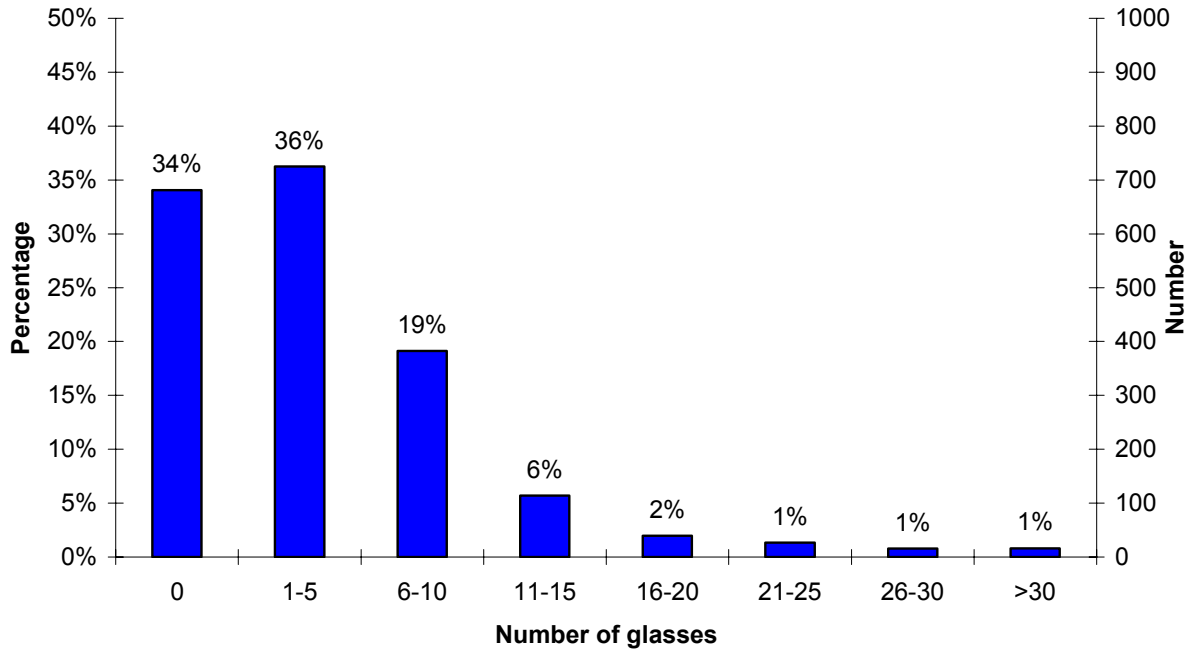
"About how many cigarettes do you smoke on average each day?"



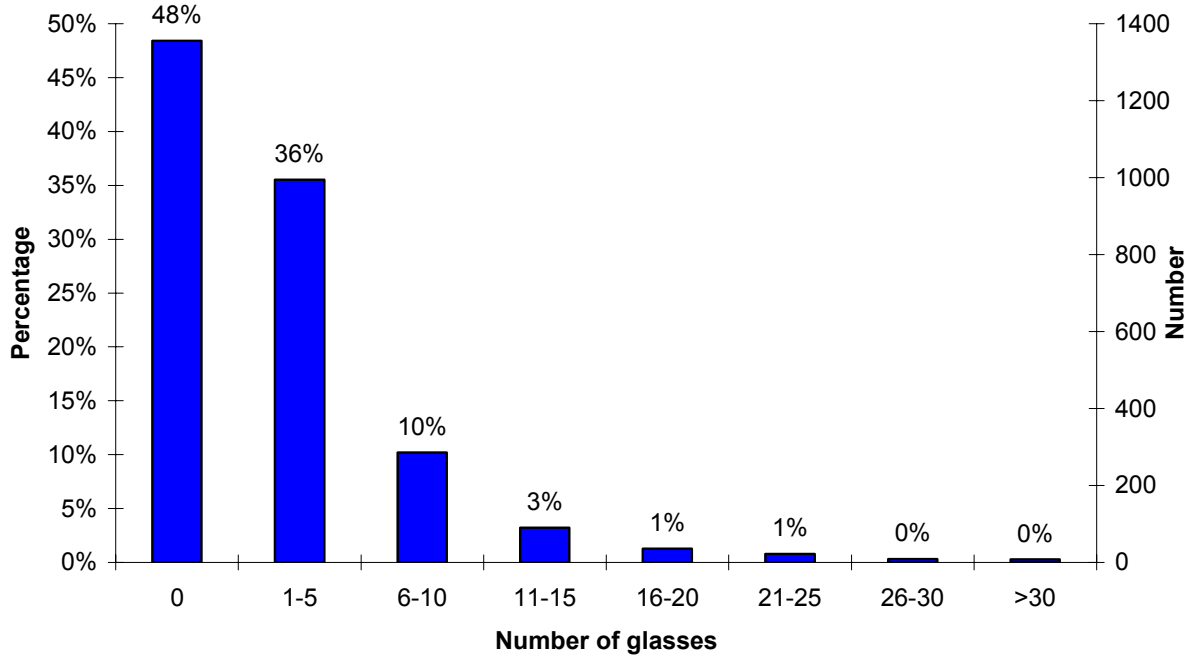
"About how often do you drink alcohol?"



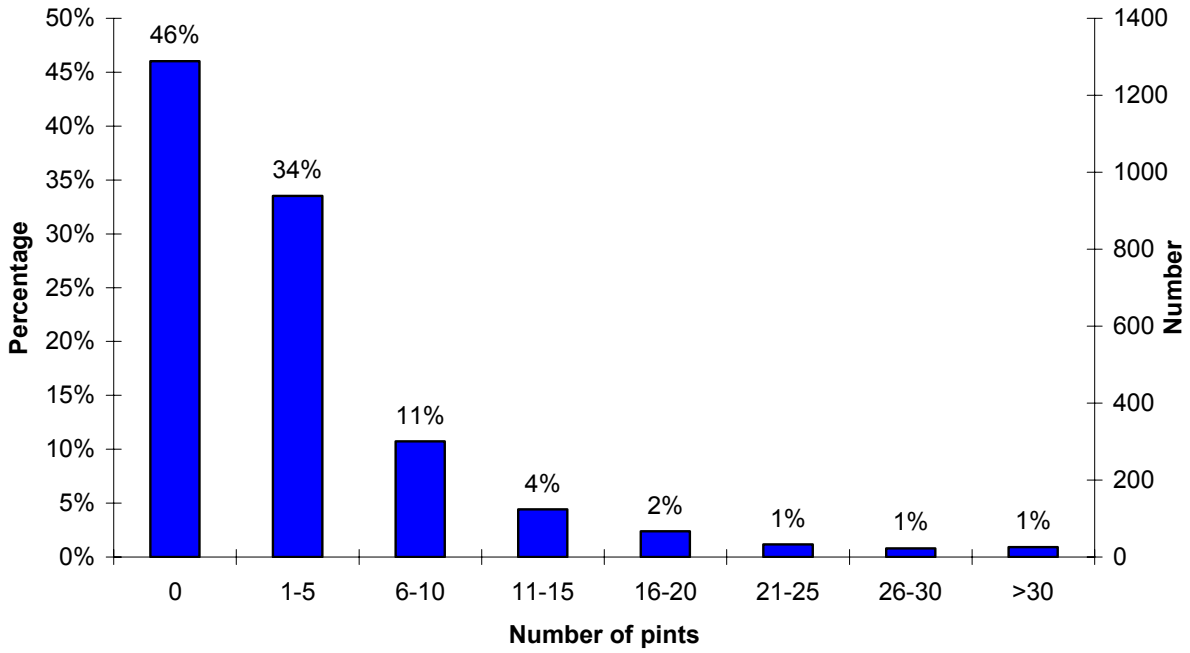
"In an average week, how many glasses of RED WINE would you drink?



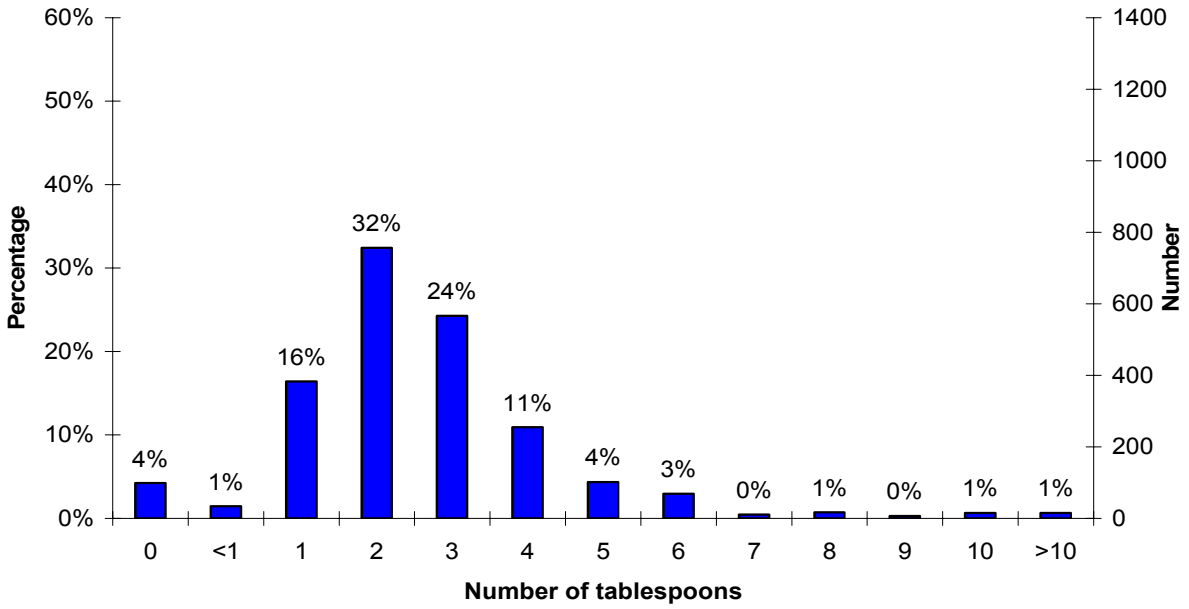
"In an average week, how many glasses of WHITE WINE would you drink?"



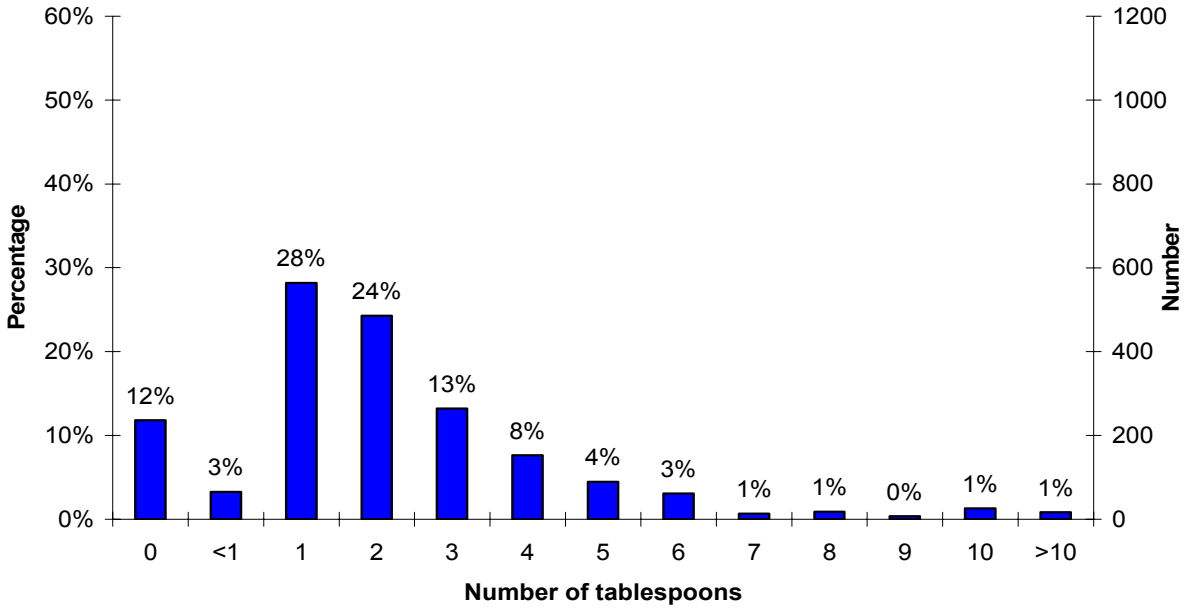
"In an average week, how many pints of BEER/CIDER would you drink?"



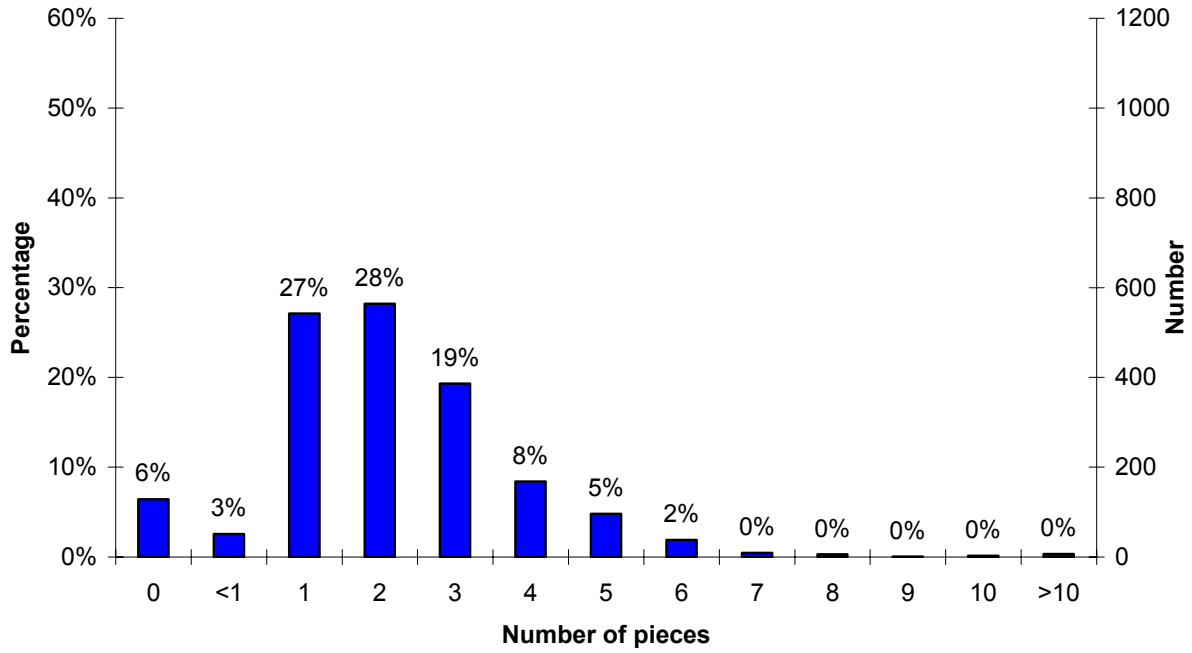
"In an average week, how many tablespoons of COOKED VEGETABLES would you eat per day?"



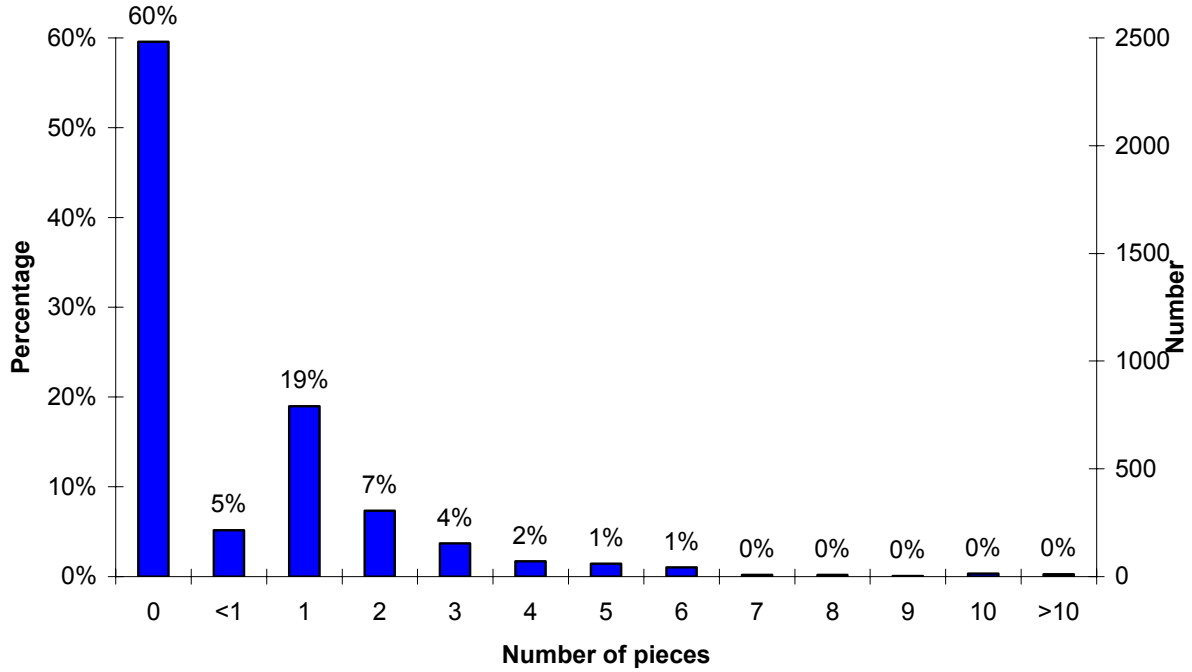
"In an average week, how many tablespoons of SALAD/RAW VEGETABLES would you eat per day?"



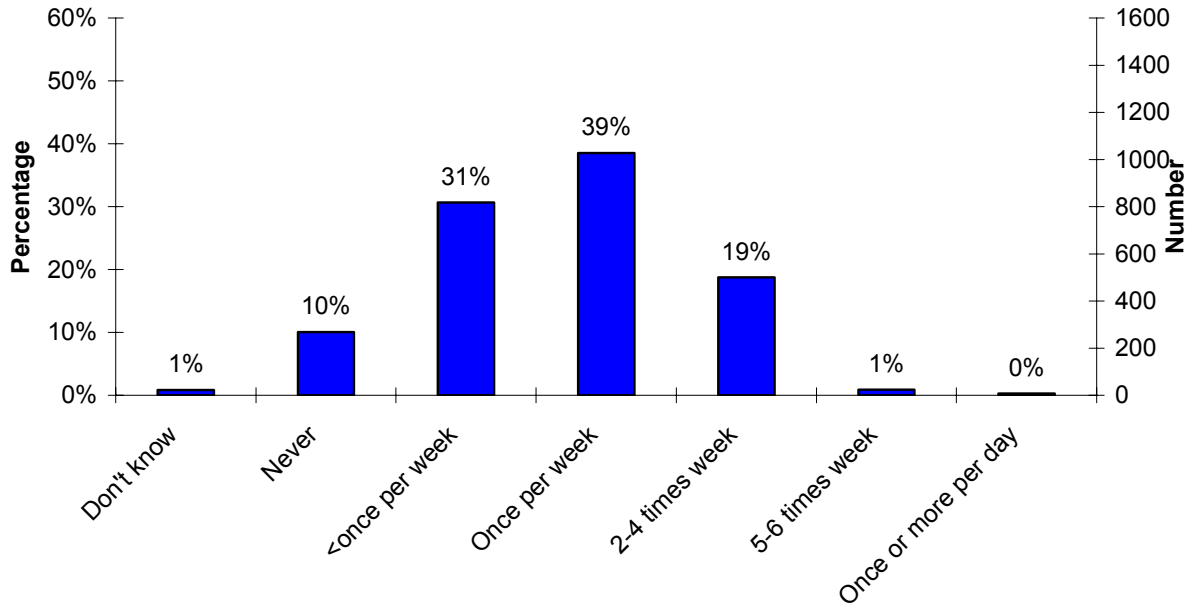
"In an average week, how many pieces of FRESH FRUIT would you eat per day?"



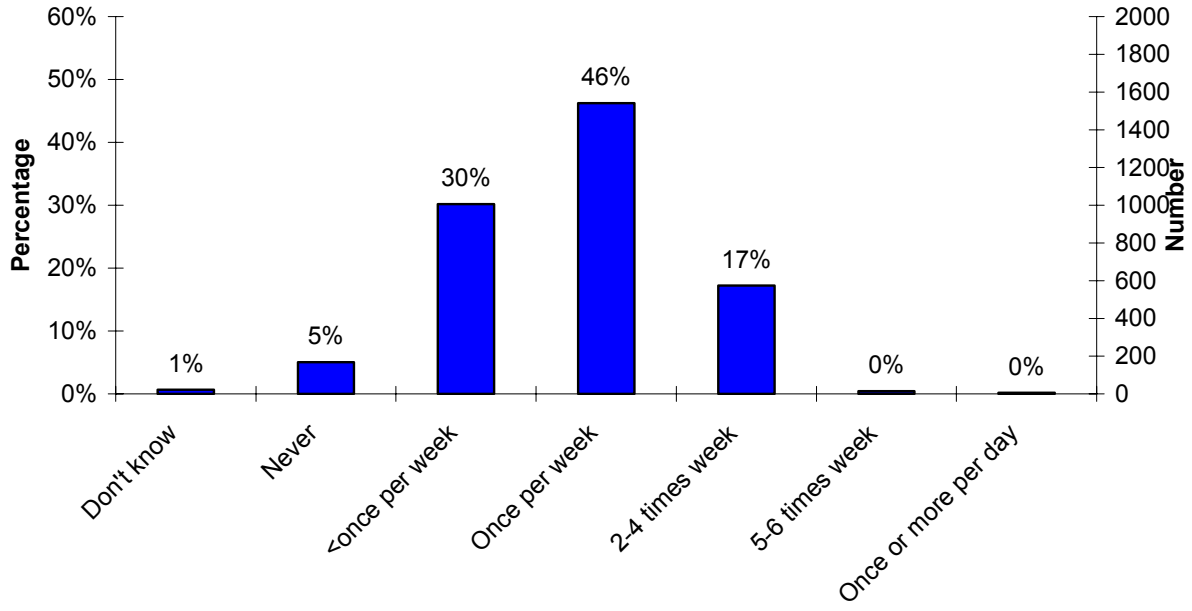
"In an average week, how many pieces of DRIED FRUIT would you eat per day?"



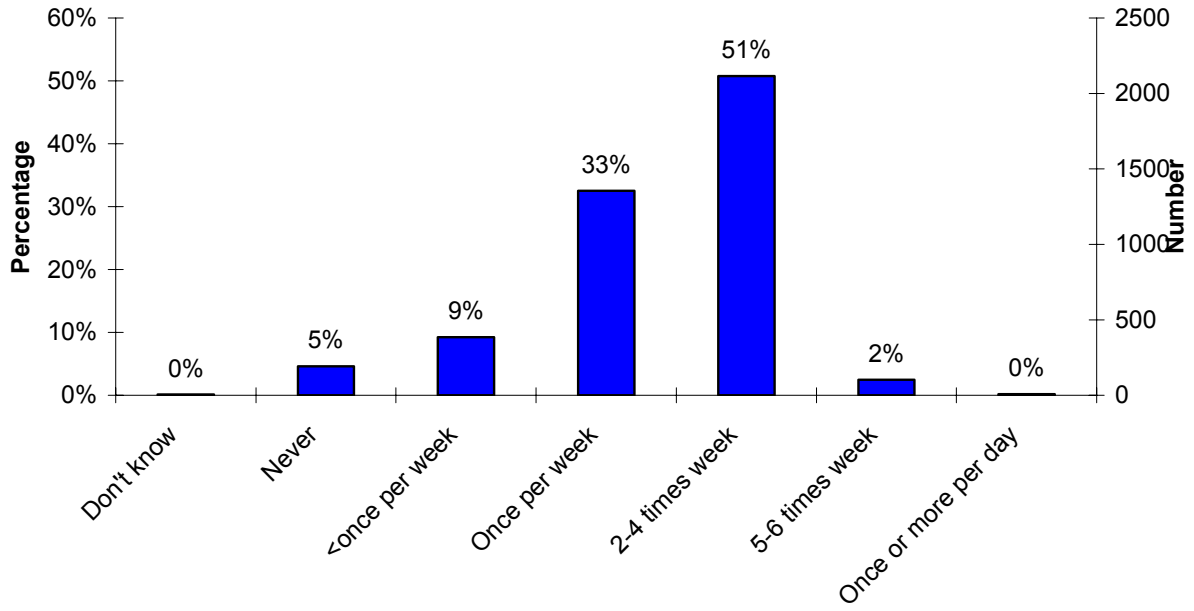
"How often do you eat OILY FISH?



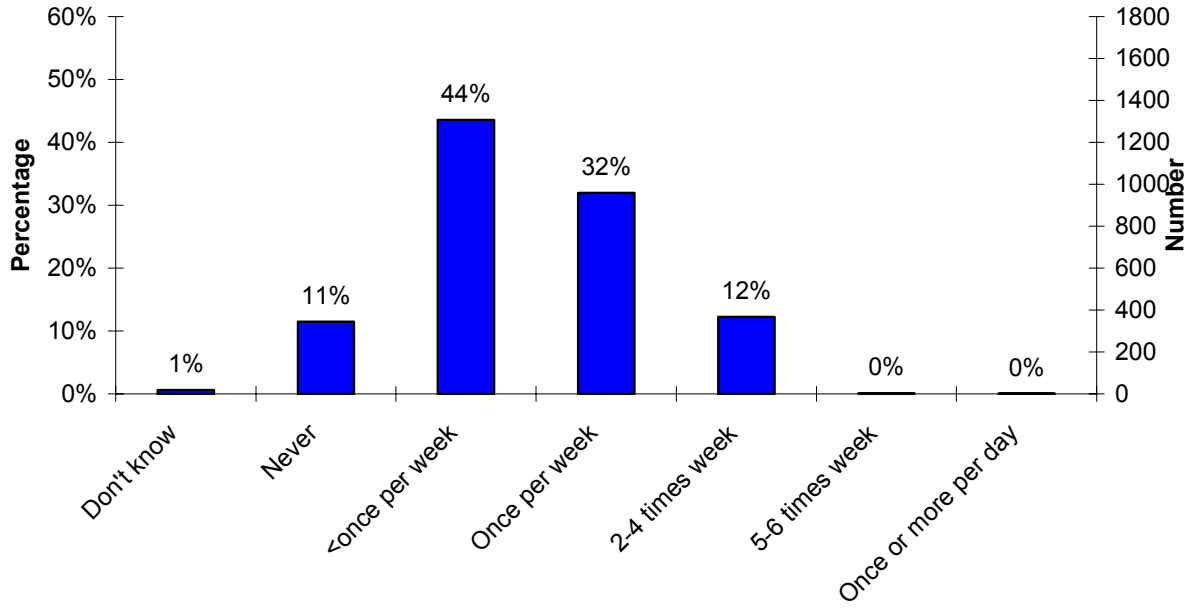
"How often do you eat OTHER FISH?



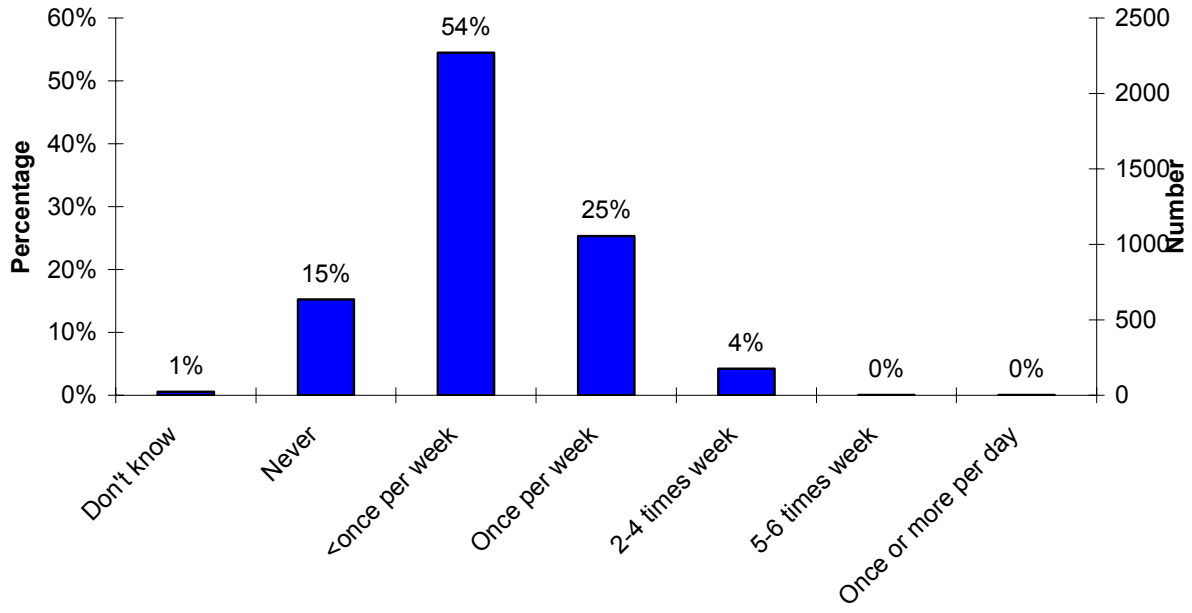
"How often do you eat POULTRY?



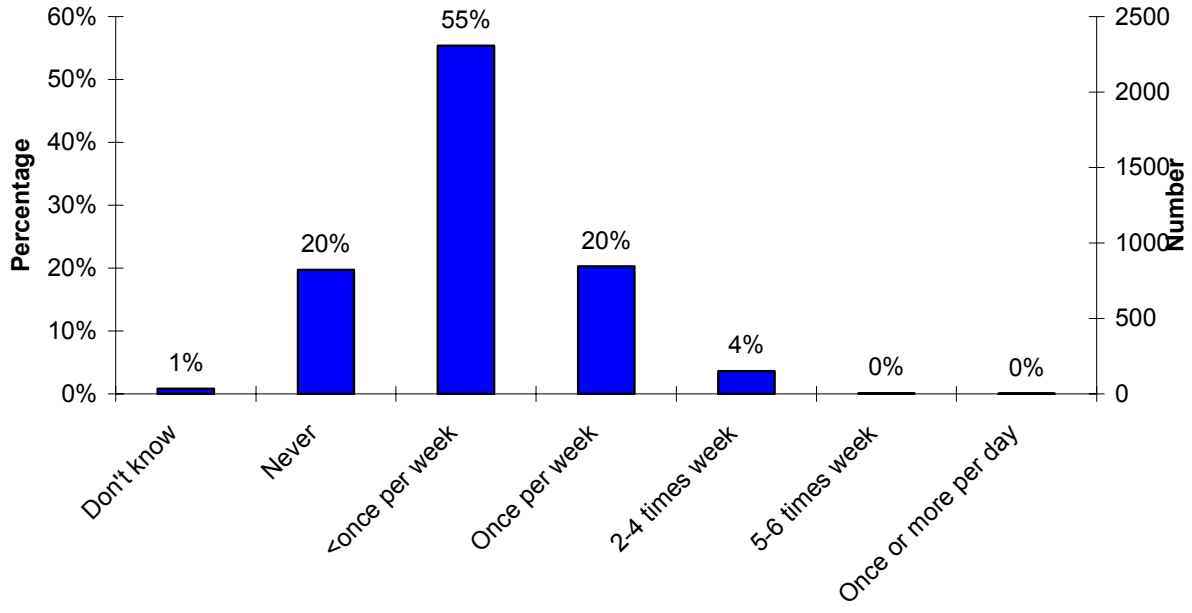
"How often do you eat BEEF?



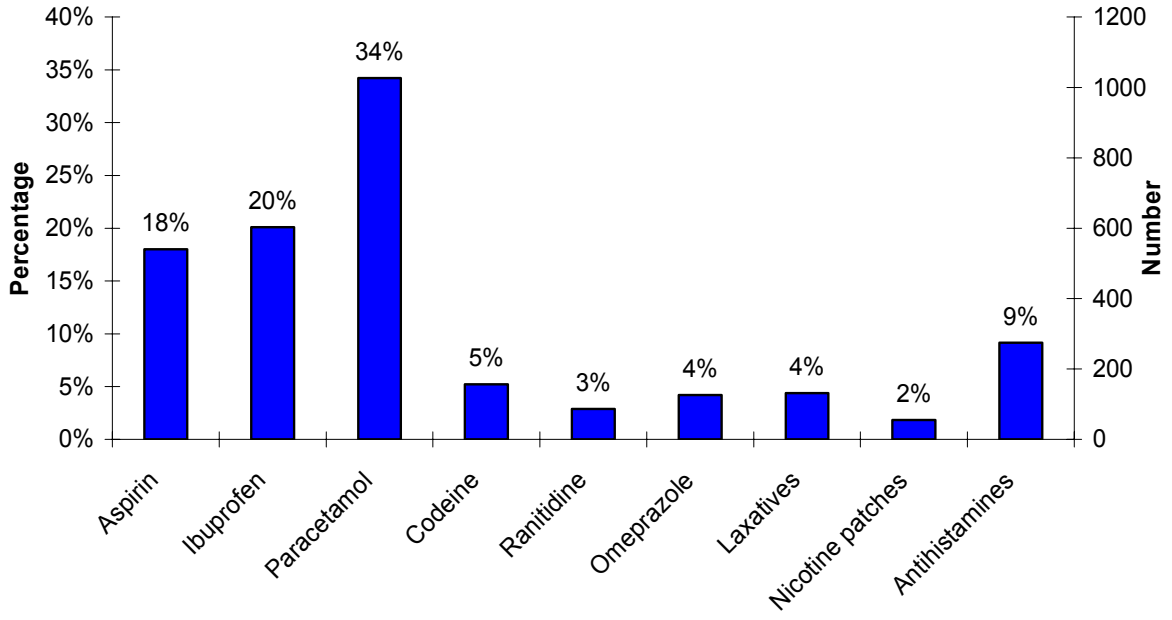
"How often do you eat LAMB/MUTTON?



"How often do you eat PORK?



"Do you regularly take any of the following over the counter medications?"



"Do you regularly take any of the following?"

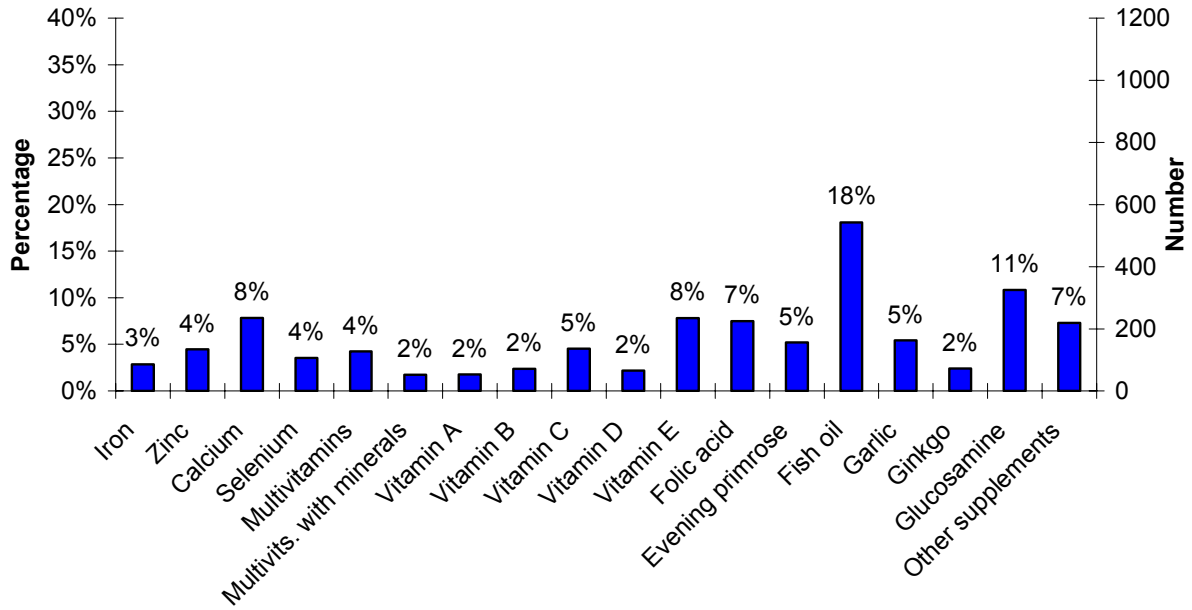


Table 4.6: Five most commonly reported operations, illnesses and cancers in UK Biobank pilot population by age group and sex

Condition	No. reporting	Sex	% of study population†		
			40-49 yrs	50-59 yrs	60-69 yrs
Operations					
Hysterectomy	459	F	9.2	23.3	32.3
		M	-	-	-
Appendicectomy	398	F	8.2	12.8	11.5
		M	7.7	9.9	11.5
Caesarian section	194	F	12.9	9.5	6.3
		M	-	-	-
Bilateral oophorectomy	194	F	3.2	10.4	13.6
		M	-	-	-
Cholecystectomy	152	F	3.4	5.8	8.0
		M	0.2	0.8	3.8
Illnesses					
Hypertension	1019	F	11.7	22.5	37.1
		M	16.0	29.2	39.8
Asthma	461	F	15.1	13.9	11.8
		M	12.2	9.7	10.3
Diabetes	168	F	1.5	1.9	4.5
		M	3.6	5.7	9.4
Angina	133	F	0.3	0.2	3.5
		M	1.6	3.3	9.7
Heart attack	100	F	0.3	0.5	2.0
		M	1.6	3.6	7.7
Cancers					
Breast	75	F	1.9	3.8	5.0
		M	-	-	-
Melanoma	25	F	0.5	0.4	1.3
		M	0.5	0.5	0.8
Basal cell cancer	24	F	0.7	0.9	1.0
		M	0.2	0.2	0.6
Cervical	19	F	1.0	1.0	0.7
		M	-	-	-
Prostate	18	F	-	-	-
		M	0.2	0.7	2.0

†percentages are a proportion of those who completed interview

Table 4.7: Common medications reported in interview component of UK Biobank pilot participation according to medication name and drug class

Medication	No. of times reported (%)
By name	
Aspirin	443 (12%)
Simvastatin	221 (6%)
Atorvastatin	216 (6%)
Atenolol	206 (5%)
Bendroflumethiazide	167 (4%)
By drug class∞	
Statins	489 (13%)
ACE inhibitors	303 (8%)
Proton pump inhibitors	306 (8%)
Beta blockers	290 (8%)
Thiazide diuretics	251 (7%)

∞ Classifications based on the British National Formulary 2005.

Table 4.8 Questions where 10% or more of eligible participants selected "do not know" option (N=3,777)

Question number	Question text		
		Male/female	Total
Y3 (touch screen)	Were you breastfed when you were a baby?	20% (F) 30% (M)	25%
Y7 (touch screen)	Did your mother smoke regularly around the time when you were born?	12% (F) 14% (M)	13%
V2BW (interviewer)	Birth weight	38% (F) 54% (M)	45%
V2A1 (interviewer)	Father's month and day of birth	9% (F) 24% (M)	16%
V2A2 (interviewer)	Mother's month and day of birth	4% (F) 18% (M)	10%

Figure 4.6 Proportion of participants (N=3,800) with both internet access and willing to be recontacted by UK Biobank using email by sex and age

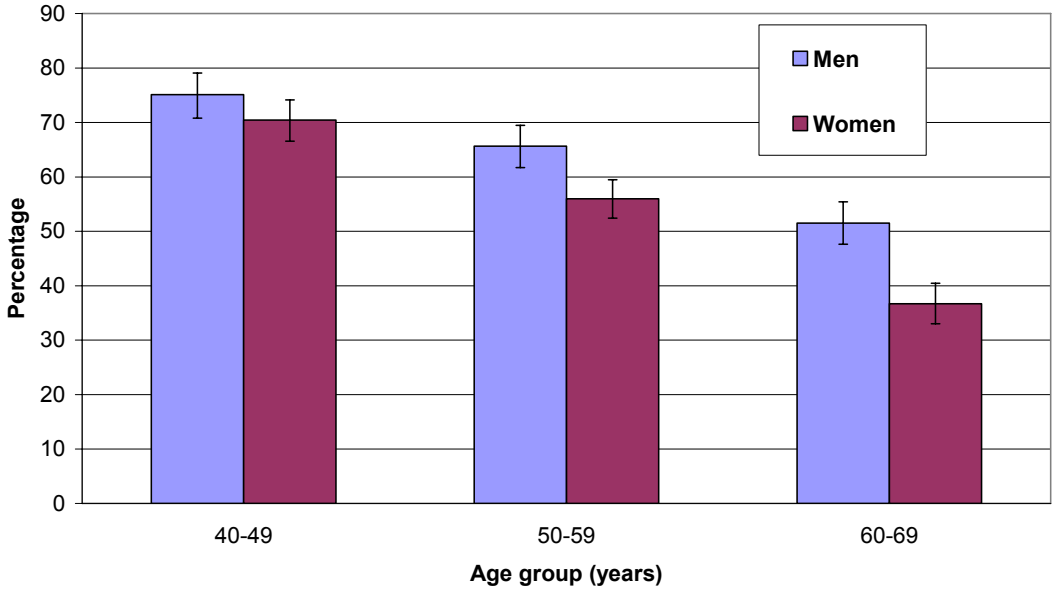
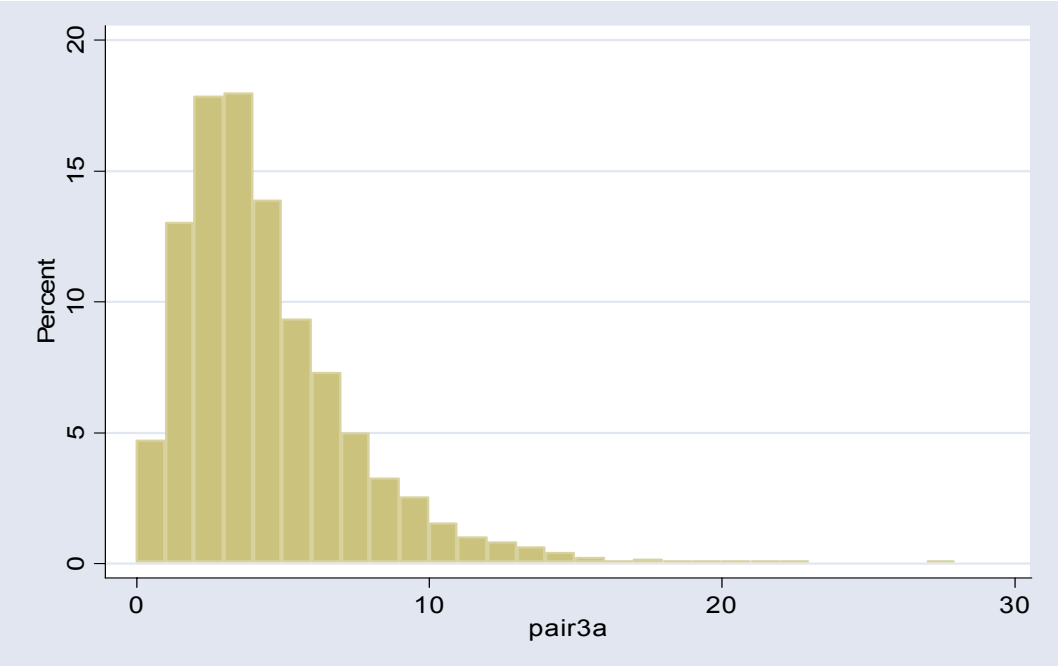
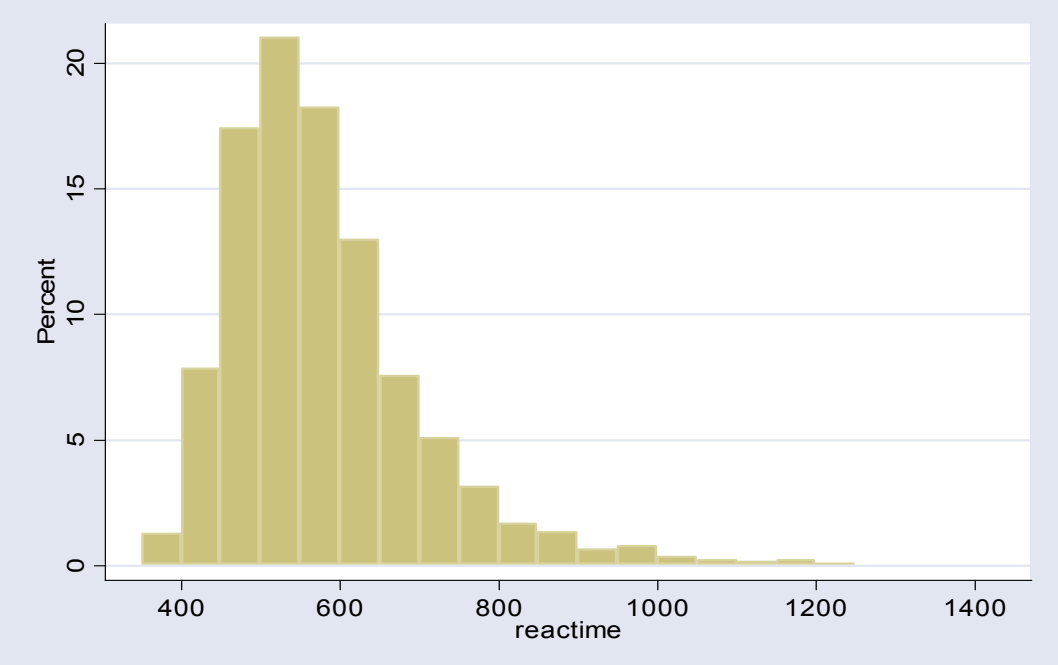


Figure 4.7 Response distributions for four cognitive function tests (N=3720)

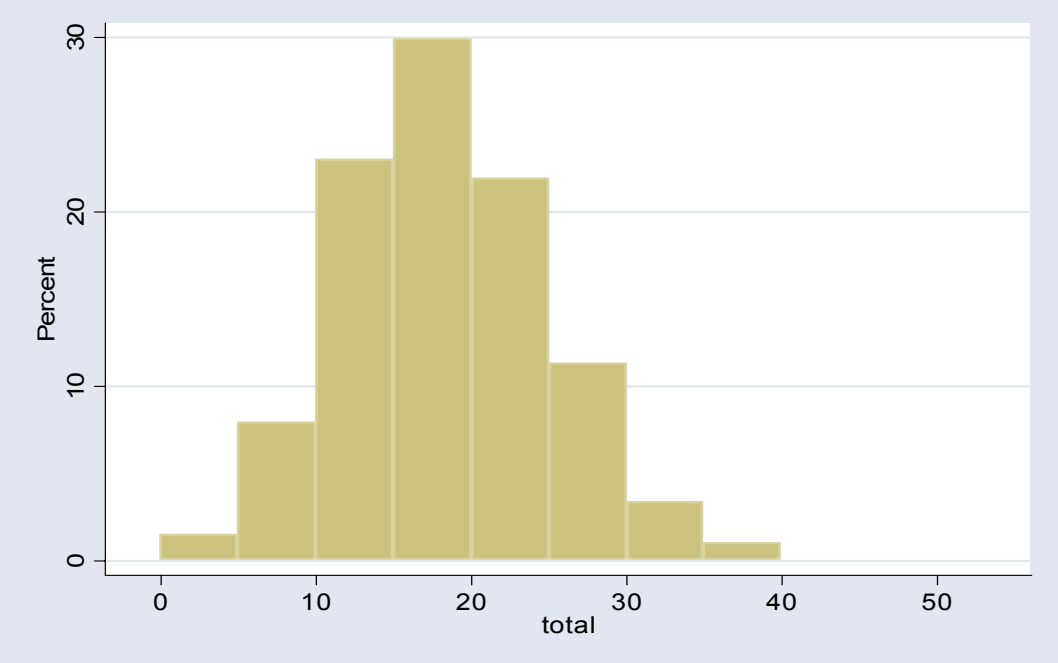
a) Touchscreen pairs test
(x-axis represents number of errors from third test)



b) Touchscreen snap reaction time test
(x-axis represents the mean reaction time in milliseconds over last 15 pairs)



c) Interview verbal fluency test
(x-axis represents number of words recalled in 1 minute)



d) Touchscreen house with lights test
(x-axis represents the number correct from the third test)

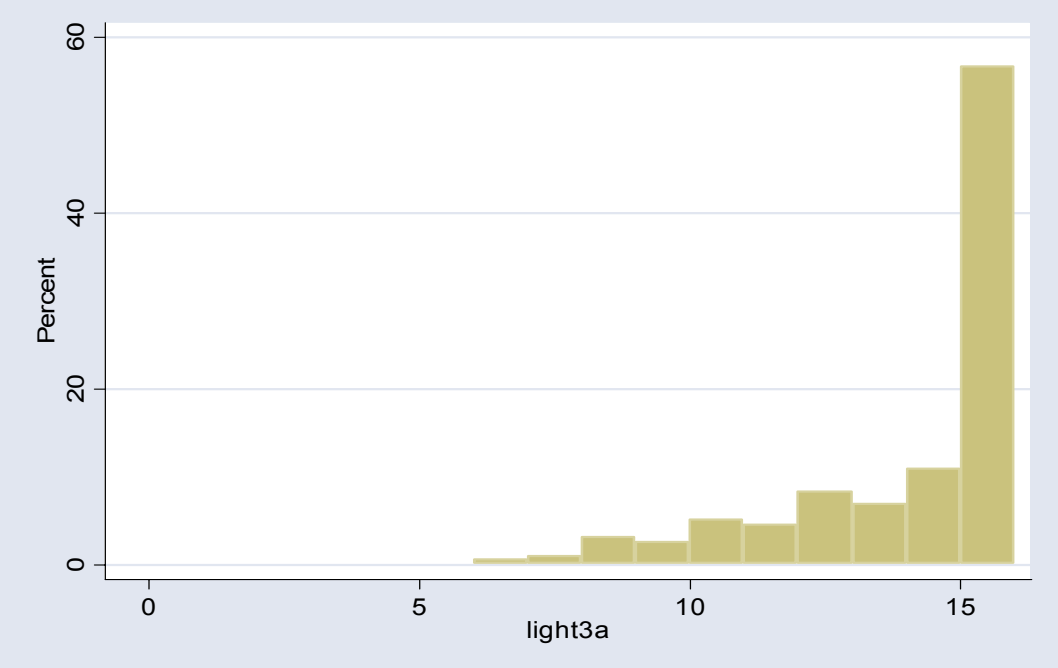


Table 4.9 Summary table of physical measurements (page 1 of 2)

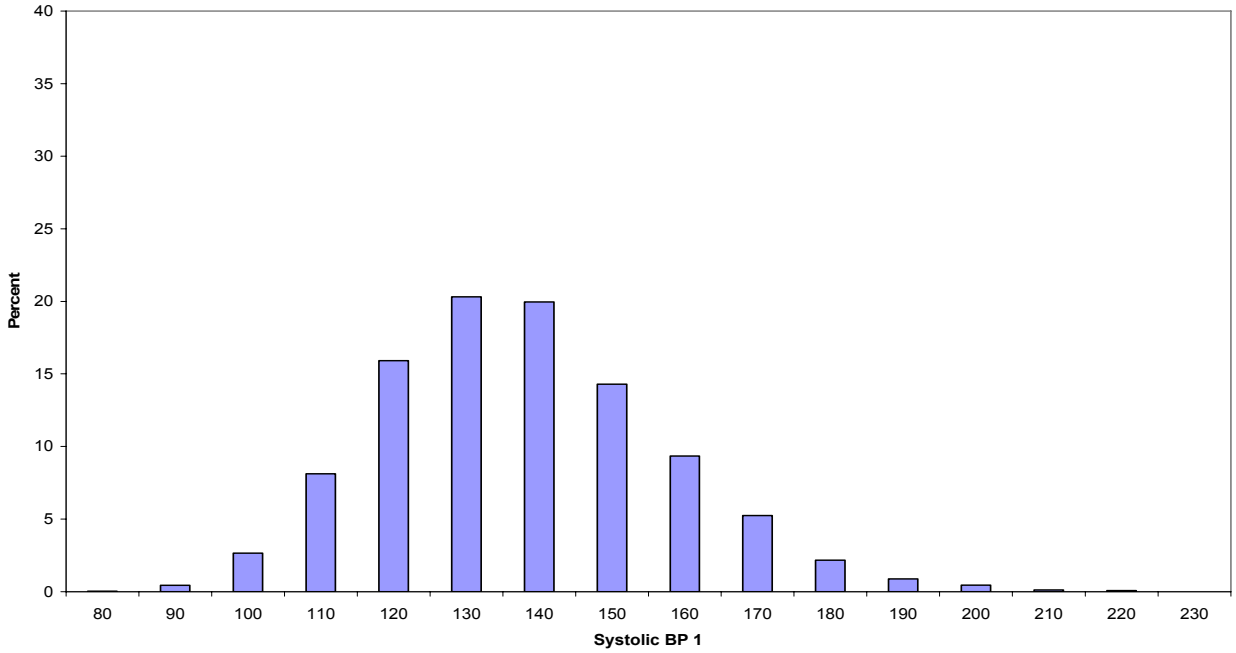
Measure	N	Mean (SD)	Median	10th centile	20th centile	80th centile	90th centile
1st Systolic blood pressure (mmHg)	3765	137 (19.4)	136	113	120	153	163
Women	2051	134 (19.8)	132	110	117	150	160
Men	1714	141 (18.4)	139	118	125	156	166
2nd Systolic blood pressure (mmHg)	3760	134 (18.7)	133	112	119	149	159
Women	2047	131 (19.3)	129	108	115	147	156
Men	1713	138 (17.4)	136	117	123	152	162
1st Diastolic blood pressure (mmHg)	3765	81 (10.9)	80	68	72	90	95
Women	2051	79 (10.8)	79	66	70	88	94
Men	1714	83 (10.7)	83	70	74	91	97
2nd Diastolic blood pressure (mmHg)	3760	80 (10.8)	80	67	71	89	94
Women	2047	78 (10.7)	78	66	69	87	93
Men	1713	82 (10.6)	82	70	74	91	96
1st Pulse rate (beats per minute)	3765	71 (11.6)	70	57	62	80	86
Women	2051	72 (11.2)	71	59	63	81	87
Men	1714	70 (11.9)	69	55	60	79	85
2nd Pulse rate (beats per minute)	3760	71 (11.3)	70	57	61	80	85
Women	2047	72 (10.8)	71	59	63	80	85
Men	1713	70 (11.9)	69	55	60	79	85
Right hand grip strength (kg)							
Women	2039	25 (6.7)	25	16	20	30	34
R hand dominant	1835	25 (6.8)	26	16	20	30	34
L hand dominant	168	24 (6.0)	24	17	18	30	32
Men	1700	39 (9.2)	40	28	32	46	52
R hand dominant	1473	40 (9.1)	40	28	32	47	52
L hand dominant	181	36 (9.0)	37	26	29	44	47
Left hand grip strength (kg)							
Women	2041	23 (6.7)	23	14	18	28	31
R hand dominant	1836	23 (6.7)	23	14	18	28	30
L hand dominant	168	24 (6.9)	24	16	19	30	32
Men	1697	38 (9.1)	38	27	30	45	50
R hand dominant	1467	38 (9.2)	38	27	30	45	50
L hand dominant	181	38 (8.5)	39	28	30	46	48

Table 4.9 Summary table of physical measurements (page 2 of 2)

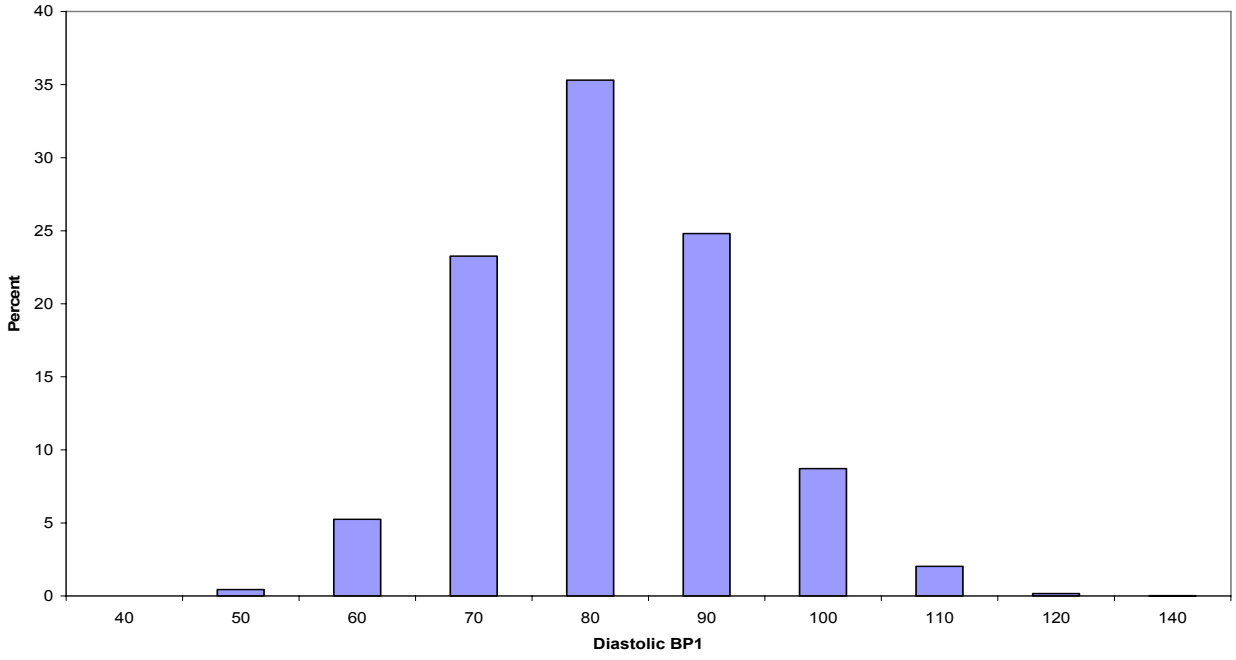
Measure	N	Mean (SD)	Median	10th centile	20th centile	80th centile	90th centile
Waist circumference (cm)							
Women	2043	86 (13.0)	84	71	75	96	103
Men	1706	98 (11.4)	97	84	89	107	112
Hip circumference (cm)							
Women	2042	106 (11.5)	104	93	96	114	121
Men	1706	105 (7.6)	104	97	99	110	115
Standing height (cm)							
Women	2042	162 (6.3)	162	154	157	167	170
Men	1705	175 (6.8)	175	167	170	181	184
Sitting height (cm)							
Women	2036	86 (3.3)	86	81	83	88	90
Men	1691	92 (3.7)	92	87	89	95	97
Weight (kg)							
Women	2043	72 (14.6)	69	56	60	82	91
Men	1702	85 (14.7)	84	68	73	96	104
Impedance – whole body (ohms)							
Women	2006	655 (74.5)	651	563	593	718	748
Men	1669	540 (61.0)	539	466	489	589	616

Figure 4.8 Frequency distributions of physical measurements

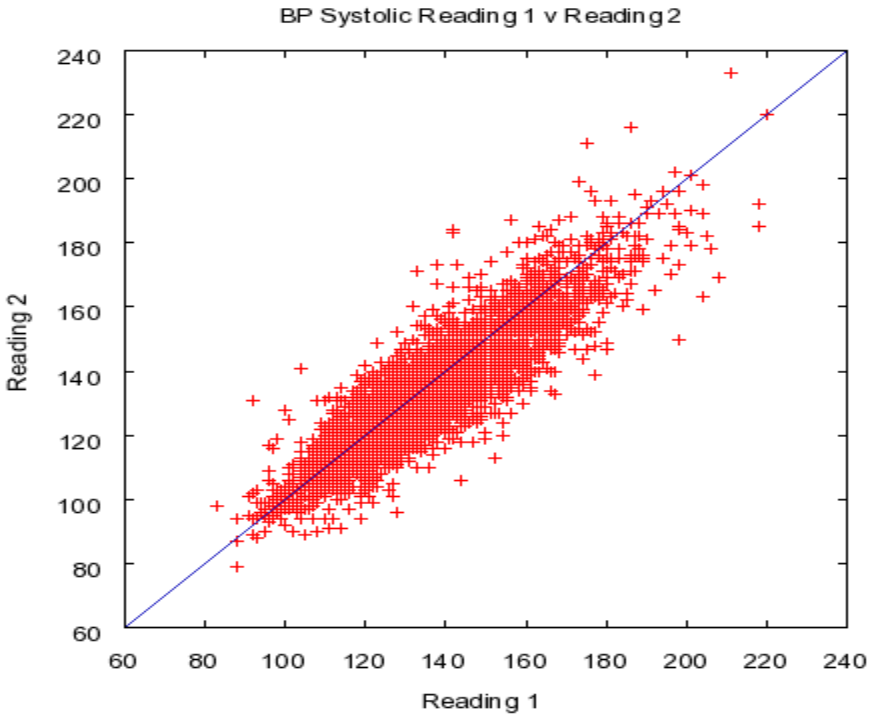
(a) Systolic blood pressure (mm Hg) 1st reading (N=3,765)



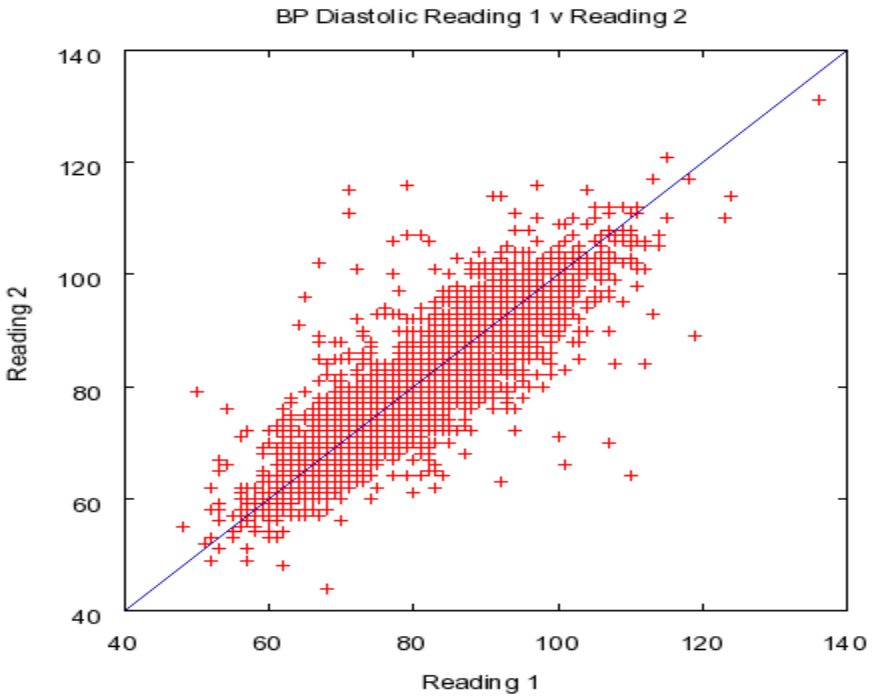
(b) Diastolic blood pressure (mm Hg) 1st reading (N=3,765)



(c) Scatterplot of systolic blood pressure (mm Hg): 1st reading versus 2nd reading (N=3,765)

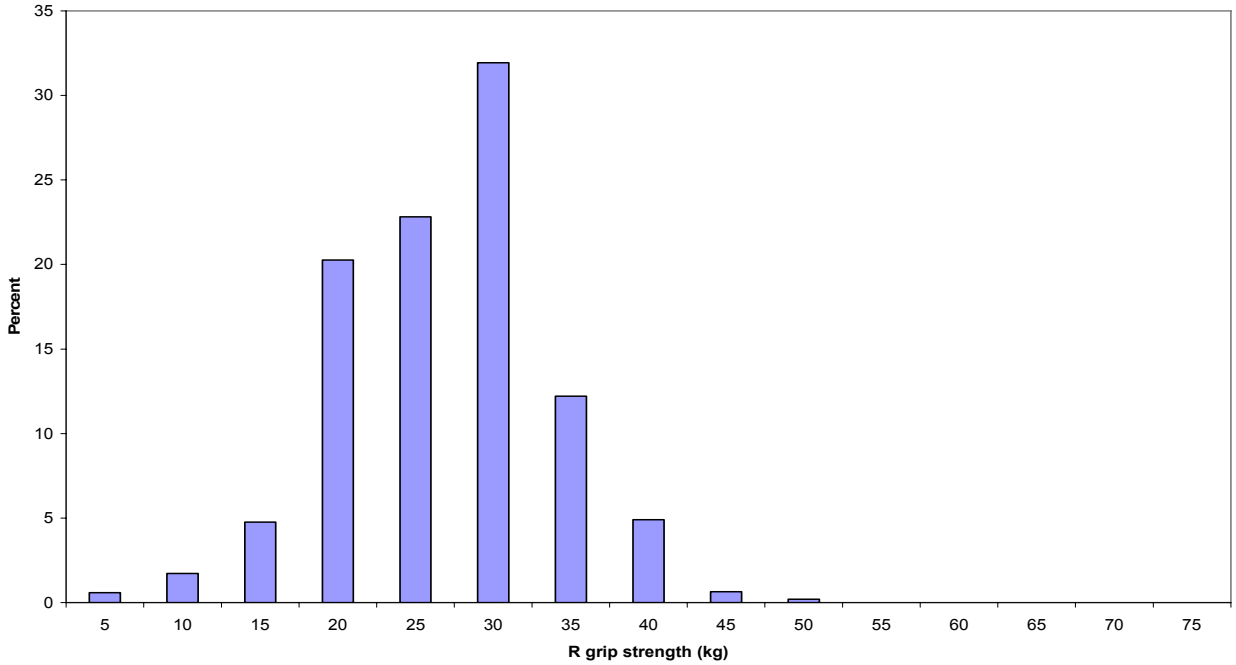


(d) Scatterplot of diastolic blood pressure (mm Hg): 1st reading versus 2nd reading (N=3,765)

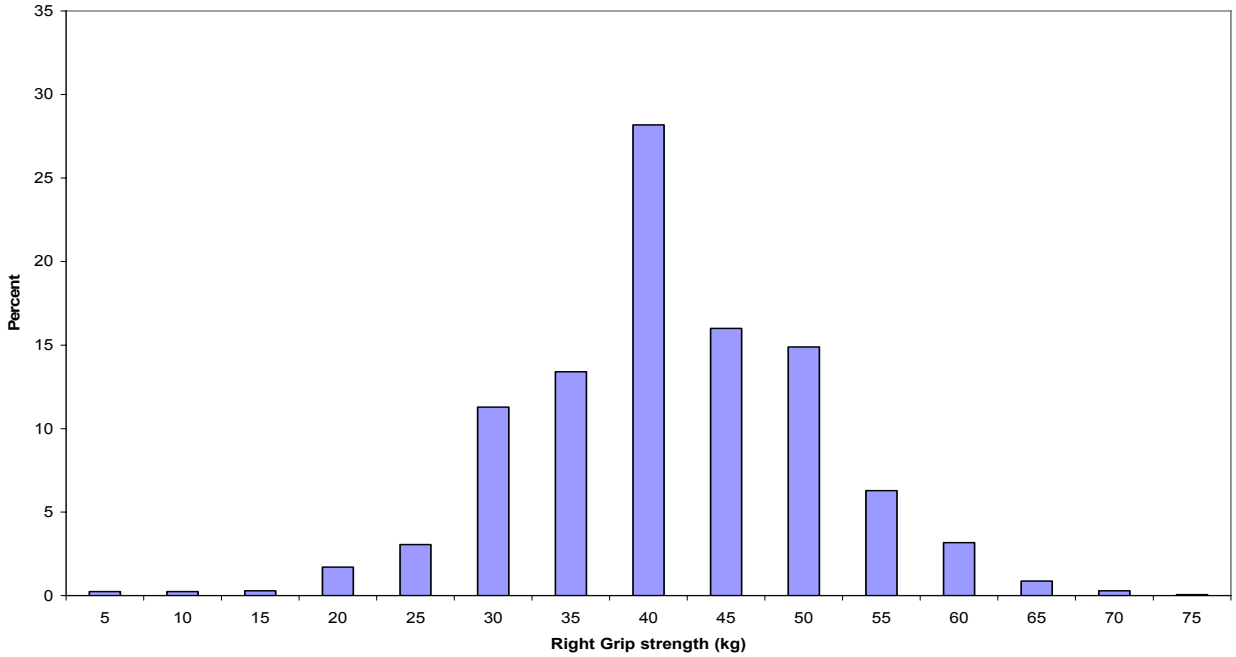


(f) Right hand grip strength (kg)

Women (N=2,039)

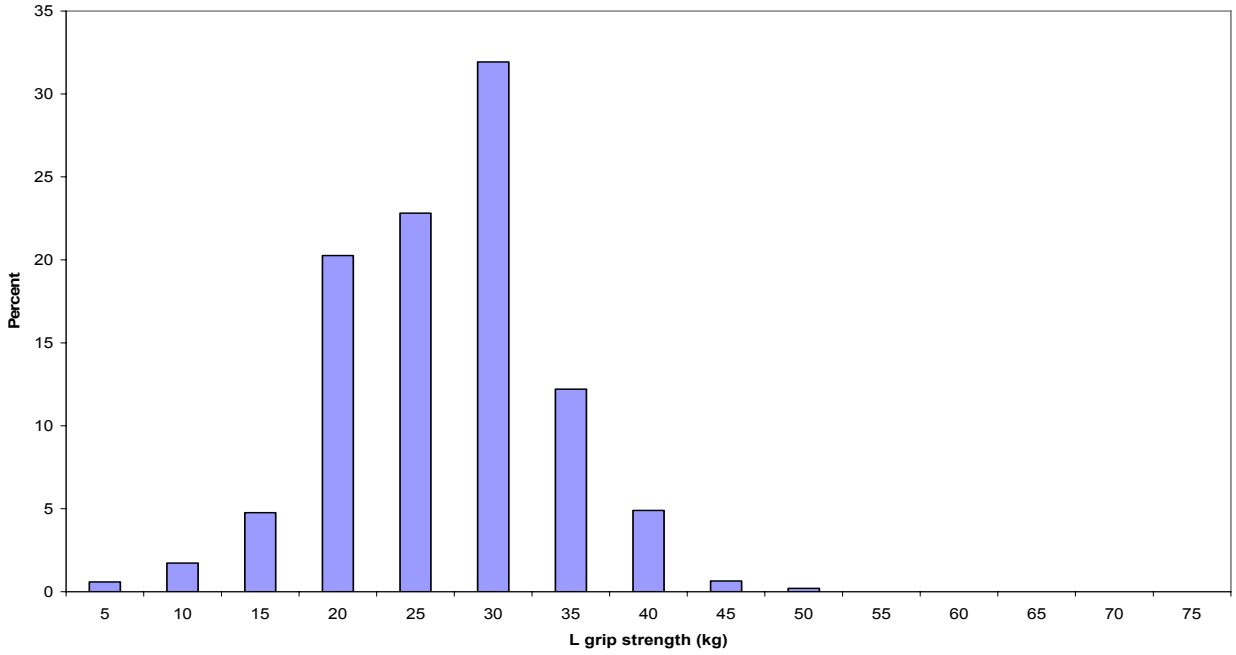


Men (N=1,700)

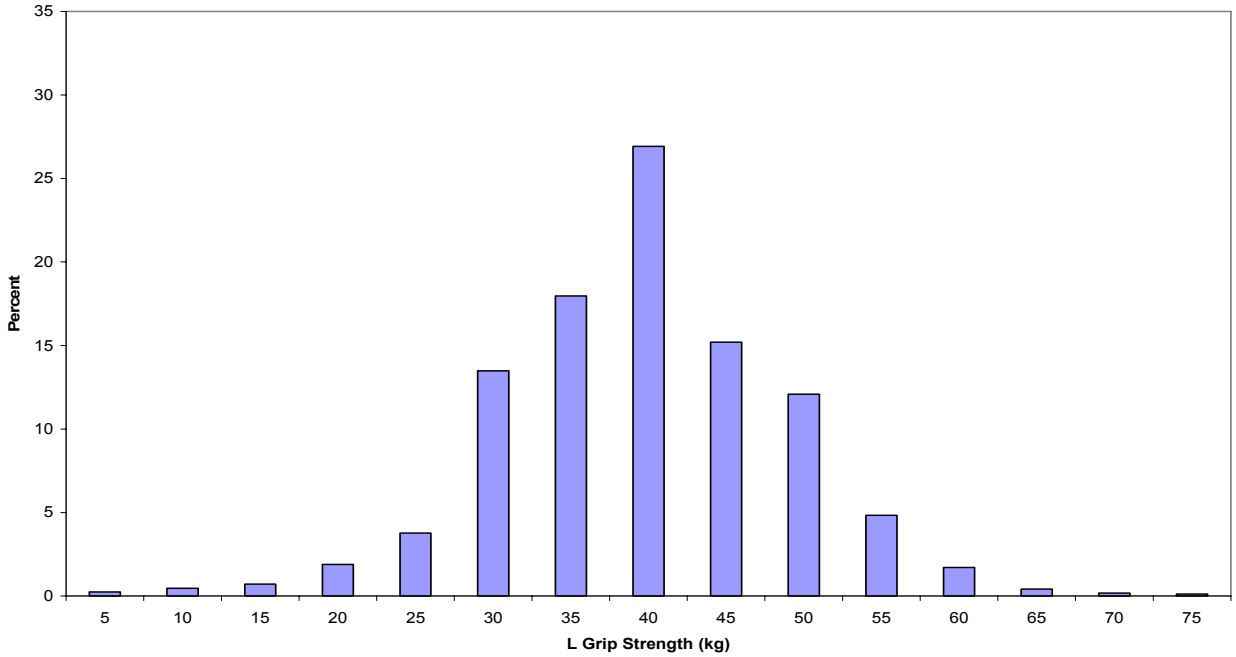


(g) Left hand grip strength (kg)

Women (N=2,041)

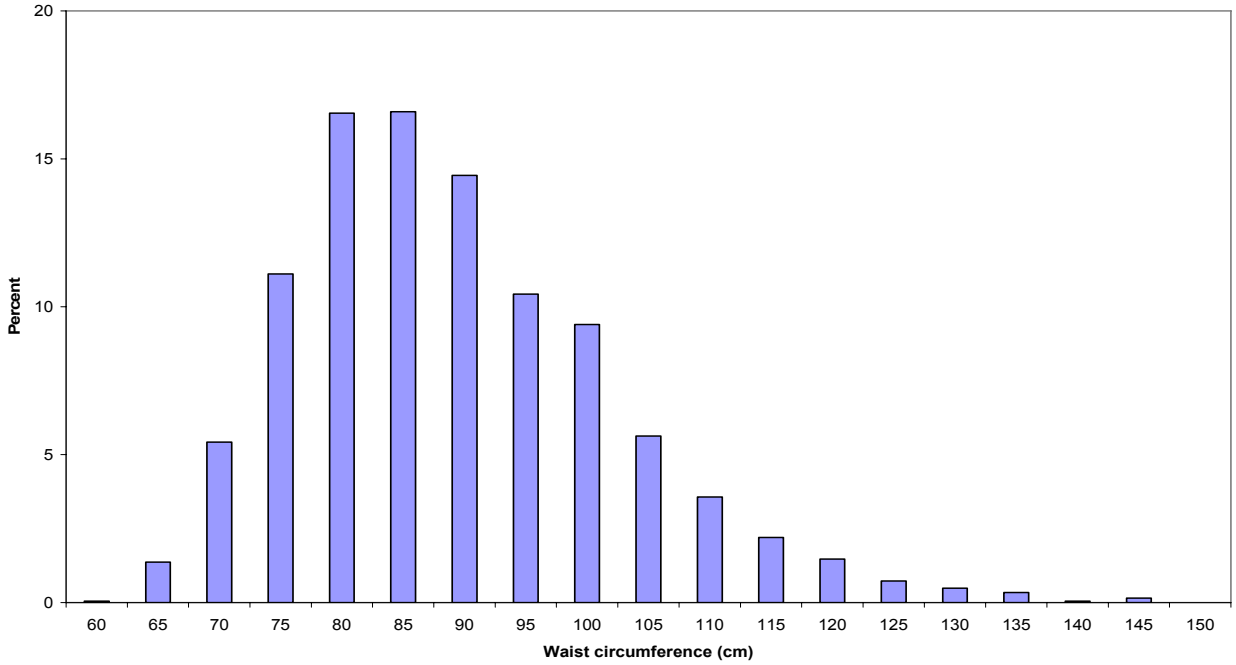


Men (N=1,697)

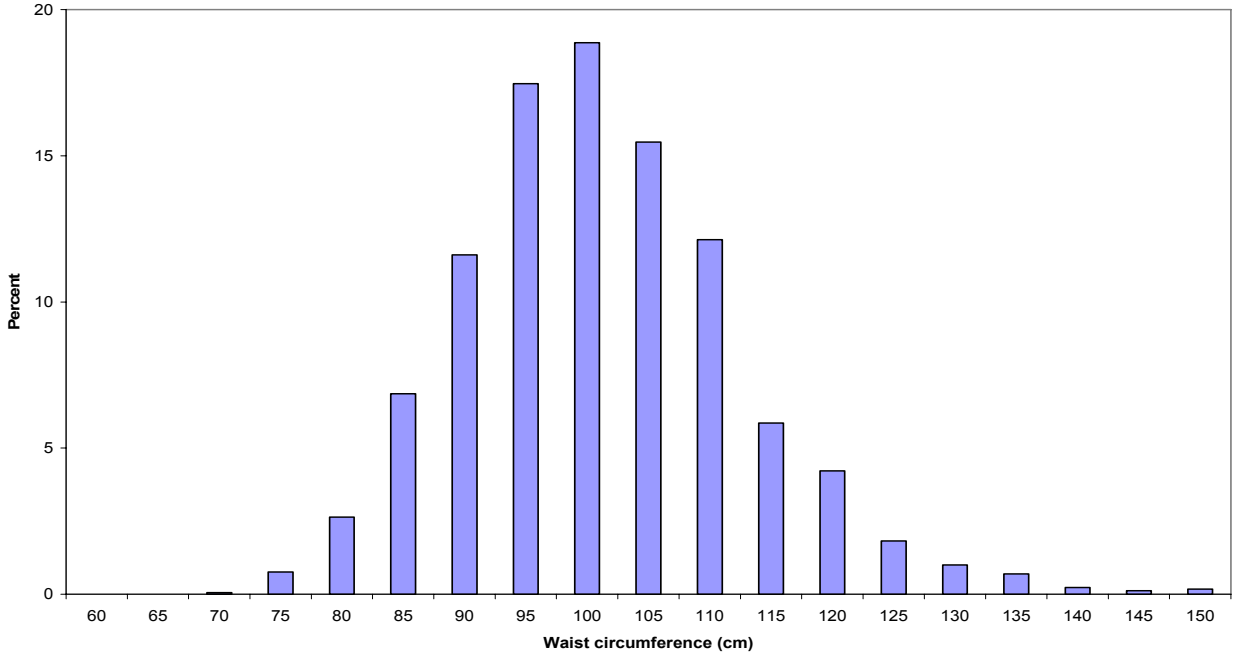


(h) Waist circumference (cm)

Women (N=2,043)

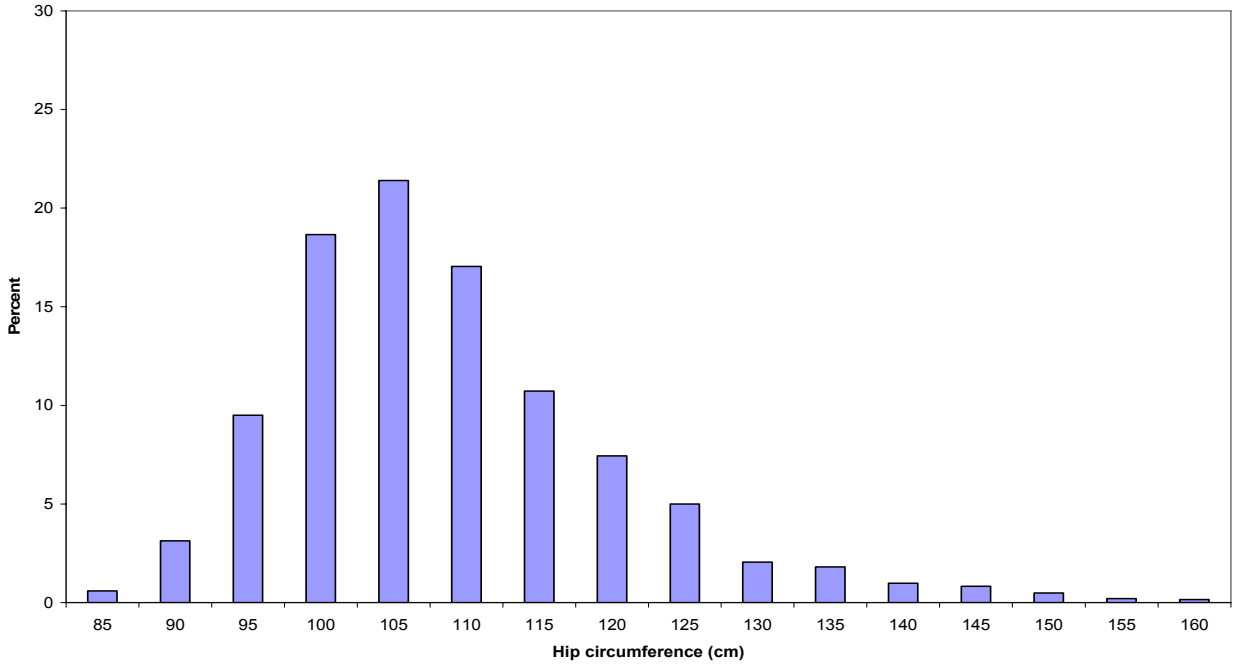


Men (N=1,706)

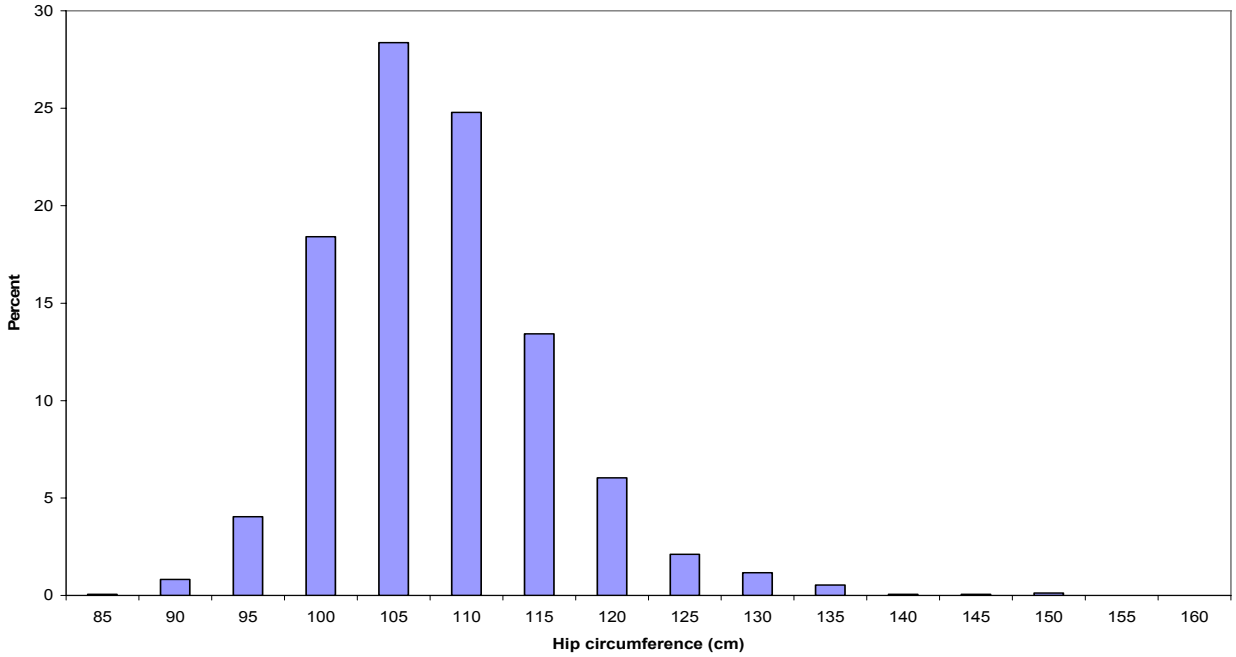


(i) Hip circumference (cm)

Women (N=2,042)

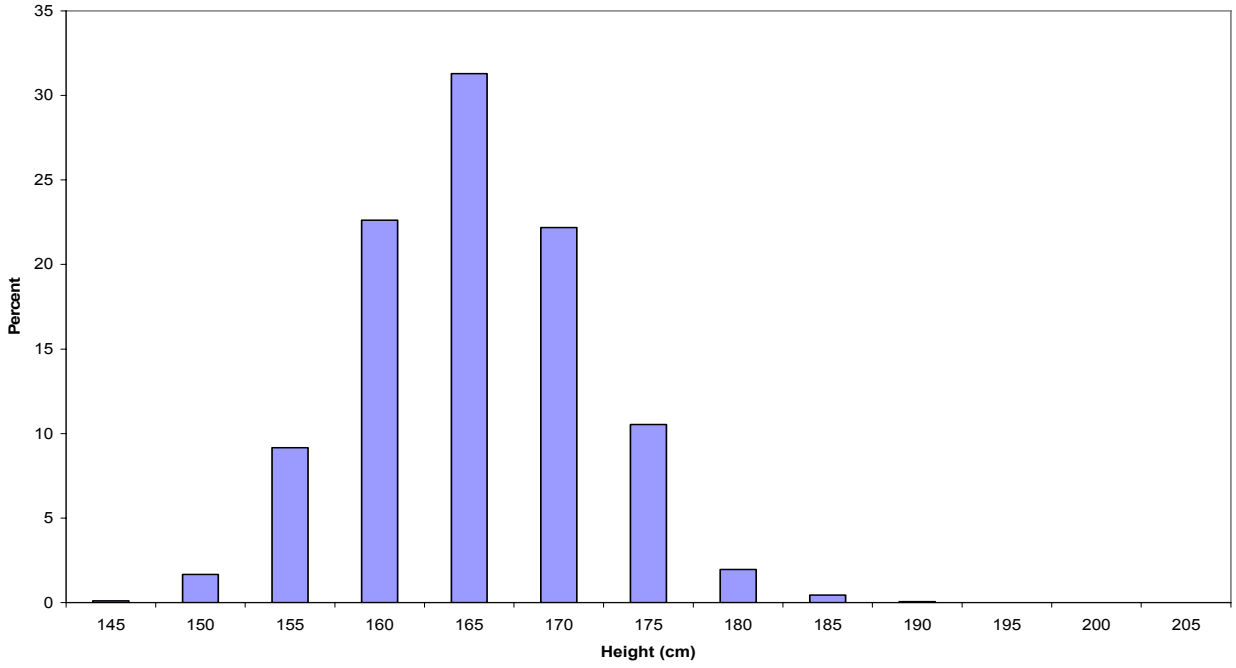


Men (N=1,706)

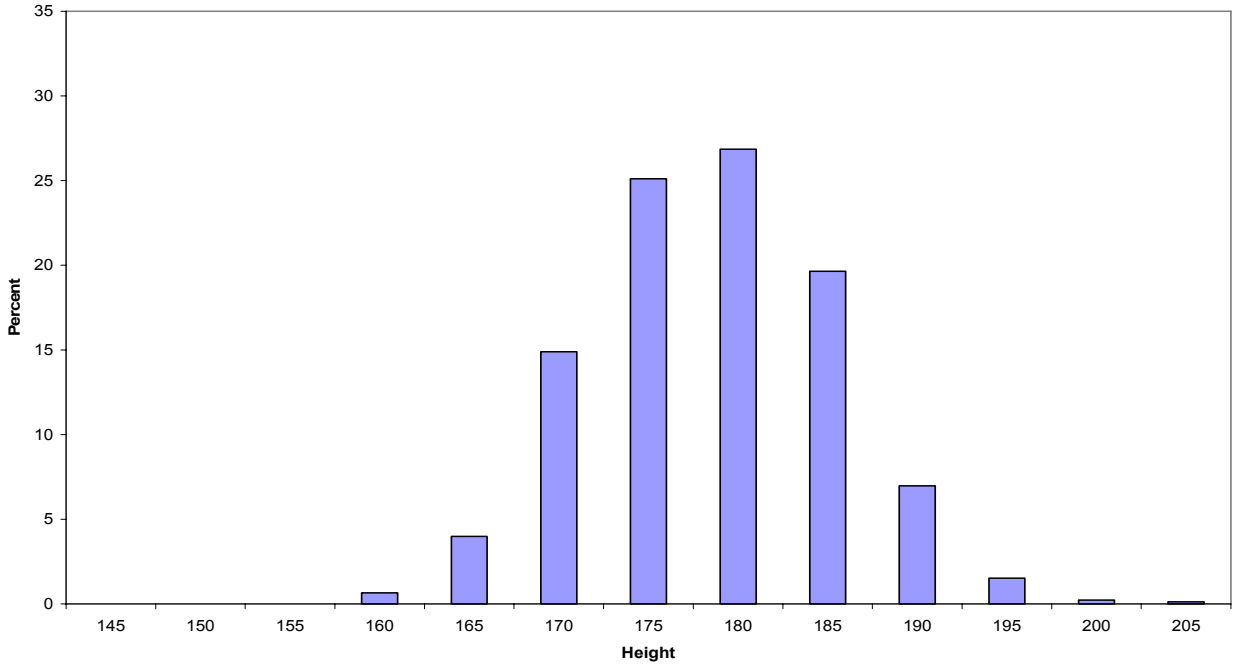


(j) Standing height measurement (cm)

Women (N=2,042)

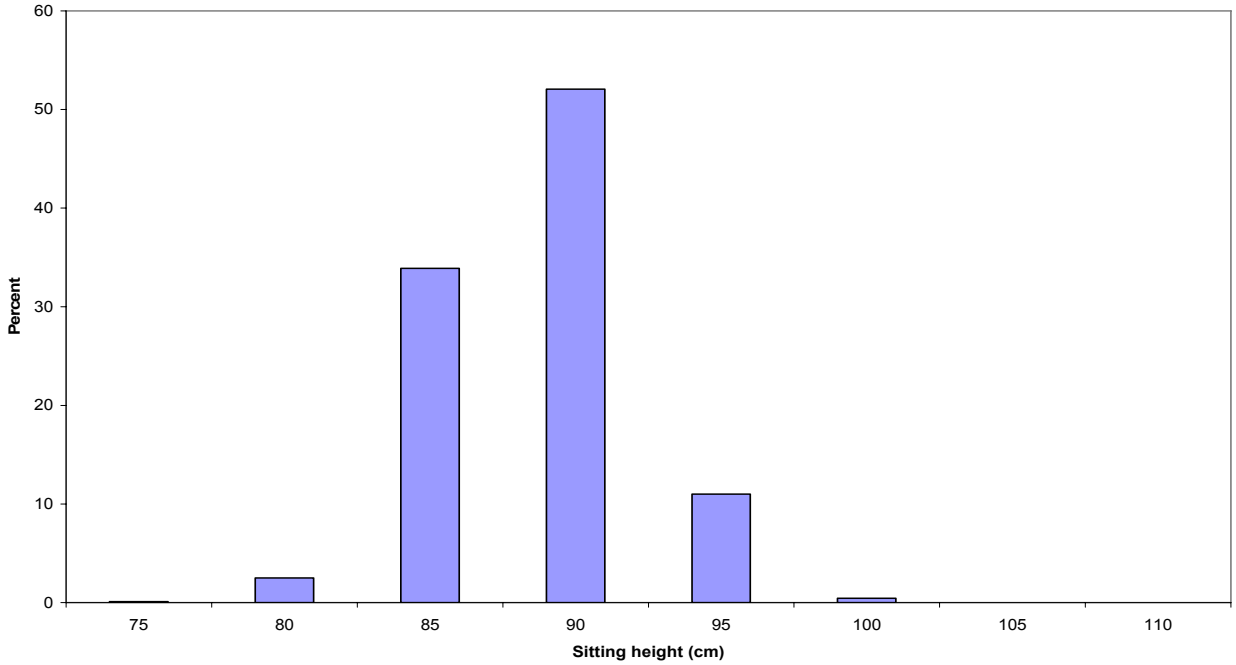


Men (N=1,705)

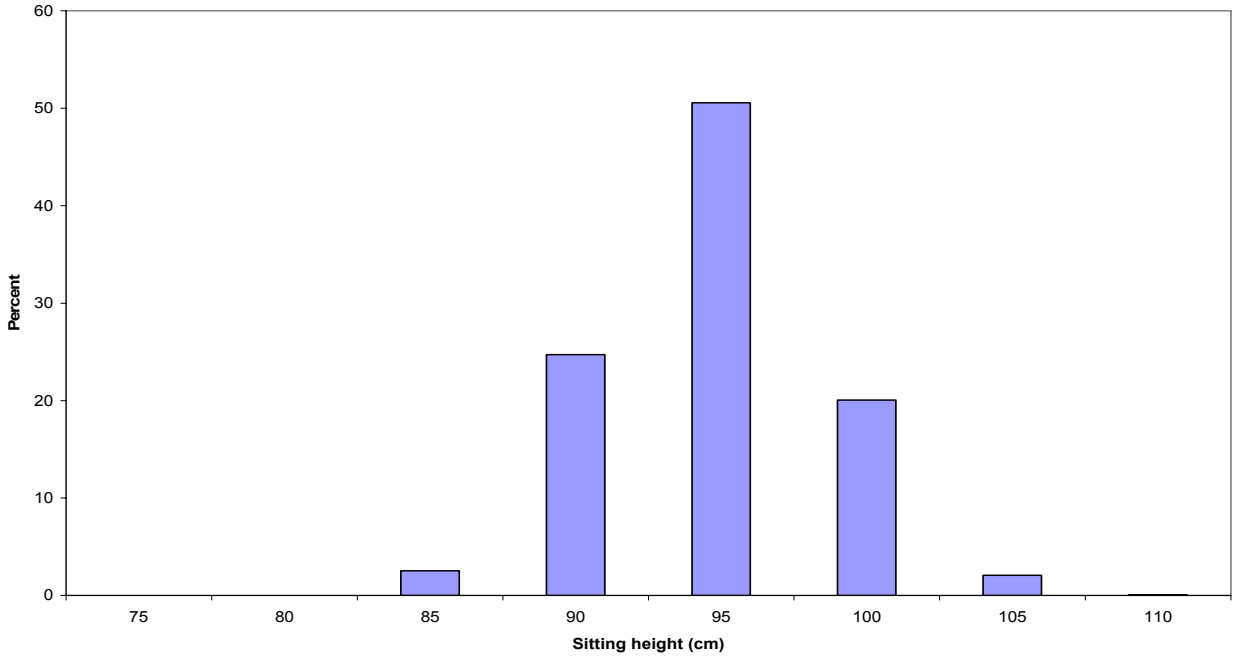


(k) Sitting height measurement (cm)

Women (N=2,036)

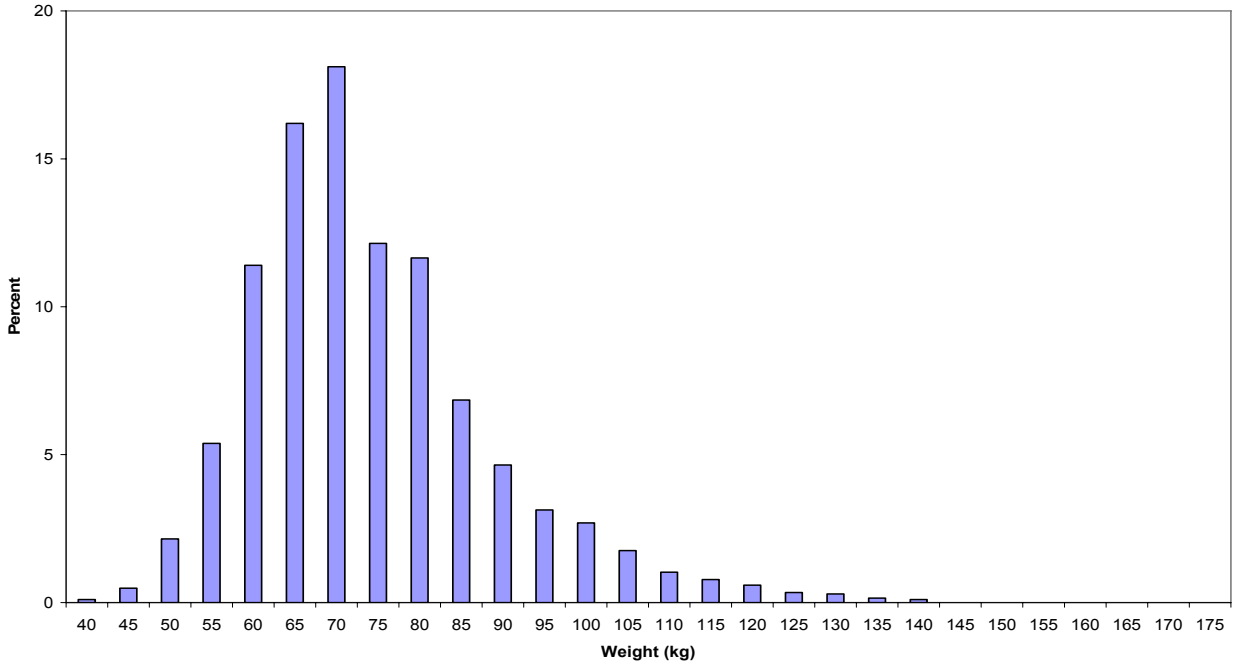


Men (N=1,691)

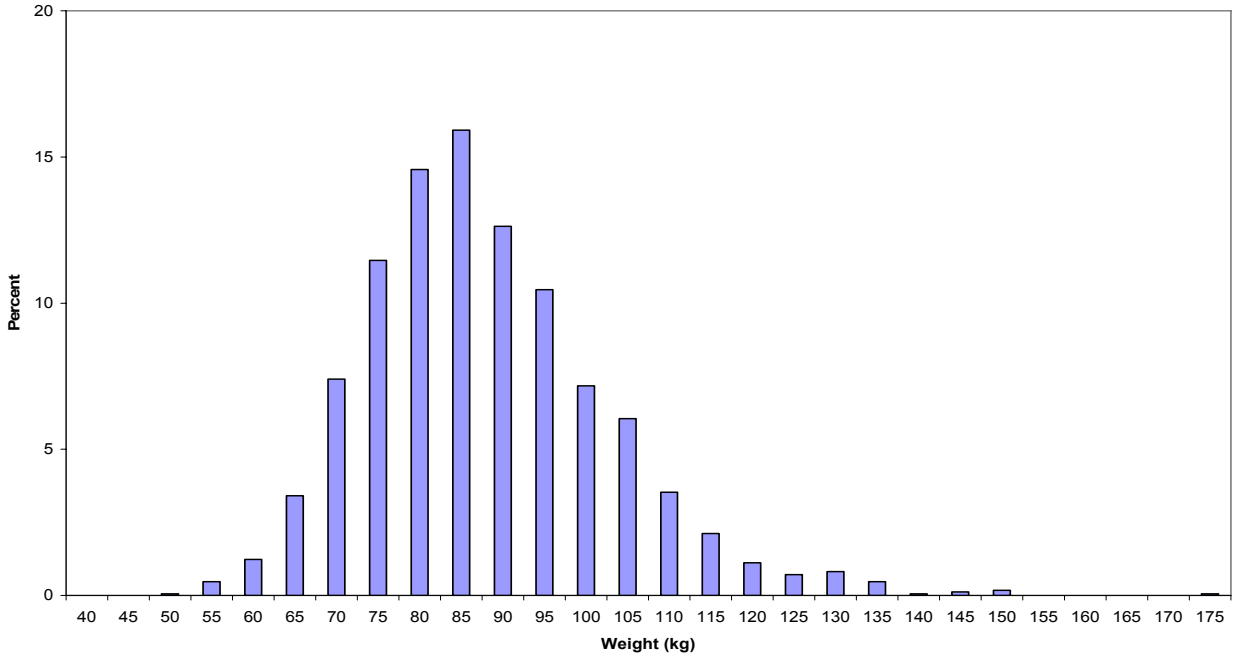


(l) Weight measurement (kg)

Women (N=2,042)

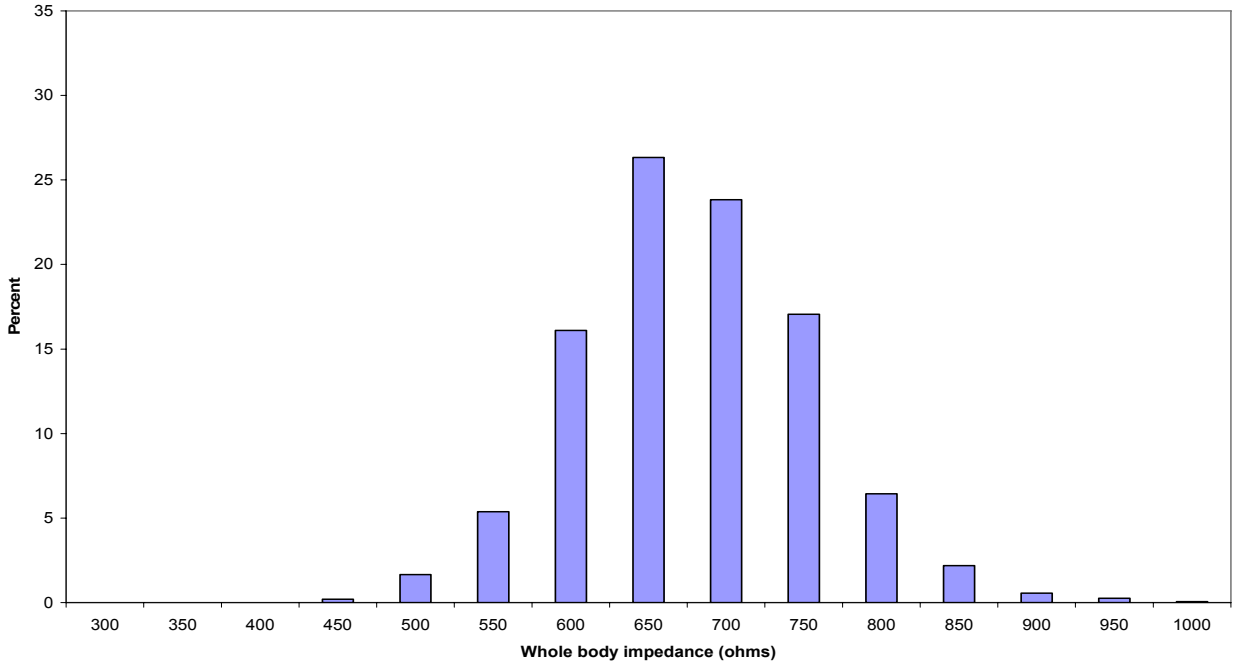


Men (N=1,702)



(m) Whole body impedance (ohms)

Women (N=2,006)



Men (N=1,669)

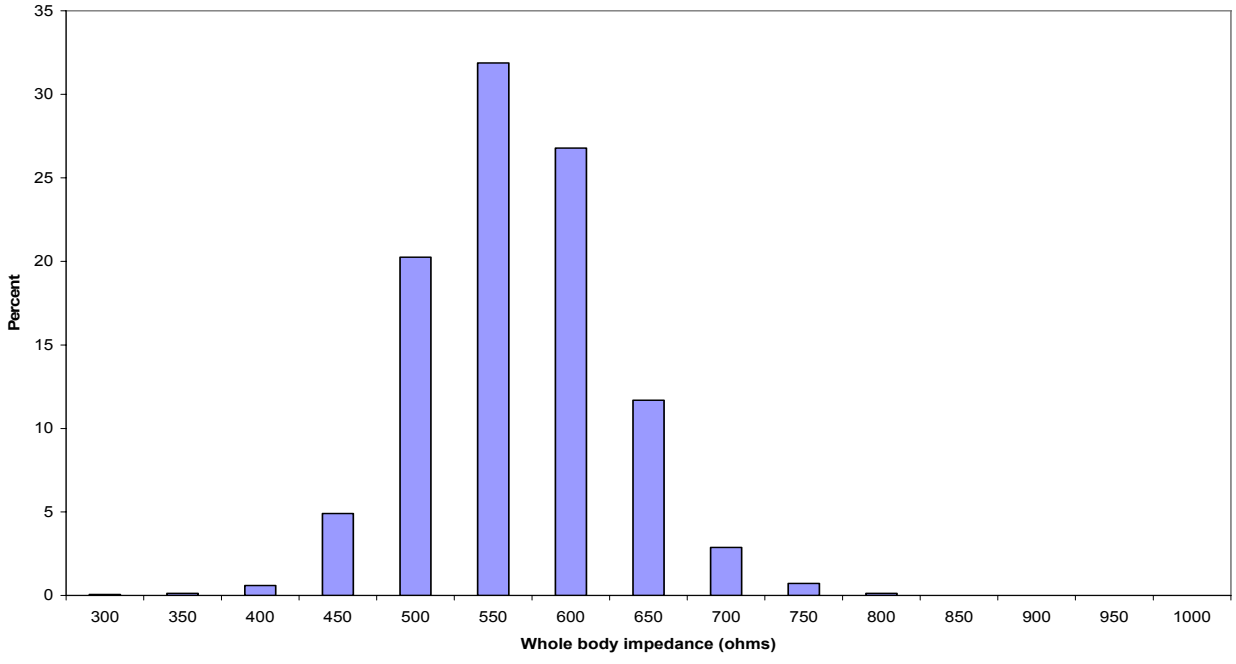
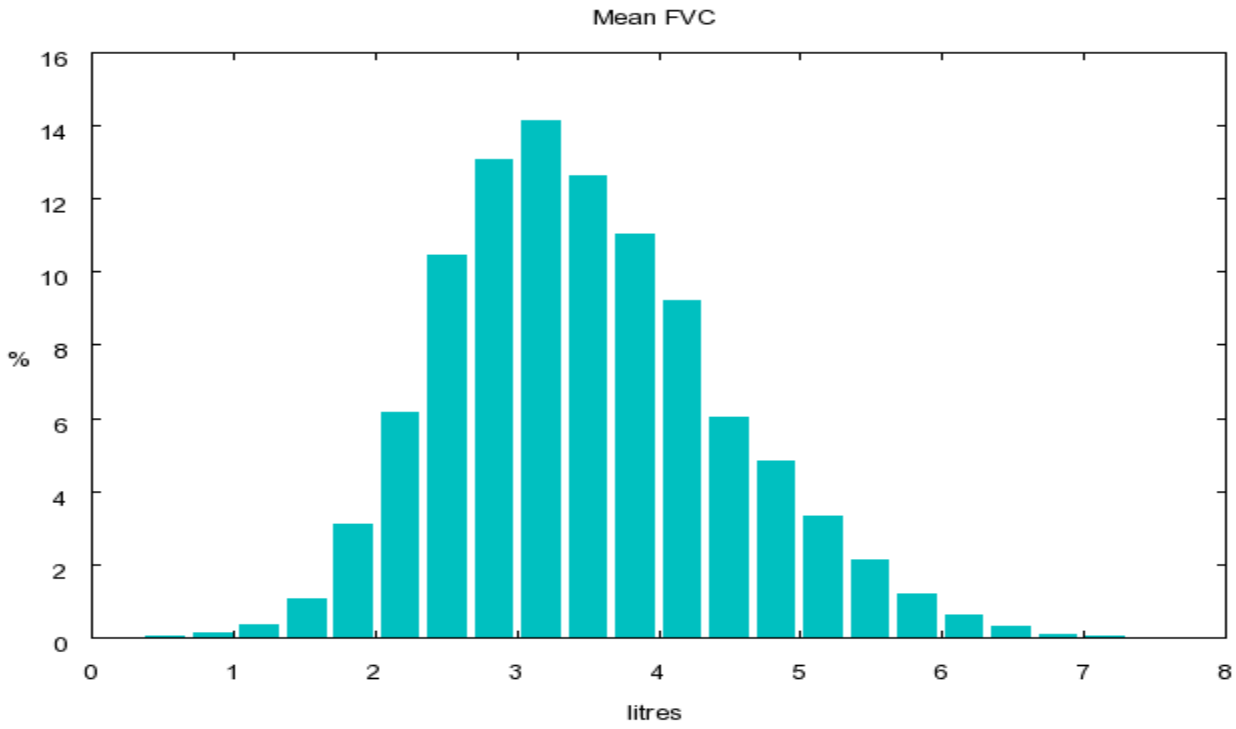
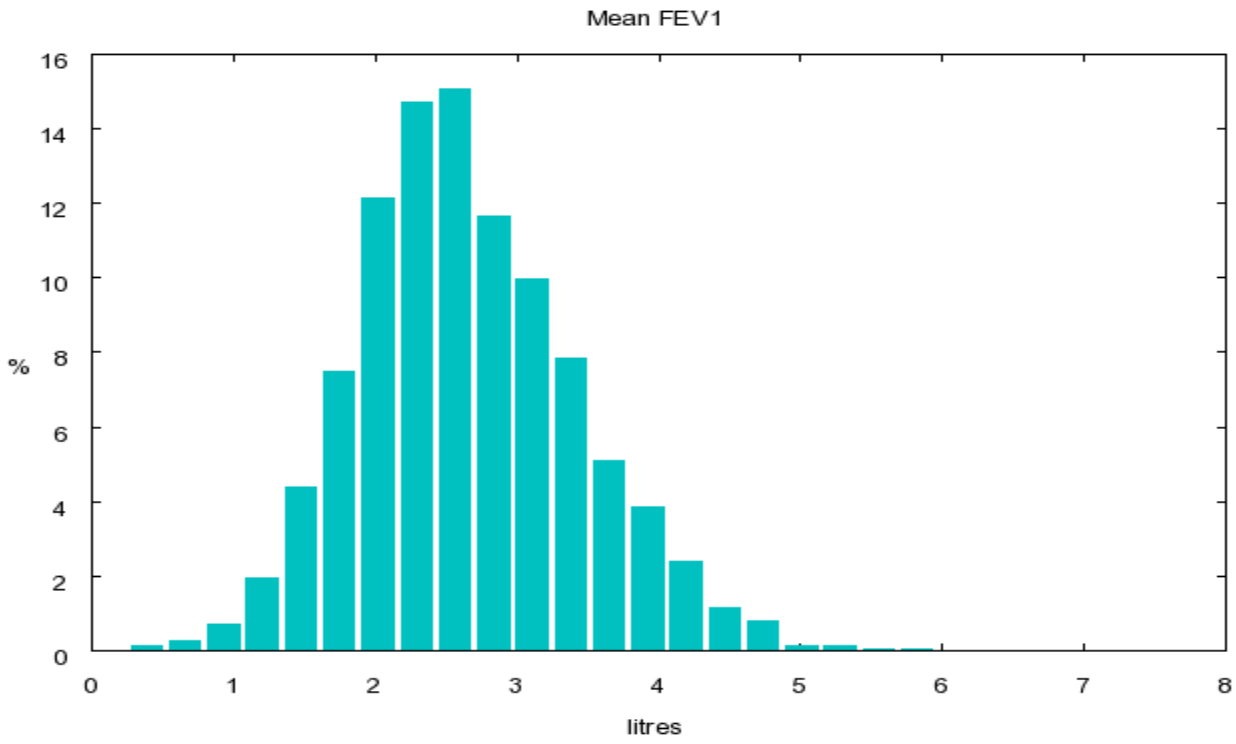


Figure 4.9 Frequency distributions for spirometry

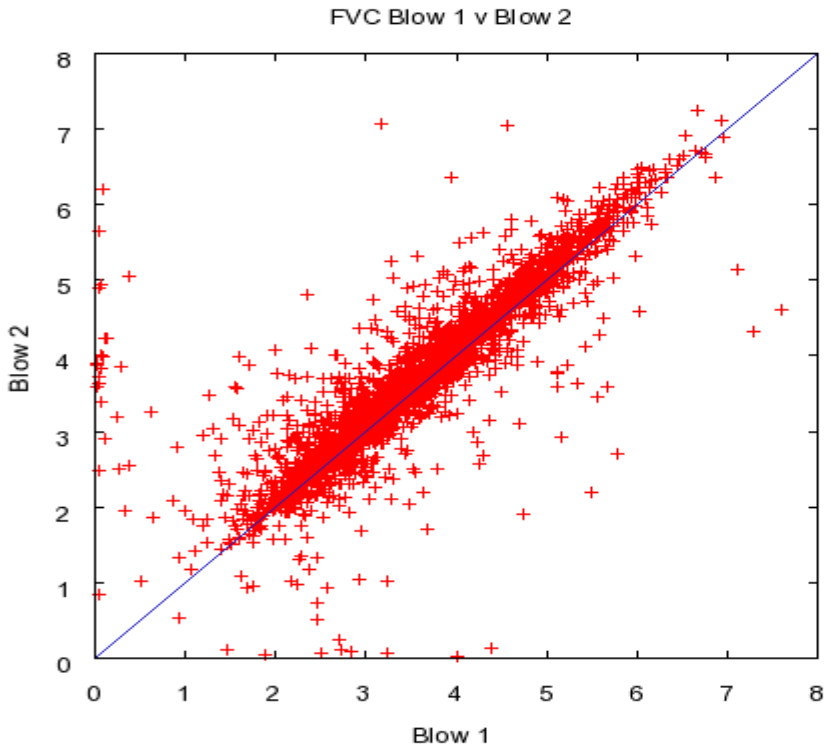
(a) FVC (litres) (N=3232)



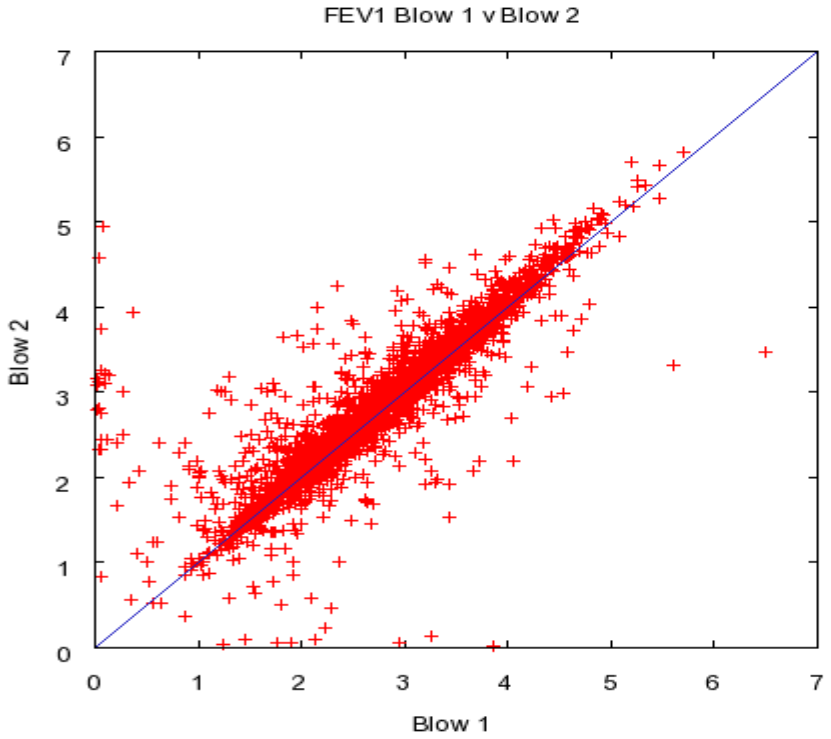
(b) FEV1 (litres) (N=3232)



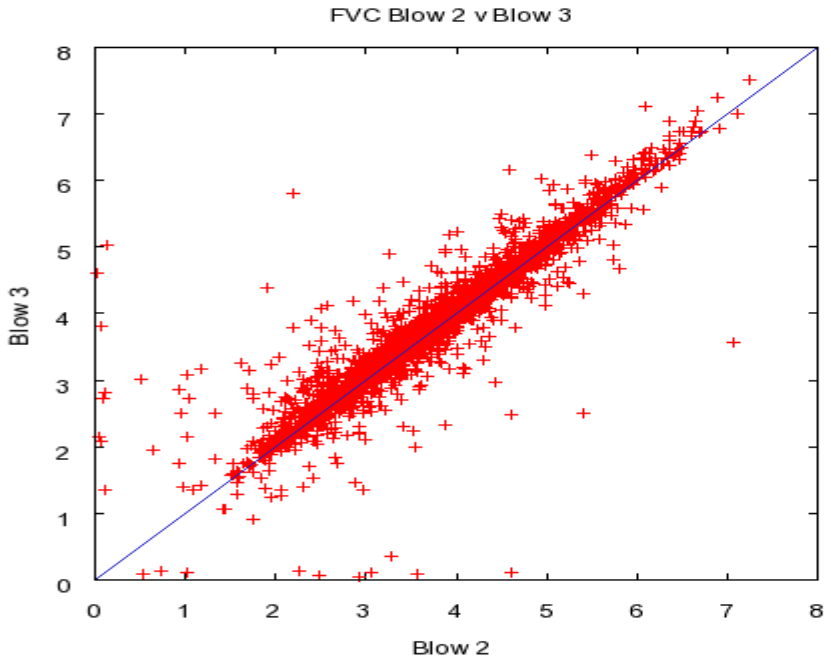
(c) Scatterplot of FVC (litres): 1st blow versus 2nd blow (N=3232)



(d) Scatterplot of FEV1 (litres): 1st blow versus 2nd blow (N=3232)



(e) Scatterplot of FVC (litres): 2nd blow versus 3rd blow (N=3232)



(f) Scatterplot of FEV1 (litres): 2nd blow versus 3rd blow (N=3232)

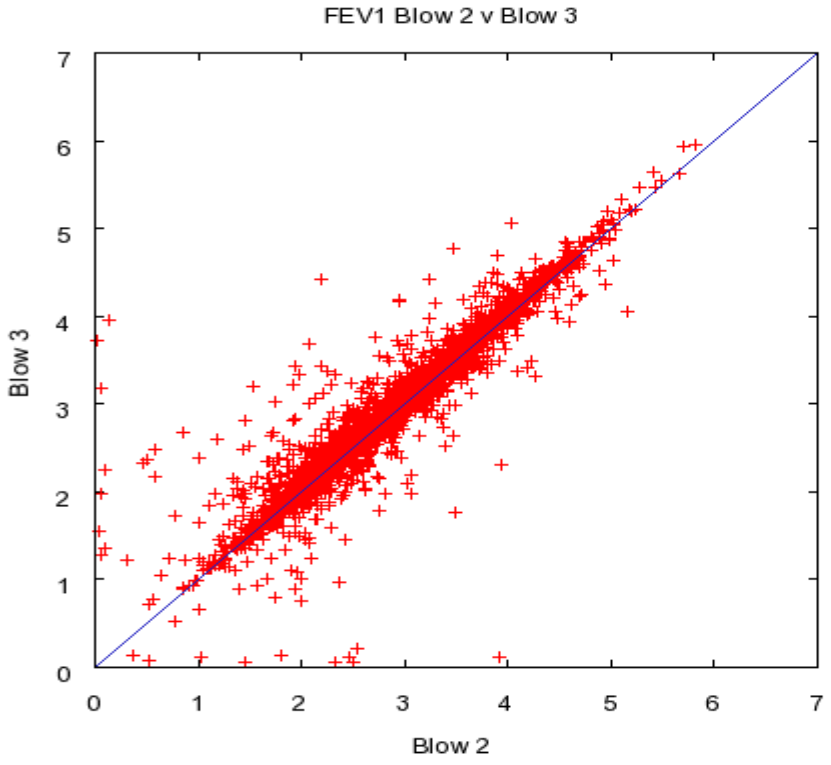


Table 4.10 Independent analysis* of spirometry reproducibility

a) Total number of flow curves meeting reproducibility criteria

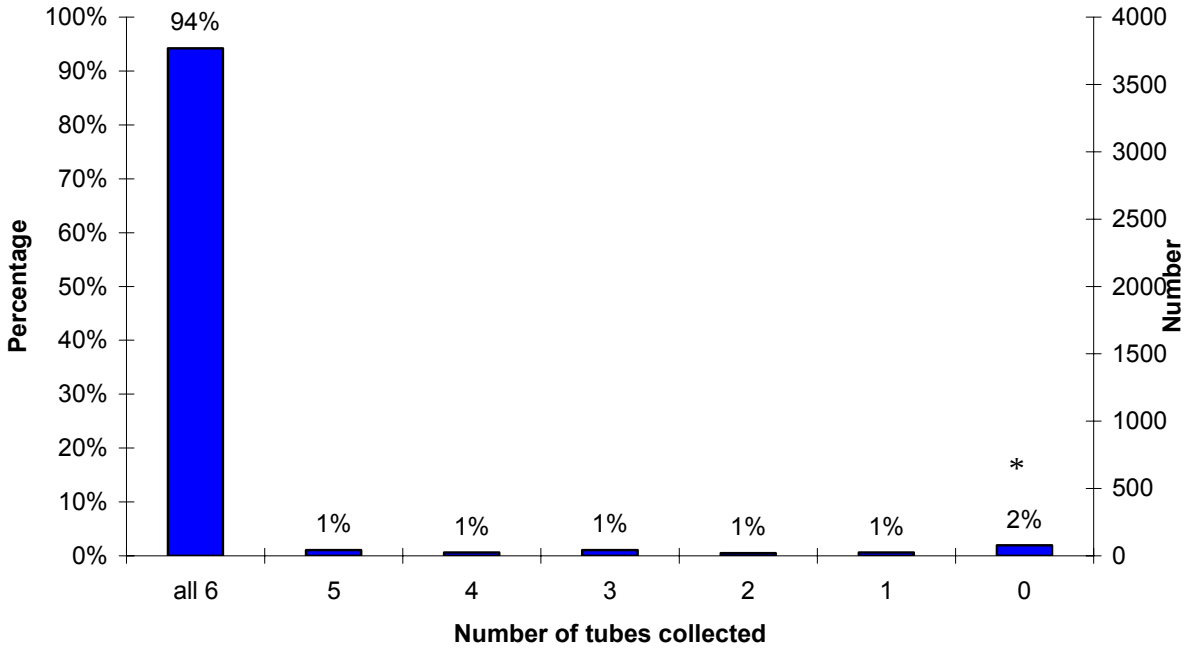
Analysis period	Number	Number of flow curves with ≤5% difference between FEV1 or FVC
02/03-31/03/2006	300	285 (95%)
03/04-05/05/2006	524	483 (92%)

b) Comparison of reproducibility of the three blows per participant

Comparison	Number	Number of flow curves with ≤5% difference between	
		FEV1	FVC
1st versus 2nd blow	219	125 (57%)	109 (50%)
2nd versus 3rd blow	219	153 (70%)	151 (69%)

* Undertaken by Nigel Clayton, Chief Physiologist, North West Lung Centre, Wythenshawe Hospital

Figure 4.10 Numbers of blood samples collected from each participant



***** Reasons recorded for no sample included failure to obtain sample (N=47), participant opted not to provide sample (N=20), and participant fainted (N=6)

A5.0 Full tabulation of touchscreen questionnaire responses

Percentages are based on all participants completing questionnaire regardless of eligibility except where indicated (smoking questions, female only, male only questions) and for multi-choice questions where the percentage represents the proportion of all participants who touched that option. The "." in the tables indicate the number and percentage of participants who were never shown the question due to streamlining of the questionnaire.

```
. tab d4, What type of accommodation do you live in?

         D4 |      Freq.     Percent        Cum.
------------+-----------------------------------
None of abov|         10        0.26        0.26
Declined ans|          3        0.08        0.34
house or bun|      3,489       92.35       92.69
flat, maison|        266        7.04       99.74
Sheltered ac|          9        0.24       99.97
   Care home|          1        0.03      100.00
------------+-----------------------------------
      Total |      3,778      100.00

. tab d5, Do you own or rent the accommodation that you live in?

         D5 |      Freq.     Percent        Cum.
------------+-----------------------------------
None of abov|         28        0.74        0.74
Declined ans|         17        0.45        1.19
Own outright|      1,681       44.49       45.69
Own  mortgag|      1,608       42.56       88.25
Rent local a|        320        8.47       96.72
Rent private|         59        1.56       98.28
part rent an|         16        0.42       98.70
Live in acco|         29        0.77       99.47
          . |         20        0.53      100.00
------------+-----------------------------------
      Total |      3,778      100.00

. tab d5a, Do you have any of the following in your home?

        D5B |      Freq.     Percent
------------+-----------------------------------
None of abov|        889       23.53
Declined ans|          6        0.16
Do not know |          2        0.05
A gas hob   |      1,707       45.18
A gas cooker|      1,550       41.03
An open soli|        236        6.25
------------+-----------------------------------
```

```
. tab d5b, How many years have you lived at your current address?

        D5B |      Freq.     Percent        Cum.
------------+-----------------------------------
Less than 1 |         83        2.20        2.20
Decline answ|          8        0.21        2.41
Do not know |          2        0.05        2.46
          1 |         64        1.69        4.16
          2 |        128        3.39        7.54
          3 |        136        3.60       11.14
          4 |        104        2.75       13.90
          5 |        135        3.57       17.47
          6 |        137        3.63       21.10
          7 |        110        2.91       24.01
          8 |        133        3.52       27.53
          9 |         93        2.46       29.99
         10 |        130        3.44       33.43
         11 |         92        2.44       35.87
         12 |        110        2.91       38.78
         13 |         72        1.91       40.68
         14 |         83        2.20       42.88
         15 |        107        2.83       45.71
         16 |         89        2.36       48.07
         17 |         82        2.17       50.24
         18 |        128        3.39       53.63
         19 |         97        2.57       56.19
         20 |        164        4.34       60.53
         21 |         80        2.12       62.65
         22 |        107        2.83       65.48
         23 |        103        2.73       68.21
         24 |         74        1.96       70.17
         25 |         97        2.57       72.74
         26 |         96        2.54       75.28
         27 |         72        1.91       77.18
         28 |         66        1.75       78.93
         29 |         67        1.77       80.70
         30 |        119        3.15       83.85
         31 |         43        1.14       84.99
         32 |         52        1.38       86.37
         33 |         46        1.22       87.59
         34 |         42        1.11       88.70
         35 |         61        1.61       90.31
         36 |         47        1.24       91.56
         37 |         41        1.09       92.64
         38 |         29        0.77       93.41
         39 |         22        0.58       93.99
         40 |         56        1.48       95.47
         41 |         19        0.50       95.98
         42 |         22        0.58       96.56
         43 |         23        0.61       97.17
         44 |         17        0.45       97.62
         45 |         14        0.37       97.99
         46 |          7        0.19       98.17
         47 |          8        0.21       98.39
         48 |          6        0.16       98.54
         49 |          9        0.24       98.78
         50 |          9        0.24       99.02
```

```
         51 |          4        0.11       99.13
         52 |          3        0.08       99.21
         53 |          4        0.11       99.31
         54 |          2        0.05       99.36
         55 |          3        0.08       99.44
         56 |          4        0.11       99.55
         57 |          3        0.08       99.63
         58 |          1        0.03       99.66
         59 |          1        0.03       99.68
         60 |          1        0.03       99.71
         62 |          1        0.03       99.74
         63 |          1        0.03       99.76
         64 |          2        0.05       99.81
         65 |          1        0.03       99.84
         66 |          3        0.08       99.92
         67 |          2        0.05       99.97
         69 |          1        0.03      100.00
------------+-----------------------------------
      Total |      3,778      100.00
```

```
. tab d7, Including yourself, how many people are living together in
your household?
```

```
         D7 |      Freq.     Percent        Cum.
------------+-----------------------------------
Decline answ|         13        0.34        0.34
Do not know |          2        0.05        0.40
          1 |        743       19.67       20.06
          2 |      1,551       41.05       61.12
          3 |        653       17.28       78.40
          4 |        543       14.37       92.77
          5 |        188        4.98       97.75
          6 |         47        1.24       98.99
          7 |         10        0.26       99.26
          9 |          1        0.03       99.29
         11 |          1        0.03       99.31
         12 |          2        0.05       99.36
         29 |          1        0.03       99.39
         30 |          1        0.03       99.42
         35 |          1        0.03       99.44
         36 |          1        0.03       99.47
          . |         20        0.53      100.00
------------+-----------------------------------
      Total |      3,778      100.00
```

```
. tab d7a, How are the other people who live with you related to you?
```

```
       D7A  |      Freq.     Percent
------------+----------------------------------
Declined ans|          16        0.42
Husband, wif|       2,636       69.77
Son and/or d|       1,474       39.02
Brother and/|          32        0.85
Mother and/o|         110        2.91
Grandchild  |          50        1.32
Other relate|          29        0.77
```

```
Other unrela|          52        1.38
------------+-----------------------------------

. tab d8, How many cars or vans are owned, or available for use

         D8 |      Freq.     Percent        Cum.
------------+-----------------------------------
Declined ans|          9        0.24        0.24
Do not know |          1        0.03        0.26
       None |        301        7.97        8.23
        One |      1,553       41.11       49.34
        Two |      1,504       39.81       89.15
      Three |        289        7.65       96.80
       Four |        101        2.67       99.47
          . |         20        0.53      100.00
------------+-----------------------------------
      Total |      3,778      100.00

. tab d10, What is the average total income before tax received by your
HOUSEHOLD?

        D10 |      Freq.     Percent        Cum.
------------+-----------------------------------
Declined ans|        339        8.97        8.97
Do not know |        175        4.63       13.61
Less than £1|        756       20.01       33.62
 £18,000 to |        844       22.34       55.96
 £31,000 to |        871       23.05       79.01
 £52,000 to |        631       16.70       95.71
> £100,000  |        142        3.76       99.47
          . |         20        0.53      100.00
------------+-----------------------------------
      Total |      3,778      100.00


. tab d9, Which of the following describes your current situation?

        D9  |      Freq.     Percent
------------+-----------------------------------
None of abov|         25        0.66
Declined ans|         15        0.40
Paid employm|      2,342       61.99
Retired     |      1,113       29.46
Looking aft |        220        5.82
Unable to wo|        219        5.80
Unemployed  |         42        1.11
Doing unpaid|        137        3.63
Student     |         41        1.09
------------+-----------------------------------

. preserve

. Only in those who selected currently employed
(1436 observations deleted)

. tab d9aa, How many years have you worked in your current job
```

D9AA	Freq.	Percent	Cum.
Less than 1	131	5.59	5.59
Decline answ	10	0.43	6.02
Do not know	4	0.17	6.19
0	2	0.09	6.28
1	103	4.40	10.67
2	163	6.96	17.63
3	143	6.11	23.74
4	116	4.95	28.69
5	130	5.55	34.24
6	108	4.61	38.86
7	78	3.33	42.19
8	86	3.67	45.86
9	59	2.52	48.38
10	99	4.23	52.60
11	43	1.84	54.44
12	69	2.95	57.39
13	41	1.75	59.14
14	43	1.84	60.97
15	76	3.25	64.22
16	69	2.95	67.16
17	50	2.13	69.30
18	51	2.18	71.48
19	35	1.49	72.97
20	95	4.06	77.03
21	26	1.11	78.14
22	30	1.28	79.42
23	35	1.49	80.91
24	27	1.15	82.07
25	55	2.35	84.42
26	38	1.62	86.04
27	35	1.49	87.53
28	39	1.67	89.20
29	21	0.90	90.09
30	54	2.31	92.40
31	8	0.34	92.74
32	27	1.15	93.89
33	23	0.98	94.88
34	14	0.60	95.47
35	14	0.60	96.07
36	23	0.98	97.05
37	7	0.30	97.35
38	9	0.38	97.74
39	8	0.34	98.08
40	11	0.47	98.55
41	10	0.43	98.98
42	5	0.21	99.19
43	3	0.13	99.32
44	2	0.09	99.40
45	4	0.17	99.57
46	6	0.26	99.83
47	2	0.09	99.91
49	1	0.04	99.96
50	1	0.04	100.00
Total	2,342	100.00	

```
. tab d9a, In a typical week how many hours do you spend at work?

        D9A |      Freq.     Percent        Cum.
------------+-----------------------------------
Decline answ|         26        1.11        1.11
          0 |          2        0.09        1.20
          2 |          3        0.13        1.32
          3 |          2        0.09        1.41
          4 |          3        0.13        1.54
          5 |          7        0.30        1.84
          6 |          9        0.38        2.22
          7 |          7        0.30        2.52
          8 |         23        0.98        3.50
          9 |         11        0.47        3.97
         10 |         28        1.20        5.17
         11 |          5        0.21        5.38
         12 |         20        0.85        6.23
         13 |          3        0.13        6.36
         14 |         12        0.51        6.87
         15 |         35        1.49        8.37
         16 |         38        1.62        9.99
         17 |         10        0.43       10.42
         18 |         22        0.94       11.36
         19 |          9        0.38       11.74
         20 |         92        3.93       15.67
         21 |         21        0.90       16.57
         22 |         15        0.64       17.21
         23 |         20        0.85       18.06
         24 |         46        1.96       20.03
         25 |         69        2.95       22.97
         26 |         11        0.47       23.44
         27 |         10        0.43       23.87
         28 |         23        0.98       24.85
         29 |          9        0.38       25.23
         30 |        112        4.78       30.02
         31 |          2        0.09       30.10
         32 |         36        1.54       31.64
         33 |          9        0.38       32.02
         34 |          7        0.30       32.32
         35 |        189        8.07       40.39
         36 |         51        2.18       42.57
         37 |        189        8.07       50.64
         38 |        111        4.74       55.38
         39 |         35        1.49       56.87
         40 |        362       15.46       72.33
         41 |         11        0.47       72.80
         42 |         66        2.82       75.62
         43 |         13        0.56       76.17
         44 |         16        0.68       76.86
         45 |        184        7.86       84.71
         46 |         15        0.64       85.35
         47 |          9        0.38       85.74
         48 |         54        2.31       88.04
         49 |          1        0.04       88.09
         50 |        160        6.83       94.92
         51 |          1        0.04       94.96
```

```
         52 |          9        0.38       95.35
         54 |          5        0.21       95.56
         55 |         31        1.32       96.88
         56 |          3        0.13       97.01
         57 |          1        0.04       97.05
         58 |          2        0.09       97.14
         59 |          1        0.04       97.18
         60 |         37        1.58       98.76
         61 |          1        0.04       98.80
         64 |          1        0.04       98.85
         65 |          3        0.13       98.98
         68 |          1        0.04       99.02
         70 |         12        0.51       99.53
         72 |          3        0.13       99.66
         75 |          2        0.09       99.74
         80 |          4        0.17       99.91
         90 |          2        0.09      100.00
------------+-----------------------------------
      Total |      2,342      100.00
```

```
. tab d9b, Does your work involve walking or standing for most of the
day?
```

```
        D9B |      Freq.     Percent        Cum.
------------+-----------------------------------
Decline answ|          1        0.04        0.04
Do not know |          1        0.04        0.09
Never/rarely|        827       35.31       35.40
  Sometimes |        685       29.25       64.65
    Usually |        344       14.69       79.33
     Always |        484       20.67      100.00
------------+-----------------------------------
      Total |      2,342      100.00
```

```
. tab d9c, Does your work involve heavy manual or physical work?
```

```
        D9C |      Freq.     Percent        Cum.
------------+-----------------------------------
Do not know |          4        0.17        0.17
Never/rarely|      1,528       65.24       65.41
  Sometimes |        502       21.43       86.85
    Usually |        159        6.79       93.64
     Always |        149        6.36      100.00
------------+-----------------------------------
      Total |      2,342      100.00
```

```
. tab d9d,  Does your work involve shift work?
```

```
        D9D |      Freq.     Percent        Cum.
------------+-----------------------------------
Do not know |          2        0.09        0.09
Never/rarely|      1,942       82.92       83.01
  Sometimes |        163        6.96       89.97
    Usually |         47        2.01       91.97
     Always |        188        8.03      100.00
------------+-----------------------------------
```

```
      Total |      2,342      100.00

. tab d9da, Does your work involve night shifts?

       D9DA |      Freq.     Percent        Cum.
------------+-----------------------------------
Do not know |          3        0.13        0.13
Never/rarely|        205        8.75        8.88
  Sometimes |        105        4.48       13.36
    Usually |         23        0.98       14.35
     Always |         64        2.73       17.08
          . |      1,942       82.92      100.00
------------+-----------------------------------
      Total |      2,342      100.00

. restore


.
. tab d12, Which of the following qualifications do you have?

      D12   |         Freq.     Percent
------------+-----------------------------------
Declined ans|           30        0.79
None of abov|          764       20.22
College or u|        1,425       37.72
A levels/AS |        1,058       28.00
O levels/GCS|        1,761       46.61
CSEs        |          459       12.15
NVQ or HND o|          711       18.82
------------+-----------------------------------

. preserve

. Only in those without college or university degrees
(1425 observations deleted)

. tab d11, At what age did you complete your continuous full time
education?
        D11 |      Freq.     Percent        Cum.
------------+-----------------------------------
Declined ans|         15        0.64        0.64
Never school|          2        0.08        0.72
Do not know |         15        0.64        1.36
          5 |          3        0.13        1.49
         12 |          2        0.08        1.57
         13 |          1        0.04        1.61
         14 |         50        2.12        3.74
         15 |        781       33.19       36.93
         16 |        743       31.58       68.51
         17 |        234        9.94       78.45
         18 |        258       10.96       89.42
         19 |         73        3.10       92.52
         20 |         52        2.21       94.73
         21 |         62        2.63       97.37
         22 |         17        0.72       98.09
         23 |          9        0.38       98.47
```

```
         24 |          1        0.04       98.51
         25 |          5        0.21       98.73
         26 |          2        0.08       98.81
         27 |          3        0.13       98.94
         28 |          4        0.17       99.11
         30 |          5        0.21       99.32
         31 |          1        0.04       99.36
         33 |          1        0.04       99.41
         34 |          1        0.04       99.45
         35 |          2        0.08       99.53
         37 |          1        0.04       99.58
         40 |          3        0.13       99.70
         45 |          1        0.04       99.75
         46 |          1        0.04       99.79
         49 |          1        0.04       99.83
         50 |          3        0.13       99.96
         51 |          1        0.04      100.00
------------+-----------------------------------
      Total |      2,353      100.00

. restore

.
. tab wp1, In a typical week, how many days do you spend doing 10
minutes or more of walking?


        WP1 |      Freq.     Percent        Cum.
------------+-----------------------------------
Decline answ|          4        0.11        0.11
         NA |         20        0.53        0.64
Do not know |         50        1.32        1.96
          0 |         62        1.64        3.60
          1 |         83        2.20        5.80
          2 |        176        4.66       10.46
          3 |        234        6.19       16.65
          4 |        217        5.74       22.39
          5 |        528       13.98       36.37
          6 |        347        9.18       45.55
          7 |      2,057       54.45      100.00
------------+-----------------------------------
      Total |      3,778      100.00

. tab wp1a, How much time do you usually spend walking on one of those
days?


       WP1A |      Freq.     Percent        Cum.
------------+-----------------------------------
Declined ans|          1        0.03        0.03
Do not know |         40        1.06        1.09
Less than 30|      1,178       31.18       32.27
30 mins to 1|      1,376       36.42       68.69
1 to 2 hours|        472       12.49       81.18
2 to 4 hours|        306        8.10       89.28
More than 4 |        269        7.12       96.40
          . |        136        3.60      100.00
```

```
------------+-----------------------------------
      Total |      3,778      100.00

. tab wp2, In a typical week, how many days do you spend doing 10
minutes or more of moderate physical activities
        WP2 |      Freq.     Percent        Cum.
------------+-----------------------------------
Decline answ|         18        0.48        0.48
Do not know |        161        4.26        4.74
          0 |        548       14.51       19.24
          1 |        328        8.68       27.92
          2 |        602       15.93       43.86
          3 |        523       13.84       57.70
          4 |        289        7.65       65.35
          5 |        505       13.37       78.72
          6 |        177        4.69       83.40
          7 |        627       16.60      100.00
------------+-----------------------------------
      Total |      3,778      100.00

. tab wp2a, How much time do you usually spend doing moderate physical
activities on one of those days?

       WP2A |      Freq.     Percent        Cum.
------------+-----------------------------------
Declined ans|          5        0.13        0.13
Do not know |         28        0.74        0.87
Less than 30|        703       18.61       19.48
30 mins to 1|      1,149       30.41       49.89
1 to 2 hours|        642       16.99       66.89
2 to 4 hours|        326        8.63       75.52
More than 4 |        198        5.24       80.76
          . |        727       19.24      100.00
------------+-----------------------------------
      Total |      3,778      100.00

. tab wp3, In a typical week, how many days do you spend doing 10
minutes or more of vigorous physical activity?

        WP3 |      Freq.     Percent        Cum.
------------+-----------------------------------
Decline answ|         27        0.71        0.71
Do not know |        116        3.07        3.79
          0 |      1,651       43.70       47.49
          1 |        533       14.11       61.59
          2 |        494       13.08       74.67
          3 |        456       12.07       86.74
          4 |        175        4.63       91.37
          5 |        187        4.95       96.32
          6 |         41        1.09       97.41
          7 |         98        2.59      100.00
------------+-----------------------------------
      Total |      3,778      100.00

. tab wp3a, How much time do you usually spend doing vigorous physical
activity
```

```
       WP3A |      Freq.     Percent        Cum.
------------+-----------------------------------
Decline answ|          1        0.03        0.03
Do not know |         13        0.34        0.37
Less than 30|        416       11.01       11.38
30 mins to 1|        904       23.93       35.31
1 to 2 hours|        444       11.75       47.06
2 to 4 hours|        144        3.81       50.87
More than 4 |         62        1.64       52.51
          . |      1,794       47.49      100.00
------------+-----------------------------------
      Total |      3,778      100.00

. tab wp4, How would you describe your usual walking pace?

        WP4 |      Freq.     Percent        Cum.
------------+-----------------------------------
None of abov|         10        0.26        0.26
 Slow pace  |        348        9.21        9.48
Steady avera|      2,075       54.92       64.40
 Brisk pace |      1,325       35.07       99.47
          . |         20        0.53      100.00
------------+-----------------------------------
      Total |      3,778      100.00

. tab wp11, How often do you visit friends or family or have them visit
you?

       WP11 |      Freq.     Percent        Cum.
------------+-----------------------------------
Declined ans|         16        0.42        0.42
Almost daily|        451       11.94       12.36
2-4 times a |      1,226       32.45       44.81
About once a|      1,354       35.84       80.65
About once a|        455       12.04       92.69
Once every f|        221        5.85       98.54
Never or alm|         45        1.19       99.74
No friends/f|         10        0.26      100.00
------------+-----------------------------------
      Total |      3,778      100.00

. tab wp12, Which of the following do you attend once a week or more
often?

      WP12  |      Freq.     Percent
------------+-----------------------------------
Declined ans|         10        0.26
None of abov|      1,088       28.80
Sports club |      1,217       32.21
Pub or socia|      1,024       27.10
Religious gr|        659       17.44
Adult educat|        331        8.76
Other group |        757       20.04
------------+-----------------------------------

.
. tab wp5, In a typical day, how many hours do you spend watching TV?
```

```
        WP5 |      Freq.     Percent        Cum.
------------+-----------------------------------
Less than 1 |        210        5.56        5.56
Decline answ|          6        0.16        5.72
Do not know |         26        0.69        6.41
          0 |        110        2.91        9.32
          1 |        487       12.89       22.21
          2 |      1,031       27.29       49.50
          3 |        853       22.58       72.08
          4 |        574       15.19       87.27
          5 |        243        6.43       93.70
          6 |        130        3.44       97.14
          7 |         32        0.85       97.99
          8 |         45        1.19       99.18
          9 |          4        0.11       99.29
         10 |          7        0.19       99.47
         12 |          8        0.21       99.68
         14 |          3        0.08       99.76
         15 |          3        0.08       99.84
         20 |          5        0.13       99.97
         22 |          1        0.03      100.00
------------+-----------------------------------
      Total |      3,778      100.00
```

```
. tab wp7, In a typical day, how many hours do you spend driving?

        WP7 |      Freq.     Percent        Cum.
------------+-----------------------------------
Less than 1 |      1,015       26.87       26.87
Decline answ|          7        0.19       27.05
         NA |        243        6.43       33.48
          0 |        457       12.10       45.58
          1 |      1,202       31.82       77.40
          2 |        544       14.40       91.79
          3 |        166        4.39       96.19
          4 |         52        1.38       97.56
          5 |         28        0.74       98.31
          6 |         22        0.58       98.89
          7 |          7        0.19       99.07
          8 |         12        0.32       99.39
          9 |          6        0.16       99.55
         10 |          8        0.21       99.76
         11 |          1        0.03       99.79
         12 |          6        0.16       99.95
         14 |          2        0.05      100.00
------------+-----------------------------------
      Total |      3,778      100.00
```

```
. tab wp8, How often do you drive faster than the speed limit on the
motorway?

        WP8 |      Freq.     Percent        Cum.
------------+-----------------------------------
Declined ans|         38        1.01        1.01
Do not know |          9        0.24        1.24
Never/rarely|      1,415       37.45       38.70
```

```
  Sometimes |      1,354       35.84       74.54
      Often |        399       10.56       85.10
     Always |        162        4.29       89.39
Do not dri  |        158        4.18       93.57
          . |        243        6.43      100.00
------------+-----------------------------------
      Total |      3,778      100.00
```

```
. tab mb1, For approximately how many years have you been using a mobile
```

```
        MB1 |      Freq.     Percent        Cum.
------------+-----------------------------------
Declined ans|          5        0.13        0.13
Do not know |         29        0.77        0.90
never used m|        818       21.65       22.55
One year or |        235        6.22       28.77
Two to four |      1,107       29.30       58.07
Five to eigh|      1,029       27.24       85.31
More than ei|        555       14.69      100.00
------------+-----------------------------------
      Total |      3,778      100.00
```

```
. tab mb2, Over the last 3 months, on average how much time per week
```

```
        MB2 |      Freq.     Percent        Cum.
------------+-----------------------------------
Decline answ|          2        0.05        0.05
Do not know |         54        1.43        1.48
Less than 10|      1,024       27.10       28.59
 10-19 mins |        685       18.13       46.72
 20-29 mins |        407       10.77       57.49
30 mins or m|        783       20.73       78.22
          . |        823       21.78      100.00
------------+-----------------------------------
      Total |      3,778      100.00
```

```
. tab mb3, Is there any difference between your mobile phone use now
compared to one year ago?
```

```
        MB3 |      Freq.     Percent        Cum.
------------+-----------------------------------
Decline answ|          2        0.05        0.05
Do not know |         41        1.09        1.14
         No |      1,807       47.83       48.97
Yes, less fr|        327        8.66       57.62
Yes, more fr|        726       19.22       76.84
didn't use a|         52        1.38       78.22
          . |        823       21.78      100.00
------------+-----------------------------------
      Total |      3,778      100.00
```

```
. tab mb5, Do you use a hands-free device/speakerphone regularly
```

```
        MB5 |      Freq.     Percent        Cum.
------------+-----------------------------------
Decline answ|          7        0.19        0.19
```

```
Do not know |         21        0.56        0.74
         no |      2,560       67.76       68.50
        yes |        367        9.71       78.22
          . |        823       21.78      100.00
------------+-----------------------------------
      Total |      3,778      100.00
```

```
. tab sl1, About how many hours sleep do you get in every 24 hours?
```

```
        SL1 |      Freq.     Percent        Cum.
------------+-----------------------------------
Decline answ|          1        0.03        0.03
Do not know |         20        0.53        0.56
          2 |          2        0.05        0.61
          3 |          7        0.19        0.79
          4 |         38        1.01        1.80
          5 |        172        4.55        6.35
          6 |        724       19.16       25.52
          7 |      1,487       39.36       64.88
          8 |      1,063       28.14       93.01
          9 |        205        5.43       98.44
         10 |         50        1.32       99.76
         11 |          1        0.03       99.79
         12 |          5        0.13       99.92
         14 |          3        0.08      100.00
------------+-----------------------------------
      Total |      3,778      100.00
```

```
. tab sl1a, Do you have a nap during the day?
```

```
       SL1A |      Freq.     Percent        Cum.
------------+-----------------------------------
Declined ans|          4        0.11        0.11
Never/Rarely|      2,127       56.30       56.41
  Sometimes |      1,457       38.57       94.97
    Usually |        190        5.03      100.00
------------+-----------------------------------
      Total |      3,778      100.00
```

```
. tab sl2, Do you have trouble falling asleep at night or do you wake up
in the middle of the night?
```

```
        SL2 |      Freq.     Percent        Cum.
------------+-----------------------------------
Decline answ|          1        0.03        0.03
Never/Rarely|        958       25.36       25.38
  Sometimes |      1,811       47.94       73.32
    Usually |      1,008       26.68      100.00
------------+-----------------------------------
      Total |      3,778      100.00
```

```
. tab sl3, Does your partner or a close relative or friend complain
about your snoring?
```

```
        SL3 |      Freq.     Percent        Cum.
------------+-----------------------------------
```

```
Declined an |         41        1.09        1.09
Do not know |        221        5.85        6.93
        yes |      1,266       33.51       40.44
         No |      2,250       59.56      100.00
------------+-----------------------------------
      Total |      3,778      100.00
```

```
. tab sl4, How likely are you to doze off or fall asleep during the
daytime when you don't mean to?

        SL4 |      Freq.     Percent        Cum.
------------+-----------------------------------
Declined ans|          2        0.05        0.05
Do not know |          9        0.24        0.29
Never/rarely|      2,915       77.16       77.45
  Sometimes |        737       19.51       96.96
      Often |        109        2.89       99.84
All of the t|          6        0.16      100.00
------------+-----------------------------------
      Total |      3,778      100.00
```

```
. tab s1, Do you smoke tobacco now?

         S1 |      Freq.     Percent        Cum.
------------+-----------------------------------
Decline answ|          3        0.08        0.08
         No |      3,242       85.81       85.89
Yes, most or|        402       10.64       96.53
Only occasio|        131        3.47      100.00
------------+-----------------------------------
      Total |      3,778      100.00
```

```
. tab s2, In the past, how often have you smoked?

         S2 |      Freq.     Percent        Cum.
------------+-----------------------------------
Declined ans|         13        0.34        0.34
Smoked on mo|        935       24.75       25.09
Smoked occas|        460       12.18       37.27
tried once o|        476       12.60       49.87
never smoked|      1,492       39.49       89.36
           . |        402       10.64      100.00
------------+-----------------------------------
      Total |      3,778      100.00
```

```
. tab s2a, In your lifetime, have you smoked a total of at least 100
cigarettes or equivalent?

        S2A |      Freq.     Percent        Cum.
------------+-----------------------------------
         No |        486       12.86       12.86
        Yes |        450       11.91       24.78
          . |      2,842       75.22      100.00
------------+-----------------------------------
      Total |      3,778      100.00
```

```
. preserve
```

```
. keep current smokers only
(3376 observations deleted)

. tab s3, How old were you when you first started smoking on most days?

         S3 |      Freq.     Percent        Cum.
------------+-----------------------------------
Decline answ|          1        0.25        0.25
Do not know |          8        1.99        2.24
          7 |          1        0.25        2.49
         10 |          5        1.24        3.73
         11 |          6        1.49        5.22
         12 |         11        2.74        7.96
         13 |         13        3.23       11.19
         14 |         27        6.72       17.91
         15 |         61       15.17       33.08
         16 |         60       14.93       48.01
         17 |         36        8.96       56.97
         18 |         58       14.43       71.39
         19 |         21        5.22       76.62
         20 |         24        5.97       82.59
         21 |         14        3.48       86.07
         22 |          7        1.74       87.81
         23 |         11        2.74       90.55
         24 |          3        0.75       91.29
         25 |         11        2.74       94.03
         26 |          1        0.25       94.28
         28 |          2        0.50       94.78
         30 |          7        1.74       96.52
         32 |          4        1.00       97.51
         33 |          1        0.25       97.76
         35 |          1        0.25       98.01
         36 |          1        0.25       98.26
         38 |          1        0.25       98.51
         40 |          1        0.25       98.76
         42 |          1        0.25       99.00
         45 |          1        0.25       99.25
         47 |          1        0.25       99.50
         50 |          1        0.25       99.75
         51 |          1        0.25      100.00
------------+-----------------------------------
      Total |        402      100.00

. tab s4, What type of tobacco do you mainly smoke?

         S4 |      Freq.     Percent        Cum.
------------+-----------------------------------
None of abov|          1        0.25        0.25
Decline answ|          1        0.25        0.50
Manufactured|        298       74.13       74.63
Hand-rolled |         68       16.92       91.54
Cigars or pi|         34        8.46      100.00
------------+-----------------------------------
      Total |        402      100.00

. tab s4a, About how many cigarettes do you smoke on average each day?
```

S4A	Freq.	Percent	Cum.
Decline answ	1	0.25	0.25
2	4	1.00	1.24
3	4	1.00	2.24
4	6	1.49	3.73
5	20	4.98	8.71
6	8	1.99	10.70
7	7	1.74	12.44
8	5	1.24	13.68
9	2	0.50	14.18
10	61	15.17	29.35
11	2	0.50	29.85
12	9	2.24	32.09
13	2	0.50	32.59
14	2	0.50	33.08
15	61	15.17	48.26
16	5	1.24	49.50
17	2	0.50	50.00
18	4	1.00	51.00
19	1	0.25	51.24
20	94	23.38	74.63
24	1	0.25	74.88
25	21	5.22	80.10
28	1	0.25	80.35
30	28	6.97	87.31
35	4	1.00	88.31
40	8	1.99	90.30
45	1	0.25	90.55
50	2	0.50	91.04
.	36	8.96	100.00
Total	402	100.00	

. tab s5, Have you tried to give up smoking?

S5	Freq.	Percent	Cum.
Declined ans	2	0.50	0.50
No	76	18.91	19.40
Yes, tried b	190	47.26	66.67
Yes, tried s	134	33.33	100.00
Total	402	100.00	

. tab s5a, Compared to 10 years ago do you smoke?

S5A	Freq.	Percent	Cum.
Decline answ	1	0.25	0.25
More nowaday	77	19.15	19.40
About the sa	168	41.79	61.19
Less nowaday	156	38.81	100.00
Total	402	100.00	

```
. restore

. preserve

. keep if past smoker
(2843 observations deleted)

. tab s6, How old were you when you first started smoking on most days?

         S6 |      Freq.     Percent        Cum.
------------+-----------------------------------
Decline answ|          1        0.11        0.11
Do not know |          4        0.43        0.53
          5 |          1        0.11        0.64
          7 |          1        0.11        0.75
          8 |          1        0.11        0.86
          9 |          4        0.43        1.28
         10 |          1        0.11        1.39
         11 |         10        1.07        2.46
         12 |         20        2.14        4.60
         13 |         31        3.32        7.91
         14 |         64        6.84       14.76
         15 |        150       16.04       30.80
         16 |        154       16.47       47.27
         17 |         95       10.16       57.43
         18 |        153       16.36       73.80
         19 |         59        6.31       80.11
         20 |         58        6.20       86.31
         21 |         36        3.85       90.16
         22 |         32        3.42       93.58
         23 |         16        1.71       95.29
         24 |          9        0.96       96.26
         25 |         11        1.18       97.43
         26 |          3        0.32       97.75
         27 |          4        0.43       98.18
         28 |          2        0.21       98.40
         30 |          7        0.75       99.14
         32 |          2        0.21       99.36
         33 |          1        0.11       99.47
         34 |          1        0.11       99.57
         35 |          2        0.21       99.79
         38 |          1        0.11       99.89
         40 |          1        0.11      100.00
------------+-----------------------------------
      Total |        935      100.00

. tab s7, What type of tobacco did you usually smoke ?

         S7 |      Freq.     Percent        Cum.
------------+-----------------------------------
Manufactured|        851       91.02       91.02
Hand-rolled |         38        4.06       95.08
Cigars or pi|         46        4.92      100.00
------------+-----------------------------------
      Total |        935      100.00
```

```
. tab s7a, About how many cigarettes did you smoke on average each day?

        S7A |      Freq.     Percent        Cum.
------------+-----------------------------------
Do not know |          4        0.43        0.43
          2 |          2        0.21        0.64
          3 |          4        0.43        1.07
          4 |          7        0.75        1.82
          5 |         33        3.53        5.35
          6 |          7        0.75        6.10
          7 |          6        0.64        6.74
          8 |         13        1.39        8.13
          9 |          1        0.11        8.24
         10 |        133       14.22       22.46
         12 |         11        1.18       23.64
         14 |          4        0.43       24.06
         15 |        139       14.87       38.93
         16 |          4        0.43       39.36
         17 |          2        0.21       39.57
         18 |         10        1.07       40.64
         20 |        291       31.12       71.76
         21 |          1        0.11       71.87
         22 |          1        0.11       71.98
         25 |         64        6.84       78.82
         27 |          2        0.21       79.04
         28 |          1        0.11       79.14
         30 |         73        7.81       86.95
         35 |         11        1.18       88.13
         40 |         43        4.60       92.73
         45 |          1        0.11       92.83
         50 |          8        0.86       93.69
         60 |         11        1.18       94.87
         70 |          1        0.11       94.97
         80 |          1        0.11       95.08
          . |         46        4.92      100.00
------------+-----------------------------------
      Total |        935      100.00

. tab s8, How old were you when you last smoked on most days?

         S8 |      Freq.     Percent        Cum.
------------+-----------------------------------
Decline answ|          1        0.11        0.11
Do not know |          1        0.11        0.21
          9 |          1        0.11        0.32
         15 |          1        0.11        0.43
         16 |          1        0.11        0.53
         18 |          3        0.32        0.86
         19 |          1        0.11        0.96
         20 |          7        0.75        1.71
         21 |         11        1.18        2.89
         22 |          7        0.75        3.64
         23 |          9        0.96        4.60
         24 |         17        1.82        6.42
         25 |         27        2.89        9.30
         26 |         20        2.14       11.44
         27 |         19        2.03       13.48
```

```
         28 |         23        2.46       15.94
         29 |         15        1.60       17.54
         30 |         55        5.88       23.42
         31 |         10        1.07       24.49
         32 |         30        3.21       27.70
         33 |         22        2.35       30.05
         34 |         28        2.99       33.05
         35 |         54        5.78       38.82
         36 |         25        2.67       41.50
         37 |         15        1.60       43.10
         38 |         33        3.53       46.63
         39 |         21        2.25       48.88
         40 |         60        6.42       55.29
         41 |         17        1.82       57.11
         42 |         16        1.71       58.82
         43 |         13        1.39       60.21
         44 |         15        1.60       61.82
         45 |         35        3.74       65.56
         46 |         16        1.71       67.27
         47 |         12        1.28       68.56
         48 |         13        1.39       69.95
         49 |         21        2.25       72.19
         50 |         53        5.67       77.86
         51 |         12        1.28       79.14
         52 |         15        1.60       80.75
         53 |         10        1.07       81.82
         54 |         20        2.14       83.96
         55 |         24        2.57       86.52
         56 |         20        2.14       88.66
         57 |         17        1.82       90.48
         58 |         10        1.07       91.55
         59 |         18        1.93       93.48
         60 |         13        1.39       94.87
         61 |          8        0.86       95.72
         62 |          7        0.75       96.47
         63 |         15        1.60       98.07
         64 |          5        0.53       98.61
         65 |          9        0.96       99.57
         66 |          2        0.21       99.79
         67 |          1        0.11       99.89
         68 |          1        0.11      100.00
------------+-----------------------------------
      Total |        935      100.00

. tab s9, In the time that you smoked, did you ever stop for more than 6
months?

         S9 |      Freq.     Percent        Cum.
------------+-----------------------------------
Do not know |         14        1.50        1.50
         No |        537       57.43       58.93
        Yes |        384       41.07      100.00
------------+-----------------------------------
      Total |        935      100.00

. tab s10, Why did you stop smoking?
```

```
        S10 |      Freq.     Percent        Cum.
------------+-----------------------------------
Declined ans|          2        0.21        0.21
Do not know |         19        2.03        2.25
    Illness |        152       16.26       18.50
  Financial |        125       13.37       31.87
      Other |        637       68.13      100.00
------------+-----------------------------------
      Total |        935      100.00

. restore

. tab s12, At home, about how many hours per week are you exposed to
other people's tobacco smoke?

        S12 |      Freq.     Percent        Cum.
------------+-----------------------------------
Decline answ|          7        0.19        0.19
Do not know |         93        2.46        2.65
          0 |      3,226       85.39       88.04
          1 |         84        2.22       90.26
          2 |         55        1.46       91.72
          3 |         31        0.82       92.54
          4 |         42        1.11       93.65
          5 |         29        0.77       94.42
          6 |          9        0.24       94.65
          7 |         15        0.40       95.05
          8 |         14        0.37       95.42
          9 |          7        0.19       95.61
         10 |         16        0.42       96.03
         12 |         14        0.37       96.40
         13 |          1        0.03       96.43
         14 |          7        0.19       96.61
         15 |          4        0.11       96.72
         16 |          5        0.13       96.85
         18 |          2        0.05       96.90
         20 |         19        0.50       97.41
         21 |          8        0.21       97.62
         24 |         11        0.29       97.91
         25 |          3        0.08       97.99
         28 |          8        0.21       98.20
         30 |         15        0.40       98.60
         35 |          6        0.16       98.76
         40 |         12        0.32       99.07
         42 |          2        0.05       99.13
         45 |          4        0.11       99.23
         49 |          3        0.08       99.31
         50 |          9        0.24       99.55
         55 |          1        0.03       99.58
         56 |          4        0.11       99.68
         60 |          2        0.05       99.74
         62 |          1        0.03       99.76
         70 |          5        0.13       99.89
         72 |          1        0.03       99.92
         78 |          1        0.03       99.95
         84 |          2        0.05      100.00
------------+-----------------------------------
```

```
      Total |      3,778      100.00

. tab s13, Outside of your home, about how many hours per week are you
exposed to other people's tobacco smoke?

        S13 |      Freq.     Percent        Cum.
------------+-----------------------------------
Decline answ|          7        0.19        0.19
Do not know |        337        8.92        9.11
          0 |      1,822       48.23       57.33
          1 |        551       14.58       71.92
          2 |        274        7.25       79.17
          3 |        174        4.61       83.77
          4 |        159        4.21       87.98
          5 |        109        2.89       90.87
          6 |         80        2.12       92.99
          7 |         19        0.50       93.49
          8 |         48        1.27       94.76
          9 |          8        0.21       94.97
         10 |         61        1.61       96.59
         11 |          3        0.08       96.66
         12 |         21        0.56       97.22
         14 |         12        0.32       97.54
         15 |         17        0.45       97.99
         16 |          5        0.13       98.12
         18 |          1        0.03       98.15
         20 |         25        0.66       98.81
         21 |          1        0.03       98.84
         22 |          1        0.03       98.86
         24 |          2        0.05       98.91
         25 |          2        0.05       98.97
         28 |          1        0.03       98.99
         30 |         11        0.29       99.29
         33 |          1        0.03       99.31
         34 |          1        0.03       99.34
         35 |          2        0.05       99.39
         36 |          1        0.03       99.42
         37 |          2        0.05       99.47
         38 |          1        0.03       99.50
         39 |          1        0.03       99.52
         40 |         13        0.34       99.87
         50 |          1        0.03       99.89
         60 |          2        0.05       99.95
         70 |          1        0.03       99.97
        100 |          1        0.03      100.00
------------+-----------------------------------
      Total |      3,778      100.00

. tab a1, About how often do you drink alcohol?

         A1 |      Freq.     Percent        Cum.
------------+-----------------------------------
Declined ans|          3        0.08        0.08
Daily or alm|        751       19.88       19.96
3-4 times we|        853       22.58       42.54
1-2 times we|        988       26.15       68.69
```

```
1-3 times mo|        416       11.01       79.70
Special occa|        485       12.84       92.54
      Never |        282        7.46      100.00
------------+-----------------------------------
      Total |      3,778      100.00
```

```
. tab a1a, Did you previously drink alcohol?

        A1A |      Freq.     Percent        Cum.
------------+-----------------------------------
Decline answ|          1        0.03        0.03
         No |        142        3.76        3.79
        Yes |        139        3.68        7.46
          . |      3,496       92.54      100.00
------------+-----------------------------------
      Total |      3,778      100.00
```

```
. tab a3b, In an average week, how many glasses of RED wine would you
drink?

        A3B |      Freq.     Percent        Cum.
------------+-----------------------------------
Decline answ|          1        0.03        0.03
Do not know |         23        0.61        0.64
          0 |        874       23.13       23.77
          1 |        198        5.24       29.01
          2 |        263        6.96       35.97
          3 |        245        6.48       42.46
          4 |        156        4.13       46.59
          5 |         69        1.83       48.41
          6 |        285        7.54       55.96
          7 |         46        1.22       57.17
          8 |         61        1.61       58.79
          9 |         38        1.01       59.79
         10 |         61        1.61       61.41
         11 |          1        0.03       61.43
         12 |         93        2.46       63.90
         13 |          1        0.03       63.92
         14 |         21        0.56       64.48
         15 |         30        0.79       65.27
         16 |          7        0.19       65.46
         18 |         34        0.90       66.36
         20 |         10        0.26       66.62
         21 |         15        0.40       67.02
         22 |          2        0.05       67.07
         24 |         13        0.34       67.42
         25 |          4        0.11       67.52
         26 |          2        0.05       67.58
         28 |          8        0.21       67.79
         30 |         10        0.26       68.05
         33 |          1        0.03       68.08
         35 |          1        0.03       68.10
         36 |          7        0.19       68.29
         40 |          4        0.11       68.40
         42 |          4        0.11       68.50
         45 |          1        0.03       68.53
         48 |          1        0.03       68.55
```

```
         54 |          1        0.03       68.58
         60 |          1        0.03       68.61
          . |      1,186       31.39      100.00
------------+-----------------------------------
      Total |      3,778      100.00
```

```
. tab a3c, In an average week, how many glasses of WHITE wine or
champagne would you drink?
```

```
        A3C |      Freq.     Percent        Cum.
------------+-----------------------------------
Decline answ|          3        0.08        0.08
Do not know |         18        0.48        0.56
          0 |      1,244       32.93       33.48
          1 |        266        7.04       40.52
          2 |        285        7.54       48.07
          3 |        210        5.56       53.63
          4 |        114        3.02       56.64
          5 |         38        1.01       57.65
          6 |        161        4.26       61.91
          7 |         20        0.53       62.44
          8 |         27        0.71       63.16
          9 |         23        0.61       63.76
         10 |         31        0.82       64.58
         11 |          3        0.08       64.66
         12 |         52        1.38       66.04
         14 |         14        0.37       66.41
         15 |         15        0.40       66.81
         16 |          4        0.11       66.91
         18 |         17        0.45       67.36
         20 |         12        0.32       67.68
         21 |          7        0.19       67.87
         22 |          3        0.08       67.95
         24 |          8        0.21       68.16
         25 |          2        0.05       68.21
         26 |          1        0.03       68.24
         30 |          7        0.19       68.42
         32 |          1        0.03       68.45
         33 |          1        0.03       68.48
         42 |          3        0.08       68.55
         50 |          1        0.03       68.58
         60 |          1        0.03       68.61
          . |      1,186       31.39      100.00
------------+-----------------------------------
      Total |      3,778      100.00
```

```
. tab a3e, In an average week how many pints of beer or cider would you
drink?
```

```
        A3E |      Freq.     Percent        Cum.
------------+-----------------------------------
Decline answ|          2        0.05        0.05
Do not know |          7        0.19        0.24
          0 |      1,189       31.47       31.71
          1 |        297        7.86       39.57
          2 |        226        5.98       45.55
```

```
          3 |        127        3.36       48.91
          4 |        136        3.60       52.51
          5 |         80        2.12       54.63
          6 |         96        2.54       57.17
          7 |         36        0.95       58.13
          8 |         64        1.69       59.82
          9 |         13        0.34       60.16
         10 |         68        1.80       61.96
         11 |          4        0.11       62.07
         12 |         51        1.35       63.42
         13 |          2        0.05       63.47
         14 |         27        0.71       64.19
         15 |         30        0.79       64.98
         16 |         17        0.45       65.43
         17 |          1        0.03       65.46
         18 |         14        0.37       65.83
         19 |          1        0.03       65.85
         20 |         29        0.77       66.62
         21 |          7        0.19       66.81
         22 |          4        0.11       66.91
         24 |          5        0.13       67.05
         25 |         14        0.37       67.42
         26 |          1        0.03       67.44
         28 |          6        0.16       67.60
         30 |         14        0.37       67.97
         34 |          1        0.03       68.00
         35 |         10        0.26       68.26
         40 |          2        0.05       68.32
         42 |          2        0.05       68.37
         46 |          1        0.03       68.40
         48 |          2        0.05       68.45
         50 |          3        0.08       68.53
         56 |          2        0.05       68.58
         80 |          1        0.03       68.61
          . |      1,186       31.39      100.00
------------+-----------------------------------
      Total |      3,778      100.00

. tab a3a, In an average week, how many pub measures of spirits or
liqueurs would you drink?

        A3A |      Freq.     Percent        Cum.
------------+-----------------------------------
Decline answ|          3        0.08        0.08
Do not know |         19        0.50        0.58
          0 |      1,543       40.84       41.42
          1 |        264        6.99       48.41
          2 |        279        7.38       55.80
          3 |        102        2.70       58.50
          4 |        114        3.02       61.51
          5 |         33        0.87       62.39
          6 |         62        1.64       64.03
          7 |         30        0.79       64.82
          8 |         23        0.61       65.43
          9 |          7        0.19       65.62
         10 |         46        1.22       66.83
         12 |         16        0.42       67.26
```

```
         14 |          9        0.24       67.50
         15 |          8        0.21       67.71
         16 |          2        0.05       67.76
         18 |          3        0.08       67.84
         20 |         10        0.26       68.10
         21 |          3        0.08       68.18
         25 |          3        0.08       68.26
         28 |          2        0.05       68.32
         29 |          1        0.03       68.34
         30 |          3        0.08       68.42
         32 |          1        0.03       68.45
         40 |          3        0.08       68.53
         42 |          1        0.03       68.55
         55 |          1        0.03       68.58
         78 |          1        0.03       68.61
          . |      1,186       31.39      100.00
------------+-----------------------------------
      Total |      3,778      100.00
```

```
. tab a3f, In an average week, how many glasses of fortified wines would
you drink?
```

```
        A3F |      Freq.     Percent        Cum.
------------+-----------------------------------
Decline answ|          2        0.05        0.05
Do not know |         12        0.32        0.37
          0 |      2,299       60.85       61.22
          1 |        142        3.76       64.98
          2 |         58        1.54       66.52
          3 |         25        0.66       67.18
          4 |         14        0.37       67.55
          5 |          6        0.16       67.71
          6 |         11        0.29       68.00
          7 |          7        0.19       68.18
          8 |          2        0.05       68.24
          9 |          1        0.03       68.26
         10 |          2        0.05       68.32
         12 |          7        0.19       68.50
         18 |          2        0.05       68.55
         24 |          1        0.03       68.58
         36 |          1        0.03       68.61
          . |      1,186       31.39      100.00
------------+-----------------------------------
      Total |      3,778      100.00
```

```
. tab a5, When you drink alcohol is it usually with meals?
```

```
         A5 |      Freq.     Percent        Cum.
------------+-----------------------------------
  It varies |        965       25.54       25.54
         No |        564       14.93       40.47
        Yes |      1,063       28.14       68.61
          . |      1,186       31.39      100.00
------------+-----------------------------------
      Total |      3,778      100.00
```

```
. tab a6, Compared to 10 years ago, do you drink?
```

```
         A6 |      Freq.     Percent        Cum.
------------+-----------------------------------
Do not know |         23        0.61        0.61
More nowaday|        609       16.12       16.73
About the sa|      1,346       35.63       52.36
Less nowaday|      1,515       40.10       92.46
          . |        285        7.54      100.00
------------+-----------------------------------
      Total |      3,778      100.00
```

```
. tab a7, Why did you reduce the amount you drank?
```

```
         A7 |      Freq.     Percent        Cum.
------------+-----------------------------------
Declined ans|          4        0.11        0.11
Do not know |        264        6.99        7.09
     Illness|        175        4.63       11.73
Financial r |         54        1.43       13.16
Other reason|      1,018       26.95       40.10
          . |      2,263       59.90      100.00
------------+-----------------------------------
      Total |      3,778      100.00
```

```
. tab a7a, Why did you stop drinking alcohol?
```

```
        A7A |      Freq.     Percent        Cum.
------------+-----------------------------------
Do not know |          8        0.21        0.21
    Illness |         53        1.40        1.61
Financial re|          3        0.08        1.69
Other reason|         75        1.99        3.68
          . |      3,639       96.32      100.00
------------+-----------------------------------
      Total |      3,778      100.00
```

```
. tab dt1, On average how many heaped tablespoons of COOKED vegetables
would you eat per day?
```

```
        DT1 |      Freq.     Percent        Cum.
------------+-----------------------------------
Less than 1 |         55        1.46        1.46
Decline answ|          2        0.05        1.51
Do not know |         42        1.11        2.62
          0 |        158        4.18        6.80
          1 |        613       16.23       23.03
          2 |      1,211       32.05       55.08
          3 |        907       24.01       79.09
          4 |        409       10.83       89.92
          5 |        163        4.31       94.23
          6 |        111        2.94       97.17
          7 |         18        0.48       97.64
          8 |         28        0.74       98.39
          9 |         11        0.29       98.68
         10 |         25        0.66       99.34
         12 |          8        0.21       99.55
         14 |          4        0.11       99.66
```

```
         15 |          2        0.05       99.71
         16 |          3        0.08       99.79
         18 |          1        0.03       99.81
         20 |          4        0.11       99.92
         28 |          1        0.03       99.95
         30 |          1        0.03       99.97
         36 |          1        0.03      100.00
------------+-----------------------------------
      Total |      3,778      100.00
```

```
. tab dt2, On average, how many heaped tablespoons of SALAD or RAW
vegetables would you eat per day?
```

```
        DT2 |      Freq.     Percent        Cum.
------------+-----------------------------------
Less than 1 |        122        3.23        3.23
Decline answ|          3        0.08        3.31
Do not know |         33        0.87        4.18
          0 |        442       11.70       15.88
          1 |      1,055       27.92       43.81
          2 |        908       24.03       67.84
          3 |        494       13.08       80.92
          4 |        286        7.57       88.49
          5 |        167        4.42       92.91
          6 |        115        3.04       95.95
          7 |         25        0.66       96.61
          8 |         34        0.90       97.51
          9 |         14        0.37       97.88
         10 |         49        1.30       99.18
         12 |          9        0.24       99.42
         14 |          2        0.05       99.47
         15 |          6        0.16       99.63
         16 |          1        0.03       99.66
         20 |          8        0.21       99.87
         25 |          1        0.03       99.89
         28 |          1        0.03       99.92
         40 |          1        0.03       99.95
         42 |          1        0.03       99.97
         50 |          1        0.03      100.00
------------+-----------------------------------
      Total |      3,778      100.00
```

```
. tab dt3, About how many pieces of FRESH fruit would you eat per day?
```

```
        DT3 |      Freq.     Percent        Cum.
------------+-----------------------------------
Less than 1 |         97        2.57        2.57
Do not know |         11        0.29        2.86
          0 |        242        6.41        9.26
          1 |      1,021       27.02       36.29
          2 |      1,062       28.11       64.40
          3 |        727       19.24       83.64
          4 |        316        8.36       92.01
          5 |        181        4.79       96.80
          6 |         72        1.91       98.70
          7 |         18        0.48       99.18
          8 |         11        0.29       99.47
```

```
          9 |          1        0.03       99.50
         10 |          5        0.13       99.63
         11 |          2        0.05       99.68
         12 |          1        0.03       99.71
         14 |          3        0.08       99.79
         16 |          1        0.03       99.81
         20 |          4        0.11       99.92
         22 |          2        0.05       99.97
         30 |          1        0.03      100.00
------------+-----------------------------------
      Total |      3,778      100.00
```

```
. tab dt2a, About how many pieces of DRIED fruit would you eat per day?

       DT2A |      Freq.     Percent        Cum.
------------+-----------------------------------
Less than 1 |        193        5.11        5.11
Decline answ|          1        0.03        5.13
Do not know |         38        1.01        6.14
          0 |      2,227       58.95       65.09
          1 |        710       18.79       83.88
          2 |        274        7.25       91.13
          3 |        139        3.68       94.81
          4 |         63        1.67       96.48
          5 |         53        1.40       97.88
          6 |         39        1.03       98.91
          7 |          8        0.21       99.13
          8 |          8        0.21       99.34
          9 |          3        0.08       99.42
         10 |         12        0.32       99.74
         12 |          1        0.03       99.76
         15 |          2        0.05       99.81
         20 |          5        0.13       99.95
         30 |          2        0.05      100.00
------------+-----------------------------------
      Total |      3,778      100.00
```

```
. tab dt4, How often do you eat oily fish?

        DT4 |      Freq.     Percent        Cum.
------------+-----------------------------------
Do not know |         32        0.85        0.85
      Never |        379       10.03       10.88
<once a week|      1,158       30.65       41.53
Once a week |      1,456       38.54       80.07
2-4 times w |        709       18.77       98.84
5-6 times  w|         34        0.90       99.74
Once or m da|         10        0.26      100.00
------------+-----------------------------------
      Total |      3,778      100.00
```

```
. tab dt5, How often do you eat other types of fish?

        DT5 |      Freq.     Percent        Cum.
------------+-----------------------------------
Do not know |         25        0.66        0.66
```

```
      Never |        190        5.03        5.69
<once a week|      1,140       30.17       35.87
Once a week |      1,746       46.21       82.08
2-4 times w |        652       17.26       99.34
5-6 times  w|         17        0.45       99.79
Once or m da|          8        0.21      100.00
------------+-----------------------------------
      Total |      3,778      100.00
```

```
. tab dt6, How often do you eat chicken, turkey or other poultry?

        DT6 |      Freq.     Percent        Cum.
------------+-----------------------------------
Do not know |          5        0.13        0.13
      Never |        175        4.63        4.76
<once a week|        349        9.24       14.00
Once a week |      1,229       32.53       46.53
2-4 times w |      1,918       50.77       97.30
5-6 times  w|         94        2.49       99.79
Once or m da|          8        0.21      100.00
------------+-----------------------------------
      Total |      3,778      100.00
```

```
. tab dt7, How often do you eat beef


        DT7 |      Freq.     Percent        Cum.
------------+-----------------------------------
Do not know |         23        0.61        0.61
      Never |        433       11.46       12.07
<once a week|      1,646       43.57       55.64
Once a week |      1,208       31.97       87.61
2-4 times w |        463       12.26       99.87
5-6 times  w|          4        0.11       99.97
Once or m da|          1        0.03      100.00
------------+-----------------------------------
      Total |      3,778      100.00
```

```
. tab dt7a, How often do you eat lamb/mutton


       DT7A |      Freq.     Percent        Cum.
------------+-----------------------------------
Decline answ|          1        0.03        0.03
Do not know |         22        0.58        0.61
      Never |        576       15.25       15.85
<once a week|      2,058       54.47       70.33
Once a week |        957       25.33       95.66
2-4 times w |        160        4.24       99.89
5-6 times  w|          2        0.05       99.95
Once or m da|          2        0.05      100.00
------------+-----------------------------------
      Total |      3,778      100.00
```

```
. tab dt7b, How often do you eat pork

       DT7B |      Freq.     Percent        Cum.
```

```
------------+-----------------------------------
Do not know |         31        0.82        0.82
      Never |        745       19.72       20.54
<once a week|      2,093       55.40       75.94
Once a week |        767       20.30       96.24
2-4 times w |        137        3.63       99.87
5-6 times  w|          3        0.08       99.95
Once or m da|          2        0.05      100.00
------------+-----------------------------------
      Total |      3,778      100.00
```

```
. tab dt8, How often do you eat any other kinds of meats and processed
meats
```

```
        DT8 |      Freq.     Percent        Cum.
------------+-----------------------------------
Do not know |         13        0.34        0.34
      Never |        356        9.42        9.77
<once a week|      1,191       31.52       41.29
Once a week |      1,189       31.47       72.76
2-4 times w |        936       24.78       97.54
5-6 times  w|         73        1.93       99.47
Once or m da|         20        0.53      100.00
------------+-----------------------------------
      Total |      3,778      100.00
```

```
. tab dt8a, How old were you when you last ate any kind of meat?
```

```
       DT8A |      Freq.     Percent        Cum.
------------+-----------------------------------
Do not know |          1        0.03        0.03
          0 |          7        0.19        0.21
          5 |          1        0.03        0.24
         12 |          1        0.03        0.26
         13 |          2        0.05        0.32
         14 |          2        0.05        0.37
         15 |          2        0.05        0.42
         16 |          1        0.03        0.45
         17 |          4        0.11        0.56
         18 |          6        0.16        0.71
         19 |          1        0.03        0.74
         20 |          7        0.19        0.93
         21 |          7        0.19        1.11
         22 |          6        0.16        1.27
         23 |          3        0.08        1.35
         24 |          1        0.03        1.38
         25 |          6        0.16        1.54
         26 |          3        0.08        1.61
         27 |          2        0.05        1.67
         28 |          5        0.13        1.80
         29 |          3        0.08        1.88
         30 |          8        0.21        2.09
         31 |          3        0.08        2.17
         32 |          4        0.11        2.28
         33 |          1        0.03        2.30
         35 |          3        0.08        2.38
         36 |          3        0.08        2.46
```

```
         37 |          1        0.03        2.49
         38 |          1        0.03        2.51
         40 |         16        0.42        2.94
         41 |          1        0.03        2.96
         42 |          2        0.05        3.02
         43 |          2        0.05        3.07
         44 |          3        0.08        3.15
         45 |          7        0.19        3.34
         46 |          2        0.05        3.39
         47 |          2        0.05        3.44
         48 |          2        0.05        3.49
         49 |          1        0.03        3.52
         50 |          4        0.11        3.63
         53 |          1        0.03        3.65
         54 |          1        0.03        3.68
         59 |          1        0.03        3.71
          . |      3,638       96.29      100.00
------------+-----------------------------------
      Total |      3,778      100.00

.
. tab dt8b, Which of the following do you NEVER eat?

       DT8B |      Freq.     Percent
------------+-----------------------------------
Decline answ|          6        0.16
        Eggs|        157        4.16
Dairy produc|         83        2.20
Wheat produc|        116        3.07
       Sugar|        935       24.75
eat all of t|      2,648       70.09
------------+-----------------------------------

. tab dt9, How often do you eat cheese
        DT9 |      Freq.     Percent        Cum.
------------+-----------------------------------
Do not know |          9        0.24        0.24
      Never |         98        2.59        2.83
<once a week|        726       19.22       22.05
Once a week |        869       23.00       45.05
2-4 times w |      1,571       41.58       86.63
5-6 times  w|        313        8.28       94.92
Once or m da|        109        2.89       97.80
          . |         83        2.20      100.00
------------+-----------------------------------
      Total |      3,778      100.00

. tab dt10, What type of milk do you mainly use?

       DT10 |      Freq.     Percent        Cum.
------------+-----------------------------------
Do not know |          2        0.05        0.05
Full cream  |        246        6.51        6.56
Semi-skimmed|      2,373       62.81       69.38
    Skimmed |        858       22.71       92.09
       Soya |        104        2.75       94.84
Other type o|         29        0.77       95.61
```

```
Never/Rarely|         83        2.20       97.80
          . |         83        2.20      100.00
------------+-----------------------------------
      Total |      3,778      100.00
```

```
. tab dt10a, What type of spread do you mainly use?
```

```
      DT10A |      Freq.     Percent        Cum.
------------+-----------------------------------
Do not know |          6        0.16        0.16
Butter/sprea|      1,249       33.06       33.22
  Margarine |        401       10.61       43.83
Olive oil ba|        618       16.36       60.19
Low or reduc|      1,054       27.90       88.09
Other type o|        150        3.97       92.06
Never/Rarely|        300        7.94      100.00
------------+-----------------------------------
      Total |      3,778      100.00
```

```
. tab dt11, What type of bread do you mainly eat?
```

```
       DT11 |      Freq.     Percent        Cum.
------------+-----------------------------------
Do not know |          5        0.13        0.13
      White |        938       24.83       24.96
      Brown |        517       13.68       38.64
Wholemeal or|      2,006       53.10       91.74
Other type o|         92        2.44       94.18
Never/Rarely|        104        2.75       96.93
          . |        116        3.07      100.00
------------+-----------------------------------
      Total |      3,778      100.00
```

```
. tab dt11a1, How many bowls of cereal do you eat a week?
```

```
     DT11A1 |      Freq.     Percent        Cum.
------------+-----------------------------------
Less than 1 |        116        3.07        3.07
Decline answ|          1        0.03        3.10
Do not know |         10        0.26        3.36
          0 |        432       11.43       14.80
          1 |        162        4.29       19.08
          2 |        258        6.83       25.91
          3 |        297        7.86       33.77
          4 |        195        5.16       38.94
          5 |        449       11.88       50.82
          6 |        291        7.70       58.52
          7 |      1,359       35.97       94.49
          8 |         23        0.61       95.10
          9 |         18        0.48       95.58
         10 |         16        0.42       96.00
         11 |          1        0.03       96.03
         12 |         12        0.32       96.35
         13 |          1        0.03       96.37
         14 |         18        0.48       96.85
         15 |          2        0.05       96.90
         20 |          1        0.03       96.93
```

```
          . |        116        3.07      100.00
------------+-----------------------------------
      Total |      3,778      100.00

. tab dt11a, What type of cereal do you mainly eat?

      DT11A |      Freq.     Percent        Cum.
------------+-----------------------------------
Declined an |         12        0.32        0.32
Do not know |         24        0.64        0.95
Bran cereal |        604       15.99       16.94
Biscuit cere|        595       15.75       32.69
Oat cereal  |        774       20.49       53.18
     Muesli |        577       15.27       68.45
      Other |        644       17.05       85.49
          . |        548       14.51      100.00
------------+-----------------------------------
      Total |      3,778      100.00

. tab dt11b, Do you add salt to your food?

      DT11B |      Freq.     Percent        Cum.
------------+-----------------------------------
Never/rarely|      2,112       55.90       55.90
  Sometimes |      1,039       27.50       83.40
    Usually |        429       11.36       94.76
     Always |        198        5.24      100.00
------------+-----------------------------------
      Total |      3,778      100.00

. tab dt12, How many cups of tea do you drink each day?

       DT12 |      Freq.     Percent        Cum.
------------+-----------------------------------
Less than 1 |         95        2.51        2.51
Do not know |          9        0.24        2.75
          0 |        578       15.30       18.05
          1 |        308        8.15       26.20
          2 |        504       13.34       39.54
          3 |        545       14.43       53.97
          4 |        551       14.58       68.55
          5 |        441       11.67       80.23
          6 |        343        9.08       89.31
          7 |        127        3.36       92.67
          8 |        136        3.60       96.27
          9 |         25        0.66       96.93
         10 |         69        1.83       98.76
         12 |         21        0.56       99.31
         14 |          5        0.13       99.44
         15 |          8        0.21       99.66
         20 |          9        0.24       99.89
         21 |          1        0.03       99.92
         24 |          1        0.03       99.95
         30 |          2        0.05      100.00
------------+-----------------------------------
      Total |      3,778      100.00
```

```
. tab dt13, How many cups of coffee do you drink each day

       DT13 |      Freq.     Percent        Cum.
------------+-----------------------------------
Less than 1 |        268        7.09        7.09
Decline answ|          1        0.03        7.12
Do not know |          4        0.11        7.23
          0 |        962       25.46       32.69
          1 |        732       19.38       52.06
          2 |        620       16.41       68.48
          3 |        437       11.57       80.04
          4 |        327        8.66       88.70
          5 |        202        5.35       94.04
          6 |        115        3.04       97.09
          7 |         25        0.66       97.75
          8 |         44        1.16       98.91
          9 |          5        0.13       99.05
         10 |         22        0.58       99.63
         12 |          7        0.19       99.81
         13 |          2        0.05       99.87
         15 |          2        0.05       99.92
         20 |          1        0.03       99.95
         24 |          1        0.03       99.97
         30 |          1        0.03      100.00
------------+-----------------------------------
      Total |      3,778      100.00

. tab dt13a, How do you like your hot drinks?

      DT13A |      Freq.     Percent        Cum.
------------+-----------------------------------
         NA |         40        1.06        1.06
   very hot |        619       16.38       17.44
        hot |      2,426       64.21       81.66
       warm |        693       18.34      100.00
------------+-----------------------------------
      Total |      3,778      100.00

. tab dt14, How many glasses of water do you drink each day?

       DT14 |      Freq.     Percent        Cum.
------------+-----------------------------------
Less than 1 |        203        5.37        5.37
Do not know |         21        0.56        5.93
          0 |        307        8.13       14.06
          1 |        630       16.68       30.73
          2 |        794       21.02       51.75
          3 |        606       16.04       67.79
          4 |        446       11.81       79.59
          5 |        292        7.73       87.32
          6 |        231        6.11       93.44
          7 |         38        1.01       94.44
          8 |        119        3.15       97.59
          9 |         14        0.37       97.96
         10 |         57        1.51       99.47
         12 |          9        0.24       99.71
         14 |          1        0.03       99.74
```

```
         15 |          4        0.11       99.84
         16 |          1        0.03       99.87
         18 |          2        0.05       99.92
         20 |          2        0.05       99.97
         32 |          1        0.03      100.00
------------+-----------------------------------
      Total |      3,778      100.00
```

```
. tab dt15, Have you made any major changes to your diet in the last 5
years?
```

```
       DT15 |      Freq.     Percent        Cum.
------------+-----------------------------------
Declined ans|         10        0.26        0.26
         no |      2,056       54.42       54.69
Yes,illness |        500       13.23       67.92
Yes reasons |      1,212       32.08      100.00
------------+-----------------------------------
      Total |      3,778      100.00
```

```
. tab dt16, Does your diet vary much from week to week?
```

```
       DT16 |      Freq.     Percent        Cum.
------------+-----------------------------------
Declined ans|          2        0.05        0.05
Never/rarely|      1,265       33.48       33.54
  Sometimes |      2,108       55.80       89.33
      Often |        355        9.40       98.73
     Always |         48        1.27      100.00
------------+-----------------------------------
      Total |      3,778      100.00
```

```
. tab d2, Where were you born?

         D2 |      Freq.     Percent        Cum.
------------+-----------------------------------
Declined ans|          2        0.05        0.05
Do not know |          1        0.03        0.08
    England |      3,275       86.69       86.77
      Wales |         55        1.46       88.22
   Scotland |        106        2.81       91.03
Nth Ireland |         26        0.69       91.72
Rep Ireland |         72        1.91       93.62
  Elsewhere |        241        6.38      100.00
------------+-----------------------------------
      Total |      3,778      100.00
```

```
. tab d2a, What year did you first come to live in the United Kingdom?

        D2A |      Freq.     Percent        Cum.
------------+-----------------------------------
Decline answ|          1        0.03        0.03
Do not know |          5        0.13        0.16
       1939 |          1        0.03        0.19
       1942 |          2        0.05        0.24
```

1944	1	0.03	0.26
1945	2	0.05	0.32
1946	1	0.03	0.34
1947	4	0.11	0.45
1948	3	0.08	0.53
1949	5	0.13	0.66
1950	3	0.08	0.74
1952	4	0.11	0.85
1953	3	0.08	0.93
1955	4	0.11	1.03
1956	10	0.26	1.30
1957	4	0.11	1.40
1958	4	0.11	1.51
1959	6	0.16	1.67
1960	11	0.29	1.96
1961	9	0.24	2.20
1962	11	0.29	2.49
1963	16	0.42	2.91
1964	18	0.48	3.39
1965	8	0.21	3.60
1966	15	0.40	4.00
1967	12	0.32	4.31
1968	5	0.13	4.45
1969	7	0.19	4.63
1970	9	0.24	4.87
1971	6	0.16	5.03
1972	10	0.26	5.29
1973	2	0.05	5.35
1974	5	0.13	5.48
1975	3	0.08	5.56
1976	8	0.21	5.77
1977	2	0.05	5.82
1978	3	0.08	5.90
1979	6	0.16	6.06
1980	1	0.03	6.09
1981	4	0.11	6.19
1982	4	0.11	6.30
1983	6	0.16	6.46
1984	6	0.16	6.62
1985	4	0.11	6.72
1986	4	0.11	6.83
1987	2	0.05	6.88
1988	1	0.03	6.91
1989	4	0.11	7.01
1990	3	0.08	7.09
1991	1	0.03	7.12
1992	5	0.13	7.25
1993	2	0.05	7.31
1994	2	0.05	7.36
1996	6	0.16	7.52
1997	2	0.05	7.57
1998	4	0.11	7.68
1999	5	0.13	7.81
2000	4	0.11	7.91
2001	5	0.13	8.05
2002	5	0.13	8.18
2003	1	0.03	8.21

```
       2004 |          1        0.03        8.23
       2005 |          2        0.05        8.28
          . |      3,465       91.72      100.00
------------+-----------------------------------
      Total |      3,778      100.00

. tab ye1, What is your ethnic group?

        YE1 |      Freq.     Percent        Cum.
------------+-----------------------------------
Declined ans|         11        0.29        0.29
Do not know |          3        0.08        0.37
      White |      3,597       95.21       95.58
      Mixed |         28        0.74       96.32
Asian or Asi|         61        1.61       97.94
Black or Bla|         26        0.69       98.62
   Chinese  |         13        0.34       98.97
Other ethnic|         39        1.03      100.00
------------+-----------------------------------
      Total |      3,778      100.00

. tab ye1a, What is your ethnic background?

       YE1A |      Freq.     Percent        Cum.
------------+-----------------------------------
Declined ans|          5        0.13        0.13
    British |      3,263       86.37       86.50
      Irish |        193        5.11       91.61
other white |        136        3.60       95.21
          . |        181        4.79      100.00
------------+-----------------------------------
      Total |      3,778      100.00

. tab ye1b, What is your ethnic background?

       YE1B |      Freq.     Percent        Cum.
------------+-----------------------------------
Declined ans|          1        0.03        0.03
White and Bl|          6        0.16        0.19
White and Bl|         10        0.26        0.45
White and A |          4        0.11        0.56
Any other mi|          7        0.19        0.74
          . |      3,750       99.26      100.00
------------+-----------------------------------
      Total |      3,778      100.00

. tab ye1c, What is your ethnic background?
       YE1C |      Freq.     Percent        Cum.
------------+-----------------------------------
     Indian |         30        0.79        0.79
  Pakistani |         19        0.50        1.30
Bangladeshi |          3        0.08        1.38
other Asian |          9        0.24        1.61
          . |      3,717       98.39      100.00
------------+-----------------------------------
      Total |      3,778      100.00
```

```
. tab ye1d, What is your ethnic background?
       YE1D |      Freq.     Percent        Cum.
------------+-----------------------------------
  Caribbean |         13        0.34        0.34
    African |         13        0.34        0.69
          . |      3,752       99.31      100.00
------------+-----------------------------------
      Total |      3,778      100.00

. tab y6a, What best describes the colour of your skin without tanning?

        Y6A |      Freq.     Percent        Cum.
------------+-----------------------------------
Declined ans|          6        0.16        0.16
Do not know |         43        1.14        1.30
  very fair |        324        8.58        9.87
       fair |      2,589       68.53       78.40
light olive |        666       17.63       96.03
 dark olive |         53        1.40       97.43
      brown |         83        2.20       99.63
      black |         14        0.37      100.00
------------+-----------------------------------
      Total |      3,778      100.00

. tab y6b, What best describes your natural hair colour?

        Y6B |      Freq.     Percent        Cum.
------------+-----------------------------------
Declined ans|          3        0.08        0.08
Do not know |          4        0.11        0.19
     blonde |        362        9.58        9.77
        red |        158        4.18       13.95
light brown |      1,465       38.78       52.73
 dark brown |      1,424       37.69       90.42
      black |        300        7.94       98.36
None of the |         62        1.64      100.00
------------+-----------------------------------
      Total |      3,778      100.00

. tab y6, Are you right or left handed?

         Y6 |      Freq.     Percent        Cum.
------------+-----------------------------------
Decline answ|          1        0.03        0.03
Right-handed|      3,349       88.64       88.67
Left-handed |        358        9.48       98.15
bothequally |         70        1.85      100.00
------------+-----------------------------------
      Total |      3,778      100.00

. tab y3, Were you breastfed when you were a baby?

         Y3 |      Freq.     Percent        Cum.
------------+-----------------------------------
Do not know |        925       24.48       24.48
         No |        799       21.15       45.63
        Yes |      2,054       54.37      100.00
```

```
------------+-----------------------------------
      Total |      3,778      100.00

. tab y4, When you were 10 years old, compared to average would you
describe yourself as:

         Y4 |      Freq.     Percent        Cum.
------------+-----------------------------------
Decline answ|          1        0.03        0.03
Do not know |         60        1.59        1.61
    Thinner |      1,274       33.72       35.34
    Plumper |        598       15.83       51.16
About averag|      1,845       48.84      100.00
------------+-----------------------------------
      Total |      3,778      100.00

. tab y5, When you were 10 years old, compared to average would you
describe yourself as:

         Y5 |      Freq.     Percent        Cum.
------------+-----------------------------------
Do not know |         65        1.72        1.72
    Shorter |        777       20.57       22.29
     Taller |        927       24.54       46.82
About averag|      2,009       53.18      100.00
------------+-----------------------------------
      Total |      3,778      100.00

. tab y1, Were you adopted as a child?

         Y1 |      Freq.     Percent        Cum.
------------+-----------------------------------
Declined ans|          2        0.05        0.05
Do not know |          6        0.16        0.21
         No |      3,708       98.15       98.36
        Yes |         62        1.64      100.00
------------+-----------------------------------
      Total |      3,778      100.00


. tab y1a, Are you a twin, triplet or other multiple birth?

        Y1A |      Freq.     Percent        Cum.
------------+-----------------------------------
Do not know |          1        0.03        0.03
         No |      3,622       95.87       95.90
        Yes |         91        2.41       98.31
          . |         64        1.69      100.00
------------+-----------------------------------
      Total |      3,778      100.00

. tab y7, Did your mother smoke regularly around the time when you were
born?
         Y7 |      Freq.     Percent        Cum.
------------+-----------------------------------
Do not know |        482       12.76       12.76
         No |      2,233       59.11       71.86
```

```
        Yes |        999       26.44       98.31
          . |         64        1.69      100.00
------------+-----------------------------------
      Total |      3,778      100.00

. tab y13, Is your father still alive?

        Y13 |      Freq.     Percent        Cum.
------------+-----------------------------------
Declined ans|          2        0.05        0.05
Do not know |         39        1.03        1.09
         No |      2,840       75.17       76.26
        Yes |        833       22.05       98.31
          . |         64        1.69      100.00
------------+-----------------------------------
      Total |      3,778      100.00

. tab y13a, What is his age now?

       Y13A |      Freq.     Percent        Cum.
------------+-----------------------------------
Do not know |          9        0.24        0.24
         59 |          1        0.03        0.26
         60 |          1        0.03        0.29
         62 |          6        0.16        0.45
         63 |          8        0.21        0.66
         64 |          6        0.16        0.82
         65 |         19        0.50        1.32
         66 |         14        0.37        1.69
         67 |         22        0.58        2.28
         68 |         23        0.61        2.89
         69 |         25        0.66        3.55
         70 |         41        1.09        4.63
         71 |         28        0.74        5.37
         72 |         30        0.79        6.17
         73 |         24        0.64        6.80
         74 |         34        0.90        7.70
         75 |         55        1.46        9.16
         76 |         44        1.16       10.32
         77 |         33        0.87       11.20
         78 |         50        1.32       12.52
         79 |         38        1.01       13.53
         80 |         42        1.11       14.64
         81 |         31        0.82       15.46
         82 |         44        1.16       16.62
         83 |         32        0.85       17.47
         84 |         35        0.93       18.40
         85 |         29        0.77       19.16
         86 |         29        0.77       19.93
         87 |         15        0.40       20.33
         88 |         13        0.34       20.67
         89 |         17        0.45       21.12
         90 |         10        0.26       21.39
         91 |          3        0.08       21.47
         92 |          9        0.24       21.70
         93 |          5        0.13       21.84
         94 |          3        0.08       21.92
```

```
         95 |          2        0.05       21.97
         96 |          2        0.05       22.02
         98 |          1        0.03       22.05
          . |      2,945       77.95      100.00
------------+-----------------------------------
      Total |      3,778      100.00

. tab y13b, What was his age when he died?
       Y13B |      Freq.     Percent        Cum.
------------+-----------------------------------
Decline answ|          6        0.16        0.16
Do not know |         64        1.69        1.85
         10 |          1        0.03        1.88
         20 |          1        0.03        1.91
         26 |          2        0.05        1.96
         27 |          3        0.08        2.04
         29 |          3        0.08        2.12
         30 |          2        0.05        2.17
         31 |          1        0.03        2.20
         32 |          7        0.19        2.38
         33 |          4        0.11        2.49
         34 |          6        0.16        2.65
         35 |          9        0.24        2.89
         36 |          7        0.19        3.07
         37 |          4        0.11        3.18
         38 |          8        0.21        3.39
         39 |          2        0.05        3.44
         40 |         12        0.32        3.76
         41 |          2        0.05        3.81
         42 |         21        0.56        4.37
         43 |         10        0.26        4.63
         44 |         10        0.26        4.90
         45 |         19        0.50        5.40
         46 |         12        0.32        5.72
         47 |         21        0.56        6.27
         48 |         14        0.37        6.64
         49 |         26        0.69        7.33
         50 |         26        0.69        8.02
         51 |         21        0.56        8.58
         52 |         34        0.90        9.48
         53 |         35        0.93       10.40
         54 |         32        0.85       11.25
         55 |         30        0.79       12.04
         56 |         51        1.35       13.39
         57 |         53        1.40       14.80
         58 |         49        1.30       16.09
         59 |         60        1.59       17.68
         60 |         49        1.30       18.98
         61 |         43        1.14       20.12
         62 |         71        1.88       22.00
         63 |         62        1.64       23.64
         64 |         82        2.17       25.81
         65 |         77        2.04       27.85
         66 |         51        1.35       29.20
         67 |         90        2.38       31.58
         68 |         60        1.59       33.17
         69 |         72        1.91       35.07
```

```
         70 |         87        2.30       37.37
         71 |         63        1.67       39.04
         72 |        116        3.07       42.11
         73 |         64        1.69       43.81
         74 |        108        2.86       46.66
         75 |        104        2.75       49.42
         76 |         93        2.46       51.88
         77 |         73        1.93       53.81
         78 |         72        1.91       55.72
         79 |         79        2.09       57.81
         80 |         95        2.51       60.32
         81 |         56        1.48       61.81
         82 |         76        2.01       63.82
         83 |         63        1.67       65.48
         84 |         59        1.56       67.05
         85 |         60        1.59       68.63
         86 |         59        1.56       70.20
         87 |         36        0.95       71.15
         88 |         32        0.85       72.00
         89 |         33        0.87       72.87
         90 |         31        0.82       73.69
         91 |         12        0.32       74.01
         92 |          7        0.19       74.19
         93 |         15        0.40       74.59
         94 |          7        0.19       74.78
         95 |          5        0.13       74.91
         96 |          1        0.03       74.93
         97 |          2        0.05       74.99
         98 |          2        0.05       75.04
         99 |          3        0.08       75.12
        102 |          1        0.03       75.15
        103 |          1        0.03       75.17
          . |        938       24.83      100.00
------------+-----------------------------------
      Total |      3,778      100.00

. tab y13d, Has your father ever suffered from?

      Y13D  |      Freq.     Percent
------------+-----------------------------------
None of abov|        310        8.21
Decline answ|          2        0.05
Do not know |         45        1.19
Heart diseas|        197        5.21
Stroke      |         94        2.49
High blood p|        247        6.54
Diabetes    |        122        3.23
Chronic bron|         37        0.98
Alzheimer's |         17        0.45
------------+-----------------------------------
.
.
. tab y13d1, Did your father ever suffered from?

     Y13D1  |      Freq.     Percent
------------+-----------------------------------
None of abov|        891       23.58
```

```
Decline answ|          4        0.11
Do not know |        235        6.22
Heart diseas|        911       24.11
Stroke      |        458       12.12
High blood p|        452       11.96
Diabetes    |        213        5.64
Chronic bron|        341        9.03
Alzheimer's |         93        2.46
------------+-----------------------------------

. tab y13e, Has your father ever suffered from?

      Y13E  |      Freq.     Percent
------------+-----------------------------------
None of abov|        644       17.05
Decline answ|          0
Do not know |         60        1.59
Parkinson's |         12        0.32
Severe depre|         39        1.03
Lung Cancer |          7        0.19
Bowel cancer|         23        0.61
Prostate can|         57        1.51
------------+-----------------------------------

. tab y13e1, did your father ever suffered from?

     Y13E1  |      Freq.     Percent
------------+-----------------------------------
None of abov|      1,796       47.54
Decline answ|          0
Do not know |        287        7.60
Parkinson's |         70        1.85
Severe depre|         94        2.49
Lung Cancer |        317        8.39
Bowel cancer|        174        4.61
Prostate can|        152        4.02
------------+-----------------------------------


.
. tab y16, Is your mother still alive?

        Y16 |      Freq.     Percent        Cum.
------------+-----------------------------------
Declined ans|          1        0.03        0.03
Do not know |         10        0.26        0.29
         No |      2,197       58.15       58.44
        Yes |      1,506       39.86       98.31
          . |         64        1.69      100.00
------------+-----------------------------------
      Total |      3,778      100.00

. tab y16a, What is her age now?

       Y16A |      Freq.     Percent        Cum.
------------+-----------------------------------
Decline answ|          1        0.03        0.03
```

```
          -1 |         10        0.26        0.29
          58 |          1        0.03        0.32
          60 |         13        0.34        0.66
          61 |          9        0.24        0.90
          62 |         16        0.42        1.32
          63 |         21        0.56        1.88
          64 |         26        0.69        2.57
          65 |         28        0.74        3.31
          66 |         32        0.85        4.16
          67 |         36        0.95        5.11
          68 |         41        1.09        6.19
          69 |         45        1.19        7.38
          70 |         69        1.83        9.21
          71 |         29        0.77        9.98
          72 |         56        1.48       11.46
          73 |         50        1.32       12.78
          74 |         58        1.54       14.32
          75 |         77        2.04       16.36
          76 |         63        1.67       18.03
          77 |         58        1.54       19.56
          78 |         79        2.09       21.65
          79 |         64        1.69       23.35
          80 |         59        1.56       24.91
          81 |         47        1.24       26.15
          82 |         66        1.75       27.90
          83 |         65        1.72       29.62
          84 |         56        1.48       31.10
          85 |         68        1.80       32.90
          86 |         58        1.54       34.44
          87 |         28        0.74       35.18
          88 |         27        0.71       35.89
          89 |         28        0.74       36.63
          90 |         28        0.74       37.37
          91 |         23        0.61       37.98
          92 |         26        0.69       38.67
          93 |         15        0.40       39.07
          94 |          5        0.13       39.20
          95 |         11        0.29       39.49
          96 |          5        0.13       39.62
          97 |          4        0.11       39.73
          98 |          3        0.08       39.81
          99 |          1        0.03       39.84
         100 |          1        0.03       39.86
           . |      2,272       60.14      100.00
-------------+-----------------------------------
       Total |      3,778      100.00

. tab y16b, What was her age when she died?

       Y16B |      Freq.     Percent        Cum.
------------+-----------------------------------
Do not know |         30        0.79        0.79
         17 |          1        0.03        0.82
         20 |          1        0.03        0.85
         23 |          1        0.03        0.87
         24 |          1        0.03        0.90
         25 |          1        0.03        0.93
```

26	1	0.03	0.95
27	1	0.03	0.98
28	1	0.03	1.01
29	1	0.03	1.03
31	3	0.08	1.11
32	5	0.13	1.24
34	4	0.11	1.35
35	1	0.03	1.38
36	7	0.19	1.56
38	4	0.11	1.67
39	7	0.19	1.85
40	11	0.29	2.14
41	5	0.13	2.28
42	11	0.29	2.57
43	6	0.16	2.73
44	4	0.11	2.83
45	9	0.24	3.07
46	7	0.19	3.26
47	6	0.16	3.41
48	13	0.34	3.76
49	10	0.26	4.02
50	12	0.32	4.34
51	12	0.32	4.66
52	23	0.61	5.27
53	12	0.32	5.58
54	25	0.66	6.25
55	10	0.26	6.51
56	19	0.50	7.01
57	15	0.40	7.41
58	25	0.66	8.07
59	32	0.85	8.92
60	36	0.95	9.87
61	26	0.69	10.56
62	59	1.56	12.12
63	41	1.09	13.21
64	43	1.14	14.35
65	44	1.16	15.51
66	42	1.11	16.62
67	38	1.01	17.63
68	42	1.11	18.74
69	51	1.35	20.09
70	56	1.48	21.57
71	44	1.16	22.74
72	92	2.44	25.17
73	68	1.80	26.97
74	55	1.46	28.43
75	76	2.01	30.44
76	62	1.64	32.08
77	40	1.06	33.14
78	76	2.01	35.15
79	63	1.67	36.82
80	78	2.06	38.88
81	48	1.27	40.15
82	89	2.36	42.51
83	75	1.99	44.49
84	96	2.54	47.04
85	63	1.67	48.70

```
         86 |         50        1.32       50.03
         87 |         32        0.85       50.87
         88 |         32        0.85       51.72
         89 |         55        1.46       53.18
         90 |         38        1.01       54.18
         91 |         29        0.77       54.95
         92 |         41        1.09       56.03
         93 |         29        0.77       56.80
         94 |         17        0.45       57.25
         95 |         13        0.34       57.60
         96 |          7        0.19       57.78
         97 |          5        0.13       57.91
         98 |          3        0.08       57.99
         99 |          3        0.08       58.07
        100 |          1        0.03       58.10
        101 |          2        0.05       58.15
          . |      1,581       41.85      100.00
------------+-----------------------------------
      Total |      3,778      100.00

. tab y16d, Has your mother ever suffered from?

      Y16D  |      Freq.     Percent
------------+-----------------------------------
None of abov|        619       16.38
Decline answ|          0
Do not know |         30        0.79
Heart diseas|        219        5.80
Stroke      |        119        3.15
High blood p|        599       15.85
Diabetes    |        163        4.31
Chronic bron|         71        1.88
Alzheimer's |         61        1.61
------------+-----------------------------------

. tab y16d1, did your mother ever suffered from?

     Y16D1  |      Freq.     Percent
------------+-----------------------------------
None of abov|        831       22.00
Decline answ|          2        0.05
Do not know |        144        3.81
Heart diseas|        523       13.84
Stroke      |        350        9.26
High blood p|        426       11.28
Diabetes    |        191        5.06
Chronic bron|        158        4.18
Alzheimer's |        156        4.13
------------+-----------------------------------
.
. tab y16e, Has your mother ever suffered from?

      Y16E  |      Freq.     Percent
------------+-----------------------------------
None of abov|      1,217       32.21
Decline answ|          0
Do not know |         47        1.24
```

```
Parkinson's |         11        0.29
Severe depre|        117        3.10
Lung Cancer |          7        0.19
Bowel cancer|         40        1.06
Breast cance|         83        2.20
------------+-----------------------------------
```

```
. tab y16e1, did your mother ever suffered from?

     Y16E1  |      Freq.     Percent
------------+-----------------------------------
None of abov|      1,404       37.16
Decline answ|          0
Do not know |        169        4.47
Parkinson's |         32        0.85
Severe depre|        127        3.36
Lung Cancer |        152        4.02
Bowel cancer|        168        4.45
Breast cance|        194        5.13
------------+-----------------------------------
```

```
.
. tab y17, How many brothers do you have?

        Y17 |      Freq.     Percent        Cum.
------------+-----------------------------------
Decline answ|          2        0.05        0.05
Do not know |          1        0.03        0.08
          0 |      1,238       32.77       32.85
          1 |      1,359       35.97       68.82
          2 |        580       15.35       84.17
          3 |        284        7.52       91.69
          4 |        129        3.41       95.10
          5 |         70        1.85       96.96
          6 |         29        0.77       97.72
          7 |         11        0.29       98.01
          8 |          4        0.11       98.12
          9 |          4        0.11       98.23
         12 |          2        0.05       98.28
         13 |          1        0.03       98.31
          . |         64        1.69      100.00
------------+-----------------------------------
      Total |      3,778      100.00
```

```
. tab y18, How many sisters do you have?

        Y18 |      Freq.     Percent        Cum.
------------+-----------------------------------
Decline answ|          3        0.08        0.08
Do not know |          3        0.08        0.16
          0 |      1,378       36.47       36.63
          1 |      1,292       34.20       70.83
          2 |        561       14.85       85.68
          3 |        262        6.93       92.62
          4 |        121        3.20       95.82
          5 |         43        1.14       96.96
          6 |         28        0.74       97.70
```

```
          7 |         12        0.32       98.01
          8 |          7        0.19       98.20
          9 |          2        0.05       98.25
         10 |          2        0.05       98.31
          . |         64        1.69      100.00
------------+-----------------------------------
      Total |      3,778      100.00

. tab y19, Have any of your brothers/sisters suffered from any of the
following?

       Y19  |      Freq.     Percent
------------+-----------------------------------
None of abov|     2,004       53.04
Decline answ|         4        0.11
Do not know |       229        6.06
Heart diseas|       318        8.42
Stroke      |        94        2.49
High blood p|       621       16.44
Diabetes    |       255        6.75
Chronic bron|        87        2.30
Alzheimer's |        11        0.29
------------+-----------------------------------

. tab y20, Have any of your brothers/sisters suffered from any of the
following?

       Y20  |      Freq.     Percent
------------+-----------------------------------
None of abov|      2,557       67.68
Decline answ|          2        0.05
Do not know |        228        6.03
Parkinson's |          7        0.19
Severe depre|        235        6.22
Lung Cancer |         62        1.64
Bowel cancer|         68        1.80
Breast cance|        124        3.28
Prostate can|         33        0.87
------------+-----------------------------------
.
.
. tab p18, Does your mood often go up and down?

        P18 |      Freq.     Percent        Cum.
------------+-----------------------------------
Declined ans|          5        0.13        0.13
Do not know |         97        2.57        2.70
         no |      1,978       52.36       55.06
        yes |      1,698       44.94      100.00
------------+-----------------------------------
      Total |      3,778      100.00

. tab p19, Do you ever feel 'just miserable' for no reason?

        P19 |      Freq.     Percent        Cum.
------------+-----------------------------------
Declined ans|          7        0.19        0.19
```

```
Do not know |         68        1.80        1.99
         no |      2,157       57.09       59.08
        yes |      1,546       40.92      100.00
------------+-----------------------------------
      Total |      3,778      100.00
```

```
. tab p20, Are you an irritable person?
```

```
        P20 |      Freq.     Percent        Cum.
------------+-----------------------------------
Declined ans|          7        0.19        0.19
Do not know |        164        4.34        4.53
         no |      2,660       70.41       74.93
        yes |        947       25.07      100.00
------------+-----------------------------------
      Total |      3,778      100.00
```

```
. tab p21, Are your feelings easily hurt?
```

```
        P21 |      Freq.     Percent        Cum.
------------+-----------------------------------
Declined ans|          3        0.08        0.08
Do not know |        126        3.34        3.41
         no |      1,703       45.08       48.49
        yes |      1,946       51.51      100.00
------------+-----------------------------------
      Total |      3,778      100.00
```

```
. tab p22, Do you often feel 'fed-up'?
```

```
        P22 |      Freq.     Percent        Cum.
------------+-----------------------------------
Declined ans|          8        0.21        0.21
Do not know |         88        2.33        2.54
         no |      2,248       59.50       62.04
        yes |      1,434       37.96      100.00
------------+-----------------------------------
      Total |      3,778      100.00
```

```
. tab p23, Would you call yourself a nervous person?
```

```
        P23 |      Freq.     Percent        Cum.
------------+-----------------------------------
Declined ans|          6        0.16        0.16
Do not know |        110        2.91        3.07
         no |      2,776       73.48       76.55
        yes |        886       23.45      100.00
------------+-----------------------------------
      Total |      3,778      100.00
```

```
. tab p24, Are you a worrier?
```

```
        P24 |      Freq.     Percent        Cum.
------------+-----------------------------------
Declined ans|          6        0.16        0.16
Do not know |         99        2.62        2.78
         no |      1,556       41.19       43.97
```

```
        yes |      2,117       56.03      100.00
------------+-----------------------------------
      Total |      3,778      100.00

. tab p25, Would you call yourself tense or 'highly strung'?

        P25 |      Freq.     Percent        Cum.
------------+-----------------------------------
Declined ans|          2        0.05        0.05
Do not know |        125        3.31        3.36
         no |      2,978       78.82       82.19
        yes |        673       17.81      100.00
------------+-----------------------------------
      Total |      3,778      100.00

. tab p26, Do you worry too long after an embarrassing experience?

        P26 |      Freq.     Percent        Cum.
------------+-----------------------------------
Declined ans|          4        0.11        0.11
Do not know |        173        4.58        4.69
         no |      1,955       51.75       56.43
        yes |      1,646       43.57      100.00
------------+-----------------------------------
      Total |      3,778      100.00

. tab p27, Do you suffer from 'nerves'?

        P27 |      Freq.     Percent        Cum.
------------+-----------------------------------
Declined ans|          5        0.13        0.13
Do not know |        172        4.55        4.69
         no |      2,812       74.43       79.12
        yes |        789       20.88      100.00
------------+-----------------------------------
      Total |      3,778      100.00

. tab p28, Do you often feel lonely?

        P28 |      Freq.     Percent        Cum.
------------+-----------------------------------
Declined ans|         13        0.34        0.34
Do not know |         58        1.54        1.88
         no |      3,034       80.31       82.19
        yes |        673       17.81      100.00
------------+-----------------------------------
      Total |      3,778      100.00

. tab p29, Are you often troubled about feelings of guilt?

        P29 |      Freq.     Percent        Cum.
------------+-----------------------------------
Declined ans|          8        0.21        0.21
Do not know |        100        2.65        2.86
         no |      2,643       69.96       72.82
        yes |      1,027       27.18      100.00
------------+-----------------------------------
```

```
      Total |      3,778      100.00

. tab p30, Would you describe yourself as someone who takes risks?

        P30 |      Freq.     Percent        Cum.
------------+-----------------------------------
Declined ans|          8        0.21        0.21
Do not know |        161        4.26        4.47
         no |      2,649       70.12       74.59
        yes |        960       25.41      100.00
------------+-----------------------------------
      Total |      3,778      100.00

. tab p1, Over the past two weeks, how often have you felt down,
depressed or hopeless?

         P1 |      Freq.     Percent        Cum.
------------+-----------------------------------
Declined ans|         17        0.45        0.45
Do not know |        135        3.57        4.02
 Not at all |      2,749       72.76       76.79
Several days|        679       17.97       94.76
More than ha|        116        3.07       97.83
Nearly every|         82        2.17      100.00
------------+-----------------------------------
      Total |      3,778      100.00

. tab p1a, Over the past two weeks how often have you had little
interest


        P1A |      Freq.     Percent        Cum.
------------+-----------------------------------
Declined ans|          8        0.21        0.21
Do not know |        112        2.96        3.18
 Not at all |      2,860       75.70       78.88
Several days|        583       15.43       94.31
More than ha|        115        3.04       97.35
Nearly every|        100        2.65      100.00
------------+-----------------------------------
      Total |      3,778      100.00

. tab p2, Over the past two weeks, how often have you felt tense,
fidgety or restless?

         P2 |      Freq.     Percent        Cum.
------------+-----------------------------------
Declined ans|         10        0.26        0.26
Do not know |        137        3.63        3.89
 Not at all |      2,663       70.49       74.38
Several days|        795       21.04       95.42
More than ha|        105        2.78       98.20
Nearly every|         68        1.80      100.00
------------+-----------------------------------
      Total |      3,778      100.00
```

```
. tab p3, Over the past two weeks, how often have you felt tired or had
little energy?

         P3 |      Freq.     Percent        Cum.
------------+-----------------------------------
Declined ans|          7        0.19        0.19
Do not know |        120        3.18        3.36
 Not at all |      1,638       43.36       46.72
Several days|      1,500       39.70       86.42
More than ha|        229        6.06       92.48
Nearly every|        284        7.52      100.00
------------+-----------------------------------
      Total |      3,778      100.00

. tab p4, Have you ever seen a general practitioner for nerves, anxiety,
tension or depression?

         P4 |      Freq.     Percent        Cum.
------------+-----------------------------------
Declined ans|          8        0.21        0.21
Do not know |         32        0.85        1.06
         no |      2,361       62.49       63.55
        yes |      1,377       36.45      100.00
------------+-----------------------------------
      Total |      3,778      100.00

. tab p5, Have you ever seen a psychiatrist for nerves, anxiety, tension
or depression?

         P5 |      Freq.     Percent        Cum.
------------+-----------------------------------
Declined ans|          7        0.19        0.19
Do not know |         13        0.34        0.53
         no |      3,288       87.03       87.56
        yes |        470       12.44      100.00
------------+-----------------------------------
      Total |      3,778      100.00

. tab e1, How often are you able to confide in someone close to you?
         E1 |      Freq.     Percent        Cum.
------------+-----------------------------------
Declined ans|         20        0.53        0.53
Do not know |         80        2.12        2.65
Never or alm|        525       13.90       16.54
Once every f|        188        4.98       21.52
About once a|        166        4.39       25.91
About once a|        362        9.58       35.49
2-4 times a |        361        9.56       45.05
Almost daily|      2,076       54.95      100.00
------------+-----------------------------------
      Total |      3,778      100.00

.
. tab e2, In the last 2 years have you experienced any of the following?

        E2  |      Freq.     Percent        Cum.
```

```
------------+-----------------------------------
Declined ans|         12        0.32
None of abov|      2,034       53.84
Do not know |         25        0.66
serious to y|        364        9.63
serious of a|        475       12.57
death of a c|        800       21.18
death of a s|         54        1.43
marital sepa|        142        3.76
financial di|        443       11.73
------------+-----------------------------------
      Total |      3,778

. tab intro7, The next section contains questions about your sexual
history


     INTRO7 |      Freq.     Percent        Cum.
------------+-----------------------------------
   Continue |      3,466       91.74       91.74
       Skip |        312        8.26      100.00
------------+-----------------------------------
      Total |      3,778      100.00

. tab se1, What was your age when you first had sexual intercourse?

        SE1 |      Freq.     Percent        Cum.
------------+-----------------------------------
Decline answ|         91        2.41        2.41
         NA |         47        1.24        3.65
Do not know |         29        0.77        4.42
          7 |          4        0.11        4.53
          9 |          2        0.05        4.58
         10 |          5        0.13        4.71
         11 |          7        0.19        4.90
         12 |         13        0.34        5.24
         13 |         21        0.56        5.80
         14 |         79        2.09        7.89
         15 |        215        5.69       13.58
         16 |        357        9.45       23.03
         17 |        417       11.04       34.07
         18 |        496       13.13       47.19
         19 |        357        9.45       56.64
         20 |        305        8.07       64.72
         21 |        290        7.68       72.39
         22 |        187        4.95       77.34
         23 |        149        3.94       81.29
         24 |         86        2.28       83.56
         25 |        102        2.70       86.26
         26 |         55        1.46       87.72
         27 |         34        0.90       88.62
         28 |         32        0.85       89.47
         29 |         20        0.53       89.99
         30 |         18        0.48       90.47
         31 |          6        0.16       90.63
         32 |          9        0.24       90.87
         33 |          4        0.11       90.97
```

```
         34 |          7        0.19       91.16
         35 |          4        0.11       91.27
         36 |          3        0.08       91.34
         37 |          1        0.03       91.37
         38 |          2        0.05       91.42
         39 |          1        0.03       91.45
         40 |          3        0.08       91.53
         42 |          2        0.05       91.58
         43 |          1        0.03       91.61
         44 |          1        0.03       91.64
         49 |          1        0.03       91.66
         52 |          1        0.03       91.69
         53 |          1        0.03       91.72
         57 |          1        0.03       91.74
          . |        312        8.26      100.00
------------+-----------------------------------
      Total |      3,778      100.00

. tab se1a, About how many sexual partners have you had in your
lifetime?
       SE1A |      Freq.     Percent        Cum.
------------+-----------------------------------
Decline answ|        176        4.66        4.66
Do not know |        180        4.76        9.42
          1 |        887       23.48       32.90
          2 |        434       11.49       44.39
          3 |        360        9.53       53.92
          4 |        234        6.19       60.11
          5 |        243        6.43       66.54
          6 |        188        4.98       71.52
          7 |         63        1.67       73.19
          8 |         84        2.22       75.41
          9 |         32        0.85       76.26
         10 |        155        4.10       80.36
         11 |         14        0.37       80.73
         12 |         66        1.75       82.48
         13 |          7        0.19       82.66
         14 |          6        0.16       82.82
         15 |         63        1.67       84.49
         16 |          8        0.21       84.70
         17 |          4        0.11       84.81
         18 |          2        0.05       84.86
         19 |          1        0.03       84.89
         20 |         80        2.12       87.00
         21 |          1        0.03       87.03
         22 |          3        0.08       87.11
         23 |          1        0.03       87.14
         25 |         29        0.77       87.90
         27 |          1        0.03       87.93
         28 |          1        0.03       87.96
         30 |         34        0.90       88.86
         33 |          2        0.05       88.91
         35 |          7        0.19       89.09
         37 |          1        0.03       89.12
         40 |          9        0.24       89.36
         45 |          1        0.03       89.39
         50 |         20        0.53       89.92
```

```
         55 |          1        0.03       89.94
         60 |          7        0.19       90.13
         65 |          1        0.03       90.15
         66 |          1        0.03       90.18
         72 |          1        0.03       90.21
         80 |          1        0.03       90.23
         85 |          1        0.03       90.26
         90 |          1        0.03       90.29
        100 |          2        0.05       90.34
        150 |          3        0.08       90.42
        200 |          1        0.03       90.44
        300 |          1        0.03       90.47
        500 |          1        0.03       90.50
          . |        359        9.50      100.00
------------+-----------------------------------
      Total |      3,778      100.00
```

```
. tab se2, Have you ever had sexual intercourse with someone of the same
sex?
```

```
        SE2 |      Freq.     Percent        Cum.
------------+-----------------------------------
Decline answ|         27        0.71        0.71
         No |      3,268       86.50       87.22
        Yes |        124        3.28       90.50
          . |        359        9.50      100.00
------------+-----------------------------------
      Total |      3,778      100.00
```

```
. tab se2a, How many sexual partners of the same sex have you had in
your lifetime?
```

```
       SE2A |      Freq.     Percent        Cum.
------------+-----------------------------------
Decline answ|          5        0.13        0.13
Do not know |         13        0.34        0.48
          1 |         45        1.19        1.67
          2 |         16        0.42        2.09
          3 |          9        0.24        2.33
          4 |          5        0.13        2.46
          5 |          8        0.21        2.67
          6 |          1        0.03        2.70
         10 |          3        0.08        2.78
         12 |          2        0.05        2.83
         13 |          1        0.03        2.86
         15 |          3        0.08        2.94
         20 |          2        0.05        2.99
         22 |          1        0.03        3.02
         30 |          2        0.05        3.07
         39 |          1        0.03        3.10
         50 |          1        0.03        3.12
         60 |          2        0.05        3.18
        130 |          1        0.03        3.20
        150 |          1        0.03        3.23
        200 |          1        0.03        3.26
        500 |          1        0.03        3.28
          . |      3,654       96.72      100.00
```

```
------------+-----------------------------------
      Total |      3,778      100.00

. tab h3, In general how would you rate your overall health?

         H3 |      Freq.     Percent        Cum.
------------+-----------------------------------
Decline answ|          1        0.03        0.03
Do not know |         25        0.66        0.69
   Excellent|        623       16.49       17.18
       Good |      2,089       55.29       72.47
       Fair |        822       21.76       94.23
       Poor |        218        5.77      100.00
------------+-----------------------------------
      Total |      3,778      100.00

.
. tab h4, Do you have any long-standing illness, disability or
infirmity?

         H4 |      Freq.     Percent        Cum.
------------+-----------------------------------
Decline answ|          6        0.16        0.16
Do not know |         80        2.12        2.28
         No |      2,427       64.24       66.52
        Yes |      1,265       33.48      100.00
------------+-----------------------------------
      Total |      3,778      100.00

. tab h4a, Do you receive any of the following?

       H4A  |      Freq.     Percent
------------+-----------------------------------
none of abov|     3,465       91.72
Decline answ|        11        0.29
Do not know |        19        0.50
Attendance a|        34        0.90
Disability l|       231        6.11
Blue badge  |       153        4.05
------------+-----------------------------------

.
. tab h5, Do you wear glasses or contact lenses to correct your vision?

         H5 |      Freq.     Percent        Cum.
------------+-----------------------------------
         No |        487       12.89       12.89
        Yes |      3,291       87.11      100.00
------------+-----------------------------------
      Total |      3,778      100.00

. tab h5a, Do you have any other problems with your eyes or eyesight?

        H5A |      Freq.     Percent        Cum.
------------+-----------------------------------
Decline answ|          4        0.11        0.11
         No |      3,195       84.57       84.67
```

```
        Yes |        579       15.33      100.00
------------+-----------------------------------
      Total |      3,778      100.00

.
. tab h5c, Has a doctor told you that you have any of the following
problems with your eyes?

       H5C  |      Freq.     Percent
------------+-----------------------------------
none of abov|        317        8.39
Decline answ|          1        0.03
Do not know |         26        0.69
Diabetes rel|         14        0.37
Glaucoma    |         57        1.51
Injury or tr|         19        0.50
Cataract    |         85        2.25
Macular dege|        24        0.64
Other seriou|        73        1.93
------------+-----------------------------------

. tab h6, Do you have any difficulty with your hearing?

         H6 |      Freq.     Percent        Cum.
------------+-----------------------------------
Decline answ|          1        0.03        0.03
Do not know |        115        3.04        3.07
         No |      2,931       77.58       80.65
        Yes |        731       19.35      100.00
------------+-----------------------------------
      Total |      3,778      100.00

. tab h7, Do you find it difficult to follow a conversation if there is
background noise

         H7 |      Freq.     Percent        Cum.
------------+-----------------------------------
Decline answ|          4        0.11        0.11
Do not know |         63        1.67        1.77
         No |      2,409       63.76       65.54
        Yes |      1,302       34.46      100.00
------------+-----------------------------------
      Total |      3,778      100.00

. tab h7a, Do you use a hearing aid most of the time?

        H7A |      Freq.     Percent        Cum.
------------+-----------------------------------
Decline answ|          1        0.03        0.03
         No |      1,331       35.23       35.26
        Yes |         99        2.62       37.88
          . |      2,347       62.12      100.00
------------+-----------------------------------
      Total |      3,778      100.00

.
. tab h7b, In the last year have you experienced any of the following?
```

```
       H7B  |      Freq.     Percent
------------+-----------------------------------
none of abov|      2,243       59.37
Decline answ|          9        0.24
Painful teet|        735       19.45
Painful gums|        352        9.32
Bleeding gum|        663       17.55
Lost or loos|        347        9.18
------------+-----------------------------------

. tab h8, in the last year have you had any falls?

         H8 |      Freq.     Percent        Cum.
------------+-----------------------------------
Decline answ|          6        0.16        0.16
No falls    |      3,108       82.27       82.42
Only one fal|        436       11.54       93.97
More than on|        228        6.03      100.00
------------+-----------------------------------
      Total |      3,778      100.00

. tab h9, Compared with one year ago, has your weight changed?

         H9 |      Freq.     Percent        Cum.
------------+-----------------------------------
Declined ans|          1        0.03        0.03
Do not know |         86        2.28        2.30
No - weigh a|      1,983       52.49       54.79
Yes - gained|      1,174       31.07       85.87
Yes -  lost |        534       14.13      100.00
------------+-----------------------------------
      Total |      3,778      100.00

. tab sy2, In the last year have you ever had wheeze or whistling in the
chest?

        SY2 |      Freq.     Percent        Cum.
------------+-----------------------------------
Do not know |         81        2.14        2.14
         No |      2,892       76.55       78.69
        Yes |        805       21.31      100.00
------------+-----------------------------------
      Total |      3,778      100.00

.
. tab sy5, In the last month have you experienced any of the following
that interfered with your usual activities?

        SY5 |      Freq.     Percent
------------+-----------------------------------
none of abov|      1,483       39.25
   Headache |        804       21.28
Facial pain |         86        2.28
Neck or shou|        896       23.72
  Back pain |        985       26.07
Stomach or  |        376        9.95
```

```
   Hip pain |        435       11.51
   Knee pain|         80       20.65
Pain all ove|         71        1.88
------------+-----------------------------------

.
. tab sy1, Do you ever have any pain or discomfort in your chest?

        SY1 |      Freq.     Percent        Cum.
------------+-----------------------------------
Decline answ|          1        0.03        0.03
Do not know |         48        1.27        1.30
         No |      3,037       80.39       81.68
        Yes |        692       18.32      100.00
------------+-----------------------------------
      Total |      3,778      100.00

. tab sy1a, Do you get this pain or discomfort when you walk at an
ordinary pace on the level?

       SY1A |      Freq.     Percent        Cum.
------------+-----------------------------------
Decline answ|          4        0.11        0.11
Do not know |          4        0.11        0.21
         No |        563       14.90       15.11
        Yes |        121        3.20       18.32
          . |      3,086       81.68      100.00
------------+-----------------------------------
      Total |      3,778      100.00

. tab sy1b, Do you get this pain or discomfort when you walk uphill or
hurry?


       SY1B |      Freq.     Percent        Cum.
------------+-----------------------------------
Decline answ|          3        0.08        0.08
Do not know |         13        0.34        0.42
         No |        413       10.93       11.36
        Yes |        134        3.55       14.90
          . |      3,215       85.10      100.00
------------+-----------------------------------
      Total |      3,778      100.00

. tab sy1c, Does this chest pain go away when you stand still?

       SY1C |      Freq.     Percent        Cum.
------------+-----------------------------------
Do not know |         21        0.56        0.56
         No |         38        1.01        1.56
        Yes |        196        5.19        6.75
          . |      3,523       93.25      100.00
------------+-----------------------------------
      Total |      3,778      100.00

. tab h10, Have you ever had a screening test for bowel (colorectal)
cancer?
```

```
        H10 |      Freq.     Percent        Cum.
------------+-----------------------------------
Decline answ|          1        0.03        0.03
Do not know |         78        2.06        2.09
         No |      2,923       77.37       79.46
        Yes |        776       20.54      100.00
------------+-----------------------------------
      Total |      3,778      100.00

. tab h10a, How many years ago was the most recent one of these tests?

       H10A |      Freq.     Percent        Cum.
------------+-----------------------------------
Less than 1 |         96        2.54        2.54
Do not know |         32        0.85        3.39
          0 |          4        0.11        3.49
          1 |        104        2.75        6.25
          2 |        131        3.47        9.71
          3 |        101        2.67       12.39
          4 |         57        1.51       13.90
          5 |         77        2.04       15.93
          6 |         36        0.95       16.89
          7 |         23        0.61       17.50
          8 |         18        0.48       17.97
          9 |          3        0.08       18.05
         10 |         35        0.93       18.98
         11 |          4        0.11       19.08
         12 |          7        0.19       19.27
         13 |          1        0.03       19.30
         14 |          1        0.03       19.32
         15 |         12        0.32       19.64
         17 |          2        0.05       19.69
         18 |          4        0.11       19.80
         19 |          2        0.05       19.85
         20 |          7        0.19       20.04
         21 |          1        0.03       20.06
         22 |          4        0.11       20.17
         23 |          1        0.03       20.20
         24 |          1        0.03       20.22
         25 |          4        0.11       20.33
         28 |          2        0.05       20.38
         30 |          4        0.11       20.49
         33 |          1        0.03       20.51
         40 |          1        0.03       20.54
          . |      3,002       79.46      100.00
------------+-----------------------------------
      Total |      3,778      100.00

.
. preserve

. men only
(2059 observations deleted)

. tab mh2, Have you ever had a blood test for prostate cancer
```

```
        MH2 |      Freq.     Percent        Cum.
------------+-----------------------------------
Decline answ|          1        0.06        0.06
Do not know |         97        5.64        5.70
         No |      1,151       66.96       72.66
        Yes |        470       27.34      100.00
------------+-----------------------------------
      Total |      1,719      100.00

. tab mh3, How many years ago was your last test?

        MH3 |      Freq.     Percent        Cum.
------------+-----------------------------------
Less than 1 |        101        5.88        5.88
Do not know |         11        0.64        6.52
          0 |          6        0.35        6.86
          1 |        125        7.27       14.14
          2 |         88        5.12       19.26
          3 |         62        3.61       22.86
          4 |         25        1.45       24.32
          5 |         26        1.51       25.83
          6 |          9        0.52       26.35
          7 |          5        0.29       26.64
          8 |          5        0.29       26.93
          9 |          2        0.12       27.05
         10 |          2        0.12       27.17
         11 |          1        0.06       27.23
         12 |          1        0.06       27.28
         20 |          1        0.06       27.34
          . |      1,249       72.66      100.00
------------+-----------------------------------
      Total |      1,719      100.00

. tab op1m, Have you had any major operations?

       OP1M |      Freq.     Percent        Cum.
------------+-----------------------------------
Decline answ|          1        0.06        0.06
Do not know |         40        2.33        2.39
         No |        888       51.66       54.04
        Yes |        790       45.96      100.00
------------+-----------------------------------
      Total |      1,719      100.00

. restore

.
. preserve

. women only
(1719 observations deleted)

. tab fh7, Have you ever been for breast cancer screening (a mammogram)?
```

```
        FH7 |      Freq.     Percent        Cum.
------------+-----------------------------------
Do not know |          6        0.29        0.29
         No |        492       23.90       24.19
        Yes |      1,561       75.81      100.00
------------+-----------------------------------
      Total |      2,059      100.00
```

```
. tab fh7a, How many years ago was your last screen?
```

```
       FH7A |      Freq.     Percent        Cum.
------------+-----------------------------------
Less than 1 |        291       14.13       14.13
Do not know |         46        2.23       16.37
          0 |         11        0.53       16.90
          1 |        489       23.75       40.65
          2 |        416       20.20       60.85
          3 |        176        8.55       69.40
          4 |         56        2.72       72.12
          5 |         26        1.26       73.39
          6 |         11        0.53       73.92
          7 |          7        0.34       74.26
          8 |          4        0.19       74.45
          9 |          2        0.10       74.55
         10 |          8        0.39       74.94
         11 |          2        0.10       75.04
         12 |          3        0.15       75.18
         13 |          1        0.05       75.23
         14 |          1        0.05       75.28
         15 |          5        0.24       75.52
         17 |          1        0.05       75.57
         18 |          1        0.05       75.62
         20 |          2        0.10       75.72
         25 |          1        0.05       75.76
         30 |          1        0.05       75.81
          . |        498       24.19      100.00
------------+-----------------------------------
      Total |      2,059      100.00
```

```
. tab fh8, Have you ever had a cervical smear test?
```

```
        FH8 |      Freq.     Percent        Cum.
------------+-----------------------------------
Decline answ|          1        0.05        0.05
Do not know |          1        0.05        0.10
         No |         45        2.19        2.28
        Yes |      2,012       97.72      100.00
------------+-----------------------------------
      Total |      2,059      100.00
```

```
. tab fh8b, How many years ago was your last cervical smear test?
```

```
       FH8B |      Freq.     Percent        Cum.
------------+-----------------------------------
Less than 1 |        225       10.93       10.93
Decline answ|          1        0.05       10.98
```

```
Do not know |        222       10.78       21.76
          0 |         17        0.83       22.58
          1 |        297       14.42       37.01
          2 |        394       19.14       56.14
          3 |        285       13.84       69.99
          4 |        110        5.34       75.33
          5 |        119        5.78       81.11
          6 |         39        1.89       83.00
          7 |         13        0.63       83.63
          8 |         18        0.87       84.51
          9 |         10        0.49       84.99
         10 |         54        2.62       87.62
         11 |         14        0.68       88.30
         12 |         26        1.26       89.56
         13 |         13        0.63       90.19
         14 |         14        0.68       90.87
         15 |         30        1.46       92.33
         16 |          9        0.44       92.76
         17 |          8        0.39       93.15
         18 |         13        0.63       93.78
         19 |          5        0.24       94.03
         20 |         29        1.41       95.43
         21 |          1        0.05       95.48
         22 |          5        0.24       95.73
         23 |          3        0.15       95.87
         24 |          2        0.10       95.97
         25 |         11        0.53       96.50
         26 |          3        0.15       96.65
         27 |          1        0.05       96.70
         28 |          3        0.15       96.84
         29 |          1        0.05       96.89
         30 |         13        0.63       97.52
         32 |          1        0.05       97.57
         35 |          2        0.10       97.67
         37 |          1        0.05       97.72
          . |         47        2.28      100.00
------------+-----------------------------------
      Total |      2,059      100.00

. tab fh1, How old were you when your periods started?

        FH1 |      Freq.     Percent        Cum.
------------+-----------------------------------
Decline answ|          1        0.05        0.05
Do not know |         63        3.06        3.11
          6 |          2        0.10        3.21
          9 |         13        0.63        3.84
         10 |         81        3.93        7.77
         11 |        316       15.35       23.12
         12 |        369       17.92       41.04
         13 |        507       24.62       65.66
         14 |        383       18.60       84.26
         15 |        178        8.64       92.91
         16 |        109        5.29       98.20
         17 |         23        1.12       99.32
         18 |         13        0.63       99.95
         20 |          1        0.05      100.00
```

```
------------+-----------------------------------
      Total |      2,059      100.00

. tab fh2, Have you had your menopause (periods stopped)?

        FH2 |      Freq.     Percent        Cum.
------------+-----------------------------------
Decline answ|          2        0.10        0.10
         No |        565       27.44       27.54
        Yes |      1,106       53.72       81.25
Not sure hy |        309       15.01       96.26
Not sure ot |         77        3.74      100.00
------------+-----------------------------------
      Total |      2,059      100.00

. tab fh2a, How old were you when your periods stopped?

       FH2A |      Freq.     Percent        Cum.
------------+-----------------------------------
Decline answ|          2        0.10        0.10
Do not know |         22        1.07        1.17
         18 |          1        0.05        1.21
         19 |          1        0.05        1.26
         23 |          1        0.05        1.31
         27 |          1        0.05        1.36
         30 |          1        0.05        1.41
         31 |          1        0.05        1.46
         33 |          4        0.19        1.65
         34 |          1        0.05        1.70
         35 |          3        0.15        1.85
         36 |          2        0.10        1.94
         37 |          4        0.19        2.14
         38 |         13        0.63        2.77
         39 |         10        0.49        3.25
         40 |         28        1.36        4.61
         41 |          8        0.39        5.00
         42 |         27        1.31        6.31
         43 |         20        0.97        7.29
         44 |         23        1.12        8.40
         45 |         77        3.74       12.14
         46 |         38        1.85       13.99
         47 |         48        2.33       16.32
         48 |         62        3.01       19.33
         49 |         66        3.21       22.54
         50 |        147        7.14       29.67
         51 |         91        4.42       34.09
         52 |        119        5.78       39.87
         53 |         89        4.32       44.20
         54 |         55        2.67       46.87
         55 |         60        2.91       49.78
         56 |         35        1.70       51.48
         57 |         24        1.17       52.65
         58 |         12        0.58       53.23
         59 |          4        0.19       53.42
         60 |          5        0.24       53.67
         61 |          1        0.05       53.72
          . |        953       46.28      100.00
```

```
------------+-----------------------------------
      Total |      2,059      100.00

. tab fh2b, How many days since your last menstrual period?

       FH2B |      Freq.     Percent        Cum.
------------+-----------------------------------
Decline answ|          5        0.24        0.24
Do not know |         52        2.53        2.77
          0 |         32        1.55        4.32
          1 |         19        0.92        5.25
          2 |         16        0.78        6.02
          3 |         10        0.49        6.51
          4 |         16        0.78        7.29
          5 |         18        0.87        8.16
          6 |         16        0.78        8.94
          7 |         25        1.21       10.15
          8 |          9        0.44       10.59
          9 |          9        0.44       11.02
         10 |         26        1.26       12.29
         11 |          5        0.24       12.53
         12 |         10        0.49       13.02
         13 |          6        0.29       13.31
         14 |         57        2.77       16.08
         15 |         32        1.55       17.63
         16 |          8        0.39       18.02
         17 |          4        0.19       18.21
         18 |          5        0.24       18.46
         19 |         10        0.49       18.94
         20 |         40        1.94       20.88
         21 |         31        1.51       22.39
         22 |          4        0.19       22.58
         23 |          2        0.10       22.68
         24 |         10        0.49       23.17
         25 |         16        0.78       23.94
         26 |         10        0.49       24.43
         27 |          3        0.15       24.58
         28 |         13        0.63       25.21
         29 |          2        0.10       25.30
         30 |         12        0.58       25.89
         31 |          4        0.19       26.08
         33 |          1        0.05       26.13
         34 |          1        0.05       26.18
         35 |          5        0.24       26.42
         38 |          1        0.05       26.47
         40 |          2        0.10       26.57
         42 |          1        0.05       26.61
         45 |          1        0.05       26.66
         49 |          1        0.05       26.71
         50 |          1        0.05       26.76
         60 |          2        0.10       26.86
         70 |          1        0.05       26.91
         80 |          1        0.05       26.95
         84 |          1        0.05       27.00
         90 |          1        0.05       27.05
         91 |          1        0.05       27.10
        112 |          1        0.05       27.15
```

```
        120 |          1        0.05       27.20
        160 |          1        0.05       27.25
        170 |          1        0.05       27.29
        240 |          1        0.05       27.34
        365 |          2        0.10       27.44
          . |      1,494       72.56      100.00
------------+-----------------------------------
      Total |      2,059      100.00

. tab fh2c, How many days is your usual menstrual cycle?

       FH2C |      Freq.     Percent        Cum.
------------+-----------------------------------
     Varies |         86        4.18        4.18
Decline answ|          7        0.34        4.52
Do not know |         26        1.26        5.78
          7 |          1        0.05        5.83
         10 |          3        0.15        5.97
         12 |          1        0.05        6.02
         14 |          4        0.19        6.22
         15 |          1        0.05        6.27
         18 |          4        0.19        6.46
         19 |          1        0.05        6.51
         20 |          2        0.10        6.61
         21 |         42        2.04        8.64
         22 |          8        0.39        9.03
         23 |         11        0.53        9.57
         24 |         19        0.92       10.49
         25 |         24        1.17       11.66
         26 |         29        1.41       13.06
         27 |         18        0.87       13.94
         28 |        202        9.81       23.75
         29 |         16        0.78       24.53
         30 |         40        1.94       26.47
         31 |          6        0.29       26.76
         32 |          3        0.15       26.91
         33 |          1        0.05       26.95
         34 |          1        0.05       27.00
         35 |          2        0.10       27.10
         36 |          2        0.10       27.20
         38 |          1        0.05       27.25
         42 |          1        0.05       27.29
         60 |          1        0.05       27.34
         90 |          2        0.10       27.44
          . |      1,494       72.56      100.00
------------+-----------------------------------
      Total |      2,059      100.00

. tab fh2d, Are you menstruating today

       FH2D |      Freq.     Percent        Cum.
------------+-----------------------------------
Decline answ|          1        0.05        0.05
Do not know |          8        0.39        0.44
         No |        548       26.61       27.05
        Yes |         87        4.23       31.28
          . |      1,415       68.72      100.00
```

```
------------+-----------------------------------
      Total |      2,059      100.00

. tab fh3, How many children have you given birth to?

        FH3 |      Freq.     Percent        Cum.
------------+-----------------------------------
Decline answ|          2        0.10        0.10
          0 |        383       18.60       18.70
          1 |        258       12.53       31.23
          2 |        855       41.53       72.75
          3 |        384       18.65       91.40
          4 |        118        5.73       97.13
          5 |         42        2.04       99.17
          6 |         10        0.49       99.66
          7 |          4        0.19       99.85
          8 |          2        0.10       99.95
          9 |          1        0.05      100.00
------------+-----------------------------------
      Total |      2,059      100.00

. tab fh3a, What was the birth weight of your first child in pounds?

       FH3A |      Freq.     Percent        Cum.
------------+-----------------------------------
Decline answ|          1        0.05        0.05
         NA |          6        0.29        0.34
Do not know |         20        0.97        1.31
          2 |          9        0.44        1.75
          3 |         11        0.53        2.28
          4 |         30        1.46        3.74
          5 |         92        4.47        8.21
          6 |        343       16.66       24.87
          7 |        641       31.13       56.00
          8 |        379       18.41       74.41
          9 |        116        5.63       80.04
         10 |         24        1.17       81.20
         11 |          1        0.05       81.25
         12 |          1        0.05       81.30
          . |        385       18.70      100.00
------------+-----------------------------------
      Total |      2,059      100.00

. tab fh3b, How old were you when you had your child?

       FH3B |      Freq.     Percent        Cum.
------------+-----------------------------------
  Forgotten |          1        0.05        0.05
         16 |          3        0.15        0.19
         17 |          5        0.24        0.44
         18 |          3        0.15        0.58
         19 |          6        0.29        0.87
         20 |          9        0.44        1.31
         21 |         11        0.53        1.85
         22 |          5        0.24        2.09
         23 |         14        0.68        2.77
         24 |         12        0.58        3.35
```

```
          25 |          8        0.39        3.74
          26 |         16        0.78        4.52
          27 |         12        0.58        5.10
          28 |         11        0.53        5.63
          29 |         13        0.63        6.27
          30 |         13        0.63        6.90
          31 |         20        0.97        7.87
          32 |         11        0.53        8.40
          33 |         13        0.63        9.03
          34 |         10        0.49        9.52
          35 |         13        0.63       10.15
          36 |         11        0.53       10.68
          37 |         10        0.49       11.17
          38 |          8        0.39       11.56
          39 |          6        0.29       11.85
          40 |          4        0.19       12.04
          41 |          4        0.19       12.24
          42 |          1        0.05       12.29
          43 |          3        0.15       12.43
          44 |          1        0.05       12.48
          45 |          1        0.05       12.53
           . |      1,801       87.47      100.00
------------+-----------------------------------
       Total |      2,059      100.00

. tab fh3c, How old were you when you had your first child?

       FH3C |      Freq.     Percent        Cum.
------------+-----------------------------------
  Forgotten |          8        0.39        0.39
Decline answ|          3        0.15        0.53
         14 |          1        0.05        0.58
         15 |          3        0.15        0.73
         16 |         10        0.49        1.21
         17 |         46        2.23        3.45
         18 |         66        3.21        6.65
         19 |         63        3.06        9.71
         20 |         82        3.98       13.70
         21 |         91        4.42       18.12
         22 |         92        4.47       22.58
         23 |         77        3.74       26.32
         24 |        110        5.34       31.67
         25 |        113        5.49       37.15
         26 |        107        5.20       42.35
         27 |         98        4.76       47.11
         28 |         84        4.08       51.19
         29 |        104        5.05       56.24
         30 |         71        3.45       59.69
         31 |         45        2.19       61.87
         32 |         34        1.65       63.53
         33 |         32        1.55       65.08
         34 |         22        1.07       66.15
         35 |         15        0.73       66.88
         36 |          6        0.29       67.17
         37 |         11        0.53       67.70
         38 |         12        0.58       68.29
         39 |          8        0.39       68.67
```

```
         40 |          2        0.10       68.77
          . |        643       31.23      100.00
------------+-----------------------------------
      Total |      2,059      100.00
```

```
. tab fh3d, How old were you when you had your LAST child?
```

```
       FH3D |      Freq.     Percent        Cum.
------------+-----------------------------------
  Forgotten |          6        0.29        0.29
Decline answ|          4        0.19        0.49
         17 |          1        0.05        0.53
         18 |          3        0.15        0.68
         19 |          4        0.19        0.87
         20 |         12        0.58        1.46
         21 |         32        1.55        3.01
         22 |         29        1.41        4.42
         23 |         41        1.99        6.41
         24 |         63        3.06        9.47
         25 |         65        3.16       12.63
         26 |         74        3.59       16.22
         27 |         90        4.37       20.59
         28 |        107        5.20       25.79
         29 |        106        5.15       30.94
         30 |        105        5.10       36.04
         31 |        114        5.54       41.57
         32 |        111        5.39       46.96
         33 |         81        3.93       50.90
         34 |         68        3.30       54.20
         35 |         60        2.91       57.12
         36 |         68        3.30       60.42
         37 |         47        2.28       62.70
         38 |         31        1.51       64.21
         39 |         32        1.55       65.76
         40 |         21        1.02       66.78
         41 |         16        0.78       67.56
         42 |         15        0.73       68.29
         43 |          3        0.15       68.43
         44 |          5        0.24       68.67
         45 |          1        0.05       68.72
         47 |          1        0.05       68.77
          . |        643       31.23      100.00
------------+-----------------------------------
      Total |      2,059      100.00
```

```
. tab fh4, Have you ever had any stillbirths, spontaneous miscarriages
or terminations?
```

```
        FH4 |      Freq.     Percent        Cum.
------------+-----------------------------------
Decline answ|         21        1.02        1.02
Do not know |         25        1.21        2.23
         No |      1,361       66.10       68.33
        Yes |        652       31.67      100.00
------------+-----------------------------------
      Total |      2,059      100.00
```

```
. tab fh4a, How many stillbirths?

       FH4A |      Freq.     Percent        Cum.
------------+-----------------------------------
          0 |        584       28.36       28.36
          1 |         59        2.87       31.23
          2 |          5        0.24       31.47
          3 |          3        0.15       31.62
          5 |          1        0.05       31.67
          . |      1,407       68.33      100.00
------------+-----------------------------------
      Total |      2,059      100.00


. tab fh4b, How many spontaneous miscarriages?

       FH4B |      Freq.     Percent        Cum.
------------+-----------------------------------
Decline answ|          3        0.15        0.15
Do not know |          2        0.10        0.24
          0 |        226       10.98       11.22
          1 |        298       14.47       25.69
          2 |         72        3.50       29.19
          3 |         29        1.41       30.60
          4 |         14        0.68       31.28
          5 |          6        0.29       31.57
          6 |          1        0.05       31.62
         13 |          1        0.05       31.67
          . |      1,407       68.33      100.00
------------+-----------------------------------
      Total |      2,059      100.00

. tab fh4c, How many terminations?

       FH4C |      Freq.     Percent        Cum.
------------+-----------------------------------
Decline answ|          9        0.44        0.44
Do not know |          2        0.10        0.53
          0 |        375       18.21       18.75
          1 |        210       10.20       28.95
          2 |         47        2.28       31.23
          3 |          7        0.34       31.57
          4 |          1        0.05       31.62
          6 |          1        0.05       31.67
          . |      1,407       68.33      100.00
------------+-----------------------------------
      Total |      2,059      100.00

. tab fh5, Have you ever taken the contraceptive pill? (include the
'mini-pill')

        FH5 |      Freq.     Percent        Cum.
------------+-----------------------------------
Decline answ|          1        0.05        0.05
Do not know |          3        0.15        0.19
         No |        457       22.20       22.39
        Yes |      1,598       77.61      100.00
```

```
------------+-----------------------------------
      Total |      2,059      100.00

. tab fh5a, About how old were you when you first went on the
contraceptive pill?

       FH5A |      Freq.     Percent        Cum.
------------+-----------------------------------
Decline answ|          2        0.10        0.10
Do not know |         53        2.57        2.67
         11 |          1        0.05        2.72
         12 |          2        0.10        2.82
         13 |          3        0.15        2.96
         14 |          5        0.24        3.21
         15 |         18        0.87        4.08
         16 |         82        3.98        8.06
         17 |        112        5.44       13.50
         18 |        199        9.66       23.17
         19 |        140        6.80       29.97
         20 |        145        7.04       37.01
         21 |        152        7.38       44.39
         22 |        117        5.68       50.07
         23 |         99        4.81       54.88
         24 |         64        3.11       57.99
         25 |         91        4.42       62.41
         26 |         66        3.21       65.61
         27 |         41        1.99       67.61
         28 |         38        1.85       69.45
         29 |         24        1.17       70.62
         30 |         41        1.99       72.61
         31 |         20        0.97       73.58
         32 |         12        0.58       74.16
         33 |         16        0.78       74.94
         34 |         11        0.53       75.47
         35 |         12        0.58       76.06
         36 |          6        0.29       76.35
         37 |          5        0.24       76.59
         38 |         11        0.53       77.12
         39 |          1        0.05       77.17
         40 |          4        0.19       77.37
         41 |          1        0.05       77.42
         43 |          1        0.05       77.46
         45 |          2        0.10       77.56
         50 |          1        0.05       77.61
          . |        461       22.39      100.00
------------+-----------------------------------
      Total |      2,059      100.00

. tab fh5b, How old were you when you last used the contraceptive pill?

       FH5B |      Freq.     Percent        Cum.
------------+-----------------------------------
Still using |         44        2.14        2.14
Decline answ|          1        0.05        2.19
Do not know |        154        7.48        9.66
         12 |          1        0.05        9.71
         17 |          4        0.19        9.91
```

```
         18 |          7        0.34       10.25
         19 |         15        0.73       10.98
         20 |         20        0.97       11.95
         21 |         19        0.92       12.87
         22 |         40        1.94       14.81
         23 |         54        2.62       17.44
         24 |         58        2.82       20.25
         25 |         91        4.42       24.67
         26 |         67        3.25       27.93
         27 |         62        3.01       30.94
         28 |         68        3.30       34.24
         29 |         67        3.25       37.49
         30 |        133        6.46       43.95
         31 |         46        2.23       46.19
         32 |         72        3.50       49.68
         33 |         53        2.57       52.26
         34 |         48        2.33       54.59
         35 |        103        5.00       59.59
         36 |         48        2.33       61.92
         37 |         29        1.41       63.33
         38 |         46        2.23       65.57
         39 |         28        1.36       66.93
         40 |         59        2.87       69.79
         41 |         19        0.92       70.71
         42 |         23        1.12       71.83
         43 |         13        0.63       72.46
         44 |         17        0.83       73.29
         45 |         22        1.07       74.36
         46 |         13        0.63       74.99
         47 |          3        0.15       75.13
         48 |         13        0.63       75.76
         49 |          4        0.19       75.96
         50 |         19        0.92       76.88
         51 |          4        0.19       77.08
         52 |          5        0.24       77.32
         53 |          2        0.10       77.42
         54 |          2        0.10       77.51
         55 |          1        0.05       77.56
         57 |          1        0.05       77.61
          . |        461       22.39      100.00
------------+-----------------------------------
      Total |      2,059      100.00
```

```
. tab fh5c, Are you NOW taking any of the following?

       FH5C |      Freq.     Percent        Cum.
------------+-----------------------------------
Do not know |         27        1.31        1.31
   Microval |          1        0.05        1.36
   Micronor |          7        0.34        1.70
    Noriday |          4        0.19        1.89
  Norgeston |          1        0.05        1.94
    Femulen |          2        0.10        2.04
  Cerazette |          2        0.10        2.14
          . |      2,015       97.86      100.00
------------+-----------------------------------
      Total |      2,059      100.00
```

```
. tab fh6, Have you ever used hormone replacement therapy (HRT)?

        FH6 |      Freq.     Percent        Cum.
------------+-----------------------------------
Do not know |          9        0.44        0.44
         No |      1,184       57.50       57.94
        Yes |        866       42.06      100.00
------------+-----------------------------------
      Total |      2,059      100.00

. tab fh6a, How old were you when you first used HRT?

       FH6A |      Freq.     Percent        Cum.
------------+-----------------------------------
Decline answ|          3        0.15        0.15
Do not know |         55        2.67        2.82
         29 |          1        0.05        2.87
         31 |          1        0.05        2.91
         33 |          2        0.10        3.01
         34 |          8        0.39        3.40
         35 |          7        0.34        3.74
         36 |          2        0.10        3.84
         37 |          3        0.15        3.98
         38 |         10        0.49        4.47
         39 |         15        0.73        5.20
         40 |         43        2.09        7.29
         41 |         11        0.53        7.82
         42 |         33        1.60        9.42
         43 |         25        1.21       10.64
         44 |         29        1.41       12.04
         45 |         65        3.16       15.20
         46 |         40        1.94       17.14
         47 |         46        2.23       19.38
         48 |         82        3.98       23.36
         49 |         51        2.48       25.84
         50 |        115        5.59       31.42
         51 |         50        2.43       33.85
         52 |         68        3.30       37.15
         53 |         25        1.21       38.37
         54 |         27        1.31       39.68
         55 |         23        1.12       40.80
         56 |          9        0.44       41.23
         57 |          5        0.24       41.48
         58 |          5        0.24       41.72
         59 |          2        0.10       41.82
         60 |          1        0.05       41.86
         61 |          3        0.15       42.01
         64 |          1        0.05       42.06
          . |      1,193       57.94      100.00
------------+-----------------------------------
      Total |      2,059      100.00

. tab fh6b, How old were you when you last used HRT?

       FH6B |      Freq.     Percent        Cum.
------------+-----------------------------------
```

```
Still using |        192        9.32        9.32
Decline answ|          1        0.05        9.37
Do not know |         49        2.38       11.75
         33 |          1        0.05       11.80
         34 |          3        0.15       11.95
         35 |          3        0.15       12.09
         38 |          2        0.10       12.19
         39 |          1        0.05       12.24
         40 |         10        0.49       12.72
         41 |          7        0.34       13.06
         42 |          7        0.34       13.40
         43 |          5        0.24       13.65
         44 |          7        0.34       13.99
         45 |         11        0.53       14.52
         46 |         13        0.63       15.15
         47 |         22        1.07       16.22
         48 |         22        1.07       17.29
         49 |         20        0.97       18.26
         50 |         30        1.46       19.72
         51 |         22        1.07       20.79
         52 |         42        2.04       22.83
         53 |         29        1.41       24.24
         54 |         36        1.75       25.98
         55 |         54        2.62       28.61
         56 |         46        2.23       30.84
         57 |         31        1.51       32.35
         58 |         37        1.80       34.14
         59 |         29        1.41       35.55
         60 |         41        1.99       37.54
         61 |         16        0.78       38.32
         62 |         20        0.97       39.29
         63 |         16        0.78       40.07
         64 |         13        0.63       40.70
         65 |         16        0.78       41.48
         66 |          4        0.19       41.67
         67 |          5        0.24       41.91
         68 |          2        0.10       42.01
         69 |          1        0.05       42.06
          . |      1,193       57.94      100.00
------------+-----------------------------------
      Total |      2,059      100.00

.
. tab fh9, Have you had a hysterectomy (womb removed)?

        FH9 |      Freq.     Percent        Cum.
------------+-----------------------------------
   Not sure |          1        0.05        0.05
         No |      1,582       76.83       76.88
        Yes |        167        8.11       84.99
          . |        309       15.01      100.00
------------+-----------------------------------
      Total |      2,059      100.00

. tab fh9a, How old were you when you had your hysterectomy?

       FH9A |      Freq.     Percent        Cum.
```

```
------------+-----------------------------------
Do not know |          9        0.44        0.44
         24 |          1        0.05        0.49
         26 |          1        0.05        0.53
         27 |          2        0.10        0.63
         28 |          5        0.24        0.87
         29 |          6        0.29        1.17
         30 |          4        0.19        1.36
         31 |          3        0.15        1.51
         32 |          9        0.44        1.94
         33 |          6        0.29        2.23
         34 |         13        0.63        2.87
         35 |         21        1.02        3.89
         36 |          8        0.39        4.27
         37 |         15        0.73        5.00
         38 |         21        1.02        6.02
         39 |         24        1.17        7.19
         40 |         42        2.04        9.23
         41 |         16        0.78       10.00
         42 |         18        0.87       10.88
         43 |         13        0.63       11.51
         44 |         21        1.02       12.53
         45 |         25        1.21       13.74
         46 |         22        1.07       14.81
         47 |         22        1.07       15.88
         48 |         24        1.17       17.05
         49 |         12        0.58       17.63
         50 |         29        1.41       19.04
         51 |         19        0.92       19.96
         52 |         10        0.49       20.45
         53 |          8        0.39       20.84
         54 |          7        0.34       21.18
         55 |          8        0.39       21.56
         56 |          4        0.19       21.76
         57 |          3        0.15       21.90
         58 |          6        0.29       22.20
         59 |          1        0.05       22.24
         60 |          4        0.19       22.44
         61 |          4        0.19       22.63
         62 |          4        0.19       22.83
         63 |          1        0.05       22.88
         64 |          1        0.05       22.92
         65 |          1        0.05       22.97
         66 |          3        0.15       23.12
          . |      1,583       76.88      100.00
------------+-----------------------------------
      Total |      2,059      100.00

. tab fh10, Have you had BOTH ovaries removed?

       FH10 |      Freq.     Percent        Cum.
------------+-----------------------------------
   Not sure |         23        1.12        1.12
         No |      1,830       88.88       90.00
        Yes |        206       10.00      100.00
------------+-----------------------------------
      Total |      2,059      100.00
```

```
. tab fh10a, How old were you when you had BOTH ovaries removed?

      FH10A |      Freq.     Percent        Cum.
------------+-----------------------------------
Do not know |          5        0.24        0.24
         28 |          1        0.05        0.29
         29 |          1        0.05        0.34
         30 |          1        0.05        0.39
         31 |          1        0.05        0.44
         32 |          1        0.05        0.49
         33 |          1        0.05        0.53
         34 |          2        0.10        0.63
         35 |          5        0.24        0.87
         36 |          2        0.10        0.97
         37 |          5        0.24        1.21
         38 |          5        0.24        1.46
         39 |          4        0.19        1.65
         40 |          6        0.29        1.94
         41 |          4        0.19        2.14
         42 |          6        0.29        2.43
         43 |          3        0.15        2.57
         44 |          5        0.24        2.82
         45 |         15        0.73        3.55
         46 |          8        0.39        3.93
         47 |         16        0.78        4.71
         48 |         14        0.68        5.39
         49 |          8        0.39        5.78
         50 |         22        1.07        6.85
         51 |         11        0.53        7.38
         52 |          9        0.44        7.82
         53 |          6        0.29        8.11
         54 |          6        0.29        8.40
         55 |          7        0.34        8.74
         56 |          2        0.10        8.84
         57 |          4        0.19        9.03
         58 |          3        0.15        9.18
         59 |          2        0.10        9.28
         60 |          3        0.15        9.42
         61 |          3        0.15        9.57
         62 |          5        0.24        9.81
         63 |          1        0.05        9.86
         65 |          1        0.05        9.91
         66 |          2        0.10       10.00
          . |      1,853       90.00      100.00
------------+-----------------------------------
      Total |      2,059      100.00

. tab op1w, Have you had any major operations?

       OP1W |      Freq.     Percent        Cum.
------------+-----------------------------------
Decline answ|          1        0.05        0.05
Do not know |         50        2.43        2.48
         No |        991       48.13       50.61
        Yes |      1,017       49.39      100.00
------------+-----------------------------------
```

```
      Total |      2,059      100.00

. restore

.
. tab l1, Has a doctor ever told you that you have had any of the
following conditions?

       L1   |      Freq.     Percent        Cum.
------------+-----------------------------------
None of abov|     2,619       69.32
Declined ans|         6        0.16
Heart attack|       100        2.65
Angina      |       134        3.55
Stroke      |        69        1.83
High blood p|     1,027       27.18
------------+-----------------------------------

. tab l2, Has a doctor ever told you that you have had any of the
following conditions?

        L2  |      Freq.     Percent        Cum.
------------+-----------------------------------
None of abov|     2,507       66.36
Declined ans|         5        0.13
Bl clot leg |        79        2.09
Bl clot lung|        66        1.75
Emphysema   |        32        0.85
Asthma      |       463       12.26
Hayfever, al|       911       24.11
------------+-----------------------------------

.
. tab l3, Has a doctor ever told you that you have diabetes?

         L3 |      Freq.     Percent        Cum.
------------+-----------------------------------
Decline answ|          1        0.03        0.03
Do not know |         10        0.26        0.29
         No |      3,573       94.57       94.87
        Yes |        194        5.13      100.00
------------+-----------------------------------
      Total |      3,778      100.00

. tab l3a, Did you only have diabetes during pregnancy?

        L3A |      Freq.     Percent        Cum.
------------+-----------------------------------
         No |         55        1.46        1.46
        Yes |          8        0.21        1.67
          . |      3,715       98.33      100.00
------------+-----------------------------------
      Total |      3,778      100.00

. tab l3b, What was your age when the diabetes was first diagnosed?

        L3B |      Freq.     Percent        Cum.
```

```
------------+-----------------------------------
Do not know |          3        0.08        0.08
          1 |          1        0.03        0.11
          5 |          2        0.05        0.16
          6 |          1        0.03        0.19
          9 |          1        0.03        0.21
         10 |          2        0.05        0.26
         11 |          1        0.03        0.29
         18 |          1        0.03        0.32
         19 |          1        0.03        0.34
         25 |          1        0.03        0.37
         26 |          1        0.03        0.40
         28 |          1        0.03        0.42
         30 |          2        0.05        0.48
         31 |          1        0.03        0.50
         32 |          2        0.05        0.56
         33 |          2        0.05        0.61
         35 |          2        0.05        0.66
         38 |          1        0.03        0.69
         39 |          1        0.03        0.71
         40 |          6        0.16        0.87
         41 |          1        0.03        0.90
         42 |          1        0.03        0.93
         43 |          2        0.05        0.98
         44 |          1        0.03        1.01
         45 |          7        0.19        1.19
         46 |          3        0.08        1.27
         47 |          3        0.08        1.35
         48 |          3        0.08        1.43
         49 |          5        0.13        1.56
         50 |         14        0.37        1.93
         51 |          5        0.13        2.06
         52 |          3        0.08        2.14
         53 |          4        0.11        2.25
         54 |          3        0.08        2.33
         55 |          5        0.13        2.46
         56 |          8        0.21        2.67
         57 |          7        0.19        2.86
         58 |          9        0.24        3.10
         59 |          8        0.21        3.31
         60 |         10        0.26        3.57
         61 |          7        0.19        3.76
         62 |         10        0.26        4.02
         63 |          3        0.08        4.10
         64 |          2        0.05        4.16
         65 |          3        0.08        4.24
         66 |          1        0.03        4.26
         67 |          7        0.19        4.45
         68 |          2        0.05        4.50
         69 |          2        0.05        4.55
          . |      3,606       95.45      100.00
------------+-----------------------------------
      Total |      3,778      100.00
```

```
. tab l3c, Did you start insulin within one year of your diagnosis of
diabetes?
```

```
        L3C |      Freq.     Percent        Cum.
------------+-----------------------------------
Do not know |          1        0.03        0.03
         No |        151        4.00        4.02
        Yes |         20        0.53        4.55
          . |      3,606       95.45      100.00
------------+-----------------------------------
      Total |      3,778      100.00

. tab l4, Has a doctor ever told you that you have had cancer?

         L4 |      Freq.     Percent        Cum.
------------+-----------------------------------
Decline ans |          1        0.03        0.03
Do not know |         13        0.34        0.37
         No |      3,490       92.38       92.75
        Yes |        274        7.25      100.00
------------+-----------------------------------
      Total |      3,778      100.00

. tab l5, Have you fractured any bones in the last 5 years?

         L5 |      Freq.     Percent        Cum.
------------+-----------------------------------
Do not know |         21        0.56        0.56
         No |      3,410       90.26       90.82
        Yes |        347        9.18      100.00
------------+-----------------------------------
      Total |      3,778      100.00

.
. tab l5a, Which bones did you fracture/break?

        L5A |      Freq.     Percent        Cum.
------------+-----------------------------------
do not know |          0
Declined ans|          0
      Ankle |         49        1.30
        Leg |         25        0.66
        Hip |          5        0.13
      Spine |          9        0.24
      Wrist |         76        2.01
        Arm |         33        0.87
Other bones |        183        4.84
------------+-----------------------------------
      Total |      3,778
.
.

. tab l5b, Did the fracture result from a simple fall (ie: from standing
height)?

        L5B |      Freq.     Percent        Cum.
------------+-----------------------------------
Decline answ|          1        0.03        0.03
Do not know |          3        0.08        0.11
         No |        147        3.89        4.00
```

```
        Yes |        196        5.19        9.18
          . |      3,431       90.82      100.00
------------+-----------------------------------
      Total |      3,778      100.00
```

```
. tab l5c, Has a doctor ever told you that you have had any other
serious medical conditions?

        L5C |      Freq.     Percent        Cum.
------------+-----------------------------------
Decline answ|          2        0.05        0.05
Do not know |         83        2.20        2.25
         No |      2,994       79.25       81.50
        Yes |        699       18.50      100.00
------------+-----------------------------------
      Total |      3,778      100.00
```

```
. tab l6, Do you regularly take any prescription medications?

         L6 |      Freq.     Percent        Cum.
------------+-----------------------------------
Decline answ|          1        0.03        0.03
Do not know |          5        0.13        0.16
         No |      1,625       43.01       43.17
        Yes |      2,147       56.83      100.00
------------+-----------------------------------
      Total |      3,778      100.00
```

```
. tab l6a, Do you regularly take any of the following over the counter
medications?

        L6A |      Freq.     Percent
------------+-----------------------------------
None of abov|      1,973       52.22
do not know |         11        0.29
Declined ans|         26        0.69
Aspirin     |        550       14.56
Ibuprofen   |        614       16.25
Paracetamol |      1,046       27.69
Codeine     |        159        4.21
Ranitidine  |         88        2.33
------------+-----------------------------------
```

```
. tab l6b, Do you regularly take any of the following over the counter
medications?

        L6B |      Freq.     Percent
------------+-----------------------------------
None of abov|      3,166       83.80
do not know |         62        1.64
Omeprazole  |        129        3.41
Laxatives   |        134        3.55
Nicotine pat|         56        1.48
Antihistamin|        280        7.41
------------+-----------------------------------
```

```
. tab l7, Do you regularly take any of the following?
```

```
         L7 |      Freq.     Percent
------------+-----------------------------------
None of abov|      3,032       80.25
Decline answ|         15        0.40
Iron        |        166        4.39
Zinc        |        261        6.91
Calcium     |        457       12.10
Selenium    |        206        5.45
Multivitamin|        247        6.54
Multivit w m|        101        2.67
------------+-----------------------------------

. tab l7a, Do you regularly take any of the following?

        L7A |      Freq.     Percent
------------+-----------------------------------
None of abov|      2,663       70.49
Decline answ|          5        0.13
Vit a       |        103        2.73
Vit b       |        139        3.68
Vit c       |        264        6.99
Vit d       |        127        3.36
Vit e       |        455       12.04
Folic acid  |        436       11.54
------------+-----------------------------------
.
. tab l8, Do you regularly take any of the following?

         L8 |      Freq.     Percent
------------+-----------------------------------
None of abov|      2,050       54.26
Decline answ|          4        0.11
Evening prim|        303        8.02
Fish oil    |      1,056       27.95
Garlic      |        316        8.36
Ginkgo      |        140        3.71
Glucosamine |        632       16.73
Other supple|        426       11.28
------------+-----------------------------------

.
.
. tab f1, Do you play computer games?
         F1 |      Freq.     Percent        Cum.
------------+-----------------------------------
Decline answ|          3        0.08        0.08
Never/rarely|      2,916       77.18       77.26
  Sometimes |        706       18.69       95.95
      Often |        153        4.05      100.00
------------+-----------------------------------
      Total |      3,778      100.00

. tab f2, Do you use the internet?

         F2 |      Freq.     Percent        Cum.
------------+-----------------------------------
```

```
Decline answ|          3        0.08        0.08
         No |      1,022       27.05       27.13
        Yes |      2,753       72.87      100.00
------------+-----------------------------------
      Total |      3,778      100.00
```

```
. tab f4, Would you be willing for the study organisers to contact you
in the future by email?

         F4 |      Freq.     Percent        Cum.
------------+-----------------------------------
Decline answ|         55        1.46        1.46
         No |      1,365       36.13       37.59
        Yes |      2,358       62.41      100.00
------------+-----------------------------------
      Total |      3,778      100.00
```