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A module of the Scottish Health Survey

2008 and 2009

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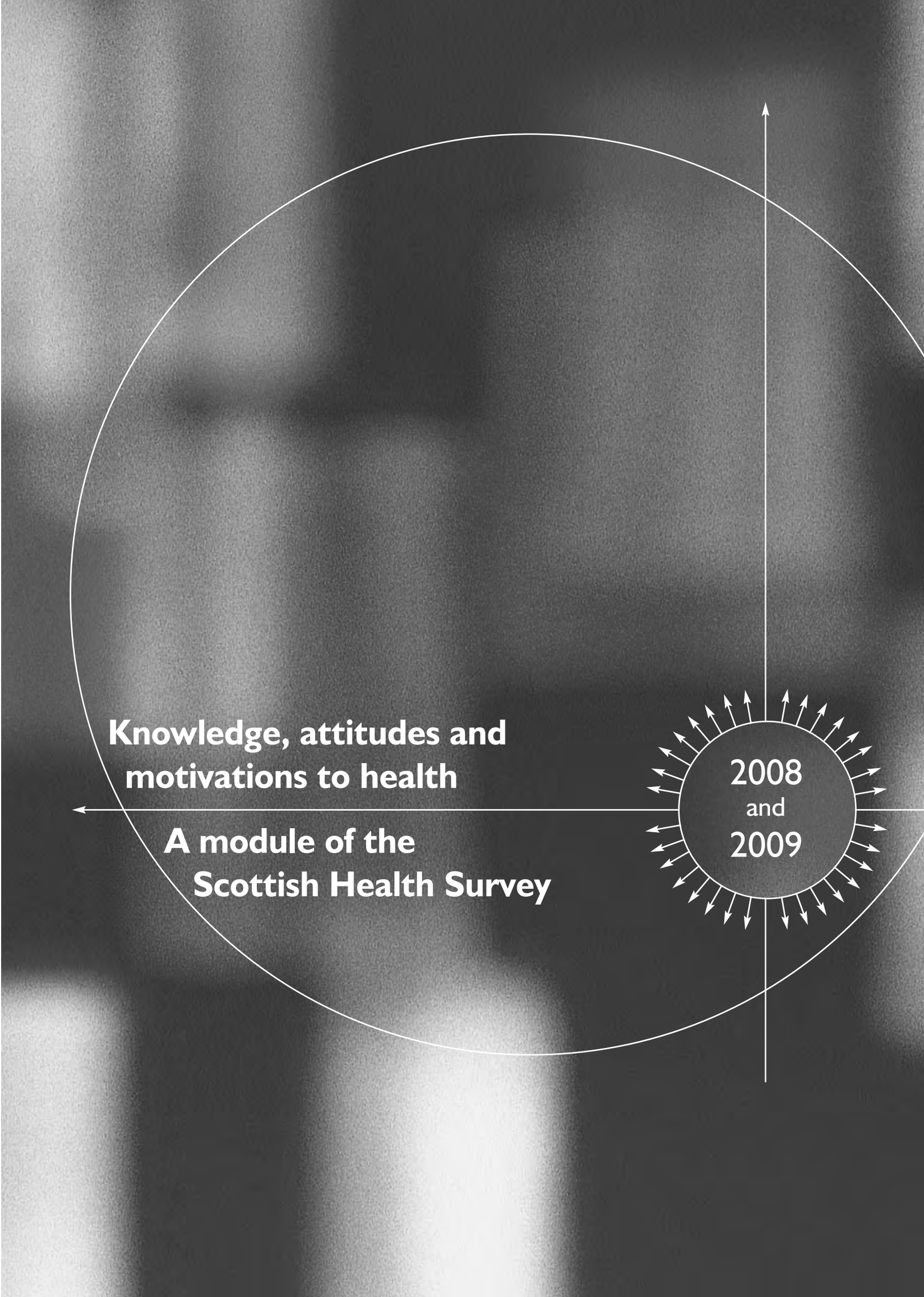
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CONTENTS

AUTHORS' ACKNOWLEDGEMENTS

Our first thank you is to the 3,869 adults who gave up their time voluntarily to take part in the Knowledge, Attitudes and Motivations to health part of the 2008 and 2009 Scottish Health Survey interview.

We would also like to thank those colleagues who contributed to the survey and this report. In particular we would like to thank:

- All the interviewers who worked on the project. We owe a huge debt of gratitude for the dedication and professionalism they applied to their work.
- Joan Corbett and Mireille Ferrandon, whose hard work and expertise has been crucial in preparing the survey data, and for conducting much of the analysis in this report.
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Catherine Bromley, Lisa Given, Rachel Ormston

SUMMARY

The following summaries are based on the findings presented in chapters 2 to 9 of this report. The summaries cite the results for 2008 and 2009 combined however, results for the individual years can be found in the chapters for some of the topics covered. Chapter 1 (introduction) and chapter 10 (conclusions) are not summarised here.

CHAPTER 2: METHODOLOGY

- The Knowledge, Attitudes and Motivations to health (KAM) module was first included in the Scottish Health Survey (SHeS) in 2008. The module replaced the Health Education Population Survey (HEPS) conducted in Scotland between 1996 and 2007, on behalf of NHS Health Scotland.
- SHeS is a survey in which all adults and up to 2 children at each selected household are eligible to be interviewed. One adult in each participating household was selected at random to answer the questions in the KAM module.
- Data collected in the main SHeS about health behaviours, and physical measures of height and weight, can be compared with people's answers to the KAM module.
- The sample for HEPS included adults aged 16-74. In common with the main SHeS interview, the KAM module interviews adults aged 16 and over.
- This report uses data collected in both the 2008 and 2009 surveys, most of the tables report figures based on both years combined.
- 1,846 adults in 2008 and 2,023 in 2009 took part in the KAM module. Of these, 1,591 in 2008, and 1,715 in 2009, also completed a computer-assisted self-interview (CASI) containing more sensitive questions about sexual behaviour.
- The response rates for the main KAM module each year were 49% (2008) and 48% (2009). The response rates including the CASI were 42% and 40%, respectively.
- People aged 16-24 were the least likely age group to take part in the main SHeS interview. However, response to the KAM module among those who participated in the main SHeS interview was lowest among people aged 75 and over.
- The data have been weighted to take account of the overall sample design and to adjust for non-response bias. The profile of the weighted sample for each year closely matches that of the mid-year household population estimates for Scotland. Different weights were calculated for the 2008, 2009 and 2008/2009 combined data.
- The socio-demographic analyses in this report are based on equivalised household income, the National Statistics Socio-economic Classification (NS-SEC), and the Scottish Index of Multiple Deprivation (SIMD). The previous HEPS reports did not use these measures.

CHAPTER 3: INFLUENCING HEALTH BEHAVIOURS

- In 2008/2009, most adults in Scotland felt they could influence their health a great deal (53%) or quite a lot (39%). Just 6% felt they only had a little influence and just 1% said they had none at all.

- Although a majority of people of all ages and social groups thought they had either a great deal or quite a lot of influence over their health, older people and those at the greatest social or economic disadvantage were the least likely to say they could influence their health a great deal.
- The majority of men and women in Scotland described themselves as leading either very (14%) or fairly healthy lives (72%). 13% felt their lives were fairly unhealthy, and just 1% thought they were very unhealthy.
- People aged 75 and over were about twice as likely as those aged 16-34 to say they had a very healthy life. People in the most disadvantaged social or economic circumstances were the most likely to say they had a fairly or very unhealthy life (though a majority said they had a fairly or very healthy life).
- 77% of adults said they could make their lives healthier and 15% said they already live a healthy life. In common with their views about their lifestyle, people aged 75 and over were the most likely to say they already led a healthy life, though this group was also the most likely to say they did not want to make changes or it would be too difficult.
- The most common actions mentioned by people who said they could make their lives healthier were: to increase physical activity, eat more healthily and control weight.
- A majority of people who smoked, drank at harmful levels, had low activity levels, poor diets or who were obese recognised that addressing these behaviours would improve their health.
- 55% of parents of children age 0-15 thought they could make their children's lives healthier, 42% said their children were already healthy, just 1% said they did not want to and 2% said it would be too difficult.
- The most common actions mentioned by parents who thought they could make their children's lives healthier were: helping them to eat more healthily (67%), helping them to be more active (47%) and ensuring they get lots of praise and encouragement (30%). The least popular step was weight control (15%).

CHAPTER 4: ALCOHOL

- In 2008/2009, most adults described their own alcohol consumption in moderate terms, with only around one in twenty describing themselves as either a 'quite' or a 'very heavy' drinker.
- Although the perceptions of people who drank within the daily or weekly recommended guidelines were largely in line with their actual drinking behaviour, the data indicate that those who exceed recommended limits may underestimate their own level of consumption – for example, 19% of this group described themselves as a very light or occasional drinker and a further 32% as a light but regular drinker.
- Overall, there was a high level of awareness of the concepts of both alcohol units and daily limits – for example, only 6% of adults had not heard of units at all while a further 3% had heard of units but not daily limits.
- But it was much less common for people to know what the recommended daily limits actually are – in fact, only 18% knew the correct daily limit for men (4 units) while 14% did so for women (3 units).
- 42% of adults underestimated the recommended daily limits for men and 52% did so for women. Many people underestimated the limits by one unit. The fact that the advice is often expressed using a range (no more than 3-4

units for men/2-3 for women) might explain this high level of underestimation.

- Women were significantly less likely to know the current daily limit for both men and women, as were those aged 75 and over.
- Higher levels of consumption appeared to be related to somewhat higher levels of knowledge about the limits for both men and women. For example, 25% of men who drank outwith the daily limits knew the recommended daily limit for men, compared with 15% of those who drank within the limit.
- Only around 3 people in 100 knew the recommended limits for single session (or binge) drinking. There was a marked tendency to underestimate these limits, and the data suggest there may be some confusion between advice on upper limits for a single session and guidelines about regular daily consumption.
- Awareness and understanding of session limits was particularly low among those in the oldest age groups.
- The recommendation to have some alcohol-free days each week was familiar to only around 4 in 10 adults (37%). There was greater overall awareness of the advice among those in higher income households and in managerial and professional households.
- Only a relatively small proportion (between 3% and 7%) had contemplated, attempted, or maintained a reduction in their alcohol consumption in the previous 12 months. A larger group (32%) drank outside the recommended limits but had not stopped or reduced the amount of alcohol consumed in the previous 12 months and did not intend to do so in the next 6 months.
- Around half of adults (52%) in had no intention to change but already drank within the recommended limits.

CHAPTER 5: SMOKING

- In 2008/2009, around half of current smokers had taken action to try and reduce or quit smoking in the previous year. However, only 12% had managed to sustain a reduction in their smoking levels.
- Around a quarter of current smokers (23%) had not tried to reduce their smoking and were not planning on doing so in the near future.
- Most smokers are aware of the impact their smoking has on others: just 6% of adults said they would make no changes to their smoking at all in the presence of a non-smoking adult. Two-thirds (65%) would leave the room to smoke, while around one in six (17%) would remain in the room but not smoke.
- Smokers were even more likely to adjust their behaviour in the presence of a child – 6% would smoke in a child's presence, 69% would leave the room to smoke, while 24% would remain in the room but not smoke.

CHAPTER 6: DIET

- In 2008/2009, most people in Scotland believed that the kind of food they ate was either very (14%) or fairly (75%) healthy. This far outweighs the proportion that actually ate the recommended amount of five portions of fruit and vegetables per day in 2009 (22% of men and 25% of women).
- Nine in ten (87%) people in 2008/2009 were, however, aware of the advice to eat five portions of fruit and vegetables a day. Even among those who did

not eat any fruit and vegetables in the 24 hours preceding the interview, 82% were aware of this advice.

- Looking at people's motivations to change their eating habits, a third of adults (34%) did not want to eat more healthily, while a quarter (26%) said they had made and maintained improvements to their diet in the last 12 months.
- The most commonly mentioned barriers to eating more healthily were lack of willpower (32% of men, 38% of women) and healthy foods being too expensive (16% of both men and women). However, 35% said none of the barriers listed were stopping them eating more healthily.
- The knowledge, attitudes and motivations of older people (aged 75 and above) particularly stand out. They were the most likely to assess their current diet as very healthy, but the least likely to be aware of the five-a-day recommendation, and the least likely to be considering or wanting to make any changes to their diets.
- There were also some significant differences by income, socio-economic classification and area deprivation. For example, those in the lowest income households were the least likely to view their diets as very healthy (though a clear majority did so), they were also less likely to be aware of the five-a-day recommendation, and more likely to identify cost as a barrier to eating more healthily. However, there was little difference in people's level of motivation to eat more healthily by income, socio-economic classification or area deprivation.

CHAPTER 7: PHYSICAL ACTIVITY

- In 2008/2009, 53% of adults felt they did enough activity to stay healthy. However, figures from the 2009 Scottish Health Survey showed that only 37% met the current recommendation of at least 30 minutes of moderate activity on most days of the week.
- The gap between the proportion who believe they do enough activity to stay healthy and the proportion who actually meet current physical activity recommendations increases markedly with age.
- Most people were aware that regular physical activity can lower the risk of being overweight or obese, developing heart disease, and high blood pressure. However, there was less awareness of the potential benefits of physical activity in reducing the risk of other health conditions, like diabetes, mental health problems and some cancers.
- 22% of adults in 2008/2009 knew that government currently recommends at least 30 minutes of moderate activity on most days of the week. Half believed the minimum recommended level is less this, and a significant proportion (15%) said they do not know what the advice is.
- 28% of people had not made any recent changes to their level of physical activity and were not thinking about doing so. However, 21% had maintained an increase in their physical activity levels in the last 12 months.
- But, even among those who had successfully increased their level of physical activity recently, around half still needed to take some further action to meet the level recommended by government.
- Lack of time was the most commonly mentioned barrier to being more physically active (42% of men, 41% of women), followed by ill health (16% of men and 20% of women). 29% of men and 22% of women said nothing was preventing them from being more physically active.

CHAPTER 8: WEIGHT

- In 2008/2009, four in ten people (42%) thought their weight was about right, a similar proportion (45%) thought they were overweight and 8% considered themselves to be very overweight.
- Perceptions of weight were largely accurate for people with a body mass index in the healthy range (BMI of 18.5 to less than 25 kg/m2) – 78% of this group described their weight as about right.
- Perceptions were less accurate among underweight, overweight and obese people. For example, 37% of overweight people incorrectly thought their weight was about right. Similarly, just 25% of obese people considered themselves to be very overweight.
- The majority of parents (84%) thought their child's weight was about right while just 7% considered their child to be overweight.
- 87% of parents with a child in the healthy weight range said their child's weight was about right. However, 78% of parents with overweight or obese children said their weight was about right.
- Most people were aware that being very overweight increases a person's risk of conditions such as heart disease (91%), high blood pressure (88%), diabetes (74%) and stroke (65%). However, awareness of its link with other diseases was lower, for example 43% knew that obesity increases the risk of arthritis and 32% knew it increases the risk of some cancers.
- Awareness of the health risks of being very overweight broadly declined with age and was lowest among those aged 75 and over.
- 49% of overweight, and 25% of obese people, had not taken any recent steps to control their weight and were not thinking about doing so. The same proportion of overweight and obese people (21%) had taken some action to control their weight and had maintained it, however 31% of obese people had tried to do this but not maintained it compared with 17% of overweight people.

CHAPTER 9: SEXUAL HEALTH

- In 2008/2009, 62% of adults in Scotland felt they knew enough about where a woman should go if she needed an abortion, 81% knew enough about safer sex to protect against sexually transmitted infections and 84% said they knew enough about how to use a condom.
- However, demand for additional information was low – just 6% wanted to know more about abortion access, 4% about safer sex and just 2% about condom use.
- More men than women said they knew enough about how to use a condom (89% versus 78%) or about safer sex to protect against diseases (85% versus 77%). This gap was caused by more women than men saying they did not want to know about these topics.
- Although demand for more information was generally low, it was highest among people aged 16-34.
- People were presented with a list of six places where emergency contraception can be obtained. Although only 17% of adults knew that all six places could provide this, only 7% of adults did not know anywhere to access emergency contraception.
- 75% knew GPs can provide this, 63% knew pharmacies can, and 59% knew about family planning clinics. Fewer people knew about sexual health

clinics (51%), young people's drop-in centres (29%) or Accident and Emergency departments (24%).

- Women knew more places to obtain emergency contraception than men. This was particularly the case among younger people aged 16-34.
- 97% of people who felt that the question applied to them agreed that it is necessary to use a condom with a new partner to prevent STIs even if using other contraception methods. 94% said they would ask a new partner to use a condom. 84% said they would stop intercourse if they did not have a condom, and 72% would only stop using condoms with a new partner after they had both been tested for STIs.
- Women were more likely than men to say they would stop intercourse if there was no condom (91% versus 77%). The gap between the views of men and women was greatest for those aged 16-34. Women were also more likely than men to say they would have STI testing before stopping using condoms (78% versus 66%).
- 14% of sexually active women aged 16-55 in Scotland were using a long-acting reversible method of contraception; women aged 16-34 were more likely to use these methods than those aged 35 and over.

NOTES TO TABLES

1 The following conventions have been used in tables:
- - no observations (zero value)
- 0 non-zero values of less than 0.5% and thus rounded to zero
- [ ] normally used to warn of small sample bases, if the unweighted base is less than 50. (If a group's unweighted base is less than 30, data are normally not shown for that group.)

2 Because of rounding, row or column percentages may not add exactly to 100%.

3 A percentage may be quoted in the text for a single category that aggregates two or more of the percentages shown in a table. The percentage for the single category may, because of rounding, differ by one percentage point from the sum of the percentages in the table.

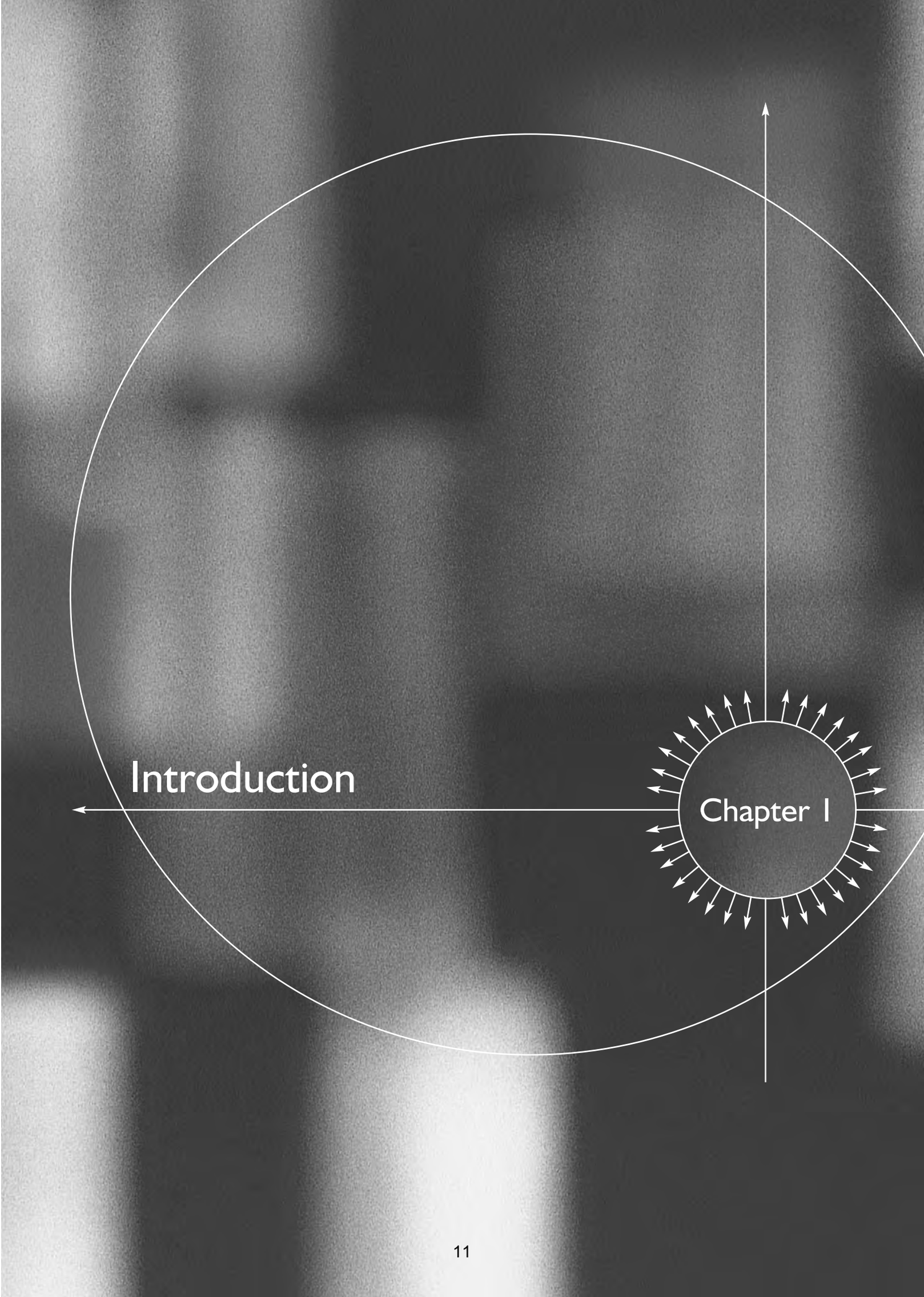
4 Percentage estimates are shown as integers, the confidence intervals around them are shown to one decimal place. Means are shown to one decimal place, as are their confidence intervals.

5 'Missing values' occur for several reasons, including refusal or inability to answer a particular question; refusal to co-operate in an entire section of the survey (such as the self-completion questionnaire); and cases where the question is not applicable to the participant. In general, missing values have been omitted from all tables and analyses.

6 The population sub-group to whom each table refers is stated at the upper left corner of the table.

7 Both weighted and unweighted sample bases are shown at the foot of each table. The weighted numbers reflect the relative size of each group in the population, not numbers of interviews conducted, which are shown by the unweighted bases.

8 The term 'significant' refers to statistical significance (at the 95% level) and is not intended to imply substantive importance.


Chapter 1
Introduction

1 INTRODUCTION

1.1 INTRODUCTION

This report presents findings from the Knowledge, Attitudes and Motivations to health (KAM) module included within the 2008 and 2009 Scottish Health Survey (SHeS). As detailed in full in Chapter 2, the KAM module is the successor to the Health Education Population Survey (HEPS), which ran in two waves annually between 1996 and 2007 (with the exception of three waves which were suspended in 1999-2000) and was intended to monitor progress in the process of achieving change in health behaviours through a health education approach. One significant difference between the two studies is that, whereas HEPS was a standalone survey, the KAM module is embedded within SHeS so can draw on a much wider pool of information about health-related behaviours, experiences and characteristics. This greatly expands the possibilities for analysis and for a robust examination of the links between knowledge, attitudes, motivations and actual behaviour.

Not all questions asked are being covered in the main report. Some questions are being reported in web only tables (for example the questions on breastfeeding and some of the sexual health questions) and some do not appear in the main report **or** the web tables (for example some questions about health information sources and reasons for wanting to change health behaviours). Readers should refer to the published questionnaires to see the full details of every question asked. The full dataset can be downloaded for further analysis from the UK Data Archive.

Chapters 4-8 in this report make use of a well-known theory of behavioural change (the Trans-Theoretical Model – TTM) to try to understand the relationship between knowledge, attitudes, motivations and actual behaviour. The following discussion presents a brief overview of various models in this field, with a particular focus on the TTM. Chapter 3 is about perceptions of lifestyles and ability to influence health more generally, rather than about specific health behaviour change, so the TTM does not apply to these topics. Similarly, chapter 9 looks at sexual health but does not include questions about behaviour, apart from one question about women's use of long-acting reversible contraception.

1.2 Background: theories of change and the Trans-Theoretical Model

As the links between specific behaviours and health outcomes started to be understood, early approaches to health education often focused narrowly on the role of information *per se* as the trigger to behavioural change. This was based on an assumption that if people had the relevant information (for example, that smoking causes lung cancer), they would – as rational beings – alter their actions.

The failure of simple information-based approaches to either predict or affect behaviour change led to a more nuanced understanding of the complexity of health-related behavioural change. Individual and societal level attitudes were seen as key moderators in the change process, and social cognition models

and theories of change which focused on knowledge and attitudes as determinants of behavioural change became more prominent. In 2006, the National Institute for Health and Clinical Excellence (NICE) conducted a review of four theoretical models which have had particular prominence within health education/health promotion.[1] The models assessed were the Health Belief Model,[2] the Theory of Reasoned Action,[3] the associated Theory of Planned Behaviour,[4] and the TTM.[5] The TTM is described in more detail below because it is of particular relevance to the KAM module; there is not space to describe the others in detail.

These models share a common focus on the role of social cognition as a vehicle for behavioural change, but there is wide variation in their conceptualisation of the ways in which individuals might be motivated or caused to change their behaviour.

Of these various approaches to the study and prediction of health related behaviour change, the TTM has assumed particular prominence in recent years. Like other approaches, this assesses an individual's readiness to act on a new behaviour, but it also provides concrete strategies or processes of change to guide the individual through the stages of change to action and maintenance.

The TTM is often referred to as the 'Stages of Change' (SoC) model as it defines the process of behavioural change as falling within six distinct, but linear phases. The appeal of TTM is well summarised in a review of the evidence relating to the SoC model conducted for NHS Health Scotland (then HEBS) which stated that:[6]

> *"[T]he model provided an interdisciplinary, cross-professional account of behaviour change, not limited or restricted to a single disciplinary approach. The model could be applied with equal pragmatism to a consideration of psychoanalysis or cognitive behaviour therapy. One aspect of the broad popular appeal of Stages of Change was its potential applicability in a range of fields and settings."*

The six stages of change are, in order:

1. Pre-contemplation – described as the state in which "people are not intending to take action in the foreseeable future, usually measured as the next 6 months".
2. Contemplation – the state in which "people are intending to change in the next 6 months".
3. Preparation – "people are intending to take action in the immediate future, usually measured as the next month".
4. Action – "people have made specific overt modifications in their life styles within the past 6 months".
5. Maintenance – "people are working to prevent relapse, "a stage which is estimated to last "from 6 months to about 5 years".
6. Termination – "individuals have zero temptation and 100% self-efficacy... they are sure they will not return to their old unhealthy habit as a way of coping.

The questions in the KAM module can be used to assign people to the first five of the above stages in relation to smoking, drinking, physical activity, diet and weight. However, the extent to which people were at the termination stage was not ascertained, and the maintenance category includes people who have been working to prevent relapse within the past year (the reference period used in the survey), rather than the five year period set out in the SoC. In addition, for the purpose of this report a different final category has been used of 'long-term maintenance' which includes people who displayed healthy behaviour for the topics in question (e.g. were not a smoker, or had a healthy BMI), and did not mention having made any changes in the past year or wanting to make any future change to their health behaviour status.

1.3 Criticisms and limitations of the TTM

Although the TTM/SoC model has been very popular with health promotion practitioners – in part because it was seen as both accessible and useful as a planning tool for health behaviour interventions – the evidence of its validity in predicting and facilitating behavioural change is actually equivocal. This is particularly the case in relation to the stages of change construct itself, which it is suggested may not represent cognitive realities. Despite some evidence that the model can predict changes in smoking behaviour,[7] the NICE review concluded that:[1]

> *"there is little evidence that stage-based interventions are more effective than non-stage-based interventions."*

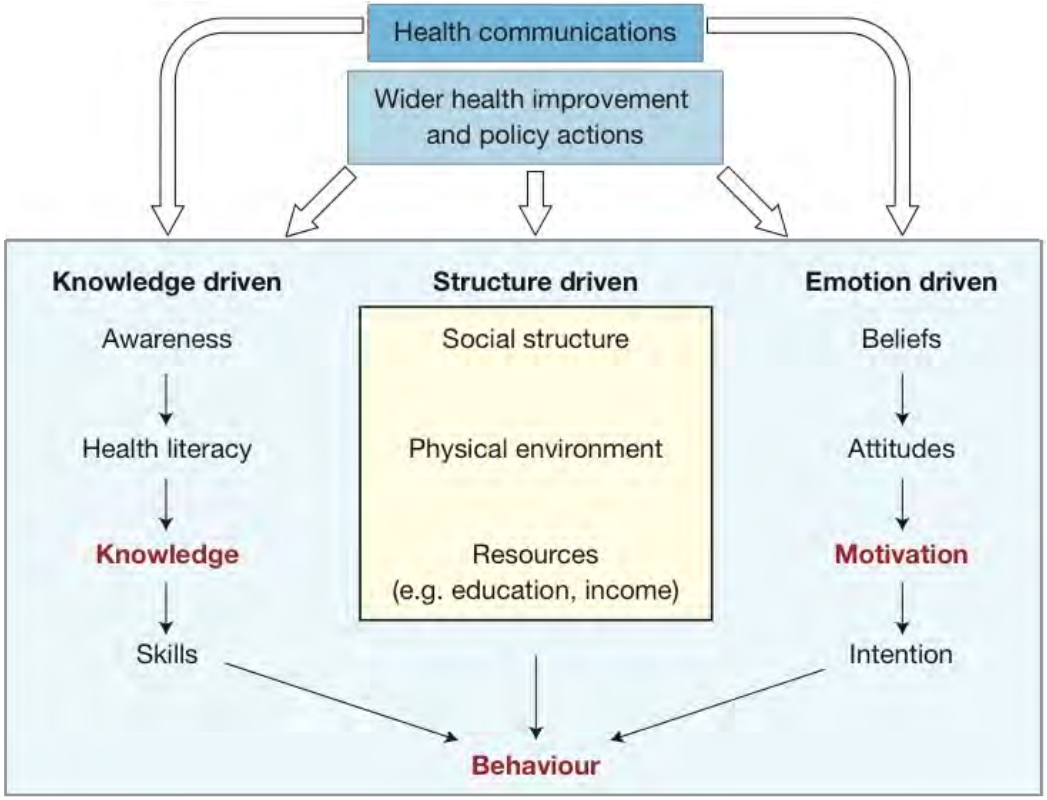
A further criticism of the model is that it assumes that behavioural change is both ordered and linear. The NHS Health Scotland review concluded that:[6]

> *"The stage categories are descriptive accounts rather than explanatory devices. This severely limits the predictive capacity of the model."*

There is a strong view that theoretically informed approaches to health-related behavioural change are likely to be more effective. However, although there is some evidence to support the role of theory-based interventions in terms of their ability to predict behaviour change, it remains the case that despite the plethora of research over a 25-30 year period, there is still little understanding of the general and specific predictors of personal, attitudinal, interpersonal, economic and societal factors on health-related behaviour change.[8]

The TTM – and, indeed, other approaches that focus primarily on knowledge, attitudes and motivations – can also be criticised for paying insufficient attention to the social and structural context within which individual health-related decision-making is located. As the following diagram, taken from '*Know, Feel, Do?'* suggests,[9] there are also powerful influences on individual behaviour that lie beyond the scope of much conventional health promotion activity. As SHeS collects a wide range of measures of socio-economic status, and includes area level measures such as the Scottish Index of Multiple Deprivation (SIMD), the KAM module can assess the relative contributions of some of these structural determinants alongside its knowledge, attitudes and motivations measures. Though, as '*Know, Feel, Do?'* acknowledges, a series of observational studies with different samples each time cannot be used to make definite conclusions about causation.

Figure 1 A schematic behaviour change model[9]



1.4 Content of the report

The remaining chapters in this report are as follows:

2. Methods
3. Influencing health behaviours
4. Alcohol
5. Smoking
6. Diet
7. Physical activity
8. Weight
9. Sexual health
10. Conclusions

The analysis and reporting conventions broadly follow those used in the main SHeS report.[10] Data for men, women and all adults are presented separately for each topic. Further breakdowns are presented by age group, and by equivalised household income, National Statistics Socio-economic Classification and SIMD. For most topics analysis is also presented by a health behaviour measure, for example perceptions of alcohol consumption are shown by self-reported consumption in units. Headline figures for 2008 and 2009 are presented separately for most topics, however the analysis by sub-groups is based on the 2008/2009 surveys combined. This enables more detailed analysis by age and other sub-groups to be conducted. Chapter 2 includes further details of the survey design – including the transition from HEPS to KAM – and the analysis conducted.

References and notes

[1] Taylor, D., Bury, M., Campling, N., Carter, S., Garfied, S., Newbould, J. and Rennie, T. (2006) *A Review of the use of the Health Belief Model (HBM), the Theory of Reasoned Action (TRA), the Theory of Planned Behaviour (TPB) and the Trans-Theoretical Model (TTM) to study and predict health related behaviour change.* The National Institute for Health and Clinical Excellence (NICE).

[2] Becker, M. (1974). *The Health Belief Model and Personal Health Behaviour*. New Jersey: Thorofare.

[3] Ajzen, I. and Fishbein, M. (1980) *Understanding attitudes and predicting social behavior*. Englewood Cliffs, NJ: Prentice-Hall.

[4] Ajzen, I. (1985) From intentions to actions: A theory of planned behavior. *In* J. Kuhl & J. Beckman (Eds), *Action-control: From cognition to behaviour.* Heidelberg, Germany: Springer

[5] Prochaska, J.O. and DiClemente, C.C. (1982) Trans-theoretical therapy - toward a more integrative model of change. *Psychotherapy: Theory, Research and Practice*;19(3):276-288.

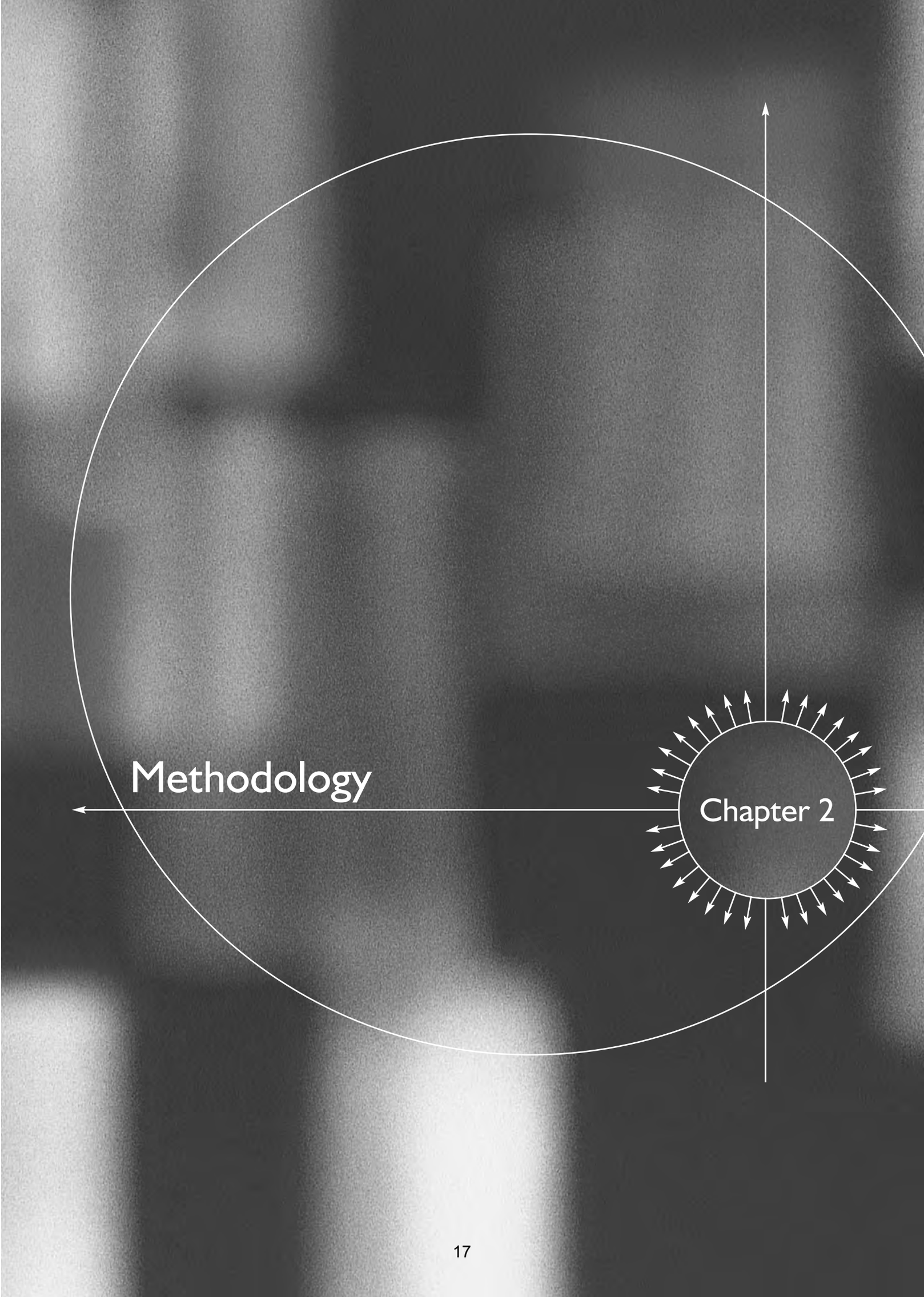
[6] NHS Health Scotland (HEBS) (1999) *The Stages of Change model and its use in health promotion: a critical review* <www.healthscotland.com/documents/351.aspx>

[7] Spencer, L., Pagell, F., Hallion, M. E., and Adams, T. B. (2002) Applying the transtheoretical model to tobacco cessation and prevention: a review of literature. *American Journal of Health Promotion*, vol. 17, no. 1, pp. 7-71.

[8] Christmas, S., Young, D., Skates, A., Millward, L., Duman, M., and Dawe, I. (2009) *Nine Big Questions about Behaviour Change*. Dept for Transport.

[9] Robinson, M. Gibbs, D. and Gruer, L. (2010) *Know, Feel, Do? Health Behaviour Change in Scotland 1996-2007*. Glasgow: NHS Health Scotland.

[10] See, for example: Bromley, C., Given, L. and Ormston, R. (2009). *The Scottish Health Survey 2009*. Edinburgh: Scottish Government.


Chapter 2
Methodology

2 METHODOLOGY

SUMMARY

- The Knowledge, Attitudes and Motivations to health (KAM) module was first included in the Scottish Health Survey (SHeS) in 2008. The module replaced the Health Education Population Survey (HEPS) conducted in Scotland between 1996 and 2007, on behalf of NHS Health Scotland.
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- 1,846 adults in 2008 and 2,023 in 2009 took part in the KAM module. Of these, 1,591 in 2008, and 1,715 in 2009, also completed a computer-assisted self-interview (CASI) containing more sensitive questions about sexual behaviour.
- The response rates for the main KAM module each year were 49% (2008) and 48% (2009). The response rates including the CASI were 42% and 40%, respectively.
- People aged 16-24 were the least likely age group to take part in the main SHeS interview. However, response to the KAM module among those who participated in the main SHeS interview was lowest among people aged 75 and over.
- The data have been weighted to take account of the overall sample design and to adjust for non-response bias. The profile of the weighted sample for each year closely matches that of the mid-year household population estimates for Scotland. Different weights were calculated for the 2008, 2009 and 2008/2009 combined data.
- The socio-demographic analyses in this report are based on equivalised household income, the National Statistics Socio-economic Classification (NS-SEC), and the Scottish Index of Multiple Deprivation (SIMD). The previous HEPS reports did not use these measures.

2.1 INTRODUCTION

This report is based on findings from the Knowledge, Attitudes and Motivations to health (KAM) module in the 2008 and 2009 Scottish Health Survey (SHeS). It also draws on data from the main survey in relation to health behaviours and outcomes. The module includes questions previously asked as part of the Health Education Population Survey (HEPS) conducted in Scotland between 1996 and 2007. This study was integrated into SHeS from 2008 onwards to minimise respondent burden and to reduce data collection costs.

This chapter describes the methodological aspects of the study, including its overall design, sampling, and the response rate in each, as well as the analysis approach used in the report. Where applicable it highlights the main similarities and differences between the HEPS and the KAM module.

2.1.1 Background to the module

HEPS was originally commissioned by the Health Education Board for Scotland in 1995 to provide data to support its health education and health promotion work. NHS Health Scotland, the successor body to the Health Education Board for Scotland, continues to need information about levels of public knowledge of health education messages, including healthy living recommendations, their attitudes towards their own health and their motivations to change lifestyle behaviours to improve health. NHS Health Scotland is a special health board and is the national agency in Scotland responsible for health improvement. The Scottish Government's 2007 health policy document *Better Health, Better Care*, describes NHS Health Scotland as the body that 'helps people to sustain and improve their health, especially in disadvantaged communities, ensuring better, local and faster access to health care.' Health policy in Scotland currently has a very overt focus on tackling health inequalities. This focus is articulated by three key policy documents: *Equally Well*, the *Early Years Framework*, and the anti-poverty framework *Achieving our Potential*. This report, in common with the main report of the Scottish Health Survey, presents results for the total population and by socio-economic classification, household income and area deprivation. Understanding more about the extent to which knowledge, attitudes and motivations to change health behaviours vary across different groups in society will help NHS Health Scotland to better target its health improvement activities and address inequalities where they exist.

HEPS began in March 1996 and was conducted in two waves per year until 2007. The second wave in 1999 and both waves in 2000 were not conducted, resulting in an interruption to the time series for that period. Between 1996 and 2005 the waves took place in March and September. In 2006 and 2007 the two waves took place in January and August so that data could be collected immediately prior to the introduction of the smoking ban in March 2006.

2.1.2 Topics in the KAM module

The topic areas covered by HEPS emerged over time from a series of policy documents dating back to the 1992 White Paper *Scotland's Health – A Challenge to us All*. As detailed in previous HEPS reports,[1] most of the areas currently covered in the module, and included in this report, have been included since the survey began. For example, factors such as poor diet, low activity levels, smoking and alcohol consumption have long been, and continue to be, of particular public health concern in Scotland. However, emerging areas of concern have also been introduced to the series, such as sexual health, knowledge of cancer risk factors, and mental well-being. All these topics are covered in this report.

2.1.3 The combined 2008 and 2009 KAM data

The KAM module is using the same questionnaire from 2008 to 2011, in common with the core topics covered in the main SHeS. This report takes advantage of the ability to combine the data from 2008 and 2009 to yield a larger overall sample. This enables more detailed analysis to be conducted, for example it present patterns by age group within each sex. The separate estimates for 2008 and 2009 are also presented for the key measures covered in each chapter. Both the combined and the separate years of data are available from the UK Data Archive.

2.2 MEASURING HEALTH BEHAVIOURS AND OUTCOMES

The HEPS series also included detailed questions about health behaviours such as physical activity levels, alcohol consumption, smoking behaviour, fruit and vegetable consumption and psychological well-being. These behavioural factors were used in the analysis of the knowledge, attitudes and motivation question also included in the survey. By integrating the KAM module into the existing SHeS the need to collect additional health behaviour data was eliminated. Many of the health behaviours included in the SHeS are captured using more detailed questions than was possible within the scope of the HEPS. In addition, the SHeS takes direct physical measurements of participants' height and weight which HEPS did not do. The SHeS also collects a wider range of information about health outcomes than HEPS, some of which might prove useful to analyse in relation to the new data provided by the KAM module. Throughout this report the SHeS behavioural data is used to analyse the data from the KAM module.

2.3 THE SCOTTISH HEALTH SURVEY SERIES

2.3.1 SHeS Series

The SHeS series was established by the Scottish Office in 1995 to provide data about the health of the population living in private households in Scotland. The full details of the background, methods and content of the SHeS can be found in the technical reports of the 2008 and 2009 surveys.[2,3] The key details of the study pertinent to the KAM module are presented here. Where relevant, notable differences between HEPS and SHeS are highlighted.

The first three rounds of the SHeS were conducted in 1995, 1998 and 2003. During 2005 and 2006 a comprehensive review of the survey was carried out by the then Scottish Executive.[4] Three of the key recommendations to emerge from the review had a direct bearing on the KAM module. The first was that the survey should be carried out on a more frequent basis. The second was that the interview should be structured around modules of topics, some of which would be asked of all participants in every year, while others would be asked of smaller sub-samples and would not necessarily need to be asked every year. These recommendations were adopted and the survey began running continuously in 2008 with a modular format. Increasing both the frequency of the survey and the flexibility over the survey contents,

meant that the third recommendation, to incorporate the knowledge, attitudes and motivation questions from the annual HEPS into the main SHeS, could be realised.

2.3.2 2008-2011 survey design

SHeS is a two-stage study, the first of which involves interviews with all adults and up to two children in each sampled household. In a sub-sample of addresses adult participants are also invited to take part in a second stage, a visit from a nurse to take a range of physical measurements and biological samples (blood, urine and saliva). As noted above, to increase the number of topics that are covered by the study, from 2008 it has a core and modular structure with a core set of questions asked of the whole sample and two modules of questions which are asked of a proportion of the sample. Core questions are included in the survey every year and these will be analysable by Health Board after four years. Module A is the 'rotating' biennial module. In 2008 and 2010 it contained a range of questions on cardiovascular disease, asthma, eating habits for adults, and physical activity. In 2009 and 2011 the rotating module includes questions on accidents, discrimination and harassment, social capital, stress at work and dental services. Module B is the KAM module on knowledge, attitudes and motivations to health.

One potential limitation of the modular approach is that questions included in module A can never be analysed alongside questions from KAM as each household is only asked one of these modules. Similarly, the nurse sub-sample is too small to be analysed in relation to the KAM findings, though some analysis might be possible once all four years of the 2008-11 study are complete. However, the majority of the key health behaviours that relate to the topics in the KAM module are collected in the core SHeS interview.

The two surveys differed in a number of ways which had to be resolved prior to the launch of fieldwork in 2008. The biggest difference was that the HEPS selected just one adult aged 16-74 per sampled household whereas all adults and up to two children in each household sampled for SHeS are eligible to be interviewed. Many of the SHeS interviews take place concurrently with up to four household members able to be interviewed at the same time. This presents few problems for the kinds of data collected in the main SHeS study, though sensitivities around young people's alcohol and smoking behaviour have to be addressed. Questions about people's attitudes were, however, felt to be more problematic as people might not want to reveal their opinions in the presence of other household members. It was also felt that asking people about their knowledge of key health messages would be affected if they could hear other people's answers first, and perhaps simply repeat those. To avoid these problems, and to ensure that the method of data collection for the KAM module more closely mirrored that used in HEPS, just one adult per household was selected to take part in the KAM module. So, whereas all adult participants in each

household answered the core elements of the SHeS, just one person answered the KAM module questions.

The core SHeS interview involves a paper self-completion booklet for all adults covering a range of sensitive topics such as problem drinking, mental well-being, contraception and sexual orientation. The HEPS also included a paper self-completion with questions about sexual behaviour. To reduce the number of paper materials participants had to complete the self-completion element of KAM was instead asked via Computer Aided Self-interviewing (CASI).

2.3.3 2008-11 sample design

The 2008-2011 SHeS uses a two-stage stratified probability sampling design with datazones selected at the first stage and addresses (delivery points) at the second. This differed from previous years of both SHeS and HEPS where postcode sectors rather than datazones were the primary sampling units (PSUs).

Three samples were selected for the survey:

1. a general population (main) sample of addresses in which all adults (16+) and up to two children (aged 0-15) were eligible to be selected in each household;
2. a child boost sample in which up to two children (aged 0-15) were eligible to be selected in each household; and,
3. a Health Board boost sample in which all adults (16+) were eligible to be selected in each household (220 addresses in each of Borders, Grampian and Fife in both 2008 and 2009).

The addresses selected for the main sample were classified as being either version A, or version B (KAM) addresses. The table below sets out the numbers selected each year. Random allocation was used to choose the version assigned. Core questions were asked of each participant; while those in version A addresses were also asked Module A, while in version B addresses a single adult, chosen at random, was asked the KAM module questions.

No. of addresses sampled per version		
	2008	**2009**
Version A	2,708	2,928
Version B (KAM)	4,237	4,660

The sample of addresses was selected from the small user Postcode Address File (PAF). This sample frame was also used by HEPS. This is a list of nearly all the residential addresses in Scotland and is maintained by The Royal Mail. The population surveyed was therefore people living in private households in Scotland. People living in institutions, who are likely to be older and, on average, in poorer health than those in private households, were not covered. The very small

proportion of households living at addresses not on the PAF was not covered.

All areas of Scotland where fieldwork could feasibly be carried out were covered, but some inhabited islands with very small populations were excluded. The inhabited islands that were included were mainland Orkney, mainland Shetland, Lewis, Harris, Skye, Bute, Islay, Mull and Arran.

The 2008-11 SHeS sample is designed to enable detailed analysis of the core questions after four years by Health Board Area and by the 15% most deprived areas according to the Scottish Index of Multiple Deprivation (SIMD). However, the KAM module sample is too small to enable similar analysis, even after four years.

Full details of the sample design in 2008 and 2009 are available in the Technical Reports.[2,3]

2.4 SURVEY RESPONSE

Table 2.1 shows the overall household response for the KAM sample in 2008 and 2009. The row labelled 'Total eligible households' shows the number of private residential households found at the selected addresses (after selection of a single dwelling unit and, up to three households when necessary).

Households described as 'co-operating' are those where at least one eligible person was interviewed at Stage 1, the interviewer stage. The row labelled 'Households in which KAM respondent completed main interview' refers to those where the selected KAM respondent completed the core SHeS interview but did not go on to complete the KAM module. Those households where the selected KAM respondent did go on to complete the KAM module are referred to as 'households in which KAM respondent completed KAM interview'. Not everyone who completed KAM will have also completed the CASI section. Households where the selected KAM respondent completed the KAM module, and the CASI section, are referred to as 'households in which KAM respondent completed KAM CASI'.

Overall response to the main survey was higher in 2009 (64%) than 2008 (61%). Table 2.1, and the summary table below, present the response based on those households allocated to the KAM sample. 60% (2,280) of KAM households took part in 2008 and 63% (2,693) in 2009. As the KAM respondent was chosen at random from all adults eligible to be interviewed for the main survey, non-response can happen in three ways: a whole household can refuse to take part, the person selected to be the KAM respondent can refuse to take part in the whole survey, or the KAM respondent can do the main SHeS interview but refuse to complete the KAM module. The response to the main KAM module (as a proportion of all eligible households) was 49% in 2008 and 48% in 2009. The response including the CASI module was 42% in 2008 and 40% in 2009. **Table 2.1**

Response to the KAM module				
	2008		2009	
	n	%	n	%
No. of participating households	2,280	60	2,692	63
KAM module completed	1,846	49	2,023	48
KAM module + CASI completed	1,591	42	1,715	40

Table 2.2 shows the proportion of men and women in co-operating households who participated in the KAM module in each year. In 2008, 87% of men and 91% of women completed the module (but not necessarily the CASI self-completion section of the interview). The corresponding figures for 2009 were 85% and 88%. In both years, response among those aged 16-74 differed a little but with no very obvious patterns. It is worth noting that although response to the survey overall was lowest among those aged 16-24, people of this age who completed a main SHeS interview were not the least likely to complete the KAM module. Response declined with age among men from 65 onwards in both years, though the pattern for women was less clear.

The proportion completing the CASI section was lower (75% of men and 78% of women in 2008, 74% of both sexes in 2009). Response declined more steeply with age and was lowest among those aged 75 and over. Response among men aged 75 and over was similar in both years whereas it was lower for women of this age in 2009 than in 2008. The fact that the CASI section is completed via a laptop computer, and the sensitive nature of the questions (about sexual attitudes and behaviour), both contribute to the lower response among older people. **Table 2.2**

2.5 WEIGHTING

As SHeS is comprised of a number of different samples (see Section 2.3.3), several different sets of weights have been provided for the survey. The SHeS 2008 and 2009 Technical Reports[2,3] provide full details of the household, adult and child weights that apply to the main survey data. Only the KAM weighting is described in detail here.

2.5.1 Overview

The 4,237 addresses selected for the KAM module in 2008, and 4,660 in 2009, were allocated by ordering each address within each health board by their SIMD value and taking a random list sample. This ensured that the KAM sample included addresses covering all levels of deprivation. A single adult within each of these addresses was chosen at random for the KAM module.

The main adult weight should not be used to analyse this module. If the main adult weight was used the regions that issued a health board boost, and adults in large households, would be under-represented. (As young adults tend to live in larger than average households this would mean that young adults would be under-represented). A separate weight has been derived for the KAM analysis. This section describes the weighting procedure for this module in more detail.

If response rates and the values of survey estimates vary over the weighting classes, weighting will help to reduce bias.[5] A limitation of weighting is that it cannot correct for bias when the values of survey estimates are not similar for both respondents and non-respondents within each class. In this case the data are said to be "Missing Not At Random." No method of correcting for bias is entirely satisfactory in this case.

2.5.2 KAM weights – summary

KAM weights were calculated in a similar way to the main adult weights in that they combined selection weights, non-response weights and calibration. Each of the weights is described in detail below, the following bullets summarise the weighting strategy and indicate the name given to use in the archived dataset available from the UK Data Archive:

- calculate weights (w_1) for the differential selection of addresses;
- calculate weights for the selection of dwelling units at each address (w_2) and for the selection of households at each dwelling unit (w_3);
- calibrate the combined household weight ($w_1 \times w_2 \times w_3$) so that the weighted sample of household members matched population estimates for age/sex and health board (w_4);
- generate weights for whether an adult within a participating household responded to the main survey (w_5);
- calculate a weight (w_6) for the selection and response to the KAM module;
- combine w_5 and w_6 with the household weight (w_4) and calibrate the combined weight ($w_4 \times w_5 \times w_6$) to the population estimates. Scale this to give the final KAM interview weights for single years, kam08wt (2008 survey weight), kam09wt (2009 survey weight);
- combine kam08wt and kam09wt to create a combined year weight for analysis of the 2009 and 2009 data together, kam0809_wt.

2.5.3 Address, dwelling unit and household selection weights

Address selection weights (w1)

Selection weights were required to ensure that each area was in the correct proportion for national estimates. These selection weights differed from the corresponding selection weights for the main adult sample as the Health Board boost sample was not included.

Dwelling unit and household selection weights (w2 and w3)

A dwelling unit weight was calculated to correct for this discrepancy between the number of dwelling units found at the address and the number given by the Multiple Occupancy Indicator[6]. A household weight was also calculated to correct for the selection of households. These weights were the same as those calculated for analysis of the main sample.

Calibrating household weights (w4)
To be consistent with the weighting of the main adult sample, household weights were generated by calibrating the combined selection weights (w1×w2×w3) to estimates of the age/sex and health board distribution of the household population (the estimated population in private households) provided by General Register Office Scotland (GROS). The calibration totals are given in Table 2.3 and Table 2.4. As with the main survey, the weights were also calibrated to ensure that the 15% most deprived SIMD areas were not under-represented because of non-response (as noted in Section 2.3.2, the survey is designed to provide estimates for these areas after four years).

Adult non-response weights (w5)
Non-response weights, to weight for participation in the survey had been calculated for the main survey. These weights (w5) were simply the reciprocal of the estimated probability of taking part.

KAM selection weights (w6)
Only one individual in a KAM address was selected for the KAM module and this had to be taken into account in the weighting. If this had not been done single-adult households would have been over-represented and large households under-represented. The KAM selection weight was simply the reciprocal of the number of adults in the household. To avoid extremely large weights this weight was trimmed so no weight was greater than 3.

A further analysis was then performed to see which factors affected the response to the KAM module. Table 2.2 shows that, among those chosen for the KAM module, the response rate was almost 90% in both years. With a response rate this high non-response weighting often makes little difference to analysis. However, in this case response varied by the participant's age. In 2008, there was a very high response rate (at least 89%) among all age groups other than those aged 75 and over where the response was 83%. The 16-24 age group, which had a low response rate to the main questionnaire, had a high response rate to KAM of 90%. It would have been possible to use the respondent's age to model non-response to the KAM module in 2008. However, as we intended to use this variable in the calibration this wasn't necessary. A further analysis of predictors of non-response showed that no further modelling was needed in 2008 – it would increase the range of the weights without making much difference to the sample estimates. In contrast, response varied more by age in 2009 and, compared with 2008, was lower among all age groups apart from those aged 55-64 and 75 and over. In 2009 a non-response model for KAM was also fitted, as some additional variables other than age were found to affect response to the KAM module.

2.5.4 KAM interview weights (kam08wt, kam09wt)

The next step was to calibrate the combined weight (w4×w5×w6) to the totals given in Table 2.4. This ensures that when national estimates are

required the age/sex distributions of the adult sample match those of the population.

The calibrated interview weights were scaled so the sum of the weights equalled the sample size. This gave the final single year KAM weights kam08wt and kam09wt.

2.5.5 KAM combined interview weights (kam0809_wt)

The calculation of the combined weights followed the same procedure used for the single year weights. The pre-calibration weights that had already been calculated for the individual years (which took into account selection and non-response weighting), were combined and calibrated to age/sex population totals. The population totals used were the average of the 2008 and 2009 mid-year household population estimates (and tended to be very similar to the 2009 figures shown in Table 2.4).

2.6 COMPARING THE KAM AND HEPS SAMPLES

This section compares KAM to the survey it replaced: HEPS. The SHeS and HEPS sample designs were very different. HEPS used an equal probability sample, clustered by postcode sector, with about 20 addresses selected in each sector. In contrast, SHeS over-sampled some areas (mainly small health boards and addresses in deprived regions) and was designed to be unclustered over a four-year period. This means that there are fewer than 20 addresses selected in each postcode sector, and only a fraction of them are KAM addresses.

HEPS also used a different weighting system; responses were cell-weighted by age and sex. Cell weighting by age and sex ensures that the weighted sample proportion in each age/sex group matches the population proportion. This differs from the procedure used for KAM where the non-response modelling took into account not just the age and sex of each individual, but also other variables (such as the number of adults in the household, the health board, and whether or not the address was in a deprived area). Including these additional variables is likely to be more effective in reducing bias due to non-response.

Table 2.5 shows the achieved age distribution by sex for both KAM 2008 and HEPS 2007 and compares them with the mid-2008 population estimates. Table 2.7 does the same for the 2009 survey. It is apparent from these tables that both men and women in the 16-24 age range are re under-represented in both the KAM and the HEPS samples, as are men aged 25-34 in the KAM module. This is not because of a low response rate to the KAM module. It is partially because adults in these age ranges had a low response rate to the main module, and partially because they tended to have a low selection probability for the KAM module. (Young adults tend to live in households that are larger than average and as a result their selection probability tended to be small).[7] Tables 2.6 and 2.8 show the weighted age distribution by sex for both KAM 2008, 2009 and HEPS 2007 and compares them with the mid-2008 and mid-2009 population estimates. **Table 2.5, Table 2.6, Table 2.7 and Table 2.8**

SHeS uses a clustered, stratified multi-stage sample design. In addition, weights were applied when obtaining survey estimates. The HEPS sample was also clustered and weights were applied. One of the effects of using complex

design and weighting is that standard errors for survey estimates are generally higher than the standard errors that would be derived from an unweighted simple random sample of the same size. The calculations of standard errors shown in tables, and comments on statistical significance throughout this report, have taken the clustering, stratification and weighting into account. The 1996-2003 HEPS report[1] estimated that the average design factor for that study was 2.3 (the factor by which the standard error of an estimate from a simple random sample has to be multiplied to give the true standard error of the complex design). The design factors for the KAM estimates are lower than this (for example the factors quoted for the single year analyses are all less than 1.84). This is despite the fact that KAM over-sampled the 15% most deprived SIMD areas and heavily over-sampled the smaller health boards, whereas HEPS was an equal probability sample. The reasons for the lower design factors are likely to be:

1. HEPS was much more highly clustered than KAM. For example, the 2008 KAM sample consisted of 4,237 addresses covering 616 postcode sectors. It was not an unclustered sample, but with an average of only 7 addresses chosen per postcode sector (compared with 20 in KAM), and many more postcode sectors chosen, the amount of clustering was much less.
2. HEPS was weighted using cell-weighting. The logistic regression non-response modeling used for KAM is likely to lead to less variable weights even though the weighting of the KAM module used many more variables (geographical information such as information on SIMD and the urban/rural status of the address, and variable such as the household type).
3. Weights were trimmed slightly in the weighting of the KAM module[8]. It is not clear if HEPS weights were trimmed.

2.7 ANALYSIS CONVENTIONS IN THIS REPORT

2.7.1 Statistical significance and precision of estimates

Any differences highlighted in the chapter text are statistically significant at the 95% level. In addition, 95% confidence intervals for all the figures in the tables are presented to help assess the precision of the estimates. As noted above, the confidence intervals, and statistical tests, have taken account of the survey's complex design. If the confidence intervals for two estimates do not overlap (for example, the estimates for men compared with women, or 2008 versus 2009) then the two estimates are significantly different from each other. This means that we can 95% certain that a real difference between these groups exists in the population. Overlapping confidence intervals do not necessarily signify that the groups are *not* significantly different to each other; further investigation is required to establish that.

The real value of a confidence interval is that it shows the likely range of the population value. For example, Table 3.1 in Chapter 3 shows that 59% of men aged 16-34 in 2008/2009 said they had a great deal of influence over their own health. The 95% confidence interval for the estimate shows that the true value in the population could be as low as

52.1% or as high as 66.4%. Larger samples have narrower confidence intervals (and therefore more precise estimates), while smaller samples have wider intervals (less precise estimates).

2.7.2 Socio-demographic measures

National Statistics Socio-Economic Classification (NS-SEC)

SHeS measures socio-economic status using the National Statistics Socio-Economic Classification (NS-SEC) which was introduced in 2001. NS-SEC was introduced to SHeS in 2003 and replaced the social class measures used in the two previous rounds of survey, Registrar General's Social Class (SC) and Socio-economic Group (SEG).[9] The previous HEPS reports[1,10] used the Market Research Society's Social Grade classification, however, NS-SEC is the measure recommended for use in major government surveys.

NS-SEC was classified in two ways: on the basis of participants' own current or most recent occupation, and on the basis of the occupation details of the household reference person. The household reference person (HRP) was defined as the householder (the person in whose name the property was owned or rented) with the highest income. If there was more than one householder and they had equal incomes, then the household reference person was the eldest. The identity of the HRP was established in the household questionnaire and details about their occupation were collected at this point. If the HRP occupational details were collected by proxy from another household member these were collected again directly from the HRP during their individual interview (if one took place). Children were assigned the NS-SEC value of the HRP.

NS-SEC is an occupational based classification that uses the Standard Occupational Classification 2000 (SOC 2000) which replaced the Standard Occupational Classification 1990 (SOC 90) schema. The combination of SOC 2000 and information collected about employment status (whether an employer, self-employed or employee; whether a supervisor; number of employees at the workplace) for current or last job generates the following NS-SEC analytic classes:

- Employers in large organisations, higher managerial and professional
- Lower professional and managerial; higher technical and supervisory
- Intermediate occupations
- Small employers and own account workers
- Lower supervisory and technical occupations
- Semi-routine occupations
- Routine occupations.

The remaining categories include those who have never worked, or who gave no occupational details or whose information was inadequately

described or unclassifiable for other reasons. Most of the analysis in the 2009 report was based on a five level version of this classification which combined the first two groups and the last two. Analysis is also possible using a three level classification which combines the intermediate and small employers and own account worker categories, and combines the lower supervisory group with the routine categories. All analysis was conducted using the NS-SEC of the HRP.

Equivalised household income

SHeS also measures participants' household income. While household income alone can be used as an analysis variable, the analysis conducted for this report used an adjusted measure which took account of the number of persons within the household. The McClements method was used to equivalise incomes; this is detailed in the Glossaries of the 2008 and 2009 main SHeS reports.[2,3] The equivalised income measure was divided into quintiles for the presentation of analysis within the report, but the full continuous data is available on the dataset deposited at the UK Data Archive.

Scottish Index of Multiple Deprivation (SIMD)

The analysis was based on the 2009 version of the Scottish Index of Multiple Deprivation (SIMD).[11] It is based on 38 indicators in seven individual domains of current income, employment, housing, health, education, skills and training, geographic access to services and crime. SIMD is calculated at data zone level, enabling small pockets of deprivation to be identified. The data zones are ranked from most deprived (1) to least deprived (6505) on the overall SIMD index. The result is a comprehensive picture of relative area deprivation across Scotland. The index was divided into quintiles for the presentation of analysis within the report, a version divided into deciles is also available on the dataset. The full index is not available on the archived dataset due to concerns about its potential for identifying individual respondents or households.

The previous HEPS reports used the deprivation category (DEPCAT)[12] measure of social deprivation based on the Carstairs index, derived from the 1991[13] or 2001[14] Census. As the Scottish Government and NHS Scotland now use SIMD as their preferred measure of deprivation this report also uses SIMD.

References and notes

[1] Malam, S., Angle, H., Wimbush, E. and Fraser, E. (2004). *Health Education Population Survey 1996-2003*. Glasgow: NHS Health Scotland.

[2] Bromley, C., Bradshaw, P. and Given, L. (2008). *The Scottish Health Survey 2008*. Edinburgh: Scottish Government.

[3] Bromley, C., Given, L. and Ormston, R. (2009). *The Scottish Health Survey 2009*. Edinburgh: Scottish Government.

[4] Further information on the Scottish Health Survey review and recommendations adopted as a result of the review can be found on the Scottish Government SHeS website: <www.scotland.gov.uk/Topics/Statistics/Browse/Health/scottish-health-survey>

[5] Lynn, P. (2005) 'Weighting', in Kempf-Leonard, K. (ed) *Encyclopedia of Social Measurement*. Academic Press. pp967-973.

[6] The Multiple Occupancy Indicator (MOI) is an estimate of the number of dwelling units at an address. Historically, tenement blocks were listed once in the Postcode Address File (PAF) with an MOI equivalent to the number of individual flats within the stair also noted. More recently, flats within tenements have started to be numbered and listed separately in the PAF, however this is not universal. To ensure that households at addresses that do not have an individual entry in the PAF were given an equal chance of selection to other households the likelihood of selecting each address was increased in proportion to the MOI.

[7] This would also have applied with the HEPS sample, but the overall selection probabilities also differed in that study due to the exclusion of people aged 75 and over.

[8] Trimming involved reducing any particularly large weights. This ensures that no individual was given too much weight in the analysis. The purpose of trimming is to achieve estimates with smaller standard errors, though the cost is that it tends to introduce a small amount of bias.

[9] Full details of the NS-SEC classification can be found at: <www.statistics.gov.uk/nsbase/methods_quality/ns_sec/default.asp>

[10] Bassett, C., Gilby, N. and Catto, S. (2008). *Health Education Population Survey – Update from 2007 Survey*. Glasgow: NHS Health Scotland.

[11] <www.scotland.gov.uk/Topics/Statistics/SIMD/Publications>

[12] The Carstairs index, on which the DEPCAT classification is based, was originally developed by Vera Carstairs and Russell Morris for use in Scotland. It is a postcode sector level index derived from the Census measures of social class, car ownership, overcrowding and employment status. DEPCAT splits postcode sectors into seven groups using their Carstairs score, ranging from 1 (most affluent) to 7 (most deprived). In contrast, SIMD is drawn from a larger range of data sources, many of which are not reliant on Census data, and can be updated at more regular intervals.

[13] McLoone, P. (1994) *Carstairs Scores for Scottish Postcode Sectors from the 1991 Census*. Glasgow: Public Health Research Unit, University of Glasgow

[14] McLoone, P. (2004 *) Carstairs scores for Scottish Postcode sectors from the 2001 Census*, Glasgow: Social and Public Health Science Unit, University of Glasgow.

Table list

Table 2.1 KAM sample household response 2008 and 2009

Selected addresses/eligible households

Address and household outcome		**2008**		**2009**
KAM households	N	%	N	%
Selected addresses	4237		4660	
Ineligible addresses[a]	441		406	
Addresses at which interview sought	3796		4254	
Extra households sampled at multi-household addresses	1		0	
Total eligible households	3797		4254	
Household response				
Co-operating households[b]	2280	60	2692	63
Households in which KAM respondent completed main interview[c]	2068	54	2325	55
Households in which KAM respondent completed KAM interview[d]	1846	49	2023	48
Households in which KAM respondent completed KAM interview and CASI[e]	1591	42	1715	40
Non-responding households	1517	40	1561	37
Non-contact (eligible)	114	3	182	4
Non-contact (unknown eligibility)	123	3	54	1
Refusal	922	24	1046	25
Other non-response (eligible)	332	9	274	6
Other non-response (unknown eligibility)	26	1	5	0

a Addresses where no private households were found

b Households where at least one person was interviewed

c Households in which the KAM respondent completed the core SHeS interview – but not necessarily the KAM module

d Households in which the KAM respondent completed the core SHeS interview and the KAM module

e Households in which the KAM respondent completed the core SHeS interview, the KAM module and the CASI section

Table 2.2 Adults in co-operating households, response to KAM interview, by age and sex, 2008 and 2009

Adults aged 16 or over in co-operating households *2008 and 2009*

	Age							Total
	16-24	25-34	35-44	45-54	55-64	65-74	75+	
	%	%	%	%	%	%	%	%
Men								
2008								
Responded to KAM interview	89	88	87	92	90	85	79	87
Responded to CASI	85	84	84	86	82	61	42	75
2009								
Responded to KAM interview	88	86	88	84	88	82	80	85
Responded to CASI	83	83	84	80	78	66	43	74
Women								
2008								
Responded to KAM interview	90	91	91	92	90	94	87	91
Responded to CASI	87	91	86	87	80	72	49	78
2009								
Responded to KAM interview	86	86	86	90	93	90	87	88
Responded to CASI	83	85	85	86	79	62	38	74
All adults								
2008								
Responded to KAM interview	90	90	89	92	90	90	83	89
Responded to CASI	86	88	85	87	81	67	46	77
2009								
Responded to KAM interview	87	86	87	87	91	86	84	87
Responded to CASI	83	84	84	83	79	64	40	74
Bases (number selected for KAM interview):								
Men 2008	*62*	*104*	*163*	*165*	*158*	*140*	*119*	*911*
Men 2009	*60*	*118*	*178*	*181*	*182*	*174*	*123*	*1016*
Women 2008	*91*	*151*	*185*	*177*	*198*	*191*	*164*	*1157*
Women 2009	*98*	*190*	*229*	*189*	*218*	*192*	*193*	*1309*
All adults 2008	*153*	*255*	*348*	*342*	*356*	*331*	*283*	*2068*
All adults 2009	*158*	*308*	*407*	*370*	*400*	*366*	*316*	*2325*

Table 2.3 Mid-year adult household population estimates[a] for Scotland by Health Board, 2008 and 2009

Health Board	2008	2009
Ayrshire & Arran	299,100	299,420
Borders	91,400	91,790
Dumfries & Galloway	122,000	122,160
Fife	289,300	291,590
Forth Valley	230,100	231,000
Grampian	432,900	436,450
Greater Glasgow & Clyde	966,200	970,110
Highland	250,800	250,360
Lanarkshire	450,000	450,970
Lothian	661,800	667,360
Orkney	16,300	16,380
Shetland	17,500	17,750
Tayside	321,000	322,070
Western Isles	21,400	21,420
Total	4,169,700	4,188,830

a 2008 and 2009 private household population for Scotland (Source: GRO Scotland)

Table 2.4 Mid-year adult household population estimates[a] for Scotland by age and sex, 2008 and 2009

Age Group	Male	Female
2008		
16-24	299,100	287,100
25-34	309,900	314,100
35-44	363,600	397,300
45-54	357,900	381,300
55-64	309,400	324,900
65-74	211,100	247,600
75+	140,700	225,600
Total	1,991,700	2,177,900
2009		
16-24	299,490	286,420
25-34	315,840	317,450
35-44	353,490	386,290
45-54	362,590	389,320
55-64	312,050	328,120
65-74	215,240	250,170
75+	144,460	227,900
Total	2,003,160	2,185,670

a 2008 and 2009 private household population for Scotland (Source: GRO Scotland)

Table 2.5 Age distribution of 2008 responding KAM sample compared with HEPS 2007 responding adult sample, and 2008 mid-year population estimates for Scotland, by sex

Responding adults aged 16 and over

Age	Responding adult samples			
	HEPS 2007	SHeS 2008 main interview	KAM 2008 module	Mid-2008 population estimates[a]
	%	%	%	%
Men				
16-24	12	9	7	15
25-34	14	11	11	16
35-44	19	16	18	18
45-54	17	19	19	18
55-64	23	18	18	16
65-74	16	16	15	11
75+	-	11	12	7
All men	44	44	43	48
Women				
16-24	9	9	8	13
25-34	15	12	13	14
35-44	20	18	16	18
45-54	18	17	16	18
55-64	20	17	17	15
65-74	17	14	17	11
75+	-	11	14	10
All women	56	56	57	48
Bases:				
Men	*847*	*2842*	*795*	*1992*
Women	*1074*	*3623*	*1051*	*2178*

a 2008 private household population for Scotland (Source: GRO Scotland). Base shown in thousands.

Table 2.6 Weighted age distribution of 2008 responding KAM sample compared with HEPS 2007 responding adult sample and 2008 mid-year population estimates for Scotland, by sex

Responding adults aged 16 and over

Age	Weighted responding adult samples			
	HEPS 2007	SHeS 2008 main interview	KAM 2008 module	Mid-2008 population estimates[a]
	%	%	%	%
Men				
16-24	16	15	15	15
25-34	21	16	16	16
35-44	21	18	18	18
45-54	18	18	18	18
55-64	14	16	16	16
65-74	11	11	11	11
75+	-	7	7	7
All men	49	48	48	48
Women				
16-24	15	13	13	13
25-34	20	14	14	14
35-44	20	18	18	18
45-54	18	18	18	18
55-64	15	15	15	15
65-74	13	11	11	11
75+	-	10	10	10
All women	51	52	52	52
Bases:				
Men	*945*	*3089*	*880*	*1992*
Women	*977*	*3377*	*965*	*2178*

a 2008 private household population for Scotland (Source: GRO Scotland). Base shown in thousands.

Table 2.7 Age distribution of 2009 responding KAM sample compared with HEPS 2007 responding adult sample and 2009 mid-year population estimates for Scotland, by sex

Responding adults aged 16 and over

Age	Responding adult samples			
	HEPS 2007	SHeS 2009 main interview	KAM 2009 module	Mid-2009 population estimates[a]
	%	%	%	%
Men				
16-24	12	8	6	15
25-34	14	12	12	16
35-44	19	17	18	18
45-54	17	18	18	18
55-64	23	17	19	16
65-74	16	16	17	11
75+	-	11	11	7
All men	44	44	43	48
Women				
16-24	9	9	7	13
25-34	15	14	14	15
35-44	20	18	17	18
45-54	18	17	15	18
55-64	20	17	17	15
65-74	17	13	15	11
75+	-	11	14	10
All women	56	56	57	52
Bases:				
Men	*847*	*3288*	*866*	*2003*
Women	*1074*	*4243*	*1157*	*2185*

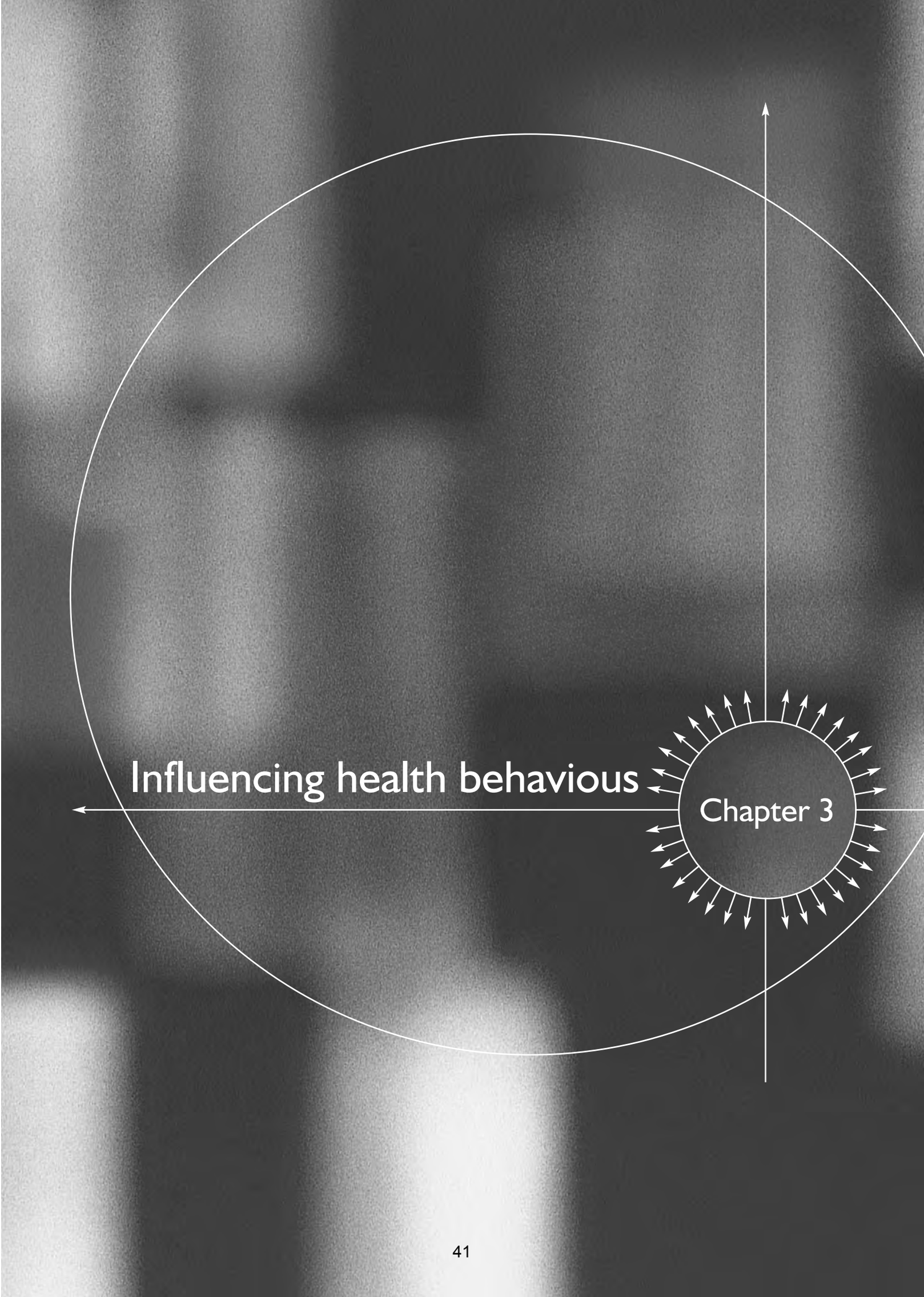
a 2008 private household population for Scotland (Source: GRO Scotland). Base shown in thousands.

Table 2.8 Weighted age distribution of 2009 responding KAM sample compared with HEPS 2007 responding adult sample and 2009 mid-year population estimates for Scotland, by sex

Responding adults aged 16 and over

Age	Weighted responding adult samples			
	HEPS 2007	SHeS 2009 main interview	KAM 2009 module	Mid-2009 population estimates[a]
	%	%	%	%
Men				
16-24	16	15	15	15
25-34	21	16	16	16
35-44	21	18	18	18
45-54	18	18	18	18
55-64	14	16	16	16
65-74	11	11	11	11
75+	-	7	7	7
All men	49	48	48	48
Women				
16-24	15	13	13	13
25-34	20	15	15	15
35-44	20	18	18	18
45-54	18	18	18	18
55-64	15	15	15	15
65-74	13	11	11	11
75+	-	10	10	10
				13
All women	51	52	52	52
Bases:				
Men	*945*	*3602*	*969*	*2003*
Women	*977*	*3931*	*1055*	*2185*

a 2009 private household population for Scotland (Source: GRO Scotland). Base shown in thousands.



Influencing health behavious

Chapter 3

3 INFLUENCING HEALTH BEHAVIOURS

SUMMARY

- In 2008/2009, most adults in Scotland felt they could influence their health a great deal (53%) or quite a lot (39%). Just 6% felt they only had a little influence and just 1% said they had none at all.
- Although a majority of people of all ages and social groups thought they had either a great deal or quite a lot of influence over their health, older people and those at the greatest social or economic disadvantage were the least likely to say they could influence their health a great deal.
- The majority of men and women in Scotland described themselves as leading either very (14%) or fairly healthy lives (72%). 13% felt their lives were fairly unhealthy, and just 1% thought they were very unhealthy.
- People aged 75 and over were about twice as likely as those aged 16-34 to say they had a very healthy life. People in the most disadvantaged social or economic circumstances were the most likely to say they had a fairly or very unhealthy life (though a majority said they had a fairly or very healthy life).
- 77% of adults said they could make their lives healthier and 15% said they already live a healthy life. In common with their views about their lifestyle, people aged 75 and over were the most likely to say they already led a healthy life, though this group was also the most likely to say they did not want to make changes or it would be too difficult.
- The most common actions mentioned by people who said they could make their lives healthier were: to increase physical activity, eat more healthily and control weight.
- A majority of people who smoked, drank at harmful levels, had low activity levels, poor diets or who were obese recognised that addressing these behaviours would improve their health.
- 55% of parents of children age 0-15 thought they could make their children's lives healthier, 42% said their children were already healthy, just 1% said they did not want to and 2% said it would be too difficult.
- The most common actions mentioned by parents who thought they could make their children's lives healthier were: helping them to eat more healthily (67%), helping them to be more active (47%) and ensuring they get lots of praise and encouragement (30%). The least popular step was weight control (15%).

3.1 INTRODUCTION

This chapter explores the extent to which people in Scotland believe they can influence or improve their own health, their perception of how healthy or unhealthy their lives are, and considers what steps people think they could take to lead a healthier life. In addition, it looks at parents' views of their ability to make their children's lives healthier.

The 'Take Life On' campaign has a strong focus on the importance of taking small steps towards longer-term outcomes. This is premised on the belief that for health messages to have the intended impact, people need to feel that they can actually put the advice into practice in their own lives. Understanding more

about the real and perceived barriers that people face when contemplating or trying to adopt a healthier lifestyle can help policy makers and service providers target their strategies more effectively.

3.2 DO PEOPLE BELIEVE THEY CAN INFLUENCE THEIR OWN HEALTH?

Participants were asked to say how much influence they felt they had on their own health by the way they choose to live their lives using a scale ranging from 'a great deal' to 'none at all'. Table 3.1 shows that in 2009, most adults felt they could influence their health a great deal (52%) or quite a lot (41%). Just 6% felt they only had a little influence over their health and only 1% said they had no influence at all. Figures for 2008 were similar (note that the difference in the proportion of men who felt they had a great deal of influence over their health between 2008 and 2009 was not statistically significant). **Table 3.1**

3.2.1 Perceived influence by age and sex

The views of men and women about how much influence they had over their health were not significantly different. However, perceptions varied notably by age. In 2008/2009, the proportion who said they had no influence over their own health at all was similarly low (3% or less) across all age groups, and the proportion who said 'a little' influence fluctuated without an obvious pattern. In contrast, the proportion who believed they had a great deal of influence over their health was lowest among the oldest age group. Nearly six in 10 (56%-57%) of people aged 16 to 54 felt they had a great deal of influence over their health, which fell to 50% of those aged 55-74, and to 39% of those aged 75 and over. **Table 3.1**

3.2.2 Perceived influence by socio-demographic group

Perceptions of influence were significantly associated with household income, NS-SEC and area deprivation. Again, the proportion who said they had no influence was very low (2% or below), however the proportion saying they had only a little influence varied more than was the case with age. For example, 66% of those living in the highest income households felt that they had a great deal of influence and this declined in line with income to 37% in the lowest quintile. The corresponding proportions who said they had only a little, or no influence, were 2% and 16%. Similar patterns were evident for NS-SEC and area deprivation, with those at the greatest social or economic disadvantage the least likely to feel they could influence their health a great deal. These patterns will in part be explained by the older age profile of people in the most disadvantaged groups.

Tables 3.2a, 3.2b, 3.2c

3.3 DO PEOPLE THINK THEY LEAD HEALTHY LIVES?

The Knowledge, Attitudes and Motivations to health (KAM) module focused on perceptions of healthy *behaviour*, rather than health *status*, by asking people to assess the extent to which they lead a healthy life. Table 3.3 shows that in 2009, the majority of adults in Scotland described themselves as leading either

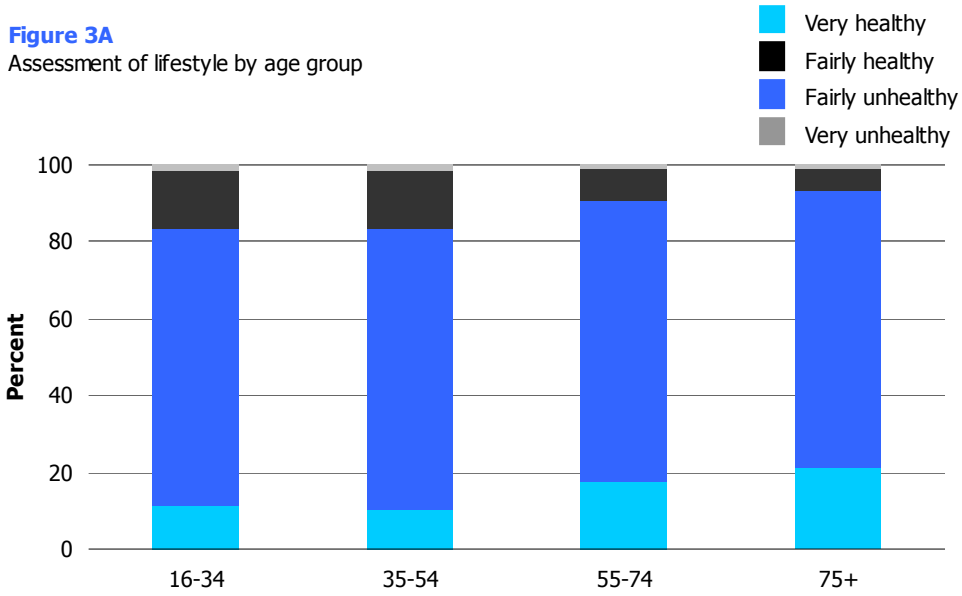
very (13%) or fairly (73%) healthy lives. In contrast, 13% felt their lives were fairly unhealthy, and just 1% thought they were very unhealthy. The figures for 2008 were almost identical, though the 2008 figures for men and women were closer together than was the case in 2009, when men were a little more likely than women to view themselves as living unhealthy lives. **Table 3.3**

3.3.1 Perceptions of lifestyle by age and sex

Table 3.3 also shows that men were less likely than women to say they had fairly healthy lives (69% versus 76% of women), and were more likely to say their lives were fairly unhealthy (17% versus 9%).

Variations in perceptions by age indicate that people's assessments of whether they live healthy lives are quite distinct from their general views of their health. The proportion of people who view their health as 'very good' or 'good', as assessed by the main SHeS interview, declines significantly with age.[1] In contrast, as Figure 3A shows, when asked how healthy they think their lives are, in 2008/2009, people in the oldest age groups were *more* likely than their younger counterparts to describe their lives as healthy. 22% of those aged 75 and over said they live 'very healthy' lives, compared with 10-12% of those aged under 55. **Figure 3A, Table 3.3**

Figure 3A
Assessment of lifestyle by age group



3.3.2 Perceptions of lifestyle by socio-demographic group

The proportion who said their lives were fairly or very unhealthy was highest among those in the lowest income households and among those living more deprived areas. For example, a quarter (25%) of people in the lowest income quintile households described their lives as very or fairly unhealthy, compared with between 9% and 17% of people in the remaining quintiles. Similarly, those living in the two most deprived area deprivation quintiles were more likely than those in the two least deprived quintiles to say their lives were very or fairly unhealthy (19%-21%, compared with 8%-9%). Differences by NS-SEC were smaller, although those in semi-routine and routine households

were more likely than those in managerial and professional households to say their lives were unhealthy. **Tables 3.4a, 3.4b, 3.4c**

3.4 ABILITY TO MAKE IMPROVEMENTS TO HEALTH

In addition to assessing perceptions of their ability to influence their health, participants were asked whether they felt they could do anything to make their lives healthier. Table 3.5 shows that a very clear majority of adults in 2009 (79%) said they could make improvements. In contrast, only 14% felt that they already led a healthy life. Just 4% had no desire to make any changes and 3% felt it would be too difficult to make any change (this latter group is explored further below in Section 3.4.3). **Table 3.5**

3.4.1 Ability to improve health by age and sex

As with the findings in the previous section, while perceptions did not vary notably by sex, they did by age. In 2008/2009, around nine in ten adults aged 16 to 54 said they could make improvements (87%-89%), this dropped to 67% among those aged 55-74 and was much lower again for those aged 75 and over (31%). However, this was not necessarily because older people had low levels of perceived influence. In fact, the most common view among those aged 75 and over was that they already led a healthy life (40% compared with 8%-9% of those aged 16 to 54). It is also worth highlighting that those 75 and over were the most likely to say they did not want to make any changes (14%), and the most likely to say it would be too difficult to do so (14%).

Table 3.5

3.4.2 Ability to improve health by socio-demographic group

People's perceptions of whether they could (or needed to) make their lives healthier were significantly associated with household income and NS-SEC, but not with area deprivation. This is likely to reflect the very strong association between age and perceptions. For example, 85%-88% of people in the two highest household income quintiles said that they could make improvements compared with 70%-72% in the two lowest. The pattern for NS-SEC was similar, with those in professional and managerial households the most likely to say they could make their lives healthier. **Tables 3.6a, 3.6b, 3.6c**

3.4.3 Reasons it is too difficult to make improvements to health

As noted above, 4% of adults said it was too difficult to do anything to make their lives healthier. The reasons given for this in 2008/2009 are shown in Table 3.7. As the sample is very small it is not possible to explore this further by age or sex. The most commons reason cited were health (61%), mobility (20%) or old age (12%). People aged 75 and over were the most likely group to say it was too difficult to make their lives healthier so these figures are likely to reflect the age profile of this group. **Table 3.7**

3.5 SPECIFIC STEPS TO LEAD A HEALTHIER LIFE

Having established that a majority of people think they could take steps to make their lives healthier, this section now explores what kinds of specific actions people mentioned (participants could choose up to three from a list presented to them). Table 3.8 shows that the most common aspects chosen in 2009 were related to physical activity (59%), diet (52%) and weight control (38%). Their popularity is probably related to the fact these are some of the most prevalent risk factors for ill health in Scotland, and that a majority of people with low activity levels, poor diets and who are obese recognised that addressing these behaviours would improve their health. The lower proportion directly choosing the weight control option might be accounted for by more people choosing activities that would lead to weight loss (such as diet and activity measures) rather than opting for weight control itself. **Table 3.8**

As not all of the suggested changes apply to the whole population, for example, only a minority of people smoke, this section starts by looking at the correspondence between particular health behaviours and the steps people mentioned that they could take. It then looks at the choices made by age and sex across the whole population. These figures serve as a useful introduction to the topics considered in some of the chapters in the rest of this report. As the figures in 2008 and 2009 are not significantly different, and to enable sufficient sample sizes for some of the health behaviours, the following figures are based on the 2008/2009 combined data.

3.5.1 Steps to lead a healthier life by health behaviours

There appears to be a fairly strong correspondence between people's health behaviours and the kinds of steps they think they could take to make their lives healthier. There are, however, some interesting exceptions to this pattern. For example, among those who thought they could make their lives healthier, 74% of smokers recognise that stopping smoking would make their lives healthier. In contrast, based on weekly alcohol consumption levels, 44% of hazardous drinkers and 65% of harmful drinkers[2] mentioned cutting their alcohol intake. The benefits of stopping smoking are clearly more evident to smokers than are the benefits of reducing alcohol intake to heavy drinkers. (Data not shown,[3] and note that the figures for harmful drinkers are based on only 150 people).

Although overweight and obese people also mentioned increasing their activity levels or improving their diets, which would help address their weight status, 41% of overweight (BMI of 25 to <30 kg/m^2) and 69% of obese (BMI of 30 kg/m^2 or more) people specifically mentioned controlling their weight to improve health. (Data not shown).

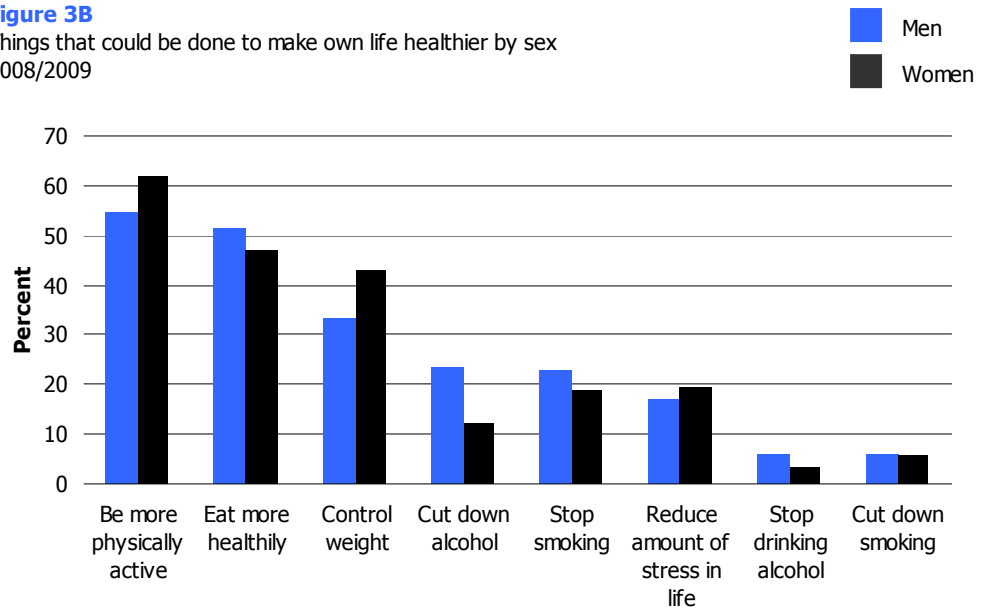
People with low (62%) and medium (64%) physical activity levels were more likely to mention being more active than people already active at the recommended level (51%). However, it is interesting that as many as half of the most active group think they could benefit from being more active. Similarly, 61% of people who ate no fruit and vegetables in the 24 hours prior to being interviewed recognised that they could eat

more healthily, as did 52% of people who ate 1-4 portions, and 36% of those who ate five or more portions. (Data not shown).

3.5.2 Steps to lead a healthier life by age and sex

Now looking at everyone who said they could improve their health, Figure 3B shows the most common aspects chosen in 2008/2009 by men and women. The significant differences in the proportions of men and women mentioning physical activity and weight loss also correspond with the findings that will be presented in Chapters 7 and 8, respectively. For example, women were less likely than men to think that they do enough activity to keep healthy, and were more likely to express concerns about their weight and to be actively trying to manage it. Cutting down alcohol consumption was the only potential lifestyle change that men were significantly more likely than women to mention (23% and 12%, respectively). This reflects the fact that men drink more alcohol than women (Chapter 4). **Figure 3B, Table 3.8**

Figure 3B
Things that could be done to make own life healthier by sex
2008/2009



Most of the differences across age groups shown in Table 3.8 also correspond with many of the findings to be presented throughout this report, though some interesting divergences exist. As only three in ten people aged 75 and over said they could make improvements to their health the sample size for this age group for the follow-up question about specific changes is very small, particularly for men. The following discussion therefore focuses on people under 75.

The proportion of men aged 16 to 74 who said they could be more physically active was fairly similar and ranged from 51% to 57%. In contrast, 71% of women aged 16-34 mentioned being more active, and this declined steadily to 53% of women aged 55-74. This pattern is broadly consistent with the proportions of women who meet the activity recommendations, and the fact that women aged under 55 were the most likely to say they do not do enough activity to stay healthy (see

Chapter 7). The proportion who said they could eat more healthily declined with age among both men and women aged 16 to 74, while the proportion mentioning weight control increased. Both patterns reflect the age-related patterns shown in Chapter 6 in relation to perceptions of diet and in Chapter 8 in relation to weight.

Alcohol consumption declines with age, however, the proportion between the ages of 16 and 74 who said they could cut down on their alcohol consumption was not significantly different (for either men or women), though it was much lower for those aged 75 and over. It is possible that looking at smaller age groups might help to distinguish patterns a little better. **Table 3.8**

3.5.3 Steps to lead a healthier life by socio-demographic group

The most striking patterns in Tables 3.9a-c relate to smoking, which reflects the stark social gradients in this behaviour. For example, 35% of people in the lowest income households who think they could improve their health mentioned stopping smoking, compared with 12% in the highest quintile. Very similar patterns were shown for smoking and NS-SEC and area deprivation.

The strong interactions between age, behaviour and socio-demographic group probably account for the patterns evident for some of the other health behaviours. For example, people in more advantaged income, NS-SEC and area deprivation groups were more likely to mention increasing their physical activity levels than their less advantaged counterparts. In contrast, weight control was less likely to be mentioned by people in the lowest income households, but did not vary notably by NS-SEC or area deprivation, while eating more healthily was not associated with any of these factors.

The main 2008 and 2009 SHeS reports found that alcohol consumption generally declined with household income for both men and women, though drinking at a hazardous level was more common in the lowest income households.[4,5] The complexity of the association between alcohol consumption and income probably accounts for the relative lack of a clear pattern by income in the proportions choosing cutting down on alcohol. However, once the sample is larger it would be useful to re-visit this and look at patterns among drinkers. **Tables 3.9a, 3.9b, 3.9c**

3.6 PARENTS' ABILITY TO INFLUENCE THEIR CHILDREN'S HEALTH

Parents or guardians of children aged under 16 who were also interviewed as part of the main SHeS were asked if there was anything they felt they could do to make their children's lives healthier. As parents comprise a smaller proportion of the sample the potential for this analysis is more limited and is exploratory at this stage. In future years it will be possible to combine data across more years and yield a larger sample of parents and explore differences by socio-demographic group or children's health status.

Table 3.10 shows that over half (55%) of parents thought they could make their children's lives healthier while 42%, said their children were already healthy. Just 1% said they did not want to and 2% said it would be too difficult.

Table 3.10

The 55% of parents who said they could make a difference were asked to pick up to three specific steps they could take. Table 3.11 shows that helping them to eat more healthily (67%), helping them to be more active (47%) and ensuring they get lots of praise and encouragement (30%) were the most popular options. In contrast, watching their weight (15%) was the least popular. Many parents choosing the diet and activity options might have done so with their children's weight in mind. Although, as will shown be in Chapter 4, parents are not very good at recognising that their children are overweight. The lower proportions who said discouraging smoking (24%) and developing a healthy attitude to drinking (18%) might be related to the fact that these are more likely to be things that parents of older children would prioritise, whereas the more commonly chosen options are of relevance across childhood. This can be explored further when the sample is big enough to allow analysis by children's age.

Table 3.11

3.7 CONCLUSIONS

The fact that a majority of adults in Scotland think they have either very or fairly healthy lives could pose quite a challenge when it comes to health promotion. However, there is also widespread recognition that lives could be healthier, and that individuals can influence their health. In particular, a majority of – though not all – smokers, harmful drinkers, people with poor diets, low activity levels and obese people recognise that they could improve their health by tackling these issues. The challenges therefore appear to be two-fold: firstly, some people with unhealthy lifestyles still need to recognise that they could take steps to improve their health. Secondly, the majority of people who do recognise that improvements could be made need to make the transition to actually taking steps to change their lives. Chapters 4-8 of this report explore people's motivations to improve aspects of their health and lifestyles, and the barriers they face to doing so, in more depth.

Parents are clearly aware of messages about the importance of children having active lives and healthy diets. However, many parents think their children's lives are healthy and not in need of specific improvements. When the sample is big enough, further analysis of parents' attitudes in relation to their children's health could be helpful.

References and notes

[1] Given, L. (2009). Chapter 1: General Health and Mental Wellbeing. In Bromley, C., Bradshaw, P., and Given, L. *The Scottish Health Survey 2008, Volume 1: Main Report*. Edinburgh: Scottish Government.

[2] Men who drank more than 21 and up to 50 units a week, and women who drank more than 14 and up to 35 units were classified as hazardous drinkers. Men who drank more than 50 units, and women who drank more than 35, were classified as harmful drinkers.

[3] These additional analyses are not presented in the tables at the end of the chapter. The tables are available on request from the Scottish Centre for Social Research. The raw data are also available from the UK Data Archive.

[4] Reid, S. (2009). Chapter 4: Alcohol Consumption. In Bromley, C., Bradshaw, P., and Given, L. *The Scottish Health Survey 2008, Volume 1: Main Report*. Edinburgh: Scottish Government.

[5] Sharp, C. (2010). Chapter 4: Alcohol Consumption. In Bromley, C., Given, L., and Ormston, R. *The Scottish Health Survey 2009, Volume 1: Main Report*. Edinburgh: Scottish Government.

Table list

Table 3.1 Perceived ability to influence own health by age and sex

Aged 16 and over *2008, 2009, 2008/2009 combined*

Perceived ability to influence own health	Age				Total 2008/2009	Total 2008	Total 2009
	16-34	35-54	55-74	75+			
	%	%	%	%	%	%	%
Men							
A great deal	59	50	48	40	52	55	49
95% C.I.	(52.1-66.4)	(45.3-55.1)	(42.6-52.5)	(32.4-47.8)	(48.3-54.9)	(50.1-59.3)	(44.2-53.6)
Quite a lot	35	39	46	48	40	37	43
95% C.I.	(28.6-42.3)	(34.5-44.4)	(41.2-50.9)	(40.5-56.1)	(37.3-43.7)	(33.0-42.0)	(38.6-47.6)
A little	5	9	4	10	7	7	6
95% C.I.	(2.7-8.4)	(6.9-12.5)	(2.6-6.9)	(5.8-16.2)	(5.3-8.2)	(5.2-9.6)	(4.7-8.7)
None at all	1	1	2	2	1	1	2
95% C.I.	(0.1-3.0)	(0.5-2.4)	(1.2-4.2)	(0.8-4.8)	(0.8-2.1)	(0.4-1.6)	(1.0-3.1)
Women							
A great deal	55	61	52	38	55	54	54
95% C.I.	(49.2-60.2)	(56.8-65.2)	(47.5-56.1)	(32.5-44.8)	(52.0-57.1)	(50.6-58.1)	(50.7-57.8)
Quite a lot	41	32	40	51	39	38	40
95% C.I.	(35.5-46.6)	(28.5-36.2)	(35.6-44.0)	(45.1-57.8)	(36.1-41.1)	(34.4-41.3)	(36.2-43.3)
A little	4	6	8	7	6	7	6
95% C.I.	(2.4-6.5)	(4.3-8.4)	(6.0-10.5)	(4.4-11.2)	(5.0-7.4)	(5.1-8.8)	(4.3-7.1)
None at all	0	1	0	3	1	1	0
95% C.I.	(0.1-1.4)	(0.3-1.4)	(0.2-1.2)	(1.5-6.0)	(0.5-1.2)	(0.7-2.0)	(0.2-0.9)
All adults							
A great deal	57	56	50	39	53	55	52
95% C.I.	(52.6-61.5)	(52.5-59.1)	(46.6-52.9)	(34.2-44.0)	(51.0-55.2)	(51.6-57.5)	(48.7-54.6)
Quite a lot	38	36	43	50	39	38	41
95% C.I.	(33.7-42.5)	(32.6-38.9)	(39.7-45.9)	(45.2-55.2)	(37.5-41.5)	(34.8-40.5)	(38.5-44.1)
A little	4	8	6	8	6	7	6
95% C.I.	(3.0-6.4)	(6.0-9.6)	(4.8-7.9)	(5.7-11.4)	(5.5-7.3)	(5.6-8.4)	(4.9-7.3)
None at all	1	1	1	3	1	1	1
95% C.I.	(0.2-1.5)	(0.5-1.5)	(0.7-2.3)	(1.5-4.5)	(0.8-1.4)	(0.7-1.5)	(0.7-1.7)
Bases (weighted):							
Men	*567*	*665*	*485*	*132*	*1849*	*882*	*967*
Women	*556*	*719*	*531*	*207*	*2013*	*961*	*1053*
All adults	*1123*	*1384*	*1016*	*339*	*3862*	*1843*	*2020*
Bases (unweighted):							
Men	*301*	*601*	*565*	*193*	*1660*	*795*	*865*
Women	*465*	*700*	*729*	*305*	*2199*	*1047*	*1152*
All adults	*766*	*1301*	*1294*	*498*	*3859*	*1842*	*2017*

Table 3.2a Perceived ability to influence own health by equivalised household income quintile

Aged 16 and over *2008/2009 combined*

Perceived ability to influence own health	Equivalised annual household income quintile				
	1st (highest)	2nd	3rd	4th	5th (lowest)
	%	%	%	%	%
A great deal	66	57	57	46	37
95% C.I.	(62.0-70.6)	(52.8-61.7)	(52.6-61.9)	(40.7-50.7)	(32.0-41.6)
Quite a lot	31	39	37	46	46
95% C.I.	(27.0-35.6)	(34.4-43.4)	(32.4-41.3)	(40.8-50.3)	(41.6-51.4)
A little	2	3	5	7	14
95% C.I.	(1.1-3.9)	(2.2-5.4)	(3.6-7.9)	(5.2-9.7)	(11.4-18.2)
None at all	0	0	1	2	2
95% C.I.	(0.1-1.6)	(0.1-2.3)	(0.3-1.3)	(0.9-3.1)	(1.4-3.9)
Bases (weighted):	*798*	*750*	*683*	*602*	*587*
Bases (unweighted):	*699*	*702*	*659*	*652*	*722*

Table 3.2b Perceived ability to influence own health by NS-SEC of household reference person

Aged 16 and over *2008/2009 combined*

Perceived ability to influence own health	NS-SEC of household reference person				
	Managerial & professional	Intermediate	Small employers & own account workers	Lower supervisory & technical	Semi-routine and routine
	%	%	%	%	%
A great deal	63	58	48	49	43
95% C.I.	(59.4-65.8)	(52.2-63.9)	(40.9-55.6)	(43.0-55.5)	(39.4-46.7)
Quite a lot	34	36	47	43	44
95% C.I.	(31.3-37.6)	(30.1-41.4)	(39.5-54.0)	(37.2-49.5)	(40.3-47.5)
A little	3	5	4	7	11
95% C.I.	(1.8-3.7)	(3.3-8.3)	(2.0-7.4)	(4.6-10.4)	(9.0-13.4)
None at all	0	1	1	0	2
95% C.I.	(0.1-0.8)	(0.4-2.6)	(0.4-3.2)	(0.2-1.3)	(1.4-3.2)
Bases (weighted):	*1514*	*369*	*294*	*438*	*1177*
Bases (unweighted):	*1355*	*406*	*298*	*421*	*1301*

Table 3.2c Perceived ability to influence own health by Scottish Index of Multiple Deprivation quintile

Aged 16 and over *2008/2009 combined*

Perceived ability to influence own health	Scottish Index of Multiple Deprivation quintile				
	5th (least deprived)	4th	3rd	2nd	1st (most deprived)
	%	%	%	%	%
A great deal	59	59	55	49	43
95% C.I.	(54.3-63.8)	(54.6-63.2)	(50.3-59.2)	(44.0-53.3)	(38.5-47.9)
Quite a lot	37	37	39	42	43
95% C.I.	(32.8-42.4)	(32.5-40.8)	(34.3-43.1)	(38.1-46.8)	(38.4-47.4)
A little	3	4	6	8	12
95% C.I.	(1.9-5.2)	(2.5-5.6)	(4.1-7.7)	(5.6-10.0)	(9.6-15.3)
None at all	0	1	1	1	2
95% C.I.	(0.1-1.0)	(0.4-1.5)	(0.5-1.7)	(0.7-2.7)	(1.0-3.4)
Bases (weighted):	*766*	*861*	*727*	*771*	*738*
Bases (unweighted):	*638*	*842*	*792*	*774*	*813*

Table 3.3 Assessment of lifestyle by age and sex

Aged 16 and over *2008, 2009, 2008/2009 combined*

Assessment of lifestyle	Age				Total 2008/2009	Total 2008	Total 2009
	16-34	35-54	55-74	75+			
	%	%	%	%	%	%	%
Men							
Very healthy	12	10	16	21	13	15	12
95% C.I.	(8.4-17.3)	(7.1-13.5)	(13.1-20.3)	(15.2-27.9)	(11.1-15.3)	(11.7-17.9)	(9.3-14.7)
Fairly healthy	68	72	73	72	71	73	69
95% C.I.	(61.1-74.4)	(66.8-75.8)	(68.8-77.3)	(64.5-78.7)	(68.0-73.8)	(68.5-76.5)	(65.1-73.3)
Fairly unhealthy	18	18	9	6	14	12	17
95% C.I.	(12.4-24.3)	(14.2-21.5)	(6.9-12.1)	(2.5-11.7)	(12.2-17.1)	(8.9-14.8)	(13.8-21.1)
Very unhealthy	2	1	1	1	1	1	2
95% C.I.	(0.8-5.5)	(0.6-2.1)	(0.6-2.5)	(0.4-4.6)	(0.9-2.4)	(0.6-2.5)	(0.9-3.4)
Women							
Very healthy	11	10	19	22	14	14	14
95% C.I.	(7.8-15.9)	(8.1-13.3)	(15.5-22.0)	(17.5-27.5)	(12.3-15.8)	(11.9-16.7)	(11.6-16.4)
Fairly healthy	75	74	73	71	74	72	76
95% C.I.	(69.1-79.7)	(70.5-77.9)	(69.2-76.6)	(64.9-76.3)	(71.5-76.0)	(68.7-75.0)	(72.5-78.7)
Fairly unhealthy	14	13	8	6	11	13	9
95% C.I.	(9.8-18.4)	(10.3-16.3)	(5.8-10.6)	(3.6-10.0)	(9.4-13.0)	(10.3-15.4)	(7.4-12.0)
Very unhealthy	1	2	1	1	1	1	1
95% C.I.	(0.2-1.5)	(1.3-3.7)	(0.2-1.2)	(0.3-2.7)	(0.8-1.7)	(0.8-1.7)	(0.5-1.9)
All adults							
Very healthy	12	10	17	22	14	14	13
95% C.I.	(9.0-15.1)	(8.3-12.4)	(15.2-20.0)	(17.9-25.8)	(12.2-15.0)	(12.4-16.5)	(11.1-14.8)
Fairly healthy	71	73	73	71	72	72	73
95% C.I.	(67.0-75.4)	(70.1-75.8)	(70.4-75.8)	(66.8-75.6)	(70.6-74.2)	(69.7-74.8)	(70.2-75.0)
Fairly unhealthy	16	15	8	6	13	12	13
95% C.I.	(12.3-19.5)	(13.0-17.6)	(6.9-10.4)	(3.8-8.9)	(11.3-14.2)	(10.3-14.1)	(11.2-15.4)
Very unhealthy	1	2	1	1	1	1	1
95% C.I.	(0.6-2.9)	(1.1-2.5)	(0.5-1.5)	(0.5-2.5)	(0.9-1.8)	(0.9-2.0)	(0.8-2.2)
Bases (weighted):							
Men	*567*	*665*	*485*	*132*	*1849*	*882*	*967*
Women	*558*	*719*	*533*	*209*	*2018*	*963*	*1055*
All adults	*1125*	*1385*	*1018*	*341*	*3868*	*1845*	*2022*
Bases (unweighted):							
Men	*301*	*602*	*565*	*193*	*1661*	*795*	*866*
Women	*467*	*699*	*732*	*307*	*2205*	*1050*	*1155*
All adults	*768*	*1301*	*1297*	*500*	*3866*	*1845*	*2021*

Table 3.4a Assessment of lifestyle by equivalised household income quintile

Aged 16 and over *2008/2009 combined*

Assessment of lifestyle	Equivalised annual household income quintile				
	1st (highest)	2nd	3rd	4th	5th (lowest)
	%	%	%	%	%
Very healthy	17	12	12	11	11
95% C.I.	(13.5-20.5)	(9.3-15.0)	(8.8-15.0)	(8.2-13.4)	(8.7-14.5)
Fairly healthy	74	77	72	76	64
95% C.I.	(69.4-77.5)	(72.7-80.2)	(67.0-76.5)	(72.2-80.2)	(59.2-69.0)
Fairly unhealthy	9	11	16	11	22
95% C.I.	(7.0-12.3)	(8.0-13.9)	(11.7-20.3)	(7.9-14.2)	(17.7-26.8)
Very unhealthy	0	1	1	2	3
95% C.I.	(0.1-1.1)	(0.3-2.8)	(0.4-1.8)	(1.2-5.1)	(1.7-4.0)
Bases (weighted):	*798*	*750*	*686*	*602*	*588*
Bases (unweighted):	*699*	*702*	*661*	*653*	*723*

Table 3.4b Assessment of lifestyle by NS-SEC of household reference person

Aged 16 and over *2008/2009 combined*

Assessment of lifestyle	NS-SEC of household reference person				
	Managerial & professional	Intermediate	Small employers & own account workers	Lower supervisory & technical	Semi-routine and routine
	%	%	%	%	%
Very healthy	16	15	12	15	9
95% C.I.	(13.8-18.6)	(11.1-20.0)	(8.1-16.6)	(11.4-20.3)	(7.4-11.2)
Fairly healthy	73	71	73	70	73
95% C.I.	(70.4-76.1)	(65.4-76.7)	(65.5-79.5)	(63.7-75.1)	(70.1-76.4)
Fairly unhealthy	10	11	13	14	16
95% C.I.	(8.0-12.4)	(7.9-16.3)	(8.0-21.3)	(10.6-19.1)	(13.3-19.0)
Very unhealthy	1	2	2	1	2
95% C.I.	(0.3-1.2)	(0.8-6.0)	(0.7-4.8)	(0.2-2.1)	(1.0-2.5)
Bases (weighted):	*1515*	*370*	*297*	*438*	*1178*
Bases (unweighted):	*1356*	*407*	*301*	*421*	*1303*

Table 3.4c Assessment of lifestyle by Scottish Index of Multiple Deprivation quintile

Aged 16 and over *2008/2009 combined*

Assessment of lifestyle	Scottish Index of Multiple Deprivation quintile				
	5th (least deprived)	4th	3rd	2nd	1st (most deprived)
	%	%	%	%	%
Very healthy	18	16	12	11	10
95% C.I.	(14.8-21.6)	(13.3-19.6)	(9.9-15.6)	(8.7-14.1)	(7.1-12.7)
Fairly healthy	73	74	74	70	70
95% C.I.	(68.8-77.2)	(70.6-78.0)	(70.1-78.3)	(66.0-74.3)	(65.3-73.5)
Fairly unhealthy	8	9	12	17	18
95% C.I.	(6.0-11.8)	(6.5-12.0)	(9.5-16.0)	(13.3-20.6)	(14.7-21.4)
Very unhealthy	0	0	1	2	3
95% C.I.	(0.1-1.1)	(0.1-1.6)	(0.4-1.5)	(1.0-3.5)	(1.9-5.1)
Bases (weighted):	*766*	*862*	*728*	*771*	*740*
Bases (unweighted):	*639*	*844*	*795*	*774*	*814*

Table 3.5 Ability to make own life healthier by sex and age

Aged 16 and over *2008, 2009, 2008/2009 combined*

Ability to make own life healthier	Age				Total 2008/2009	Total 2008	Total 2009
	16-34	35-54	55-74	75+			
	%	%	%	%	%	%	%
Men							
Yes	88	87	68	30	78	75	81
95% C.I.	(82.5-91.8)	(83.6-90.2)	(63.2-72.0)	(23.4-38.5)	(75.8-80.6)	(71.5-78.9)	(77.5-83.7)
No, already lead a healthy life	10	9	22	37	15	16	13
95% C.I.	(6.9-15.4)	(6.1-11.9)	(18.0-25.9)	(29.5-45.6)	(12.7-16.8)	(13.1-19.4)	(10.8-16.2)
No, don't want to make changes	2	2	5	18	4	5	3
95% C.I.	(0.5-5.7)	(0.8-3.7)	(3.7-7.6)	(13.0-25.0)	(2.9-5.0)	(3.4-6.7)	(2.0-4.9)
No, too difficult to do anything	-	2	5	14	3	4	3
95% C.I.	-	(1.3-4.3)	(3.6-7.6)	(9.3-21.0)	(2.5-4.3)	(2.6-5.5)	(1.8-4.2)
Women							
Yes	91	87	66	32	77	76	77
95% C.I.	(86.9-93.3)	(83.7-89.5)	(61.9-69.9)	(25.8-38.1)	(74.6-78.6)	(73.0-78.6)	(74.3-80.0)
No, already lead a healthy life	7	8	21	42	15	15	15
95% C.I.	(5.0-10.8)	(6.1-11.1)	(17.8-24.5)	(35.6-47.9)	(13.2-16.5)	(12.9-17.6)	(12.5-17.2)
No, don't want to make changes	2	3	6	12	4	5	4
95% C.I.	(0.7-3.8)	(1.9-4.9)	(4.6-8.6)	(8.5-16.6)	(3.6-5.5)	(3.7-6.6)	(3.0-5.5)
No, too difficult to do anything	0	2	7	15	4	4	4
95% C.I.	(0.1-1.2)	(1.1-3.1)	(4.8-9.2)	(11.0-19.3)	(3.3-5.0)	(3.1-5.4)	(3.0-5.4)
All adults							
Yes	89	87	67	31	77	76	79
95% C.I.	(86.1-91.7)	(84.7-89.1)	(63.7-69.8)	(26.7-36.1)	(75.8-79.0)	(73.3-77.9)	(76.6-81.1)
No, already lead a healthy life	9	8	21	40	15	16	14
95% C.I.	(6.6-11.8)	(6.7-10.5)	(18.8-24.1)	(35.2-44.9)	(13.4-16.1)	(13.7-17.6)	(12.3-16.0)
No, don't want to make changes	2	2	6	14	4	5	4
95% C.I.	(0.8-3.6)	(1.6-3.6)	(4.6-7.4)	(11.4-18.0)	(3.5-4.9)	(3.9-6.1)	(2.8-4.7)
No, too difficult to do anything	0	2	6	14	4	4	3
95% C.I.	(0.1-0.6)	(1.4-3.2)	(4.7-7.7)	(11.4-18.2)	(3.1-4.3)	(3.1-5.0)	(2.7-4.4)
Bases (weighted):							
Men	*565*	*663*	*485*	*131*	*1844*	*879*	*965*
Women	*557*	*718*	*530*	*209*	*2014*	*961*	*1053*
All adults	*1123*	*1381*	*1015*	*340*	*3859*	*1840*	*2018*
Bases (unweighted):							
Men	*300*	*600*	*565*	*191*	*1656*	*792*	*864*
Women	*466*	*699*	*728*	*306*	*2199*	*1046*	*1153*
All adults	*766*	*1299*	*1293*	*497*	*3855*	*1838*	*2017*

Table 3.6a Ability to make own life healthier by equivalised household income quintile

Aged 16 and over *2008/2009 combined*

Ability to make own life healthier	Equivalised annual household income quintile				
	1st (highest)	2nd	3rd	4th	5th (lowest)
	%	%	%	%	%
Yes	88	85	78	70	72
95% C.I.	(84.6-90.2)	(81.6-87.8)	(73.6-81.1)	(65.4-74.0)	(67.4-76.1)
No, already lead a healthy life	11	11	15	19	15
95% C.I.	(8.5-14.0)	(8.5-14.0)	(12.1-19.1)	(15.2-22.7)	(11.8-18.3)
No, don't want to make changes	1	3	3	7	6
95% C.I.	(0.4-1.7)	(1.8-4.6)	(2.3-4.9)	(4.8-8.8)	(4.5-9.2)
No, too difficult to do anything	0	1	4	5	7
95% C.I.	(0.2-1.2)	(0.6-2.3)	(2.6-5.5)	(3.5-7.1)	(5.0-9.5)
Bases (weighted):	*798*	*750*	*682*	*600*	*585*
Bases (unweighted):	*699*	*702*	*657*	*651*	*719*

Table 3.6b Ability to make own life healthier by NS-SEC of household reference person

Aged 16 and over *2008/2009 combined*

Ability to make own life healthier	NS-SEC of household reference person				
	Managerial & professional	Intermediate	Small employers & own account workers	Lower supervisory & technical	Semi-routine and routine
	%	%	%	%	%
Yes	84	78	72	72	73
95% C.I.	(81.7-86.0)	(72.7-82.3)	(65.8-78.0)	(66.6-76.8)	(69.4-75.4)
No, already lead a healthy life	13	14	19	18	16
95% C.I.	(10.7-14.6)	(10.7-18.8)	(14.1-24.6)	(13.7-22.4)	(13.3-18.2)
No, don't want to make changes	2	4	6	5	6
95% C.I.	(1.4-3.1)	(2.4-6.4)	(3.5-9.8)	(3.5-8.2)	(4.7-7.8)
No, too difficult to do anything	1	4	3	5	6
95% C.I.	(1.0-2.2)	(2.4-6.2)	(1.5-5.5)	(3.0-7.9)	(4.6-7.3)
Bases (weighted):	*1515*	*370*	*297*	*437*	*1171*
Bases (unweighted):	*1356*	*407*	*301*	*419*	*1295*

Table 3.6c Ability to make own life healthier by Scottish Index of Multiple Deprivation quintile

Aged 16 and over *2008/2009 combined*

Ability to make own life healthier	Scottish Index of Multiple Deprivation quintile				
	5th (least deprived)	4th	3rd	2nd	1st (most deprived)
	%	%	%	%	%
Yes	78	80	78	78	74
95% C.I.	(74.7-81.6)	(76.4-82.6)	(74.1-80.7)	(74.0-81.0)	(69.1-77.6)
No, already lead a healthy life	17	14	15	13	15
95% C.I.	(13.7-20.1)	(11.9-17.4)	(12.4-18.2)	(10.1-15.8)	(11.9-18.5)
No, don't want to make changes	3	3	4	5	6
95% C.I.	(1.6-3.9)	(2.3-5.0)	(2.5-5.4)	(3.7-6.8)	(4.4-9.0)
No, too difficult to do anything	2	3	4	5	5
95% C.I.	(1.6-3.8)	(1.6-3.8)	(2.6-5.2)	(3.3-6.6)	(3.8-7.1)
Bases (weighted):	*766*	*860*	*727*	*767*	*738*
Bases (unweighted):	*639*	*841*	*793*	*770*	*812*

Table 3.7 Reasons people feel it is too difficult to make their life healthier

Aged 16 and over who think it is too difficult to make their life healthier *2008/2009 combined*

Reasons it is too difficult to make life healthier	
	%
Health reasons	61
95% C.I.	(52.0-68.4)
Mobility reasons	20
95% C.I.	(14.0-27.1)
Old age	12
95% C.I.	(7.8-18.2)
Don't feel able to change	6
95% C.I.	(2.4-13.0)
Lack of money	4
95% C.I.	(1.9-7.9)
Lack of time due to work/family commitments	3
95% C.I.	(1.3-6.9)
Lack of will	2
95% C.I.	(0.8-4.8)
Bereavement	1
95% C.I.	(0.2-2.9)
Living environment (home or neighbourhood)	0
95% C.I.	(0.0-2.2)
Other people	0
95% C.I.	(0.0-0.3)
Other reasons	8
95% C.I.	(4.3-14.1)
Bases (weighted):	*141*
Bases (unweighted):	*192*

Table 3.8 Things that could be done to make life healthier by age and sex

Aged 16 and over who think they can make their life healthier *2008, 2009, 2008/2009 combined*

Things that could be done to make life healthier	Age				Total 2008/2009	Total 2008	Total 2009
	16-34	35-54	55-74	75+			
	%	%	%	%	%	%	%
Men							
Cut down smoking	5	7	5	10	6	8	5
95% C.I.	(2.9-10.0)	(4.8-9.5)	(3.0-9.2)	(4.1-22.0)	(4.6-8.0)	(5.2-11.1)	(3.3-6.6)
Stop smoking	26	24	17	10	23	24	22
95% C.I.	(20.3-33.4)	(20.3-29.1)	(12.9-22.4)	(4.5-20.6)	(20.1-26.2)	(20.4-29.1)	(18.1-26.5)
Cut down alcohol	25	23	22	15	23	25	21
95% C.I.	(18.8-33.0)	(18.6-27.7)	(17.3-27.4)	(7.7-28.1)	(20.2-26.6)	(20.4-29.7)	(17.3-25.5)
Stop drinking	9	6	2	1	6	7	6
95% C.I.	(4.8-15.0)	(4.3-9.5)	(1.2-4.7)	(0.1-6.0)	(4.4-8.4)	(4.3-10.3)	(3.4-8.9)
Be more active	55	57	51	46	55	53	56
95% C.I.	(47.9-62.8)	(51.6-62.0)	(45.3-57.3)	(32.0-61.1)	(51.1-58.5)	(48.5-58.4)	(50.4-60.9)
Control weight	23	35	47	27	33	32	35
95% C.I.	(16.9-29.5)	(30.3-40.3)	(41.2-53.8)	(16.6-40.2)	(30.1-36.8)	(27.8-36.8)	(30.2-39.9)
Eat more healthily	70	46	38	18	51	51	54
95% C.I.	(62.1-76.4)	(40.5-50.8)	(32.4-44.6)	(9.8-31.7)	(47.9-55.1)	(47.9-55.1)	(49.3-59.2)
Reduce stress	11	23	17	4	17	17	18
95% C.I.	(7.4-16.1)	(18.9-27.8)	(13.1-22.9)	(0.8-14.7)	(14.6-19.8)	(42.9-53.1)	(14.1-21.7)
None of these	1	1	2	16	1	1	2
95% C.I.	(0.5-3.3)	(0.1-3.2)	(0.6-3.6)	(7.2-31.6)	(0.8-2.4)	(0.6-2.9)	(0.8-3.1)
Women							
Cut down smoking	5	8	4	5	6	6	6
95% C.I.	(2.9-7.4)	(5.5-10.8)	(2.2-7.0)	(2.0-10.4)	(4.5-7.3)	(4.2-8.3)	(3.9-7.9)
Stop smoking	21	20	15	10	19	20	18
95% C.I.	(16.5-26.0)	(16.9-24.6)	(12.0-19.3)	(5.2-17.1)	(16.7-21.5)	(16.4-23.5)	(15.3-21.8)
Cut down alcohol	14	13	9	0	12	12	11
95% C.I.	(10.1-18.7)	(10.8-16.8)	(6.3-12.6)	(0.0-0.0)	(10.1-14.2)	(9.6-15.9)	(9.2-14.2)
Stop drinking	4	3	3	0	3	4	3
95% C.I.	(2.4-7.5)	(1.9-5.0)	(1.6-6.0)	(0.0-0.0)	(2.4-4.7)	(2.8-6.8)	(1.6-4.1)
Be more active	71	61	53	48	62	63	61
95% C.I.	(64.5-76.0)	(56.9-65.8)	(48.1-58.3)	(36.4-60.0)	(59.0-64.9)	(58.4-66.8)	(57.1-65.2)
Control weight	27	50	54	40	43	45	41
95% C.I.	(22.0-32.4)	(45.6-55.3)	(49.0-59.3)	(28.7-53.0)	(40.3-46.1)	(41.2-49.7)	(37.6-45.4)
Eat more healthily	59	45	37	26	47	45	49
95% C.I.	(53.2-65.3)	(40.8-49.8)	(31.9-42.0)	(16.2-37.9)	(44.0-50.3)	(40.3-49.3)	(44.9-53.6)
Reduce stress	23	20	15	10	19	20	19
95% C.I.	(18.3-28.1)	(16.2-23.7)	(12.0-19.7)	(5.0-20.1)	(17.0-22.0)	(17.0-23.8)	(15.3-22.7)
None of these	1	1	2	9	2	2	1
95% C.I.	(0.3-3.1)	(0.5-2.6)	(1.1-4.3)	(4.6-18.2)	(1.1-2.5)	(1.1-3.7)	(0.8-2.5)

Continued…

Table 3.8 - *Continued*

Aged 16 and over who think they can make their life healthier *2008, 2009, 2008/2009 combined*

Things that could be done to make life healthier	Age				Total 2008/2009	Total 2008	Total 2009
	16-34	35-54	55-74	75+			
	%	%	%	%	%	%	%
All adults							
Cut down smoking	5	7	5	7	6	7	5
95% C.I.	(3.4-7.5)	(5.7-9.3)	(3.1-6.8)	(3.6-11.9)	(4.9-7.1)	(5.2-8.8)	(4.0-6.6)
Stop smoking	24	22	16	10	21	22	20
95% C.I.	(19.7-27.8)	(19.6-25.4)	(13.4-19.4)	(6.1-15.3)	(19.0-22.9)	(19.4-24.8)	(17.6-22.9)
Cut down alcohol	20	18	15	6	17	18	16
95% C.I.	(15.7-24.0)	(15.4-20.9)	(12.5-18.4)	(2.9-11.5)	(15.6-19.4)	(15.6-21.3)	(14.0-18.8)
Stop drinking	6	5	3	0	5	5	4
95% C.I.	(4.1-9.9)	(3.4-6.4)	(1.7-4.5)	(0.0-2.3)	(3.7-6.0)	(4.0-7.5)	(2.8-5.9)
Be more active	63	59	52	47	59	58	59
95% C.I.	(58.2-67.7)	(55.7-62.6)	(48.5-56.1)	(38.2-56.7)	(56.2-60.8)	(55.1-61.4)	(55.2-61.9)
Control weight	25	43	51	35	38	39	38
95% C.I.	(20.8-29.1)	(39.6-46.6)	(46.8-55.1)	(26.7-44.6)	(36.2-40.7)	(36.0-42.2)	(35.1-41.4)
Eat more healthily	65	45	38	23	49	46	52
95% C.I.	(59.8-69.0)	(42.0-48.9)	(33.8-41.5)	(15.8-31.7)	(46.8-51.6)	(42.9-49.7)	(48.4-55.0)
Reduce stress	17	21	16	8	18	19	18
95% C.I.	(13.9-20.5)	(18.5-24.4)	(13.5-19.8)	(4.1-14.5)	(16.5-20.2)	(16.3-21.2)	(15.6-21.0)
None of these	1	1	2	12	2	2	1
95% C.I.	(0.5-2.3)	(0.4-1.8)	(1.1-3.2)	(7.0-19.6)	(1.1-2.1)	(1.1-2.7)	(0.9-2.3)
Bases (weighted):							
Men	*498*	*581*	*329*	*41*	*1449*	*665*	*782*
Women	*505*	*624*	*352*	*66*	*1547*	*732*	*814*
All adults	*1004*	*1205*	*680*	*107*	*2996*	*1397*	*1596*
Bases (unweighted):							
Men	*266*	*526*	*365*	*53*	*1210*	*562*	*648*
Women	*420*	*602*	*478*	*90*	*1590*	*747*	*843*
All adults	*686*	*1128*	*843*	*143*	*2800*	*1309*	*1491*

Table 3.9a Things that could be done to make life healthier by equivalised household income quintile

Aged 16 and over who think they can make their life healthier *2008/2009 combined*

Things that could be done to make life healthier	Equivalised annual household income quintile				
	1st (highest)	2nd	3rd	4th	5th (lowest)
	%	%	%	%	%
Cut down smoking	4	2	8	7	11
95% C.I.	(2.4-6.4)	(1.1-4.3)	(5.2-10.8)	(4.4-10.8)	(7.9-14.4)
Stop smoking	12	21	21	24	35
95% C.I.	(9.6-16.1)	(17.1-25.4)	(16.6-26.2)	(19.1-29.3)	(29.5-41.1)
Cut down alcohol	21	22	17	8	16
95% C.I.	(17.2-24.4)	(17.8-26.3)	(12.9-22.9)	(5.5-12.3)	(11.7-20.8)
Stop drinking alcohol	5	2	4	5	8
95% C.I.	(3.0-7.1)	(1.2-4.5)	(2.2-5.9)	(2.2-10.2)	(4.8-12.4)
Be more physically active	69	59	63	55	46
95% C.I.	(64.9-73.7)	(54.5-63.8)	(57.7-68.8)	(48.8-60.3)	(39.9-51.6)
Control weight	39	42	39	46	30
95% C.I.	(34.1-43.5)	(37.6-47.1)	(33.5-44.5)	(40.5-52.4)	(25.4-36.0)
Eat more healthily	49	50	49	46	52
95% C.I.	(43.7-53.3)	(45.1-54.7)	(43.0-54.8)	(40.1-51.7)	(45.5-57.9)
Reduce stress	21	20	13	16	22
95% C.I.	(17.9-25.3)	(16.2-23.9)	(10.3-17.4)	(11.6-21.3)	(17.4-27.5)
Bases (weighted):	*700*	*637*	*531*	*420*	*424*
Bases (unweighted):	*601*	*573*	*486*	*423*	*482*

Table 3.9b Things that could be done to make life healthier by NS-SEC of household reference person

Aged 16 and over who think they can make their life healthier *2008/2009 combined*

Things that could be done to make life healthier	NS-SEC of household reference person				
	Managerial & professional	Intermediate	Small employers & own account workers	Lower supervisory & technical	Semi-routine and routine
	%	%	%	%	%
Cut down smoking	4	7	5	7	9
95% C.I.	(2.4-5.2)	(4.0-11.3)	(2.3-9.7)	(3.9-13.0)	(6.9-11.6)
Stop smoking	12	26	24	20	31
95% C.I.	(10.3-15.0)	(19.4-33.7)	(17.3-32.1)	(15.4-26.2)	(26.9-34.8)
Cut down alcohol	20	17	18	16	14
95% C.I.	(17.4-23.4)	(12.3-24.2)	(11.9-25.1)	(10.4-22.8)	(11.2-18.2)
Stop drinking alcohol	3	4	7	6	6
95% C.I.	(2.0-4.5)	(1.4-11.0)	(3.4-12.8)	(3.3-12.2)	(4.1-9.3)
Be more physically active	67	59	48	53	50
95% C.I.	(64.0-70.7)	(51.1-65.9)	(39.5-57.2)	(45.4-60.0)	(45.7-54.2)
Control weight	40	37	42	40	36
95% C.I.	(36.1-43.4)	(30.6-44.2)	(33.4-50.7)	(33.5-47.3)	(31.7-40.0)
Eat more healthily	50	52	45	51	48
95% C.I.	(46.0-53.5)	(44.9-59.2)	(36.1-54.0)	(43.7-58.6)	(43.2-52.0)
Reduce stress	22	15	16	17	16
95% C.I.	(18.8-24.8)	(10.2-20.6)	(11.1-22.6)	(12.0-23.4)	(12.9-18.8)
Bases (weighted):	*1272*	*288*	*215*	*316*	*854*
Bases (unweighted):	*1080*	*296*	*204*	*290*	*877*

Table 3.9c Things that could be done to make life healthier by Scottish Index of Multiple Deprivation quintile

Aged 16 and over who think they can make their life healthier *2008/2009 combined*

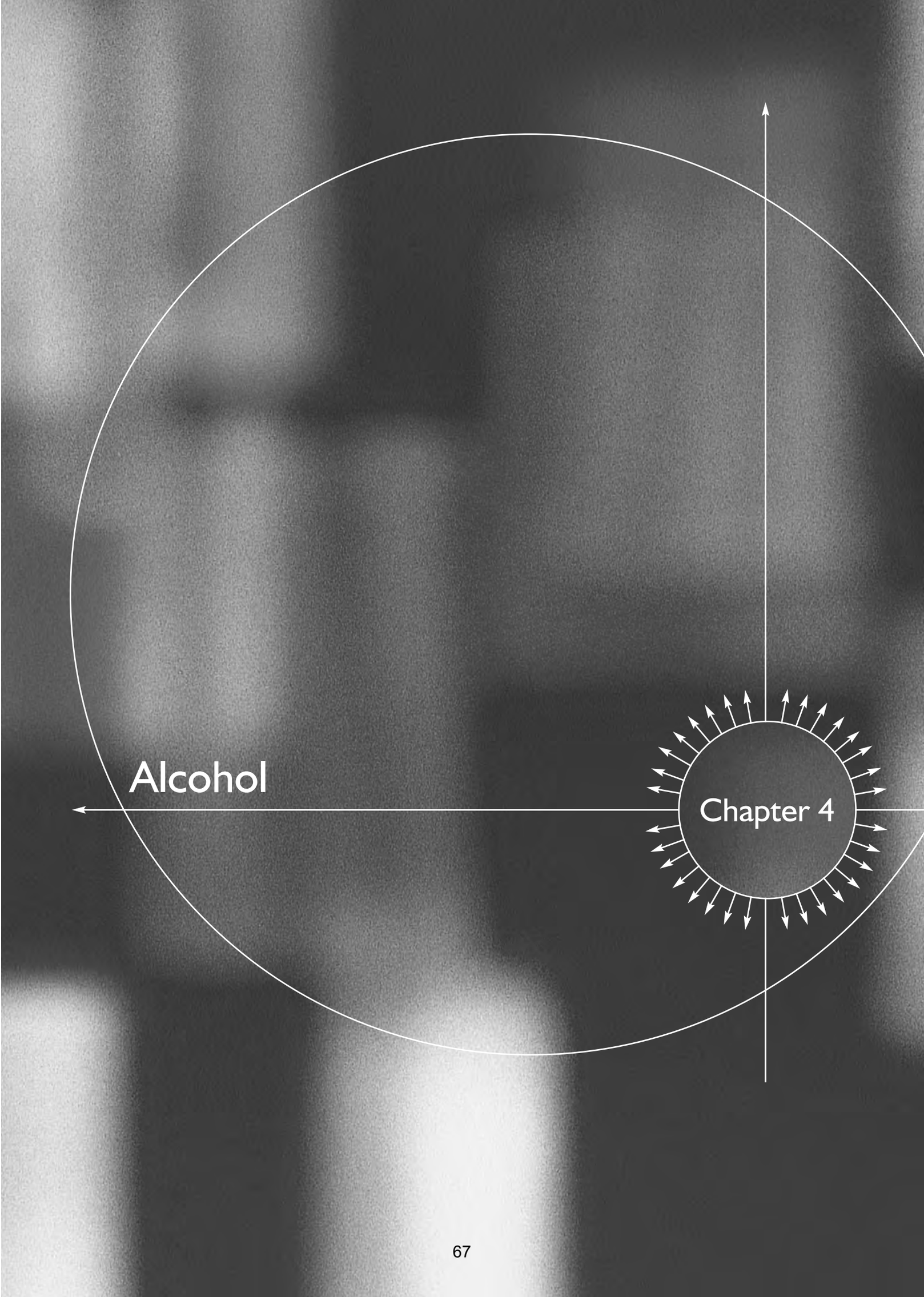
Things that could be done to make life healthier	Scottish Index of Multiple Deprivation quintile				
	5th (least deprived)	4th	3rd	2nd	1st (most deprived)
	%	%	%	%	%
Cut down smoking	2	4	7	5	11
95% C.I.	(1.0-3.9)	(2.6-6.7)	(4.7-11.3)	(3.6-8.0)	(8.7-14.9)
Stop smoking	11	14	23	29	29
95% C.I.	(8.0-15.1)	(10.8-17.5)	(18.7-28.2)	(24.6-34.7)	(24.9-33.8)
Cut down alcohol	19	20	19	13	17
95% C.I.	(14.8-22.9)	(15.4-24.4)	(14.3-23.8)	(10.0-17.2)	(13.4-21.6)
Stop drinking alcohol	4	6	4	4	5
95% C.I.	(2.1-6.8)	(3.4-9.3)	(2.6-7.5)	(2.4-7.0)	(3.1-9.0)
Be more physically active	66	61	54	56	55
95% C.I.	(61.0-71.4)	(56.1-65.4)	(48.6-59.4)	(50.2-60.7)	(50.0-59.8)
Control weight	38	41	38	37	37
95% C.I.	(32.7-43.2)	(36.1-45.8)	(33.3-43.4)	(32.5-42.5)	(32.3-42.8)
Eat more healthily	48	50	47	46	56
95% C.I.	(42.3-53.4)	(44.6-54.8)	(41.4-52.5)	(40.6-51.8)	(51.0-60.8)
Reduce stress	20	20	16	18	18
95% C.I.	(15.7-24.4)	(16.2-23.8)	(12.8-20.4)	(13.8-22.5)	(14.1-21.6)
Bases (weighted):	*601*	*688*	*565*	*598*	*545*
Bases (unweighted):	*461*	*625*	*571*	*561*	*582*

Table 3.10 Parents' ability to make their children's lives healthier

Parents of children aged 0-15	*2008/2009 combined*
Ability to make children's lives healthier	
	%
Yes	55
95% C.I.	(51.4-59.5)
No, they already lead a healthy life	42
95% C.I.	(37.5-45.7)
No, don't want to make changes to their life/lives	1
95% C.I.	(0.5-2.3)
No, too difficult to do anything	2
95% C.I.	(0.8-4.6)
Bases (weighted):	*1003*
Bases (unweighted):	*853*

Table 3.11 Things that could be done to make children's lives healthier

Parents of children aged 0-15 who think they can make their children's lives healthier	*2008/2009 combined*
Things that could be done	
	%
Cut down or stop my smoking	16
95% C.I.	(12.5-20.6)
Discourage them from smoking	24
95% C.I.	(19.7-29.5)
Help them to develop a sensible attitude to drinking	18
95% C.I.	(13.8-22.1)
Help them to be more physically active	47
95% C.I.	(41.0-52.1)
Watch their weight	15
95% C.I.	(11.4-18.8)
Help them to eat more healthily	67
95% C.I.	(61.9-72.2)
Make sure they get lots of praise and encouragement	30
95% C.I.	(25.4-35.3)
None of these	1
95% C.I.	(0.3-3.5)
Other	2
95% C.I.	(1.0-4.6)
Bases (weighted):	*558*
Bases (unweighted):	*488*


Alcohol
Chapter 4

4 ALCOHOL

SUMMARY

- In 2008/2009, most adults described their own alcohol consumption in moderate terms, with only around one in twenty describing themselves as either a 'quite' or a 'very heavy' drinker.
- Although the perceptions of people who drank within the daily or weekly recommended guidelines were largely in line with their actual drinking behaviour, the data indicate that those who exceed recommended limits may underestimate their own level of consumption – for example, 19% of this group described themselves as a very light or occasional drinker and a further 32% as a light but regular drinker.
- Overall, there was a high level of awareness of the concepts of both alcohol units and daily limits – for example, only 6% of adults had not heard of units at all while a further 3% had heard of units but not daily limits.
- But it was much less common for people to know what the recommended daily limits actually are – in fact, only 18% knew the correct daily limit for men (4 units) while 14% did so for women (3 units).
- 42% of adults underestimated the recommended daily limits for men and 52% did so for women. Many people underestimated the limits by one unit. The fact that the advice is often expressed using a range (no more than 3-4 units for men/2-3 for women) might explain this high level of underestimation.
- Women were significantly less likely to know the current daily limit for both men and women, as were those aged 75 and over.
- Higher levels of consumption appeared to be related to somewhat higher levels of knowledge about the limits for both men and women. For example, 25% of men who drank outwith the daily limits knew the recommended daily limit for men, compared with 15% of those who drank within the limit.
- Only around 3 people in 100 knew the recommended limits for single session (or binge) drinking. There was a marked tendency to underestimate these limits, and the data suggest there may be some confusion between advice on upper limits for a single session and guidelines about regular daily consumption.
- Awareness and understanding of session limits was particularly low among those in the oldest age groups.
- The recommendation to have some alcohol-free days each week was familiar to only around 4 in 10 adults (37%). There was greater overall awareness of the advice among those in higher income households and in managerial and professional households.
- Only a relatively small proportion (between 3% and 7%) had contemplated, attempted, or maintained a reduction in their alcohol consumption in the previous 12 months. A larger group (32%) drank outside the recommended limits but had not stopped or reduced the amount of alcohol consumed in the previous 12 months and did not intend to do so in the next 6 months.
- Around half of adults (52%) in had no intention to change but already drank within the recommended limits.

4.1 INTRODUCTION

The chapter begins by looking at how individuals see their own alcohol consumption and relates these self-perceptions to actual behaviour, using the extensive data collected in the main Scottish Health Survey (SHeS) interview. It goes on to explore public awareness and understanding of a number of key concepts, including alcohol units and recommended daily limits, binge drinking guidelines and recommended alcohol free days per week in relation to people's consumption, age, sex and socio-demographic group. The final section looks at people's motivations to stop drinking or reduce their consumption.

Estimates suggest that the annual costs to Scotland of excess alcohol consumption are as high as £2.25 billion, the equivalent of £500 per adult living in the country.[1] Scotland's unhealthy relationship with alcohol has been the focus of significant policy development in recent years. For example, new legislation has been introduced which, among other things, places limits on promotions within licensed premises and on the display of products in off-sales.

Alcohol consumption patterns vary across the population and campaigns targeted at the public reflect this. For example, messages aimed at young people have tended to focus on the negative consequences of excessive drinking on single occasions (binge drinking) with an emphasis on severe drunkenness (e.g. 'Don't let alcohol ruin a good night out'), suggestions to alternate soft drinks with alcohol, and reminders of the potential for unsafe or regretted sexual behaviour. In contrast, the messages about alcohol in the 'Take Life On' campaign focus on aspects related to more moderate consumption on a regular basis, such as knowledge of units, the calorie content of drinks, the recommendation to have two alcohol free days per week, and monitoring consumption levels at home during the week.

The questions in the Knowledge, Attitudes and Motivations to health (KAM) module are well placed to assess public awareness and understanding of some of these key messages, including the Chief Medical Officer's recommended weekly and daily consumption levels, and the advice about having some alcohol-free days.

4.2 PERCEPTIONS OF BEHAVIOUR: HOW DO PEOPLE SEE THEIR OWN ALCOHOL CONSUMPTION?

Most adults describe their own alcohol consumption in very moderate terms. In 2009, 39% saw themselves as a 'very light or occasional' drinker while a further 14% said they 'do not drink alcohol at all these days'. Around 1 in 5 described themselves as a 'light but regular' drinker, and a further 1 in 5 as a 'moderate' drinker. Only one person in twenty described themselves as either a 'quite' (4%) or a 'very heavy' (1%) drinker. Figures for 2008 were very similar (14% non-drinkers, 37% light or occasional, 21% light but regular, 22% moderate, 5% quite heavy, 1% very heavy).[2] **Table 4.1**

4.2.1 Perceived alcohol consumption by self-reported consumption

But are such self-perceptions accurate and reasonable? One of the advantages of including the KAM module within the main SHeS is that it

allows a direct comparison between people's own perceptions of their drinking level with the actual amounts recorded in the main interview. SHeS uses a series of questions to measure people's usual weekly consumption of alcohol and their daily consumption on their heaviest drinking day in the previous week.[3] We can therefore compare the views of those who drink within and outwith recommendations for daily or weekly consumption. The recommended sensible drinking guideline in the UK is that women should not regularly drink more than 2-3 units of alcohol per day and men should not regularly exceed 3-4 units per day. Over the course of a week, it is recommended that women and men should not exceed 14 units and 21 units respectively.

The first thing to note is that the perceptions of those who drank within these guidelines were largely in line with their actual drinking behaviour. In 2008/2009, the majority of those who drank within the daily and weekly unit guidelines considered themselves to be either a very light or occasional drinker (65%) or a light but regular drinker (18%).

However, the pattern was very different for those who drank more than is advised. Of those who exceed the daily or weekly unit recommendations, 19% described themselves as a very light or occasional drinker and a further 32% said they were a light but regular drinker. 39% said they were a moderate drinker, while just 10% said they were a quite or very heavy drinker. These findings clearly signal a disconnection between what those who exceed recommended limits view as 'heavy' drinking and their actual consumption levels. **Table 4.1**

4.2.2 Perceived alcohol consumption by age and sex

There were significant differences in men and women's assessments of their own drinking. Women were more likely than men to describe themselves as very light or occasional drinkers (43%, compared with 32% of men), and as non-drinkers (18% compared with 10%). In contrast, men were more likely than women to say they were moderate or quite heavy drinkers. This broadly reflects gender variations in actual weekly consumption levels – in 2009, 27% of men exceeded recommended weekly limits, compared with 19% of women.[3] Men's assessments of their own drinking varied relatively little by age. However, women aged 75 and over stood out as significantly more likely to describe themselves as non-drinkers (36%, compared with 14%-21% of younger women) and less likely to say they were moderate or heavy drinkers. Again, this reflects patterns in self-reported consumption. **Table 4.2**

4.2.3 Perceived alcohol consumption by socio-demographic group

Tables 4.3a-c present perceptions of alcohol consumption by household income, NS-SEC and SIMD (these measures are all explained in full in Chapter 2). The clearest differences were in the proportions of non-drinkers – people in lower income households, semi-routine and routine occupations, and in the most deprived quintiles were more likely to say they were non-drinkers. The pattern is clearest with respect to income, where the proportion of non-drinkers increased from 6% of those in the

two highest income quintiles, to 12% in the middle quintile, 19% in the fourth quintile and 26% in the lowest income quintile. However, there were generally few differences by income, NS-SEC or SIMD in the proportions describing themselves as moderate or heavy drinkers.

Tables 4.3a, 4.3b, 4.3c

4.3 KNOWLEDGE: AWARENESS OF DAILY UNITS

Public health campaigns in Scotland and across the UK have attempted to increase awareness of the unit strength of typical alcoholic drinks as well as the daily recommended units. Some alcohol products now also have their unit content listed in an attempt to help drinkers make informed choices about their consumption. The success of such strategies requires people to progress through at least three stages: they need to understand the concept of measuring alcohol in units; to know the number of daily units recommended for their sex; and to apply that knowledge in relation to their drinking behaviour. This section examines evidence from the KAM module in relation to the first two of those stages.

In order to assess the level of awareness of current advice, in relation to both men's drinking and women's drinking, participants were first asked whether they had heard of the concept of measuring alcohol in units. Those who had heard of alcohol units were then asked whether they had heard of the government's advice to limit daily alcohol consumption and, if so, what they thought the daily maximum recommended number of units were (for both men and women). We should acknowledge that the advice is commonly presented using the following ranges: no more than 3 to 4 units for men and 2 to 3 units for women. As will be shown below, asking people about the maximum point of this range, rather than the range itself, might have caused participants confusion and resulted in an underestimate of the true extent of knowledge of the daily recommendations.

4.3.1 Awareness of the concept of alcohol units

Overall, there was a high level of awareness of the concepts of both alcohol units and daily limits. In 2008/2009, 6% of adults had not heard of units at all, and a further 3% said they had not heard about the recommendation to limit alcohol intake to a certain number of units per day. Those aged 75 and over were the most likely to have not heard of units, as were people who do not drink alcohol, those in the lowest income households, in semi-routine and routine households and in the most deprived areas. These patterns are all likely to reflect the older age profile of these groups and the fact they are the most likely to be non-drinkers. The main 2009 SHeS report shows that 20% of men and 31% of women aged 75 and over do not drink.[3]

Tables 4.4, 4.8a, 4.8b, and 4.8c

4.3.2 Awareness of recommended daily units

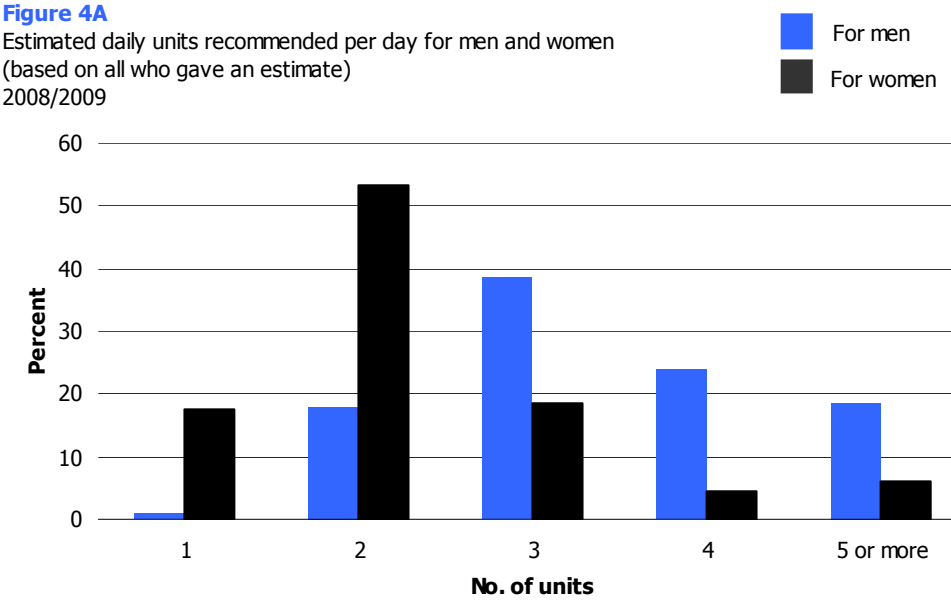
Although familiarity with the basic idea of drinking units and daily limits is high, this does not necessarily translate into exact knowledge about what those limits are. The summary table below shows that, in 2008/2009, just 18% of adults actually knew the recommended limit for

men, while 14% did so for women. A further 17% knew that advice about daily drinking existed, but could not say how many units it referred to.

Adults' awareness of daily drinking guidelines (2008/2009)	Awareness of recommended units for men	Awareness of recommended units for women
	%	%
Underestimated recommended units	42	52
Knew daily recommended units	18	14
Overestimated recommended units	13	8
Knew limits exist but not what they are	17	17
Had heard of units but not this recommendation	3	3
Had not heard of alcohol units	6	6

As noted above, the fact that the advice is expressed in ranges for men and women might explain why the proportion who correctly knew the limits were 4 for men and 3 for women was quite low, and why people were far more likely to underestimate the daily limits than to overestimate them. As Figure 4A shows, the most common answer given by those who provided an estimate was 3 units for men, and for 2 for women, the lower ends of each of the ranges used in the recommendations. **Figure 4A**

Figure 4A
Estimated daily units recommended per day for men and women (based on all who gave an estimate)
2008/2009



Awareness levels of the limits for men and women are now explored in greater detail.

4.3.3 Awareness of recommended daily units for men

Table 4.4 shows that, perhaps unsurprisingly, women were significantly less likely than men to know the current daily limit of 4 units for men (15% versus 21%).

As would be expected from the pattern in Figure 4A, the most common answer given by both men (43%) and women (41%) was to underestimate the daily recommended limits. Far fewer (15% of men and 12% of women) overestimated what is recommended. The question of whether or not this pattern is problematic is returned to in the conclusion.

Although it might seem less important for women to know the recommended daily limits for men (and vice versa), findings from the main SHeS interview suggest that the most usual drinking companion for most drinkers from the age of 25 is their partner[4] The potential for heterosexual partners to influence each other's drinking behaviour should not therefore be discounted.

We have already seen that those aged 75 and over were more likely to be completely unfamiliar with concept of units. Not surprisingly, then, they were also less likely to know the correct limits for male drinkers. For example, 18%-23% of men aged under 75 knew the correct limit compared with 11% of men aged 75 and over. Older women were also less likely than younger women to know the recommended limits for men. **Table 4.4**

4.3.4 Awareness of daily units for men by daily alcohol consumption among men

The main SHeS interview collects information about the amount of alcohol people report having consumed on the heaviest drinking day in the previous week. Table 4.5 compares knowledge of the guidelines for men by their alcohol consumption. The discussion focuses on three groups of men: those who drank more than the recommended number of units on their heaviest drinking day in the past week; those who drank within the guidelines; and those who had not drunk in the past week (but who do drink alcohol sometimes).

Men who drank outwith the recommended limits on their heaviest drinking day in the past week were more likely to know the limits than men who drank within them (25% versus 15%). Both groups were equally likely to over and underestimate the recommended limits, so the difference in their knowledge was largely due to men who drank within the limits having lower awareness of the recommendations, and of units in general. Higher levels of consumption therefore appear related to higher levels of knowledge. **Table 4.5**

4.3.5 Awareness of recommended daily units for women

Knowledge of the recommended daily limit for women (3 units) was broadly similar to that for men, although people were slightly more likely to underestimate, and less likely to overestimate, what is recommended.[5]

We saw above that men were more knowledgeable than women about the recommended limits for male drinkers. Interestingly, however, the converse was not true as women were also significantly less likely than

men to be aware of the daily recommendations for women (10% versus 17%). Furthermore, 19% of women were aware that the government recommends limiting daily alcohol intake, but did not know the actual limit, compared with 14% of men.

Variations in awareness of the recommended daily limits for women by age were similar to those for men. For example, women aged 75 and over were the least likely to know the daily unit recommendations for women (6% compared with 9%-12% of women aged 16-74). The same pattern was evident among men. Men and women aged 75 or over were also the most likely to say that they knew daily limits for women existed but did not know what they were. **Table 4.6**

4.3.6 Awareness of daily units for women by daily alcohol consumption among women

Women who drank more than the recommended limits on their heaviest drinking day were more likely to know the limits than women who either drank within them, or had not drunk in the past week (14% versus 8%). Women who drank outwith the limits were also more likely to underestimate them than those who drank within them, or had not drunk in the past week (64% versus 55% and 54%). Among women, higher levels of consumption appear to be related to both higher levels of knowledge, and a greater propensity to underestimate what is advised. **Table 4.7**

4.3.7 Awareness of recommended daily units for own sex by socio-demographic group

To explore the associations between awareness and household income, NS-SEC and area deprivation, this section focuses on people's awareness and understanding of the daily drinking guidelines for their own sex only. On the whole, the proportion who correctly identified the recommendations for their sex did not vary greatly by socio-demographic group. In contrast, people in the most advantaged social and economic circumstances were more likely to underestimate the number of units advised than people in other groups. However, the proportions who overestimated them did not vary notably. In future years, when the sample is bigger, it might be useful to explore the association between knowledge, consumption and socio-demographic group. **Tables 4.8a, 4.8b and 4.8c**

4.4 KNOWLEDGE: AWARENESS OF BINGE DRINKING GUIDELINES

Although there is no standard definition of 'binge' drinking the Scottish Government advises men not to consume more than 8, and women not more than 6, units of alcohol in a single session. This advice was described to participants as not drinking '*more than a certain number of units in a single session, for example over one lunchtime or in an evening*'. Participants were asked if they had ever heard of this advice and, if so, how many units they thought was the maximum recommended in a single session for men and for

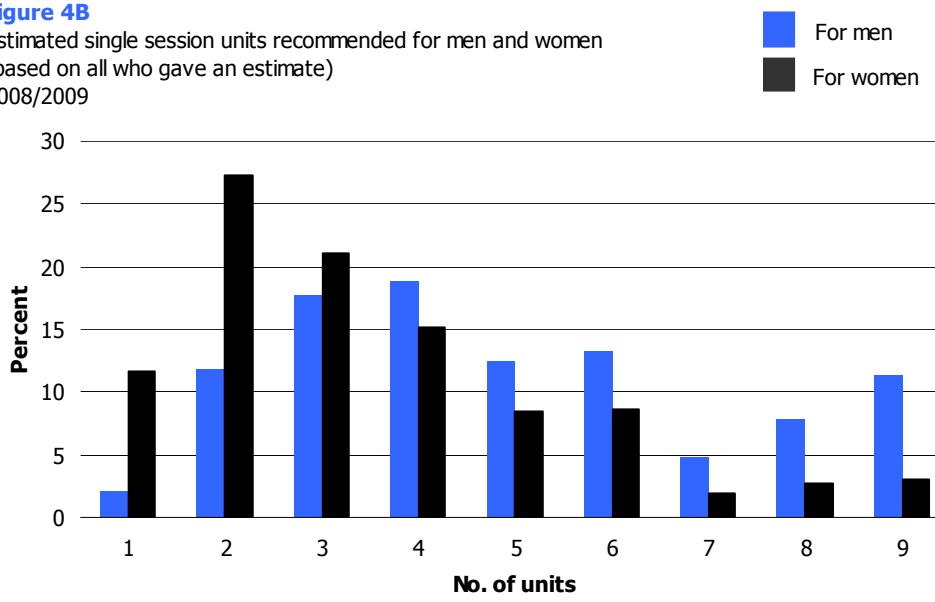
women. As above, participants were categorised according to their knowledge of either units or the recommended limits.

Tables 4.9, 4.10 and the summary below, show that 38% of adults in 2008/2009 had not heard of the advice for single sessions, and very few (3%) correctly knew the number of units recommended per session for either men or women. The individual figures for 2008 and 2009 were very similar (the increase in the proportion who said they had not heard of the advice from 35% in 2008 to 40% in 2009 was not significant). **Table 4.9 and 4.10**

Adults' awareness of single session advice (2008/2009)	**For men**	**For women**
	%	**%**
Below recommended units	32	34
Knows recommended units for session	3	3
Above recommended units	4	3
Knows limits exist but not what they are	17	16
Has heard of units but not this recommendation	38	38
Has not heard of alcohol units	6	6

Figure 4B presents the unit estimates given by people who said they knew of the single session advice. The key point to note is that the most common answers given for men were 3 or 4 units, and for women were 2 or 3 units. This suggests that the advice about upper limits for a single session has perhaps been confused with the advice about regular daily consumption. **Figure 4B**

Figure 4B
Estimated single session units recommended for men and women (based on all who gave an estimate)
2008/2009



4.4.1 Awareness of recommended single session units by age and sex

Awareness levels about single session limits for men and women were very similar so the broad patterns described here relate to both sets of data. In addition, men's and women's knowledge levels were very similar so only the patterns across age groups among all adults are discussed.

As noted above, the most common answer given was that they had not heard of the advice about single sessions and this did not vary notably by age. Those aged 75 and over were the most likely to say they had either not heard of units, or had heard the single session advice but did not know what it was. As a consequence, only a minority of people in this age group gave an actual estimate of the units advised, and – in common with people of all ages – in most cases this was an underestimate.

The very low proportion who correctly knew the recommendation for men declined with age (from 4% among those aged 16 to 54 to 1% of those aged 55 and over), and the same was true for the recommendation for women (5% and 1%, respectively).

Tables 4.9 and 4.10

4.4.2 Awareness of recommended single session units for own sex by socio-demographic group

This section focuses on people's awareness and understanding of the single session guidelines for their own sex only. 42%-44% of people in the two lowest household income quintiles had not heard the single session advice compared with 31% of those in the highest quintile. Awareness of the advice did not, however, vary significantly by NS-SEC or area deprivation. The proportion who correctly knew the advice did not vary notably by socio-demographic group. People in the highest income quintile, and in managerial and professional households, were more likely to underestimate the units advised than those in more economically disadvantaged households. Though this difference was largely explained by lower levels of knowledge about units or the advice among more disadvantaged groups. **Tables 4.11a, 4.11b, 4.11c**

4.5 KNOWLEDGE: ALCOHOL-FREE DAYS PER WEEK ADVICE

As well as recommending limits for daily and single session consumption, the Scottish Government also suggests that people who drink should have at least two alcohol-free days per week. Participants were first asked if they had heard of this, and if so, what they thought the recommended number of days was. Table 4.12 shows that a majority of adults in Scotland in 2008/2009 (63%) had not heard of this advice. The figures in 2008 and 2009 were very similar.

The answer options used in the questionnaire presented the numbers of days in groups, for example 0-1, 1-2, 2-3 and so on. Therefore, it is not possible to estimate the proportion of people who knew the advice exactly (two days), but 6% said it was 1-2 days and 12% said 2-3 days. **Table 4.12**

4.5.1 Knowledge of alcohol-free days advice by age, sex and socio-demographic group

There was no variation in overall awareness of the advice by gender. People aged 16-34 and those aged 75 and over were the most likely to have *not* heard the advice (68% and 77% respectively). The figures for the intervening age groups were 58%-60%. **Table 4.12**

There was greater overall awareness of the advice about alcohol-free days among those in higher income households and in managerial and professional households. For example, half (53%) of those in the highest income households had *not* heard the advice about alcohol-free days, compared with 71% of those in the lowest income households. This pattern is likely to reflect the age profile of those in the lowest income households.

There was also a significant association between lack of awareness of the advice and area deprivation, but the pattern was not wholly linear and ranged from 59% in the least deprived quintile to 69% and 65% in the two most deprived quintiles. **Tables 4.13a, 4.13b, 4.13c**

4.6 MOTIVATIONS TO REDUCE ALCOHOL CONSUMPTION

The KAM module included questions designed to assess people's own *motivation* to reduce their alcohol consumption (or stop drinking altogether). This was measured by asking participants:

- if they had **tried** to cut down or stop drinking alcohol in the past year, and if so
- whether they had managed to **maintain** this;
- if they would **like** to cut down or stop drinking alcohol, and if so
- whether they were **thinking** of doing this in the next six months.

An individual's readiness to change their drinking behaviour was determined by using the responses given to these questions to classify them according to DiClemente and Proschaska's 'Stages of Change model'.[6] In this example it ranges from no change to alcohol consumption desired, recently undertaken or planned, through to alcohol consumption reduced and maintained. For the purpose of this report a further category has been added of 'long-term maintenance' which includes people who drank within daily and weekly recommended limits and did not mention having made any changes in the past year or wanting to make any future change to their drinking behaviour. Defining the long-term maintenance category like this meant that everyone in the pre-contemplation group drank outwith the daily and weekly recommended limits.

The following table sets out the stages and presents the proportion of adults in Scotland in each category in the years 2008 and 2008 combined.

Stage of change	Definition of stage of change	% 2008/ 2009
Pre-contemplation	Drinks outwith recommended daily or weekly limits and has not stopped or reduced the amount of alcohol consumed in the previous 12 months and not intending to do so in the next 6 months	32
Contemplation	Would like to stop or reduce the amount of alcohol consumed	3
Preparation	Would like to stop or reduce the amount of alcohol consumed and thinking of doing so in the next six months	3
Action	Stopped or reduced alcohol consumed in the previous 12 months but did not maintain these reduced levels	4
Maintenance	Stopped or reduced alcohol consumption in the previous 12 months and maintained these reduced levels	7
Long-term maintenance	Did not reduce consumption in previous 12 months and no desire to do so, but already drinks within recommended limits.	52

As the table shows, the proportion that had contemplated, prepared, taken action or maintained a reduction in their alcohol consumption lay between 3% and 7%, whereas 32% were classified as pre-contemplators and 52% were in the long-term maintenance group.

4.6.1 Motivations and current behaviour

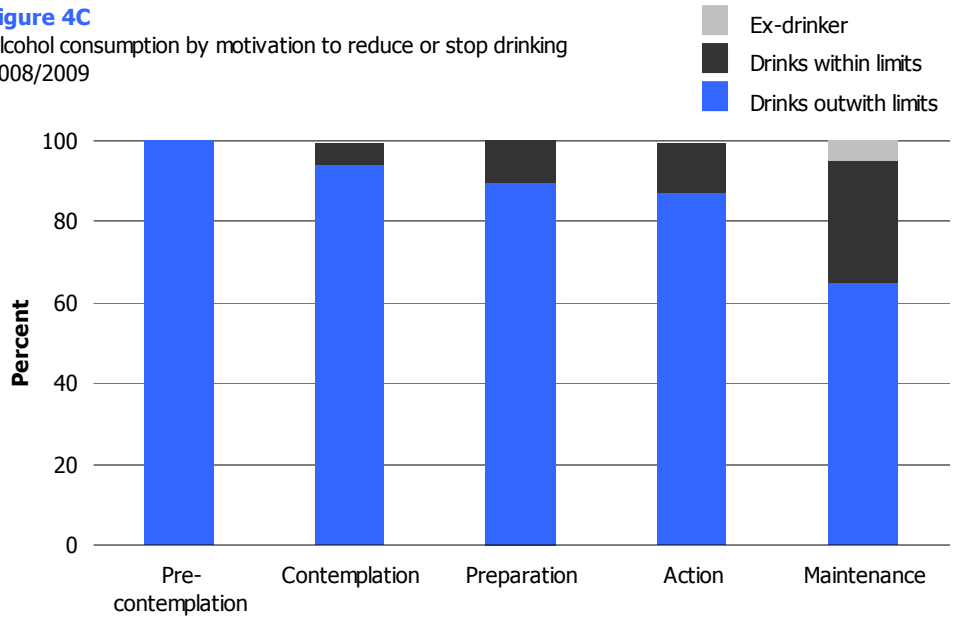
Table 4.14 presents the proportions of people at each stage of change according to their alcohol consumption. It shows that, in 2008/2009, 70% of people who drank outwith the daily or weekly recommended limits were pre-contemplators, while between just 5% and 10% were at any of the other stages. One in ten people (10%) who drink outwith limits had actually maintained a reduction in the alcohol consumption in the past year, but not to a point where they drank within safe limits.

Table 4.14

Figure 4C looks at this from a different perspective and compares alcohol consumption across the first five stages of change groups (all people in the long-term maintenance drank within the recommended limits so they are omitted from the chart). It shows that all pre-contemplators drank outwith the limits, and that the majority of people who had maintained a reduction in their alcohol consumption still drank more than is recommended.

Figure 4C

Figure 4C
Alcohol consumption by motivation to reduce or stop drinking
2008/2009



4.6.2 Motivations by age and sex

Table 4.15 shows that in 2008/2009, women were more likely than men to be in the long-term maintenance category (58% versus 45%). Conversely, men were slightly more likely than women to be in the pre-contemplation (34% versus 30%) group, and were almost twice as likely to be in the maintenance (9% versus 5%) group. Motivations also varied by age, but with some notable differences in the overall proportions within each sex. Motivations to reduce alcohol consumption were broadly similar for adults aged 16 to 54, after which the proportion who were pre-contemplators declined, and those in the long-term maintenance group increased with age. For example, 38%-43% of men aged 16 to 54 were in the long-term maintenance group compared with 77% of men aged 75 and over. The corresponding figures for women were 45%-50% and 91%, respectively. The proportion in the maintenance group was similar for all those aged 16 to 74 (8%-11% of men, 4%-7% of women), and then declined to just 2% of men and 1% of women aged 75 and over. **Table 4.15**

4.6.3 Motivations by socio-demographic group

As with age and sex, the most notable differences by socio-demographic group were in relation to the proportions in the pre-contemplation and long-term maintenance stages. The likelihood of being in the long-term maintenance group increased in line with social or economic disadvantage, while the likelihood of being in the pre-contemplation group decreased. **Tables 4.16a, 4.16b, 4.16c**

4.7 CONCLUSIONS

These data suggest that adults in Scotland have a relatively poor grasp both of their own alcohol consumption and of a number of key alcohol-related health messages.

The apparent disjunction between the labels people apply to their own consumption (typically describing themselves as light or moderate drinkers) and actual consumption, as measured in the main survey, is especially striking. It is possible that this partly reflects negative connotations associated with the label 'heavy drinker'. Nevertheless, it is evident that many of those drinking outwith the recommended guidelines continue to describe themselves as 'light' drinkers. At the very least, this suggests a degree of disconnection between public understandings of what 'light' or 'heavy' drinking is and the definitions of this used by health professionals. In research terms, perhaps a more useful approach in future might be to ask people whether they think they drink within or outside recommended daily or weekly limits, or to use a less potentially pejorative scale.

At first sight, it also appears that awareness of the general concept of alcohol units and limits greatly outstrips understanding of what those limits actually are. It does not seem to be the case that large numbers of people believe the limits to be *higher* than they actually are - which, from a public health perspective, might be seen as the least desirable outcome. But it is of concern that around 4 people in 10 either overestimate or don't know the recommended daily limits. The unit estimates people gave suggest that some might be confused between the recommended upper limits (4 for men, 3 for women), and the range often used when describing the advice (no more than 3-4 for men/2-3 for women).

Regardless of overall awareness of the concept of units and accurate knowledge of the recommended daily limits, this study does not provide information about whether people actually know what a unit is.[7] They may, for example, be underestimating the number of units in each drink, which might also help to explain the gap that seems to exist between perceived drinking levels and actual consumption.

It appears that awareness and understanding of the concepts of single session limits and alcohol-free days is relatively low (and certainly markedly lower than awareness and understanding of recommended daily limits and units more generally). This could be taken as an indication of a need for further public education in these areas. However, the survey also hints at a danger of creating confusion around different types of recommendations. In particular, the fact that many people believe the single session limits are much lower than they are suggests a possible conflation of the recommendations for regular daily and single session consumption.

In terms of motivations to reduce alcohol consumption, it is clear that a sizeable proportion of the adult population in Scotland (roughly 3 in 10) remains at the stage of 'pre-contemplation'. The fact that 70% of those who drink outwith the limits are in this group suggests that there is still much work to be done in persuading people of the need to change their behaviour.

References and notes

[1] Alcohol (Etc) Scotland Bill (2009) Policy Memorandum. www.scottish.parliament.uk/s3/bills/34-AlcoholEtc/b34s3-introd-pm.pdf [Accessed 30 November 2009]

[2] To avoid potential embarrassment about disclosing their drinking behaviour in this way, the options were not shown on the interviewers' laptop screens and participants were told to say the name of the letter next to the option that applied to them, rather than the actual phrase.

[3] Sharp, C. (2010) Chapter 3: Alcohol Consumption. In Bromley, C., Given, L. and Ormston, R. *The Scottish Health Survey 2009, Volume 1: Main Report*. Edinburgh: Scottish Government

[4] Source: Scottish Health Survey 2008, Web Table W15, available from: www.scotland.gov.uk/Topics/Statistics/Browse/Health/scottish-health-survey/Supplementary2008

[5] People who hadn't heard of units were not asked about daily guidelines for either men or women, so the proportions reporting that they had not heard of units are the same for both sets of data.

[6] The Stages of Change model (sometimes referred to as The Transtheoretical Model) is a model of health behaviour change developed initially by DiClemente and Proschaska in 1977. Here we refer to the version of the model which contains five 'stages of change' ranging from pre-contemplation to maintenance. For further reading on the 'Stages of Change model' see DiClemente, C.C., & Prochaska, J.O. (1982). Self change and therapy change of smoking behavior: A comparison of processes of change in cessation and maintenance. *Addictive Behavior*. 7 (2): 133-42.

[7] Other research has, however, looked at this issue. A recent module in the Scottish Social Attitudes survey, for example, suggested that only 15% of adults in Scotland could correctly identify the number of units in a bottle of wine, with 4 in 10 underestimating it. See Ormston, R and Webster, C (2008) *Scottish Social Attitudes Survey 2007: Something to be ashamed of or part of our way of life? Attitudes towards alcohol in Scotland,* Edinburgh: Scottish Government.

Table list

Table 4.1 Self-assessment of alcohol consumption by reported alcohol consumption

Aged 16 and over *2008, 2009, 2008/2009 combined*

Self-assessment of alcohol consumption	Reported alcohol consumption[a]				Total 2008/ 2009	Total 2008	Total 2009
	Never drinks alcohol	Ex-drinker	Drinks within Govt guide-lines[b]	Drinks outwith Govt guide-lines[c]			
	%	%	%	%	%	%	%
A very light or occasional drinker	8	9	65	19	38	37	39
95% C.I.	(4.1-14.7)	(5.1-13.8)	(61.8-67.7)	(16.8-21.5)	(35.7-39.5)	(34.1-39.6)	(36.0-41.3)
A light but regular drinker	-	-	18	32	22	21	22
95% C.I.	-	-	(16.2-20.8)	(28.9-34.5)	(20.1-23.2)	(19.4-23.5)	(19.7-24.2)
A moderate drinker	-	-	10	39	22	22	21
95% C.I.	-	-	(8.2-11.8)	(36.1-42.0)	(20.0-23.4)	(19.7-24.3)	(19.1-23.9)
Quite a heavy drinker	-	-	1	9	4	5	4
95% C.I.	-	-	(0.5-1.5)	(7.4-11.5)	(3.6-5.5)	(3.9-6.7)	(2.6-5.0)
A very heavy drinker	-	-	0	1	1	1	1
95% C.I.	-	-	(0.2-0.7)	(0.6-1.6)	(0.4-0.9)	(0.3-1.1)	(0.3-1.0)
Do not drink alcohol at all	92	91	6	0	14	14	14
95% C.I.	(85.3-95.9)	(86.2-94.9)	(4.4-7.5)	(0.0-0.7)	(12.8-15.7)	(12.3-16.4)	(12.1-16.1)
Bases (weighted):	*233*	*237*	*1655*	*1655*	*3848*	*1834*	*2014*
Bases (unweighted):	*237*	*300*	*1738*	*1533*	*3844*	*1835*	*2009*

a This measure is based on self-reported usual weekly consumption and on the heaviest drinking day in last week

b Drank no more than 4 units (men) or 3 units (women) on heaviest drinking day, and drank no more than 21 units (men) or 14 units (women) in usual week

c Drank more than 4 units (men) or 3 units (women) on heaviest drinking day, and/or drank more than 21 units (men) or 14 units (women) in usual week

Table 4.2 Self-assessment of alcohol consumption by age and sex

Aged 16 and over *2008/2009 combined*

Self-assessment of alcohol consumption	Age				Total
	16-34	35-54	55-74	75+	
	%	%	%	%	%
Men					
A very light or occasional drinker	33	32	30	39	32
95% C.I.	(26.6-39.5)	(27.4-36.7)	(26.1-35.2)	(31.1-46.5)	(29.4-35.1)
A light but regular drinker	17	25	24	20	22
95% C.I.	(12.9-23.1)	(20.6-29.8)	(20.0-29.1)	(14.7-27.9)	(19.7-24.8)
A moderate drinker	30	28	29	20	28
95% C.I.	(24.1-37.1)	(23.9-32.7)	(24.4-33.1)	(14.7-27.6)	(25.6-31.3)
Quite a heavy drinker	8	7	5	1	7
95% C.I.	(5.0-14.0)	(5.2-10.2)	(3.6-7.9)	(0.3-3.2)	(5.2-8.7)
A very heavy drinker	0	1	1	1	1
95% C.I.	(0.1-2.0)	(0.5-2.4)	(0.2-1.4)	(0.2-4.5)	(0.4-1.3)
Do not drink alcohol at all	11	7	11	19	10
95% C.I.	(7.0-16.2)	(4.8-9.1)	(8.3-14.0)	(13.2-25.5)	(8.2-11.8)
Women					
A very light or occasional drinker	44	41	43	45	43
95% C.I.	(37.8-49.5)	(36.5-45.1)	(38.8-47.1)	(38.6-51.8)	(40.0-45.0)
A light but regular drinker	19	25	21	13	21
95% C.I.	(15.5-23.9)	(21.4-28.9)	(17.7-24.7)	(9.1-17.3)	(19.2-23.1)
A moderate drinker	18	18	14	5	16
95% C.I.	(14.5-23.1)	(14.5-21.5)	(11.1-16.9)	(2.8-7.9)	(13.8-17.5)
Quite a heavy drinker	4	2	1	0	2
95% C.I.	(2.1-8.2)	(1.4-3.6)	(0.5-3.1)	(0.1-3.2)	(1.6-3.5)
A very heavy drinker	1	0	0	1	0
95% C.I.	(0.1-2.3)	(0.1-0.7)	(0.0-0.7)	(0.5-3.8)	(0.2-0.9)
Do not drink alcohol at all	14	14	21	36	18
95% C.I.	(9.9-19.0)	(11.3-17.5)	(17.8-24.6)	(29.9-41.9)	(16.1-20.2)
All adults					
A very light or occasional drinker	38	36	37	43	38
95% C.I.	(33.8-42.6)	(33.4-39.7)	(33.8-40.2)	(37.4-48.0)	(35.7-39.5)
A light but regular drinker	18	25	23	16	22
95% C.I.	(15.4-21.8)	(22.1-28.0)	(19.8-25.6)	(12.3-19.7)	(20.1-23.2)
A moderate drinker	24	23	21	11	22
95% C.I.	(20.6-28.6)	(20.1-25.6)	(18.2-23.6)	(8.1-14.1)	(20.0-23.4)
Quite a heavy drinker	6	5	3	1	4
95% C.I.	(4.2-9.5)	(3.5-6.2)	(2.2-4.6)	(0.2-1.9)	(3.6-5.5)
A very heavy drinker	0	1	0	1	1
95% C.I.	(0.2-1.4)	(0.3-1.2)	(0.2-0.8)	(0.5-2.9)	(0.4-0.9)
Do not drink alcohol at all	12	11	16	29	14
95% C.I.	(9.4-16.0)	(8.8-12.6)	(14.0-18.6)	(24.9-33.9)	(12.8-15.7)
Bases (weighted):					
Men	*566*	*661*	*483*	*127*	*1837*
Women	*554*	*719*	*532*	*207*	*2012*
All adults	*1120*	*1380*	*1014*	*334*	*3848*
Bases (unweighted):					
Men	*300*	*599*	*562*	*185*	*1646*
Women	*465*	*699*	*730*	*304*	*2198*
All adults	*765*	*1298*	*1292*	*489*	*3844*

Table 4.3a Self-assessment of alcohol consumption by equivalised annual household income quintile

Aged 16 and over *2008/2009 combined*

Self-assessment of alcohol consumption	Equivalised annual household income quintile				
	1st (highest)	2nd	3rd	4th	5th (lowest)
	%	%	%	%	%
A very light or occasional drinker	35	34	41	44	38
95% C.I.	(30.2-39.1)	(30.2-38.7)	(36.4-45.6)	(39.1-48.3)	(33.5-43.1)
A light but regular drinker	30	28	19	17	13
95% C.I.	(26.3-34.1)	(24.2-32.6)	(15.2-22.5)	(13.3-20.4)	(10.3-17.2)
A moderate drinker	24	25	25	18	16
95% C.I.	(20.8-28.4)	(21.7-29.7)	(20.2-29.7)	(14.5-21.9)	(12.7-19.5)
Quite a heavy drinker	5	6	3	2	6
95% C.I.	(3.5-7.3)	(3.8-8.5)	(1.7-6.5)	(1.3-4.5)	(3.2-9.7)
A very heavy drinker	-	0	1	1	1
95% C.I.	-	(0.0-0.6)	(0.2-2.0)	(0.3-2.2)	(0.6-2.4)
Do not drink alcohol at all	6	6	12	19	26
95% C.I.	(4.1-8.7)	(4.5-8.4)	(9.3-15.1)	(15.1-22.8)	(21.6-30.6)
Bases (weighted):	*794*	*750*	*680*	*599*	*587*
Bases (unweighted):	*697*	*702*	*656*	*649*	*722*

Table 4.3b Self-assessment of alcohol consumption by NS-SEC of household reference person

Aged 16 and over *2008/2009 combined*

Self-assessment of alcohol consumption	NS-SEC of household reference person				
	Managerial & professional	Intermediate	Small employers & own account workers	Lower supervisory & technical	Semi-routine and routine
	%	%	%	%	%
A very light or occasional drinker	35	35	39	43	40
95% C.I.	(31.9-38.1)	(29.5-41.0)	(32.6-46.4)	(37.5-49.4)	(36.9-43.7)
A light but regular drinker	29	26	18	17	14
95% C.I.	(25.8-31.6)	(20.5-32.2)	(12.9-23.6)	(12.7-21.1)	(11.7-16.5)
A moderate drinker	23	21	24	22	20
95% C.I.	(20.2-25.8)	(16.9-26.8)	(17.6-30.7)	(17.1-27.7)	(17.4-23.6)
Quite a heavy drinker	4	7	6	4	4
95% C.I.	(3.1-6.0)	(3.4-12.4)	(3.0-10.7)	(1.5-8.1)	(2.6-5.9)
A very heavy drinker	0	0	1	1	1
95% C.I.	(0.1-0.5)	(0.1-2.3)	(0.1-2.4)	(0.4-3.3)	(0.5-1.7)
Do not drink alcohol at all	9	11	13	13	21
95% C.I.	(7.4-11.1)	(7.8-14.0)	(8.5-20.0)	(10.0-17.9)	(18.0-23.7)
Bases (weighted):	*1509*	*369*	*295*	*435*	*1172*
Bases (unweighted):	*1351*	*404*	*299*	*419*	*1295*

Table 4.3c Self-assessment of alcohol consumption by Scottish Index of Multiple Deprivation quintile

Aged 16 and over *2008/2009 combined*

Self-assessment of alcohol consumption	Scottish Index of Multiple Deprivation quintile				
	5th (least deprived)	4th	3rd	2nd	1st (most deprived)
	%	%	%	%	%
A very light or occasional drinker	34	37	40	41	36
95% C.I.	(29.8-39.0)	(33.1-41.2)	(35.4-44.0)	(36.7-45.4)	(32.1-40.2)
A light but regular drinker	28	26	20	16	16
95% C.I.	(24.6-32.5)	(22.4-29.6)	(17.0-24.4)	(13.6-19.8)	(13.0-19.7)
A moderate drinker	23	23	21	21	21
95% C.I.	(19.0-26.8)	(19.0-26.4)	(17.3-24.7)	(17.2-24.7)	(18.1-25.3)
Quite a heavy drinker	3	5	5	5	5
95% C.I.	(1.8-6.0)	(3.0-7.6)	(2.6-8.4)	(2.9-7.0)	(3.3-6.9)
A very heavy drinker	1	0	0	0	1
95% C.I.	(0.2-1.6)	(0.1-0.9)	(0.1-1.2)	(0.2-0.9)	(0.7-2.6)
Do not drink alcohol at all	11	9	14	17	20
95% C.I.	(8.2-14.2)	(7.3-12.2)	(11.3-17.3)	(13.7-20.7)	(16.9-23.9)
Bases (weighted):	*762*	*854*	*725*	*771*	*737*
Bases (unweighted):	*637*	*836*	*788*	*774*	*809*

Table 4.4 Knowledge of the maximum number of daily units advised for men by age and sex

Aged 16 and over *2008/2009 combined*

Knowledge of maximum daily units for men (4 per day)	Age				Total
	16-34	35-54	55-74	75+	
	%	%	%	%	%
Men					
Underestimated daily units	40	46	46	24	43
95% C.I.	(33.3-47.3)	(41.4-51.4)	(41.2-50.9)	(18.5-31.7)	(39.7-46.0)
Knew daily recommended units	21	23	18	11	21
95% C.I.	(16.1-27.6)	(19.5-27.8)	(14.6-22.6)	(6.8-17.3)	(18.1-23.2)
Overestimated daily units	18	16	15	7	15
95% C.I.	(12.8-23.8)	(12.3-19.6)	(11.5-18.9)	(4.0-13.2)	(13.2-18.0)
Didn't know daily units[a]	10	10	14	29	12
95% C.I.	(6.8-15.4)	(7.2-14.0)	(10.8-17.2)	(22.0-36.0)	(10.5-14.6)
Not heard of recommendation	6	3	2	11	4
95% C.I.	(3.6-10.5)	(1.5-4.5)	(1.0-3.2)	(6.3-17.5)	(3.0-5.5)
Not heard of or don't know of units	4	2	5	18	5
95% C.I.	(2.2-8.5)	(1.0-3.6)	(3.8-7.7)	(12.9-24.5)	(3.6-6.1)
Women					
Underestimated daily units	41	50	39	18	41
95% C.I.	(35.6-46.6)	(45.3-54.5)	(35.1-43.5)	(14.1-23.8)	(38.9-43.9)
Knew daily recommended units	16	18	12	7	15
95% C.I.	(12.4-20.9)	(14.9-22.2)	(9.4-14.7)	(4.3-11.1)	(13.0-16.9)
Overestimated daily units	17	10	11	7	12
95% C.I.	(12.7-22.0)	(7.6-12.7)	(8.0-14.1)	(4.4-10.4)	(10.0-13.6)
Didn't know daily units	17	17	27	38	22
95% C.I.	(13.0-21.9)	(14.4-20.8)	(23.9-31.3)	(32.2-44.5)	(20.1-24.2)
Not heard of recommendation	2	2	3	5	3
95% C.I.	(1.2-4.5)	(1.2-4.4)	(1.7-4.4)	(3.2-8.9)	(2.0-3.7)
Not heard of or don't know of units	7	2	8	24	7
95% C.I.	(4.2-10.5)	(1.4-3.8)	(6.1-10.7)	(19.2-30.2)	(6.1-8.8)
All adults					
Below daily recommended units	41	48	42	21	42
95% C.I.	(36.1-45.1)	(44.8-51.7)	(39.1-45.9)	(17.1-25.1)	(40.1-44.1)
Daily recommended units	19	21	15	9	18
95% C.I.	(15.5-22.6)	(18.1-23.6)	(12.8-17.3)	(6.0-11.9)	(16.0-19.2)
Above daily recommended units	17	13	13	7	13
95% C.I.	(13.9-21.1)	(10.6-15.0)	(10.2-15.5)	(4.9-9.9)	(12.0-15.0)
Didn't know daily units[a]	14	14	21	34	17
95% C.I.	(10.9-17.0)	(11.7-16.4)	(18.4-23.6)	(29.9-39.2)	(16.0-19.0)
Not heard of recommendation	4	2	2	7	3
95% C.I.	(2.8-6.7)	(1.6-3.8)	(1.6-3.3)	(5.1-10.6)	(2.7-4.2)
Not heard of or don't know of units	6	2	7	22	6
95% C.I.	(3.8-8.1)	(1.4-3.1)	(5.4-8.5)	(18.0-26.2)	(5.2-7.1)
Bases (weighted):					
Men	*567*	*665*	*485*	*132*	*1848*
Women	*558*	*719*	*533*	*209*	*2019*
All adults	*1125*	*1384*	*1018*	*341*	*3867*
Bases (unweighted):					
Men	*301*	*601*	*565*	*192*	*1659*
Women	*467*	*700*	*732*	*307*	*2206*
All adults	*768*	*1301*	*1297*	*499*	*3865*

a This group were aware that advice about daily drinking existed, but did not know how many units were advised

Table 4.5 Knowledge of the maximum number of daily units advised for men by reported daily alcohol consumption among men

Men aged 16 and over *2008, 2009, 2008/2009 combined*

Knowledge of maximum daily units for men (4 per day)	Reported alcohol consumption on heaviest drinking day in last week					Total 2008/ 2009	Total 2008	Total 2009
	Never drunk alcohol	Ex-drinker	Did not drink last week	4 units or less	More than 4 units			
	%	%	%	%	%	%	%	%
Underestimated daily units	22	31	37	46	46	43	41	45
95% C.I.	(9.8-41.1)	(23.0-40.9)	(29.8-45.1)	(41.0-51.7)	(41.5-51.5)	(39.7-46.0)	(36.2-45.1)	(40.4-49.3)
Knew daily recommended units	13	13	20	15	25	21	22	20
95% C.I.	(4.5-31.3)	(7.3-23.1)	(14.7-27.6)	(12.0-19.5)	(20.7-29.3)	(18.1-23.2)	(18.3-25.5)	(16.6-24.1)
Overestimated daily units	10	14	19	16	15	15	16	15
95% C.I.	(3.0-28.4)	(8.0-23.8)	(13.6-26.4)	(11.9-21.5)	(11.6-18.9)	(13.2-18.0)	(12.9-19.8)	(11.7-18.2)
Didn't know daily units[a]	30	23	12	13	9	12	11	14
95% C.I.	(17.4-46.7)	(15.6-33.2)	(8.0-18.9)	(10.2-17.1)	(6.6-12.7)	(10.5-14.6)	(8.3-13.4)	(11.0-17.1)
Not heard of recommendation	13	5	4	5	3	4	5	3
95% C.I.	(4.1-34.6)	(1.8-12.9)	(1.5-8.0)	(2.9-7.6)	(1.8-5.2)	(3.0-5.5)	(3.2-7.4)	(2.2-5.1)
Not heard of or don't know of units	12	13	7	4	2	5	6	3
95% C.I.	(6.4-22.5)	(7.8-21.0)	(3.9-13.1)	(2.7-6.7)	(0.9-2.7)	(3.6-6.1)	(4.4-8.7)	(2.3-4.7)
Bases (weighted):	*71*	*99*	*288*	*565*	*791*	*1848*	*881*	*967*
Bases (unweighted):	*53*	*128*	*248*	*538*	*672*	*1659*	*793*	*866*

a This group were aware that advice about daily drinking existed, but did not know how many units were advised

Table 4.6 Knowledge of the maximum number of daily units advised for women by age and sex

Aged 16 and over *2008/2009 combined*

Knowledge of maximum daily units for women (3 per day)	Age				Total
	16-34	35-54	55-74	75+	
	%	%	%	%	%
Men					
Underestimated daily units	45	59	53	26	51
95% C.I.	(38.2-52.3)	(53.9-63.8)	(47.7-57.5)	(20.2-33.7)	(47.6-53.9)
Knew daily recommended units	19	19	15	9	17
95% C.I.	(14.2-25.7)	(15.3-23.2)	(12.3-18.9)	(5.1-14.1)	(15.0-19.9)
Overestimated daily units	12	7	7	5	9
95% C.I.	(8.3-17.1)	(5.1-10.3)	(5.0-11.0)	(2.5-11.2)	(7.0-10.6)
Didn't know daily units[a]	13	10	17	31	14
95% C.I.	(8.8-18.7)	(7.4-14.2)	(14.1-21.4)	(24.3-38.7)	(12.3-16.9)
Not heard of recommendation	6	3	2	11	4
95% C.I.	(3.6-10.5)	(1.5-4.5)	(1.0-3.2)	(6.3-17.5)	(3.0-5.5)
Not heard of or don't know of units	4	2	5	18	5
95% C.I.	(2.2-8.5)	(1.0-3.6)	(3.8-7.7)	(12.9-24.5)	(3.6-6.1)
Women					
Underestimated daily units	54	64	51	25	54
95% C.I.	(47.8-59.5)	(59.9-68.5)	(46.4-55.2)	(19.9-30.6)	(51.1-56.3)
Knew daily recommended units	12	11	9	6	10
95% C.I.	(9.0-15.9)	(8.3-13.6)	(6.5-11.3)	(3.7-9.8)	(8.6-11.6)
Overestimated daily units	10	6	7	4	7
95% C.I.	(7.0-15.0)	(3.8-8.0)	(5.0-10.6)	(2.0-6.8)	(5.8-8.8)
Didn't know daily units	15	15	22	36	19
95% C.I.	(11.2-19.5)	(12.1-18.1)	(19.2-26.1)	(29.9-42.1)	(17.2-21.0)
Not heard of recommendation	2	2	3	5	3
95% C.I.	(1.2-4.5)	(1.2-4.4)	(1.7-4.4)	(3.2-8.9)	(2.0-3.7)
Not heard of or don't know of units	7	2	8	24	7
95% C.I.	(4.2-10.5)	(1.4-3.8)	(6.1-10.7)	(19.2-30.2)	(6.1-8.8)
All adults					
Underestimated daily units	49	62	52	25	52
95% C.I.	(44.7-54.1)	(58.4-65.0)	(48.3-55.1)	(21.4-30.0)	(50.2-54.4)
Knew daily recommended units	16	15	12	7	14
95% C.I.	(12.6-19.4)	(12.4-17.2)	(9.8-14.0)	(4.9-10.0)	(12.2-15.0)
Overestimated daily units	11	6	7	4	8
95% C.I.	(8.6-14.4)	(5.0-8.2)	(5.6-9.6)	(2.7-7.0)	(6.8-9.1)
Didn't know daily units	14	13	20	34	17
95% C.I.	(11.0-17.4)	(10.6-15.1)	(17.7-22.7)	(29.4-38.8)	(15.4-18.4)
Not heard of recommendation	4	2	2	7	3
95% C.I.	(2.8-6.7)	(1.6-3.8)	(1.6-3.3)	(5.1-10.6)	(2.7-4.2)
Not heard of or don't know of units	6	2	7	22	6
95% C.I.	(3.8-8.1)	(1.4-3.1)	(5.4-8.5)	(18.0-26.2)	(5.2-7.1)
Bases (weighted):					
Men	*567*	*665*	*485*	*132*	*1848*
Women	*558*	*719*	*533*	*209*	*2019*
All adults	*1125*	*1384*	*1018*	*341*	*3867*
Bases (unweighted):					
Men	*301*	*601*	*565*	*192*	*1659*
Women	*467*	*700*	*732*	*307*	*2206*
All adults	*768*	*1301*	*1297*	*499*	*3865*

a This group were aware that advice about daily drinking existed, but did not know how many units were advised

Table 4.7 Knowledge of the maximum number of daily units advised for women by reported daily alcohol consumption among women

Women aged 16 and over *2008, 2009, 2008/2009 combined*

Knowledge of maximum daily units for women (3 per day)	Reported alcohol consumption on heaviest drinking day in last week					Total 2008/ 2009	Total 2008	Total 2009
	Never drunk alcohol	Ex-drinker	Did not drink last week	3 units or less	More than 3 units			
	%	%	%	%	%	%	%	%
Underestimated daily units	24	35	54	55	64	54	54	54
95% C.I.	(16.3-32.8)	(27.2-44.4)	(47.8-59.7)	(51.0-59.8)	(59.5-68.6)	(51.1-56.3)	(50.0-57.4)	(50.2-57.3)
Knew daily recommended units	6	10	8	8	14	10	9	11
95% C.I.	(3.4-11.4)	(5.7-16.1)	(5.2-10.8)	(6.0-11.0)	(11.2-17.1)	(8.6-11.6)	(7.4-12.0)	(8.8-12.8)
Overestimated daily units	8	7	7	7	7	7	6	8
95% C.I.	(3.3-16.1)	(3.4-13.0)	(4.1-12.1)	(4.5-9.5)	(5.4-10.2)	(5.8-8.8)	(4.7-8.5)	(5.9-10.8)
Didn't know daily units[a]	30	31	20	21	11	19	19	19
95% C.I.	(22.9-39.0)	(23.9-40.0)	(16.4-24.6)	(17.6-24.3)	(8.6-15.2)	(17.2-21.0)	(16.4-21.9)	(16.4-21.7)
Not heard of recommendation	10	3	3	2	2	3	3	2
95% C.I.	(5.3-17.8)	(1.2-7.4)	(1.6-5.7)	(0.9-2.9)	(0.9-3.4)	(2.0-3.7)	(2.3-5.1)	(1.3-3.2)
Not heard of or don't know of units	22	14	8	7	1	7	8	7
95% C.I.	(15.6-31.0)	(8.9-20.5)	(5.7-11.8)	(5.4-10.1)	(0.7-2.4)	(6.1-8.8)	(6.4-10.2)	(5.0-8.6)
Bases (weighted):	*162*	*140*	*409*	*585*	*689*	*2019*	*964*	*1055*
Bases (unweighted):	*184*	*174*	*463*	*681*	*688*	*2206*	*1051*	*1155*

a This group were aware that advice about daily drinking existed, but did not know how many units were advised

Table 4.8a Knowledge of the maximum number of daily units advised for own sex by equivalised annual household income quintile

Aged 16 and over *2008/2009 combined*

Knowledge of maximum daily units for own sex (4 or men, 3 for women per day)	Equivalised annual household income quintile				
	1st (highest)	2nd	3rd	4th	5th (lowest)
	%	%	%	%	%
Underestimated daily units	59	52	50	44	40
95% C.I.	(54.4-63.3)	(47.4-56.5)	(45.3-55.6)	(39.2-48.9)	(35.1-44.6)
Knew daily recommended units	18	17	15	15	13
95% C.I.	(14.7-21.6)	(13.6-20.3)	(11.8-19.6)	(11.4-18.4)	(9.8-16.6)
Overestimated daily units	12	13	11	9	10
95% C.I.	(9.4-16.1)	(9.8-16.4)	(7.7-14.8)	(7.0-12.7)	(7.5-13.9)
Didn't know daily units[a]	8	13	16	19	21
95% C.I.	(6.3-11.2)	(9.9-16.2)	(12.9-19.0)	(15.7-22.7)	(17.5-25.7)
Not heard of recommendation	2	3	3	2	5
95% C.I.	(0.9-3.1)	(1.6-4.9)	(2.2-5.4)	(1.2-3.8)	(3.1-8.0)
Not heard of or don't know of units	1	3	4	11	11
95% C.I.	(0.3-1.7)	(2.0-5.0)	(2.6-7.0)	(8.4-14.0)	(8.3-14.1)
Bases (weighted):	*798*	*750*	*685*	*603*	*588*
Bases (unweighted):	*699*	*702*	*660*	*654*	*723*

a This group were aware that advice about daily drinking existed, but did not know how many units were advised

Table 4.8b Knowledge of the maximum number of daily units advised for own sex by NS-SEC of household reference person

Aged 16 and over *2008/2009 combined*

Knowledge of maximum daily units for own sex (4 or men, 3 for women per day)	NS-SEC of household reference person				
	Managerial & professional	Intermediate	Small employers & own account workers	Lower supervisory & technical	Semi-routine and routine
	%	%	%	%	%
Underestimated daily units	56	47	49	49	40
95% C.I.	(52.2-58.9)	(41.5-53.6)	(42.1-56.7)	(43.1-55.6)	(36.9-44.1)
Knew daily recommended units	17	17	16	15	12
95% C.I.	(14.6-19.6)	(12.5-22.7)	(11.2-22.8)	(11.5-19.2)	(10.1-14.9)
Overestimated daily units	11	13	9	12	12
95% C.I.	(8.5-13.2)	(8.9-17.7)	(5.3-14.9)	(8.2-17.8)	(9.3-14.2)
Didn't know daily units[a]	13	16	16	13	21
95% C.I.	(10.7-15.0)	(12.7-20.7)	(11.8-21.0)	(9.9-17.1)	(18.0-23.9)
Not heard of recommendation	2	3	3	2	5
95% C.I.	(1.6-3.5)	(1.5-5.5)	(1.4-7.8)	(1.1-4.0)	(3.4-6.9)
Not heard of or don't know of units	2	4	6	8	10
95% C.I.	(1.2-2.7)	(2.2-5.8)	(3.9-9.9)	(5.6-12.4)	(8.3-12.2)
Bases (weighted):	*1515*	*370*	*297*	*438*	*1178*
Bases (unweighted):	*1355*	*407*	*301*	*420*	*1304*

a This group were aware that advice about daily drinking existed, but did not know how many units were advised

Table 4.8c Knowledge of the maximum number of daily units advised for own sex by Scottish Index of Multiple Deprivation quintile

Aged 16 and over *2008/2009 combined*

Knowledge of maximum daily units for own sex (4 or men, 3 for women per day)	Scottish Index of Multiple Deprivation quintile				
	5th (least deprived)	4th	3rd	2nd	1st (most deprived)
	%	%	%	%	%
Underestimated daily units	55	51	50	47	39
95% C.I.	(49.7-59.6)	(46.6-55.0)	(46.0-54.9)	(42.6-51.7)	(34.8-43.1)
Knew daily recommended units	14	14	16	14	17
95% C.I.	(11.0-18.3)	(11.8-17.6)	(13.2-19.6)	(10.9-17.3)	(13.5-20.6)
Overestimated daily units	9	11	10	13	12
95% C.I.	(6.6-13.2)	(8.7-14.9)	(7.1-13.0)	(10.2-16.9)	(9.1-14.7)
Didn't know daily units[a]	15	16	16	16	17
95% C.I.	(11.8-18.1)	(12.9-19.5)	(12.6-19.1)	(13.1-19.0)	(14.5-20.7)
Not heard of recommendation	2	3	2	4	5
95% C.I.	(1.3-4.0)	(2.0-5.8)	(1.5-4.0)	(2.3-5.3)	(3.3-8.2)
Not heard of or don't know of units	5	4	6	7	10
95% C.I.	(2.9-7.4)	(2.7-5.6)	(4.0-7.8)	(4.6-9.1)	(8.1-12.6)
Bases (weighted):	*766*	*862*	*728*	*771*	*739*
Bases (unweighted):	*639*	*844*	*793*	*775*	*814*

a This group were aware that advice about daily drinking existed, but did not know how many units were advised

Table 4.9 Knowledge of the maximum number of units advised in a single session for men by age and sex

Aged 16 and over *2008, 2009, 2008/2009 combined*

Knowledge of maximum single session units for men (8 per session)	Age				Total 2008/ 2009	Total 2008	Total 2009
	16-34	35-54	55-74	75+			
	%	%	%	%	%	%	%
Men							
Underestimated session units	30	35	38	21	33	32	34
95% C.I.	(23.6-36.3)	(30.2-39.4)	(33.5-42.9)	(15.0-27.6)	(30.1-36.0)	(28.3-36.4)	(30.1-38.4)
Knew session units	6	6	2	1	4	5	4
95% C.I.	(3.1-9.7)	(3.7-8.2)	(1.3-4.6)	(0.3-5.6)	(3.3-6.0)	(3.2-7.3)	(2.6-6.4)
Overestimated session units	6	8	3	-	6	6	6
95% C.I.	(4.2-9.5)	(5.9-11.9)	(1.5-4.4)	-	(4.4-7.2)	(4.1-7.9)	(4.0-8.1)
Didn't know session units[a]	13	14	17	18	14	16	13
95% C.I.	(8.6-18.3)	(10.6-17.4)	(13.2-20.9)	(12.3-25.1)	(12.3-16.8)	(12.8-19.2)	(10.2-16.1)
Not heard of or don't know session advice	42	36	35	42	38	35	40
95% C.I.	(34.8-48.6)	(31.4-40.8)	(30.2-39.4)	(34.6-50.4)	(34.7-41.0)	(31.1-39.7)	(35.3-44.4)
Not heard of or don't know of units	4	2	5	18	5	6	3
95% C.I.	(2.2-8.5)	(1.0-3.6)	(3.8-7.7)	(12.9-24.5)	(3.6-6.1)	(4.4-8.7)	(2.3-4.7)
Women							
Underestimated session units	38	35	26	11	31	33	29
95% C.I.	(32.8-43.9)	(30.9-39.3)	(22.3-30.1)	(7.9-16.0)	(28.6-33.6)	(29.3-36.4)	(25.7-32.7)
Knew session units	3	3	0	-	2	2	2
95% C.I.	(1.6-5.1)	(1.6-5.2)	(0.1-1.0)	-	(1.3-2.9)	(1.1-3.5)	(1.1-3.2)
Overestimated session units	5	4	1	-	3	3	3
95% C.I.	(3.3-8.9)	(2.8-6.3)	(0.6-3.1)	-	(2.5-4.5)	(2.1-5.5)	(2.3-4.8)
Didn't know session units[a]	12	19	25	23	19	20	18
95% C.I.	(8.9-15.3)	(15.7-22.0)	(21.9-29.0)	(18.1-28.6)	(17.1-20.9)	(17.3-22.8)	(15.7-20.9)
Not heard of or don't know session advice	35	37	39	41	37	34	41
95% C.I.	(29.6-40.9)	(32.7-41.3)	(35.0-43.1)	(35.8-47.4)	(34.9-40.0)	(30.5-37.5)	(37.4-44.5)
Not heard of or don't know of units	7	2	8	24	7	8	7
95% C.I.	(4.2-10.5)	(1.4-3.8)	(6.1-10.7)	(19.2-30.2)	(6.1-8.8)	(6.4-10.2)	(5.0-8.6)

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Table 4.9 - *Continued*

Aged 16 and over *2008, 2009, 2008/2009 combined*

Knowledge of maximum single session units for men (8 per session)	**Age**				Total 2008/ 2009	Total 2008	Total 2009
	16-34	35-54	55-74	75+			
	%	%	%	%	%	%	%
All adults							
Underestimated session units	34	35	32	15	32	33	32
95% C.I.	(29.8-38.2)	(31.7-38.1)	(28.8-34.9)	(11.8-18.7)	(30.1-33.9)	(29.9-35.3)	(28.8-34.3)
Knew session units	4	4	1	1	3	3	3
95% C.I.	(2.7-6.4)	(3.0-5.8)	(0.8-2.4)	(0.1-2.2)	(2.4-4.0)	(2.4-4.6)	(2.1-4.2)
Overestimated session units	6	6	2	-	4	5	4
95% C.I.	(4.3-8.1)	(4.7-8.2)	(1.2-3.0)	-	(3.7-5.4)	(3.4-6.0)	(3.4-5.8)
Didn't know session units[a]	12	16	21	21	17	18	16
95% C.I.	(9.6-15.3)	(14.0-18.8)	(18.7-23.9)	(17.2-25.3)	(15.3-18.3)	(15.8-20.2)	(13.7-17.8)
Not heard of or don't know session advice	38	36	37	42	38	35	40
95% C.I.	(33.8-43.1)	(33.3-39.8)	(34.0-40.0)	(37.2-46.5)	(35.5-39.7)	(31.8-37.5)	(37.3-43.5)
Not heard of or don't know of units	6	2	7	22	6	7	5
95% C.I.	(3.8-8.1)	(1.4-3.2)	(5.4-8.5)	(18.0-26.2)	(5.2-7.1)	(5.9-8.7)	(4.0-6.3)
Bases (weighted):							
Men	*567*	*665*	*485*	*132*	*1848*	*881*	*967*
Women	*558*	*718*	*533*	*209*	*2018*	*963*	*1055*
All adults	*1125*	*1383*	*1018*	*341*	*3866*	*1844*	*2022*
Bases (unweighted):							
Men	*301*	*601*	*565*	*192*	*1659*	*793*	*866*
Women	*467*	*699*	*732*	*307*	*2205*	*1050*	*1155*
All adults	*768*	*1300*	*1297*	*499*	*3864*	*1843*	*2021*

a This group were aware that advice about single sessions existed, but did not know how many units were advised

Table 4.10 Knowledge of the maximum number of units advised in a single session for women by age and sex

Aged 16 and over *2008, 2009, 2008/2009 combined*

Knowledge of maximum single session units for women (6 per session)	Age				Total 2008/ 2009	Total 2008	Total 2009
	16-34	35-54	55-74	75+			
	%	%	%	%	%	%	%
Men							
Underestimated session units	31	37	39	19	34	34	35
95% C.I.	(24.8-37.7)	(32.2-41.6)	(34.0-43.6)	(13.4-25.3)	(31.3-37.2)	(30.1-38.3)	(30.8-39.1)
Knew session units	6	6	2	1	5	5	4
95% C.I.	(3.2-9.8)	(4.2-8.8)	(1.2-3.8)	(0.3-5.6)	(3.4-6.1)	(3.7-7.9)	(2.5-6.0)
Overestimated session units	5	6	2	-	4	4	5
95% C.I.	(3.1-7.9)	(3.6-9.0)	(1.0-4.2)	-	(3.1-5.6)	(2.3-5.4)	(3.2-7.1)
Didn't know session units[a]	13	14	17	20	15	15	13
95% C.I.	(8.5-18.1)	(10.6-17.2)	(13.6-21.2)	(14.0-27.1)	(12.5-17.0)	(12.5-18.9)	(10.8-16.7)
Not heard of or don't know session advice	42	36	35	42	38	35	40
95% C.I.	(34.8-48.6)	(31.4-40.8)	(30.2-39.4)	(34.6-50.4)	(34.7-41.0)	(31.1-39.7)	(35.3-44.4)
Not heard of or don't know of units	4	2	5	18	5	6	3
95% C.I.	(2.2-8.5)	(1.0-3.6)	(3.8-7.7)	(12.9-24.5)	(3.6-6.1)	(4.4-8.7)	(2.3-4.7)
Women							
Underestimated session units	40	37	28	12	33	35	31
95% C.I.	(34.6-45.8)	(33.0-41.7)	(24.6-32.6)	(8.7-17.0)	(30.7-35.7)	(31.8-38.9)	(27.3-34.2)
Knew session units	4	3	1	0	2	3	2
95% C.I.	(2.1-6.7)	(1.9-5.3)	(0.3-2.1)	(0.0-1.9)	(1.7-3.5)	(1.7-4.9)	(1.3-3.1)
Overestimated session units	4	3	0	-	2	1	3
95% C.I.	(2.1-5.8)	(1.9-5.0)	(0.1-1.6)	-	(1.6-3.1)	(0.8-2.6)	(1.9-4.3)
Didn't know session units[a]	11	17	23	22	18	18	17
95% C.I.	(8.2-14.2)	(14.4-20.6)	(19.9-26.8)	(17.0-27.4)	(15.8-19.4)	(15.9-21.1)	(14.5-19.5)
Not heard of or don't know session advice	35	37	39	41	37	34	41
95% C.I.	(29.6-40.9)	(32.7-41.3)	(35.0-43.1)	(35.8-47.4)	(34.9-40.0)	(30.5-37.5)	(37.4-44.5)
Not heard of or don't know of units	7	2	8	24	7	8	7
95% C.I.	(4.2-10.5)	(1.4-3.8)	(6.1-10.7)	(19.2-30.2)	(6.1-8.8)	(6.4-10.2)	(5.0-8.6)

Continued…

Table 4.10 - *Continued*

Aged 16 and over *2008, 2009, 2008/2009 combined*

Knowledge of maximum single session units for women (6 per session)	**Age**				Total 2008/ 2009	Total 2008	Total 2009
	16-34	35-54	55-74	75+			
	%	%	%	%	%	%	%
All adults							
Underestimated session units	35	37	33	15	34	35	33
95% C.I.	(31.3-39.9)	(33.9-40.3)	(30.3-36.5)	(11.6-18.5)	(31.7-35.6)	(32.0-37.5)	(30.0-35.5)
Knew session units	5	5	1	1	3	4	3
95% C.I.	(3.2-7.1)	(3.4-6.2)	(0.9-2.4)	(0.2-2.2)	(2.8-4.3)	(3.0-5.6)	(2.1-4.0)
Overestimated session units	4	4	1	-	3	2	4
95% C.I.	(3.0-6.0)	(3.1-6.1)	(0.7-2.3)	-	(2.5-3.9)	(1.7-3.5)	(2.8-5.1)
Didn't know session units[a]	12	15	20	21	16	17	15
95% C.I.	(9.2-14.7)	(13.3-17.9)	(17.8-22.9)	(17.2-25.3)	(14.7-17.6)	(15.0-19.2)	(13.4-17.3)
Not heard of or don't know session advice	38	36	37	42	38	35	40
95% C.I.	(33.8-43.1)	(33.3-39.8)	(34.0-40.0)	(37.2-46.5)	(35.5-39.7)	(31.8-37.5)	(37.3-43.5)
Not heard of or don't know of units	6	2	7	22	6	7	5
95% C.I.	(3.8-8.1)	(1.4-3.2)	(5.4-8.5)	(18.0-26.2)	(5.2-7.1)	(5.9-8.7)	(4.0-6.3)
Bases (weighted):							
Men	*567*	*665*	*485*	*132*	*1848*	*881*	*967*
Women	*558*	*718*	*533*	*209*	*2018*	*963*	*1055*
All adults	*1125*	*1383*	*1018*	*341*	*3866*	*1844*	*2022*
Bases (unweighted):							
Men	*301*	*601*	*565*	*192*	*1659*	*793*	*866*
Women	*467*	*699*	*732*	*307*	*2205*	*1050*	*1155*
All adults	*768*	*1300*	*1297*	*499*	*3864*	*1843*	*2021*

a This group were aware that advice about single sessions existed, but did not know how many units were advised

Table 4.11a Knowledge of the maximum number of units advised in a single session for own sex by equivalised annual household income quintile

Aged 16 and over *2008/2009 combined*

Knowledge of maximum single session units for own sex (8 or men, 6 for women per session)	**Equivalised annual household income quintile**				
	1st (highest)	2nd	3rd	4th	5th (lowest)
	%	%	%	%	%
Underestimated session units	43	34	36	26	28
95% C.I.	(38.4-47.7)	(30.2-38.9)	(31.8-41.4)	(21.9-30.8)	(23.8-32.7)
Knew session units	5	5	3	2	2
95% C.I.	(3.2-7.6)	(3.2-7.6)	(1.7-5.9)	(0.8-3.3)	(1.1-4.4)
Overestimated session units	5	6	3	3	3
95% C.I.	(3.7-7.4)	(3.7-8.7)	(1.9-5.3)	(1.9-5.3)	(1.6-4.3)
Didn't know session units[a]	15	14	19	16	13
95% C.I.	(11.8-18.8)	(11.5-17.4)	(15.3-22.3)	(13.4-19.8)	(10.0-15.8)
Not heard of or don't know session advice	31	38	34	42	44
95% C.I.	(27.0-35.6)	(33.0-42.3)	(29.6-39.4)	(36.9-47.1)	(38.8-48.7)
Not heard of or don't know of units	1	3	4	11	11
95% C.I.	(0.3-1.7)	(2.0-5.0)	(2.6-7.0)	(8.4-14.0)	(8.3-14.1)
Bases (weighted):	*797*	*750*	*685*	*603*	*588*
Bases (unweighted):	*698*	*702*	*660*	*654*	*723*

a This group were aware that advice about single sessions existed, but did not know how many units were advised

Table 4.11b Knowledge of the maximum number of units advised in a single session for own sex by NS-SEC of household reference person

Aged 16 and over *2008/2009 combined*

Knowledge of maximum single session units for own sex (8 or men, 6 for women per session)	**NS-SEC of household reference person**				
	Managerial & professional	Intermediate	Small employers & own account workers	Lower supervisory & technical	Semi-routine and routine
	%	%	%	%	%
Underestimated session units	39	33	30	29	29
95% C.I.	(35.7-42.4)	(27.0-39.3)	(23.9-37.5)	(23.7-35.5)	(25.7-32.2)
Knew session units	4	5	5	4	2
95% C.I.	(2.5-5.1)	(2.6-9.5)	(2.3-9.9)	(2.3-7.7)	(1.2-3.5)
Overestimated session units	5	4	1	4	4
95% C.I.	(3.4-6.2)	(2.5-7.2)	(0.3-3.1)	(2.0-7.4)	(2.7-5.2)
Didn't know session units[a]	17	14	16	16	16
95% C.I.	(14.2-19.3)	(10.5-18.3)	(11.6-20.8)	(12.5-21.1)	(13.9-18.9)
Not heard of or don't know session advice	34	40	42	38	39
95% C.I.	(31.1-37.9)	(34.3-46.6)	(34.9-49.3)	(32.2-43.9)	(35.5-42.8)
Not heard of or don't know of units	2	4	6	8	10
95% C.I.	(1.2-2.7)	(2.2-5.8)	(3.9-9.9)	(5.6-12.4)	(8.3-12.2)
Bases (weighted):	*1514*	*370*	*297*	*438*	*1178*
Bases (unweighted):	*1354*	*407*	*301*	*420*	*1304*

a This group were aware that advice about single sessions existed, but did not know how many units were advised

Table 4.11c Knowledge of the maximum number of units advised in a single session for own sex by Scottish Index of Multiple Deprivation quintile

Aged 16 and over *2008/2009 combined*

Knowledge of maximum single session units for own sex (8 or men, 6 for women per session)	**Scottish Index of Multiple Deprivation quintile**				
	5th (least deprived)	4th	3rd	2nd	1st (most deprived)
	%	%	%	%	%
Underestimated session units	34	34	38	31	28
95% C.I.	(29.5-38.9)	(29.8-38.2)	(33.6-42.9)	(27.1-35.7)	(24.3-31.9)
Knew session units	4	3	2	4	3
95% C.I.	(2.7-6.9)	(2.1-5.7)	(1.5-4.1)	(2.2-6.3)	(1.6-4.9)
Overestimated session units	3	3	4	3	5
95% C.I.	(2.1-5.6)	(2.2-5.3)	(2.8-6.7)	(2.2-5.3)	(3.1-7.2)
Didn't know session units[a]	19	17	16	14	14
95% C.I.	(15.3-23.2)	(13.4-20.2)	(13.6-19.8)	(11.6-17.7)	(11.1-16.8)
Not heard of or don't know session advice	35	39	33	41	41
95% C.I.	(30.1-39.4)	(34.3-43.4)	(28.7-37.5)	(36.2-45.3)	(36.3-45.3)
Not heard of or don't know of units	5	4	6	7	10
95% C.I.	(2.9-7.4)	(2.7-5.6)	(4.0-7.8)	(4.6-9.1)	(8.1-12.6)
Bases (weighted):	*766*	*861*	*728*	*771*	*739*
Bases (unweighted):	*639*	*843*	*793*	*775*	*814*

a This group were aware that advice about single sessions existed, but did not know how many units were advised

Table 4.12 Knowledge of advice on number of alcohol free days per week by age and sex

Aged 16 and over *2008, 2009, 2008/2009 combined*

Knowledge of alcohol free days per week advice (2 days)	Age				Total 2008/ 2009	Total 2008	Total 2009
	16-34	35-54	55-74	75+			
	%	%	%	%	%	%	%
Men							
Not heard this advice	70	62	58	77	64	64	65
95% C.I.	(62.7-75.6)	(57.0-66.5)	(53.4-62.9)	(69.4-82.5)	(61.3-67.2)	(59.4-67.7)	(60.6-68.8)
Heard of but don't know the number	1	1	3	4	2	2	2
95% C.I.	(0.4-2.9)	(0.6-2.5)	(1.9-5.1)	(1.9-7.8)	(1.3-2.6)	(1.1-2.9)	(1.2-3.1)
0-1 days	1	1	1	3	1	2	1
95% C.I.	(0.2-5.4)	(0.5-2.6)	(0.3-2.0)	(1.5-7.7)	(0.7-2.1)	(0.8-3.5)	(0.3-1.4)
1-2 days	3	7	8	6	6	6	6
95% C.I.	(1.4-7.5)	(4.9-9.6)	(5.9-11.0)	(3.5-11.2)	(4.8-7.6)	(4.7-8.2)	(4.2-8.5)
2-3 days	10	15	13	5	12	12	13
95% C.I.	(6.3-14.7)	(11.7-18.9)	(10.4-16.8)	(2.6-9.9)	(10.3-14.3)	(9.1-14.6)	(10.4-16.3)
3-4 days	9	8	9	3	8	10	7
95% C.I.	(5.6-13.7)	(6.1-11.5)	(6.4-12.1)	(1.5-7.0)	(6.7-10.3)	(7.4-13.1)	(4.9-9.4)
4-5 days	5	4	7	0	5	4	5
95% C.I.	(2.8-9.6)	(2.2-5.7)	(4.3-10.1)	(0.1-3.0)	(3.5-6.2)	(2.6-6.1)	(3.5-7.4)
5-6 days	1	2	1	-	1	1	2
95% C.I.	(0.2-4.4)	(0.7-4.5)	(0.4-2.6)	-	(0.6-2.4)	(0.2-3.0)	(0.7-3.2)
6-7 days	0	-	-	1	0	0	0
95% C.I.	(0.1-3.0)	-	-	(0.2-3.4)	(0.0-0.8)	(0.1-1.7)	(0.0-0.3)
Women							
Not heard this advice	66	57	59	77	62	62	63
95% C.I.	(60.7-71.6)	(53.0-61.7)	(54.4-62.6)	(70.6-81.9)	(59.6-64.7)	(58.1-65.6)	(59.3-66.0)
Heard of but don't know the number	2	3	4	6	3	4	3
95% C.I.	(0.9-3.7)	(1.7-4.5)	(3.1-6.3)	(3.6-10.9)	(2.6-4.2)	(2.7-5.2)	(2.0-4.3)
0-1 days	1	0	1	1	1	1	1
95% C.I.	(0.4-2.6)	(0.1-1.5)	(0.8-2.8)	(0.1-3.7)	(0.5-1.4)	(0.5-1.7)	(0.4-1.7)
1-2 days	3	6	9	2	5	5	5
95% C.I.	(1.2-5.4)	(3.9-8.5)	(6.4-11.2)	(0.9-4.6)	(4.2-6.5)	(3.5-6.8)	(4.0-7.4)
2-3 days	10	12	13	6	11	10	12
95% C.I.	(6.7-13.8)	(9.5-14.7)	(10.7-16.5)	(3.5-9.6)	(9.5-12.8)	(7.8-12.3)	(10.0-14.9)
3-4 days	10	12	10	5	10	12	8
95% C.I.	(6.8-13.9)	(9.4-15.6)	(7.4-12.3)	(3.1-9.5)	(8.6-11.9)	(9.3-14.5)	(6.7-10.4)
4-5 days	5	8	3	3	5	5	6
95% C.I.	(3.1-8.3)	(6.0-10.9)	(1.7-4.8)	(1.3-5.4)	(4.3-6.7)	(3.6-7.1)	(4.2-7.7)
5-6 days	3	1	0	-	2	2	1
95% C.I.	(1.5-7.5)	(0.7-2.7)	(0.2-1.3)	-	(0.9-2.7)	(1.0-3.8)	(0.5-2.1)
6-7 days	0	0	1	0	0	0	1
95% C.I.	(0.1-1.3)	(0.0-0.3)	(0.3-2.2)	(0.1-3.0)	(0.2-0.7)	(0.0-0.4)	(0.3-1.4)

Continued…

Table 4.12 - *Continued*

Aged 16 and over *2008, 2009, 2008/2009 combined*

Knowledge of alcohol free days per week advice (2 days)	Age				Total 2008/ 2009	Total 2008	Total 2009
	16-34	35-54	55-74	75+			
	%	%	%	%	%	%	%
All adults							
Not heard this advice	68	60	58	77	63	63	64
95% C.I.	(63.6-72.0)	(56.3-62.7)	(55.3-61.5)	(72.1-80.7)	(61.3-65.1)	(60.0-65.3)	(61.0-66.3)
Heard of but don't know the number	1	2	4	5	3	3	2
95% C.I.	(0.8-2.6)	(1.4-3.0)	(2.8-5.1)	(3.4-8.4)	(2.2-3.2)	(2.2-3.7)	(1.8-3.3)
0-1 days	1	1	1	2	1	1	1
95% C.I.	(0.4-2.7)	(0.4-1.5)	(0.7-2.0)	(0.8-3.5)	(0.7-1.5)	(0.8-2.1)	(0.4-1.3)
1-2 days	3	6	8	4	6	6	6
95% C.I.	(1.6-5.1)	(4.9-8.2)	(6.7-10.3)	(2.3-6.0)	(4.8-6.6)	(4.5-6.8)	(4.5-7.2)
2-3 days	10	13	13	6	12	11	13
95% C.I.	(7.3-12.8)	(11.3-15.7)	(11.3-15.5)	(3.7-8.2)	(10.4-12.9)	(9.1-12.5)	(10.9-14.6)
3-4 days	9	10	9	5	9	11	8
95% C.I.	(7.0-12.3)	(8.5-12.6)	(7.5-11.3)	(2.9-7.2)	(8.1-10.5)	(9.1-12.9)	(6.3-9.2)
4-5 days	5	6	5	2	5	5	5
95% C.I.	(3.5-7.6)	(4.6-7.7)	(3.3-6.5)	(0.9-3.5)	(4.1-6.1)	(3.4-6.0)	(4.2-7.0)
5-6 days	2	2	1	-	1	1	1
95% C.I.	(1.1-4.5)	(0.9-3.0)	(0.3-1.5)	-	(0.9-2.1)	(0.8-2.6)	(0.8-2.2)
6-7 days	0	0	0	1	0	0	0
95% C.I.	(0.1-1.3)	(0.0-0.2)	(0.1-1.2)	(0.2-1.9)	(0.1-0.5)	(0.0-0.8)	(0.2-0.7)
Bases (weighted):							
Men	*567*	*665*	*485*	*132*	*1848*	*881*	*967*
Women	*558*	*719*	*533*	*209*	*2019*	*964*	*1055*
All adults	*1125*	*1384*	*1018*	*341*	*3867*	*1845*	*2022*
Bases (unweighted):							
Men	*301*	*601*	*565*	*192*	*1659*	*793*	*866*
Women	*467*	*700*	*732*	*307*	*2206*	*1051*	*1155*
All adults	*768*	*1301*	*1297*	*499*	*3865*	*1844*	*2021*

Table 4.13a Knowledge of advice on number of alcohol free days per week by equivalised annual household income quintile

Aged 16 and over *2008/2009 combined*

Knowledge of alcohol free days per week advice (2 days)	Equivalised annual household income quintile				
	1st (highest)	2nd	3rd	4th	5th (lowest)
	%	%	%	%	%
Not heard this advice	53	63	65	65	71
95% C.I.	(48.7-57.8)	(59.2-67.4)	(60.5-69.5)	(60.7-69.9)	(66.5-75.5)
Heard of but don't know the number	1	3	2	3	2
95% C.I.	(0.7-2.6)	(1.9-4.5)	(1.4-3.6)	(1.7-4.2)	(1.4-4.0)
0-1 days	1	1	0	2	2
95% C.I.	(0.5-2.1)	(0.4-1.9)	(0.0-0.7)	(0.8-3.2)	(0.6-4.9)
1-2 days	9	6	5	5	3
95% C.I.	(6.7-12.1)	(3.8-8.0)	(3.1-7.6)	(3.1-6.7)	(2.3-5.3)
2-3 days	17	12	11	10	7
95% C.I.	(14.1-20.7)	(9.4-15.0)	(8.0-14.1)	(7.6-13.8)	(5.5-10.0)
3-4 days	11	9	11	9	7
95% C.I.	(8.5-14.5)	(7.1-12.2)	(8.3-14.2)	(6.7-12.9)	(4.5-10.3)
4-5 days	5	5	5	4	5
95% C.I.	(3.5-7.5)	(3.6-7.5)	(3.2-7.3)	(2.7-7.3)	(3.3-7.5)
5-6 days	1	1	1	2	1
95% C.I.	(0.5-3.4)	(0.1-2.6)	(0.5-2.5)	(0.6-3.7)	(0.5-3.4)
6-7 days	0	0	-	0	1
95% C.I.	(0.1-1.9)	(0.1-1.0)	-	(0.0-0.6)	(0.2-1.8)
Bases (weighted):	*798*	*750*	*685*	*603*	*588*
Bases (unweighted):	*699*	*702*	*660*	*654*	*723*

Table 4.13b Knowledge of advice on number of alcohol free days per week by NS-SEC of household reference person

Aged 16 and over *2008/2009 combined*

Knowledge of alcohol free days per week advice (2 days)	NS-SEC of household reference person				
	Managerial & professional	Intermediate	Small employers & own account workers	Lower supervisory & technical	Semi-routine and routine
	%	%	%	%	%
Not heard this advice	58	69	65	65	66
95% C.I.	(54.8-61.4)	(63.1-74.1)	(58.5-71.8)	(58.8-70.6)	(62.2-69.0)
Heard of but don't know the number	2	2	5	3	3
95% C.I.	(1.3-2.9)	(1.1-4.7)	(3.2-8.7)	(1.5-5.5)	(2.0-3.9)
0-1 days	1	0	1	1	1
95% C.I.	(0.6-1.7)	(0.0-1.2)	(0.2-2.8)	(0.3-2.1)	(0.7-2.9)
1-2 days	7	5	7	8	3
95% C.I.	(5.4-8.5)	(3.4-8.6)	(4.5-11.9)	(4.6-12.7)	(2.1-4.3)
2-3 days	16	10	11	7	9
95% C.I.	(13.6-18.4)	(6.8-13.1)	(7.5-16.1)	(4.8-10.7)	(7.2-11.2)
3-4 days	10	7	6	12	9
95% C.I.	(8.3-12.2)	(4.2-11.1)	(3.0-10.0)	(8.2-16.3)	(7.4-11.8)
4-5 days	4	6	4	4	7
95% C.I.	(3.3-5.8)	(3.2-9.4)	(1.9-7.4)	(2.1-6.1)	(4.9-9.0)
5-6 days	1	1	0	1	2
95% C.I.	(0.7-3.0)	(0.5-2.7)	(0.1-3.2)	(0.3-5.5)	(1.0-3.3)
6-7 days	0	0	0	-	0
95% C.I.	(0.1-1.0)	(0.1-1.0)	(0.0-1.1)	-	(0.1-1.0)
Bases (weighted):	*1515*	*370*	*297*	*438*	*1178*
Bases (unweighted):	*1355*	*407*	*301*	*420*	*1304*

Table 4.13c Knowledge of advice on number of alcohol free days per week by Scottish Index of Multiple Deprivation quintile

Aged 16 and over *2008/2009 combined*

Knowledge of alcohol free days per week advice (2 days)	Scottish Index of Multiple Deprivation quintile				
	5th (least deprived)	4th	3rd	2nd	1st (most deprived)
	%	%	%	%	%
Not heard this advice	59	62	60	69	65
95% C.I.	(54.4-63.7)	(58.2-66.5)	(55.7-64.5)	(64.7-73.0)	(61.2-69.2)
Heard of but don't know the number	3	2	3	2	3
95% C.I.	(1.9-4.8)	(1.6-3.8)	(2.0-4.2)	(1.1-3.3)	(1.8-4.6)
0-1 days	1	1	1	1	1
95% C.I.	(0.4-1.8)	(0.6-2.2)	(0.5-2.4)	(0.4-3.6)	(0.3-1.8)
1-2 days	7	8	6	4	3
95% C.I.	(5.0-8.7)	(6.3-10.9)	(3.9-8.5)	(2.5-5.9)	(1.9-5.0)
2-3 days	14	11	13	9	11
95% C.I.	(11.2-17.6)	(8.4-13.4)	(10.6-16.4)	(6.9-12.5)	(8.5-13.7)
3-4 days	11	8	10	8	9
95% C.I.	(8.4-14.8)	(5.8-10.2)	(7.5-14.1)	(6.1-10.8)	(7.1-11.6)
4-5 days	4	5	4	6	6
95% C.I.	(2.5-6.6)	(3.3-8.1)	(2.7-6.4)	(4.0-8.3)	(4.0-8.2)
5-6 days	1	2	2	1	2
95% C.I.	(0.2-3.0)	(0.5-4.4)	(1.0-4.3)	(0.4-1.8)	(0.8-3.7)
6-7 days	0	1	0	-	1
95% C.I.	(0.0-0.8)	(0.2-1.8)	(0.0-0.6)	-	(0.2-1.4)
Bases (weighted):	*766*	*862*	*728*	*771*	*739*
Bases (unweighted):	*639*	*844*	*793*	*775*	*814*

Table 4.14 Alcohol consumption by motivation to reduce alcohol consumption

Aged 16 and over *2008/2009 combined*

Motivation to reduce alcohol consumption	Reported alcohol consumption[a]			Total 2008/2009	Total 2008	Total 2009
	Ex-drinker	Drinks within Government guidelines[b]	Drinks outwith Government guidelines[c]			
	%	%	%			
Pre-contemplation	-	-	70	32	33	31
95% C.I.	-	-	(67.3-73.3)	(29.8-33.7)	(30.0-35.6)	(28.0-33.4)
Contemplation	-	0	6	3	2	3
95% C.I.	-	(0.2-0.8)	(4.4-7.5)	(2.1-3.6)	(1.7-3.5)	(2.2-4.3)
Preparation	-	1	5	3	3	2
95% C.I.	-	(0.3-1.4)	(4.2-7.1)	(2.1-3.5)	(2.0-4.3)	(1.8-3.4)
Action	-	1	8	4	4	4
95% C.I.	-	(0.8-2.0)	(6.6-10.4)	(3.4-5.1)	(3.0-5.3)	(3.2-5.8)
Maintenance	5	5	10	7	7	7
95% C.I.	(3.2-9.2)	(3.6-6.3)	(8.4-12.2)	(5.8-7.8)	(5.5-8.3)	(5.4-8.3)
Long-term maintenance	95	93	-	52	51	53
95% C.I.	(90.8-96.8)	(91.3-94.4)	-	(49.9-53.9)	(48.3-54.0)	(50.1-55.7)
Bases (weighted):	*238*	*1662*	*1665*	*3869*	*1846*	*2023*
Bases (unweighted):	*302*	*1749*	*1543*	*3869*	*1846*	*2023*

a This measure is based on self-reported usual weekly consumption and on the heaviest drinking day in last week. The individual figures for people who never drink alcohol are excluded from this table (100% were in the long-term maintenance group) but they are included in the total column

b Drank no more than 4 units (men) or 3 units (women) on heaviest drinking day, and drank no more than 21 units (men) or 14 units (women) in usual week

c Drank more than 4 units (men) or 3 units (women) on heaviest drinking day, and/or drank more than 21 units (men) or 14 units (women) in usual week

Table 4.15 Motivation to reduce alcohol consumption by age and sex

Aged 16 and over *2008/2009 combined*

Motivation to reduce alcohol consumption	Age				Total
	16-34	35-54	55-74	75+	
	%	%	%	%	%
Men					
Pre-contemplation	34	39	32	15	34
95% C.I.	(27.5-40.5)	(34.4-44.4)	(27.1-36.6)	(10.2-20.5)	(30.9-36.9)
Contemplation	4	4	4	4	4
95% C.I.	(1.6-8.8)	(2.8-6.8)	(2.6-6.6)	(1.7-8.5)	(3.0-5.7)
Preparation	4	3	2	2	3
95% C.I.	(1.7-7.5)	(1.8-5.2)	(1.1-4.5)	(0.8-5.9)	(2.0-4.3)
Action	8	5	3	-	5
95% C.I.	(5.0-13.7)	(3.1-7.1)	(2.2-5.6)	-	(3.8-7.0)
Maintenance	8	11	8	2	9
95% C.I.	(5.3-11.9)	(8.1-14.6)	(5.8-10.9)	(0.6-8.5)	(7.1-10.4)
Long-term maintenance	43	38	50	77	45
95% C.I.	(35.8-49.6)	(32.9-42.5)	(45.5-55.3)	(70.0-82.8)	(42.2-48.4)
Women					
Pre-contemplation	40	33	23	8	30
95% C.I.	(35.0-46.2)	(29.0-37.2)	(19.6-26.7)	(5.3-11.8)	(27.4-32.3)
Contemplation	2	2	0	-	2
95% C.I.	(1.0-3.8)	(1.4-4.0)	(0.1-1.9)	-	(1.0-2.2)
Preparation	2	4	2	-	2
95% C.I.	(1.1-4.9)	(2.4-5.9)	(0.8-3.6)	-	(1.7-3.6)
Action	4	5	1	-	3
95% C.I.	(2.8-7.0)	(3.2-6.7)	(0.6-2.6)	-	(2.4-4.2)
Maintenance	6	7	4	1	5
95% C.I.	(3.5-8.9)	(5.0-9.2)	(2.5-5.9)	(0.1-4.2)	(4.0-6.3)
Long-term maintenance	45	50	70	91	58
95% C.I.	(39.5-50.9)	(45.2-53.8)	(65.7-73.4)	(87.4-94.3)	(55.4-60.5)
All adults					
Pre-contemplation	37	36	27	11	32
95% C.I.	(32.8-41.5)	(32.8-39.3)	(24.3-30.2)	(7.9-13.8)	(29.8-33.7)
Contemplation	3	3	2	1	3
95% C.I.	(1.6-5.3)	(2.4-4.7)	(1.4-3.5)	(0.7-3.3)	(2.1-3.6)
Preparation	3	3	2	1	3
95% C.I.	(1.8-5.1)	(2.4-4.8)	(1.2-3.3)	(0.3-2.3)	(2.1-3.5)
Action	6	5	2	-	4
95% C.I.	(4.4-9.2)	(3.5-6.2)	(1.6-3.4)	-	(3.4-5.1)
Maintenance	7	9	6	1	7
95% C.I.	(4.9-9.3)	(7.1-10.9)	(4.5-7.5)	(0.4-3.8)	(5.8-7.8)
Long-term maintenance	44	44	60	86	52
95% C.I.	(39.5-48.3)	(40.5-47.1)	(57.2-63.7)	(82.1-89.0)	(49.9-53.9)
Bases (weighted):					
Men	*567*	*665*	*485*	*132*	*1849*
Women	*558*	*719*	*533*	*210*	*2020*
All adults	*1125*	*1385*	*1018*	*342*	*3869*
Bases (unweighted):					
Men	*301*	*602*	*565*	*193*	*1661*
Women	*467*	*700*	*732*	*309*	*2208*
All adults	*768*	*1302*	*1297*	*502*	*3869*

Table 4.16a Motivation to reduce alcohol consumption by equivalised annual household income quintile

Aged 16 and over *2008/2009 combined*

Motivation to reduce alcohol consumption	Equivalised annual household income quintile				
	1st (highest)	2nd	3rd	4th	5th (lowest)
	%	%	%	%	%
Pre-contemplation	40	38	35	25	22
95% C.I.	(35.7-44.4)	(33.2-42.3)	(30.3-39.9)	(20.6-29.2)	(18.3-26.9)
Contemplation	2	5	3	3	2
95% C.I.	(0.9-2.8)	(3.4-7.9)	(1.1-5.9)	(1.3-4.8)	(1.1-3.7)
Preparation	4	4	2	1	3
95% C.I.	(2.3-5.6)	(2.2-5.6)	(0.9-4.8)	(0.6-2.4)	(1.7-4.9)
Action	7	4	4	2	4
95% C.I.	(4.9-9.1)	(2.3-5.9)	(2.3-6.6)	(1.0-3.6)	(2.3-6.7)
Maintenance	8	7	7	5	7
95% C.I.	(6.0-10.5)	(4.6-9.8)	(5.0-10.2)	(3.4-8.4)	(5.2-9.7)
Long-term maintenance	40	43	49	64	62
95% C.I.	(35.8-44.8)	(38.6-47.7)	(44.4-54.2)	(59.4-68.9)	(56.7-66.4)
Bases (weighted):	*798*	*750*	*686*	*603*	*589*
Bases (unweighted):	*699*	*702*	*661*	*654*	*725*

Table 4.16b Motivation to reduce alcohol consumption by NS-SEC of household reference person

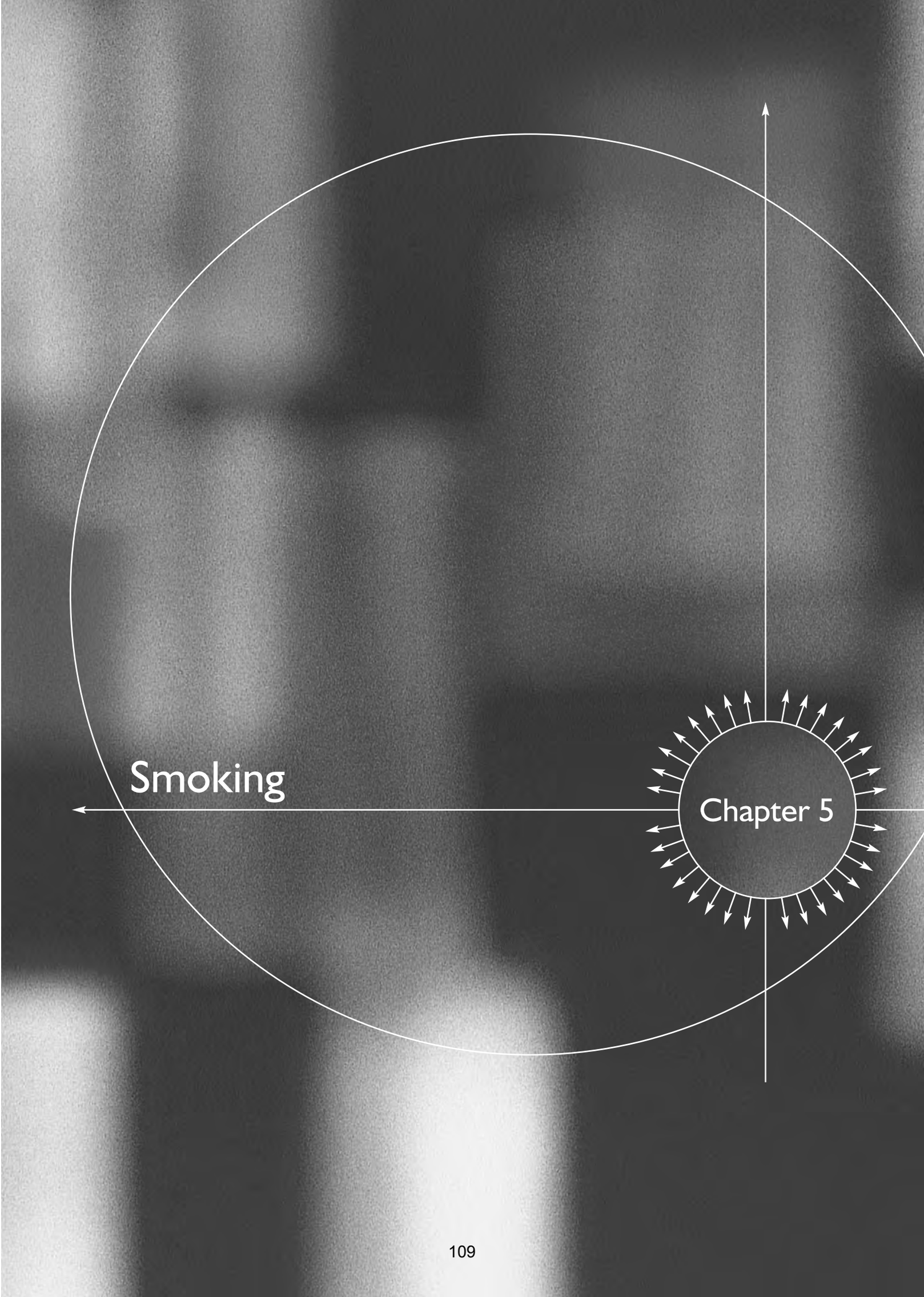
Aged 16 and over *2008/2009 combined*

Motivation to reduce alcohol consumption	NS-SEC of household reference person				
	Managerial & professional	Intermediate	Small employers & own account workers	Lower supervisory & technical	Semi-routine and routine
	%	%	%	%	%
Pre-contemplation	35	32	33	36	26
95% C.I.	(32.2-38.6)	(26.3-37.6)	(26.4-40.1)	(29.6-42.0)	(22.7-29.2)
Contemplation	3	4	4	1	2
95% C.I.	(2.0-4.6)	(1.8-9.7)	(1.7-8.1)	(0.4-3.6)	(1.4-3.1)
Preparation	3	3	2	2	3
95% C.I.	(1.8-4.0)	(1.5-6.7)	(0.9-5.9)	(0.7-7.5)	(1.8-4.1)
Action	5	4	3	3	3
95% C.I.	(3.9-6.8)	(1.8-8.5)	(1.4-6.8)	(1.9-5.6)	(2.1-5.5)
Maintenance	7	5	7	8	6
95% C.I.	(5.7-9.2)	(3.2-8.9)	(3.8-10.9)	(5.1-11.4)	(4.9-8.3)
Long-term maintenance	46	51	51	50	59
95% C.I.	(43.3-49.8)	(45.2-57.7)	(44.1-58.8)	(43.9-55.9)	(56.0-62.8)
Bases (weighted):	*1515*	*370*	*297*	*438*	*1179*
Bases (unweighted):	*1356*	*407*	*301*	*421*	*1306*

Table 4.16c Motivation to reduce alcohol consumption by Scottish Index of Multiple Deprivation quintile

Aged 16 and over *2008/2009 combined*

Motivation to reduce alcohol consumption	Scottish Index of Multiple Deprivation quintile				
	5th (least deprived)	4th	3rd	2nd	1st (most deprived)
	%	%	%	%	%
Pre-contemplation	33	35	34	28	28
95% C.I.	(29.0-37.7)	(30.6-39.2)	(30.0-39.1)	(23.6-32.2)	(24.3-32.5)
Contemplation	2	3	2	4	3
95% C.I.	(1.0-3.6)	(1.5-5.3)	(1.0-3.6)	(2.3-6.1)	(2.1-5.6)
Preparation	4	2	3	2	3
95% C.I.	(2.2-5.7)	(1.5-4.0)	(1.2-5.6)	(1.3-4.1)	(1.6-4.3)
Action	6	5	2	3	3
95% C.I.	(4.1-9.8)	(3.4-8.0)	(1.4-4.3)	(2.0-5.0)	(2.1-5.0)
Maintenance	7	6	8	6	7
95% C.I.	(4.8-9.2)	(4.3-8.8)	(5.7-11.2)	(4.6-8.8)	(4.9-8.9)
Long-term maintenance	48	48	51	57	56
95% C.I.	(43.9-52.7)	(44.0-53.0)	(46.1-55.3)	(52.1-61.3)	(51.6-60.1)
Bases (weighted):	*766*	*862*	*728*	*771*	*741*
Bases (unweighted):	*639*	*844*	*795*	*775*	*816*



Smoking

Chapter 5

5 SMOKING

SUMMARY

- In 2008/2009, around half of current smokers had taken action to try and reduce or quit smoking in the previous year. However, only 12% had managed to sustain a reduction in their smoking levels.
- Around a quarter of current smokers (23%) had not tried to reduce their smoking and were not planning on doing so in the near future.
- Most smokers are aware of the impact their smoking has on others: just 6% of adults said they would make no changes to their smoking at all in the presence of a non-smoking adult. Two-thirds (65%) would leave the room to smoke, while around one in six (17%) would remain in the room but not smoke.
- Smokers were even more likely to adjust their behaviour in the presence of a child – 6% would smoke in a child's presence, 69% would leave the room to smoke, while 24% would remain in the room but not smoke.

5.1 INTRODUCTION

This chapter explores smokers' motivations to quit or cut down on smoking and examines their usual behaviour in relation to smoking in front of adult non-smokers and children.

As set out in the main 2008 and 2009 Scottish Health Survey (SHeS) reports, smoking is Scotland's single biggest cause of preventable death and ill-health. The Scottish Government committed £42 million to tobacco control in the period 2008/9 to 2010/11 to help implement the actions set out in its 2008 Action Plan *Scotland's Future is Smoke Free*.[1] The central objective of these actions is to reduce the prevalence of smoking in the population, to 22% among those aged over 16 by 2010 and to 22.9% among those aged 16-24 by 2012. Efforts to reduce smoking prevalence need to focus on both preventing smoking initiation (especially by children and young people) and on helping smokers to quit. Support for the latter is available in numerous forms in Scotland via comprehensive smoking cessation services that include individual and group based support and nicotine replacement therapy via community pharmacies. NHS Health Scotland's 'Can stop smoking' programme includes a free national stop smoking helpline and a website that provides information about access to cessation services, tools to help smokers in their quit attempt, and online access to cessation advisors.

Data collected in the main 2008 and 2009 SHeS interview demonstrate that the ban on smoking in public places (implemented in Scotland in 2006) has been very effective in reducing non-smokers' exposure to smoke in a range of public places. It is also clear that non-smokers' exposure to smoking within the home has declined, from 18% of those aged 16-74 in 1998, to 9% for men and 8% for women of the same age in 2009.[2] Reducing harm from second hand smoke, and in particular harm to children, remains a key public health objective in Scotland. To address this in settings that are not covered by the ban will require

more smokers to adjust their behaviour to further reduce non-smokers' exposure to smoke.

5.2 SMOKING PREVALENCE IN SCOTLAND

As this chapter focuses on smokers and ex-smokers it is helpful to start with a brief overview of smoking prevalence in Scotland, as measured in the main SHeS interview.[2,3] In 2009, 25% of both men and women aged 16 and over reported that they smoked cigarettes. Around half (51% of men and 55% of women) said they had either never smoked at all, or never smoked regularly, while a further 24% of men and 20% of women used to be regular smokers. Smoking prevalence varies with age. In 2009, 24% of men aged 16-24 smoked, increasing to 34% of men aged 25-34, before falling steadily with increasing age to 13% of those aged 75 and over. Among women, between 26% and 30% of these aged 16-54 smoked, compared with 29% of those aged 65-74 and 10% of those aged 75 and over.

5.3 MOTIVATIONS TO STOP OR CUT DOWN SMOKING

The Knowledge, Attitudes and Motivations to health (KAM) module included questions designed to assess people's motivations to stop or cut down on smoking. This was measured by asking participants:

- if they had **tried** to cut down on or stop smoking in the past year, and if so
- whether they had managed to **maintain** this change;
- if they would **like** to cut down on or stop smoking, and if so
- whether they were **thinking** of cutting down or stopping in the next six months.

An individual's readiness to change their behaviour was determined by using the responses given to this series of questions to classify them according to DiClemente and Proschaska's 'Stages of Change model'.[4] In relation to smoking, this ranges from no change recently undertaken or planned, through to a maintained decrease or cessation of smoking. For the purpose of this report a further category has been added of 'long-term maintenance', which includes ex-smokers who did not mention having made any recent changes to their smoking status (i.e. ex-smokers who stopped smoking more than 12 months ago). The following table sets out the stages and presents the proportion of (a) current smokers and (b) current and ex-smokers in Scotland in each category.

Stage of change	Definition of stage of change	% of smokers (2008/ 2009)	% of smokers/ ex-smokers (2008/ 2009)
Pre-contemplation	Not cut down or stopped smoking in the previous 12 months and not intending to do so in the next 6 months	23	11
Contemplation	Would like to cut down or stop smoking but not intending to do so	11	5
Preparation	Would like to cut down or stop smoking and thinking of doing so in the next six months	16	8
Action	Cut down or stopped smoking in the previous 12 months but did not maintain these decreased levels	37	18
Maintenance	Cut down or stopped smoking in the previous 12 months and maintained these decreased levels	12	8
Long-term maintenance	Does not currently smoke and did not cut down on or stop smoking in the previous 12 months.	Not Applicable	48

As Table 5.1 demonstrates, in 2008/2009 around half (49%) of current smokers had taken some action to cut down on the amount they smoked in the previous year, with 12% having succeeded in reducing their smoking (although as they are still classed as current smokers, 'maintaining' this change does not indicate stopping smoking altogether). Around one in four (23%) smokers had not made any attempts to reduce their smoking in the previous year and did not plan to do so soon, while a further one in ten (11%) would like to cut down or stop smoking, but were not yet actually thinking about doing so.

These findings are in accordance with the fact that the 2008 SHeS found that 68% of smokers said they would like to give up smoking.[3] However, while many active attempts to stop or reduce smoking are in evidence, as well as much contemplation, actual success currently eludes most smokers. The vast majority of ex-regular (92%) and ex-occasional (98%) smokers fell into the long-term maintenance category, indicating that they gave up smoking more than a year ago. **Table 5.1**

5.4 SMOKERS' BEHAVIOUR IN THE COMPANY OF NON-SMOKERS

To investigate smokers' views about the acceptability of smoking in front of non-smokers, they were asked whether they impose any restrictions on their behaviour when in a room with (a) non-smoking adults and (b) children. The questions presented smokers with the options of:

- smoking the same number of cigarettes as usual
- smoking fewer cigarettes
- staying in the room and not smoking at all

- or leaving the room to smoke

As noted in the introduction to this chapter, the ban on smoking in public places has brought about a marked reduction in exposure to second hand smoke. However, while further restrictions could be introduced to extend this further into private spaces occupied by children (such as cars) the complete elimination of exposure to second hand smoke will in large part depend upon smokers themselves placing restrictions on their behaviour.

It is clear from Table 5.2 that current smokers were conscious of the impact that their smoke has upon non-smokers, or at least were alert to the fact that many non-smokers dislike being exposed to smoke. Looking first at smokers' behaviour in the company of non-smoking adults, in 2009 just 6% said that they would smoke the same number of cigarettes as usual (that is, make no adjustment to their behaviour). A further 10% would still smoke, but would reduce the number of cigarettes. The majority of smokers (65%) said that they would leave the room to smoke and 18% said they would remain in the room but not smoke. **Table 5.2**

Recent social marketing campaigns have highlighted the particular dangers of second hand smoke to children. It is clear from Table 5.4 that smokers said they do take further steps to modify their behaviour if there are children present in the room. In 2009, just 1% said they would continue to smoke as normal and a further 2% that they would smoke fewer cigarettes if they were in a room with children. The majority (72%) of smokers said they would go outside to smoke. Slightly more smokers (23%) said they would stay put but not smoke if there were children in the room than said this if they were only in the presence of non-smoking adults. This may be because smokers feel they need to take additional steps to avoid exposing children to smoke, or to avoid them observing their smoking behaviour. **Table 5.4**

In terms of the reliability of this self-reported data, it is, of course, possible that the declining social acceptability of smoking over time has resulted in smokers feeling less comfortable about admitting they smoke in front of non-smoking adults and, in particular, children. However, as discussed above (section 5.1) the main SHeS 2009 report also shows that non-smoking adults report lower exposure to smoke now than in the past,[2] and there is less reason to think that non-smokers' responses would be affected by considerations of social desirability. Moreover, analysis of cotinine levels in non-smokers based on the 2008/2009 SHeS data provides objective evidence that exposure to second-hand smoke is lower compared with 2003. However, younger non-smokers stood out as the group most likely to report exposure to second-hand smoke. For example, 17% of adult non-smokers reported exposure in their own or other people's homes, whereas the figure for non-smokers aged 16-24 was twice as high at 35%.

The remainder of this chapter discusses variations in smokers' behaviour in the presence of non-smoking adults or children by sex, age and socio-demographic factors. As these questions are only asked of smokers, and only a minority of adults in Scotland smoke, the sample sizes for some sub-groups are very small. It is not possible, for example, to comment on the behaviour of smokers aged

75 and older, as there are too few smokers in this age group in the sample. In future, when it is possible to combine data from more than two years of the survey, it may be possible to identify more variations in smoking behaviour by sub-group.

5.4.1 Smoking behaviour by age, sex and socio-demographic group

Tables 5.2 and 5.4 show that there were no significant differences between male and female smokers' reported behaviour in the presence of non-smokers or children. Despite the different levels of exposure reported across age groups, the proportion of smokers who would continue to smoke in the presence of non-smokers was similar across age groups. However, there was some evidence that when in the presence of adult non-smokers, older women (aged 55-74) were more likely than their younger counterparts to remain in the same room but refrain from smoking, rather than leaving the room to smoke.

Tables 5.2 and 5.4

There were no statistically significant differences in smokers' self-reported behaviour in the presence of adult non-smokers or children by household income, NS-SEC or area deprivation (these measures are all explained in full in Chapter 2). **Tables 5.3a, 5.3b, 5.3c, 5.5a, 5.5b, 5.5c**

5.5 CONCLUSIONS

This chapter reinforces findings from the main SHeS that most smokers want to reduce or stop smoking. However, only half have actually made any attempt to do so in the last year, and just 12% have succeeded in reducing their smoking levels. This highlights the continuing importance of smoking cessation services to support people trying to quit.

The majority of smokers are also clearly aware of the impact of their smoke on others, and would modify their smoking behaviour, particularly when in the presence of children.

The lack of correspondence between the proportion of smokers in the youngest age group who say they would continue to smoke, and the rate of exposure reported by non-smokers of the same age might be interesting to explore further. It does not appear from these data that young non-smokers' exposure is caused by spending time with smokers in their peer group. Finding out who non-smokers are with when they are exposed to smoke, rather than just where they are, could answer this.

References and notes

[1] *Scotland's Future is Smoke-Free: A Smoking Prevention Action Plan*. Edinburgh: Scottish Government, 2008

[2] Miller, M. (2010) Chapter 4: Smoking. In Bromley, C., Given, L. and Ormston, R. *The Scottish Health Survey 2009, Volume 1: Main Report*. Edinburgh: Scottish Government

[3] Gray, L. and Leyland, A. (2009) Chapter 4: Smoking. In Bromley, C., Bradshaw, P., and Given, L. *The Scottish Health Survey 2008, Volume 1: Main Report*. Edinburgh: Scottish Government

[4] The Stages of Change model (sometimes referred to as The Transtheoretical Model) is a model of health behaviour change developed initially by DiClemente and Proschaska in 1977. Here we refer to the version of the model which contains five 'stages of change' ranging from pre-contemplation to maintenance. For further reading on the 'Stages of Change model' see DiClemente, C.C., & Prochaska, J.O. (1982). Self change and therapy change of smoking behavior: A comparison of processes of change in cessation and maintenance. *Addictive Behavior*. 7 (2): 133-42.

Table list

Table 5.1 Motivation to stop/cut down smoking by self-reported cigarette smoking status (current and ex-smokers)

Current smokers aged 16 and over *2008, 2009, 2008/2009 combined*

Motivation to stop/ cut down smoking	**Self-reported cigarette smoking status**			Total 2008/ 2009	Total 2008	Total 2009
	Current smoker	Ex-regular smoker	Ex-occasional smoker			
	%	%	%	%	%	%
Pre-contemplation	23	-	-	11	12	11
95% C.I.	(19.9-26.5)	-	-	(9.6-13.0)	(9.6-14.6)	(8.6-13.4)
Contemplation	11	-	-	5	6	4
95% C.I.	(8.8-14.1)	-	-	(4.3-6.9)	(4.7-8.7)	(3.1-6.2)
Preparation	16	0	0	8	7	9
95% C.I.	(13.4-19.5)	(0.0-0.1)	(0.1-3.2)	(6.5-9.6)	(4.9-9.0)	(6.9-11.3)
Action	37	1	-	18	19	18
95% C.I.	(33.7-41.3)	(0.3-1.7)	-	(16.5-20.6)	(16.2-22.1)	(15.6-21.6)
Maintenance	12	8	2	9	10	9
95% C.I.	(9.7-15.2)	(5.5-10.2)	(0.4-6.1)	(7.7-11.0)	(7.7-12.5)	(6.6-11.0)
Long-term maintenance	-	92	98	48	46	49
95% C.I.	-	(89.1-93.8)	(93.7-99.4)	(45.1-50.5)	(42.8-49.8)	(45.1-53.1)
Bases (weighted):	*963*	*829*	*189*	*1981*	*968*	*1020*
Bases (unweighted):	*1019*	*948*	*185*	*2152*	*1053*	*1099*

Table 5.2 Smoking behaviour of self-reported cigarette smokers in room with non-smoking adults by age and sex

Current smokers aged 16 and over *2008, 2009, 2008/2009 combined*

Smoking behaviour in room with non-smoking adults	Age				Total 2008/ 2009	Total 2008	Total 2009
	16-34	35-54	55-74	75+			
	%	%	%	%	%	%	%
Men							
Smoke the same number of cigarettes as usual	7	6	10	a	7	7	8
95% C.I.	(3.2-16.3)	(3.1-9.7)	(5.2-19.6)	a	(4.8-10.7)	(4.2-12.5)	(4.2-13.7)
Smoke fewer cigarettes than usual	8	9	13	a	9	10	8
95% C.I.	(4.0-16.1)	(5.0-14.4)	(6.7-23.3)	a	(6.4-12.8)	(6.3-15.7)	(4.7-13.7)
Stay in the room and don't smoke	12	12	21	a	14	14	14
95% C.I.	(6.1-22.1)	(6.9-19.0)	(14.2-30.8)	a	(10.2-18.6)	(9.7-20.0)	(8.6-22.6)
Leave the room	69	71	55	a	67	65	69
95% C.I.	(56.6-79.1)	(62.8-78.5)	(44.0-65.8)	a	(61.0-72.7)	(56.1-72.2)	(59.5-76.7)
Other	3	3	0	a	3	4	1
95% C.I.	(0.6-16.7)	(0.9-9.0)	(0.1-2.6)	a	(1.1-6.6)	(1.3-11.6)	(0.3-4.3)
Women							
Smoke the same number of cigarettes as usual	4	5	4	[15]	5	5	4
95% C.I.	(2.0-7.5)	(2.5-8.3)	(1.6-8.3)	(6.0-34.2)	(3.2-6.7)	(3.1-8.6)	(2.5-7.1)
Smoke fewer cigarettes than usual	11	12	11	[5]	11	9	13
95% C.I.	(6.2-17.8)	(7.2-18.1)	(6.3-17.9)	(1.3-19.2)	(8.1-14.4)	(5.9-14.0)	(8.5-18.4)
Stay in the room and don't smoke	11	18	29	[40]	19	18	21
95% C.I.	(6.6-18.8)	(12.3-25.0)	(21.5-38.0)	(23.2-58.6)	(15.7-23.8)	(13.1-24.0)	(15.6-27.9)
Leave the room	74	63	56	[40]	64	66	61
95% C.I.	(64.6-81.0)	(55.4-70.7)	(47.1-65.4)	(23.3-58.8)	(58.7-68.4)	(59.0-72.3)	(54.0-67.9)
Other	0	3	-	-	1	2	1
95% C.I.	(0.1-3.1)	(1.0-6.7)	-	-	(0.5-3.2)	(0.5-5.8)	(0.3-2.4)
All adults							
Smoke the same number of cigarettes as usual	6	5	7	12	6	6	6
95% C.I.	(3.2-10.6)	(3.3-7.6)	(3.9-11.6)	(5.3-24.2)	(4.5-7.8)	(4.3-9.0)	(3.9-9.0)
Smoke fewer cigarettes than usual	9	10	12	3	10	10	10
95% C.I.	(6.0-14.3)	(7.1-14.4)	(7.7-17.6)	(0.9-11.8)	(8.0-12.4)	(7.0-13.1)	(7.5-14.2)
Stay in the room and don't smoke	12	15	25	30	17	16	18
95% C.I.	(7.5-17.8)	(11.0-20.0)	(19.9-31.8)	(18.6-44.7)	(13.9-19.9)	(12.6-20.2)	(13.5-22.8)
Leave the room	71	67	56	52	65	65	65
95% C.I.	(63.3-77.8)	(61.1-72.6)	(48.6-62.8)	(37.4-65.7)	(61.5-69.1)	(59.9-70.2)	(59.2-70.3)
Other	2	3	0	3	2	3	1
95% C.I.	(0.4-9.3)	(1.3-5.7)	(0.0-1.2)	(0.8-11.6)	(1.0-3.9)	(1.2-6.6)	(0.4-2.4)

Continued…

Table 5.2 - *Continued*

Current smokers aged 16 and over *2008, 2009, 2008/2009 combined*

Smoking behaviour in room with non-smoking adults	Age				Total 2008/ 2009	Total 2008	Total 2009
	16-34	35-54	55-74	75+			
Bases (weighted):							
Men	*166*	*192*	*96*	*15*	*468*	*230*	*242*
Women	*137*	*217*	*105*	*22*	*480*	*236*	*244*
All adults	*303*	*408*	*201*	*36*	*949*	*466*	*485*
Bases (unweighted):							
Men	*97*	*201*	*125*	*23*	*446*	*215*	*231*
Women	*151*	*228*	*154*	*31*	*564*	*268*	*296*
All adults	*248*	*429*	*279*	*54*	*1010*	*483*	*527*

a Data not shown due to small base

Table 5.3a Smoking behaviour of self-reported cigarette smokers in room with non-smoking adults by equivalised household income quintile

Current smokers aged 16 and over *2008/2009 combined*

Smoking behaviour in room with non-smoking adults	Equivalised annual household income quintile				
	1st (highest)	2nd	3rd	4th	5th (lowest)
	%	%	%	%	%
Smoke the same number of cigarettes as usual	4	4	3	8	8
95% C.I.	(1.4-11.5)	(1.6-10.1)	(1.2-7.0)	(4.1-15.6)	(5.6-12.3)
Smoke fewer cigarettes than usual	12	12	6	11	12
95% C.I.	(6.1-22.9)	(6.8-19.6)	(3.4-10.7)	(6.6-16.8)	(7.7-16.9)
Stay in the room and don't smoke	18	17	21	11	16
95% C.I.	(11.9-27.5)	(11.2-25.7)	(14.5-29.2)	(7.0-16.0)	(10.8-22.7)
Leave the room	63	63	70	68	64
95% C.I.	(50.9-72.9)	(53.6-72.1)	(60.7-77.5)	(59.5-76.2)	(55.9-70.5)
Other	3	4	0	2	1
95% C.I.	(0.8-8.1)	(0.7-16.2)	(0.0-2.2)	(0.5-7.8)	(0.3-2.3)
Bases (weighted):	*124*	*168*	*164*	*169*	*231*
Bases (unweighted):	*112*	*162*	*169*	*181*	*298*

Table 5.3b Smoking behaviour of self-reported cigarette smokers in room with non-smoking adults by NS-SEC of household reference person

Current smokers aged 16 and over *2008/2009 combined*

Smoking behaviour in room with non-smoking adults	NS-SEC of household reference person				
	Managerial & professional	Intermediate	Small employers & own account workers	Lower supervisory & technical	Semi-routine and routine
	%	%	%	%	%
Smoke the same number of cigarettes as usual	4	4	4	4	8
95% C.I.	(2.0-8.2)	(1.8-10.8)	(1.1-10.9)	(1.4-12.6)	(5.2-11.0)
Smoke fewer cigarettes than usual	8	5	6	10	13
95% C.I.	(4.2-13.5)	(1.9-11.7)	(1.6-19.3)	(5.3-17.4)	(10.0-17.6)
Stay in the room and don't smoke	22	16	19	15	14
95% C.I.	(15.6-29.8)	(8.5-28.8)	(9.8-32.5)	(8.9-23.8)	(10.7-17.9)
Leave the room	66	68	66	69	64
95% C.I.	(57.4-73.0)	(54.3-79.8)	(51.6-78.7)	(58.5-78.0)	(58.5-69.2)
Other	1	6	5	2	1
95% C.I.	(0.2-2.3)	(1.2-25.1)	(1.4-18.7)	(0.4-9.1)	(0.4-3.4)
Bases (weighted):	*227*	*99*	*81*	*110*	*405*
Bases (unweighted):	*204*	*105*	*81*	*114*	*474*

Table 5.3c Smoking behaviour of self-reported cigarette smokers in room with non-smoking adults by Scottish Index of Multiple Deprivation quintile

Current smokers aged 16 and over *2008/2009 combined*

Smoking behaviour in room with non-smoking adults	Scottish Index of Multiple Deprivation quintile				
	5th (least deprived)	4th	3rd	2nd	1st (most deprived)
	%	%	%	%	%
Smoke the same number of cigarettes as usual	6	6	4	4	9
95% C.I.	(2.2-16.9)	(2.6-14.0)	(1.8-7.7)	(2.4-8.2)	(5.8-12.5)
Smoke fewer cigarettes than usual	5	8	8	13	12
95% C.I.	(1.1-19.7)	(3.5-15.6)	(4.2-13.2)	(8.3-18.6)	(8.7-16.7)
Stay in the room and don't smoke	21	18	19	13	17
95% C.I.	(10.6-36.9)	(11.9-27.1)	(13.1-25.9)	(8.6-19.0)	(11.8-22.6)
Leave the room	66	66	70	67	60
95% C.I.	(50.8-79.2)	(55.9-74.9)	(61.1-76.9)	(59.2-74.0)	(53.7-66.6)
Other	1	2	0	3	2
95% C.I.	(0.3-5.4)	(0.5-6.6)	(0.1-1.8)	(0.8-10.9)	(0.8-6.8)
Bases (weighted):	*83*	*150*	*193*	*244*	*277*
Bases (unweighted):	*65*	*150*	*201*	*247*	*347*

Table 5.4 Smoking behaviour of self-reported cigarette smokers in room with children by sex and age

Current smokers aged 16 and over — *2008, 2009, 2008/2009 combined*

Smoking behaviour in room with children	Age				Total 2008/ 2009	Total 2008	Total 2009
	16-34	35-54	55-74	75+			
	%	%	%	%	%	%	%
Men							
Smoke the same number of cigarettes as usual	1	3	5	a	2	3	2
95% C.I.	(0.1-3.7)	(0.8-9.1)	(1.6-12.4)	a	(1.1-4.9)	(1.0-8.0)	(0.7-4.7)
Smoke fewer cigarettes than usual	3	4	2	a	3	5	2
95% C.I.	(0.9-8.9)	(2.3-8.8)	(0.6-5.7)	a	(2.0-5.7)	(2.6-9.5)	(0.7-3.9)
Stay in the room and don't smoke	27	15	30	a	23	24	22
95% C.I.	(17.6-40.2)	(10.1-23.1)	(20.6-41.0)	a	(17.8-28.5)	(17.5-31.8)	(15.1-31.7)
Leave the room	69	75	62	a	70	66	72
95% C.I.	(56.1-79.1)	(66.2-81.4)	(50.9-72.2)	a	(63.9-75.2)	(58.4-73.5)	(63.2-80.1)
Other	0	3	2	a	2	2	2
95% C.I.	(0.1-2.7)	(1.1-6.4)	(0.5-5.0)	a	(0.8-3.5)	(0.6-4.9)	(0.6-4.6)
Women							
Smoke the same number of cigarettes as usual	1	1	1	[5]	1	2	1
95% C.I.	(0.2-2.1)	(0.3-2.3)	(0.3-5.1)	(0.7-27.7)	(0.5-2.1)	(0.6-3.7)	(0.2-1.8)
Smoke fewer cigarettes than usual	3	4	5	-	4	4	3
95% C.I.	(1.1-6.2)	(2.1-8.4)	(2.3-9.5)	-	(2.3-5.8)	(2.2-7.6)	(1.6-6.1)
Stay in the room and don't smoke	25	21	30	[46]	25	26	24
95% C.I.	(16.1-36.7)	(14.8-28.3)	(22.5-39.0)	(28.8-64.8)	(20.7-30.1)	(19.6-32.7)	(18.3-30.4)
Leave the room	71	72	63	[49]	69	67	72
95% C.I.	(60.2-80.6)	(64.6-78.8)	(54.0-71.1)	(30.8-67.1)	(63.9-73.6)	(59.9-73.4)	(65.0-77.7)
Other	0	2	1	-	1	2	1
95% C.I.	(0.0-2.5)	(0.6-6.2)	(0.2-3.5)	-	(0.5-3.0)	(0.5-5.4)	(0.2-1.9)
All adults							
Smoke the same number of cigarettes as usual	1	2	3	4	2	2	1
95% C.I.	(0.2-1.8)	(0.7-4.5)	(1.2-6.6)	(1.0-17.0)	(1.0-3.0)	(1.0-4.6)	(0.6-2.6)
Smoke fewer cigarettes than usual	3	4	3	2	4	5	2
95% C.I.	(1.3-5.8)	(2.7-7.0)	(1.9-6.1)	(0.2-10.6)	(2.5-5.0)	(3.0-7.1)	(1.4-4.1)
Stay in the room and don't smoke	26	18	30	34	24	25	23
95% C.I.	(19.3-34.8)	(14.0-23.5)	(23.9-36.9)	(22.0-48.7)	(20.5-27.7)	(20.3-29.9)	(18.3-28.6)
Leave the room	70	73	63	58	69	67	72
95% C.I.	(61.6-77.2)	(67.7-78.3)	(55.5-69.1)	(43.8-71.7)	(65.6-73.0)	(61.6-71.4)	(66.5-77.1)
Other	0	2	1	2	1	2	1
95% C.I.	(0.1-1.5)	(1.1-4.9)	(0.5-3.0)	(0.2-10.1)	(0.8-2.6)	(0.7-4.1)	(0.5-2.5)

Continued…

Table 5.4 - *Continued*

Current smokers aged 16 and over *2008, 2009, 2008/2009 combined*

Smoking behaviour in room with children	Age				Total 2008/ 2009	Total 2008	Total 2009
	16-34	35-54	55-74	75+			
Bases (weighted):							
Men	*166*	*192*	*96*	*15*	*468*	*230*	*242*
Women	*137*	*217*	*105*	*22*	*480*	*236*	*244*
All adults	*303*	*408*	*201*	*36*	*949*	*466*	*485*
Bases (unweighted):							
Men	*97*	*201*	*125*	*23*	*446*	*215*	*231*
Women	*151*	*228*	*154*	*31*	*564*	*268*	*296*
All adults	*248*	*429*	*279*	*54*	*1010*	*483*	*527*

a Data not shown due to small base

Table 5.5a Smoking behaviour of self-reported cigarette smokers in room with children by equivalised household income quintile

Current smokers aged 16 and over *2008/2009 combined*

Smoking behaviour in room with children	Equivalised annual household income quintile				
	1st (highest)	2nd	3rd	4th	5th (lowest)
	%	%	%	%	%
Smoke the same number of cigarettes as usual	0	-	1	1	3
95% C.I.	(0.1-3.0)	-	(0.3-5.7)	(0.5-4.0)	(1.1-7.3)
Smoke fewer cigarettes than usual	1	2	2	6	7
95% C.I.	(0.2-3.3)	(0.5-4.9)	(0.6-4.9)	(2.7-11.5)	(4.1-10.9)
Stay in the room and don't smoke	30	31	23	18	22
95% C.I.	(20.9-41.0)	(22.7-41.0)	(16.0-31.2)	(11.7-27.1)	(15.6-30.8)
Leave the room	65	67	73	73	67
95% C.I.	(53.2-74.4)	(57.5-75.8)	(64.4-80.6)	(63.4-80.3)	(58.7-74.1)
Other	4	-	1	2	1
95% C.I.	(1.7-10.1)	-	(0.2-4.5)	(0.5-7.7)	(0.5-2.8)
Bases (weighted):	*124*	*168*	*164*	*169*	*231*
Bases (unweighted):	*112*	*162*	*169*	*181*	*298*

Table 5.5b Smoking behaviour of self-reported cigarette smokers in room with children by NS-SEC of household reference person

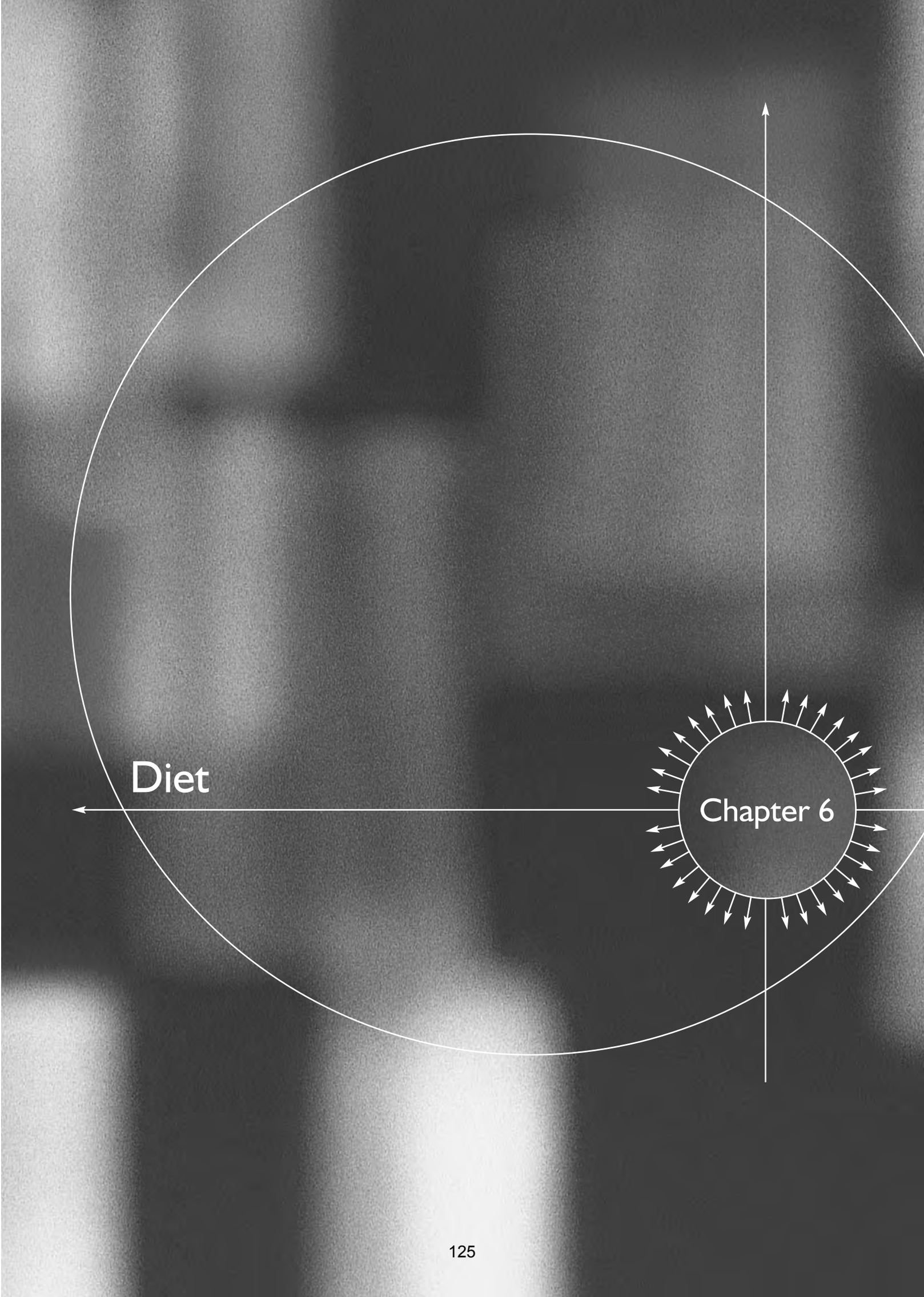
Current smokers aged 16 and over *2008/2009 combined*

Smoking behaviour in room with children	NS-SEC of household reference person				
	Managerial & professional	Intermediate	Small employers & own account workers	Lower supervisory & technical	Semi-routine and routine
	%	%	%	%	%
Smoke the same number of cigarettes as usual	0	1	0	1	2
95% C.I.	(0.1-3.3)	(0.1-4.1)	(0.0-0.7)	(0.4-4.4)	(0.8-4.6)
Smoke fewer cigarettes than usual	2	1	4	2	6
95% C.I.	(0.5-5.8)	(0.4-4.7)	(0.9-14.7)	(0.5-6.9)	(3.8-8.3)
Stay in the room and don't smoke	28	27	23	24	21
95% C.I.	(21.1-36.5)	(16.2-42.0)	(13.4-36.6)	(16.1-35.1)	(16.4-26.7)
Leave the room	69	70	71	71	70
95% C.I.	(60.3-76.1)	(55.8-81.6)	(57.0-81.5)	(59.8-79.8)	(63.8-74.7)
Other	1	1	2	2	2
95% C.I.	(0.2-3.8)	(0.1-3.6)	(0.8-6.4)	(0.2-9.7)	(0.8-3.9)
Bases (weighted):	*227*	*99*	*81*	*110*	*405*
Bases (unweighted):	*204*	*105*	*81*	*114*	*474*

Table 5.5c Smoking behaviour of self-reported cigarette smokers in room with children by Scottish Index of Multiple Deprivation quintile

Current smokers aged 16 and over *2008/2009 combined*

Smoking behaviour in room with children	Scottish Index of Multiple Deprivation quintile				
	5th (least deprived)	4th	3rd	2nd	1st (most deprived)
	%	%	%	%	%
Smoke the same number of cigarettes as usual	2	1	0	1	4
95% C.I.	(0.5-8.4)	(0.2-3.4)	(0.1-1.4)	(0.3-3.8)	(1.7-7.6)
Smoke fewer cigarettes than usual	1	3	1	4	6
95% C.I.	(0.1-4.9)	(1.0-8.5)	(0.5-3.0)	(1.7-7.7)	(4.0-9.4)
Stay in the room and don't smoke	29	28	25	23	20
95% C.I.	(17.0-44.0)	(19.8-37.4)	(17.6-34.6)	(16.7-31.1)	(15.2-26.6)
Leave the room	67	67	73	71	68
95% C.I.	(51.5-79.6)	(56.6-75.2)	(63.2-80.2)	(63.1-78.0)	(61.7-73.6)
Other	2	2	1	1	2
95% C.I.	(0.2-10.6)	(0.5-6.6)	(0.2-2.3)	(0.4-2.6)	(0.7-5.2)
Bases (weighted):	*83*	*150*	*193*	*244*	*277*
Bases (unweighted):	*65*	*150*	*201*	*247*	*347*


Diet
Chapter 6

6 DIET

SUMMARY

- In 2008/2009, most people in Scotland believed that the kind of food they ate was either very (14%) or fairly (75%) healthy. This far outweighs the proportion that actually ate the recommended amount of five portions of fruit and vegetables per day in 2009 (22% of men and 25% of women).
- Nine in ten (87%) people in 2008/2009 were, however, aware of the advice to eat five portions of fruit and vegetables a day. Even among those who did not eat any fruit and vegetables in the 24 hours preceding the interview, 82% were aware of this advice.
- Looking at people's motivations to change their eating habits, a third of adults (34%) did not want to eat more healthily, while a quarter (26%) said they had made and maintained improvements to their diet in the last 12 months.
- The most commonly mentioned barriers to eating more healthily were lack of willpower (32% of men, 38% of women) and healthy foods being too expensive (16% of both men and women). However, 35% said none of the barriers listed were stopping them eating more healthily.
- The knowledge, attitudes and motivations of older people (aged 75 and above) particularly stand out. They were the most likely to assess their current diet as very healthy, but the least likely to be aware of the five-a-day recommendation, and the least likely to be considering or wanting to make any changes to their diets.
- There were also some significant differences by income, socio-economic classification and area deprivation. For example, those in the lowest income households were the least likely to view their diets as very healthy (though a clear majority did so), they were also less likely to be aware of the five-a-day recommendation, and more likely to identify cost as a barrier to eating more healthily. However, there was little difference in people's level of motivation to eat more healthily by income, socio-economic classification or area deprivation.

6.1 INTRODUCTION

This chapter begins by exploring people's subjective assessments of their own diets and compares these with findings on the proportions actually meeting the five-a-day recommendation, as assessed in the main Scottish Health Survey (SHeS) interview. It then examines levels of knowledge of this recommendation, motivations to eat more healthily and perceived barriers to doing so.

Healthy eating has been a major focus of Scotland's healthy living campaigns in recent years. For example, diet is a key strand of the 'Take Life On' campaign (launched in June 2008 to replace the 2003-2008 'Healthy Living' programme). Among the dietary messages that these campaigns promote, the recommendation to eat at least five portions of fruit and vegetables is probably both the most consistently visible and the best known. Policies aimed at increasing fruit and vegetable consumption have targeted both consumers and suppliers, with schemes in place to assist shops and restaurants to promote these food types, and to reward them for doing so. As set out in the main 2008

and 2009 SHeS reports, low fruit and vegetable consumption is a risk factor for cancer and cardiovascular disease, Scotland's two leading causes of death.[1,2]

Fruit and vegetable consumption was measured in the main SHeS interview using a 24-hour recall method covering a wide range of fruit, vegetables, juices and composite products such as fruit pies. Rather than asking participants to assess their intake in terms of portions, the volumes of fruit and vegetables they reported eating were assessed in a standard form depending on the food type and converted into portions.[3] The 2009 data show that 23% of adults (22% of men and 25% of women) met the five-a-day recommendation. While the proportion of women meeting the recommended daily intake has increased slightly, from 22% in 2003 to 25% in 2009, men's consumption has not changed significantly over the last six years.[2]

6.2 PERCEPTIONS OF BEHAVIOUR: DO PEOPLE THINK THEIR DIETS ARE HEALTHY?

Table 6.1 presents people's perceptions of their diet for 2008, 2009 and 2008/2009 combined. In 2009, most people in Scotland believed that the kind of food they eat was either very (12%) or fairly (76%) healthy. Just 10% said the kind of food they eat was fairly *un*healthy and just 1% assessed it as very unhealthy. The equivalent figures for 2008 were very similar (16%, 74%, 10% and 1% respectively). When compared with findings from the main SHeS 2009 report, it is clear that the proportion who believe their diets are at least fairly healthy far outweighs the proportion who meet the recommendations on fruit and vegetable consumption (23%). Although fruit and vegetable consumption is only one aspect of a healthy diet, this does suggest that there may be some disconnect between people's beliefs about the food they eat and their actual diet. **Table 6.1**

6.2.1 Perceptions by behaviour

The relatively weak correspondence between perceptions and behaviour at the population level is confirmed when people's own diets and perceptions are compared directly. Table 6.1 shows that in 2008/2009 23% of people who met the recommendation to eat at least five portions of fruit and vegetables a day said that the food they ate was very healthy compared with 11% who consumed 1-4 daily portions and 6% who consumed none. However, 69% of people who ate no portions still considered their diet to be fairly or very healthy. **Table 6.1**

6.2.2 Perceptions by age and sex

Table 6.2 shows that women were more likely than men to assess their diets as very or fairly healthy (92% compared with 85% in 2008/2009). Perceptions of diet also varied with age with older people more likely to view their diets as very healthy. Among men, the proportion viewing their diet as very healthy increased from 5% of those aged 16-34 to 27% of those aged 75 and older. Among women, 10-12% of those aged under 55 considered their diet very healthy, compared with 21-22% of those aged 55 and above. Conversely, the proportion who viewed their

diets as very or fairly unhealthy decreased with age. In fact, the 2009 SHeS report showed that both the mean number of portions of fruit and vegetables consumed and the proportion meeting the five-a-day recommendation did increase slightly with age. This was a change from the 2003 and 2008 surveys, indicating that consumption of fruit and vegetables is increasing among the oldest age groups (although the report also sounded a note of caution – further years of data will be required to establish whether this is a consistent shift). The fact that older people were more likely to assess their diets as very or fairly healthy may, therefore, in part reflect the fact that they are more likely to eat more fruit and vegetables.[4] However, it is also important to remember that, as highlighted 2009 SHeS report, although older people were a little more likely than younger people to meet the five-a-day recommendation, most (77% of men and 74% of women in the over 75 group) still did not. **Table 6.2**

6.2.3 Perceptions by socio-demographic group

Tables 6.3a to 6.3c present perceptions of diet by household income, NS-SEC and area deprivation (these measures are all explained in full in Chapter 2). The tables show that although a clear majority of people across all social groups said their diets were healthy, people in the lowest income households, in routine or semi-routine households and people living in the most deprived areas were the least likely to do so. For example, 83% of those in the lowest income households said their diet was very or fairly healthy, compared with 87%-91% of people in the other four income quintiles. **Tables 6.3a, 6.3b, 6.3c**

6.3 KNOWLEDGE: FIVE-A-DAY RECOMMENDATION

The Health Education Population Survey (HEPS) found that knowledge of the recommendation to eat at least five portions of fruit and vegetables a day increased significantly from 21% in 1996 to 78% in 2007.[5] Differing methodologies, some changes in question wording, and the addition of people aged 75 and over to the sample mean that it is not possible to compare the HEPS findings directly with the equivalent questions in the Knowledge, Attitudes and Motivations to health (KAM) module. The 2008 KAM results do, however, provide a baseline for comparison in future years. Table 6.4 shows that in 2009, 88% of people knew the recommendation for daily fruit and vegetable consumption. This was not significantly different from the figure for 2008 (86%). Less than one in 10 people in both years thought that the advice was to consume fewer than five portions per day, while just 1% thought that the advice was to eat more than five. Only 5% said they did not know what the advice was. **Table 6.4**

6.3.1 Knowledge and behaviour

Table 6.4 shows that knowledge of the five-a-day recommendation in 2008/2009 was highest among those who actually consumed five or more portions of fruit and vegetables a day (92%, compared with 85% of those who consumed 1-4 portions and 82% of those who consumed none). Those who did not eat any portions were also more likely to say

they did not know what the recommended amount was (8%, compared with 5% of those who ate 1-4 portions and 2% of those who met the recommendations). However, while there is an association between lower knowledge and low consumption of fruit and vegetables, this should not detract from the fact that 82% of those who did not eat any fruit and vegetables knew that the recommendation was to eat five or more portions a day. **Table 6.4**

6.3.2 Knowledge by age and sex

Despite the overall high level of awareness, Table 6.5 demonstrates that there was still some variation in knowledge levels across different groups of people. For example, while awareness among men was high at 83% in 2008/2009, it was nonetheless lower than among women (91%). Men were also more likely than women to under-estimate the number of portions advised (11% versus 5%). Those aged 75 and over were less likely than all other age groups to know the recommendation. Among women, 76% of those aged 75 and older correctly identified the recommendation, compared with 91-94% of women in other age groups. The equivalent figures among men were 59% for those aged 75 and older, compared with 80-86% of younger men. **Table 6.5**

6.3.3 Knowledge by socio-demographic group

Tables 6.6a-c demonstrate that in 2008/2009 knowledge of the five-a-day recommendation varied significantly with household income, NS-SEC and, to a lesser extent, area deprivation. For example, although the majority (78%) of people in the lowest income households knew the advice, knowledge levels were higher among those in middle and high-income households (85-93%). In addition, people in the lowest income households were more likely to underestimate the number of portions advised (13% compared with 5-6% in middle and high-income households). Awareness of the recommendation was similarly higher among people in managerial and professional households (93%) compared with those in intermediate, small employer or lower supervisory and technical (87%) or routine and semi-routine households (79%). Knowledge was also higher among those living in less deprived areas (87-91% in the three least deprived quintiles, compared with 80% in the most deprived). **Tables 6.6a, 6.6b, 6.6c**

6.4 MOTIVATIONS TO EAT MORE HEALTHILY

The KAM module included questions designed to assess people's own *motivation* to eat more healthily. This was measured by asking participants:

- if they had **tried** to eat more healthily in the past year, and if so
- whether they had managed to **maintain** this;
- if they would **like** to eat more healthily, and if so
- whether they were **thinking** of doing this in the next six months.

An individual's readiness to change their behaviour was determined by using the responses given to these questions to classify them according to DiClemente and Proschaska's 'Stages of Change model'.[6] In this example it

ranges from no dietary changes desired, recently undertaken or planned, through to successfully maintaining a more healthy diet. For the purpose of this report a further category has been added of 'long-term maintenance' which includes people who met the five a day recommendations and did not mention having made any recent changes or wanting to make any future change to their diet. Of course it is possible that people who meet these recommendations do not have healthy diets in other respects, but this was the only diet measure from the main SHeS interview available for adults who completed the KAM module. The following table sets out the stages and presents the proportion of adults in Scotland in each category in the years 2008 and 2009 combined.

Stage of change	Definition of stage of change	% 2008/ 2009
Pre-contemplation	Not eaten more healthily in the previous 12 months and not intending to do so in the next 6 months	34
Contemplation	Would like to eat more healthily but not intending to do so	4
Preparation	Would like to eat more healthily and thinking of doing so in next six months	8
Action	Ate more healthily in previous 12 months but did not maintain their healthier diet	15
Maintenance	Ate more healthily in previous 12 months and maintained this	26
Long-term maintenance	Did not eat more healthily in previous 12 months and no desire to improve diet, but meets the five-a-day recommendation.	13

As can be seen from the table, pre-contemplation was the most common category with a third of adults in that stage. A quarter had maintained an improvement to their diet. A further one in six adults had taken steps to eat more healthily but had not managed to maintain their behaviour change.

6.4.1 Motivations and current behaviour

Although the motivations questions asked about healthy eating in general, and the fruit and vegetable questions focus on just one aspect of a healthy diet, the latter are still a useful proxy measure of the correspondence between behaviour and motivations. Analysis of the 2008/2009 data shows that the two are related and that motivation levels are broadly in line with actual behaviour.

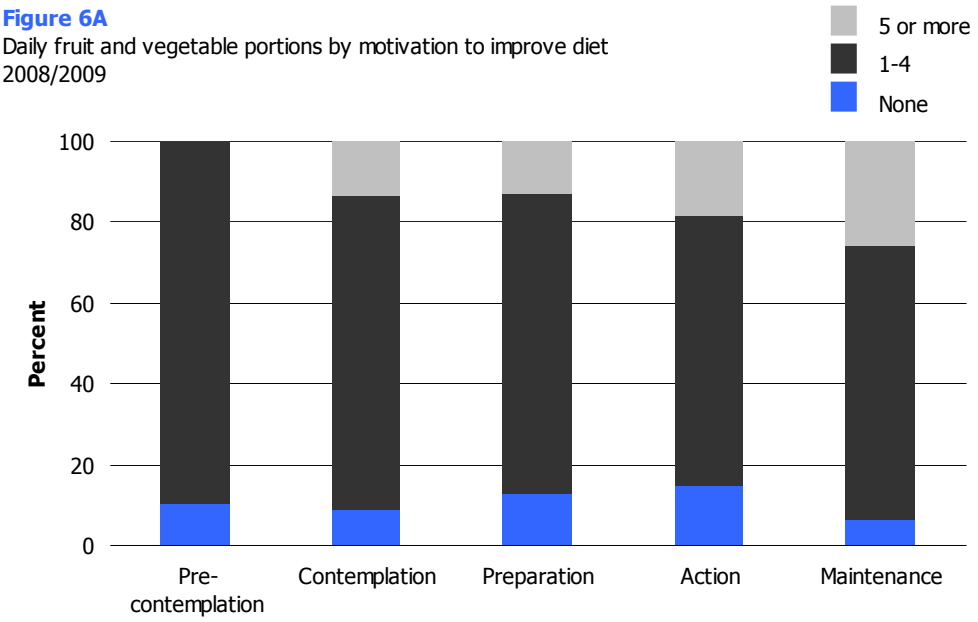
Table 6.7 shows that among those who met the five-a-day recommendations, 53% fell into the long-term maintenance group, and a further 28% were in the maintenance group, indicating that they were currently happy with their diets and were not attempting to make further changes. Among those who had not eaten any fruit and vegetables in the 24 hours prior to participating in the interview, 40% were at the pre-contemplation stage, indicating they had yet to consider improving their diets. A further 1 in 8 (16%) were either at the contemplation stage (would like to eat more healthily but not yet thinking of making changes) or preparation stage (thinking about making changes), while 1 in 4 (25%) had tried to make changes but had not managed to maintain these. Just 1 in 5 (19%) of those who had not eaten any fruit and

vegetables nonetheless reported that they had made and maintained improvements to their diets over the last year. This is of course possible, as fruit and vegetable consumption is only one aspect of a good diet. Moreover, it is also possible that for some participants their consumption pattern in the 24 hours prior to the interview was atypical. Those who reported eating between 1 and 4 portions of fruit and vegetables were broadly similar in terms of motivations to those who ate none. The only significant difference between the two was that those who ate some fruit and vegetables were slightly less likely to report having tried and failed to make changes to their diet in the last year (15%, compared with 25% of those who ate none). **Table 6.7**

Figure 6A looks at this from a different perspective and compares fruit and vegetable consumption across the first five stages of change groups (all people in the long-term maintenance met the five a day recommendation so they are omitted from the chart). It shows that only a minority of pre-contemplators ate no portions at all, and that the proportion who met the recommendations was the same for the contemplation and preparation stages before increasing for the last two stages. Most tellingly, it shows that just a quarter of people who had started to eat more healthily in the past year and maintained their change ate the recommended amount of fruit and vegetables.

Figure 6A

Figure 6A
Daily fruit and vegetable portions by motivation to improve diet
2008/2009



While there is an association between motivation and behaviour, it would be wrong to conclude that higher motivation levels necessarily result in healthier diets. It could simply be that people who already have a comparably healthy diet are more likely to be more motivated to consider taking further steps to improve their diets. However, it is clear that with such low proportions meeting the recommendations, even those people who have been successful in taking recent steps to eat more healthily still have some way to go in terms of meeting this key dietary recommendation.

6.4.2 Motivations by age and sex

There were no significant differences between men's and women's motivation levels. Table 6.8 shows however, that there were significant variations across different age groups in 2008/2009. In particular, the proportion classified as pre-contemplators increased significantly with age, from 23% of both men and women aged 16-34 to 58% of men and 56% of women aged 75 and over. In contrast, the proportion who had either contemplated or tried to make any change in the last 12 months decreased significantly with age. This decrease was sharpest among men – the proportion falling into any of the contemplation, preparation, action or maintenance groups fell from 70% of men aged 16-34, to 54% of men aged 35-54, 41% of those aged 55-74 and just 20% of men aged 75 and over. Among women, the proportion falling into these categories fell more gradually, from 69% of women aged 16-34 to 46% of those aged 55-74, before dropping to 25% of women aged 75 and over. Men in the oldest age group were, however, the most likely to be in the long-term maintenance group – that is, to be meeting the current recommendations on fruit and vegetable consumption without having changed their diet in the last 12 months, and with no desire to make any further dietary changes (22%, compared with 7-9% of those aged 16-54 and 16% of those aged 55-74). Among women, those aged 55 and older were more likely than those aged 16-34 to fall into the 'long-term maintenance' group. **Table 6.8**

6.4.3 Motivations by socio-demographic group

Tables 6.9a-c show that there was some small variation in motivations by household income, NS-SEC or area deprivation. People in managerial and professional households were significantly less likely than those in small employer and own account worker, lower supervisory and technical and semi-routine and routine households to be in pre-contemplation (29% compared with 36-40%). Those living in managerial and professional households were also more likely than those in small employer and own account workers and semi-routine and routine households to have maintained their health eating (30% compared with 21% and 23% respectively). People in the lowest income households and most deprived areas were less likely to fall into the long-term maintenance group compared with those in more affluent households and living in less deprived areas. **Tables 6.9a, 6.9b, 6.9c**

6.5 BARRIERS TO HEALTHY EATING

To develop a better understanding of the reasons why people do not eat more healthily, participants were presented with a list of reasons people might find this difficult and asked to choose up to three that applied to them. The reasons presented included structural barriers (such as the cost of healthy food, its availability), barriers relating to knowledge (such as not knowing how to cook healthy food or what dietary changes to make), as well as more individual or motivational barriers (such as not liking the taste of healthy food or lack of willpower). As Table 6.10 illustrates, the most common responses mentioned by all adults in 2008/2009 were lack of willpower (35%) or that nothing

prevented them from eating more healthily (35%). The next most common barrier was healthy foods being too expensive (16%). **Table 6.10**

6.5.1 Barriers by age and sex

As demonstrated in Table 6.10, men and women generally mentioned similar barriers. However, women were significantly more likely to mention lack of willpower as a barrier (38% compared with 32%), while men were slightly but significantly more likely to say they find healthy food boring (11% compared with 7% of women), or that they dislike the taste of healthy foods (13% compared with 7% of women).

The barriers mentioned by different age groups differed significantly. Most strikingly, the proportion of people saying none of these reasons stopped them eating more healthily rose steadily with age, from 19% of men and 22% of women aged 16-34, to 68% of men and 69% of women aged 75 and over. It is not entirely clear whether this option was mainly chosen by people who felt their diet was already healthy, or by people who thought they could improve their diet and thought they faced no barriers to doing so. However, the fact that those aged 75 and over (particularly men) are more likely to view their diets as very healthy (discussed above in section 6.2) and less likely to have made or to be planning on making any changes to their diet (discussed above in section 6.4) suggests the former explanation is more probable. There was some evidence that women aged 35-54 were particularly likely to cite lack of willpower as a barrier (47%, compared with 13%-38% of women in other age groups). Concerns about the cost of healthy food declined with age, from 23% of men and 20% of women aged 16-34, to 8% of men and 10% of women aged 75 and older. Younger people aged under 35 also appeared to have greater concerns about some of the less commonly cited factors than their older counterparts. For example, 17% of men and 13% of women aged under 35 mentioned not knowing how to cook healthy foods, compared with 1-7% of men and women aged 35 and over. **Table 6.10**

6.5.2 Barriers by socio-demographic group

Tables 6.10a-c present a selection of the barriers by income, NS-SEC and area deprivation. It shows that concerns about cost and knowledge varied significantly, while lacking supportive friends, family or colleagues did not. For example, the proportion of people who mentioned cost increased steadily as income declined, from 8% of people in the highest household income quintile to 20% in the fourth quintile, before increasing notably to 33% in the lowest quintile. A similar, though less pronounced, pattern was apparent in relation to area deprivation. People in the lowest income households, in semi-routine and routine households or living in the most deprived areas were the significantly more likely than others to say they did not know what changes to make. For example, 13% of those living in the most deprived quintile said they did not know what changes to make compared with 5-7% in the other quintile groups.

Tables 6.11a, 6.11b, 6.11c

6.6 CONCLUSIONS

With overall knowledge of recommendations about fruit and vegetable consumption as high as these findings suggest, there might be a temptation to shift the focus of dietary messages away from promoting the five-a-day recommendation towards other priorities. However, the low proportions actually meeting the recommendations, coupled with the fact that awareness of them is lower among older generations, suggests that fruit and vegetable consumption is still an area warranting significant attention. The fact that even among those consuming no fruit and vegetables, most (82%) knew how many portions they should be eating suggests that messages would benefit from focusing on *how* to meet the five-a-day recommendation, rather than solely on the recommendation itself.

In terms of targeting initiatives, the fact that older people were least likely to be aware of the five-a-day recommendation and least likely to have plans to change their diets in the future, in spite of the fact that many of them fail to meet the five-a-day recommendation, suggests that targeting initiatives at older people in particular might be worth piloting to see if it increases their consumption. Further examination of older people's diets, behaviours and motivations would be necessary before any programme implementation however. This data suggests that many older people may view their diets as sufficiently healthy already – certainly they were less likely than other age groups to say that specific barriers were preventing them from eating more healthily.

People in deprived areas and low-income households were more likely than their affluent counterparts to view cost as a bigger barrier to eating more healthily, and to say they did not know what changes to make. However, they did not differ in their level of motivation to improve their diets. This suggests that any initiatives targeting deprived areas or low income groups need to address structural issues such as cost, as well as knowledge gaps.

References and notes:

[1] Gray, L. and Leyland, A. (2010). Chapter 5: Diet. In Bromley, C., Given, L. and Ormston, R. (eds.) *The Scottish Health Survey 2009, Volume 1: Main Report*. Edinburgh: Scottish Government.

[2] Gray, L. and Leyland, A. (2010). Chapter 5: Diet. In Bromley, C., Given, L. and Ormston, R. *The Scottish Health Survey 2009, Volume 1: Main Report*. Edinburgh: Scottish Government

[3] For example, fruit such as apples and oranges were recorded in single units, vegetables in tablespoon sized portions, salad in cereal bowl sized portions, and small fruits were measured using handfuls. Full details of the measurement protocol are set out in the main report.

[4] At least when compared with the youngest age group. In fact, the pattern of actual consumption by age is not wholly linear. Those aged 16-24 were the least likely to consume five portions or more per day (16% of men, and 19% of women). This increased to 21% among men aged 25 to 54, was higher again in the 55 to 74 age group (25%-26%), and was slightly lower for men aged 75 and over (23%). Among women, the proportion meeting the recommendation was 23%-25% for those aged 25 to 54, it peaked at 30% in the 55-64 age group, and was 27% and 26% in the two oldest age groups.

[5] Bassett, C., Gilby, N. and Catto, S. (2008). *Health Education Population Survey (HEPS): Update from 2007 survey*. Glasgow: NHS Health Scotland. <www.healthscotland.com/documents/2973.aspx>

[6] The Stages of Change model (sometimes referred to as The Transtheoretical Model) is a model of health behaviour change developed initially by DiClemente and Proschaska in 1977. Here we refer to the version of the model which contains five 'stages of change' ranging from pre-contemplation to maintenance. For further reading on the 'Stages of Change model' see DiClemente, C.C., & Prochaska, J.O. (1982). Self change and therapy change of smoking behavior: A comparison of processes of change in cessation and maintenance. *Addictive Behavior*. 7 (2): 133-42.

Table list

Table 6.1 Self-assessment of own diet by fruit and vegetable consumption

Aged 16 and over *2008, 2009, 2008/2009 combined*

Self-assessment of own diet	Fruit and vegetable consumption			Total 2008/2009	Total 2008	Total 2009
	None	Less than 5 portions	5 portions or more			
	%	%	%	%	%	%
Very healthy	6	11	23	14	16	12
95% C.I.	(3.0-11.5)	(9.9-12.9)	(20.4-26.8)	(12.5-15.1)	(13.6-17.7)	(10.6-14.0)
Fairly healthy	63	77	75	75	74	76
95% C.I.	(54.9-69.6)	(74.6-78.9)	(71.2-77.8)	(73.2-76.7)	(71.1-76.1)	(73.6-78.5)
Fairly unhealthy	25	11	2	10	10	10
95% C.I.	(19.4-32.5)	(9.4-12.9)	(1.0-3.5)	(8.8-11.6)	(8.3-12.1)	(8.5-1.5)
Very unhealthy	6	1	-	1	1	1
95% C.I.	(2.9-12.2)	(0.4-1.6)	-	(0.7-1.8)	(0.4-1.5)	(0.7-2.6)
Bases (weighted):	*340*	*2612*	*913*	*3865*	*1844*	*2022*
Bases (unweighted):	*314*	*2597*	*950*	*3861*	*1841*	*2020*

Table 6.2 Self-assessment of own diet by age and sex

Aged 16 and over *2008/2009 combined*

Self-assessment of own diet	Age				Total
	16-34	35-54	55-74	75+	
	%	%	%	%	%
Men					
Very healthy	5	10	20	27	12
95% C.I.	(2.9-9.3)	(7.6-13.1)	(16.7-24.3)	(20.0-35.5)	(10.7-14.4)
Fairly healthy	70	75	72	69	73
95% C.I.	(63.2-76.5)	(71.0-79.3)	(67.9-76.4)	(60.4-76.3)	(69.6-75.3)
Fairly unhealthy	20	14	7	4	13
95% C.I.	(14.6-26.5)	(10.8-18.0)	(4.5-9.6)	(1.9-8.6)	(10.9-15.7)
Very unhealthy	5	1	1	-	2
95% C.I.	(2.1-9.5)	(0.2-1.5)	(0.3-2.2)	-	(1.0-3.3)
Women					
Very healthy	10	12	22	21	15
95% C.I.	(7.2-14.4)	(9.3-14.8)	(18.4-25.7)	(16.3-25.9)	(13.2-16.8)
Fairly healthy	76	80	76	77	77
95% C.I.	(70.5-80.3)	(76.2-83.0)	(71.9-79.3)	(71.3-81.3)	(75.1-79.4)
Fairly unhealthy	14	8	2	2	7
95% C.I.	(10.3-18.5)	(5.7-10.3)	(1.3-3.5)	(0.9-5.0)	(6.0-9.0)
Very unhealthy	0	1	0	0	0
95% C.I.	(0.0-0.6)	(0.4-1.4)	(0.0-0.7)	(0.1-2.0)	(0.2-0.7)
All adults					
Very healthy	8	11	21	23	14
95% C.I.	(5.7-10.4)	(9.1-13.0)	(18.6-23.8)	(19.0-27.8)	(12.5-15.1)
Fairly healthy	73	78	74	74	75
95% C.I.	(68.7-76.9)	(74.9-80.2)	(71.2-76.9)	(68.8-78.0)	(73.2-76.7)
Fairly unhealthy	17	11	4	3	10
95% C.I.	(13.6-20.8)	(8.8-13.0)	(3.2-5.8)	(1.6-5.1)	(8.8-11.6)
Very unhealthy	2	1	0	0	1
95% C.I.	(1.1-4.9)	(0.4-1.1)	(0.2-1.1)	(0.1-1.3)	(0.7-1.8)
Bases (weighted):					
Men	*567*	*665*	*485*	*131*	*1848*
Women	*558*	*719*	*532*	*209*	*2018*
All adults	*1125*	*1384*	*1017*	*340*	*3865*
Bases (unweighted):					
Men	*301*	*601*	*564*	*192*	*1658*
Women	*467*	*699*	*730*	*307*	*2203*
All adults	*768*	*1300*	*1294*	*499*	*3861*

Table 6.3a Self-assessment of own diet by equivalised annual household income quintile

Aged 16 and over *2008/2009 combined*

Self-assessment of own diet	Equivalised annual household income quintile				
	1st (highest)	2nd	3rd	4th	5th (lowest)
	%	%	%	%	%
Very healthy	15	14	12	13	9
95% C.I.	(12.3-18.2)	(11.5-17.6)	(9.6-15.9)	(10.1-16.6)	(6.8-11.8)
Fairly healthy	76	77	75	76	74
95% C.I.	(71.7-79.6)	(72.5-80.2)	(70.1-79.4)	(71.5-80.2)	(69.3-77.6)
Fairly unhealthy	9	8	11	10	15
95% C.I.	(6.2-12.4)	(5.9-11.3)	(7.6-15.0)	(6.6-13.6)	(12.1-19.6)
Very unhealthy	0	1	2	1	2
95% C.I.	(0.1-1.1)	(0.2-3.8)	(0.6-5.8)	(0.5-3.8)	(1.1-3.2)
Bases (weighted):	*798*	*749*	*685*	*602*	*587*
Bases (unweighted):	*699*	*701*	*660*	*652*	*722*

Table 6.3b Self-assessment of own diet by NS-SEC of household reference person

Aged 16 and over *2008/2009 combined*

Self-assessment of own diet	NS-SEC of household reference person				
	Managerial & professional	Intermediate	Small employers & own account workers	Lower supervisory & technical	Semi-routine and routine
	%	%	%	%	%
Very healthy	15	13	15	15	11
95% C.I.	(13.1-17.3)	(9.4-17.4)	(11.0-20.9)	(11.1-19.3)	(9.2-13.7)
Fairly healthy	77	77	74	74	74
95% C.I.	(73.8-79.3)	(71.1-81.4)	(66.4-80.2)	(68.3-79.2)	(70.4-76.9)
Fairly unhealthy	8	9	10	10	13
95% C.I.	(5.6-10.0)	(6.3-13.5)	(5.5-17.9)	(6.4-14.5)	(11.0-16.4)
Very unhealthy	1	1	1	1	1
95% C.I.	(0.2-2.5)	(0.2-6.6)	(0.2-2.0)	(0.4-4.4)	(0.7-2.8)
Bases (weighted):	*1515*	*369*	*297*	*438*	*1177*
Bases (unweighted):	*1356*	*406*	*301*	*421*	*1300*

Table 6.3c Self-assessment of own diet by Scottish Index of Multiple Deprivation quintile

Aged 16 and over *2008/2009 combined*

Self-assessment of own diet	Scottish Index of Multiple Deprivation quintile				
	5th (least deprived)	4th	3rd	2nd	1st (most deprived)
	%	%	%	%	%
Very healthy	17	16	14	13	9
95% C.I.	(13.8-20.1)	(13.5-19.4)	(11.4-17.5)	(9.8-15.8)	(6.6-11.0)
Fairly healthy	76	74	76	73	76
95% C.I.	(71.5-79.4)	(70.1-77.9)	(72.5-79.9)	(69.0-77.4)	(71.8-79.1)
Fairly unhealthy	7	9	9	13	13
95% C.I.	(4.7-10.3)	(6.3-11.9)	(6.2-11.9)	(10.1-17.0)	(10.5-16.9)
Very unhealthy	1	1	1	1	2
95% C.I.	(0.1-3.7)	(0.1-5.0)	(0.3-1.8)	(0.3-2.5)	(1.3-4.4)
Bases (weighted):	*766*	*862*	*728*	*771*	*738*
Bases (unweighted):	*638*	*844*	*795*	*773*	*811*

Table 6.4 Knowledge of fruit and vegetable recommendations by fruit and vegetable consumption

Aged 16 and over *2008, 2009, 2008/2009 combined*

Knowledge of recommendations (5 or more portions per day)	Fruit and vegetable consumption			Total 2008/2009	Total 2008	Total 2009
	None	Less than 5 portions	5 portions or more			
	%	%	%	%	%	%
Underestimated recommendation	8	8	5	7	8	7
95% C.I.	(5.1-12.7)	(7.0-9.7)	(3.3-6.6)	(6.4-8.6)	(6.6-10.0)	(5.4-8.0)
Knew recommendation	82	85	92	87	86	88
95% C.I.	(76.8-86.9)	(83.7-87.1)	(89.4-93.8)	(85.3-88.0)	(83.9-87.9)	(85.6-89.2)
Overestimated recommendation	2	1	1	1	1	1
95% C.I.	(0.7-3.6)	(0.8-1.7)	(0.4-2.5)	(0.8-1.6)	(0.7-2.0)	(0.8-1.7)
Didn't know recommendation	8	5	2	5	5	5
95% C.I.	(5.4-11.5)	(4.2-6.2)	(1.4-4.2)	(4.0-5.6)	(3.7-5.9)	(3.6-6.1)
Bases (weighted):	*341*	*2615*	*913*	*3868*	*1846*	*2022*
Bases (unweighted):	*316*	*2602*	*950*	*3868*	*1846*	*2022*

Table 6.5 Knowledge of fruit and vegetable recommendations by age and sex

Aged 16 and over *2008/2009 combined*

Knowledge of recommendations (5 or more portions per day)	Age				Total
	16-34	35-54	55-74	75+	
	%	%	%	%	%
Men					
Underestimated recommendation	10	9	11	18	11
95% C.I.	(6.5-15.2)	(6.7-12.4)	(8.3-14.5)	(12.8-25.0)	(8.8-12.6)
Knew recommendation	86	86	80	59	83
95% C.I.	(80.8-90.2)	(82.3-89.3)	(75.7-83.5)	(50.9-66.2)	(80.2-84.7)
Overestimated recommendation	1	2	1	1	1
95% C.I.	(0.2-1.8)	(0.7-3.6)	(0.4-2.3)	(0.3-4.4)	(0.6-1.8)
Didn't know recommendation	3	3	8	22	6
95% C.I.	(1.7-6.0)	(1.8-5.3)	(5.9-11.0)	(16.0-29.5)	(4.7-7.2)
Women					
Underestimated recommendation	3	4	5	8	5
95% C.I.	(1.7-5.4)	(2.5-6.5)	(3.8-7.6)	(5.0-11.4)	(3.5-5.8)
Knew recommendation	91	94	91	76	91
95% C.I.	(86.7-93.7)	(91.2-95.7)	(88.9-93.4)	(70.9-81.2)	(88.9-92.0)
Overestimated recommendation	2	1	1	2	1
95% C.I.	(0.7-3.3)	(0.6-2.4)	(0.3-1.4)	(0.9-4.5)	(0.8-1.8)
Didn't know recommendation	5	1	3	14	4
95% C.I.	(2.4-8.4)	(0.4-2.1)	(1.6-4.1)	(10.3-18.6)	(2.8-4.9)
All adults					
Underestimated recommendation	7	7	8	12	7
95% C.I.	(4.6-9.3)	(5.0-8.4)	(6.5-10.0)	(8.9-15.2)	(6.4-8.6)
Knew recommendation	88	90	86	70	87
95% C.I.	(85.3-91.0)	(87.9-92.0)	(83.6-87.9)	(65.1-73.8)	(85.3-88.0)
Overestimated recommendation	1	1	1	2	1
95% C.I.	(0.6-2.0)	(0.8-2.4)	(0.4-1.5)	(0.8-3.4)	(0.8-1.6)
Didn't know recommendation	4	2	5	17	5
95% C.I.	(2.5-6.1)	(1.3-3.1)	(4.0-6.7)	(13.7-21.0)	(4.0-5.6)
Bases (weighted):					
Men	*567*	*665*	*485*	*132*	*1849*
Women	*558*	*719*	*533*	*209*	*2019*
All adults	*1125*	*1385*	*1018*	*341*	*3868*
Bases (unweighted):					
Men	*301*	*602*	*565*	*193*	*1661*
Women	*467*	*700*	*732*	*308*	*2207*
All adults	*768*	*1302*	*1297*	*501*	*3868*

Table 6.6a Knowledge of fruit and vegetable recommendations by equivalised annual household income quintile

Aged 16 and over *2008/2009 combined*

Knowledge of recommendations (5 or more portions per day)	Equivalised annual household income quintile				
	1st (highest)	2nd	3rd	4th	5th (lowest)
	%	%	%	%	%
Underestimated recommendation	5	6	5	8	13
95% C.I.	(3.1-7.7)	(3.8-8.3)	(3.7-7.9)	(6.2-11.1)	(9.5-16.2)
Knew recommendation	93	90	88	85	78
95% C.I.	(90.5-95.4)	(87.2-92.8)	(84.0-90.6)	(81.8-87.7)	(74.3-82.0)
Overestimated recommendation	1	1	2	1	1
95% C.I.	(0.4-1.7)	(0.7-2.5)	(0.7-3.6)	(0.6-2.4)	(0.3-2.2)
Didn't know recommendation	1	3	5	5	8
95% C.I.	(0.4-2.3)	(1.5-5.0)	(3.5-8.0)	(3.9-7.5)	(6.2-11.0)
Bases (weighted):	*798*	*750*	*686*	*603*	*588*
Bases (unweighted):	*699*	*702*	*661*	*654*	*724*

Table 6.6b Knowledge of fruit and vegetable recommendations by NS-SEC of household reference person

Aged 16 and over *2008/2009 combined*

Knowledge of recommendations (5 or more portions per day)	NS-SEC of household reference person				
	Managerial & professional	Intermediate	Small employers & own account workers	Lower supervisory & technical	Semi-routine and routine
	%	%	%	%	%
Underestimated recommendation	4	8	7	7	11
95% C.I.	(2.7-5.3)	(4.7-12.6)	(4.5-12.2)	(5.0-10.5)	(9.3-14.1)
Knew recommendation	93	87	87	87	79
95% C.I.	(91.8-94.8)	(82.1-91.4)	(81.8-90.8)	(82.5-89.8)	(76.3-82.2)
Overestimated recommendation	1	1	2	1	1
95% C.I.	(0.6-1.6)	(0.1-2.5)	(0.9-4.4)	(0.5-2.7)	(0.7-2.4)
Didn't know recommendation	2	4	4	5	8
95% C.I.	(1.1-2.6)	(2.2-7.6)	(1.9-6.6)	(3.3-7.8)	(6.3-9.7)
Bases (weighted):	*1515*	*370*	*297*	*438*	*1179*
Bases (unweighted):	*1356*	*407*	*301*	*421*	*1305*

Table 6.6c Knowledge of fruit and vegetable recommendations by Scottish Index of Multiple Deprivation quintile

Aged 16 and over *2008/2009 combined*

Knowledge of recommendations (5 or more portions per day)	Scottish Index of Multiple Deprivation quintile				
	5th (least deprived)	4th	3rd	2nd	1st (most deprived)
	%	%	%	%	%
Underestimated recommendation	5	7	6	8	11
95% C.I.	(2.9-8.1)	(5.0-9.4)	(4.7-8.7)	(5.5-10.2)	(8.9-14.6)
Knew recommendation	91	87	89	85	80
95% C.I.	(87.7-93.7)	(84.1-89.9)	(86.4-91.7)	(82.2-88.1)	(76.6-83.4)
Overestimated recommendation	1	2	1	2	1
95% C.I.	(0.3-1.6)	(0.8-3.3)	(0.2-1.2)	(1.0-3.1)	(0.5-1.9)
Didn't know recommendation	3	4	4	5	7
95% C.I.	(1.9-5.3)	(2.8-6.3)	(2.4-5.6)	(3.8-7.3)	(5.5-9.6)
Bases (weighted):	*766*	*862*	*728*	*771*	*740*
Bases (unweighted):	*639*	*844*	*795*	*775*	*815*

Table 6.7 Motivations to eat more healthily by fruit and vegetable consumption

Aged 16 and over *2008, 2009, 2008/2009 combined*

Motivations to eat more healthily	Fruit and vegetable consumption			Total 2008/2009	Total 2008	Total 2009
	None	Less than 5 portions	5 portions or more			
	%	%	%	%	%	%
Pre-contemplation	40	45	-	34	34	34
95% C.I.	(32.9-47.2)	(42.5-47.4)	-	(32.0-35.8)	(31.2-36.5)	(31.2-36.5)
Contemplation	4	4	2	4	3	4
95% C.I.	(2.0-6.5)	(3.3-5.2)	(1.0-4.0)	(2.9-4.4)	(2.6-4.6)	(2.7-5.1)
Preparation	12	9	5	8	7	7
95% C.I.	(8.3-17.2)	(7.8-11.0)	(3.2-6.8)	(7.3-9.7)	(5.8-8.9)	(7.8-11.6)
Action	25	15	12	15	15	16
95% C.I.	(18.9-33.4)	(13.6-17.0)	(9.3-14.6)	(13.8-16.8)	(12.9-16.9)	(13.8-18.3)
Maintenance	19	27	28	26	28	24
95% C.I.	(13.5-26.0)	(24.4-28.8)	(25.1-32.2)	(24.6-28.1)	(25.7-31.0)	(22.0-26.7)
Long-term maintenance	-	-	53	13	12	13
95% C.I.	-	-	(49.3-57.0)	(11.4-13.8)	(10.7-14.2)	(11.1-14.6)
Bases (weighted):	*341*	*2615*	*913*	*3868*	*1846*	*2022*
Bases (unweighted):	*316*	*2602*	*950*	*3868*	*1846*	*2022*

Table 6.8 Motivations to eat more healthily by age and sex

Aged 16 and over *2008, 2009, 2008/2009 combined*

Motivations to eat more healthily	Age				Total 2008/2009
	16-34	35-54	55-74	75+	
	%	%	%	%	%
Men					
Pre-contemplation	23	36	43	58	36
95% C.I.	(17.9-29.8)	(31.7-41.4)	(38.0-48.1)	(50.0-66.2)	(32.7-38.7)
Contemplation	6	4	4	1	5
95% C.I.	(3.7-10.6)	(3.0-6.7)	(2.9-6.8)	(0.2-2.7)	(3.6-6.3)
Preparation	12	10	9	2	10
95% C.I.	(8.0-17.4)	(6.9-13.3)	(6.7-12.7)	(0.7-4.9)	(7.9-11.8)
Action	20	16	8	3	14
95% C.I.	(14.5-25.9)	(13.2-20.4)	(5.2-10.8)	(1.6-7.2)	(12.0-16.6)
Maintenance	32	24	20	14	25
95% C.I.	(25.8-39.2)	(20.3-29.0)	(16.5-24.5)	(8.9-20.5)	(22.1-27.9)
Long-term maintenance	7	9	16	22	11
95% C.I.	(4.4-10.1)	(6.3-11.7)	(12.3-19.6)	(15.6-29.8)	(9.2-12.7)
Women					
Pre-contemplation	23	30	35	56	32
95% C.I.	(18.6-27.8)	(26.5-34.3)	(31.3-39.6)	(50.3-62.3)	(29.9-34.7)
Contemplation	4	2	3	1	3
95% C.I.	(1.8-6.8)	(1.3-3.6)	(1.4-4.9)	(0.1-2.1)	(1.7-3.6)
Preparation	12	7	4	2	7
95% C.I.	(8.3-17.0)	(5.4-10.3)	(2.8-5.9)	(0.8-3.9)	(5.8-8.9)
Action	24	18	10	4	16
95% C.I.	(19.3-28.9)	(15.1-21.8)	(8.1-13.4)	(2.5-7.9)	(14.4-18.3)
Maintenance	29	28	29	18	28
95% C.I.	(24.0-34.3)	(24.4-32.4)	(25.4-33.1)	(13.9-23.4)	(25.4-29.9)
Long-term maintenance	9	14	18	19	14
95% C.I.	(6.3-12.7)	(10.9-17.0)	(15.6-21.7)	(14.5-23.9)	(12.5-15.9)
All adults					
Pre-contemplation	23	33	39	57	34
95% C.I.	(19.6-27.0)	(30.1-36.4)	(35.7-42.3)	(52.3-61.9)	(32.0-35.8)
Contemplation	5	3	4	1	4
95% C.I.	(3.3-7.4)	(2.4-4.5)	(2.5-5.0)	(0.2-1.6)	(2.9-4.4)
Preparation	12	9	7	2	8
95% C.I.	(9.1-15.6)	(6.8-10.7)	(5.0-8.4)	(1.0-3.3)	(7.3-9.7)
Action	22	17	9	4	15
95% C.I.	(18.1-25.6)	(15.1-20.0)	(7.3-11.1)	(2.5-6.4)	(13.8-16.8)
Maintenance	31	26	25	16	26
95% C.I.	(26.5-34.9)	(23.5-29.5)	(22.1-27.8)	(13.1-20.4)	(24.6-28.1)
Long-term maintenance	8	11	17	20	13
95% C.I.	(6.0-10.2)	(9.3-13.5)	(14.9-19.6)	(16.3-24.2)	(11.4-13.8)
Bases (weighted):					
Men	*567*	*665*	*485*	*132*	*1849*
Women	*558*	*719*	*533*	*209*	*2019*
All adults	*1125*	*1385*	*1018*	*341*	*3868*
Bases (unweighted):					
Men	*301*	*602*	*565*	*193*	*1661*
Women	*467*	*700*	*732*	*308*	*2207*
All adults	*768*	*1302*	*1297*	*501*	*3868*

Table 6.9a Motivations to eat more healthily by equivalised annual household income quintile

Aged 16 and over *2008/2009 combined*

Motivations to eat more healthily	Equivalised annual household income quintile				
	1st (highest)	2nd	3rd	4th	5th (lowest)
	%	%	%	%	%
Pre-contemplation	28	30	32	36	38
95% C.I.	(23.8-31.7)	(26.3-34.8)	(28.0-37.2)	(31.8-40.7)	(33.2-42.3)
Contemplation	4	3	4	3	5
95% C.I.	(2.7-6.0)	(1.6-4.8)	(2.0-6.3)	(2.0-6.0)	(3.3-7.5)
Preparation	7	8	6	10	11
95% C.I.	(4.7-9.6)	(5.8-11.3)	(4.3-9.1)	(7.1-13.3)	(7.8-15.0)
Action	17	17	14	15	17
95% C.I.	(13.8-20.7)	(14.2-20.9)	(11.2-18.0)	(11.4-18.9)	(13.1-21.7)
Maintenance	29	29	30	22	23
95% C.I.	(25.1-33.5)	(25.2-33.0)	(26.0-34.9)	(18.4-26.5)	(19.3-27.6)
Long-term maintenance	16	13	13	14	6
95% C.I.	(12.8-18.8)	(9.8-15.8)	(10.6-16.5)	(10.9-17.0)	(4.7-8.5)
Bases (weighted):	*798*	*750*	*686*	*603*	*588*
Bases (unweighted):	*699*	*702*	*661*	*654*	*724*

Table 6.9b Motivations to eat more healthily by NS-SEC of household reference person

Aged 16 and over *2008/2009 combined*

Motivations to eat more healthily	NS-SEC of household reference person				
	Managerial & professional	Intermediate	Small employers & own account workers	Lower supervisory & technical	Semi-routine and routine
	%	%	%	%	%
Pre-contemplation	29	32	40	36	38
95% C.I.	(25.8-31.7)	(27.1-38.3)	(33.3-47.4)	(30.7-42.2)	(34.6-41.2)
Contemplation	3	2	3	4	5
95% C.I.	(1.9-4.4)	(1.1-4.7)	(1.7-6.7)	(2.1-6.7)	(3.3-6.2)
Preparation	8	5	7	6	11
95% C.I.	(6.1-10.0)	(3.1-8.3)	(3.7-14.2)	(3.4-8.9)	(9.0-13.9)
Action	15	19	15	16	14
95% C.I.	(12.8-17.5)	(14.6-25.3)	(9.9-21.1)	(11.9-21.2)	(12.0-17.4)
Maintenance	30	29	21	27	23
95% C.I.	(26.9-33.0)	(23.4-35.1)	(15.9-26.9)	(22.2-33.5)	(19.9-26.0)
Long-term maintenance	16	12	14	11	9
95% C.I.	(13.8-18.1)	(8.9-15.8)	(9.9-18.6)	(7.8-15.0)	(7.5-11.2)
Bases (weighted):	*1515*	*370*	*297*	*438*	*1179*
Bases (unweighted):	*1356*	*407*	*301*	*421*	*1305*

Table 6.9c Motivations to eat more healthily by Scottish Index of Multiple Deprivation quintile

Aged 16 and over *2008/2009 combined*

Motivations to eat more healthily	Scottish Index of Multiple Deprivation quintile				
	5th (least deprived)	4th	3rd	2nd	1st (most deprived)
	%	%	%	%	%
Pre-contemplation	29	31	37	40	33
95% C.I.	(25.0-33.1)	(26.9-34.8)	(32.4-40.9)	(35.8-45.1)	(29.8-37.1)
Contemplation	3	3	3	3	5
95% C.I.	(1.5-6.2)	(2.2-5.6)	(2.0-4.9)	(1.7-5.0)	(3.8-7.5)
Preparation	8	9	6	8	10
95% C.I.	(5.9-12.0)	(5.9-12.2)	(4.4-9.2)	(5.9-11.3)	(7.9-13.5)
Action	14	13	16	16	18
95% C.I.	(10.9-17.7)	(10.6-16.4)	(12.2-19.6)	(12.7-19.4)	(14.8-22.0)
Maintenance	30	28	24	23	25
95% C.I.	(25.9-35.2)	(24.2-32.2)	(20.4-28.4)	(19.7-27.2)	(21.6-29.6)
Long-term maintenance	15	16	14	9	7
95% C.I.	(12.6-18.3)	(13.2-19.2)	(11.5-17.3)	(7.4-12.1)	(5.4-10.1)
Bases (weighted):	*766*	*862*	*728*	*771*	*740*
Bases (unweighted):	*639*	*844*	*795*	*775*	*815*

Table 6.10 Barriers to eating more healthily by age and sex

Aged 16 and over *2008/2009 combined*

Barriers to eating more healthily	Age				Total
	16-34	35-54	55-74	75+	
	%	%	%	%	%
Men					
Family/friends/people at work discouraging or unsupportive[a]	7	3	3	1	4
95% C.I.	(4.2-12.7)	(1.6-5.8)	(1.6-6.2)	(0.3-4.7)	(3.0-6.2)
Not knowing what changes to make	9	7	7	3	7
95% C.I.	(5.8-14.1)	(4.8-9.4)	(4.7-9.5)	(1.5-7.2)	(5.7-9.1)
Not knowing how to cook more healthy foods	17	7	5	7	10
95% C.I.	(12.1-22.9)	(5.4-9.8)	(3.3-7.1)	(3.6-12.3)	(7.7-11.7)
Lack of choice of healthy foods in canteens and restaurants	17	11	5	2	11
95% C.I.	(11.9-22.7)	(8.4-14.7)	(3.5-8.3)	(0.6-9.2)	(8.8-13.0)
Lack of choice of healthy foods in places where you do your main shopping	7	4	4	2	5
95% C.I.	(4.4-12.1)	(2.2-5.7)	(2.2-5.9)	(0.8-6.5)	(3.5-6.2)
Healthy foods are too expensive	23	15	11	8	16
95% C.I.	(17.3-29.0)	(12.5-19.0)	(8.8-14.8)	(4.6-14.3)	(13.8-18.7)
Healthy foods take too long to prepare	12	9	3	4	8
95% C.I.	(7.9-16.8)	(6.3-11.8)	(1.5-5.9)	(1.9-7.6)	(6.2-9.7)
Healthy foods are too boring	12	13	7	5	11
95% C.I.	(8.1-18.5)	(10.0-17.1)	(4.6-9.4)	(2.0-10.4)	(8.6-12.9)
Lack of willpower	32	38	29	12	32
95% C.I.	(25.7-38.1)	(33.0-42.6)	(24.7-34.0)	(7.2-18.7)	(28.8-34.8)
Don't like the taste/don't enjoy healthy foods	15	14	10	6	13
95% C.I.	(10.2-20.4)	(11.3-18.2)	(7.3-13.1)	(2.9-11.5)	(10.7-15.0)
None of these - nothing prevents me from eating more healthily	19	32	48	68	35
95% C.I.	(14.6-25.3)	(27.6-37.4)	(43.3-52.9)	(59.8-75.2)	(32.2-37.9)
Other	5	7	3	3	5
95% C.I.	(2.7-9.1)	(4.9-9.9)	(1.8-4.6)	(1.5-7.5)	(3.8-6.6)

Continued…

Table 6.10 - *Continued*

Aged 16 and over *2008/2009 combined*

Barriers to eating more healthily	Age				Total
	16-34	35-54	55-74	75+	
	%	%	%	%	%
Women					
Family/friends/people at work discouraging or unsupportive[a]	7	5	2	1	5
95% C.I.	(4.3-10.9)	(3.9-7.7)	(1.3-4.2)	(0.5-3.7)	(3.6-6.0)
Not knowing what changes to make	10	8	6	3	8
95% C.I.	(7.2-14.5)	(5.9-11.2)	(4.1-8.3)	(1.5-5.8)	(6.2-9.3)
Not knowing how to cook more healthy foods	13	6	3	1	7
95% C.I.	(9.5-17.0)	(4.3-8.8)	(2.0-4.9)	(0.2-2.4)	(5.4-8.1)
Lack of choice of healthy foods in canteens and restaurants	16	10	7	1	10
95% C.I.	(12.2-21.1)	(7.3-12.9)	(5.4-9.9)	(0.6-3.4)	(8.4-11.9)
Lack of choice of healthy foods in places where you do your main shopping	7	4	2	4	4
95% C.I.	(4.1-11.0)	(2.3-5.4)	(1.4-4.2)	(2.3-7.8)	(3.2-5.5)
Healthy foods are too expensive	20	18	12	10	16
95% C.I.	(16.3-24.6)	(15.4-22.1)	(9.6-15.2)	(6.3-14.9)	(14.6-18.4)
Healthy foods take too long to prepare	16	6	4	1	7
95% C.I.	(12.1-20.2)	(3.9-7.7)	(2.5-5.5)	(0.5-3.1)	(6.1-9.0)
Healthy foods are too boring	10	7	4	4	7
95% C.I.	(6.6-14.2)	(4.7-9.5)	(2.7-6.3)	(1.8-6.9)	(5.2-8.1)
Lack of willpower	38	47	35	13	38
95% C.I.	(32.4-44.1)	(42.9-51.6)	(31.5-39.6)	(8.7-18.1)	(35.5-40.7)
Don't like the taste/don't enjoy healthy foods	9	7	5	7	7
95% C.I.	(5.8-13.6)	(5.2-9.7)	(3.5-7.5)	(4.3-10.6)	(5.7-8.7)
None of these - nothing prevents me from eating more healthily	22	29	46	69	35
95% C.I.	(17.3-26.4)	(25.2-33.2)	(41.8-50.2)	(62.3-74.9)	(33.1-38.0)
Other	4	6	3	4	4
95% C.I.	(2.6-7.4)	(4.0-8.1)	(1.7-4.5)	(2.1-6.7)	(3.5-5.6)

Continued…

Table 6.10 - *Continued*

Aged 16 and over *2008/2009 combined*

Barriers to eating more healthily	Age				Total
	16-34	35-54	55-74	75+	
	%	%	%	%	%
All adults					
Family/friends/people at work discouraging or unsupportive[a]	7	4	3	1	4
95% C.I.	(4.9-10.2)	(3.2-5.9)	(1.7-4.3)	(0.6-2.9)	(3.6-5.5)
Not knowing what changes to make	10	8	6	3	7
95% C.I.	(7.3-12.8)	(5.9-9.5)	(4.9-8.0)	(1.9-5.2)	(6.4-8.7)
Not knowing how to cook more healthy foods	15	7	4	3	8
95% C.I.	(11.8-18.5)	(5.3-8.5)	(2.9-5.3)	(1.7-5.3)	(6.9-9.3)
Lack of choice of healthy foods in canteens and restaurants	16	10	6	2	10
95% C.I.	(13.2-20.2)	(8.6-12.7)	(4.9-8.3)	(0.8-4.0)	(9.1-11.8)
Lack of choice of healthy foods in places where you do your main shopping	7	4	3	4	4
95% C.I.	(4.9-10.0)	(2.6-4.8)	(2.1-4.3)	(2.1-5.9)	(3.6-5.4)
Healthy foods are too expensive	21	17	12	9	16
95% C.I.	(18.1-25.2)	(14.8-19.5)	(9.9-14.0)	(6.5-12.8)	(14.8-17.8)
Healthy foods take too long to prepare	14	7	3	2	8
95% C.I.	(11.0-16.9)	(5.6-8.9)	(2.3-4.8)	(1.3-3.9)	(6.5-8.8)
Healthy foods are too boring	11	10	5	4	8
95% C.I.	(8.2-14.7)	(7.9-12.1)	(4.1-7.0)	(2.4-6.7)	(7.3-9.8)
Lack of willpower	35	43	32	12	35
95% C.I.	(30.5-39.3)	(39.5-45.9)	(29.5-35.6)	(9.2-16.3)	(33.0-37.1)
Don't like the taste/don't enjoy healthy foods	12	11	7	6	10
95% C.I.	(9.0-15.3)	(8.8-12.8)	(5.9-9.3)	(4.4-9.4)	(8.5-11.1)
None of these - nothing prevents me from eating more healthily	20	31	47	69	35
95% C.I.	(17.1-24.2)	(27.6-33.8)	(43.9-50.1)	(63.6-73.1)	(33.4-37.2)
Other	5	6	3	4	5
95% C.I.	(3.1-7.1)	(5.0-8.1)	(2.0-3.9)	(2.2-5.8)	(3.9-5.7)
Bases (weighted):					
Men	*567*	*663*	*485*	*131*	*1845*
Women	*558*	*719*	*532*	*206*	*2015*
All adults	*1125*	*1381*	*1017*	*337*	*3860*
Bases (unweighted):					
Men	*301*	*601*	*565*	*191*	*1658*
All adults	*467*	*699*	*730*	*303*	*2199*
Women	*768*	*1300*	*1295*	*494*	*3857*

a These three options were presented as separate categories in the questionnaire

Table 6.11a Barriers to eating more healthily by equivalised annual household income quintile

Aged 16 and over *2008/2009 combined*

Barriers to eating more healthily	Equivalised annual household income quintile				
	1st (highest)	2nd	3rd	4th	5th (lowest)
	%	%	%	%	%
Family/friends/people at work discouraging or unsupportive	3	3	7	3	6
95% C.I.	(1.7-4.8)	(1.9-5.8)	(4.6-10.6)	(1.9-6.1)	(3.6-10.0)
Not knowing what changes to make	5	6	7	9	14
95% C.I.	(3.1-7.3)	(4.3-8.7)	(4.7-10.1)	(6.4-12.8)	(10.4-17.6)
Not knowing how to cook more healthy foods	6	9	8	7	13
95% C.I.	(4.4-8.7)	(6.2-12.0)	(5.4-11.8)	(5.2-10.7)	(9.7-16.5)
Healthy foods are too expensive	8	12	16	20	33
95% C.I.	(5.6-11.7)	(9.5-15.2)	(13.1-20.2)	(16.7-24.5)	(28.6-37.8)
Bases (weighted):	*798*	*749*	*684*	*602*	*585*
Bases (unweighted):	*699*	*701*	*659*	*653*	*720*

Table 6.11b Barriers to eating more healthily by NS-SEC of household reference person

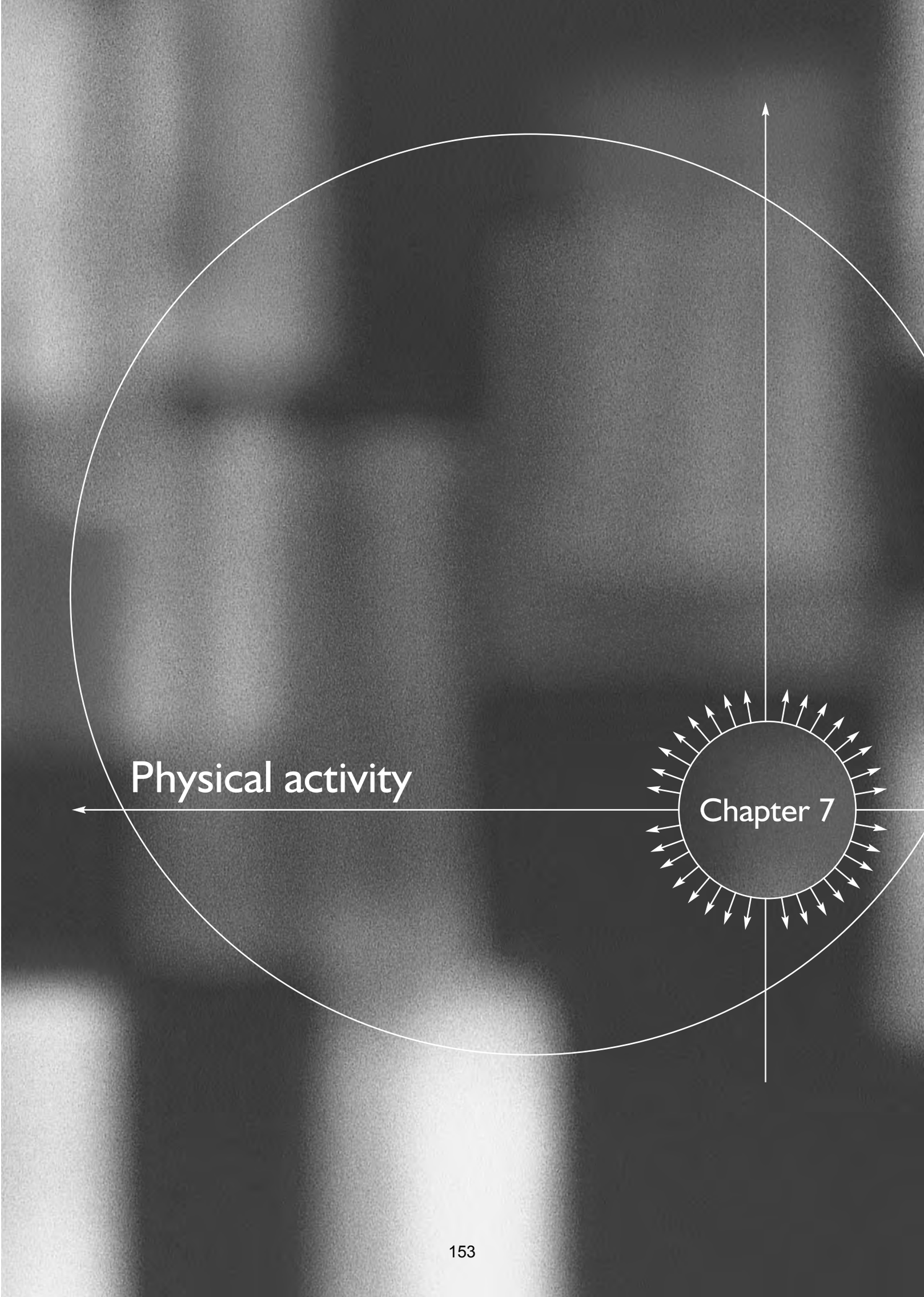
Aged 16 and over *2008/2009 combined*

Barriers to eating more healthily	NS-SEC of household reference person				
	Managerial & professional	Intermediate	Small employers & own account workers	Lower supervisory & technical	Semi-routine and routine
	%	%	%	%	%
Family/friends/people at work discouraging or unsupportive	4	6	6	3	4
95% C.I.	(3.0-6.2)	(2.9-11.3)	(3.0-10.0)	(1.4-5.0)	(2.9-6.6)
Not knowing what changes to make	5	6	7	5	12
95% C.I.	(3.9-7.1)	(3.8-9.4)	(3.5-12.2)	(2.9-9.3)	(9.3-14.1)
Not knowing how to cook more healthy foods	7	7	7	8	10
95% C.I.	(5.4-9.0)	(4.8-11.2)	(3.5-12.8)	(5.2-11.7)	(7.7-12.6)
Healthy foods are too expensive	11	21	8	17	23
95% C.I.	(9.3-13.8)	(15.9-26.7)	(5.0-13.0)	(12.5-21.7)	(20.3-26.3)
Bases (weighted):	*1514*	*369*	*296*	*437*	*1174*
Bases (unweighted):	*1355*	*406*	*300*	*419*	*1299*

Table 6.11c Barriers to eating more healthily by Scottish Index of Multiple Deprivation quintile

Aged 16 and over *2008/2009 combined*

Barriers to eating more healthily	Scottish Index of Multiple Deprivation quintile				
	5th (least deprived)	4th	3rd	2nd	1st (most deprived)
	%	%	%	%	%
Family/friends/people at work discouraging or unsupportive	4	4	5	5	5
95% C.I.	(2.2-6.2)	(2.1-6.2)	(2.8-7.7)	(3.6-7.6)	(3.1-8.4)
Not knowing what changes to make	6	6	5	7	13
95% C.I.	(3.7-9.3)	(4.5-8.7)	(3.1-7.5)	(5.3-10.1)	(10.2-16.5)
Not knowing how to cook more healthy foods	5	9	7	10	8
95% C.I.	(3.6-8.1)	(6.4-12.2)	(5.2-10.0)	(7.4-13.4)	(6.1-11.5)
Healthy foods are too expensive	10	12	15	19	26
95% C.I.	(6.9-12.9)	(9.4-15.6)	(12.3-19.3)	(16.2-23.1)	(21.8-29.8)
Bases (weighted):	*766*	*862*	*728*	*770*	*734*
Bases (unweighted):	*639*	*843*	*793*	*773*	*809*


Chapter 7
Physical activity

7 PHYSICAL ACTIVITY

SUMMARY

- In 2008/2009, 53% of adults felt they did enough activity to stay healthy. However, figures from the 2009 Scottish Health Survey showed that only 37% met the current recommendation of at least 30 minutes of moderate activity on most days of the week.
- The gap between the proportion who believe they do enough activity to stay healthy and the proportion who actually meet current physical activity recommendations increases markedly with age.
- Most people were aware that regular physical activity can lower the risk of being overweight or obese, developing heart disease, and high blood pressure. However, there was less awareness of the potential benefits of physical activity in reducing the risk of other health conditions, like diabetes, mental health problems and some cancers.
- 22% of adults in 2008/2009 knew that government currently recommends at least 30 minutes of moderate activity on most days of the week. Half believed the minimum recommended level is less this, and a significant proportion (15%) said they do not know what the advice is.
- 28% of people had not made any recent changes to their level of physical activity and were not thinking about doing so. However, 21% had maintained an increase in their physical activity levels in the last 12 months.
- But, even among those who had successfully increased their level of physical activity recently, around half still needed to take some further action to meet the level recommended by government.
- Lack of time was the most commonly mentioned barrier to being more physically active (42% of men, 41% of women), followed by ill health (16% of men and 20% of women). 29% of men and 22% of women said nothing was preventing them from being more physically active.

7.1 INTRODUCTION

This chapter explores people's perceptions of their physical activity levels and contrasts these with their actual levels, as assessed in the main Scottish Health Survey (SHeS) interview. It assesses their knowledge of the health benefits of physical activity and of the current activity recommendations. Finally, it looks at motivations to become more active and the barriers people report to increasing their activity levels.

This is the first time that it has been possible to explore the data used to monitor progress towards Scotland's physical activity target alongside the kind of data collected in the Knowledge, Attitudes and Motivations to health (KAM) module. As set out in the main 2008 and 2009 SHeS reports, there is much evidence that physical activity can protect against many of Scotland's leading chronic diseases, and promote and improve mental well-being.[1,2] These benefits have been at the centre of physical activity policy developments in recent years. The 2003 *Let's Make Scotland More Active*[3] strategy recommended that adults should accumulate at least 30 minutes of moderate activity on most days of the

week. The strategy also set out the following target, which was reaffirmed in a 2008 review.[4]

> *50% of adults should be meeting the current recommended levels of physical activity by the year 2022*

The 2009 SHeS data show that 37% of adults (43% of men and 32% of women) meet the current recommendation of at least 30 minutes of moderate activity on most days of the week, and that activity levels have not changed significantly between 2008 and 2009.[2] Men in all age groups were consistently more likely to meet the recommendations than were women. Activity levels also declined markedly with age, with just 11% of men and 6% of women aged 75 and over meeting the recommendations.

One of the aims of the *Let's Make Scotland More Active* strategy is to 'raise awareness and develop knowledge and understanding about the benefits of physical activity'. Scotland's *Take Life On* campaign includes messages to encourage people to get active. Initiatives like the *Paths to Health* walking initiative, jogscotland and *Green Gyms* are all designed to support people to have a more active lifestyle.

7.2 PERCEPTIONS OF BEHAVIOUR: DO PEOPLE THINK THEY ARE ACTIVE ENOUGH?

The KAM module asked people whether they thought they did enough physical activity for their age to stay healthy. In 2009, 52% of adults said they did enough to stay healthy, 44% said they did not, and 3% said they were not mobile. The equivalent figures in 2008 were very similar (54%, 43% and 3%). The proportion of people who believe they do enough activity to stay healthy is clearly higher than the proportion (37%) who meet current recommendations on activity levels (at least 30 minutes, most days of the week). **Table 7.1**

7.2.1 Perceptions of activity by behaviour

Table 7.1 presents perceptions of activity levels by people's reported behaviour, as measured in the main SHeS interview. This provides further evidence that actual activity levels and people's perceptions of whether they do enough activity to stay healthy are not wholly aligned. In 2008/2009, just over half (56%) of those classified as having low activity levels (fewer than 30 minutes of at least moderate activity a week) recognised that they did not do enough physical activity to stay healthy. A further 9% of this group said they were not mobile. However, just over a third (35%) of people with low activity levels thought they did enough to stay healthy. Those in the middle activity group (30 minutes or more of moderate activity on 1–4 days a week) were more evenly split; 48% thought they did enough and 51% thought they did not. The majority (71%) of people meeting the recommended level of at least 30 minutes moderate activity on most days thought that they did enough activity to keep healthy, although 29% of this group thought they needed to be more active. **Table 7.1**

7.2.2 Perceptions of activity by age and sex

As discussed in the introduction, men were more likely than women to meet physical activity recommendations in 2008 and 2009. Table 7.2 shows that men were also more likely than women to think they did enough activity (58% compared with 48%). Broadly similar proportions of men in all age groups thought they did enough activity, whereas women aged 55 and over were more likely to say this than those aged 16 to 54. Across all adults, those aged 75 and over were least likely to say they did not do enough activity (24%, compared with 38-51% of other age groups). The physical activity recommendations apply equally across the population with the same level advised for someone aged 16 or 80. As discussed in the main SHeS 2009 report, the proportions of men and women who meet physical activity recommendations decline with age. However, as these figures show, people's perceptions of whether they are sufficiently active do not. The gap between perceptions and actual activity therefore increases with age, and is widest for people in the older age groups. This could signal that people's expectations of what is necessary change as they age.

Table 7.2

7.2.3 Perceptions of activity by socio-demographic group

Tables 7.3a-c present perceptions of activity levels by household income, NS-SEC and area deprivation (these measures are all explained in full in Chapter 2). Household income and area deprivation were not significant. However, NS-SEC was associated with perceived activity levels. People in small employer and own-account worker households were the most likely to think they did enough activity (64% compared with 51%-55% in other household types). The 2008 SHeS report showed that men in these types of households were also the most likely to meet the recommendations, though the pattern was less clear for women.1 It might be that self-employed people are more active at work than average, or it could be that they have more active lifestyles in general. **Tables 7.3a, 7.3b, 7.3c**

7.3 KNOWLEDGE: HEALTH BENEFITS AND RECOMMENDATIONS

This section looks at knowledge of the health benefits of having a physically active life, and at awareness of the recommendation to do 30 minutes or more of at least moderate activity on most days of the week.

7.3.1 The health benefits of physical activity

Participants were presented with a list of health conditions and asked to choose which, if any, they thought a person was *less* likely to get if they were regularly physically active. Table 7.4 shows that the top three conditions mentioned in 2008/2009 were overweight and obesity (88%), heart disease (83%) and high blood pressure (64%). Diabetes was the next most commonly mentioned condition (40%), followed by mental health problems (36%). Awareness of the link between physical activity and reduced risk was lower still in relation to some cancers (27%), accidents and injuries (20%) and stomach ulcers (17%). Only one in ten

(9%) thought a regularly active person would be less likely to get all of the conditions listed. **Table 7.4**

Knowledge of health benefits by age and sex

The top three conditions mentioned were the same for both sexes: overweight and obesity (88% of men and women), heart disease (86% of men, 81% of women), and high blood pressure (67% of men, 61% of women). However, men were significantly more likely than women to mention heart disease and high blood pressure, while women were more likely than men to mention mental health problems (40% versus 33%), and brittle bones (33% versus 22%). **Table 7.4**

There was a consensus across all age groups about the top three conditions a regularly active person is less likely to get (overweight and obesity, heart disease and high blood pressure). However, awareness levels declined with age for some conditions – for example, heart disease, overweight and obesity, high blood pressure and diabetes, despite the fact the prevalence of all these conditions increases with age. This could be due to older cohorts being less exposed to messages about healthy living when they were younger. **Table 7.4**

Knowledge of health benefits by socio-demographic group

Tables 7.5a-7.5c show that the same three conditions (overweight and obesity, heart disease and high blood pressure), were the most commonly mentioned by all income, NS-SEC and area deprivation groups. However, levels of awareness of the link between physical activity and reduced disease risk generally declined with increasing levels of social and economic disadvantage. For example, high blood pressure showed the biggest gap in awareness by household income; 75% of people in the highest income households mentioned this condition compared with 52% in the lowest income households. The biggest gap by NS-SEC and area deprivation was for mental health. Almost half (46%) of people in managerial and professional households mentioned that physically active people would be at less risk of mental health problems, compared with a quarter (26%) of those in semi-routine and routine households. The equivalent figures for people living in the least and most deprived area deprivation quintiles were 44% and 28%, respectively. **Tables 7.5a, 7.5b, 7.5c**

7.3.2 The physical activity recommendations

The Health Education Population Survey (HEPS) measured public knowledge of the physical activity guidelines (at least 30 minutes moderate activity on most days of the week) between 1996 and 2007 and concluded that that there was a small increase in awareness over that period. Differing methodologies, some changes in question wording, and the addition of people aged 75 and over to the sample mean that it is not possible to compare the HEPS findings directly with the equivalent questions in the KAM module. The 2008 results do, however, provide a baseline for comparison in future years.

The KAM module measures awareness of the physical activity recommendations by asking participants how much time per day the government advises people to do moderate physical activity. It then asks on how many days of the week activity is advised.

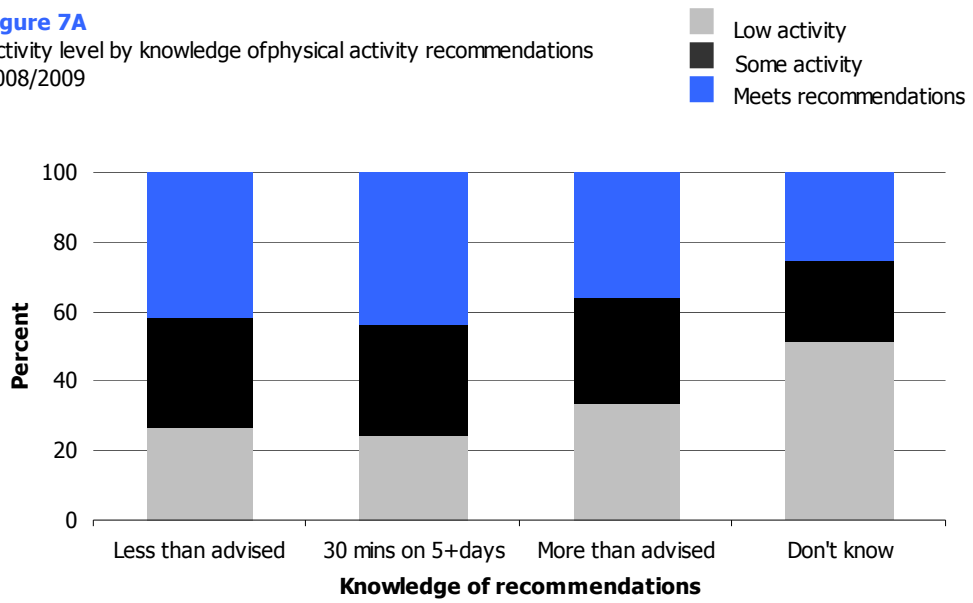
Table 7.6 shows that 23% of adults in 2009 correctly identified the recommended activity level (as did 22% in 2008). Half thought that the advice was to be less active than this while just over one in ten over-estimated the amount of activity advised. A further 14% in 2009 (and 17% in 2008) said they did not know what the recommendations were (either the minutes per day or the number of days recommended).

Knowledge of recommendations by behaviour

Table 7.6 also presents knowledge of the recommendations by people's self-reported activity level. In 2008/2009, only 25% of people who were active at the recommended level correctly identified the recommendations, 54% of this group underestimated how active they should be, one in ten thought they needed to be more active, and a further one in ten said they did not know what the advice was. People in the middle group, active for 30 minutes on 1 to 4 days a week, had very similar levels of knowledge to those who met the recommendations. Awareness was, however, significantly lower among the least active people: just 17% of this group correctly identified the recommendations, 44% underestimated them, and 26% said they did not know what level of activity was recommended. **Table 7.6**

Figure 7A compares activity levels across knowledge levels. This shows that people who knew what the recommendations were and those who underestimated them in fact had very similar levels of activity. In contrast, people who either overestimated the recommendations, or said they did not know what they were, were more likely to have low activity levels. As discussed further below, this association between low levels of knowledge and low activity levels is likely to be explained, at least in part, by the fact that older people (who are also the least active) were the most likely to say they did not know what level of physical activity is recommended. **Figure 7A**

Figure 7A
Activity level by knowledge ofphysical activity recommendations
2008/2009



Knowledge of recommendations by age and sex

Table 7.7 shows that knowledge of the recommendations did not differ significantly by sex, for example, in 2008/2009 21% of men and 23% of women knew the recommendations. However, knowledge levels varied quite notably across age groups, with similar patterns observed among men and women. Between 22% and 24% of adults aged 16 to 74 knew the recommendations, dropping to just 12% of those aged 75 and over. In contrast, the proportion who said they did not know what the recommendations were climbed steeply with age, from 8% of those aged 16-34 to 47% of those aged 75 and over.

The HEPS survey did not interview people aged over 75 so this is the first time that knowledge levels in older age groups have been measured. While awareness of how much activity is recommended for good health and wellbeing is relatively low across the whole population, it is clear that knowledge is particularly low among older age groups. The low levels of awareness of the recommendations among older people could also explain the findings noted above in Section 7.2 that this group is more likely than younger people to say they are sufficiently active for their age. **Table 7.7**

Knowledge of recommendations by socio-demographic group

Tables 7.8a-c show that knowledge of the physical activity recommendations varied significantly with household income, NS-SEC and area deprivation. The differences across groups were generally most pronounced in relation to the proportions who correctly knew the recommendations and for those who said they did not now them at all. For example, 26% of people in the two highest household income quintiles knew the recommendations compared with 16% in the lowest quintile. Conversely, people in the two lowest household income quintiles were four times as likely as those in the highest quintile to say they did not know what the recommendations were (21% versus 5%). Similar – though somewhat less pronounced – differences were

apparent between people in semi-routine or routine households and those in managerial and professional or intermediate households, and between those living in the two most deprived quintiles and those in the least deprived areas of Scotland. **Tables 7.8a, 7.8b, 7.8c**

7.4 MOTIVATIONS TO BE MORE ACTIVE

The KAM module also included questions designed to assess people's own *motivation* to be more physically active. This was measured by asking participants:

- if they had **tried** to eat more healthily in the past year, and if so
- whether they had managed to **maintain** this;
- if they would **like** to eat more healthily, and if so
- whether they were **thinking** of doing this in the next six months.

An individual's readiness to change their behaviour was determined by using the responses given to these questions to classify them according to DiClemente and Proschaska's 'Stages of Change model'.[5] In this example it ranges from no change to physical activity level recently undertaken or planned, through to activity levels increased and maintained. For the purpose of this report a further category has been added of 'long-term maintenance' which includes people who were currently active at the recommended level who did not mention having made any recent changes or wanting to make any future change to their activity level. The following table sets out the stages and presents the proportion of adults in Scotland in each category.

Stage of change	Definition of stage of change	% 2008/ 2009
Pre-contemplation	Has not increased physical activity levels in the previous 12 months and not intending to do so in the next 6 months	28
Contemplation	Would like to be more physically active	5
Preparation	Would like to be more physically active and thinking of doing so in the next six months	11
Action	Increased physical activity levels in the previous 12 months but did not maintain these increased levels	16
Maintenance	Increased physical activity levels in the previous 12 months and maintained these increased levels	21
Long-term maintenance	Active at the recommended level and did not increase activity levels in the past 12 months or want to increase them further in future	18

As can be seen from the table, although the most common category was pre-contemplation (28%), more people had taken action to increase their physical activity in the past year (though not all had maintained it).

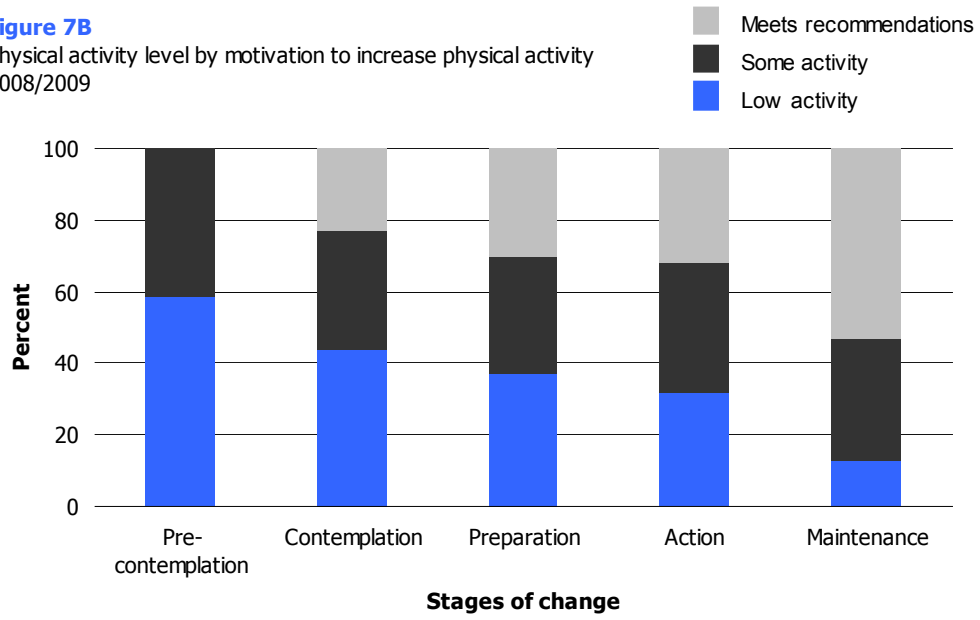
7.4.1 Motivations and current behaviour

People's actual activity levels were broadly in line with motivation stages. Table 7.9 shows that 47% of people who were active at the recommended level had not increased their activity in the past year and were not planning to do so. However, 28% of people who met the

physical activity recommendations had maintained an increase in their activity level within the past year, which suggests that a sizeable proportion of people who meet the recommendations might have only done so recently. Pre-contemplation was the most common stage among people in the middle activity category (39%), though 24% had maintained an increase in their activity level in the past year and a further 19% had attempted to increase their activity but not maintained it. The least active group were the most likely to be pre-contemplators (54%), and were the least likely to have maintained a recent increase in activity (8%). **Table 7.9**

Figure 7B compares activity levels across the first five stages of change groups (all people in the long-term maintenance were active at the recommended level so they are omitted from the chart). It shows that almost six in ten pre-contemplators were classified as having low levels of activity. Just over four in ten people contemplating an increase in activity had low activity levels though just over a fifth of this group actually met the activity recommendations. People in the preparation and action stages were roughly evenly split across the three activity groups. Just over half of those who had managed to maintain an increase in their activity level in the past year were meeting the recommendations, one in three had only managed to attain a medium level of activity as a result of their behaviour change, while one in eight had a low level of activity. So, although it is clear that people who have taken action and maintained it are more physically active than those who are contemplating or not contemplating it at all, around half of those who increased their activity levels in the past year still need to take further action to meet the recommendations. **Figure 7B**

Figure 7B
Physical activity level by motivation to increase physical activity 2008/2009



7.4.2 Motivations by age and sex

The main SHeS 2009 report shows that overall men are more active than women, so it is perhaps surprising that Table 7.10 shows that

differences in men and women's motivations to be more active were not very big. In common with their higher overall activity levels, men were more likely than women to be in the long-term maintenance group (21% versus 16%). Conversely, men were less likely than women to be pre-contemplators (26% versus 31%). The differences between men and women for the other stages were not significant. **Table 7.10**

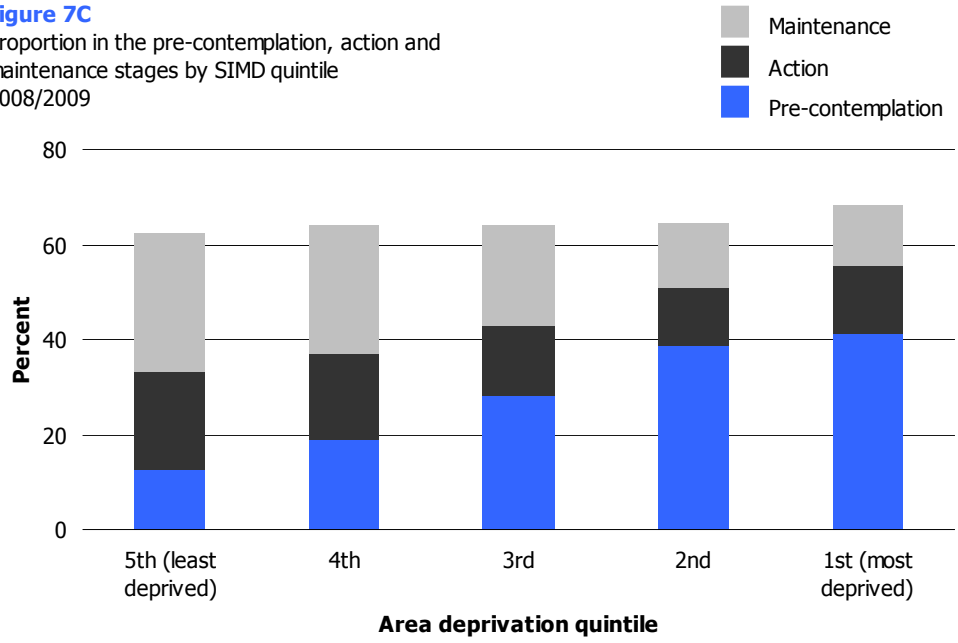
With the exception of the contemplation category, motivations varied greatly by age, with similar patterns for both men and women. Just 15% of adults aged 16-34 were pre-contemplators. The rate then increased notably from 21% among those aged 35-54 to 41% of those aged 55-74, and further to 68% of those aged 75 and over. The remaining categories (excluding the contemplation stage) followed a reverse pattern with motivations declining with age. Those aged 75 and over were the least likely to be in the long-term maintenance group (6%, compared with 17-22% of those in other age groups). **Table 7.10**

7.4.3 Motivations by socio-demographic group

Tables 7.11a-c show that the proportions of people in the pre-contemplation, action and maintenance stages varied by income, NS-SEC and area deprivation. People in more advantaged circumstances (higher household incomes, managerial and professional households and less deprived areas) were more likely to have maintained an increase in their activity level, or to have attempted to do this, though not maintained it. They were also least likely to be in the pre-contemplation stage. Figure 7C illustrates this pattern by showing the proportions of people in the pre-contemplation, action and maintenance stages across deprivation quintiles.

Figure 7C, Tables 7.11a, 7.11b, 7.11c

Figure 7C
Proportion in the pre-contemplation, action and maintenance stages by SIMD quintile
2008/2009



7.5 BARRIERS TO INCREASING ACTIVITY

To help identify the main barriers adults think they face to increasing their physical activity levels, participants were presented with a list of reasons people find it difficult to do more physical activity from which they could choose up to three that applied to them. The factors included barriers of a very physical kind (such as a lack of local facilities, transport or money) as well as more personal or motivational barriers (such as not enjoying exercise, lacking skills or confidence or preferring to do other things). Although physical barriers can sometimes be more amenable to policy intervention than personal ones, the current *Take Life On* initiative has a specific focus increasing people's confidence to make small changes to their lifestyle.

Lack of time due to other commitments was the most common barrier, mentioned by four in ten adults (42%). The next most common answer, chosen by a quarter of adults (25%), was that nothing was preventing them. This group will include people who face no barriers because they are already quite active as well as less active people who nevertheless do not feel that they face any barriers. The next most common barrier was ill-health, mentioned by 18%.

7.5.1 Barriers by age and sex

Men and women had broadly similar views about barriers, though some small but significant differences were evident. Men were more likely than women to say nothing prevented them from being more active (29% compared with 22%), and were less likely to cite ill-health (16% of men, 20% of women). Women were more likely than men to mention having no-one to go with (10% versus 6%), not enjoying exercise (9% versus 6%), or being overweight (7% versus 3%).

In contrast, there were some quite large – though not necessarily surprising – differences in the kinds of barriers mentioned by different age groups. For example, around a half of people aged 16 to 54 mentioned a lack of time compared with a quarter aged 55-74 and just 6% aged 75 and over. The opposite pattern was true for ill-health, injury or disability where the proportion mentioning this increased from just 7% of all those aged 16-34, to 33% among men aged 75 and over and 42% of women of this age. The overall difference between men and women in the rates mentioning ill-health noted above appears to be driven by the attitudes of those aged 55 and over. As might be expected, a quarter (26%) of adults aged 75 and over cited old age as a barrier, compared with just 5% of those aged 55-74, and 1% or less of those aged under 55. **Table 7.12**

7.5.2 Barriers by socio-demographic group

Barriers to increasing physical activity levels did not, on the whole, vary greatly across socio-demographic groups. However, Tables 7.13a-c present a selection of the barriers for which notable differences were evident for groups. The proportion who mentioned a lack of time decreased quite markedly as income declined, whereas the opposite was true for ill-health or disability, lack of money or no-one to go with. The patterns for lack of time and ill-health or disability were broadly similar for NS-SEC, area deprivation and income. Lack of money was

more commonly mentioned by people in the most deprived quintile than any others, but the pattern by NS-SEC was unclear. Having no-one to go with was not associated with NS-SEC or area deprivation.

Tables 7.13a, 7.13b, 7.13c

7.6 CONCLUSIONS

This chapter has highlighted the gap between people's perception of whether they are sufficiently active to stay healthy, and the proportions who actually meet government recommendations on minimum levels of physical activity. This gap widens substantially with age. Moreover, people in the oldest age group (aged 75 and over) are less likely to be aware of the relationship between physical activity and reduced disease risk, and less likely to know what the recommended level of physical activity is. The proportion of people who are considering or trying to increase their activity levels also declines with age. This suggests that the targeting of any messages around the health benefits of physical activity might benefit from being tailored to specific age groups, for example in a primary care setting, in addition to any population wide initiatives to increase awareness. Further analysis of older people's knowledge, attitudes and motivations can be carried out when more years of data have been collected and the sample is larger, but further research to investigate older people's perceptions of healthy living might also be helpful.

Differences in the barriers identified by people of different ages to being more physically active also suggest that initiatives to encourage people to be more active will benefit from being built around life stages. For example, messages about easy ways to build activity into already busy lifestyles to help those who think activity is too time consuming, or very targeted advice about ways of staying active in older age or when faced with illness or disability.

Finally, although overall there is high level recognition that physical activity can help to prevent weight gain and improve cardiovascular health, the findings in this chapter suggest that awareness of the role it can play in relation to many other conditions needs to be improved. It is also notable that far fewer people mentioned diabetes than overweight and obesity or heart disease, despite the fact there is a strong association between these latter two conditions and type 2 diabetes.

References and notes

[1] Marryat, L. (2009) Chapter 6: Physical Activity. In Bromley, C., Bradshaw, P., and Given, L. *The Scottish Health Survey 2008, Volume 1: Main Report*. Edinburgh: Scottish Government.

[2] Ormston, R. (2010) Chapter 6: Physical Activity. In Bromley, C., Given, L. and Ormston, R. *The Scottish Health Survey 2009, Volume 1: Main Report*. Edinburgh: Scottish Government

[3] Physical Activity Task Force. (2003). *Let's make Scotland more Active. A strategy for Physical Activity*. Edinburgh: Crown Copyright. http://www.scotland.gov.uk/library5/culture/lmsa-00.asp

[4] *Five-year review of 'Let's Make Scotland More Active' – A strategy for physical activity*. Glasgow: NHS Health Scotland, 2009. www.healthscotland.com/documents/3223.aspx

[5] The Stages of Change model (sometimes referred to as The Transtheoretical Model) is a model of health behaviour change developed initially by DiClemente and Proschaska in 1977. Here we refer to the version of the model which contains five 'stages of change' ranging from pre-contemplation to maintenance. For further reading on the 'Stages of Change model' see DiClemente, C.C., & Prochaska, J.O. (1982). Self change and therapy change of smoking behavior: A comparison of processes of change in cessation and maintenance. *Addictive Behavior*. 7 (2): 133-42.

Table list

Table 7.1 Self-assessment of physical activity level by reported summary physical activity

Aged 16 and over *2008, 2009, 2008/2009 combined*

Self-assessment of activity level	Summary activity level[a]			Total 2008/ 2009	Total 2008	Total 2009
	Low activity	Some activity	Meets recommen-dations			
	%	%	%	%	%	%
Enough to stay healthy	35	48	71	53	54	52
95% C.I.	(32.4-38.5)	(44.6-51.9)	(67.9-74.0)	(51.1-55.2)	(51.1-56.8)	(49.6-55.3)
Not enough to stay healthy	56	51	29	44	43	44
95% C.I.	(52.4-58.9)	(47.6-54.9)	(26.0-32.0)	(41.8-46.0)	(40.3-46.0)	(41.6-47.4)
Not mobile	9	1	0	3	3	3
95% C.I.	(7.4-10.8)	(0.2-1.2)	(0.0-0.3)	(2.4-3.5)	(2.2-3.7)	(2.3-4.0)
Bases (weighted):	*1188*	*1162*	*1508*	*3862*	*1843*	*2019*
Bases (unweighted):	*1365*	*1175*	*1314*	*3857*	*1840*	*2017*

a Meets recommendations= 30 minutes or more on at least 5 days a week; Some activity= 30 minutes or more on 1 to 4 days a week; Low activity= fewer than 30 minutes of moderate or vigorous activity a week.

Table 7.2 Self-assessment of physical activity level by age and sex

Aged 16 and over *2008/2009 combined*

Self-assessment of activity level	Age				Total
	16-34	35-54	55-74	75+	
	%	%	%	%	%
Men					
Enough to stay healthy	61	54	61	64	58
95% C.I.	(53.5-67.2)	(49.2-58.9)	(55.7-65.2)	(55.1-71.5)	(55.4-61.5)
Not enough to stay healthy	39	45	35	26	39
95% C.I.	(32.8-46.5)	(40.6-50.3)	(30.1-39.4)	(19.3-34.5)	(36.3-42.5)
Not mobile	0	0	5	10	2
95% C.I.	(0.0-0.0)	(0.2-1.3)	(3.3-7.1)	(5.9-16.6)	(1.6-2.9)
Women					
Enough to stay healthy	46	42	53	63	48
95% C.I.	(40.0-51.8)	(38.2-46.8)	(49.1-57.5)	(56.4-68.5)	(45.7-51.0)
Not enough to stay healthy	54	56	40	23	48
95% C.I.	(48.2-60.0)	(51.8-60.3)	(36.1-44.5)	(18.2-29.3)	(45.4-50.6)
Not mobile	0	1	6	14	4
95% C.I.	(0.0-0.0)	(0.7-3.0)	(4.6-8.9)	(10.4-18.8)	(2.9-4.6)
All adults					
Enough to stay healthy	53	48	57	63	53
95% C.I.	(48.6-57.8)	(44.8-51.3)	(53.5-60.0)	(58.1-67.8)	(51.1-55.2)
Not enough to stay healthy	47	51	38	24	44
95% C.I.	(42.2-51.4)	(47.7-54.2)	(34.4-40.8)	(20.3-29.1)	(41.8-46.0)
Not mobile	0	1	6	13	3
95% C.I.	(0.0-0.0)	(0.5-1.8)	(4.4-7.3)	(9.6-16.2)	(2.4-3.5)
Bases (weighted):					
Men	*565*	*664*	*484*	*131*	*1844*
Women	*557*	*719*	*533*	*208*	*2018*
All adults	*1123*	*1383*	*1016*	*339*	*3862*
Bases (unweighted):					
Men	*300*	*601*	*561*	*192*	*1654*
Women	*466*	*700*	*731*	*306*	*2203*
All adults	*766*	*1301*	*1292*	*498*	*3857*

Table 7.3a Self-assessment of physical activity level by equivalised annual household income quintile

Aged 16 and over *2008/2009 combined*

Self-assessment of activity level	Equivalised annual household income quintile				
	1st (highest)	2nd	3rd	4th	5th (lowest)
	%	%	%	%	%
Enough to stay healthy	54	51	53	51	50
95% C.I.	(49.4-58.7)	(46.6-55.6)	(48.1-57.9)	(46.5-56.0)	(45.0-54.7)
Not enough to stay healthy	45	48	44	43	46
95% C.I.	(40.8-50.2)	(43.8-52.9)	(39.1-48.8)	(37.9-47.6)	(41.7-51.3)
Not mobile	0	1	3	6	4
95% C.I.	(0.2-1.3)	(0.2-1.3)	(2.0-4.7)	(4.4-8.3)	(2.5-5.4)
Bases (weighted):	*797*	*747*	*685*	*602*	*587*
Bases (unweighted):	*698*	*698*	*660*	*652*	*723*

Table 7.3b Self-assessment of physical activity level by NS-SEC of household reference person

Aged 16 and over *2008/2009 combined*

Self-assessment of activity level	NS-SEC of household reference person				
	Managerial & professional	Intermediate	Small employers & own account workers	Lower supervisory & technical	Semi-routine and routine
	%	%	%	%	%
Enough to stay healthy	52	55	64	54	51
95% C.I.	(48.7-55.4)	(48.9-60.8)	(56.8-71.0)	(48.5-60.3)	(47.8-54.8)
Not enough to stay healthy	47	42	33	41	44
95% C.I.	(43.4-50.1)	(36.4-48.2)	(26.4-40.5)	(35.5-47.1)	(40.6-47.7)
Not mobile	1	3	3	4	5
95% C.I.	(0.8-1.9)	(1.7-4.8)	(1.3-5.4)	(2.7-6.9)	(3.5-5.9)
Bases (weighted):	*1512*	*370*	*297*	*438*	*1176*
Bases (unweighted):	*1352*	*407*	*301*	*420*	*1300*

Table 7.3c Self-assessment of physical activity level by Scottish Index of Multiple Deprivation quintile

Aged 16 and over *2008/2009 combined*

Self-assessment of activity level	Scottish Index of Multiple Deprivation quintile				
	5th (least deprived)	4th	3rd	2nd	1st (most deprived)
	%	%	%	%	%
Enough to stay healthy	56	53	55	53	49
95% C.I.	(50.9-60.6)	(48.9-57.5)	(50.3-59.5)	(48.2-57.3)	(44.8-53.4)
Not enough to stay healthy	43	44	42	43	47
95% C.I.	(38.5-48.2)	(40.0-48.7)	(37.5-46.7)	(38.5-47.9)	(42.2-51.1)
Not mobile	1	2	3	4	4
95% C.I.	(0.5-1.7)	(1.6-3.8)	(2.0-4.5)	(2.8-5.9)	(3.0-6.0)
Bases (weighted):	*763*	*862*	*728*	*771*	*737*
Bases (unweighted):	*636*	*841*	*795*	*773*	*812*

Table 7.4 Knowledge of health conditions less likely among regularly active people by age and sex

Aged 16 and over *2008/2009 combined*

Health conditions[a]	Age				Total
	16-34	35-54	55-74	75+	
	%	%	%	%	%
Men					
Heart disease	84	88	88	78	86
95% C.I.	(78.1-89.0)	(83.9-90.5)	(84.9-91.0)	(69.8-84.0)	(83.7-88.2)
Some cancers	31	31	23	20	28
95% C.I.	(24.7-37.7)	(26.6-35.2)	(18.7-27.1)	(14.2-28.1)	(25.1-31.1)
Diabetes	46	43	38	26	41
95% C.I.	(39.4-53.4)	(37.8-47.4)	(33.0-42.5)	(19.5-34.1)	(38.1-44.6)
High blood pressure	70	73	59	52	67
95% C.I.	(62.7-76.5)	(68.0-77.0)	(54.4-63.9)	(43.6-60.8)	(63.9-70.0)
Overweight and obesity	93	90	83	76	88
95% C.I.	(87.7-95.8)	(86.3-92.7)	(78.8-86.0)	(67.5-82.1)	(85.8-89.8)
Mental health problems	30	39	29	26	33
95% C.I.	(23.9-36.2)	(34.7-44.0)	(24.4-33.6)	(19.1-33.8)	(29.8-35.7)
Brittle bones (Osteoporosis)	22	26	16	23	22
95% C.I.	(16.6-28.0)	(21.8-30.8)	(12.9-20.4)	(16.0-30.9)	(19.4-24.7)
Injuries and accident	21	24	18	19	21
95% C.I.	(16.2-27.5)	(20.7-28.6)	(14.5-22.4)	(13.4-26.4)	(19.1-24.1)
Stomach Ulcer	21	19	14	16	18
95% C.I.	(15.7-26.8)	(15.3-22.4)	(10.7-17.5)	(10.7-23.3)	(15.5-20.3)
All of these	9	10	7	12	9
95% C.I.	(5.9-14.5)	(7.7-13.1)	(5.2-10.5)	(7.2-18.9)	(7.6-11.3)
None of these	1	1	1	1	1
95% C.I.	(0.2-6.0)	(0.2-2.3)	(0.4-3.1)	(0.3-5.9)	(0.5-2.1)
Other	0	0	0	0	0
95% C.I.	(0.0-0.0)	(0.0-0.8)	(0.1-1.1)	(0.0-0.0)	(0.0-0.3)
Women					
Heart disease	77	87	80	67	81
95% C.I.	(71.5-82.4)	(84.1-90.0)	(76.3-83.1)	(60.1-72.4)	(78.3-82.8)
Some cancers	29	32	22	9	27
95% C.I.	(24.6-34.5)	(28.2-36.6)	(19.1-26.2)	(6.3-13.6)	(24.4-29.1)
Diabetes	42	45	34	22	39
95% C.I.	(36.7-48.3)	(40.8-49.8)	(29.5-37.9)	(17.3-27.9)	(36.5-41.9)
High blood pressure	65	69	55	36	61
95% C.I.	(58.8-70.5)	(64.4-72.7)	(50.1-59.1)	(30.4-42.9)	(58.2-63.5)
Overweight and obesity	91	90	85	77	88
95% C.I.	(87.6-94.0)	(86.9-92.4)	(82.2-88.1)	(70.9-82.3)	(86.2-89.5)
Mental health problems	40	48	33	25	40
95% C.I.	(34.5-46.0)	(43.6-52.8)	(28.9-37.0)	(20.0-31.2)	(37.0-42.4)
Brittle bones (Osteoporosis)	32	36	35	21	33
95% C.I.	(26.7-37.4)	(32.0-40.8)	(30.8-39.1)	(16.1-25.8)	(30.7-35.7)
Injuries and accident	18	23	15	9	18
95% C.I.	(13.9-23.0)	(19.5-27.1)	(12.1-18.4)	(5.7-12.8)	(16.1-20.4)
Stomach Ulcer	20	19	10	7	16
95% C.I.	(16.1-25.1)	(16.0-22.9)	(8.2-13.3)	(4.4-10.6)	(14.1-18.1)
All of these	12	11	6	3	9
95% C.I.	(8.3-16.1)	(8.7-14.2)	(4.3-8.4)	(1.6-5.9)	(7.7-11.0)
None of these	1	1	1	2	1
95% C.I.	(0.2-1.8)	(0.2-1.4)	(0.7-2.5)	(1.0-5.9)	(0.6-1.5)
Other	0	0	0	0	0
95% C.I.	(0.0-0.0)	(0.0-1.0)	(0.0-1.2)	(0.0-0.0)	(0.0-0.4)

Continued…

Table 7.4 - *Continued*

Aged 16 and over *2008/2009 combined*

Health conditions[a]	Age				Total
	16-34	35-54	55-74	75+	
	%	%	%	%	%
All adults					
Heart disease	81	87	84	71	83
95% C.I.	(76.7-84.5)	(85.1-89.5)	(81.5-86.1)	(66.0-75.4)	(81.6-84.8)
Some cancers	30	32	23	14	27
95% C.I.	(26.1-34.4)	(28.6-34.7)	(19.8-25.5)	(10.3-17.7)	(25.4-29.3)
Diabetes	44	44	36	24	40
95% C.I.	(39.9-48.9)	(40.7-47.3)	(32.4-38.7)	(19.5-28.4)	(38.1-42.4)
High blood pressure	68	71	57	43	64
95% C.I.	(62.8-71.8)	(67.5-73.6)	(53.4-60.2)	(37.4-48.0)	(61.8-65.8)
Overweight and obesity	92	90	84	76	88
95% C.I.	(89.0-94.3)	(87.7-91.8)	(81.7-86.3)	(71.5-80.8)	(86.6-89.2)
Mental health problems	35	44	31	25	36
95% C.I.	(30.7-39.2)	(40.7-47.1)	(28.0-33.9)	(21.1-30.2)	(34.4-38.3)
Brittle bones (Osteoporosis)	27	31	26	21	28
95% C.I.	(22.9-30.8)	(28.3-34.6)	(23.2-29.0)	(17.5-25.7)	(25.9-29.7)
Injuries and accident	20	24	16	13	20
95% C.I.	(16.3-23.5)	(21.0-26.7)	(14.1-19.1)	(9.5-16.8)	(18.1-21.5)
Stomach Ulcer	20	19	12	11	17
95% C.I.	(17.1-24.3)	(16.5-21.6)	(10.1-14.2)	(7.7-14.1)	(15.4-18.5)
All of these	11	11	7	7	9
95% C.I.	(8.0-13.7)	(8.8-12.7)	(5.2-8.6)	(4.3-9.8)	(8.0-10.6)
None of these	1	1	1	2	1
95% C.I.	(0.3-2.8)	(0.3-1.3)	(0.7-2.2)	(0.9-4.3)	(0.6-1.5)
Other	0	0	0	0	0
95% C.I.	(0.0-0.0)	(0.0-0.5)	(0.1-0.7)	(0.0-0.0)	(0.0-0.3)
Bases (weighted):					
Men	*567*	*662*	*474*	*122*	*1824*
Women	*553*	*713*	*519*	*187*	*1973*
All adults	*1120*	*1375*	*993*	*309*	*3797*
Bases (unweighted):					
Men	*300*	*598*	*549*	*175*	*1622*
Women	*459*	*694*	*712*	*271*	*2136*
All adults	*759*	*1292*	*1261*	*446*	*3758*

a The figures for each individual condition mentioned include the percentage of people who chose the "all of these" option

Table 7.5a Knowledge of health conditions less likely among regularly active people by equivalised annual household income quintile

Aged 16 and over *2008/2009 combined*

Health conditions[a]	Equivalised annual household income quintile				
	1st (highest)	2nd	3rd	4th	5th (lowest)
	%	%	%	%	%
Heart disease	90	86	83	81	78
95% C.I.	(87.0-92.6)	(82.7-89.5)	(78.6-85.9)	(76.8-84.4)	(73.9-82.4)
Some cancers	37	29	25	25	19
95% C.I.	(32.6-41.3)	(24.6-32.9)	(21.1-30.4)	(20.9-29.2)	(15.6-23.7)
Diabetes	54	43	36	33	36
95% C.I.	(49.5-58.0)	(38.2-47.5)	(31.5-41.6)	(28.2-37.6)	(30.8-40.9)
High blood pressure	75	67	67	57	52
95% C.I.	(71.0-79.3)	(62.2-71.0)	(62.2-71.4)	(51.6-61.6)	(46.8-56.9)
Overweight and obesity	95	90	91	85	83
95% C.I.	(92.0-96.5)	(86.7-92.2)	(87.4-93.1)	(81.2-87.7)	(79.4-86.5)
Mental health problems	51	39	34	28	29
95% C.I.	(46.5-55.6)	(34.7-43.6)	(29.3-38.5)	(23.7-32.7)	(24.9-34.5)
Brittle bones (Osteoporosis)	36	28	27	27	20
95% C.I.	(31.7-40.2)	(24.5-32.7)	(22.6-31.6)	(22.9-32.1)	(16.3-24.5)
Injuries and accident	27	20	17	16	17
95% C.I.	(22.8-30.7)	(16.9-24.3)	(13.4-20.2)	(13.0-20.5)	(13.1-21.0)
Stomach Ulcer	22	19	12	15	13
95% C.I.	(18.8-26.1)	(15.6-22.7)	(9.7-15.3)	(11.6-18.6)	(9.4-16.5)
All of these	11	11	7	8	7
95% C.I.	(8.7-13.7)	(8.4-14.3)	(4.8-8.8)	(5.9-11.7)	(4.6-11.1)
None of these	0	1	0	2	1
95% C.I.	(0.0-0.7)	(0.3-2.2)	(0.1-0.8)	(0.7-5.3)	(0.4-2.2)
Other	0	0	0	0	0
95% C.I.	(0.0-0.6)	(0.0-1.0)	(0.0-0.8)	(0.1-1.0)	(0.0-0.0)
Bases (weighted):	*793*	*745*	*673*	*585*	*575*
Bases (unweighted):	*694*	*695*	*646*	*629*	*700*

a The figures for each individual condition mentioned include the percentage of people who chose the “all of these” option

Table 7.5b Knowledge of health conditions less likely among regularly active people by NS-SEC of household reference person

Aged 16 and over *2008/2009 combined*

Health conditions[a]	NS-SEC of household reference person				
	Managerial & professional	Intermediate	Small employers & own account workers	Lower supervisory & technical	Semi-routine and routine
	%	%	%	%	%
Heart disease	87	85	80	83	79
95% C.I.	(84.9-89.7)	(80.7-88.5)	(72.6-85.4)	(77.8-87.0)	(75.6-81.5)
Some cancers	34	25	25	25	21
95% C.I.	(31.1-37.4)	(20.4-31.1)	(19.4-31.9)	(19.3-30.6)	(17.6-23.8)
Diabetes	48	41	37	37	32
95% C.I.	(45.0-51.7)	(34.7-47.3)	(30.2-44.3)	(31.4-43.4)	(28.7-35.7)
High blood pressure	70	69	61	59	57
95% C.I.	(67.2-73.5)	(63.2-73.9)	(53.8-68.3)	(52.8-64.7)	(52.8-60.2)
Overweight and obesity	92	89	87	89	83
95% C.I.	(89.8-93.5)	(85.0-92.3)	(82.3-91.1)	(84.6-91.6)	(80.7-85.8)
Mental health problems	46	40	34	29	26
95% C.I.	(42.5-49.2)	(33.7-45.8)	(27.7-42.0)	(24.1-35.4)	(22.9-29.3)
Brittle bones (Osteoporosis)	34	25	28	26	22
95% C.I.	(30.7-36.9)	(20.4-30.8)	(21.8-34.6)	(20.8-31.9)	(18.8-25.0)
Injuries and accident	23	24	21	18	14
95% C.I.	(20.8-26.3)	(18.7-29.2)	(15.0-27.6)	(13.1-23.5)	(11.8-17.2)
Stomach Ulcer	21	17	19	13	13
95% C.I.	(18.6-23.8)	(12.5-21.5)	(14.2-25.9)	(9.3-17.8)	(10.2-15.3)
All of these	12	10	12	8	6
95% C.I.	(9.9-14.0)	(6.9-14.8)	(7.6-17.6)	(4.6-11.9)	(4.1-8.0)
None of these	0	1	1	1	1
95% C.I.	(0.1-0.8)	(0.6-3.2)	(0.2-2.9)	(0.5-3.6)	(0.7-3.0)
Other	0	0	0	0	0
95% C.I.	(0.0-0.5)	(0.0-0.0)	(0.0-0.0)	(0.0-0.0)	(0.0-0.6)
Bases (weighted):	*1508*	*362*	*288*	*431*	*1143*
Bases (unweighted):	*1344*	*395*	*289*	*412*	*1247*

a The figures for each individual condition mentioned include the percentage of people who chose the "all of these" option

Table 7.5c Knowledge of health conditions less likely among regularly active people by Scottish Index of Multiple Deprivation quintile

Aged 16 and over *2008/2009 combined*

Health conditions[a]	Scottish Index of Multiple Deprivation quintile				
	5th (least deprived)	4th	3rd	2nd	1st (most deprived)
	%	%	%	%	%
Heart disease	87	85	81	80	82
95% C.I.	(83.8-90.0)	(80.9-88.0)	(77.4-84.6)	(75.7-84.1)	(78.8-85.5)
Some cancers	34	29	28	23	21
95% C.I.	(30.0-39.0)	(25.4-33.3)	(24.1-33.0)	(19.4-27.7)	(17.5-24.5)
Diabetes	48	42	40	36	35
95% C.I.	(42.9-52.4)	(37.6-46.8)	(35.0-44.5)	(31.7-40.8)	(31.0-39.4)
High blood pressure	68	65	65	61	60
95% C.I.	(63.1-72.3)	(60.8-69.2)	(60.2-68.6)	(56.3-65.6)	(55.5-64.6)
Overweight and obesity	91	90	87	87	85
95% C.I.	(87.1-93.1)	(86.8-92.0)	(84.1-90.0)	(83.9-89.6)	(81.5-87.6)
Mental health problems	44	41	36	32	28
95% C.I.	(39.4-48.7)	(36.8-45.3)	(31.5-40.6)	(27.8-36.6)	(23.9-31.5)
Brittle bones (Osteoporosis)	35	30	28	22	23
95% C.I.	(30.4-39.4)	(26.5-34.3)	(23.6-32.1)	(18.6-26.3)	(19.8-27.6)
Injuries and accident	23	22	21	17	16
95% C.I.	(19.1-26.8)	(18.1-25.3)	(17.4-25.9)	(13.7-20.8)	(12.8-19.5)
Stomach Ulcer	20	20	16	16	12
95% C.I.	(16.8-24.1)	(16.5-23.6)	(12.4-19.9)	(12.5-19.3)	(10.0-15.2)
All of these	12	10	10	9	6
95% C.I.	(87.2-1.6)	(84.8-1.8)	(81.3-1.8)	(80.2-2.1)	(82.4-1.7)
None of these	1	0	1	2	1
95% C.I.	(0.3-4.3)	(0.1-1.6)	(0.3-2.1)	(1.0-3.0)	(0.5-1.7)
Other	0	0	0	0	0
95% C.I.	(0.0-0.0)	(0.0-0.6)	(0.0-0.9)	(0.0-0.7)	(0.0-1.0)
Bases (weighted):	*348*	*433*	*315*	*370*	*342*
Bases (unweighted):	*291*	*419*	*358*	*359*	*362*

a The figures for each individual condition mentioned include the percentage of people who chose the "all of these" option

Table 7.6 Knowledge of physical activity recommendations by summary physical activity level

Aged 16 and over *2008, 2009, 2008/2009 combined*

Knowledge of physical activity recommendations (30 mins on 5+ days)	Summary activity level[a]			Total 2008/ 2009	Total 2008	Total 2009
	Low activity	Some activity	Meets recommen-dations			
	%	%	%	%	%	%
Underestimated recommendation	44	52	54	50	51	50
95% C.I.	(40.2-47.2)	(48.8-55.9)	(50.6-57.8)	(48.3-52.6)	(48.2-54.0)	(46.7-52.8)
Knew recommendation	17	24	25	22	22	23
95% C.I.	(15.0-20.3)	(20.6-26.9)	(21.6-27.7)	(20.4-23.9)	(19.3-24.0)	(20.2-25.4)
Overestimated recommendation	13	12	11	12	11	13
95% C.I.	(11.0-15.5)	(9.9-14.8)	(9.3-13.6)	(10.8-13.4)	(9.1-12.5)	(11.3-15.2)
Didn't know recommendation	26	12	10	15	17	14
95% C.I.	(23.0-28.7)	(9.9-14.4)	(8.1-12.3)	(14.0-17.0)	(14.5-19.0)	(12.5-16.5)
Bases (weighted):	*1190*	*1165*	*1509*	*3867*	*1846*	*2021*
Bases (unweighted):	*1369*	*1178*	*1316*	*3866*	*1846*	*2020*

a Meets recommendations= 30 minutes or more on at least 5 days a week; Some activity= 30 minutes or more on 1 to 4 days a week; Low activity= fewer than 30 minutes or moderate or vigorous activity a week.

Table 7.7 Knowledge of physical activity recommendations by age and sex

Aged 16 and over *2008/2009 combined*

Knowledge of physical activity recommendations (30 mins on 5+ days)	Age				Total
	16-34	35-54	55-74	75+	
	%	%	%	%	%
Men					
Underestimated recommendation	59	51	45	28	50
95% C.I.	(51.6-65.6)	(46.2-56.2)	(39.9-50.0)	(21.0-36.6)	(47.0-53.5)
Knew recommendation	21	24	21	8	21
95% C.I.	(16.1-27.8)	(20.2-28.5)	(17.5-25.7)	(5.0-13.3)	(18.9-24.1)
Overestimated recommendation	12	14	14	16	13
95% C.I.	(7.9-16.9)	(10.6-17.6)	(10.7-17.5)	(11.0-22.9)	(11.3-15.5)
Didn't know recommendation	8	11	20	48	15
95% C.I.	(5.0-13.2)	(7.9-15.0)	(16.5-24.3)	(39.3-55.8)	(13.0-17.6)
Women					
Underestimated recommendation	55	58	46	26	51
95% C.I.	(49.1-60.7)	(53.4-62.0)	(41.8-50.2)	(21.0-32.3)	(48.0-53.2)
Knew recommendation	24	25	22	14	23
95% C.I.	(19.7-29.2)	(20.9-28.6)	(18.6-25.7)	(10.5-19.4)	(20.5-25.0)
Overestimated recommendation	13	9	10	13	11
95% C.I.	(9.9-18.2)	(6.7-12.0)	(7.8-13.1)	(9.3-17.4)	(9.4-12.8)
Didn't know recommendation	7	9	22	47	16
95% C.I.	(5.1-10.6)	(6.5-11.5)	(18.5-25.6)	(40.3-53.0)	(14.0-17.7)
All adults					
Underestimated recommendation	57	55	45	27	50
95% C.I.	(52.1-61.5)	(51.3-57.9)	(42.2-48.8)	(22.7-31.8)	(48.3-52.6)
Knew recommendation	23	24	22	12	22
95% C.I.	(19.1-26.8)	(21.6-27.3)	(19.1-24.4)	(9.2-15.5)	(20.4-23.9)
Overestimated recommendation	13	11	12	14	12
95% C.I.	(9.8-16.0)	(9.3-13.7)	(10.0-14.1)	(11.0-17.9)	(10.8-13.4)
Didn't know recommendation	8	10	21	47	15
95% C.I.	(5.8-10.5)	(7.9-12.1)	(18.4-23.9)	(41.9-52.0)	(14.0-17.0)
Bases (weighted):					
Men	*567*	*665*	*485*	*132*	*1849*
Women	*558*	*719*	*532*	*209*	*2018*
All adults	*1125*	*1385*	*1017*	*341*	*3867*
Bases (unweighted):					
Men	*301*	*602*	*565*	*193*	*1661*
Women	*467*	*700*	*731*	*307*	*2205*
All adults	*768*	*1302*	*1296*	*500*	*3866*

Table 7.8a Knowledge of physical activity recommendations by equivalised annual household income quintile

Aged 16 and over *2008/2009 combined*

Knowledge of physical activity recommendations (30 mins on 5+ days)	Equivalised annual household income quintile				
	1st (highest)	2nd	3rd	4th	5th (lowest)
	%	%	%	%	%
Underestimated recommendation	59	51	52	44	47
95% C.I.	(54.7-63.6)	(46.7-56.0)	(47.6-57.3)	(39.0-49.1)	(42.0-52.1)
Knew recommendation	26	26	23	21	16
95% C.I.	(22.1-29.9)	(22.1-30.1)	(19.3-27.8)	(17.7-25.8)	(12.4-19.7)
Overestimated recommendation	10	11	9	13	16
95% C.I.	(7.2-12.7)	(8.5-14.7)	(6.9-12.9)	(10.4-16.7)	(12.6-19.8)
Didn't know recommendation	5	11	15	21	21
95% C.I.	(3.9-7.4)	(8.8-14.8)	(12.0-18.2)	(17.7-25.4)	(18.1-25.2)
Bases (weighted):	*798*	*750*	*684*	*603*	*588*
Bases (unweighted):	*699*	*702*	*659*	*654*	*724*

Table 7.8b Knowledge of physical activity recommendations by NS-SEC of household reference person

Aged 16 and over *2008/2009 combined*

Knowledge of physical activity recommendations (30 mins on 5+ days)	NS-SEC of household reference person				
	Managerial & professional	Intermediate	Small employers & own account workers	Lower supervisory & technical	Semi-routine and routine
	%	%	%	%	%
Underestimated recommendation	55	51	41	48	48
95% C.I.	(51.9-58.7)	(45.0-57.3)	(34.3-48.9)	(41.5-53.8)	(44.3-51.4)
Knew recommendation	26	25	21	22	17
95% C.I.	(23.3-29.0)	(19.9-31.5)	(15.6-27.9)	(17.1-27.3)	(14.2-19.4)
Overestimated recommendation	9	9	16	13	16
95% C.I.	(7.3-11.4)	(6.2-12.8)	(11.0-22.2)	(9.2-16.9)	(13.2-18.3)
Didn't know recommendation	9	15	22	18	20
95% C.I.	(7.8-11.5)	(11.1-19.0)	(16.9-27.4)	(13.6-23.6)	(17.5-22.7)
Bases (weighted):	*1515*	*370*	*296*	*438*	*1179*
Bases (unweighted):	*1356*	*407*	*300*	*420*	*1305*

Table 7.8c Knowledge of physical activity recommendations by Scottish Index of Multiple Deprivation quintile

Aged 16 and over *2008/2009 combined*

Knowledge of physical activity recommendations (30 mins on 5+ days)	Scottish Index of Multiple Deprivation quintile				
	5th (least deprived)	4th	3rd	2nd	1st (most deprived)
	%	%	%	%	%
Underestimated recommendation	53	52	47	52	49
95% C.I.	(48.0-57.5)	(47.3-56.5)	(41.9-51.4)	(47.1-56.3)	(44.1-53.3)
Knew recommendation	27	24	23	18	19
95% C.I.	(22.9-31.1)	(20.1-27.6)	(19.1-27.7)	(14.8-21.7)	(15.4-22.2)
Overestimated recommendation	11	11	10	13	15
95% C.I.	(8.7-14.9)	(8.0-13.8)	(8.1-13.4)	(10.6-16.3)	(11.7-18.4)
Didn't know recommendation	9	14	20	17	18
95% C.I.	(6.9-11.5)	(11.3-16.9)	(16.3-23.9)	(14.3-20.3)	(14.5-22.0)
Bases (weighted):	*765*	*862*	*728*	*771*	*739*
Bases (unweighted):	*638*	*844*	*795*	*775*	*814*

Table 7.9 Motivations to be more physically active by summary physical activity level

Aged 16 and over *2008, 2009, 2008/2009 combined*

Motivations to be more active	Summary activity level[a]			Total 2008/ 2009	Total 2008	Total 2009
	Low activity	Some activity	Meets recommen-dations			
	%	%	%	%	%	%
Pre-contemplation	54	39	0	28	29	28
95% C.I.	(50.5-57.6)	(35.6-42.4)	(0.0-0.0)	(26.7-30.3)	(26.6-31.7)	(25.5-30.4)
Contemplation	8	6	3	5	6	5
95% C.I.	(6.0-9.7)	(4.6-8.1)	(2.2-4.5)	(4.6-6.4)	(4.6-7.2)	(4.0-6.3)
Preparation	14	13	9	11	9	14
95% C.I.	(11.4-16.5)	(10.4-15.3)	(7.1-10.9)	(10.2-12.9)	(7.9-11.2)	(11.5-15.8)
Action	16	19	13	16	16	16
95% C.I.	(13.6-18.9)	(16.0-21.8)	(10.6-15.4)	(14.1-17.2)	(13.7-17.9)	(13.5-18.1)
Maintenance	8	24	28	21	20	21
95% C.I.	(6.8-10.4)	(20.6-26.7)	(25.1-31.4)	(19.0-22.4)	(18.0-22.7)	(18.7-23.1)
Long-term maintenance	0	0	47	18	20	17
95% C.I.	(0.0-0.0)	(0.0-0.0)	(43.6-50.6)	(16.8-20.0)	(17.6-22.1)	(15.0-19.4)
Bases (weighted):	*1192*	*1165*	*1509*	*3868*	*1846*	*2022*
Bases (unweighted):	*1371*	*1178*	*1316*	*3868*	*1846*	*2022*

a Meets recommendations= 30 minutes or more on at least 5 days a week; Some activity= 30 minutes or more on 1 to 4 days a week; Low activity= fewer than 30 minutes or moderate or vigorous activity a week.

Table 7.10 Motivations to be more physically active by age and sex

Aged 16 and over *2008/2009 combined*

Motivations to be more active	Age				Total
	16-34	35-54	55-74	75+	
	%	%	%	%	%
Men					
Pre-contemplation	14	20	38	63	26
95% C.I.	(9.3-19.8)	(16.9-24.5)	(33.9-43.2)	(55.2-70.9)	(23.6-28.9)
Contemplation	3	5	7	7	5
95% C.I.	(1.6-6.9)	(3.3-7.6)	(5.2-10.5)	(3.6-11.7)	(4.1-6.7)
Preparation	14	13	9	6	12
95% C.I.	(10.1-19.5)	(10.0-17.5)	(6.3-11.9)	(3.3-11.3)	(9.9-14.1)
Action	16	17	11	5	14
95% C.I.	(10.7-21.9)	(13.5-20.6)	(8.4-14.6)	(2.2-9.1)	(11.8-16.6)
Maintenance	30	21	16	11	22
95% C.I.	(23.8-36.8)	(17.1-25.1)	(12.6-20.4)	(6.8-18.0)	(19.1-24.5)
Long-term maintenance	23	24	18	8	21
95% C.I.	(18.1-29.6)	(19.7-28.1)	(14.5-22.5)	(4.8-13.1)	(18.6-23.7)
Women					
Pre-contemplation	16	21	43	71	31
95% C.I.	(12.0-20.6)	(17.6-24.8)	(38.9-47.6)	(64.5-76.0)	(28.2-33.0)
Contemplation	7	5	4	7	6
95% C.I.	(4.7-10.4)	(3.5-7.4)	(2.7-6.3)	(4.1-11.9)	(4.5-7.0)
Preparation	14	11	10	7	11
95% C.I.	(10.6-18.4)	(8.8-14.0)	(7.5-12.3)	(4.6-10.7)	(9.6-12.9)
Action	21	20	14	6	17
95% C.I.	(17.0-26.3)	(16.4-23.3)	(10.9-16.9)	(3.3-9.0)	(15.1-19.1)
Maintenance	27	23	14	5	20
95% C.I.	(21.6-32.2)	(19.5-26.9)	(11.1-16.9)	(3.2-9.1)	(17.7-21.9)
Long-term maintenance	15	20	16	4	16
95% C.I.	(11.6-19.6)	(16.8-23.8)	(12.8-19.1)	(2.4-7.5)	(14.1-17.9)
All adults					
Pre-contemplation	15	21	41	68	28
95% C.I.	(11.7-18.5)	(18.2-23.5)	(37.7-44.2)	(62.9-72.4)	(26.7-30.3)
Contemplation	5	5	6	7	5
95% C.I.	(3.6-7.4)	(3.8-6.6)	(4.3-7.5)	(4.6-10.4)	(4.6-6.4)
Preparation	14	12	9	7	11
95% C.I.	(11.3-17.5)	(10.1-14.7)	(7.6-11.2)	(4.7-9.5)	(10.2-12.9)
Action	18	18	12	5	16
95% C.I.	(15.0-22.3)	(16.0-20.8)	(10.4-14.8)	(3.4-7.7)	(14.1-17.2)
Maintenance	28	22	15	8	21
95% C.I.	(24.2-32.6)	(19.4-24.8)	(12.7-17.4)	(5.3-10.9)	(19.0-22.4)
Long-term maintenance	19	22	17	6	18
95% C.I.	(16.0-23.2)	(19.2-24.6)	(14.5-19.5)	(3.9-8.3)	(16.8-20.0)
Bases (weighted):					
Men	*567*	*665*	*485*	*132*	*1849*
Women	*558*	*719*	*533*	*209*	*2019*
All adults	*1125*	*1385*	*1018*	*341*	*3868*
Bases (unweighted):					
Men	*301*	*602*	*565*	*193*	*1661*
Women	*467*	*700*	*732*	*308*	*2207*
All adults	*768*	*1302*	*1297*	*501*	*3868*

Table 7.11a Motivations to be more physically active by equivalised annual household income quintile

Aged 16 and over *2008/2009 combined*

Motivations to be more active	Equivalised annual household income quintile				
	1st (highest)	2nd	3rd	4th	5th (lowest)
	%	%	%	%	%
Pre-contemplation	12	19	28	39	41
95% C.I.	(10.0-15.3)	(15.9-22.5)	(24.3-32.8)	(34.5-43.5)	(36.8-46.3)
Contemplation	5	4	7	7	6
95% C.I.	(3.2-7.5)	(2.6-6.1)	(4.7-9.6)	(4.9-9.4)	(4.1-8.5)
Preparation	13	13	12	12	10
95% C.I.	(10.1-16.1)	(10.0-16.5)	(8.9-15.1)	(8.7-15.3)	(7.6-13.5)
Action	21	18	14	12	14
95% C.I.	(16.9-24.8)	(14.9-21.5)	(11.2-18.4)	(9.0-15.7)	(10.6-18.2)
Maintenance	29	27	21	13	13
95% C.I.	(25.1-34.1)	(23.2-31.3)	(17.3-25.5)	(10.3-17.3)	(9.4-16.7)
Long-term maintenance	20	19	18	17	16
95% C.I.	(16.5-23.5)	(15.8-23.0)	(14.2-21.8)	(13.6-21.9)	(12.6-19.9)
Bases (weighted):	*798*	*750*	*686*	*603*	*588*
Bases (unweighted):	*699*	*702*	*661*	*654*	*724*

Table 7.11b Motivations to be more physically active by NS-SEC of household reference person

Aged 16 and over *2008/2009 combined*

Motivations to be more active	NS-SEC of household reference person				
	Managerial & professional	Intermediate	Small employers & own account workers	Lower supervisory & technical	Semi-routine and routine
	%	%	%	%	%
Pre-contemplation	19	26	34	32	38
95% C.I.	(17.1-22.1)	(21.3-30.9)	(27.3-41.0)	(27.1-37.3)	(34.2-41.1)
Contemplation	5	7	4	4	6
95% C.I.	(3.6-6.5)	(4.2-11.1)	(2.2-7.3)	(2.5-7.3)	(4.8-8.0)
Preparation	12	11	9	12	11
95% C.I.	(10.4-14.6)	(7.6-15.7)	(5.5-14.4)	(8.9-16.7)	(8.9-13.5)
Action	20	21	11	12	11
95% C.I.	(17.3-23.0)	(15.9-26.3)	(7.2-17.3)	(8.3-16.2)	(9.0-13.2)
Maintenance	26	19	22	19	15
95% C.I.	(23.2-29.0)	(14.0-25.2)	(16.3-28.2)	(14.3-24.7)	(12.5-17.9)
Long-term maintenance	17	17	20	21	19
95% C.I.	(14.9-20.0)	(12.6-22.0)	(15.1-26.4)	(15.9-26.6)	(16.5-22.3)
Bases (weighted):	*1515*	*370*	*297*	*438*	*1179*
Bases (unweighted):	*1356*	*407*	*301*	*421*	*1305*

Table 7.11c Motivations to be more physically active by Scottish Index of Multiple Deprivation quintile

Aged 16 and over *2008/2009 combined*

Motivations to be more active	Scottish Index of Multiple Deprivation quintile				
	5th (least deprived)	4th	3rd	2nd	1st (most deprived)
	%	%	%	%	%
Pre-contemplation	20	27	28	33	35
95% C.I.	(17.4-23.7)	(23.0-30.7)	(24.2-31.9)	(28.7-37.2)	(31.2-39.0)
Contemplation	4	6	8	5	5
95% C.I.	(2.2-5.7)	(3.8-7.9)	(5.5-10.6)	(3.6-7.1)	(3.8-7.6)
Preparation	17	12	7	11	11
95% C.I.	(12.9-20.9)	(9.3-14.7)	(5.4-10.1)	(8.6-13.7)	(8.1-13.6)
Action	16	17	16	15	15
95% C.I.	(12.3-19.6)	(13.7-20.7)	(12.6-19.3)	(11.5-18.5)	(12.2-18.2)
Maintenance	27	22	21	16	17
95% C.I.	(22.7-30.9)	(18.8-26.6)	(17.0-25.1)	(13.2-19.7)	(13.6-21.0)
Long-term maintenance	17	17	21	20	17
95% C.I.	(14.1-21.2)	(13.7-20.1)	(17.1-24.5)	(16.7-24.6)	(13.9-20.9)
Bases (weighted):	*766*	*862*	*728*	*771*	*740*
Bases (unweighted):	*639*	*844*	*795*	*775*	*815*

Table 7.12 Barriers to physical activity by age and sex

Aged 16 and over *2008/2009 combined*

Barriers to physical activity	Age				Total
	16-34	35-54	55-74	75+	
	%	%	%	%	%
Men					
Lack of time	54	51	25	6	42
95% C.I.	(46.5-60.6)	(45.5-55.8)	(20.5-29.8)	(3.1-11.9)	(38.5-44.9)
Prefer to do other things	19	11	8	4	12
95% C.I.	(14.1-25.6)	(8.2-14.6)	(5.6-11.0)	(1.8-7.7)	(10.1-14.6)
Ill health, injury or disability	7	15	24	33	16
95% C.I.	(4.0-11.2)	(12.2-18.6)	(20.2-28.6)	(26.4-41.2)	(14.3-18.3)
I feel too fat/overweight	5	2	2	2	3
95% C.I.	(2.5-10.7)	(1.3-3.7)	(1.4-4.1)	(0.5-5.4)	(2.1-4.8)
I do not enjoy exercise	9	6	4	2	6
95% C.I.	(5.2-14.0)	(3.9-8.1)	(2.4-6.1)	(0.7-5.3)	(4.4-7.7)
Lack of suitable local facilities	7	5	4	1	5
95% C.I.	(4.2-11.2)	(3.0-7.4)	(2.4-6.7)	(0.1-6.0)	(3.7-6.6)
I am too old	1	1	5	25	4
95% C.I.	(0.1-5.6)	(0.2-1.3)	(3.4-7.4)	(18.5-32.3)	(2.7-4.6)
Lack of money	11	7	1	2	6
95% C.I.	(6.9-16.5)	(5.1-9.8)	(0.6-2.7)	(0.6-8.4)	(4.8-8.4)
I have nobody to go with	9	5	5	4	6
95% C.I.	(5.3-13.6)	(3.4-7.4)	(3.0-6.8)	(1.6-8.6)	(4.4-7.8)
The weather puts me off	17	13	15	15	15
95% C.I.	(12.5-22.9)	(10.4-17.3)	(12.2-18.9)	(10.2-22.0)	(13.0-17.6)
Nothing prevents me	21	28	38	37	29
95% C.I.	(16.0-27.3)	(23.7-33.1)	(33.7-43.1)	(29.5-44.7)	(26.5-32.2)
Lack of transport / traffic or road safety / lack of skills or confidence / other[a]	8	7	5	3	6
95% C.I.	(4.9-12.5)	(5.1-10.2)	(2.8-7.3)	(1.4-8.2)	(5.1-8.2)

Continued…

Table 7.12 - *Continued*

Aged 16 and over *2008/2009 combined*

Barriers to physical activity	Age				Total
	16-34	35-54	55-74	75+	
	%	%	%	%	%
Women					
Lack of time	55	53	26	6	41
95% C.I.	(48.9-60.3)	(48.5-57.5)	(21.7-29.9)	(3.1-10.7)	(38.7-44.2)
Prefer to do other things	21	10	6	4	11
95% C.I.	(16.1-26.8)	(8.0-13.6)	(4.0-8.0)	(2.0-7.0)	(9.6-13.5)
Ill health, injury or disability	7	14	32	42	20
95% C.I.	(5.0-10.9)	(11.4-17.1)	(28.6-36.6)	(35.7-48.2)	(18.0-21.9)
I feel too fat/overweight	7	8	6	4	7
95% C.I.	(4.8-10.4)	(6.1-10.8)	(4.2-8.5)	(2.0-8.3)	(5.7-8.3)
I do not enjoy exercise	13	11	5	3	9
95% C.I.	(9.5-18.4)	(8.6-14.3)	(4.0-7.5)	(1.1-5.4)	(7.8-11.2)
Lack of suitable local facilities	8	6	4	2	6
95% C.I.	(5.7-11.9)	(4.7-8.8)	(2.8-6.1)	(0.9-5.5)	(4.8-7.3)
I am too old	0	1	5	26	4
95% C.I.	(0.0-0.0)	(0.2-1.5)	(3.5-7.0)	(20.8-31.8)	(3.4-5.1)
Lack of money	13	8	2	1	7
95% C.I.	(9.9-16.8)	(5.7-10.1)	(1.3-3.4)	(0.3-2.7)	(5.7-8.3)
I have nobody to go with	14	9	8	6	10
95% C.I.	(10.4-18.5)	(6.5-11.2)	(6.1-10.2)	(3.5-9.3)	(8.2-11.3)
The weather puts me off	19	18	15	11	17
95% C.I.	(15.2-24.4)	(14.5-21.7)	(12.4-18.4)	(7.8-15.7)	(14.9-19.0)
Nothing prevents me	13	21	29	27	22
95% C.I.	(10.1-17.5)	(17.6-24.8)	(25.1-32.8)	(21.7-33.0)	(19.5-23.7)
Lack of transport / traffic or road safety / lack of skills or confidence / other[a]	13	9	9	5	10
95% C.I.	(10.1-17.6)	(7.1-12.2)	(6.5-11.3)	(3.3-8.1)	(8.4-11.5)

Table 7.12 - *Continued*

Aged 16 and over *2008/2009 combined*

Barriers to physical activity	Age				Total
	16-34	35-54	55-74	75+	
	%	%	%	%	%
All adults					
Lack of time	54	52	25	6	42
95% C.I.	(49.5-58.7)	(48.4-55.3)	(22.1-28.6)	(3.7-9.5)	(39.4-43.7)
Prefer to do other things	20	11	7	4	12
95% C.I.	(16.4-24.3)	(8.8-12.9)	(5.3-8.5)	(2.2-6.2)	(10.4-13.3)
Ill health, injury or disability	7	15	29	39	18
95% C.I.	(5.1-9.7)	(12.5-16.8)	(25.7-31.5)	(34.0-43.4)	(16.8-19.6)
I feel too fat/overweight	6	5	4	3	5
95% C.I.	(4.1-9.2)	(4.1-6.8)	(3.2-5.8)	(1.7-5.9)	(4.2-6.2)
I do not enjoy exercise	11	8	5	2	8
95% C.I.	(8.3-14.4)	(6.9-10.5)	(3.6-6.2)	(1.2-4.4)	(6.6-9.0)
Lack of suitable local facilities	8	6	4	2	5
95% C.I.	(5.6-10.2)	(4.3-7.3)	(2.9-5.7)	(0.7-3.9)	(4.6-6.5)
I am too old	0	1	5	26	4
95% C.I.	(0.1-2.9)	(0.3-1.1)	(3.8-6.5)	(21.4-30.1)	(3.3-4.5)
Lack of money	12	7	2	1	7
95% C.I.	(9.3-15.1)	(5.9-9.1)	(1.2-2.6)	(0.6-3.6)	(5.7-7.8)
I have nobody to go with	11	7	6	5	8
95% C.I.	(8.7-14.4)	(5.5-8.6)	(5.0-7.8)	(3.1-7.8)	(6.8-9.0)
The weather puts me off	18	16	15	13	16
95% C.I.	(15.1-21.9)	(13.4-18.4)	(13.1-17.6)	(9.7-16.6)	(14.6-17.7)
Nothing prevents me	17	24	33	31	25
95% C.I.	(14.1-21.0)	(21.5-27.6)	(30.2-36.5)	(26.3-35.6)	(23.5-27.1)
Lack of transport / traffic or road safety / lack of skills or confidence / other[a]	11	8	7	4	8
95% C.I.	(8.2-13.7)	(6.7-10.3)	(5.2-8.5)	(3.0-6.8)	(7.2-9.4)
Bases (weighted):					
Men	*567*	*665*	*484*	*130*	*1846*
Women	*558*	*719*	*533*	*207*	*2017*
All adults	*1125*	*1384*	*1017*	*338*	*3863*
Bases (unweighted):					
Men	*301*	*601*	*564*	*190*	*1656*
Women	*467*	*700*	*731*	*304*	*2202*
All adults	*768*	*1301*	*1295*	*494*	*3858*

a These four options were presented as separate categories in the questionnaire

Table 7.13a Barriers to physical activity by equivalised household income quintile

Aged 16 and over *2008/2009 combined*

Barriers to physical activity	Equivalised annual household income quintile				
	1st (highest)	2nd	3rd	4th	5th (lowest)
	%	%	%	%	%
Lack of time	61	53	42	27	24
95% C.I.	(56.8-65.7)	(48.7-57.9)	(36.8-47.0)	(23.2-32.0)	(19.7-28.4)
Ill health, injury or disability	11	12	17	26	29
95% C.I.	(8.5-13.7)	(9.5-14.8)	(13.8-19.8)	(21.9-29.8)	(24.6-33.0)
Lack of money	2	4	9	8	15
95% C.I.	(0.5-4.3)	(2.6-5.8)	(6.0-12.6)	(5.6-11.2)	(12.3-19.4)
I have nobody to go with	5	9	9	8	10
95% C.I.	(3.4-7.4)	(6.5-11.6)	(6.7-13.1)	(5.7-10.7)	(7.6-14.0)
Bases (weighted):	*798*	*749*	*685*	*602*	*587*
Bases (unweighted):	*699*	*701*	*660*	*653*	*721*

Table 7.13b Barriers to physical activity by NS-SEC of household reference person

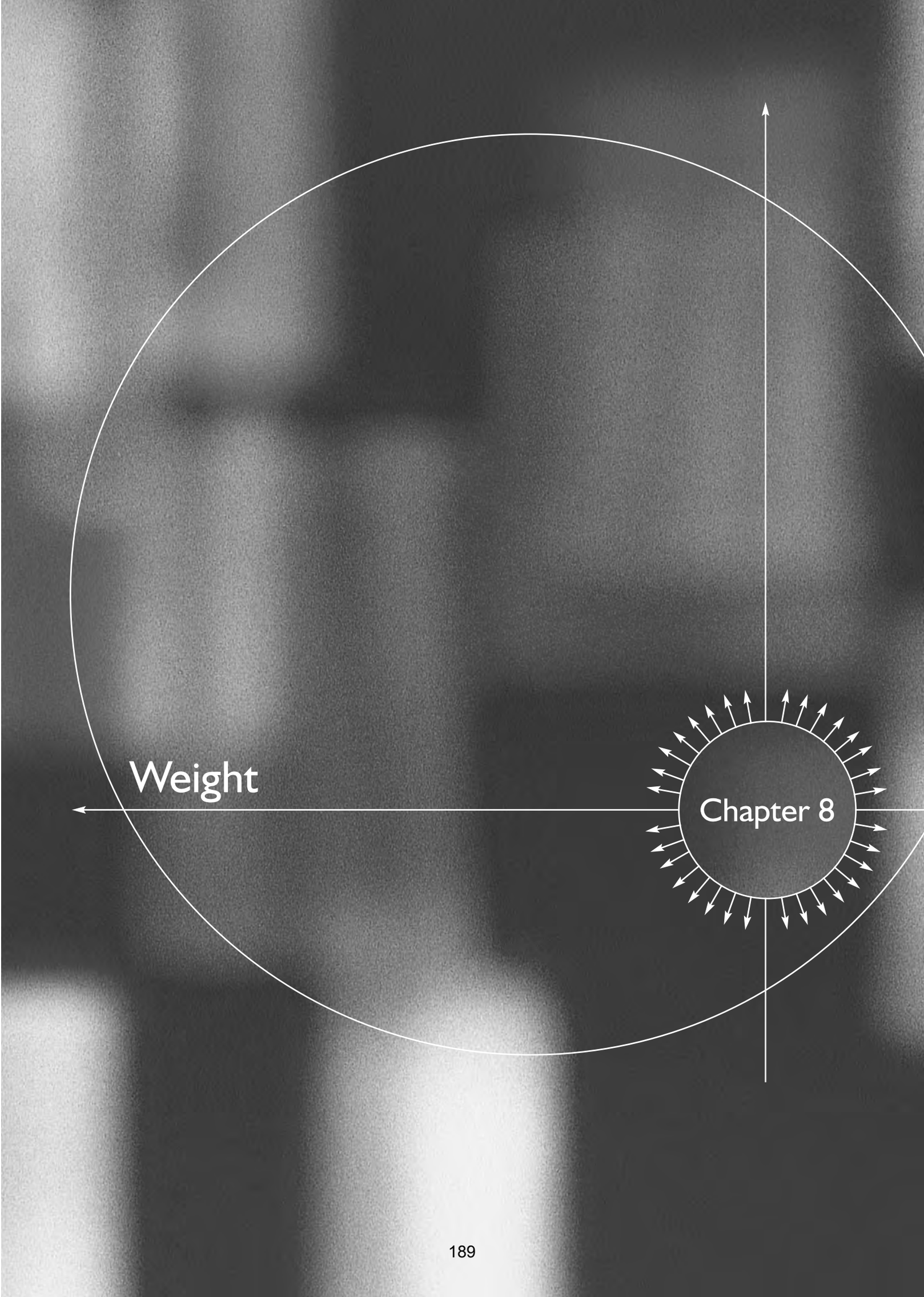
Aged 16 and over *2008/2009 combined*

Barriers to physical activity	NS-SEC of household reference person				
	Managerial & professional	Intermediate	Small employers & own account workers	Lower supervisory & technical	Semi-routine and routine
	%	%	%	%	%
Lack of time	52	44	39	36	30
95% C.I.	(48.9-55.8)	(38.4-50.6)	(32.2-46.2)	(30.6-42.7)	(26.7-33.6)
Ill health, injury or disability	13	17	16	22	24
95% C.I.	(11.0-15.0)	(13.5-21.0)	(11.6-21.3)	(17.8-27.3)	(21.5-26.9)
Lack of money	4	9	3	6	10
95% C.I.	(3.0-6.2)	(5.6-13.8)	(1.3-7.7)	(3.7-9.3)	(7.9-12.2)
I have nobody to go with	8	8	8	6	9
95% C.I.	(6.0-9.7)	(5.3-11.0)	(4.7-12.8)	(3.6-9.5)	(6.8-11.2)
Bases (weighted):	*1514*	*370*	*296*	*437*	*1177*
Bases (unweighted):	*1355*	*407*	*300*	*419*	*1300*

Table 7.13c Barriers to physical activity by Scottish Index of Multiple Deprivation quintile

Aged 16 and over *2008/2009 combined*

Barriers to physical activity	Scottish Index of Multiple Deprivation quintile				
	5th (least deprived)	4th	3rd	2nd	1st (most deprived)
	%	%	%	%	%
Lack of time	50	43	38	41	34
95% C.I.	(45.2-54.9)	(39.0-47.9)	(33.3-42.4)	(36.8-46.2)	(30.3-38.8)
Ill health, injury or disability	13	16	19	21	21
95% C.I.	(10.4-16.6)	(13.7-19.4)	(15.8-22.4)	(18.4-24.8)	(18.2-24.6)
Lack of money	4	5	6	7	13
95% C.I.	(2.2-6.7)	(2.8-7.4)	(4.1-8.3)	(4.9-9.8)	(9.9-15.7)
I have nobody to go with	7	10	6	7	9
95% C.I.	(4.7-9.2)	(7.2-13.0)	(4.4-8.9)	(5.0-9.5)	(6.9-12.5)
Bases (weighted):	*766*	*862*	*728*	*770*	*737*
Bases (unweighted):	*639*	*843*	*792*	*773*	*811*


Weight
Chapter 8

8 WEIGHT

SUMMARY

- In 2008/2009, four in ten people (42%) thought their weight was about right, a similar proportion (45%) thought they were overweight and 8% considered themselves to be very overweight.
- Perceptions of weight were largely accurate for people with a body mass index in the healthy range (BMI of 18.5 to less than 25 kg/m^2) – 78% of this group described their weight as about right.
- Perceptions were less accurate among underweight, overweight and obese people. For example, 37% of overweight people incorrectly thought their weight was about right. Similarly, just 25% of obese people considered themselves to be very overweight.
- The majority of parents (84%) thought their child's weight was about right while just 7% considered their child to be overweight.
- 87% of parents with a child in the healthy weight range said their child's weight was about right. However, 78% of parents with overweight or obese children said their weight was about right.
- Most people were aware that being very overweight increases a person's risk of conditions such as heart disease (91%), high blood pressure (88%), diabetes (74%) and stroke (65%). However, awareness of its link with other diseases was lower, for example 43% knew that obesity increases the risk of arthritis and 32% knew it increases the risk of some cancers.
- Awareness of the health risks of being very overweight broadly declined with age and was lowest among those aged 75 and over.
- 49% of overweight people, and 25% of obese people, had not taken any recent steps to control their weight and were not thinking about doing so. The same proportion of overweight and obese people (21%) had taken some action to control their weight and had maintained it, however 31% of obese people had tried to do this but not maintained it compared with 17% of overweight people.

8.1 INTRODUCTION

This chapter explores people's subjective assessments of their own weight and compares these with their actual body mass index (BMI) status based on the objective height and weight measures collected in the main Scottish Health Survey (SHeS) interview. It also examines parents' views of their children's weights, again comparing these with data on actual child BMI. It examines knowledge of the impact of obesity on individual health, and looks at people's motivations to control their weight.

The links between obesity and ill-health have been well documented. The Scottish Public Health Observatory estimates that around half (47%) of type 2 diabetes can be attributed to obesity, as can over a third (36%) of hypertension, 15% of angina and 12% of osteoarthritis.[1] The impact goes beyond the health sector: the Scottish Government's obesity route map, published in February 2010, estimated that obesity cost Scottish society as a whole in excess of £457 million in 2007/8.[2] Tackling obesity is, therefore, a key public health priority.

The upward trend in the prevalence of overweight and obesity among adults in Scotland was confirmed by data from the 2009 SHeS. In 2009, the majority of adults aged 16 or over in Scotland were either overweight (41% of men and 33% of women) or obese (27% for men and 28% for women).[3] The obesity route map predicted that adult obesity in Scotland could reach over 40% by 2030.[2]

It is important to note, however, that being underweight is also associated with negative health outcomes, for example studies conducted in Scotland[4] and the US[5] have both found underweight to be a risk factor for mortality and morbidity. The prevalence of underweight in the 2009 SHeS was less than 1% for men and just 2% for women. The comparably higher prevalence of overweight and obesity will in part explain why underweight does not have the same policy focus in terms of interventions and priorities.

Obesity among children has also been a focus of growing concern in recent years. In the 2009 SHeS, 29% of boys and 27% of girls were overweight or obese.[6] One of the Scottish Government's National Performance Framework Indicators is to 'reduce the rate of increase in the proportion of children with their Body Mass Index outwith a healthy weight'.

8.2 PERCEPTIONS OF ADULT WEIGHT

The Knowledge, Attitudes and Motivations to health (KAM) module asked adults whether they thought their own weight was: underweight, about right, overweight or very overweight.[7] In 2009, just 6% thought they were underweight. Similar proportions thought their weight was about right (41%) or that they were overweight (45%). Only 8% felt they were very overweight. These are similar to the equivalent figures in 2008 (5% underweight, 42% about right, 46% overweight and 7% very overweight). **Table 8.1**

8.2.1 Perceptions of weight by BMI status

Table 8.1 presents perceptions of weight by people's actual BMI status as measured in the main SHeS interview.[8] Among those with a BMI within the healthy range (18.5 to less than 25 kg/m^2), perceptions were broadly in line with reality – in 2008/2009, three quarters (78%) of those with a healthy BMI described their weight as about right. However, perceptions among those who were underweight, overweight or obese were less closely aligned with actual measures. For example, over half (56%) of underweight people were aware that this was the case, while 42% said their weight was about right, and 2% thought they were very overweight. It is worth noting, however, that the sample size for the underweight group is very small (just 57 people), so these estimates are subject to very wide confidence intervals.

Although 60% of those who were overweight (BMI of 25 to less than 30 kg/m^2) recognised that this was the case, a sizeable proportion (37%) thought their weight was about right. Moreover, while the consensus among those who were obese (BMI of 30 kg/m^2 or more) was that they were overweight (68% said this whereas just 7% thought their weight

was about right), only one in four obese people (25%) went as far as saying they were very overweight. **Table 8.1**

8.2.2 Perceptions of weight by age and sex

The 2009 SHeS data show that men were more likely than women to be overweight or obese (68% versus 61%).[3] Despite this, Table 8.2 shows that in 2008/2009 women were more likely than men to consider themselves overweight (47% versus 42%) or very overweight (10% versus 5%). Perceptions of weight also varied with age for both men and women. Half (50-55%) of those aged 35 to 74 considered themselves to be overweight compared with a third of those aged 16-34 (34%) or 75 and over (31%). Conversely, it was the youngest and oldest age groups that were most likely to consider their weight to be about right (51% of those aged 16-34 and 55% of those aged 75 and over compared with 34%-38% of those aged 35 to 74). The youngest and oldest age groups were also slightly more likely than those in the middle age groups to consider themselves to be underweight (8%-9% compared with 3%-4%). This is largely in line with the actual distribution of BMI by age. **Table 8.2**

8.2.3 Perceptions of weight by socio-demographic group

Tables 8.3a to 8.3c present perceptions of weight by household income, NS-SEC and area deprivation (these measures are all explained in full in Chapter 2). Differences in perceptions of weight across groups were generally small and not statistically significant, though with some small notable exceptions. For example, the proportions who considered themselves underweight were highest amongst the most economically disadvantaged groups. People in the lowest income quintile were also the least likely to describe themselves as overweight (39% versus 47%-49% in the other quintiles). However, the proportion who said they were very overweight generally increased as area deprivation increased, 4% in the least deprived quintile to 9%-10% in the two most deprived quintiles. **Tables 8.3a, 8.3b, 8.3c**

Analysis of BMI by socio-demographic groups in the 2008 SHeS report revealed a fairly complex set of patterns that differed for men and women.[9] For example, the age-standardised prevalence of obesity did not vary by household NS-SEC for men, but among women prevalence was lowest among managerial and professional households and highest for those in lower supervisory and technical households. Given the complex relationships between obesity, gender and socio-demographic factors, and the relatively weak correspondence between overweight and obese people's assessments of their weight, it is perhaps unsurprising that analysis of all adults' views of their weight by these factors reveals few consistent variations. It may be worth revisiting this analysis in future years when the sample is sufficiently large to look at variations by socio-demographic factors by gender, and perhaps even by BMI status.

8.3 PERCEPTIONS OF CHILDREN'S WEIGHT

Although children did not take part in the KAM interview, adults with children aged 0-15 were asked to say if they thought their child's weight was underweight, about right, overweight or very overweight. Table 8.4 shows that in 2009, the majority of parents (85%) thought their child's weight was about right, while 8% assessed their child as underweight and 6% overweight. No parents perceived their child to be very overweight. The equivalent figures in 2008 were similar (10% underweight, 81% about right, 8% overweight and 1% very overweight – differences from 2009 are not statistically significant).

Findings from the main SHeS 2009 report on the actual distribution of overweight and obesity among children in Scotland aged 2-15 suggest that parents may be understating the prevalence of overweight and obesity among their children.[6] In 2009, while 70% of children aged 2-15 had a healthy weight, 28% were overweight or obese – considerably higher than the 6% estimated by their parents to be overweight. This disparity is supported by findings that compare parental assessments with their child's actual BMI status in 2008/2009. Although parental assessments among those whose children were a healthy weight were generally accurate – 87% correctly judged their child's weight to be about right – parental assessments were largely incorrect for children who were overweight or obese. Only a fifth of parents of overweight or obese children thought their child was overweight (20%) or obese (1%), while three quarters (78%) thought their child's weight was about right.[10] However, it is important to note that it is not very easy for parents to monitor the weight of their child. While there is relatively wide acceptance of the use of BMI as an adiposity indicator for children, establishing a classification system is problematic. Unlike adult BMI, where fixed cut-off points can be used, a parent would need to make reference to growth charts to determine if their child has a healthy weight for someone of their age and height.[11] **Table 8.4**

8.4 KNOWLEDGE: HEALTH IMPACTS OF OBESITY

This section looks at knowledge of the impact of obesity on health. The SIGN guideline on obesity management published in 2010 presents a useful table of the risks associated with a number of diseases, many of which were included in the KAM questionnaire.[12] Participants were presented with a list of health conditions and were asked which, if any, they thought a person was more likely to get if they were very overweight. Table 8.5 shows that in 2008/2009, around one in ten (12%) thought that a very overweight person had an increased chance of getting all of the conditions listed. Awareness of the increased risk of cardiovascular, circulatory and endocrine conditions was very high. Nine in ten recognised that heart disease (91%) and high blood pressure (88%) were more likely if a person was obese. Three-quarters (74%) mentioned diabetes and stroke was mentioned by two-thirds (65%). However, awareness of the links between obesity and some other high prevalence or high profile diseases was much lower – for example, just 43% thought a very overweight person was at greater risk of arthritis, and only a third (32%) knew that they were at increased risk of some cancers. **Table 8.5**

8.4.1 Knowledge by age and sex

Men and women's awareness of the links between obesity and different health conditions did not differ significantly. There was, however, considerable variation in knowledge levels by age. Across many of the conditions listed, awareness of the health risks of obesity was higher among those aged 16 to 54 than it was for older age groups, and across all conditions awareness was lowest among those aged 75 and over. For example, while 84% of those aged 75 and over knew that a very overweight person was more likely to get heart disease, the corresponding figures for people aged 16 to 74 were 89%-93%. The gap in knowledge levels across age groups was even wider for other conditions. For example, people aged 16-34 were at least three times as likely as those in the oldest age group to mention stomach ulcers (34% compared with 10%), and twice as likely to mention some cancers (33% compared with 16%) and gout (31% and 14%). **Table 8.5**

8.4.2 Knowledge by socio-demographic group

Tables 8.6a to 8.6c show variations in awareness of the links between obesity and disease by household income, NS-SEC and area deprivation. While the most commonly identified conditions (heart disease, high blood pressure, stroke and diabetes) were similar across all income and NS-SEC groups, there was some variation in the proportions mentioning particular conditions. Knowledge levels fell as income decreased for most of the conditions listed. For example, 43% of those in the highest income quintile knew that people who were very overweight are at increased risk of some cancers, falling to just 22% of those in the lowest quintile. **Table 8.6a**

Although there were slightly fewer variations by NS-SEC than by household income, those in managerial and professional or intermediate households tended to have the highest levels of awareness. For example, 80%-81% of those living in managerial and professional or intermediate households knew there was a link between obesity and diabetes, compared with 67%-69% in lower supervisory and technical and routine or semi-routine households. **Table 8.6b**

Differences in awareness levels by deprivation were generally smaller than those by household income, although those in less deprived areas did tend to have higher levels of knowledge. The fact that awareness differed less by deprivation than by household income may suggest that the findings by household income are in part reflecting differences by age. Older people are more likely to have lower household incomes, and also have lower levels of knowledge of the health risks of obesity, as discussed above. **Table 8.6c**

8.5 MOTIVATIONS TO CONTROL WEIGHT

The KAM module also included questions designed to assess people's own *motivation* to control their weight. Note that the questions were phrased in terms

of *controlling,* rather than losing or trying not to lose weight. While controlling weight may entail weight loss for some groups, for others it will be about taking action – through diet and exercise – to maintain a healthy weight, or (for those who are underweight) to gain weight. Motivation to control weight was measured by asking participants:

- if they had **tried** to control their weight in the past year, and if so
- whether they had managed to **maintain** this;
- if they would **like** to control their weight, and if so
- whether they were **thinking** of doing this in the next six months.

An individual's readiness to change their behaviour was determined by using the responses given to these questions to classify them according to DiClemente and Proschaska's 'Stages of Change model'.[13] In this example it ranges from no attempts to control weight desired, recently undertaken or planned, through to action to control weight taken and maintained.

As with the previous chapters, for the purpose of this report a further category has been added of 'long-term maintenance' which includes people who had a BMI within the healthy range and did not mention having made any changes in the last 12 months or wanting to make any future changes to control their weight. However, not all the participants agreed to height and weight measurements so some BMI data are missing (87% of men and 83% of women had a valid BMI calculated in 2009). For this reason, and unlike the other chapters, the pre-contemplation category in this chapter has been split into two distinct groups: pre-contemplators who were underweight, overweight or obese; and pre-contemplators whose BMI was not measured. If we had not done this we would have potentially overestimated the proportion of people with an unhealthy weight who were at this pre-contemplative stage, since the unknown BMI group is likely to include people with healthy as well as unhealthy weights.

The following table sets out the stages and presents the proportion of adults in Scotland in each category in the years 2008 and 2009 combined.

Stage of change	Definition of stage of change	% 2008/ 2009
Pre-contemplation: unknown BMI	Has not tried to control weight in the previous 12 months and not intending to do so in the next 6 months – BMI not measured	7
Pre-contemplation: unhealthy BMI	Has not tried to control weight in the previous 12 months and not intending to do so in the next 6 months – and is underweight, overweight or obese	24
Contemplation	Would like to control weight	3
Preparation	Would like to be control weight and thinking of doing so in the next six months	9
Action	Controlled weight in the previous 12 months but did not maintain this	17
Maintenance	Controlled weight in the previous 12 months and maintained this	16
Long-term maintenance	BMI within the healthy range and did not control weight in the past 12 months or want to do so in the future	24

Equal proportions of people (24%) were either pre-contemplators with an unhealthy BMI or were in the long-term maintenance group. However, it is interesting to note that the combined proportions in the action (17%) and maintenance (16%) stages exceeded this.

8.5.1 Motivations and current behaviour

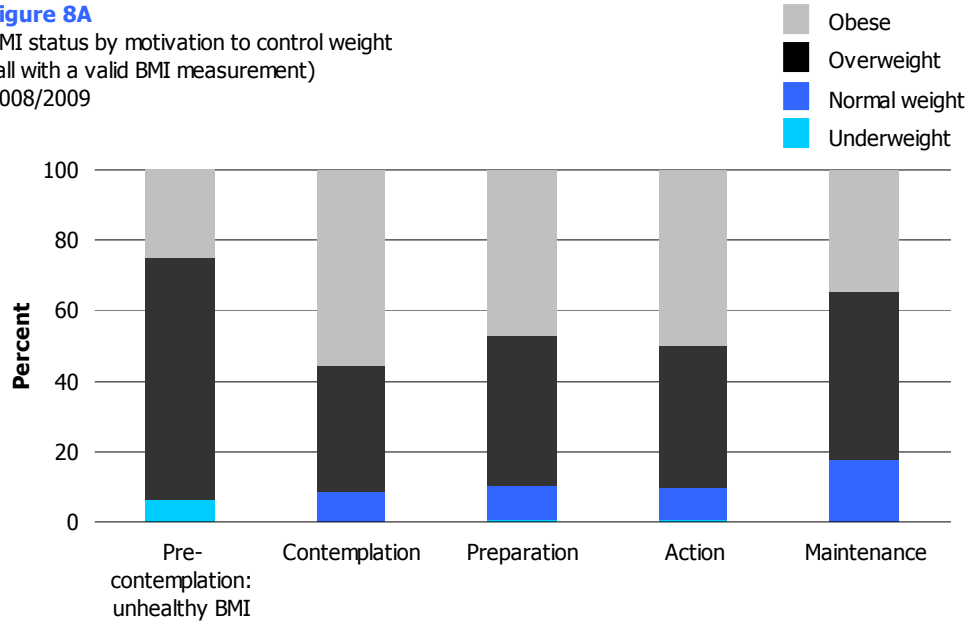
Table 8.7 explores the association between BMI status and motivation stages. Half (49%) of those who were overweight expressed no motivation to control their weight, in contrast 21% had maintained a change in their weight control and 17% had attempted to control their weight but not maintained this.

Obese people appeared to be more motivated than overweight people to control their weight. They were half as likely to be pre-contemplators (25%), and were more likely than overweight people to be in the contemplation, preparation and action stages. However, efforts were met with mixed success; more people in this group had not maintained their efforts to control weight (31%) than had managed to maintain them (21%).

The majority (83%) of people with a BMI in the healthy range had not tried to control their weight in the previous year and were not planning on doing so. This is not surprising given that they already have what is considered to be a healthy weight. One in ten people (9%) with a healthy BMI had taken steps to control their weight in the past year and had managed to maintain this, a further 5% had taken steps but not maintained this. Nine in ten (92%) of those who were underweight had not tried to control their weight and were not considering doing so. 2% had taken some action in the previous 12 months and had managed to maintain this while 4% had taken recent action but hadn't maintained this. **Table 8.7**

Figure 8A looks at this from another perspective and presents the BMI status of people within each stage of change. Unlike Table 8.7, this analysis excludes people with no valid BMI measurement. The graph also excludes people in the long-term maintenance group because they all had a healthy weight. It shows that the majority of pre-contemplators with an unhealthy weight were overweight, as opposed to obese or underweight. Nevertheless, over a fifth of this group were obese. Critically, only a minority of people who had taken action to control their weight and maintained it were a healthy weight, while the most common BMI status for the three remaining groups was obese. As these data are based on a single measure of people's motivations in time, it is not possible to say whether the healthy weight people in the maintenance stage had moved from being overweight or obese to healthy weight in the past year. For example, they might have been taking steps to avoid becoming overweight. **Figure 8A**

Figure 8A
BMI status by motivation to control weight
(all with a valid BMI measurement)
2008/2009



8.5.2 Motivations by age and sex

Table 8.8 shows that men were significantly more likely than women to be pre-contemplators with an unhealthy BMI (31% compared with 18%). In contrast, women were more likely than men to have taken some action but not maintained it (22% versus 11%), or to have maintained a change (18% versus 14%). Men and women were equally likely to be in the long-term maintenance group (24%).

Motivations to control weight also varied by age. The youngest were most likely to be in the long-term maintenance group (35% of those aged 16-34, compared with 15%-22% of other age groups), while those aged 75 and over were the most likely to be pre-contemplators with an unhealthy weight (34%, compared with 23%-24% of other age groups) People aged 75 and over were also the most likely group to be pre-contemplators with an unknown BMI. This is because response to

height and weight measurements declines markedly with age. Those in the middle age groups (aged 35 to 74) were the most likely to have taken steps to control their weight recently, 37%-42% had done so compared with 22%-23% of the youngest and oldest age groups. The proportions in the contemplation and preparation stages did not differ markedly by age. **Table 8.8**

8.5.3 Motivations by socio-demographic group

Tables 8.9a to 8.9c show motivations to control weight by household income, NS-SEC and area deprivation. Differences between groups were generally small and non-significant for all the stages apart from the pre-contemplation: unhealthy weight and long-term maintenance groups. For example, people living in the least deprived SIMD quintile and those in managerial and professional, and intermediate households, were less likely to be pre-contemplators with an unhealthy weight than people in less advantaged situations. 18% of people living in the least deprived quintile were in this group compared with 24%-28% of people in the rest of Scotland. **Tables 8.9a, 8.9b, 8.9c**

8.6 CONCLUSIONS

These data identify a clear disconnect between perceptions of weight and actual weight among people who are underweight, overweight or obese. This suggests that more could be done to improve these groups' understanding of what is a healthy weight.

There was a similar disparity when it came to parents' perceptions of overweight and obese children's weight. As discussed earlier, it is difficult for parents to monitor their child's weight as it requires comparing the individual child's BMI to growth charts as opposed to the fixed cut-off points used with adult BMI. It is therefore likely that more needs to be done to help inform parents about this aspect of their child's development. Though, parents of overweight and obese children do not just need to acknowledge their children's weight. They – and their children – also need to *want* to take steps to address it, and they need resources to help them do this.

Awareness of the health risks of being very overweight is very high for conditions such as cardiovascular disease, high blood pressure and diabetes, but is still fairly low for other common and concerning conditions such as arthritis and cancer. It is increasingly widely acknowledged that tackling the rising tide of overweight and obesity is one of the biggest public health challenges currently facing many parts of the world. Increasing awareness of the health risks associated with obesity could play some part in such efforts. For example, at the individual level it might motivate people who are already very overweight or obese to take steps to control their weight, or it could be a useful way of encouraging people at risk of certain conditions (or obesity itself) to avoid excess weight gain. In public health terms, increasing knowledge of the wide extent of health risks might help build support for policy initiatives aimed at some of the wider social and environmental factors contributing to the global obesity pandemic.

In terms of motivations to control weight, it is clear that obese people were more motivated than overweight people to control their weight. There are various possible explanations as to why this was the case. For example, it could be because obese people are more likely to have started to be advised by their GP or other clinicians to lose weight, or it could be the point at which people themselves start to be more aware of their weight, perhaps because they are suffering from conditions caused or exacerbated by their obesity. Obese people were also more likely than overweight people to have tried to control their weight but not managed to maintain it in the long-term. In addition to supporting obese people at an individual level via the kinds of interventions outlined by SIGN,[12] these data suggest that targeting population messages about weight towards overweight people to help prevent them from becoming obese could be an effective strategy.

References and notes

[1] Grant, I., Fischbacher, C., and Whyte, B. (2007). *Obesity in Scotland – An epidemiology briefing*. Edinburgh: NHS National Services Scotland/Scottish Public Health Observatory. [online] Available from: <www.scotpho.org.uk/home/Publications/scotphoreports/pub_obesityinscotland.asp>

[2] *Preventing Overweight and Obesity in Scotland: A Route Map Towards Healthy Weight* (2010). Edinburgh: Scottish Government.

[3] Gray, L. and Leyland, A. (2010). Chapter 7: Adult Obesity. In Bromley, C., Given, L., and Ormston, R. *The Scottish Health Survey 2009, Volume 1: Main Report.* Edinburgh: Scottish Government.

[4] Lawder, R., Elders, A. and Clark, D. (2007). *Using the Linked Scottish Health Survey to Predict Hospitalisation & Death*. Scottish Public Health Observatory. [online] Available from: <www.scotpho.org.uk/home/Publications/scotphoreports/pub_linkedshesreport.asp>

[5] Flegal, K. M., Graubard, B. I., Williamson, D. F. and Gail, M. H. (2005) Excess Deaths Associated With Underweight, Overweight, and Obesity. *Journal of the American Medical Association*. 293: 1861-1867.

[6] Marryat, L. (2010). Chapter 9: Child Obesity. In Bromley, C., Given, L., and Ormston, R. *The Scottish Health Survey 2009, Volume 1: Main Report.* Edinburgh: Scottish Government.

[7] To prevent participants from having to say their answer out loud the options were presented on a card with random letters of the alphabet next to each one. Interviewers asked participants to just say the letter, and the options were not visible on their laptop screens. The same method was used for the question that asked parents about their children's weight.

[8] Note that for this analysis the sample size for underweight men and women in 2008/2009 was too small to enable any firm conclusions to be drawn so the data for this group are omitted from the table.

[9] Gray, L. and Leyland, A. (2009) Chapter 7: Obesity. In Bromley, C., Bradshaw, P., and Given, L. *The Scottish Health Survey 2008, Volume 1: Main Report*. Edinburgh: Scottish Government.

[10] Data for children who were underweight have not shown due to the small sample size for this group.

[11] Further discussion on the different methods and definitions of child weight can be found in Marryat, L. (2010). Chapter 9: Child Obesity. In Bromley, C., Given, L., and Ormston, R. *The Scottish Health Survey 2009,* Volume 1: Main Report. Edinburgh: Scottish Government.

[12] Scottish Intercollegiate Guidelines Network. *Management of obesity. A national clinical guideline. SIGN guideline no. 115.* Edinburgh: SIGN, 2010. (See Table 2, p8).

[13] The Stages of Change model (sometimes referred to as The Transtheoretical Model) is a model of health behaviour change developed initially by DiClemente and Proschaska in 1977. Here we refer to the version of the model which contains five 'stages of change' ranging from pre-contemplation to maintenance. For further reading on the 'Stages of Change model' see DiClemente, C.C., & Prochaska, J.O. (1982). Self change and therapy change of smoking behavior: A comparison of processes of change in cessation and maintenance. *Addictive Behavior*. 7 (2): 133-42.

Table list

Table 8.1 Self-assessment of own weight by body mass index status

Aged 16 and over *2008, 2009, 2008/2009 combined*

Self-assessment of own weight	Body Mass Index (kg/m^2)[a]					Total 2008/2009	Total 2008	Total 2009
	Under-weight	Healthy weight	Overweight	Obese	No BMI measure-ment			
	%	%	%	%	%	%	%	%
Underweight	56	12	1	0	5	5	5	6
95% C.I.	(38.9-72.5)	(9.4-14.7)	(0.7-2.3)	(0.1-1.0)	(3.3-8.2)	(4.6-6.4)	(4.1-6.8)	(4.4-7.0)
About right	42	78	37	7	40	42	42	41
95% C.I.	(26.0-59.8)	(74.5-81.0)	(34.0-40.9)	(5.0-8.7)	(34.5-46.5)	(40.0-44.2)	(39.5-45.3)	(38.5-44.5)
Overweight	-	10	60	68	44	45	46	45
95% C.I.	-	(8.2-12.6)	(56.6-63.6)	(64.5-71.9)	(37.9-49.3)	(42.8-46.9)	(42.8-48.3)	(41.7-47.4)
Very overweight	2	-	1	25	11	8	7	8
95% C.I.	(0.4-6.5)	-	(0.7-2.1)	(21.5-28.6)	(7.5-15.4)	(6.6-8.8)	(5.6-8.3)	(6.9-10.3)
Bases (weighted):	*62*	*1101*	*1311*	*914*	*446*	*3835*	*1829*	*2005*
Bases (unweighted):	*57*	*1036*	*1278*	*966*	*487*	*3824*	*1828*	*1996*

a The BMI groups are: less than 18.5 - underweight; 18.5 to less than 25 - healthy weight; 25 to less than 30 - overweight; 30 and over - obese

Table 8.2 Self-assessment of own weight by age and sex

Aged 16 and over *2008/2009 combined*

Self-assessment of own weight	Age				Total
	16-34	35-54	55-74	75+	
	%	%	%	%	%
Men					
Underweight	13	4	4	9	7
95% C.I.	(8.7-17.7)	(2.5-5.5)	(2.6-6.8)	(5.3-15.9)	(5.5-8.7)
About right	53	41	38	61	45
95% C.I.	(45.7-59.7)	(36.3-46.4)	(33.6-43.2)	(53.4-69.0)	(42.3-48.7)
Overweight	28	50	52	25	42
95% C.I.	(22.5-35.1)	(45.2-55.5)	(47.3-56.9)	(18.8-32.6)	(39.2-45.3)
Very overweight	6	5	5	4	5
95% C.I.	(3.2-12.2)	(3.1-6.9)	(3.4-8.3)	(1.6-10.1)	(3.9-7.2)
Women					
Underweight	6	3	3	7	4
95% C.I.	(3.6-8.8)	(1.5-4.5)	(1.9-4.7)	(4.4-10.5)	(3.1-5.1)
About right	50	34	30	51	39
95% C.I.	(44.0-56.0)	(30.2-38.3)	(25.9-33.9)	(44.5-57.3)	(36.4-41.7)
Overweight	39	50	57	35	47
95% C.I.	(33.6-44.9)	(45.2-54.1)	(52.8-61.2)	(29.5-41.3)	(44.6-49.9)
Very overweight	5	14	10	7	10
95% C.I.	(3.6-7.7)	(10.9-16.8)	(7.7-13.4)	(4.1-11.9)	(8.4-11.3)
All adults					
Underweight	9	3	4	8	5
95% C.I.	(6.9-12.1)	(2.3-4.3)	(2.5-5.0)	(5.5-11.0)	(4.6-6.4)
About right	51	38	34	55	42
95% C.I.	(46.7-56.0)	(34.3-40.9)	(30.7-37.1)	(50.1-59.8)	(40.0-44.2)
Overweight	34	50	55	31	45
95% C.I.	(29.5-38.1)	(46.5-53.5)	(51.5-57.9)	(27.0-36.0)	(42.8-46.9)
Very overweight	6	9	8	6	8
95% C.I.	(3.8-8.7)	(7.7-11.3)	(6.3-10.0)	(3.7-9.3)	(6.6-8.8)
Bases (weighted):					
Men	*567*	*658*	*480*	*127*	*1832*
Women	*552*	*717*	*530*	*204*	*2003*
All adults	*1119*	*1375*	*1010*	*331*	*3835*
Bases (unweighted):					
Men	*301*	*598*	*557*	*185*	*1641*
Women	*464*	*697*	*726*	*296*	*2183*
All adults	*765*	*1295*	*1283*	*481*	*3824*

Table 8.3a Self-assessment of own weight by equivalised annual household income quintile

Aged 16 and over *2008/2009 combined*

Self-assessment of own weight	Equivalised annual household income quintile				
	1st (highest)	2nd	3rd	4th	5th (lowest)
	%	%	%	%	%
Underweight	3	4	5	5	9
95% C.I.	(1.8-5.8)	(2.8-6.9)	(3.1-7.1)	(3.5-7.5)	(6.7-12.1)
About right	43	38	41	37	45
95% C.I.	(38.8-48.1)	(33.3-42.3)	(35.8-45.7)	(31.9-41.5)	(40.0-49.9)
Overweight	47	48	47	49	39
95% C.I.	(42.2-51.7)	(43.9-52.9)	(42.5-52.5)	(44.1-54.0)	(34.4-43.8)
Very overweight	7	9	7	9	7
95% C.I.	(4.5-9.4)	(7.2-12.5)	(4.9-10.3)	(6.6-12.9)	(5.0-9.9)
Bases (weighted):	*792*	*745*	*681*	*599*	*586*
Bases (unweighted):	*697*	*699*	*655*	*648*	*722*

Table 8.3b Self-assessment of own weight by NS-SEC of household reference person

Aged 16 and over *2008/2009 combined*

Self-assessment of own weight	NS-SEC of household reference person				
	Managerial & professional	Intermediate	Small employers & own account workers	Lower supervisory & technical	Semi-routine and routine
	%	%	%	%	%
Underweight	3	5	3	7	8
95% C.I.	(2.3-4.9)	(2.8-7.8)	(1.1-7.6)	(4.2-10.4)	(6.4-10.3)
About right	42	44	46	38	41
95% C.I.	(38.8-45.4)	(37.3-50.0)	(38.7-53.4)	(32.5-44.3)	(37.7-44.7)
Overweight	47	42	45	46	43
95% C.I.	(44.1-50.8)	(36.3-48.6)	(37.5-52.1)	(40.0-51.8)	(39.7-46.5)
Very overweight	7	9	6	9	8
95% C.I.	(5.6-9.0)	(6.3-13.7)	(3.6-11.1)	(6.2-14.0)	(5.9-9.8)
Bases (weighted):	*1506*	*366*	*296*	*433*	*1164*
Bases (unweighted):	*1347*	*401*	*299*	*416*	*1283*

Table 8.3c Self-assessment of own weight by Scottish Index of Multiple Deprivation quintile

Aged 16 and over *2008/2009 combined*

Self-assessment of own weight	Scottish Index of Multiple Deprivation quintile				
	5th (least deprived)	4th	3rd	2nd	1st (most deprived)
	%	%	%	%	%
Underweight	4	5	5	6	7
95% C.I.	(2.0-6.3)	(3.7-8.1)	(3.3-7.5)	(4.0-7.9)	(5.5-9.8)
About right	47	40	41	42	41
95% C.I.	(42.5-52.0)	(35.6-44.4)	(36.7-45.8)	(37.2-46.3)	(36.2-45.3)
Overweight	45	47	46	43	43
95% C.I.	(40.3-49.8)	(42.8-51.5)	(41.6-50.6)	(38.5-47.4)	(38.8-47.1)
Very overweight	4	7	8	10	9
95% C.I.	(2.5-7.0)	(5.5-10.0)	(5.8-10.4)	(7.3-12.9)	(6.7-12.1)
Bases (weighted):	*760*	*856*	*721*	*766*	*733*
Bases (unweighted):	*636*	*833*	*780*	*768*	*807*

Table 8.4 Parental assessment of child weight by child body mass index status

Parents of children aged 0 - 15 *2008, 2009, 2008/2009 combined*

Assessment of child weight	Body Mass Index (kg/m2)			Total 2008/2009[d]	Total 2008	Total 2009
	Healthy weight[a]	Overweight or obese[b]	No BMI measure-ment[c]			
	%	%	%	%	%	%
Underweight	11	1	9	9	10	8
95% C.I.	(8.8-14.7)	(0.2-2.6)	(5.9-12.6)	(7.2-10.9)	(7.1-13.1)	(6.3-10.9)
About right	87	78	84	84	81	85
95% C.I.	(83.9-90.1)	(72.5-83.3)	(78.9-88.3)	(81.4-86.2)	(77.0-85.0)	(81.8-88.0)
Overweight	1	20	7	7	8	6
95% C.I.	(0.6-2.6)	(14.8-25.4)	(3.9-11.2)	(5.3-8.7)	(5.7-11.5)	(4.4-8.9)
Very overweight	-	1	0	0	1	0
95% C.I.	-	(0.4-5.2)	(0.1-1.9)	(0.1-1.2)	(0.2-2.7)	(0.0-1.8)
Bases (weighted):	*540*	*240*	*294*	*1084*	*500*	*581*
Bases (unweighted):	*560*	*263*	*304*	*1138*	*528*	*610*

a BMI above 5th percentile, below 85th percentile
b BMI at or above 85th percentile
c This group includes children aged 0-1 for whom BMI cannot be calculated (no height/weight measurements); and children aged 2-15 who were not measured, or whose BMI was more than 3 standard deviations above or below the norm for their age
d The total figures include 11 children who were underweight

Table 8.5 Knowledge of health conditions more likely among very overweight people by age and sex

Aged 16 and over *2008/2009 combined*

Health conditions[a]	Age				Total
	16-34	35-54	55-74	75+	
	%	%	%	%	%
Men					
Heart disease	93	94	92	87	93
95% C.I.	(88.7-96.3)	(90.3-95.9)	(89.1-94.1)	(81.5-91.4)	(90.8-94.2)
Some cancers	35	40	29	21	34
95% C.I.	(28.3-42.0)	(34.8-44.6)	(24.9-34.1)	(15.0-29.5)	(31.1-37.5)
Diabetes	75	80	64	52	73
95% C.I.	(68.4-81.0)	(75.7-83.9)	(59.5-68.8)	(43.7-60.9)	(69.7-75.3)
High blood pressure	91	92	84	72	88
95% C.I.	(85.1-94.2)	(89.4-94.7)	(80.4-87.5)	(64.5-79.1)	(86.2-90.2)
Stroke	63	74	66	53	67
95% C.I.	(56.4-69.5)	(69.6-78.3)	(61.5-71.1)	(44.3-61.3)	(64.2-70.3)
Gallbladder disease	22	24	14	11	20
95% C.I.	(16.6-28.1)	(19.9-28.7)	(11.2-18.2)	(6.8-17.3)	(17.3-22.8)
Arthritis	40	44	40	38	41
95% C.I.	(33.7-47.2)	(39.1-49.4)	(34.8-44.4)	(30.4-46.5)	(38.1-44.6)
Gout	31	37	26	17	31
95% C.I.	(24.5-37.8)	(32.5-42.4)	(22.1-30.7)	(11.8-24.1)	(28.0-34.2)
Stomach Ulcer	36	31	15	13	27
95% C.I.	(29.9-43.5)	(26.7-36.2)	(11.9-18.8)	(8.0-19.8)	(24.5-30.5)
All of these	13	16	8	6	12
95% C.I.	(8.5-18.6)	(12.4-20.3)	(5.5-11.2)	(3.4-11.8)	(10.0-14.8)
None of these	1	0	1	0	1
95% C.I.	(0.4-5.7)	(0.0-0.9)	(0.4-3.1)	(0.1-3.3)	(0.3-1.9)
Women					
Heart disease	91	93	87	81	90
95% C.I.	(87.4-94.0)	(90.8-94.8)	(84.1-89.7)	(75.9-86.0)	(88.2-91.3)
Some cancers	32	36	26	13	30
95% C.I.	(26.6-37.7)	(31.8-40.2)	(22.8-30.4)	(9.2-17.5)	(27.6-32.6)
Diabetes	78	83	71	49	75
95% C.I.	(72.7-82.9)	(79.9-86.3)	(66.7-74.2)	(42.9-56.1)	(72.9-77.4)
High blood pressure	90	90	86	77	88
95% C.I.	(85.2-93.7)	(87.2-92.7)	(82.5-88.7)	(71.6-82.2)	(85.8-89.6)
Stroke	61	69	63	51	64
95% C.I.	(55.9-66.7)	(65.2-73.5)	(58.3-66.6)	(44.8-57.9)	(61.1-66.1)
Gallbladder disease	23	31	21	12	24
95% C.I.	(18.4-27.8)	(27.3-35.2)	(17.4-24.4)	(8.3-16.1)	(22.0-26.4)
Arthritis	44	49	45	36	45
95% C.I.	(38.4-49.8)	(44.1-52.9)	(40.6-49.3)	(30.6-42.6)	(42.5-47.8)
Gout	31	33	17	12	26
95% C.I.	(26.2-36.6)	(29.6-37.4)	(14.0-20.6)	(8.6-16.3)	(24.1-28.7)
Stomach Ulcer	31	31	12	8	24
95% C.I.	(26.0-36.2)	(27.0-34.7)	(9.9-15.6)	(5.2-12.2)	(21.5-26.0)
All of these	15	16	6	4	12
95% C.I.	(11.1-19.5)	(12.8-19.0)	(4.3-8.4)	(2.4-7.5)	(10.1-13.7)
None of these	0	1	0	-	0
95% C.I.	(0.0-0.3)	(0.2-1.3)	(0.1-1.4)	-	(0.2-0.6)

Continued…

Table 8.5 *- Continued*

Aged 16 and over *2008/2009 combined*

Health conditions[a]	Age				Total
	16-34	35-54	55-74	75+	
	%	%	%	%	%
All adults					
Heart disease	92	93	89	84	91
95% C.I.	(89.5-94.4)	(91.5-94.9)	(87.3-91.2)	(79.6-87.1)	(90.0-92.3)
Some cancers	33	38	28	16	32
95% C.I.	(29.0-38.1)	(34.6-40.9)	(24.9-30.9)	(12.6-20.3)	(30.0-34.1)
Diabetes	77	82	68	51	74
95% C.I.	(72.3-80.6)	(79.2-84.2)	(64.5-70.5)	(45.5-55.7)	(72.1-75.7)
High blood pressure	90	91	85	75	88
95% C.I.	(86.9-93.0)	(89.2-93.1)	(82.6-87.3)	(70.9-79.5)	(86.7-89.4)
Stroke	62	72	64	52	65
95% C.I.	(57.8-66.6)	(68.7-74.6)	(61.1-67.7)	(46.7-57.1)	(63.4-67.4)
Gallbladder disease	22	28	18	11	22
95% C.I.	(18.8-26.2)	(24.9-30.7)	(15.3-20.4)	(8.6-14.9)	(20.4-23.9)
Arthritis	42	46	42	37	43
95% C.I.	(37.8-46.6)	(43.1-49.8)	(39.2-45.5)	(32.4-42.0)	(41.2-45.4)
Gout	31	35	21	14	29
95% C.I.	(26.9-35.4)	(32.2-38.5)	(18.8-24.2)	(10.9-17.6)	(26.7-30.6)
Stomach Ulcer	34	31	14	10	25
95% C.I.	(29.5-38.1)	(28.1-34.1)	(11.5-16.1)	(7.2-13.4)	(23.6-27.4)
All of these	14	16	7	5	12
95% C.I.	(10.8-17.4)	(13.5-18.4)	(5.4-8.9)	(3.3-7.7)	(10.6-13.6)
None of these	1	0	1	0	1
95% C.I.	(0.2-2.9)	(0.1-0.8)	(0.3-1.7)	(0.0-1.3)	(0.3-1.1)
Bases (weighted):					
Men	*567*	*661*	*479*	*123*	*1829*
Women	*551*	*719*	*526*	*197*	*1994*
All adults	*1118*	*1381*	*1005*	*320*	*3823*
Bases (unweighted):					
Men	*300*	*597*	*553*	*177*	*1627*
Women	*462*	*700*	*722*	*285*	*2169*
All adults	*762*	*1297*	*1275*	*462*	*3796*

a The figures for each individual condition mentioned include the percentage of people who chose the "all of these" option

Table 8.6a Knowledge of health conditions more likely among very overweight people by equivalised annual household income quintile

Aged 16 and over *2008/2009 combined*

Health conditions[a]	Equivalised annual household income quintile				
	1st (highest)	2nd	3rd	4th	5th (lowest)
	%	%	%	%	%
Heart disease	95	93	93	87	90
95% C.I.	(92.3-96.6)	(90.7-95.3)	(90.1-94.7)	(83.7-90.3)	(86.7-92.2)
Some cancers	43	36	30	26	22
95% C.I.	(38.1-47.2)	(32.0-41.2)	(25.8-35.5)	(21.4-30.2)	(17.3-26.5)
Diabetes	87	81	70	67	66
95% C.I.	(83.4-89.5)	(77.3-84.4)	(64.6-74.2)	(62.3-71.4)	(60.9-70.1)
High blood pressure	94	91	89	83	83
95% C.I.	(92.0-96.2)	(88.0-93.3)	(85.7-92.3)	(79.3-86.9)	(78.8-86.9)
Stroke	74	68	63	65	59
95% C.I.	(69.7-77.8)	(63.4-71.9)	(58.0-67.5)	(60.3-69.6)	(53.8-63.7)
Gallbladder disease	28	27	18	18	17
95% C.I.	(24.6-32.5)	(22.9-30.9)	(15.2-22.3)	(14.8-22.6)	(13.3-21.3)
Arthritis	49	46	41	43	39
95% C.I.	(44.4-53.6)	(42.1-50.6)	(36.1-46.1)	(38.6-48.1)	(34.5-44.4)
Gout	37	32	29	23	23
95% C.I.	(32.2-41.1)	(27.5-35.9)	(24.4-33.9)	(19.0-27.4)	(18.5-27.1)
Stomach Ulcer	30	29	22	22	24
95% C.I.	(26.3-34.4)	(24.7-33.2)	(18.3-26.9)	(17.7-26.1)	(19.5-28.5)
All of these	15	13	10	11	9
95% C.I.	(12.2-18.4)	(10.3-17.0)	(7.6-13.3)	(7.6-14.3)	(6.6-13.4)
None of these	0	0	0	1	0
95% C.I.	(0.0-1.0)	(0.1-1.0)	(0.0-0.9)	(0.3-5.3)	(0.1-1.2)
Bases (weighted):	*793*	*749*	*679*	*592*	*580*
Bases (unweighted):	*696*	*701*	*651*	*640*	*707*

a The figures for each individual condition mentioned include the percentage of people who chose the "all of these" option

Table 8.6b Knowledge of health conditions more likely among very overweight people by NS-SEC of household reference person

Aged 16 and over *2008/2009 combined*

Health conditions[a]	NS-SEC of household reference person				
	Managerial & professional	Intermediate	Small employers & own account workers	Lower supervisory & technical	Semi-routine and routine
	%	%	%	%	%
Heart disease	92	93	92	90	90
95% C.I.	(90.1-93.7)	(90.3-95.5)	(88.3-94.5)	(85.8-92.8)	(87.5-91.7)
Some cancers	40	37	28	30	22
95% C.I.	(37.1-43.8)	(31.6-43.5)	(21.7-35.6)	(24.0-35.8)	(19.3-25.8)
Diabetes	81	80	70	69	67
95% C.I.	(77.9-83.3)	(74.7-83.8)	(62.5-76.3)	(63.3-74.5)	(63.4-70.3)
High blood pressure	90	89	89	89	85
95% C.I.	(87.4-91.6)	(85.0-92.4)	(82.0-93.0)	(85.3-91.9)	(82.7-87.8)
Stroke	71	69	62	60	60
95% C.I.	(67.9-74.1)	(63.0-74.4)	(54.2-68.4)	(53.9-65.9)	(56.7-64.0)
Gallbladder disease	27	26	22	20	15
95% C.I.	(24.6-30.5)	(21.3-32.2)	(16.6-28.3)	(15.5-25.6)	(12.5-17.7)
Arthritis	48	47	39	44	38
95% C.I.	(44.8-51.8)	(40.9-53.3)	(31.8-45.8)	(37.7-49.7)	(34.2-41.4)
Gout	34	34	24	29	22
95% C.I.	(30.6-36.9)	(27.9-39.7)	(18.9-31.0)	(23.0-35.3)	(19.0-25.1)
Stomach Ulcer	28	34	21	23	21
95% C.I.	(25.3-31.3)	(28.4-41.0)	(15.4-27.1)	(18.5-28.9)	(18.3-24.4)
All of these	15	15	12	13	8
95% C.I.	(12.3-17.0)	(10.4-20.0)	(7.9-17.8)	(9.1-18.4)	(6.0-10.2)
None of these	0	1	1	0	1
95% C.I.	(0.1-0.8)	(0.2-1.9)	(0.1-2.8)	(0.1-1.5)	(0.3-2.7)
Bases (weighted):	*1510*	*365*	*292*	*433*	*1156*
Bases (unweighted):	*1350*	*399*	*296*	*412*	*1266*

a The figures for each individual condition mentioned include the percentage of people who chose the "all of these" option

Table 8.6c Knowledge of health conditions more likely among very overweight people by Scottish Index of Multiple Deprivation quintile

Aged 16 and over *2008/2009 combined*

Health conditions[a]	Scottish Index of Multiple Deprivation quintile				
	5th (least deprived)	4th	3rd	2nd	1st (most deprived)
	%	%	%	%	%
Heart disease	93	91	91	91	90
95% C.I.	(90.2-94.7)	(88.7-93.4)	(88.2-93.7)	(88.3-92.7)	(86.4-92.4)
Some cancers	37	35	31	31	24
95% C.I.	(32.6-42.4)	(31.2-39.9)	(27.1-36.1)	(27.0-36.1)	(20.1-27.6)
Diabetes	76	79	75	72	67
95% C.I.	(71.4-79.6)	(75.5-82.4)	(71.1-78.1)	(67.6-75.9)	(62.9-71.5)
High blood pressure	91	89	88	85	87
95% C.I.	(88.1-93.4)	(85.8-91.0)	(84.8-90.6)	(81.1-88.6)	(83.7-90.3)
Stroke	68	67	67	63	61
95% C.I.	(62.7-72.2)	(62.9-71.5)	(62.9-71.6)	(58.1-67.6)	(56.8-65.8)
Gallbladder disease	25	22	25	19	19
95% C.I.	(21.5-29.6)	(18.9-25.9)	(20.4-29.4)	(15.7-22.8)	(16.4-22.9)
Arthritis	45	43	48	40	40
95% C.I.	(40.4-50.3)	(38.7-47.5)	(43.7-53.0)	(35.5-44.7)	(35.7-44.5)
Gout	32	30	31	26	24
95% C.I.	(27.8-37.4)	(25.8-33.8)	(26.1-35.4)	(22.6-30.6)	(20.1-27.4)
Stomach Ulcer	26	28	26	24	22
95% C.I.	(22.2-30.5)	(24.0-32.3)	(21.6-31.0)	(20.6-28.6)	(18.7-26.3)
All of these	14	12	15	11	8
95% C.I.	(11.0-17.7)	(9.2-15.2)	(10.9-19.1)	(8.4-14.6)	(6.4-11.0)
None of these	1	1	0	1	0
95% C.I.	(0.2-4.3)	(0.2-1.7)	(0.0-0.8)	(0.3-1.7)	(0.1-0.8)
Bases (weighted):	*350*	*438*	*317*	*370*	*347*
Bases (unweighted):	*296*	*426*	*361*	*361*	*367*

a The figures for each individual condition mentioned include the percentage of people who chose the "all of these" option

Table 8.7 Motivations for weight control by body mass index status

Aged 16 and over *2008, 2009, 2008/2009 combined*

Motivations for weight control	Body Mass Index (kg/m^2)[a]					Total 2008/2009	Total 2008	Total 2009
	Under-weight	Healthy weight	Overweight	Obese	No BMI measure-ment			
	%	%	%	%	%	%	%	%
Pre-contemplation: BMI unknown	-	-	-	-	62	7	7	7
95% C.I.	-	-	-	-	(55.9-67.0)	(6.3-8.6)	(6.0-9.1)	(5.8-9.0)
Pre-contemplation: unhealthy BMI[b]	92	-	49	25	-	24	26	23
95% C.I.	(81.7-96.8)	-	(45.6-52.5)	(22.1-29.0)	-	(22.5-26.0)	(23.2-28.1)	(20.5-25.2)
Contemplation	0	1	3	7	4	3	3	4
95% C.I.	-	(0.3-2.6)	(2.0-4.3)	(4.7-8.9)	(2.4-6.3)	(2.6-4.0)	(2.1-3.9)	(2.7-5.0)
Preparation	2	3	10	16	6	9	8	9
95% C.I.	(0.4-6.2)	(1.7-4.5)	(8.2-12.4)	(13.0-19.3)	(3.5-11.2)	(7.7-10.1)	(6.9-10.1)	(7.7-11.2)
Action	4	5	17	31	15	17	17	16
95% C.I.	(1.3-13.4)	(3.5-6.5)	(14.9-20.0)	(27.6-34.6)	(11.7-19.4)	(15.2-17.9)	(15.5-19.6)	(14.1-17.9)
Maintenance	2	9	21	21	13	16	17	16
95% C.I.	(0.3-14.1)	(6.9-11.3)	(17.9-23.6)	(18.3-24.5)	(10.0-16.6)	(14.7-17.7)	(14.5-18.7)	(13.7-18.0)
Long-term maintenance	-	83	-	-	-	24	22	25
95% C.I.	-	(79.7-85.5)	-	-	-	(21.9-25.6)	(19.4-24.3)	(22.8-28.1)
Bases (weighted):	*62*	*1108*	*1316*	*920*	*462*	*3868*	*1846*	*2022*
Bases (unweighted):	*57*	*1044*	*1284*	*972*	*511*	*3868*	*1846*	*2022*

a The BMI groups are: less than 18.5 - underweight; 18.5 to less than 25 - healthy weight; 25 to less than 30 - overweight; 30 and over - obese

b Unhealthy BMI includes people who were underweight, overweight and obese

Table 8.8 Motivations for weight control by age and sex

Aged 16 and over *2008/2009 combined*

Motivations for weight control	Age				Total
	16-34	35-54	55-74	75+	
	%	%	%	%	%
Men					
Pre-contemplation: BMI unknown	7	6	5	19	7
95% C.I.	(3.9-11.5)	(3.8-8.2)	(3.2-6.9)	(13.3-26.0)	(5.2-8.5)
Pre-contemplation: unhealthy BMI[a]	29	33	30	34	31
95% C.I.	(22.9-35.4)	(29.0-38.3)	(26.2-35.1)	(27.1-42.6)	(28.5-34.3)
Contemplation	3	5	4	3	4
95% C.I.	(1.1-6.8)	(3.2-7.3)	(2.4-6.1)	(1.3-6.3)	(2.8-5.1)
Preparation	11	9	10	4	9
95% C.I.	(6.7-16.9)	(6.5-11.9)	(7.2-13.4)	(1.8-7.9)	(7.5-11.5)
Action	7	13	14	6	11
95% C.I.	(4.1-10.6)	(10.4-17.0)	(10.9-17.5)	(2.9-10.7)	(9.2-12.8)
Maintenance	8	13	23	16	14
95% C.I.	(4.5-13.1)	(10.3-17.0)	(18.7-27.4)	(10.7-22.3)	(12.2-16.5)
Long-term maintenance	36	21	14	19	24
95% C.I.	(30.1-43.4)	(17.0-24.8)	(11.1-18.6)	(13.4-25.7)	(21.1-26.7)
Women					
Pre-contemplation: BMI unknown	10	5	5	17	8
95% C.I.	(7.0-14.8)	(3.7-7.6)	(4.0-7.5)	(12.9-22.2)	(6.6-9.6)
Pre-contemplation: unhealthy BMI[a]	18	13	18	33	18
95% C.I.	(14.3-22.4)	(10.4-16.3)	(14.6-20.8)	(27.3-39.7)	(15.9-19.7)
Contemplation	1	3	5	1	3
95% C.I.	(0.6-3.1)	(1.5-4.6)	(3.3-7.6)	(0.4-4.0)	(2.0-3.8)
Preparation	8	9	9	4	8
95% C.I.	(5.4-11.8)	(7.0-11.9)	(6.7-11.8)	(2.6-7.4)	(7.0-9.8)
Action	17	26	24	12	22
95% C.I.	(13.3-20.9)	(22.5-30.4)	(20.6-27.9)	(8.4-18.1)	(19.6-23.8)
Maintenance	12	20	24	11	18
95% C.I.	(9.0-16.4)	(16.4-23.7)	(20.6-27.7)	(8.0-15.7)	(16.0-20.0)
Long-term maintenance	33	24	15	20	24
95% C.I.	(27.9-39.2)	(20.2-27.6)	(12.5-17.9)	(15.9-25.5)	(21.5-26.1)

Continued…

Table 8.8 ***Continued***

Aged 16 and over *2008/2009 combined*

Motivations for weight control	Age				Total
	16-34	35-54	55-74	75+	
	%	%	%	%	%
All adults					
Pre-contemplation: BMI unknown	9	5	5	18	7
95% C.I.	(6.2-11.6)	(4.2-7.1)	(3.9-6.6)	(14.3-21.8)	(6.3-8.6)
Pre-contemplation: unhealthy BMI[a]	23	23	24	34	24
95% C.I.	(19.8-27.4)	(20.2-25.9)	(21.1-26.4)	(29.0-38.7)	(22.5-26.0)
Contemplation	2	4	4	2	3
95% C.I.	(1.0-4.0)	(2.7-5.1)	(3.2-6.2)	(0.9-3.6)	(2.6-4.0)
Preparation	9	9	9	4	9
95% C.I.	(6.9-12.8)	(7.3-11.1)	(7.6-11.5)	(2.7-6.4)	(7.7-10.1)
Action	12	20	19	10	17
95% C.I.	(9.4-14.4)	(17.5-22.8)	(16.8-21.9)	(7.0-13.6)	(15.2-17.9)
Maintenance	10	17	23	13	16
95% C.I.	(7.6-1.5)	(14.3-1.3)	(20.7-1.1)	(10.1-0.9)	(14.7-1.3)
Long-term maintenance	35	22	15	20	24
95% C.I.	(30.6-39.4)	(19.6-25.1)	(12.6-17.2)	(16.2-23.7)	(21.9-25.6)
Bases (weighted):					
Men	*567*	*665*	*485*	*132*	*1849*
Women	*558*	*719*	*533*	*209*	*2019*
All adults	*1125*	*1385*	*1018*	*341*	*3868*
Bases (unweighted):					
Men	*301*	*602*	*565*	*193*	*1661*
Women	*467*	*700*	*732*	*308*	*2207*
All adults	*768*	*1302*	*1297*	*501*	*3868*

a Unhealthy BMI includes people who were underweight, overweight and obese

Table 8.9a Motivations for weight control by equivalised annual household income quintile

Aged 16 and over *2008/2009 combined*

Motivations for weight control	Equivalised annual household income quintile				
	1st (highest)	2nd	3rd	4th	5th (lowest)
	%	%	%	%	%
Pre-contemplation: BMI unknown	6	5	5	6	10
95% C.I.	(3.8-8.4)	(3.5-7.9)	(3.6-7.5)	(4.6-8.7)	(7.0-14.7)
Pre-contemplation: unhealthy BMI[a]	22	22	23	25	26
95% C.I.	(18.8-26.5)	(18.6-26.2)	(19.0-27.0)	(21.3-29.7)	(22.4-30.5)
Contemplation	3	2	4	5	4
95% C.I.	(1.6-4.6)	(1.0-3.1)	(2.1-5.8)	(2.8-7.3)	(2.6-7.3)
Preparation	10	9	9	10	6
95% C.I.	(7.7-12.8)	(6.7-11.9)	(6.3-13.5)	(7.3-14.1)	(4.3-8.7)
Action	18	21	15	16	14
95% C.I.	(14.7-21.4)	(17.3-24.6)	(12.2-18.6)	(13.1-19.7)	(10.8-17.1)
Maintenance	16	19	20	18	12
95% C.I.	(13.0-20.0)	(15.8-23.1)	(16.3-23.6)	(14.7-21.4)	(9.7-15.9)
Long-term maintenance	25	22	24	20	27
95% C.I.	(21.4-29.6)	(18.3-26.1)	(20.0-29.3)	(16.2-23.9)	(22.7-31.7)
Bases (weighted):	*798*	*750*	*686*	*603*	*588*
Bases (unweighted):	*699*	*702*	*661*	*654*	*724*

a Unhealthy BMI includes people who were underweight, overweight and obese

Table 8.9b Motivations for weight control by NS-SEC of household reference person

Aged 16 and over *2008/2009 combined*

Motivations for weight control	NS-SEC of household reference person				
	Managerial & professional	Intermediate	Small employers & own account workers	Lower supervisory & technical	Semi-routine and routine
	%	%	%	%	%
Pre-contemplation: BMI unknown	6	8	6	9	8
95% C.I.	(4.6-8.1)	(5.4-11.3)	(3.6-9.6)	(6.2-12.6)	(6.4-10.8)
Pre-contemplation: unhealthy BMI[a]	22	22	26	28	27
95% C.I.	(19.0-24.5)	(17.0-26.9)	(19.9-32.4)	(23.0-33.7)	(23.9-30.1)
Contemplation	2	7	2	3	4
95% C.I.	(1.6-3.6)	(4.1-12.7)	(0.8-3.7)	(1.6-5.4)	(2.6-4.9)
Preparation	9	9	9	6	9
95% C.I.	(7.3-11.3)	(6.6-13.4)	(5.3-15.0)	(3.5-9.7)	(7.0-11.6)
Action	18	15	16	17	15
95% C.I.	(16.1-21.1)	(11.9-19.6)	(11.6-21.4)	(13.2-21.6)	(12.5-17.1)
Maintenance	18	14	17	17	15
95% C.I.	(15.3-20.4)	(10.3-19.2)	(12.6-23.0)	(13.5-22.2)	(12.3-17.0)
Long-term maintenance	25	24	25	20	23
95% C.I.	(21.7-27.7)	(19.1-30.4)	(18.4-32.2)	(14.9-25.7)	(20.2-26.1)
Bases (weighted):	*1515*	*370*	*297*	*438*	*1179*
Bases (unweighted):	*1356*	*407*	*301*	*421*	*1305*

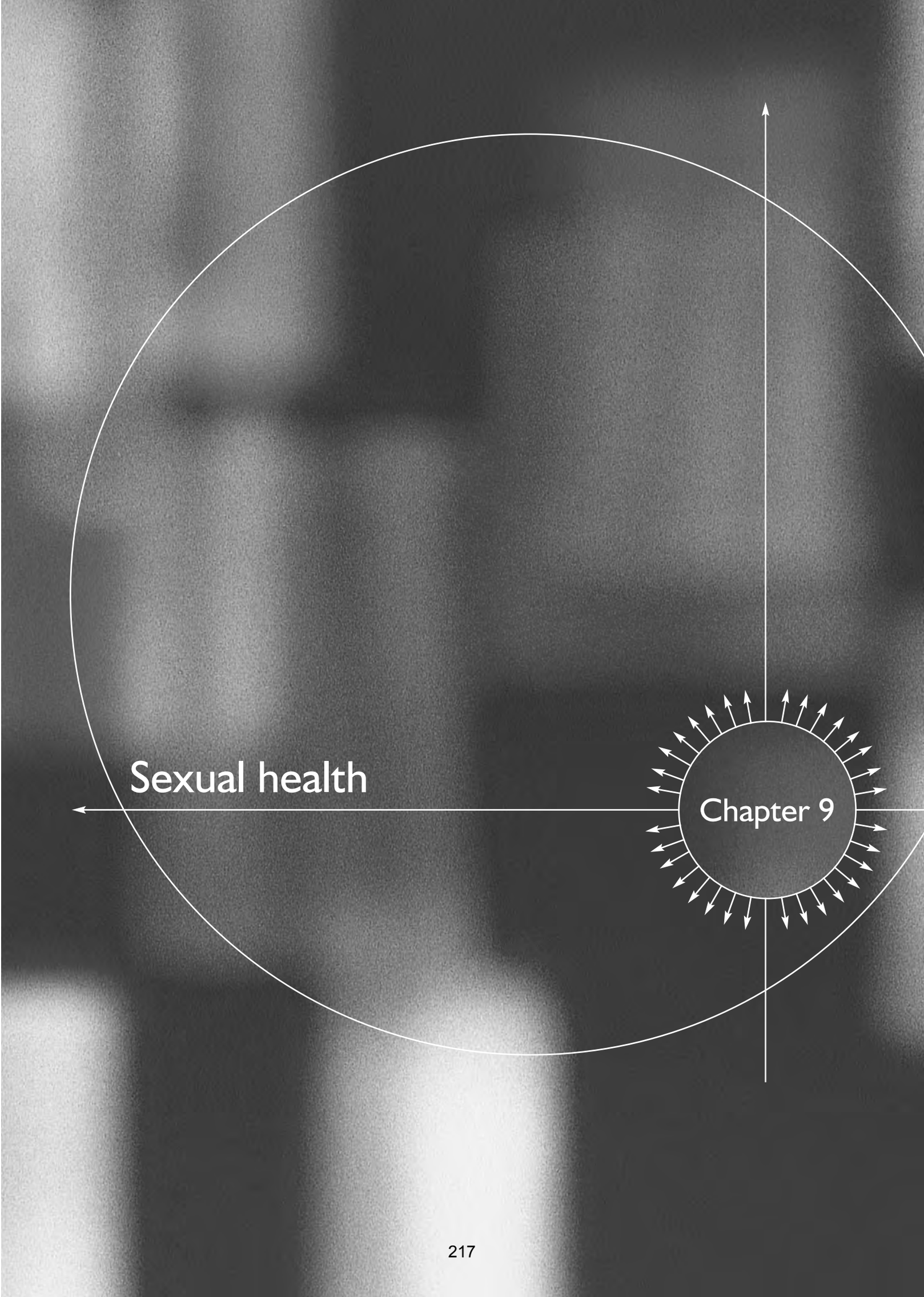
a Unhealthy BMI includes people who were underweight, overweight and obese

Table 8.9c Motivations for weight control by Scottish Index of Multiple Deprivation quintile

Aged 16 and over *2008/2009 combined*

Motivations for weight control	Scottish Index of Multiple Deprivation quintile				
	5th (least deprived)	4th	3rd	2nd	1st (most deprived)
	%	%	%	%	%
Pre-contemplation: BMI unknown	6	5	9	9	9
95% C.I.	(3.9-8.3)	(3.6-7.2)	(6.4-12.3)	(6.3-11.8)	(6.6-11.6)
Pre-contemplation: unhealthy BMI[a]	18	27	24	24	28
95% C.I.	(14.7-21.2)	(23.6-31.7)	(20.4-28.3)	(20.2-27.6)	(24.1-31.6)
Contemplation	3	3	3	4	3
95% C.I.	(1.3-4.8)	(2.1-5.4)	(2.0-5.1)	(2.5-5.8)	(2.0-5.4)
Preparation	9	9	8	10	8
95% C.I.	(6.7-12.3)	(6.3-11.6)	(6.2-11.5)	(7.1-13.1)	(5.9-10.9)
Action	16	17	18	14	17
95% C.I.	(13.3-19.9)	(14.0-20.2)	(14.9-21.4)	(11.7-17.8)	(14.2-20.1)
Maintenance	20	17	15	14	14
95% C.I.	(16.5-24.4)	(13.9-21.0)	(12.5-18.1)	(11.5-17.1)	(11.3-17.5)
Long-term maintenance	28	21	22	26	21
95% C.I.	(24.1-33.2)	(18.0-25.4)	(18.6-26.4)	(21.7-29.8)	(17.4-25.3)
Bases (weighted):	*766*	*862*	*728*	*771*	*740*
Bases (unweighted):	*639*	*844*	*795*	*775*	*815*

a Unhealthy BMI includes people who were underweight, overweight and obese



Sexual health

Chapter 9

9 SEXUAL HEALTH

SUMMARY

- In 2008/2009, 62% of adults in Scotland felt they knew enough about where a woman should go if she needed an abortion, 81% knew enough about safer sex to protect against sexually transmitted infections and 84% said they knew enough about how to use a condom.
- However, demand for *additional* information was low – just 6% wanted to know more about abortion access, 4% about safer sex and just 2% about condom use.
- More men than women said they knew enough about how to use a condom (89% versus 78%) or about safer sex to protect against diseases (85% versus 77%). This gap was caused by more women than men saying they did not want to know about these topics.
- Although demand for more information was generally low, it was highest among people aged 16-34.
- People were presented with a list of six places where emergency contraception can be obtained. Although only 17% of adults knew that all six places could provide this, only 7% of adults did not know anywhere to access emergency contraception.
- 75% knew GPs can provide this, 63% knew pharmacies can, and 59% knew about family planning clinics. Fewer people knew about sexual health clinics (51%), young people's drop-in centres (29%) or Accident and Emergency departments (24%).
- Women knew more places to obtain emergency contraception than men. This was particularly the case among younger people aged 16-34.
- 97% of people who felt that the question applied to them agreed that it is necessary to use a condom with a new partner to prevent STIs even if using other contraception methods. 94% said they would ask a new partner to use a condom. 84% said they would stop intercourse if they did not have a condom, and 72% would only stop using condoms with a new partner after they had both been tested for STIs.
- Women were more likely than men to say they would stop intercourse if there was no condom (91% versus 77%). The gap between the views of men and women was greatest for those aged 16-34. Women were also more likely than men to say they would have STI testing before stopping using condoms (78% versus 66%).
- 14% of sexually active women aged 16-55 in Scotland were using a long-acting reversible method of contraception; women aged 16-34 were more likely to use these methods than those aged 35 and over.

9.1 INTRODUCTION

This chapter addresses attitudes towards, and knowledge of, various sexual health issues. It also presents figures about women's use of long-acting reversible contraception methods. Unlike the preceding chapters in this report, the questions in this part of the study did not set out to explore any associations between people's knowledge, attitudes and behaviour, nor did they cover motivations to make any behavioural changes in this area. The data presented

in this chapter are based on questions asked in a self-completion section at the end of Knowledge, Attitudes and Motivations to health (KAM) interview, and are based on the 2008 and 2009 surveys combined.

The first section explores people's self-reported information needs about accessing abortion services, using condoms and preventing sexually transmitted infections (STIs). The chapter then looks at awareness of where to access emergency contraception. Next, it explores attitudes to condom use, which is followed by the findings about women's use of long-acting reversible contraception. All these topics are explored in relation to age, gender and socio-demographic group. Additional results on the topic which have not been covered in this chapter will be published on the NHS Health Scotland website alongside an electronic version of this report. These include: chlamydia testing, cervical cancer prevention, further attitudinal questions about condoms, and men's willingness to consider a vasectomy.

Scotland's first sexual health strategy *Respect and Responsibility*[1] was launched in 2005 with three years of associated funding. Its introduction outlined the public health imperative behind the strategy: rising levels of STIs and higher levels of teenage pregnancies than in many European countries. The 2007 *Better Health, Better Care*[2] action plan extended funding for the Strategy until 2011.

An independent review of its work was conducted in 2008 and recommended that following its achievements in improving service access and delivery, its focus should move towards the arguably more complex area of cultural change. The Scottish Government's response[3] to the review placed the original Strategy within their overarching purpose and highlighted other cross cutting initiatives and policies in which sexual health feature. For example, an explicit link was made between the sexual health and alcohol strategies, highlighting the potential for service delivery in these areas to be joined up. Recent public campaigns have also made the link between excess alcohol consumption and unsafe sexual behaviour.[4]

Allied to the overall objectives set out in the Strategy, there has been an increasing emphasis on long-acting forms of contraception for women, such as injections, implants and intrauterine devices. The survey therefore introduced new questions in 2008 about women's use of these methods and their willingness to consider them.

9.2 KNOWLEDGE: SEXUAL HEALTH ISSUES AND SERVICES

9.2.1 Information needs regarding abortion, condoms and STIs

Participants were asked whether they felt they knew enough, or needed to know more, about:

- where a woman should go if she needed an abortion;
- how to use a condom; and
- safer sex to protect against sexually transmitted diseases.

Tables 9.1 to 9.3 show that knowledge levels in 2008/2009 were lowest in relation to where a woman should go if she needed an abortion (62% felt they knew enough about this). In contrast, 84% said they knew enough about how to use a condom and 81% knew enough about safer sex. However, demand for *additional* information was low – 6% wanted to know more about abortion access, just 2% about condom use and 4% about safer sex. For each topic, far more said they did not want to know about it than said they wanted to know more. In addition, 12% answered "don't know" to the question about abortion, as did 2% for the other topics. These people were perhaps unsure about how much they knew, and did not know if they wanted more information.

Tables 9.1, 9.2 and 9.3

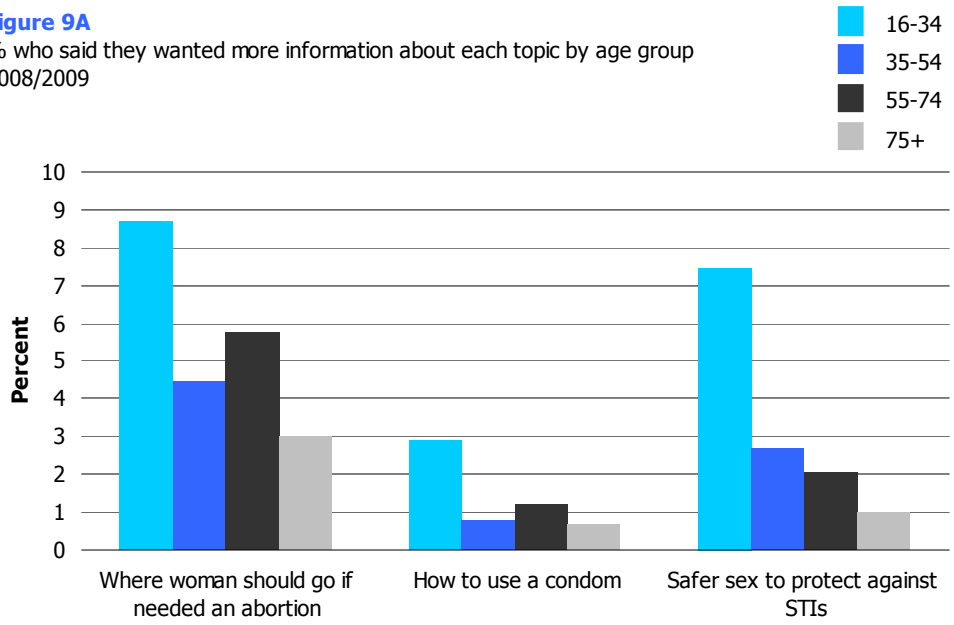
9.2.2 Information needs by age and sex

Men's and women's knowledge of where to access an abortion did not differ significantly. More men than women said they knew enough about how to use a condom (89% versus 78%) or about safer sex to protect against diseases (85% versus 77%). However, women were as likely as men to say they needed more information, so the gap between them was caused by more women saying they did not want to know about these topics.

As Table 9.1 to 9.3 illustrate, the differences across age groups were quite notable. As noted above, the proportions who said they wanted to know more about the topics were low overall, however, Figure 9A shows that people aged 16-34 were the most likely to say this (note that the scale on the graph has been shortened and stops at 10%). It is worth noting that demand for more information about condom use was still quite low in this age group compared with the other two topics.

For all three topics, the proportions who said they knew enough were very similar among people aged 16 to 54, but declined markedly from 55 onwards. In contrast, the proportions who did not want to know about the topics, or did not know if they wanted more information, increased markedly with age. **Figure 9A, Tables 9.1, 9.2 and 9.3**

Figure 9A
% who said they wanted more information about each topic by age group
2008/2009



9.2.3 Information needs by socio-demographic group

Tables 9.4a to 9.6c present knowledge levels about each topic by household income, NS-SEC and area deprivation (these measures are all explained in full in Chapter 2). The discussion here focuses on patterns in the proportions who said they wanted more information, as they are a potentially important group to identify and target.

Differences across groups were generally quite small, especially so for the question about condom use (where demand for more information was lowest across the whole population). People in the most socially or economically advantaged households tended to be the least likely to say they wanted more information about abortion access or safer sex.

Tables 9.4a, 9.4b, 9.4c

9.2.4 Awareness of emergency contraception services

Improving access to sexual health services such as emergency contraception (the 'morning after' pill) is a key aim of Scotland's sexual health strategy. However, improved access will always be limited if public awareness of where services can be accessed remains low. Participants were presented with a list of places where emergency contraception is currently available and were asked to say where they thought it could be obtained.

Table 9.7 shows the proportions who chose each place as well as the mean number of places picked by people who named at least one provider. To estimate overall awareness of *each* provider, the proportions for each individual option have been combined with the proportion who said emergency contraception was available from all of the places. Only 17% of adults in 2008/2009 correctly identified that all six places could provide emergency contraception, although a much smaller proportion, just 7%, did not know anywhere that it was available. A majority recognised that GPs (75%), pharmacists (63%)

and family planning clinics (59%) could provide emergency contraception. Around half (51%) mentioned a sexual health clinic. Fewer were aware of it being available from young peoples' drop in centres (29%) or Accident and Emergency departments (24%). Among people who mentioned at least one, the mean number of places selected was 3.2. This suggests that awareness of the full extent of places where it is available is relatively low but this is perhaps of lesser concern than the 7% who would not know of anywhere to access emergency contraception. However, not knowing the full range of places could be a barrier to someone who, for whatever reason, was uncomfortable approaching the places they did know about (for example their GP or local chemist) and was unaware that another provider was available. **Table 9.7**

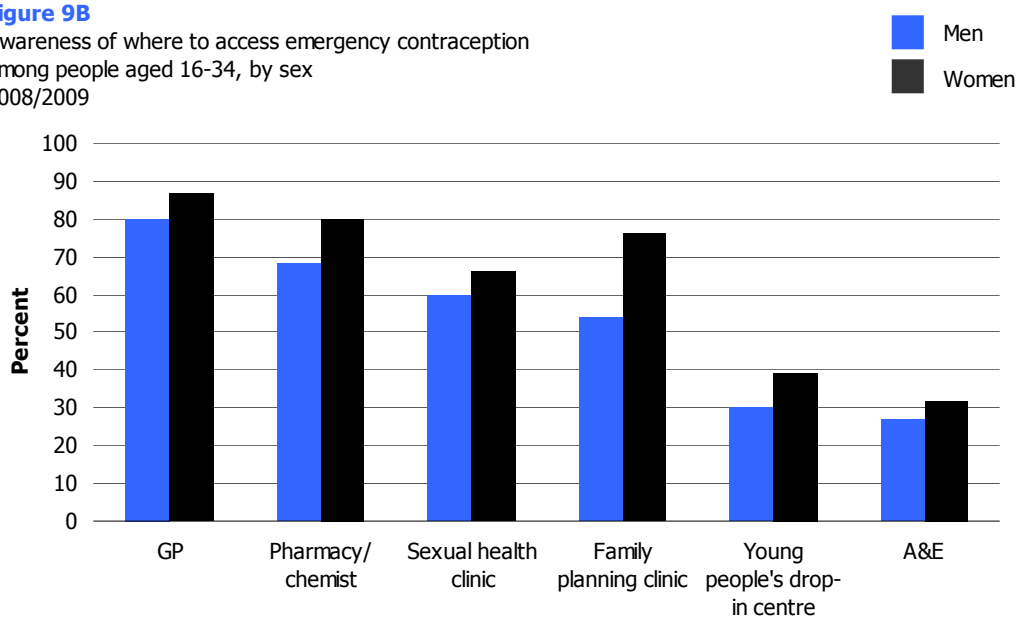
9.2.5 Awareness of emergency contraception services by age and sex

Table 9.7 also shows that the places chosen by men and women were broadly similar, though with some exceptions. More women than men mentioned family planning clinics (64% versus 54%) and young people's drop in centres (34% versus 24%). Although the following differences were less marked, women were also significantly more likely than men to say all the places could provide it (20% versus 15%), and to mention more places than men (3.4 versus 3.1).

As might be expected, the proportions choosing each place were broadly similar among those aged 16 to 54, but then declined among those aged 55-74 and further still from 75 onwards. However, most people of all ages knew of at least two places to access emergency contraception. It is worth noting that people aged 16-34 and those aged 35-54 were equally likely to mention a young person's drop-in centre (31%-34% did so).

There were some notable differences between men and women within specific age groups (note that the sample size is too small to compare men and women aged 75 and over). Figure 9B illustrates this by comparing awareness levels for men and women aged 16-34. In all cases, young women were more knowledgeable than young men, and this was particularly the case for pharmacies and family planning clinics. Table 9.7 shows that the same pattern was also generally true for the 35-54 age group – the biggest gap between men and women was for young people's drop-in centres (39% of women aged 35-54 mentioned this compared with 21% of men). **Figure 9B, Table 9.7**

Figure 9B
Awareness of where to access emergency contraception among people aged 16-34, by sex
2008/2009



9.2.6 Awareness of emergency contraception services by socio-demographic group

Tables 9.8a to 9.8c present the proportions mentioning each location, and the mean number picked, by income, NS-SEC and area deprivation. Awareness of almost all places, and the mean number of places chosen, declined as income decreased and was generally lowest among people in semi-routine and routine households. As the patterns shown in Table 9.7 were so strongly associated with age these patterns will in part be explained by the different age profile in these groups. Differences by deprivation quintile were also evident, but were a little less marked. For example, although the mean number of places chosen declined as deprivation increased (from 3.4 in the least deprived quintile to 3.0 in the most), the proportion who did not know where to access emergency contraception was similar across all quintiles (5%-8%). Differences in awareness by area deprivation were greatest for sexual health clinics (59% in the least deprived quintile mentioned this versus 46%-47% in the two most deprived), followed by family planning clinics (64% and 54%-56%, respectively). People in all deprivation quintiles were equally likely to mention young people's drop-in centres.

Tables 9.8a, 9.8b, 9.8c

9.3 ATTITUDES TO CONDOM USE

Condoms are the only method of contraception that also offer some protection against STIs (apart from abstaining from sexual activity). They therefore play a major role in sexual health promotion. Long term trends show that rates of STIs have increased markedly in Scotland and people's use of condoms with new partners has been cited as a particular challenge in terms of reversing such patterns.[5] The KAM module includes a series of four statements about people's attitudes towards using condoms with new partners (there are also two more general questions about condoms, reported in the supplementary web tables).

Participants were asked how much they agreed or disagreed with each statement. As the questions relate to people's behaviour a "does not apply to me" option was also available. The figures presented in Tables 9.9 to 9.12c, and the rest of the discussion in this section, exclude the people at each question who said the question did not apply to them. They do not therefore show the prevalence of attitudes in the *whole* adult population. To illustrate the proportion who chose the "does not apply to me" option, and the total population figures, the summary table below shows the full set of responses to each question in descending order (the order presented to participants in the questionnaire is shown in Tables 9.9 and 9.10).

2008/2009 *Question wording:*	**% Agree**	**% Neither**	**% Disagree**	**% Don't know**	**% Does not apply to me**
It is necessary to use a condom with a new partner to help protect against sexually transmitted infections (STIs), including HIV, even if you are using some other method of contraception	83	1	1	1	14
If I wanted to have sexual intercourse with a new partner, I would ask if we could use a condom	79	3	1	1	16
If I wanted to have sexual intercourse with a new partner, I would stop if we had no condoms	69	7	4	2	17
Once a new sexual partner has become a regular partner, we would both get tested for STIs before stopping using condoms	59	14	6	3	18

Around one in seven felt that the four statements did not apply to them and this increased markedly with age, from 4%-6% among those aged 16-34 to 59%-67% of those aged 75 and over (data not shown).

Focussing now on the people who felt the questions did apply to them, Tables 9.9 and 9.10 show there was almost universal agreement with the most general of the statements – 97% agreed that it is necessary to use condoms to prevent STIs even if other forms of contraception are being used. A similarly high proportion, 94%, agreed that they would ask to use a condom with a new partner. Fewer (84%), but still a majority said they would stop intercourse if there were no condoms, and 72% said they and their partner would have STI tests before stopping using condoms. Disagreement was low for all four statements and ranged from 1% for the question about whether it is necessary to use condoms to prevent STIs, to 7% for the question about having STI tests before stopping using condoms. For each question more people said they neither agreed nor disagreed than actually disagreed. As the survey did not ask

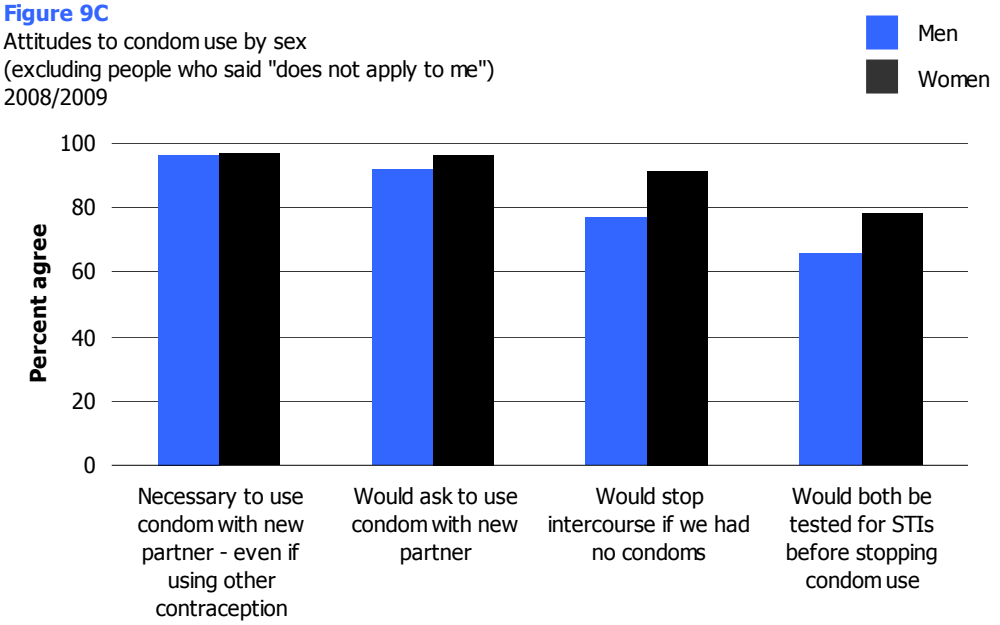
about people's recent experience of any of these situations, it is not possible to draw any direct conclusions about how well these attitudinal statements correspond with actual behaviour. **Tables 9.9 and 9.10**

9.3.1 Attitudes to condom use by age and sex

Figure 9C (and Tables 9.9 and 9.10) present the findings for men and women separately. Attitudes did not differ significantly by sex for the first two statements shown in the graph. In contrast, women were more likely than men to say they would stop intercourse (91% versus 77%), and would have STI testing before stopping using condoms (78% versus 66%). The latter finding is particularly interesting as the question referred to *both* partners having STI tests, not just one person.

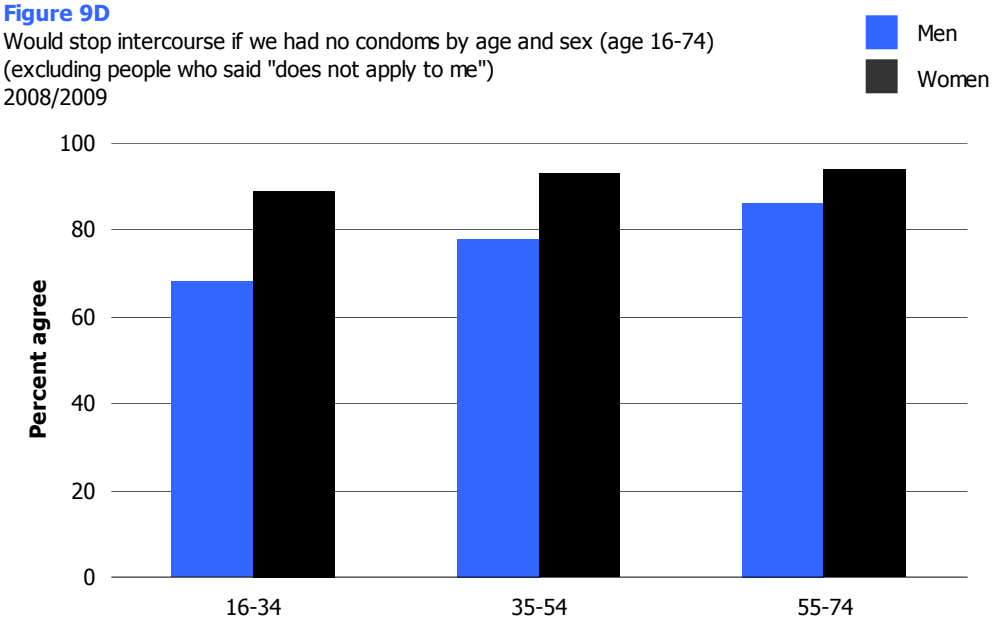
Figure 9C, Tables 9.9 and 9.10

Figure 9C
Attitudes to condom use by sex
(excluding people who said "does not apply to me")
2008/2009



The two questions where the views of men and women differed most also varied by age, particularly among men. For example, Figure 9D shows the proportions of men and women in each age group up to the age of 74 who agreed that they would stop intercourse if no condoms were available (as before, the sample size for the 75 and over age group is too small to compare men and women so they have been omitted from the graph). It shows that the proportion who agreed with this statement increased with age among men but was fairly similar across age groups among women. As a result, the gap between the views of men and women was greatest for those aged 16-34. A similar pattern was evident for the question about having STI tests, though the gap between men and women was similar in size up to the age of 54 and narrowed after that. **Figure 9D, Tables 9.9 and 9.10**

Figure 9D
Would stop intercourse if we had no condoms by age and sex (age 16-74) (excluding people who said "does not apply to me")
2008/2009



9.3.2 Attitudes to condoms by socio-demographic group

Tables 9.11a to 9.12c show responses to the four questions by household income, NS-SEC and area deprivation. The question about having STI tests before stopping using condoms was the only one to display any notable variations, with people in the most advantaged social or economic situations being the least likely to agree with this statement. However, this was not generally because this group were more likely to disagree, instead the variation tended to be caused by varying levels who neither agreed or disagreed.

Tables 9.11a, 9.11b, 9.11c, 9.12a, 9.12b, 9.12c

9.4 LONG-ACTING REVERSIBLE CONTRACEPTION

In 2007, NHS Quality Improvement Scotland published a number of service standards for sexual health services.[6] Service standard 8 states that "all individuals have access to intrauterine and implantable methods of contraception". The rationale for this approach was that such methods are more effective at preventing pregnancy than oral contraceptives or condoms because they are not subject to user errors (such as forgetting to take a pill or not using a condom), and the efficacy of such devices is not affected by other drugs or short-term illness in the way that oral pills can be. In 2009, NHS Health Scotland launched its campaign to increase the uptake of long-acting reversible methods of contraception (LARC) for women *Giving You More Choice*.[7] Both the main SHeS interview and the KAM module include questions that can help track women's use and potential interest in such methods over time.

The main SHeS interview collects details of contraceptive use, including the LARC methods of interest here: the contraceptive injection, contraceptive implant, intrauterine device (the coil), and intrauterine system (Mirena). These questions were only asked of women of child bearing age (aged 16-55). The prevalence of LARC use among women aged 16-55 is presented below. The

KAM module also asks whether women of this age have been offered one of these forms of LARC by their GP, and, if not, whether they would consider using it. The supplementary web tables report these latter questions. Although other providers of LARC exist, such as family planning clinics, research has shown that women are often given the form of contraception they request from their GP without being presented with a wider range of options to consider, while GPs can sometimes be reluctant to suggest alternatives if a women has already decided on a course of action.[8]

9.4.1 LARC use by age

Table 9.13 shows that in 2008/2009, 14% of women aged 16-55 in Scotland, who said they were sexually active, were using a LARC method. The figure for all women aged 16-55 was 10%. The prevalence of LARC use declined with age, from 17% of sexually active women aged 16 to 34 to 14% of those aged 35-44 and 8% of those aged 45-55. Note that this table uses smaller age bands than the rest of the tables in this report to enable finer grained comparisons to be made. **Table 9.13**

9.4.2 LARC use by socio-demographic group

Tables 9.14a to 9.14c present LARC use by household income, NS-SEC and area deprivation. LARC use among sexually active women increased as income decreased, from 8% among those in the highest income households to 19%-20% in the two lowest quintiles. Sexually active women in professional and managerial households were less likely to use LARC than women in intermediate and in semi-routine and routine households (11%, 18% and 17%, respectively). These differences will in part reflect the relatively older age profile of people in the highest income and professional and managerial households. There was less variation by area deprivation, though sexually active women in the two least deprived quintiles were less likely than women in the rest of Scotland to use LARC (9%-12% versus 15%-17%).

Tables 9.14a, 9.14b, 9.14c

9.5 CONCLUSIONS

This chapter suggests that adults in Scotland have fairly high levels of knowledge about sexual health issues, particularly in relation to condoms and safer sex, and have few information needs. However, caution must be exercised here. Some of the questions examined people's self-perceived information needs and were not an objective assessment of knowledge. Secondly, the questions were not particularly extensive so it is possible that people have other information needs that were not addressed here.

The question about where to access emergency contraception was a more objective assessment of knowledge. While people of all ages could name at least two potential providers, awareness of the full extent of places it can be provided was still fairly limited, and this was particularly the case among younger men. Certain providers, for example young people's drop-in centres and family planning clinics, had comparatively low levels of awareness, suggesting more could be done to raise their profile as providers of emergency

contraception. As the KAM interview only asked about where to access emergency contraception it was not possible to assess people's knowledge of when and how to use it.

Differences in knowledge and attitudes across age groups were notable for all of the topics covered. However, perhaps the most striking pattern to emerge is that young men differ significantly from young women. Increasing young men's knowledge of sexual health services, and changing their attitudes towards matters such as condom use with new partners, therefore appears to be a priority.

Moving away from younger people, in many instances it appears that the knowledge of services, and attitudes towards sexual health matters, of people aged 55 and over are quite distinct. These patterns could be lifecycle related, with people thinking they are less likely to need sexual health services as they age and therefore becoming less aware of them or less strongly opinionated about such matters. It is also highly likely that cohort effects play a major part as a result of these kinds of services being much less widely available, and sexual issues being much less talked about, when older generations were younger.

A number of implications for sexual health policy makers can be drawn out. The first, and most obvious, is that regardless of the underlying explanation for the decline in awareness with age, the need for these services does not always follow a similar decline so the provision of sexual health services and information should not focus exclusively on young people. Allied to this, it is also true that many people in older generations will be the parents (and of course grandparents and other relatives) of people in the groups who are currently the most sexually active and at risk of poor sexual health outcomes. Increasing awareness of these issues among older generations might, in part, contribute to another objective within the overall sexual health strategy of encouraging people of all generations to talk more openly about these kinds of issues. Achieving this goal would, of course, also require there to be less embarrassment associated with talking about such issues, as well as greater general awareness.

Many of the current strategies used to promote positive sexual health are largely aimed at younger people; addressing the awareness gaps among older generations clearly needs alternative and highly targeted methods. Another important point is that generational differences related to cohort effects are not static so policy development needs to strike a careful balance between meeting the needs of current older people and anticipating the likely needs of future older cohorts. As is clear from the recent increases in STI prevalence across all age groups, the cohort effects evident at the moment will be of a very different nature in future years.[9]

Long-acting reversible contraception methods for women still have a relatively low take-up. The survey only measured the prevalence of its use, and women's willingness to consider these methods. It might be useful for future years of the survey, or other research, to explore the extent to which the low take-up is a result of concerns or knowledge gaps about these methods.

References and notes

[1] Respect and Responsibility – Strategy and Action Plan for Improving Sexual Health, 2005, Edinburgh: Scottish Executive. Available from: <www.scotland.gov.uk/Topics/Health/health/sexualhealth/respect>

[2] *Better Health, Better Care Action Plan.* Edinburgh: Scottish Government, 2007.

[3] Source: <www.scotland.gov.uk/Topics/Health/health/sexualhealth/SHOutcomes>

[4] For example, the 'super beer goggles' section of the website associated with the Scottish Government's 2009 campaign to encourage young people to talk about sex <www.sexualhealthscotland.co.uk/#>

[5] Health protection Scotland and ISD Scotland (2009). *Scotland's Sexual Health Information*. NHS National Services Scotland, 2009. Available from: <www.hps.scot.nhs.uk/bbvsti/sexuallytransmittedinfection.aspx>

[6] *Standards – March 2008, Sexual Health Services*, NHS Quality Improvement Scotland, 2008. Available from: <www.nhshealthquality.org/nhsqis/files/SEXHEALTHSERV_STANF_MAR08.pdf>

[7] <See: www.healthscotland.com/topics/health/wish/Giving-you-more-choice.aspx>

[8] *Awareness and knowledge of long acting reversible contraception: what women and professionals in Scotland need*, Edinburgh: NHS Health Scotland, 2009. Available from: <www.healthscotland.com/documents/3292.aspx>

[9] Health Protection Scotland and ISD Scotland (2009). *Scotland's Sexual Health Information 2009.* NHS National Services Scotland, 2009. Available from: <www.documents.hps.scot.nhs.uk/bbvsti/sti/publications/sshi-2009-11-24.pdf>

Table list

Table 9.1 Information needs on where a woman should go if she needed an abortion by age and sex

Aged 16 and over *2008/2009 combined*

Information needs	Age				Total
	16-34	35-54	55-74	75+	
	%	%	%	%	%
Men					
Know enough about this topic	68	66	50	37	61
95% C.I.	(60.8-73.9)	(61.1-70.3)	(44.2-55.2)	(27.3-47.8)	(57.9-64.2)
Want more information	9	5	8	6	7
95% C.I.	(5.7-14.9)	(3.3-8.4)	(5.4-11.2)	(1.9-15.0)	(5.6-9.3)
Do not want to know about this	11	18	23	35	18
95% C.I.	(7.5-14.9)	(14.8-22.6)	(19.0-28.1)	(25.2-46.8)	(15.6-20.4)
Don't know	12	10	19	22	14
95% C.I.	(8.3-18.0)	(7.9-13.8)	(15.5-23.9)	(14.9-31.9)	(11.8-16.2)
Women					
Know enough about this topic	68	71	51	27	62
95% C.I.	(61.8-72.9)	(66.6-75.0)	(45.9-55.2)	(20.4-35.9)	(59.6-65.0)
Want more information	8	4	4	1	5
95% C.I.	(5.3-12.0)	(2.2-5.9)	(2.5-5.8)	(0.3-4.8)	(3.8-6.3)
Do not want to know about this	15	18	29	46	22
95% C.I.	(11.1-19.4)	(14.8-22.2)	(25.3-33.8)	(37.3-54.5)	(19.3-24.0)
Don't know	10	7	16	26	11
95% C.I.	(6.2-14.3)	(5.2-9.8)	(13.2-20.0)	(18.7-34.0)	(9.6-13.1)
All adults					
Know enough about this topic	68	69	50	32	62
95% C.I.	(63.2-71.8)	(65.4-71.5)	(46.5-53.7)	(25.5-38.2)	(59.6-63.8)
Want more information	9	4	6	3	6
95% C.I.	(6.3-11.8)	(3.1-6.2)	(4.3-7.6)	(1.2-7.2)	(5.0-7.2)
Do not want to know about this	13	18	26	41	20
95% C.I.	(10.2-15.9)	(15.7-21.2)	(23.3-29.7)	(34.6-48.4)	(18.1-21.6)
Don't know	11	9	18	24	12
95% C.I.	(8.2-14.5)	(7.1-10.8)	(15.2-20.7)	(19.0-30.2)	(11.1-14.0)
Bases (weighted):					
Men	*536*	*633*	*411*	*77*	*1657*
Women	*546*	*688*	*440*	*104*	*1777*
All adults	*1082*	*1321*	*851*	*181*	*3435*
Bases (unweighted):					
Men	*287*	*572*	*470*	*102*	*1431*
Women	*459*	*671*	*585*	*154*	*1869*
All adults	*746*	*1243*	*1055*	*256*	*3300*

Table 9.2 Information needs on how to use a condom by sex and age

Aged 16 and over *2008/2009 combined*

Information needs	Age				Total
	16-34	35-54	55-74	75+	
	%	%	%	%	%
Men					
Know enough about this topic	94	93	82	70	89
95% C.I.	(89.9-96.6)	(89.5-95.1)	(77.8-85.2)	(59.5-78.8)	(87.3-91.3)
Want more information	3	0	1	1	2
95% C.I.	(1.3-7.8)	(0.1-1.0)	(0.6-2.7)	(0.1-5.9)	(0.8-2.9)
Do not want to know about this	2	6	14	23	8
95% C.I.	(1.1-4.2)	(4.1-9.5)	(11.3-18.2)	(15.1-33.9)	(6.3-9.5)
Don't know	0	1	3	6	1
95% C.I.	(0.1-1.8)	(0.2-1.9)	(1.4-4.5)	(2.9-11.5)	(0.8-2.0)
Women					
Know enough about this topic	91	86	62	29	78
95% C.I.	(86.7-94.0)	(82.3-88.5)	(57.1-66.2)	(22.0-38.0)	(75.8-80.2)
Want more information	3	1	1	1	2
95% C.I.	(1.2-5.6)	(0.6-2.3)	(0.5-2.6)	(0.1-3.7)	(1.0-2.5)
Do not want to know about this	4	12	32	58	17
95% C.I.	(2.3-7.6)	(9.3-15.3)	(27.3-36.2)	(49.4-66.9)	(15.3-19.3)
Don't know	2	1	6	12	3
95% C.I.	(0.9-5.2)	(0.6-2.2)	(3.8-7.9)	(7.5-17.7)	(2.4-4.1)
All adults					
Know enough about this topic	93	89	71	47	84
95% C.I.	(89.7-94.6)	(86.7-91.1)	(68.3-74.4)	(39.9-53.3)	(82.0-85.0)
Want more information	3	1	1	1	2
95% C.I.	(1.6-5.3)	(0.5-1.4)	(0.7-2.1)	(0.2-2.7)	(1.1-2.3)
Do not want to know about this	3	9	23	44	13
95% C.I.	(2.0-5.0)	(7.3-11.6)	(20.4-26.4)	(36.7-50.5)	(11.4-14.0)
Don't know	1	1	4	9	2
95% C.I.	(0.6-2.8)	(0.5-1.6)	(3.0-5.5)	(6.4-13.2)	(1.8-2.8)
Bases (weighted):					
Men	*536*	*633*	*412*	*77*	*1658*
Women	*546*	*687*	*441*	*104*	*1777*
All adults	*1082*	*1320*	*852*	*181*	*3435*
Bases (unweighted):					
Men	*287*	*572*	*471*	*102*	*1432*
Women	*459*	*669*	*586*	*154*	*1868*
All adults	*746*	*1241*	*1057*	*256*	*3300*

Table 9.3 Information needs on safer sex to protect against STIs by sex and age

Aged 16 and over *2008/2009 combined*

Information needs	Age				Total
	16-34	35-54	55-74	75+	
	%	%	%	%	%
Men					
Know enough about this topic	89	91	76	54	85
95% C.I.	(83.3-92.4)	(87.2-93.1)	(71.3-80.2)	(43.4-64.6)	(82.2-86.8)
Want more information	8	2	3	-	4
95% C.I.	(4.8-12.9)	(1.3-4.1)	(1.7-5.3)	(0.0-0.0)	(3.0-5.9)
Do not want to know about this	3	6	18	37	9
95% C.I.	(1.5-6.4)	(3.9-9.2)	(14.3-22.4)	(27.7-47.7)	(7.9-11.4)
Don't know	0	1	3	9	2
95% C.I.	(0.0-2.2)	(0.5-2.4)	(1.7-5.0)	(4.5-16.1)	(1.1-2.4)
Women					
Know enough about this topic	85	88	62	27	77
95% C.I.	(79.6-89.2)	(84.4-90.3)	(57.3-66.4)	(19.9-35.2)	(74.6-79.2)
Want more information	7	3	1	2	4
95% C.I.	(4.4-10.8)	(2.0-4.7)	(0.5-2.5)	(0.5-5.3)	(2.7-5.0)
Do not want to know about this	6	8	31	59	16
95% C.I.	(3.5-11.5)	(5.9-10.9)	(27.2-35.7)	(49.3-67.1)	(14.3-18.4)
Don't know	2	1	6	13	3
95% C.I.	(0.7-4.0)	(0.5-2.8)	(3.7-8.3)	(8.4-19.5)	(2.3-4.1)
All adults					
Know enough about this topic	87	89	69	38	81
95% C.I.	(83.2-89.8)	(86.8-91.0)	(65.5-71.9)	(32.0-45.2)	(79.0-82.3)
Want more information	7	3	2	1	4
95% C.I.	(5.3-10.4)	(1.9-3.8)	(1.3-3.2)	(0.3-3.1)	(3.1-5.0)
Do not want to know about this	5	7	25	50	13
95% C.I.	(2.9-7.6)	(5.5-9.1)	(22.0-28.0)	(42.7-56.3)	(11.7-14.4)
Don't know	1	1	4	11	2
95% C.I.	(0.4-2.2)	(0.6-2.1)	(3.1-5.9)	(7.7-15.8)	(1.9-3.0)
Bases (weighted):					
Men	*536*	*633*	*412*	*76*	*1657*
Women	*546*	*687*	*440*	*104*	*1776*
All adults	*1082*	*1320*	*852*	*179*	*3433*
Bases (unweighted):					
Men	*287*	*572*	*471*	*101*	*1431*
Women	*459*	*670*	*585*	*153*	*1867*
All adults	*746*	*1242*	*1056*	*254*	*3298*

Table 9.4a Information needs on where a woman should go if she needed an abortion by equivalised household income quintile

Aged 16 and over *2008/2009 combined*

Information needs	Equivalised annual household income quintile				
	1st (highest)	2nd	3rd	4th	5th (lowest)
	%	%	%	%	%
Know enough about this topic	74	63	58	55	54
95% C.I.	(70.2-78.1)	(58.3-67.3)	(52.7-63.0)	(49.6-60.5)	(49.0-59.7)
Want more information	3	7	8	5	8
95% C.I.	(1.6-5.9)	(4.9-10.1)	(4.9-11.9)	(3.3-8.1)	(5.5-11.9)
Do not want to know about this	14	19	22	27	19
95% C.I.	(10.9-16.9)	(15.7-22.8)	(17.9-26.6)	(22.0-31.6)	(15.0-23.3)
Don't know	9	11	12	13	19
95% C.I.	(6.6-11.9)	(8.5-14.3)	(9.6-15.9)	(10.3-16.8)	(14.6-23.4)
Bases (weighted):	*765*	*707*	*621*	*504*	*492*
Bases (unweighted):	*670*	*654*	*569*	*532*	*584*

Table 9.4b Information needs on where a woman should go if she needed an abortion by NS-SEC of household reference person

Aged 16 and over *2008/2009 combined*

Information needs	NS-SEC of household reference person				
	Managerial & professional	Intermediate	Small employers & own account workers	Lower supervisory & technical	Semi-routine and routine
	%	%	%	%	%
Know enough about this topic	68	63	60	59	55
95% C.I.	(64.8-71.2)	(56.4-69.2)	(52.4-67.4)	(52.4-65.4)	(50.9-59.0)
Want more information	6	5	6	5	7
95% C.I.	(3.9-7.9)	(2.7-7.5)	(2.8-10.9)	(3.0-9.1)	(5.3-9.5)
Do not want to know about this	16	20	20	25	23
95% C.I.	(13.5-18.3)	(15.2-25.6)	(14.8-26.8)	(19.5-30.8)	(19.6-25.9)
Don't know	11	13	14	11	15
95% C.I.	(8.6-12.8)	(8.4-18.3)	(9.9-19.8)	(7.7-15.5)	(12.6-18.4)
Bases (weighted):	*1402*	*337*	*259*	*375*	*1002*
Bases (unweighted):	*1225*	*359*	*250*	*346*	*1061*

Table 9.4c Information needs on where a woman should go if she needed an abortion by Scottish Index of Multiple Deprivation quintile

Aged 16 and over *2008/2009 combined*

Information needs	Scottish Index of Multiple Deprivation quintile				
	5th (least deprived)	4th	3rd	2nd	1st (most deprived)
	%	%	%	%	%
Know enough about this topic	64	65	64	57	58
95% C.I.	(59.5-69.0)	(60.2-68.8)	(59.1-68.4)	(52.4-61.6)	(53.3-62.6)
Want more information	6	6	6	5	7
95% C.I.	(3.8-9.2)	(3.7-9.6)	(3.8-8.4)	(3.8-7.7)	(5.0-9.7)
Do not want to know about this	19	17	18	23	23
95% C.I.	(15.3-22.6)	(14.4-20.8)	(14.3-21.5)	(19.1-27.1)	(19.0-27.0)
Don't know	11	12	13	15	12
95% C.I.	(8.1-14.6)	(9.2-15.5)	(9.8-16.5)	(11.5-18.4)	(9.7-15.3)
Bases (weighted):	*698*	*794*	*629*	*671*	*643*
Bases (unweighted):	*564*	*732*	*653*	*656*	*695*

Table 9.5a Information needs on how to use a condom by equivalised household income quintile

Aged 16 and over *2008/2009 combined*

Information needs	Equivalised annual household income quintile				
	1st (highest)	2nd	3rd	4th	5th (lowest)
	%	%	%	%	%
Know enough about this topic	92	88	82	79	77
95% C.I.	(89.2-94.0)	(85.6-90.8)	(78.1-85.4)	(75.3-83.0)	(72.8-81.2)
Want more information	0	1	2	1	3
95% C.I.	(0.0-0.6)	(0.3-1.7)	(0.9-5.2)	(0.4-1.8)	(1.5-6.4)
Do not want to know about this	7	10	14	17	14
95% C.I.	(5.2-9.7)	(7.9-12.9)	(10.6-17.1)	(13.5-20.6)	(11.3-17.7)
Don't know	1	1	2	3	5
95% C.I.	(0.3-2.3)	(0.3-1.5)	(1.3-3.6)	(1.9-4.6)	(3.7-7.8)
Bases (weighted):	*765*	*707*	*621*	*506*	*492*
Bases (unweighted):	*670*	*654*	*569*	*534*	*583*

Table 9.5b Information needs on how to use a condom by NS-SEC of household reference person

Aged 16 and over *2008/2009 combined*

Information needs	NS-SEC of household reference person				
	Managerial & professional	Intermediate	Small employers & own account workers	Lower supervisory & technical	Semi-routine and routine
	%	%	%	%	%
Know enough about this topic	89	82	84	84	77
95% C.I.	(86.8-91.0)	(77.4-85.9)	(77.7-88.2)	(78.1-87.9)	(74.2-80.2)
Want more information	1	1	1	1	3
95% C.I.	(0.4-2.3)	(0.6-3.3)	(0.5-3.6)	(0.3-7.7)	(1.6-4.4)
Do not want to know about this	9	15	14	12	16
95% C.I.	(7.2-10.9)	(11.3-18.9)	(9.6-19.7)	(8.9-16.9)	(13.9-19.1)
Don't know	1	2	1	3	4
95% C.I.	(0.6-1.9)	(0.9-3.6)	(0.3-3.5)	(1.5-4.5)	(2.7-5.0)
Bases (weighted):	*1402*	*337*	*261*	*375*	*1001*
Bases (unweighted):	*1225*	*359*	*252*	*346*	*1060*

Table 9.5c Information needs on how to use a condom by Scottish Index of Multiple Deprivation quintile

Aged 16 and over *2008/2009 combined*

Information needs	Scottish Index of Multiple Deprivation quintile				
	5th (least deprived)	4th	3rd	2nd	1st (most deprived)
	%	%	%	%	%
Know enough about this topic	83	87	87	81	79
95% C.I.	(79.4-86.7)	(83.8-89.1)	(83.7-89.6)	(77.2-84.2)	(75.4-82.8)
Want more information	2	1	1	2	2
95% C.I.	(0.6-4.8)	(0.4-3.0)	(0.5-2.0)	(0.8-3.4)	(1.2-4.9)
Do not want to know about this	13	11	10	15	15
95% C.I.	(10.3-16.5)	(8.6-13.4)	(7.4-12.3)	(12.1-18.4)	(12.0-18.5)
Don't know	2	1	2	2	3
95% C.I.	(1.0-3.6)	(0.9-2.3)	(1.3-4.5)	(1.5-3.7)	(2.1-5.0)
Bases (weighted):	*700*	*793*	*628*	*671*	*642*
Bases (unweighted):	*566*	*731*	*653*	*656*	*694*

Table 9.6a Information needs on safer sex to protect against STIs by equivalised household income quintile

Aged 16 and over *2008/2009 combined*

Information needs	Equivalised annual household income quintile				
	1st (highest)	2nd	3rd	4th	5th (lowest)
	%	%	%	%	%
Know enough about this topic	91	83	79	75	74
95% C.I.	(88.2-93.5)	(79.1-86.2)	(75.3-83.1)	(70.6-79.0)	(68.7-78.3)
Want more information	2	5	4	4	4
95% C.I.	(0.8-4.4)	(3.4-8.6)	(2.9-6.7)	(1.8-6.8)	(2.5-6.4)
Do not want to know about this	6	10	14	18	17
95% C.I.	(4.3-8.2)	(8.0-13.5)	(11.0-17.8)	(14.4-21.4)	(13.5-22.1)
Don't know	1	1	2	4	5
95% C.I.	(0.4-2.5)	(0.6-2.2)	(1.2-3.5)	(2.4-5.9)	(3.1-7.2)
Bases (weighted):	*765*	*707*	*621*	*504*	*492*
Bases (unweighted):	*670*	*654*	*568*	*532*	*584*

Table 9.6b Information needs on safer sex to protect against STIs by NS-SEC of household reference person

Aged 16 and over *2008/2009 combined*

Information needs	NS-SEC of household reference person				
	Managerial & professional	Intermediate	Small employers & own account workers	Lower supervisory & technical	Semi-routine and routine
	%	%	%	%	%
Know enough about this topic	85	78	84	82	74
95% C.I.	(82.6-87.6)	(72.5-82.9)	(77.9-88.1)	(76.7-86.4)	(71.0-77.6)
Want more information	4	3	4	2	5
95% C.I.	(2.4-5.8)	(1.4-5.9)	(2.3-8.4)	(0.8-3.6)	(3.7-7.6)
Do not want to know about this	10	16	9	14	16
95% C.I.	(8.1-11.8)	(12.2-21.4)	(5.7-13.1)	(9.8-18.3)	(13.9-19.4)
Don't know	1	3	3	3	4
95% C.I.	(0.6-2.1)	(1.3-5.1)	(1.4-7.0)	(1.7-4.5)	(2.7-5.3)
Bases (weighted):	*1402*	*337*	*260*	*375*	*1000*
Bases (unweighted):	*1225*	*359*	*251*	*346*	*1058*

Table 9.6c Information needs on safer sex to protect against STIs by Scottish Index of Multiple Deprivation quintile

Aged 16 and over *2008/2009 combined*

Information needs	Scottish Index of Multiple Deprivation quintile				
	5th (least deprived)	4th	3rd	2nd	1st (most deprived)
	%	%	%	%	%
Know enough about this topic	80	83	83	78	80
95% C.I.	(75.2-83.5)	(79.9-86.4)	(78.8-85.9)	(73.5-81.4)	(75.5-83.1)
Want more information	4	4	3	5	4
95% C.I.	(2.4-6.8)	(2.2-6.8)	(1.8-4.7)	(2.9-7.8)	(2.4-6.8)
Do not want to know about this	15	11	12	15	13
95% C.I.	(11.6-18.3)	(8.7-13.6)	(9.0-15.6)	(12.0-18.6)	(10.0-15.7)
Don't know	2	2	3	2	4
95% C.I.	(0.8-3.2)	(1.1-2.9)	(1.6-4.1)	(1.4-4.2)	(2.4-5.7)
Bases (weighted):	*698*	*793*	*628*	*671*	*643*
Bases (unweighted):	*564*	*731*	*652*	*656*	*695*

Table 9.7 Awareness of where to access the morning after pill by age and sex

Aged 16 and over *2008/2009 combined*

Places mentioned[a]	Age				Total
	16-34	35-54	55-74	75+	
	%	%	%	%	%
Men					
GP	80	79	66	47	75
95% C.I.	(73.8-84.8)	(74.3-82.5)	(61.1-71.2)	(36.7-57.5)	(71.7-77.2)
Pharmacist/chemist	68	59	56	40	60
95% C.I.	(61.1-73.9)	(53.8-63.9)	(50.0-60.9)	(30.6-50.6)	(56.8-63.3)
Accident and emergency dept.	27	20	17	19	21
95% C.I.	(20.8-33.6)	(15.7-23.9)	(13.2-21.6)	(11.3-29.4)	(18.4-24.2)
Sexual health clinic	60	49	42	25	50
95% C.I.	(52.5-66.2)	(44.3-54.5)	(36.6-47.3)	(16.7-35.2)	(46.3-53.1)
Family planning clinic	54	60	49	33	54
95% C.I.	(46.8-61.2)	(54.9-64.8)	(43.7-55.0)	(23.6-44.8)	(50.7-57.6)
Young people's drop-in centre	30	21	23	18	24
95% C.I.	(23.7-36.8)	(17.4-25.7)	(18.8-28.2)	(11.6-28.2)	(21.5-27.5)
All of these	19	13	13	13	15
95% C.I.	(13.8-25.5)	(9.6-16.4)	(10.0-17.5)	(7.4-22.7)	(12.5-17.5)
None of these	0	-	0	2	0
95% C.I.	(0.0-0.9)	(0.0-0.0)	(0.1-2.3)	(0.6-9.9)	(0.1-0.7)
Don't know	4	5	12	24	7
95% C.I.	(2.2-7.4)	(2.9-7.2)	(8.9-15.7)	(15.7-35.1)	(5.7-8.9)
Mean no. of places mentioned[b]	3.3	3.0	2.9	2.4	3.1
95% C.I.	(3.0-3.6)	(2.8-3.2)	(2.7-3.1)	(1.9-2.9)	(2.9-3.2)
Women					
GP	87	82	62	40	76
95% C.I.	(82.8-90.3)	(77.9-85.2)	(57.2-66.5)	(32.3-48.9)	(73.7-78.3)
Pharmacist/chemist	80	68	54	31	66
95% C.I.	(75.3-84.1)	(63.7-72.2)	(49.6-59.0)	(24.3-39.5)	(63.6-68.7)
Accident and emergency dept.	32	31	19	12	27
95% C.I.	(26.6-37.2)	(27.3-35.9)	(15.9-23.7)	(7.7-19.3)	(24.9-30.1)
Sexual health clinic	66	57	34	22	52
95% C.I.	(60.2-70.7)	(53.0-61.8)	(29.8-39.2)	(15.7-30.2)	(49.5-54.9)
Family planning clinic	76	69	49	27	64
95% C.I.	(70.4-80.1)	(64.9-73.1)	(44.2-53.5)	(20.0-34.9)	(60.9-66.3)
Young people's drop-in centre	39	39	25	16	34
95% C.I.	(33.2-44.5)	(34.9-43.5)	(21.2-29.5)	(10.4-22.8)	(31.5-36.9)
All of these	24	22	14	10	20
95% C.I.	(19.6-29.8)	(18.1-25.4)	(10.9-17.7)	(6.1-16.4)	(17.6-22.3)
None of these	1	0	1	1	1
95% C.I.	(0.1-2.8)	(0.0-0.7)	(0.4-2.0)	(0.4-5.1)	(0.3-1.1)
Don't know	2	2	11	37	6
95% C.I.	(0.5-4.7)	(1.5-4.0)	(8.6-14.1)	(29.0-45.6)	(5.3-7.6)
Mean no. of places mentioned[b]	3.8	3.6	2.7	2.4	3.4
95% C.I.	(3.6-4.0)	(3.4-3.7)	(2.5-2.9)	(2.0-2.8)	(3.3-3.5)

Continued…

Table 9.7 *- Continued*

Aged 16 and over *2008/2009 combined*

Places mentioned[a]	Age				Total
	16-34	35-54	55-74	75+	
	%	%	%	%	%
All adults					
GP	83	80	64	43	75
95% C.I.	(80.0-86.5)	(77.4-82.9)	(60.7-67.4)	(36.7-49.9)	(73.5-77.1)
Pharmacist/chemist	74	64	55	35	63
95% C.I.	(69.9-77.7)	(60.3-67.0)	(51.2-58.6)	(29.1-41.7)	(61.1-65.3)
Accident and emergency dept.	29	26	18	15	24
95% C.I.	(25.3-33.4)	(22.8-28.8)	(15.5-21.4)	(10.8-20.8)	(22.5-26.4)
Sexual health clinic	63	54	38	23	51
95% C.I.	(58.3-66.8)	(50.2-57.0)	(34.5-41.6)	(18.0-29.5)	(48.8-53.1)
Family planning clinic	65	65	49	30	59
95% C.I.	(60.2-69.3)	(61.4-67.9)	(45.4-52.7)	(23.7-36.2)	(56.8-61.3)
Young people's drop-in centre	34	31	24	17	29
95% C.I.	(30.2-38.7)	(27.6-33.7)	(21.1-27.5)	(12.4-22.5)	(27.4-31.5)
All of these	22	17	14	11	17
95% C.I.	(18.1-25.7)	(14.8-19.9)	(11.2-16.5)	(7.9-16.5)	(15.8-19.2)
None of these	0	0	1	2	0
95% C.I.	(0.1-1.3)	(0.0-0.7)	(0.3-0.9)	(0.7-0.9)	(0.2-1.0)
Don't know	3	3	11	31	7
95% C.I.	(1.6-4.7)	(2.5-4.9)	(9.4-13.9)	(25.6-38.0)	(5.8-7.7)
Mean no. of places mentioned[b]	3.6	3.3	2.8	2.4	3.2
95% C.I.	(3.4-3.8)	(3.2-3.4)	(2.6-3.0)	(2.0-2.7)	(3.1-3.3)
Bases (weighted):					
Men	*536*	*633*	*412*	*77*	*1658*
Men (no. of places)	*514*	*604*	*363*	*58*	*1540*
Women	*546*	*687*	*439*	*104*	*1776*
Women (no. of places)	*537*	*670*	*390*	*66*	*1664*
All adults	*1082*	*1320*	*851*	*181*	*3434*
All adults (no. of places)	*1052*	*1274*	*753*	*124*	*3203*
Bases (unweighted):					
Men	*287*	*572*	*471*	*102*	*1432*
Men (no. of places)	*274*	*545*	*416*	*77*	*1312*
Women	*459*	*670*	*584*	*154*	*1867*
Women (no. of places)	*455*	*650*	*511*	*95*	*1711*
All adults	*746*	*1242*	*1055*	*256*	*3299*
All adults (no. of places)	*729*	*1195*	*927*	*172*	*3023*

a The figures for each individual place mentioned include the percentage of people who chose the “all of these” option

b Mean no. of places mentioned is based on all those who mentioned at least one place

Table 9.8a Awareness of where to access the morning after pill by equivalised household income quintile

Aged 16 and over *2008/2009 combined*

Places mentioned[a]	Equivalised annual household income quintile				
	1st (highest)	2nd	3rd	4th	5th (lowest)
	%	%	%	%	%
GP	83	76	78	70	69
95% C.I.	(79.2-86.2)	(72.6-80.0)	(73.7-81.8)	(65.0-74.3)	(64.4-73.9)
Pharmacist/chemist	71	69	62	57	56
95% C.I.	(66.2-74.6)	(64.1-72.8)	(56.4-66.7)	(52.0-62.5)	(50.5-61.1)
Accident and emergency dept.	32	25	24	21	19
95% C.I.	(27.4-36.0)	(21.4-29.8)	(20.0-29.7)	(16.8-25.9)	(14.7-23.5)
Sexual health clinic	65	53	51	44	40
95% C.I.	(60.2-68.8)	(48.1-57.0)	(46.0-56.4)	(38.6-49.0)	(35.1-46.1)
Family planning clinic	69	62	61	54	49
95% C.I.	(64.2-73.1)	(57.3-66.2)	(55.8-66.0)	(48.3-59.2)	(43.6-54.4)
Young people's drop-in centre	33	30	31	28	27
95% C.I.	(29.1-37.6)	(26.2-34.6)	(25.6-36.0)	(23.4-33.2)	(22.2-32.5)
All of these	21	17	19	17	14
95% C.I.	(17.8-25.4)	(13.4-20.6)	(14.9-24.2)	(13.1-21.7)	(10.3-18.6)
None of these	0	0	0	1	1
95% C.I.	(0.0-0.6)	(0.0-0.3)	(0.2-1.2)	(0.3-2.9)	(0.5-2.1)
Don't know	4	5	6	8	11
95% C.I.	(2.2-6.0)	(3.1-7.0)	(4.2-8.1)	(6.3-11.3)	(8.2-13.8)
Mean no. of places mentioned[b]	3.6	3.3	3.3	3.0	2.9
95% C.I.	(3.5-3.8)	(3.1-3.5)	(3.0-3.5)	(2.8-3.2)	(2.7-3.1)
Bases (weighted):					
Adults	*765*	*707*	*621*	*506*	*491*
Adults (no. of places)	*737*	*674*	*585*	*463*	*439*
Bases (unweighted):					
Adults	*670*	*654*	*569*	*534*	*582*
Adults (no. of places)	*646*	*615*	*522*	*480*	*510*

a The figures for each individual place mentioned include the percentage of people who chose the "all of these" option

b Mean no. of places mentioned is based on all those who mentioned at least one place

Table 9.8b Awareness of where to access the morning after pill by NS-SEC of household reference person

Aged 16 and over *2008/2009 combined*

Places mentioned[a]	NS-SEC of household reference person				
	Managerial & professional	Intermediate	Small employers & own account workers	Lower supervisory & technical	Semi-routine and routine
	%	%	%	%	%
GP	79	77	80	75	69
95% C.I.	(76.1-81.7)	(70.9-81.4)	(73.7-84.7)	(69.0-80.3)	(65.7-72.8)
Pharmacist/chemist	68	66	61	63	57
95% C.I.	(65.0-71.3)	(59.4-71.4)	(53.1-68.1)	(55.9-68.9)	(52.6-60.4)
Accident and emergency dept.	28	25	24	22	20
95% C.I.	(25.1-31.3)	(19.3-31.6)	(17.7-30.6)	(16.5-28.4)	(16.8-23.4)
Sexual health clinic	57	56	48	48	42
95% C.I.	(53.7-60.7)	(50.0-62.2)	(40.3-55.4)	(41.7-55.1)	(38.4-46.2)
Family planning clinic	64	61	59	56	52
95% C.I.	(60.7-67.9)	(54.9-67.0)	(51.5-66.4)	(49.4-62.1)	(48.3-56.3)
Young people's drop-in centre	32	31	27	24	27
95% C.I.	(28.7-35.3)	(25.2-37.8)	(21.0-34.5)	(18.9-30.3)	(23.9-31.4)
All of these	20	19	18	13	15
95% C.I.	(17.3-23.0)	(14.2-26.0)	(13.1-25.1)	(8.8-17.9)	(11.8-17.8)
None of these	0	0	0	1	1
95% C.I.	(0.1-0.7)	(0.0-1.6)	(0.0-1.3)	(0.2-3.9)	(0.2-1.1)
Don't know	5	9	5	4	9
95% C.I.	(4.1-6.9)	(6.5-13.5)	(2.7-8.9)	(2.6-7.3)	(7.2-11.1)
Mean no. of places mentioned[b]	3.5	3.5	3.1	3.0	2.9
95% C.I.	(3.3-3.6)	(3.2-3.7)	(2.8-3.4)	(2.8-3.3)	(2.8-3.1)
Bases (weighted):					
Adults	*1402*	*337*	*261*	*375*	*1000*
Adults (no. of places)	*1328*	*306*	*248*	*359*	*911*
Bases (unweighted):					
Adults	*1225*	*359*	*252*	*346*	*1058*
Adults (no. of places)	*1142*	*324*	*237*	*325*	*941*

a The figures for each individual place mentioned include the percentage of people who chose the "all of these" option

b Mean no. of places mentioned is based on all those who mentioned at least one place

Table 9.8c Awareness of where to access the morning after pill by Scottish Index of Multiple Deprivation quintile

Aged 16 and over *2008/2009 combined*

Places mentioned[a]	Scottish Index of Multiple Deprivation quintile				
	5th (least deprived)	4th	3rd	2nd	1st (most deprived)
	%	%	%	%	%
GP	74	79	77	74	72
95% C.I.	(69.8-78.0)	(74.7-82.3)	(73.2-80.8)	(69.9-78.2)	(67.5-75.7)
Pharmacist/chemist	68	63	63	62	60
95% C.I.	(62.9-72.0)	(58.8-67.9)	(58.0-67.5)	(57.9-66.7)	(55.2-63.7)
Accident and emergency dept.	26	24	27	25	20
95% C.I.	(21.4-30.4)	(20.0-28.2)	(22.8-32.6)	(20.8-29.7)	(16.6-24.1)
Sexual health clinic	59	51	52	47	46
95% C.I.	(53.7-63.2)	(45.9-55.5)	(47.4-57.1)	(42.1-51.8)	(41.7-50.6)
Family planning clinic	64	61	61	56	54
95% C.I.	(59.2-68.6)	(55.6-65.2)	(56.2-65.8)	(50.4-60.6)	(49.1-58.0)
Young people's drop-in centre	30	28	32	29	28
95% C.I.	(25.9-35.0)	(23.8-32.3)	(26.9-36.7)	(24.9-34.2)	(24.2-33.1)
All of these	19	17	19	18	14
95% C.I.	(15.3-23.7)	(13.6-20.4)	(15.4-24.2)	(14.4-22.6)	(10.8-17.5)
None of these	-	1	1	0	1
95% C.I.	(0.0-0.0)	(0.4-1.6)	(0.2-1.3)	(0.0-0.4)	(0.2-2.4)
Don't know	7	5	7	8	7
95% C.I.	(5.2-9.6)	(3.9-7.4)	(4.6-9.2)	(5.6-10.1)	(5.4-9.5)
Mean no. of places mentioned[b]	3.4	3.2	3.3	3.2	3.0
95% C.I.	(3.2-3.6)	(3.0-3.4)	(3.1-3.5)	(3.0-3.4)	(2.8-3.2)
Bases (weighted):					
Adults	*320*	*405*	*281*	*326*	*315*
Adults (no. of places)	*649*	*751*	*587*	*621*	*596*
Bases (unweighted):					
Adults	*264*	*371*	*310*	*311*	*329*
Adults (no. of places)	*515*	*683*	*601*	*593*	*631*

a The figures for each individual place mentioned include the percentage of people who chose the "all of these" option

b Mean no. of places mentioned is based on all those who mentioned at least one place

Table 9.9 Attitudes to condom use with a new partner by age and sex

Aged 16 and over who thought the question applied to them[a] *2008/2009 combined*

Attitudes to condom use (full question text below)	Age				Total
	16-34	35-54	55-74	75+	
	%	%	%	%	%
If I wanted to have sexual intercourse with a new partner, I would ask if we could use a condom					
Men					
Agree	91	95	92	87	92
95% C.I.	(84.6-94.4)	(91.8-96.3)	(88.2-94.7)	(71.7-94.6)	(89.9-94.2)
Neither agree nor disagree	5	4	4	7	5
95% C.I.	(2.7-9.7)	(2.5-6.5)	(2.3-7.7)	(1.9-23.4)	(3.2-6.4)
Disagree	3	1	1	3	2
95% C.I.	(1.0-7.5)	(0.4-2.2)	(0.6-3.8)	(0.8-11.9)	(0.9-3.3)
Don't know	1	1	2	3	1
95% C.I.	(0.3-6.3)	(0.2-2.2)	(1.2-4.5)	(0.4-17.5)	(0.7-2.7)
Women					
Agree	96	98	93	[87]	96
95% C.I.	(92.3-97.8)	(95.9-98.6)	(89.9-95.4)	(73.5-94.4)	(94.5-96.9)
Neither agree nor disagree	2	1	3	[2]	2
95% C.I.	(0.7-5.2)	(0.4-2.3)	(1.5-5.4)	(0.3-15.3)	(1.1-2.8)
Disagree	1	1	2	[8]	1
95% C.I.	(0.5-3.8)	(0.3-2.1)	(0.8-4.2)	(2.6-21.4)	(0.8-2.2)
Don't know	1	1	2	[2]	1
95% C.I.	(0.2-3.4)	(0.3-1.7)	(1.0-4.1)	(0.4-14.5)	(0.6-1.8)
All adults					
Agree	93	96	93	87	94
95% C.I.	(89.9-95.5)	(94.6-97.2)	(90.2-94.4)	(77.1-93.1)	(92.7-95.2)
Neither agree nor disagree	4	2	4	5	3
95% C.I.	(2.1-6.1)	(1.6-3.7)	(2.3-5.5)	(1.7-15.6)	(2.4-4.2)
Disagree	2	1	2	5	2
95% C.I.	(1.0-4.4)	(0.4-1.6)	(0.9-3.1)	(2.1-11.3)	(1.0-2.4)
Don't know	1	1	2	3	1
95% C.I.	(0.4-3.3)	(0.3-1.4)	(1.3-3.6)	(0.6-10.5)	(0.7-1.9)

Continued…

Table 9.9 - *Continued*

Aged 16 and over who thought the question applied to them[a] *2008/2009 combined*

Attitudes to condom use (full question text below)	Age				Total
	16-34	35-54	55-74	75+	
	%	%	%	%	%
If I wanted to have sexual intercourse with a new partner, I would stop if we had no condoms					
Men					
Agree	68	78	86	[88]	77
95% C.I.	(60.9-75.1)	(73.8-82.4)	(80.5-90.0)	(70.5-95.6)	(73.0-79.8)
Neither agree nor disagree	16	12	5	[7]	12
95% C.I.	(10.6-22.3)	(9.4-16.1)	(2.4-8.8)	(1.5-28.1)	(9.4-14.7)
Disagree	11	6	7	[5]	8
95% C.I.	(6.8-16.0)	(4.2-9.4)	(4.1-11.4)	(1.6-14.7)	(6.1-10.3)
Don't know	5	3	3	[-]	4
95% C.I.	(2.8-10.1)	(1.6-5.3)	(1.2-5.3)	(0.0-0.0)	(2.4-5.5)
Women					
Agree	89	93	94	[84]	91
95% C.I.	(84.8-91.8)	(90.0-95.0)	(91.1-96.0)	(66.1-93.8)	(89.6-93.1)
Neither agree nor disagree	7	4	3	[4]	5
95% C.I.	(4.3-10.3)	(2.4-5.9)	(1.8-5.7)	(1.0-14.8)	(3.5-6.3)
Disagree	3	2	1	[5]	2
95% C.I.	(1.4-4.9)	(1.0-4.3)	(0.5-2.7)	(1.4-17.5)	(1.4-3.3)
Don't know	2	1	2	[6]	2
95% C.I.	(0.9-3.9)	(0.6-2.6)	(0.8-3.5)	(1.6-22.0)	(1.1-2.5)
All adults					
Agree	79	86	90	86	84
95% C.I.	(74.2-82.3)	(83.3-88.2)	(86.8-92.4)	(74.8-93.2)	(82.1-86.0)
Neither agree nor disagree	11	8	4	6	8
95% C.I.	(8.3-14.9)	(6.3-10.0)	(2.5-6.2)	(1.8-17.4)	(6.9-9.9)
Disagree	7	4	4	5	5
95% C.I.	(4.5-9.6)	(2.9-5.9)	(2.5-6.5)	(2.2-11.6)	(4.0-6.3)
Don't know	4	2	2	3	3
95% C.I.	(2.2-6.0)	(1.3-3.2)	(1.2-3.6)	(0.6-10.3)	(1.9-3.6)
Bases (weighted):[b]					
Men	*(521-511)*	*(565-564)*	*(302-292)*	*(42-34)*	*(1431-1402)*
Women	*(512-508)*	*(617-611)*	*(292-286)*	*(26-25)*	*(1447-1430)*
All adults	*(1033-1019)*	*(1183-1175)*	*(594-579)*	*(68-59)*	*(2878-2832)*
Bases (unweighted):					
Men	*(277-273)*	*(517-517)*	*(346-332)*	*(53-44)*	*(1193-1166)*
Women	*(434-434)*	*(601-595)*	*(379-371)*	*(39-38)*	*(1453-1438)*
All adults	*(711-707)*	*(1118-1112)*	*(725-703)*	*(92-82)*	*(2646-2604)*

a Participants who picked the option “does not apply to me” have been excluded from the table

b Bases vary for each question, the figures for the first question in the table are shown first in the brackets

Table 9.10 Attitudes to condom use and STI prevention by age and sex

Aged 16 and over who thought the question applied to them[a] *2008/2009 combined*

Attitudes to condom use (full question text below)	Age				Total
	16-34	35-54	55-74	75+	
	%	%	%	%	%
It is necessary to use a condom with a new partner to help protect against sexually transmitted infections (STIs), including HIV, even if you are using some other method of contraception					
Men					
Agree	96	97	97	93	96
95% C.I.	(92.7-97.7)	(95.1-98.1)	(95.0-98.3)	(83.0-97.6)	(95.2-97.4)
Neither agree nor disagree	2	2	1	3	2
95% C.I.	(0.7-4.5)	(0.9-3.4)	(0.5-3.1)	(0.7-10.9)	(1.1-2.7)
Disagree	1	0	0	4	1
95% C.I.	(0.4-3.3)	(0.1-0.8)	(0.1-1.4)	(0.9-14.7)	(0.4-1.4)
Don't know	1	1	1	-	1
95% C.I.	(0.4-3.3)	(0.4-2.5)	(0.7-2.8)	(0.0-0.0)	(0.6-1.9)
Women					
Agree	96	99	96	84	97
95% C.I.	(92.7-98.1)	(97.2-99.4)	(92.5-97.7)	(72.6-91.7)	(95.5-97.8)
Neither agree nor disagree	2	0	2	6	1
95% C.I.	(0.8-5.8)	(0.1-1.3)	(0.8-3.8)	(2.1-14.6)	(0.8-2.5)
Disagree	0	1	1	1	1
95% C.I.	(0.1-1.1)	(0.2-2.1)	(0.3-4.9)	(0.2-9.9)	(0.3-1.4)
Don't know	1	0	1	8	1
95% C.I.	(0.5-3.7)	(0.1-1.3)	(0.4-3.4)	(3.3-19.7)	(0.6-1.9)
All adults					
Agree	96	98	96	89	97
95% C.I.	(93.9-97.4)	(96.8-98.6)	(94.6-97.6)	(81.7-93.6)	(95.8-97.4)
Neither agree nor disagree	2	1	1	4	2
95% C.I.	(1.0-3.9)	(0.6-1.8)	(0.8-2.7)	(1.9-9.3)	(1.1-2.2)
Disagree	1	1	1	3	1
95% C.I.	(0.3-1.8)	(0.2-1.2)	(0.2-2.4)	(0.8-8.3)	(0.4-1.2)
Don't know	1	1	1	4	1
95% C.I.	(0.6-2.6)	(0.3-1.4)	(0.7-2.4)	(1.6-10.3)	(0.7-1.6)

Continued…

Table 9.10 - *Continued*

Aged 16 and over who thought the question applied to them[a] *2008/2009 combined*

Attitudes to condom use (full question text below)	Age				Total
	16-34	35-54	55-74	75+	
	%	%	%	%	%
Once a new sexual partner has become a regular partner, we would both get tested for STIs before stopping using condoms					
Men					
Agree	64	62	79	83	66
95% C.I.	(56.1-70.5)	(56.3-66.6)	(73.0-83.6)	(70.5-90.7)	(62.7-70.0)
Neither agree nor disagree	21	25	14	6	20
95% C.I.	(15.5-27.1)	(20.6-29.5)	(9.9-18.9)	(2.2-16.9)	(17.7-23.6)
Disagree	11	11	4	4	10
95% C.I.	(6.9-16.8)	(8.4-15.1)	(2.4-7.9)	(1.3-12.3)	(7.4-12.2)
Don't know	5	2	3	7	4
95% C.I.	(2.5-8.8)	(1.1-4.8)	(1.7-5.7)	(2.5-17.0)	(2.4-5.2)
Women					
Agree	77	76	84	[67]	78
95% C.I.	(71.2-81.1)	(71.6-79.5)	(79.6-87.9)	(50.6-80.4)	(74.8-80.0)
Neither agree nor disagree	15	17	8	[7]	14
95% C.I.	(11.5-20.6)	(13.8-20.5)	(5.7-12.1)	(2.4-16.8)	(12.3-17.0)
Disagree	5	5	4	[13]	5
95% C.I.	(3.0-7.5)	(3.2-7.1)	(2.1-6.4)	(4.9-29.3)	(3.6-6.1)
Don't know	3	3	4	[13]	3
95% C.I.	(1.8-5.7)	(1.6-4.2)	(2.2-6.5)	(5.5-29.2)	(2.4-4.4)
All adults					
Agree	70	69	81	76	72
95% C.I.	(65.5-74.1)	(65.6-72.1)	(77.8-84.6)	(65.8-84.1)	(69.8-74.2)
Neither agree nor disagree	18	21	11	6	17
95% C.I.	(14.8-22.0)	(18.0-23.6)	(8.6-14.2)	(2.9-13.7)	(15.7-19.4)
Disagree	8	8	4	8	7
95% C.I.	(5.6-11.0)	(6.2-10.0)	(2.6-6.1)	(3.7-16.0)	(5.9-8.5)
Don't know	4	2	3	10	3
95% C.I.	(2.5-6.2)	(1.6-3.8)	(2.3-5.2)	(4.9-17.9)	(2.6-4.4)
Bases (weighted):[b]					
Men	*(521-517)*	*(588-557)*	*(312-292)*	*(38-39)*	*(1459-1405)*
Women	*(514-503)*	*(630-601)*	*(308-283)*	*(37-30)*	*(1489-1417)*
All adults	*(1034-1020)*	*(1218-1158)*	*(620-575)*	*(75-69)*	*(2947-2822)*
Bases (unweighted):					
Men	*(278-274)*	*(535-513)*	*(359-333)*	*(52-51)*	*(1224-1171)*
Women	*(440-431)*	*(618-583)*	*(401-367)*	*(52-43)*	*(1511-1424)*
All adults	*(718-705)*	*(1153-1096)*	*(760-700)*	*(104-94)*	*(2735-2595)*

a Participants who picked the option “does not apply to me” have been excluded from the table

b Bases vary for each question, the figures for the first question in the table are shown first in the brackets

Table 9.11a Attitudes to condom use with a new partner by equivalised household income quintile

Aged 16 and over who thought the question applied to them[a] *2008/2009 combined*

Attitudes to condom use (full question text below)	Equivalised annual household income quintile				
	1st (highest)	2nd	3rd	4th	5th (lowest)
	%	%	%	%	%
If I wanted to have sexual intercourse with a new partner, I would ask if we could use a condom					
Agree	96	97	91	93	92
95% C.I.	(94.4-97.5)	(95.2-98.3)	(84.6-94.6)	(89.9-95.6)	(87.7-94.3)
Neither agree nor disagree	2	2	4	3	4
95% C.I.	(1.1-3.2)	(1.3-4.2)	(2.0-9.3)	(1.5-6.3)	(2.6-7.5)
Disagree	1	0	3	3	2
95% C.I.	(0.4-2.3)	(0.1-1.6)	(1.2-8.1)	(1.5-4.8)	(1.0-4.0)
Don't know	1	0	2	1	2
95% C.I.	(0.5-2.1)	(0.1-0.8)	(0.5-6.3)	(0.4-2.3)	(0.9-4.2)
If I wanted to have sexual intercourse with a new partner, I would stop if we had no condoms					
Agree	85	85	84	83	81
95% C.I.	(81.2-88.9)	(80.1-88.2)	(78.1-89.0)	(77.9-87.9)	(76.1-85.6)
Neither agree nor disagree	9	8	6	8	10
95% C.I.	(6.0-12.5)	(5.4-11.5)	(3.1-10.8)	(4.8-12.0)	(6.8-14.0)
Disagree	4	5	7	6	6
95% C.I.	(2.2-6.7)	(3.1-8.4)	(3.9-11.3)	(3.2-10.0)	(3.8-9.8)
Don't know	2	2	3	3	3
95% C.I.	(1.0-3.5)	(1.4-4.3)	(1.2-7.8)	(1.4-6.8)	(1.4-5.2)
Bases (weighted):[b]	*(683-668)*	*(620-617)*	*(499-490)*	*(401-387)*	*(413-410)*
Bases (unweighted):	*(588-573)*	*(560-554)*	*(436-427)*	*(398-382)*	*(466-464)*

a Participants who picked the option “does not apply to me” have been excluded from the table

b Bases vary for each question, the figures for the first question in the table are shown first in the brackets

Table 9.11b Attitudes to condom use with a new partner by NS-SEC of household reference person

Aged 16 and over who thought the question applied to them[a] *2008/2009 combined*

Attitudes to condom use (full question text below)	NS-SEC of household reference person				
	Managerial & professional	Intermediate	Small employers & own account workers	Lower supervisory & technical	Semi-routine and routine
	%	%	%	%	%
If I wanted to have sexual intercourse with a new partner, I would ask if we could use a condom					
Agree	95	95	92	92	93
95% C.I.	(92.9-97.0)	(92.0-97.3)	(84.1-96.1)	(85.2-95.7)	(91.1-94.9)
Neither agree nor disagree	1	3	7	7	3
95% C.I.	(0.9-2.3)	(1.5-6.0)	(2.9-14.7)	(3.5-13.9)	(2.1-5.1)
Disagree	2	1	0	1	2
95% C.I.	(0.7-3.7)	(0.5-3.8)	(0.1-1.6)	(0.2-3.1)	(1.3-3.4)
Don't know	2	0	1	0	1
95% C.I.	(0.8-3.3)	(0.0-1.7)	(0.1-6.4)	(0.0-1.2)	(0.8-2.4)
If I wanted to have sexual intercourse with a new partner, I would stop if we had no condoms					
Agree	85	81	79	85	84
95% C.I.	(81.9-88.2)	(74.2-86.6)	(69.5-85.6)	(78.3-90.0)	(80.4-87.2)
Neither agree nor disagree	7	7	13	8	9
95% C.I.	(5.4-10.0)	(4.1-10.8)	(7.6-22.2)	(3.9-14.1)	(6.8-12.5)
Disagree	5	8	6	4	4
95% C.I.	(3.3-7.1)	(4.1-14.2)	(2.8-12.6)	(1.7-8.3)	(3.0-6.4)
Don't know	2	4	2	4	2
95% C.I.	(1.4-4.4)	(1.9-9.6)	(0.7-5.7)	(1.9-6.8)	(1.4-3.7)
Bases (weighted):[b]	*(1196-1178)*	*(290-282)*	*(219-222)*	*(311-306)*	*(814-802)*
Bases (unweighted):	*(1000-979)*	*(294-286)*	*(203-207)*	*(279-274)*	*(824-814)*

a Participants who picked the option “does not apply to me” have been excluded from the table
b Bases vary for each question, the figures for the first question in the table are shown first in the brackets

Table 9.11c Attitudes to condom use with a new partner by Scottish Index of Multiple Deprivation quintile

Aged 16 and over who thought the question applied to them[a] *2008/2009 combined*

Attitudes to condom use (full question text below)	Scottish Index of Multiple Deprivation quintile				
	5th (least deprived)	4th	3rd	2nd	1st (most deprived)
	%	%	%	%	%
If I wanted to have sexual intercourse with a new partner, I would ask if we could use a condom					
Agree	95	96	96	92	92
95% C.I.	(90.8-96.8)	(93.8-97.6)	(93.8-97.6)	(87.8-94.5)	(88.0-94.4)
Neither agree nor disagree	3	2	3	5	4
95% C.I.	(1.3-5.8)	(0.7-3.4)	(1.5-5.0)	(3.2-9.4)	(2.3-5.7)
Disagree	0	1	1	2	3
95% C.I.	(0.1-1.7)	(0.6-3.2)	(0.5-2.0)	(0.8-3.6)	(1.5-7.3)
Don't know	2	1	0	1	1
95% C.I.	(1.0-5.6)	(0.4-2.3)	(0.0-1.3)	(0.4-2.9)	(0.7-2.5)
If I wanted to have sexual intercourse with a new partner, I would stop if we had no condoms					
Agree	85	86	84	84	82
95% C.I.	(79.7-89.0)	(82.2-89.6)	(78.6-87.7)	(78.7-87.4)	(76.8-85.6)
Neither agree nor disagree	9	6	9	8	9
95% C.I.	(5.6-13.8)	(4.1-10.0)	(6.0-13.4)	(5.5-11.8)	(6.4-12.8)
Disagree	4	4	5	6	5
95% C.I.	(2.5-7.9)	(2.4-7.3)	(3.1-8.9)	(3.6-10.0)	(3.4-7.9)
Don't know	2	3	2	2	4
95% C.I.	(0.8-3.8)	(1.8-5.2)	(1.1-3.8)	(1.3-4.2)	(1.9-8.2)
Bases (weighted):[b]	*(584-575)*	*(671-651)*	*(520-512)*	*(557-554)*	*(545-540)*
Bases (unweighted):	*(447-438)*	*(593-580)*	*(507-501)*	*(524-520)*	*(575-565)*

a Participants who picked the option “does not apply to me” have been excluded from the table

b Bases vary for each question, the figures for the first question in the table are shown first in the brackets

Table 9.12a Attitudes to condom use and STI prevention by equivalised household income quintile

Aged 16 and over who thought the question applied to them[a] *2008/2009 combined*

Attitudes to condom use (full question text below)	Equivalised annual household income quintile				
	1st (highest)	2nd	3rd	4th	5th (lowest)
	%	%	%	%	%
It is necessary to use a condom with a new partner to help protect against sexually transmitted infections (STIs), including HIV, even if you are using some other method of contraception					
Agree	98	98	97	96	93
95% C.I.	(96.4-99.1)	(95.5-98.7)	(95.6-98.5)	(93.9-97.7)	(88.4-95.7)
Neither agree nor disagree	1	1	2	1	4
95% C.I.	(0.3-1.7)	(0.5-2.4)	(0.8-3.4)	(0.4-2.5)	(1.6-8.3)
Disagree	0	1	0	1	1
95% C.I.	(0.1-1.9)	(0.1-2.4)	(0.1-1.8)	(0.5-3.1)	(0.5-3.2)
Don't know	1	1	0	1	2
95% C.I.	(0.2-2.4)	(0.2-2.6)	(0.2-1.2)	(0.7-3.1)	(1.0-4.6)
Once a new sexual partner has become a regular partner, we would both get tested for STIs before stopping using condoms.					
Agree	66	72	71	77	77
95% C.I.	(61.3-70.6)	(67.5-76.3)	(64.7-76.5)	(70.7-81.6)	(71.2-81.3)
Neither agree nor disagree	22	18	18	14	13
95% C.I.	(18.2-26.6)	(15.0-22.5)	(13.4-23.5)	(10.1-18.7)	(9.3-18.3)
Disagree	9	6	9	7	6
95% C.I.	(6.5-11.7)	(4.2-9.5)	(5.3-14.2)	(4.0-11.2)	(3.8-8.8)
Don't know	3	3	2	3	4
95% C.I.	(1.7-5.4)	(1.9-5.0)	(1.3-4.4)	(1.6-5.1)	(2.6-7.4)
Bases (weighted):[b]	*(710-657)*	*(645-614)*	*(502-488)*	*(404-382)*	*(413-415)*
Bases (unweighted):	*(614-562)*	*(581-553)*	*(447-429)*	*(403-377)*	*(471-469)*

a Participants who picked the option “does not apply to me” have been excluded from the table

b Bases vary for each question, the figures for the first question in the table are shown first in the brackets

Table 9.12b Attitudes to condom use and STI prevention by NS-SEC of household reference person

Aged 16 and over who thought the question applied to them[a] *2008/2009 combined*

Attitudes to condom use (full question text below)	NS-SEC of household reference person				
	Managerial & professional	Intermediate	Small employers & own account workers	Lower supervisory & technical	Semi-routine and routine
	%	%	%	%	%
It is necessary to use a condom with a new partner to help protect against sexually transmitted infections (STIs), including HIV, even if you are using some other method of contraception					
Agree	97	96	97	97	96
95% C.I.	(95.8-98.4)	(93.1-97.7)	(93.4-98.7)	(95.0-98.5)	(93.8-97.1)
Neither agree nor disagree	2	2	1	1	1
95% C.I.	(0.9-3.2)	(1.0-5.0)	(0.4-3.8)	(0.6-2.9)	(0.6-2.7)
Disagree	0	1	0	0	1
95% C.I.	(0.1-1.4)	(0.2-2.0)	(0.1-1.5)	(0.0-2.1)	(0.7-2.6)
Don't know	0	1	2	1	2
95% C.I.	(0.1-1.3)	(0.5-2.7)	(0.4-5.3)	(0.3-3.4)	(1.0-2.9)
Once a new sexual partner has become a regular partner, we would both get tested for STIs before stopping using condoms					
Agree	69	69	73	75	76
95% C.I.	(65.2-72.4)	(61.7-75.5)	(64.6-80.3)	(67.2-81.1)	(71.8-79.6)
Neither agree nor disagree	20	17	18	20	14
95% C.I.	(16.9-22.8)	(11.9-22.5)	(12.1-26.4)	(13.8-27.3)	(11.3-17.6)
Disagree	8	11	6	4	5
95% C.I.	(6.3-11.1)	(7.0-17.1)	(3.1-12.1)	(1.8-7.1)	(3.7-7.9)
Don't know	3	3	2	2	5
95% C.I.	(1.9-4.8)	(1.7-6.7)	(1.1-5.3)	(0.9-4.2)	(3.0-6.7)
Bases (weighted):[b]	*(1245-1164)*	*(293-276)*	*(226-223)*	*(309-301)*	*(832-816)*
Bases (unweighted):	*(1047-970)*	*(301-279)*	*(214-206)*	*(280-267)*	*(848-828)*

a Participants who picked the option “does not apply to me” have been excluded from the table

b Bases vary for each question, the figures for the first question in the table are shown first in the brackets

Table 9.12c Attitudes to condom use and STI prevention by Scottish Index of Multiple Deprivation quintile

Aged 16 and over who thought the question applied to them[a] *2008/2009 combined*

Attitudes to condom use (full question text below)	Scottish Index of Multiple Deprivation quintile				
	5th (least deprived)	4th	3rd	2nd	1st (most deprived)
	%	%	%	%	%
It is necessary to use a condom with a new partner to help protect against sexually transmitted infections (STIs), including HIV, even if you are using some other method of contraception					
Agree	98	98	96	96	95
95% C.I.	(95.8-99.0)	(96.4-98.8)	(94.2-97.8)	(92.5-97.5)	(92.8-96.8)
Neither agree nor disagree	1	1	2	3	2
95% C.I.	(0.2-2.0)	(0.3-1.3)	(1.1-3.9)	(1.2-5.5)	(1.1-4.6)
Disagree	1	1	1	1	0
95% C.I.	(0.2-2.3)	(0.3-1.9)	(0.3-2.5)	(0.3-2.7)	(0.1-1.0)
Don't know	1	1	1	1	2
95% C.I.	(0.3-2.8)	(0.3-2.1)	(0.2-1.9)	(0.3-2.9)	(1.3-3.7)
Once a new sexual partner has become a regular partner, we would both get tested for STIs before stopping using condoms					
Agree	66	72	73	72	77
95% C.I.	(60.5-71.4)	(67.4-76.3)	(67.5-78.2)	(67.0-77.2)	(71.8-80.7)
Neither agree nor disagree	25	15	18	17	13
95% C.I.	(20.5-30.6)	(11.9-18.9)	(13.5-22.9)	(13.0-21.6)	(9.9-16.1)
Disagree	5	9	7	8	7
95% C.I.	(3.3-7.6)	(6.2-12.7)	(4.5-9.7)	(5.2-11.8)	(4.3-10.3)
Don't know	4	4	2	3	4
95% C.I.	(1.9-6.5)	(2.4-6.4)	(1.4-4.3)	(1.6-5.0)	(2.4-6.6)
Bases (weighted):[b]	*(604-562)*	*(690-653)*	*(529-510)*	*(567-551)*	*(557-545)*
Bases (unweighted):	*(469-432)*	*(616-574)*	*(525-501)*	*(535-514)*	*(590-574)*

a Participants who picked the option “does not apply to me” have been excluded from the table

b Bases vary for each question, the figures for the first question in the table are shown first in the brackets

Table 9.13 Women's use of long-acting reversible contraception (LARC) by age

Women aged 16-55 *2008/2009 combined*

Use of LARC	Age				Total
	16-24	25-34	35-44	45-55	
	%	%	%	%	%
Currently using LARC	11	14	11	6	10
95% C.I.	(9.0-14.2)	(12.1-16.9)	(9.5-13.1)	(4.4-7.1)	(9.3-11.3)
Not using LARC	56	70	67	64	65
95% C.I.	(50.7-60.3)	(66.8-73.3)	(64.7-70.0)	(60.8-66.4)	(62.8-66.2)
Not sexually active	33	16	21	31	25
95% C.I.	(28.4-38.2)	(13.0-18.5)	(19.2-23.8)	(28.2-33.5)	(23.7-26.8)
Sexually active and using LARC	17	17	14	8	14
95% C.I.	(13.6-21.0)	(14.3-19.9)	(12.1-16.7)	(6.3-10.2)	(12.5-15.1)
Bases (weighted):					
Women (16-55)	*882*	*982*	*1233*	*1284*	*4381*
Women (sexually active)	*590*	*829*	*969*	*889*	*3277*
Bases (unweighted):					
Women (16-55)	*661*	*966*	*1345*	*1376*	*4348*
Women (sexually active)	*458*	*806*	*1054*	*948*	*3266*

Note: This table is based on data collected in the main SHeS interview

Table 9.14a Women's use of LARC by equivalised household income quintile

Women aged 16-55 *2008/2009 combined*

Use of LARC	Equivalised annual household income quintile				
	1st (highest)	2nd	3rd	4th	5th (lowest)
	%	%	%	%	%
Currently using LARC	7	10	12	14	11
95% C.I.	(5.0-8.4)	(8.5-12.8)	(9.9-15.2)	(10.9-17.3)	(8.9-14.2)
Not using LARC	74	72	66	58	46
95% C.I.	(70.7-77.5)	(68.8-75.7)	(61.8-69.2)	(54.0-62.7)	(41.2-50.3)
Not sexually active	19	17	22	28	43
95% C.I.	(16.3-22.5)	(14.1-20.7)	(18.9-25.6)	(24.1-31.8)	(38.4-47.8)
Sexually active and using LARC	8	13	16	19	20
95% C.I.	(6.2-10.4)	(10.3-15.3)	(12.8-19.4)	(15.2-23.7)	(15.7-24.5)
Bases (weighted):					
Women (16-55)	*1013*	*905*	*758*	*585*	*652*
Women (sexually active)	*818*	*749*	*590*	*423*	*371*
Bases (unweighted):					
Women (16-55)	*959*	*898*	*766*	*607*	*670*
Women (sexually active)	*786*	*752*	*603*	*439*	*369*

Note: This table is based on data collected in the main SHeS interview

Table 9.14b Women's use of LARC by NS-SEC of household reference person

Women aged 16-55 *2008/2009 combined*

Use of LARC	NS-SEC of household reference person				
	Managerial & professional	Intermediate	Small employers & own account workers	Lower supervisory & technical	Semi-routine and routine
	%	%	%	%	%
Currently using LARC	9	12	11	11	12
95% C.I.	(7.5-10.5)	(9.3-15.9)	(7.7-15.6)	(8.1-14.9)	(10.0-13.9)
Not using LARC	70	56	72	69	58
95% C.I.	(67.0-72.1)	(50.9-61.2)	(66.5-77.0)	(63.8-74.1)	(54.7-61.0)
Not sexually active	22	32	17	20	30
95% C.I.	(19.3-24.0)	(27.2-36.5)	(13.0-21.7)	(15.9-24.3)	(27.4-33.5)
Sexually active and using LARC	11	18	13	14	17
95% C.I.	(9.6-13.3)	(13.7-23.0)	(9.3-18.6)	(10.1-18.6)	(14.4-19.9)
Bases (weighted):					
Women (16-55)	*1870*	*475*	*340*	*413*	*1189*
Women (sexually active)	*1467*	*325*	*283*	*332*	*829*
Bases (unweighted):					
Women (16-55)	*1767*	*470*	*372*	*434*	*1220*
Women (sexually active)	*1412*	*311*	*311*	*348*	*844*

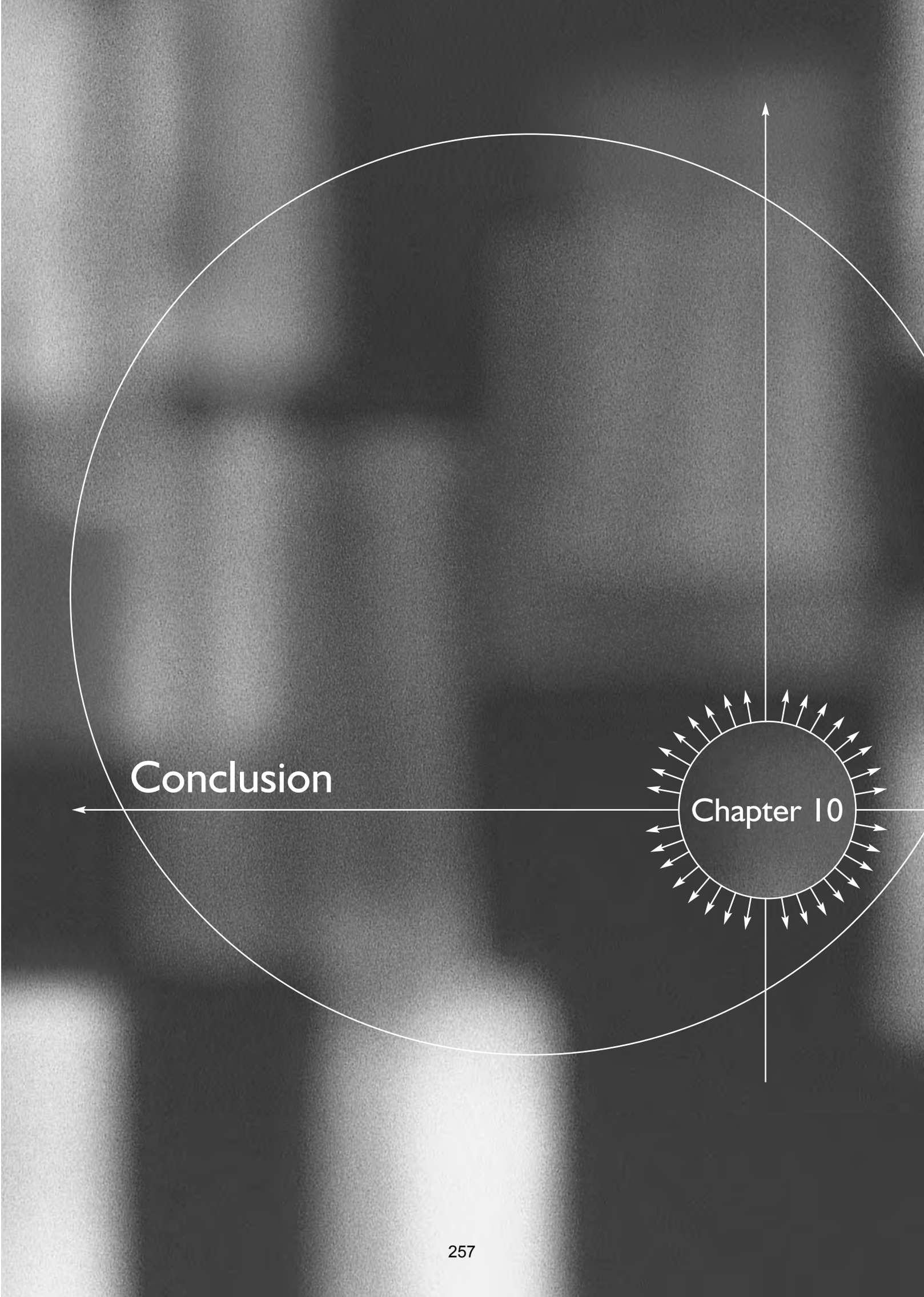
Note: This table is based on data collected in the main SHeS interview

Table 9.14c Women's use of LARC by Scottish Index of Multiple Deprivation quintile

Women aged 16-55 *2008/2009 combined*

Use of LARC	Scottish Index of Multiple Deprivation quintile				
	5th (least deprived)	4th	3rd	2nd	1st (most deprived)
	%	%	%	%	%
Currently using LARC	9	7	13	11	12
95% C.I.	(7.2-11.6)	(5.8-9.3)	(10.3-15.4)	(8.5-13.3)	(9.7-14.4)
Not using LARC	69	72	64	60	57
95% C.I.	(64.2-73.0)	(68.6-75.0)	(60.2-68.0)	(56.8-64.0)	(53.4-61.2)
Not sexually active	22	21	23	29	31
95% C.I.	(18.1-26.8)	(18.0-23.8)	(19.9-26.8)	(25.5-32.5)	(27.3-34.5)
Sexually active and using LARC	12	9	16	15	17
95% C.I.	(9.2-14.7)	(7.3-11.7)	(13.4-20.0)	(12.1-18.5)	(14.1-20.8)
Bases (weighted):					
Women (16-55)	*892*	*896*	*792*	*908*	*893*
Women (sexually active)	*695*	*710*	*608*	*646*	*618*
Bases (unweighted):					
Women (16-55)	*778*	*999*	*877*	*839*	*855*
Women (sexually active)	*626*	*789*	*676*	*593*	*582*

Note: This table is based on data collected in the main SHeS interview



Chapter 10

Conclusion

10 CONCLUSION

10.1 INTRODUCTION

The first part of this chapter presents a brief overview of some of the main themes emerging from the report and draws mainly on chapters 3 to 8. It starts by discussing the extent to which there are perception-behaviour gaps across the topics covered in the report, based on the analyses in the chapters that compare people's perceptions of their health and lifestyle with objective measures collected in the main Scottish Health Survey (SHeS) interview. It then looks at the extent to which knowledge and behaviour, and motivations and behaviour, correspond. As the sexual health questions within Knowledge, Attitudes and Motivations to health (KAM) module did not include behavioural measures, or questions about behavioural change in the same format as chapters 4-8, its findings are not drawn on for this discussion of themes emerging from across the report. The conclusions to chapter 9 do, of course, draw some useful inferences about that topic.

The second, shorter, part of this chapter makes some suggestions for topics or analyses that could be included in future reports.

10.2 MAIN THEMES EMERGING FROM THE REPORT

10.2.1 Gaps between perceptions and behaviour

Chapters 4 to 8 all contained findings that suggest there is a gap, in some cases quite a large one, between people's perceptions of their health or behaviour and their actual behaviour, as measured in the main SHeS interview. For example, 19% of people who exceed the government guidelines for alcohol consumption described themselves as a very light or occasional drinker and a further 32% said they were a light but regular drinker. Most people (around 88%) think they have a very or fairly healthy diet, though less than a quarter of adults in Scotland eat at least five portions of fruit and vegetables a day. The correspondence between perceptions of physical activity and self-reported activity levels was a little better (only a third of people with a very low activity level thought they did enough to stay healthy), though it is notable that older people were the most likely to think they do enough to stay healthy while having the lowest activity levels. Finally, perceptions of weight were largely accurate for adults with a healthy body mass index, but they were less accurate among underweight, overweight and obese people.

10.2.2 The limits of knowledge

Knowledge of health messages varied across the topics explored. The five a day fruit and vegetable recommendations are very well known (82% knew them). In contrast, just under one in four knew the physical activity recommendations, and fewer still were aware of the maximum alcohol units recommended for a day or for a single session.

A cross-sectional survey at one point in time can only identify associations between knowledge and behaviour, it would not be able to establish a direct causal link between someone having higher levels of knowledge and being more likely to adhere to health messages. However, there is very little evidence in this report that knowledge of health messages is associated with better health behaviour. For example, higher levels of alcohol consumption in fact appear to be related to somewhat higher levels of knowledge about the daily limits for both men and women. While people who knew the five a day fruit and vegetable portion recommendations were more likely to meet them, as many as 82% of people who did not meet them still knew the advice. This suggests that further gains in knowledge of the advice might make little difference to efforts to improve diets. People who thought the physical activity recommendations were to do more than 30 minutes on at least five days a week, or did not know them, were more likely to have low activity levels than people who thought less activity was advised, or who knew the advice. Furthermore, the fact that only a quarter of people active at the recommended level correctly identified the advice suggests a weak association exists between knowledge and behaviour for this aspect.

It is, of course, possible that knowledge and behaviour are strongly correlated, but that the survey measured the wrong kinds of knowledge. For example, awareness of the five a day message is widespread, but it is not clear whether people know what counts as a portion. Similarly, there was high level awareness of the concept of measuring alcohol in units but this survey did not assess understanding of how many units common alcohol measures contain. It is also possible to know about health messages but not believe them, or to have other competing types of knowledge or beliefs. This was not assessed in the KAM module. Either way, it is clear that there are limits to how much knowledge of messages – on its own – can influence behaviour in the absence of other structural or motivational changes. Taking the example of barriers to eating more healthily, not knowing what changes to make was low down the list of barriers people mentioned, behind concerns about cost, and far behind the most common barrier – lack of willpower.

10.2.3 The limits of motivations

Having established that knowledge was poorly associated with health behaviour, it also appears that even among people who were the most motivated to improve their health, actual success was pretty rare. Chapter 3 looked at the kinds of steps people felt they could take to improve their health. A clear majority of smokers (74%) who said they could improve their health mentioned stopping smoking. Similarly, of those who thought they could improve their health, a majority of hazardous drinkers (65%), obese people (69%), those with very low activity levels (62%), and people who had not eaten any fruit or vegetables on the previous day (61%) mentioned steps that would address each of these unhealthy behaviours or conditions. However, when asked about actual steps recently taken to improve health, such

as cutting down on drinking, increasing activity levels or stopping smoking, chapters 4 to 8 show that the majority of people who say they have managed to maintain a change in their behaviour in the past year were not adhering to health recommendations. For example, the majority of people who had maintained a reduction in their alcohol consumption still drank more than is recommended, and among those who had successfully increased their level of physical activity recently, around half still needed to take some further action to meet the level recommended by government.

10.2.4 Knowledge, motivations and behaviour: making sense of the gaps

All self-reported measures are prone to error, for example there has long been concern that population surveys such as SHeS underestimate alcohol consumption and potentially overestimate activity levels. It is therefore possible that the gaps between perceptions and behaviour, knowledge and behaviour, and recent behaviour change and healthy outcomes presented here might be underestimates of the true situation in the population. Even so, estimating the extent of these kinds of gaps is only part of the story, the challenge for policy makers and organisations such as NHS Health Scotland is to make sense of the fact that such gaps exist and design policies and interventions to narrow them.

The social determinants of health approach embeds personal attributes such as levels of knowledge and motivations to make improvements within the broader context of the social and cultural environment.[1] It is clear from many of the analyses conducted of the main SHeS data, and from official statistics about factors from birthweight through to life-expectancy, that Scotland's comparably poor health is very heavily influenced by socio-economic circumstances.[2] With this in mind, the finding in chapter 3 that people's perceptions of their influence over their own health declines as socio-economic disadvantage increases is a useful reminder of the limits of approaches to health behaviour change that focus on individual rather than structural influences.

10.3 IDEAS FOR FUTURE ANALYSIS

Further reports on the KAM data are due to be published as part of the current contract in which there will be scope to move beyond the headline figures and look at topics in more depth when the sample is larger. This section suggests some areas that might be interesting to explore in those reports, though it should be noted that no decisions have yet been made as to whether they will be pursued. The data are also available from the UK Data Archive so these suggestions apply equally to researchers with an interest in pursuing their own secondary analysis.

10.3.1 Older people

Unlike its predecessor (the Health Education Population Survey), the KAM module included adults aged 75 and over. A number of the chapters highlighted areas where the views of this group were

particularly notable. With increases in life expectancy and growing interest in the healthy ageing agenda, this analysis could have interesting policy implications. For example, people aged 75 and over were the most likely to say they live a healthy life (chapter 3), to drink very moderately (chapter 4), to have a healthy diet (chapter 6), to do enough activity to stay healthy (chapter 7), and to have a healthy weight (chapter 8). With the exception of alcohol consumption, these perceptions were not wholly accurate when compared with their health behaviours. Chapter 9 also showed that older people's views about sexual health matters, and their demand for information, was very different to those of younger generations. With just two years of data collected so far the potential to explore the views of older people cannot be fully realised, but when more years of data have been collected (and the sample is larger) it could be useful to explore some of these topics in more depth among those aged 65 and over.

10.3.2 Parents' assessments of child health

In a similar vein, the new potential to explore associations between parents' assessments of their children's health and actual measures of child health collected in SHeS will not be fully realised until the sample is larger. This report has highlighted some interesting patterns, especially in relation to perceptions of children's weight (chapter 8), but in future years further analysis could be conducted to compare the health of children whose parents think they could lead healthier lives and those who think they are healthy enough.

10.3.3 Multivariable and standardised analysis

The main aim of this report was to present a comprehensive snapshot of the data collected in the survey's first two years with estimates provided for some key sub-groups (for example, by age, sex, equivalised household income, NS-SEC and area deprivation). It also explored some interesting patterns in relation to knowledge, attitudes, motivations and health behaviours. However, the analysis did not attempt to disentangle the associations between multiple factors, such as those between knowledge, age, socio-demographic group and health behaviours. Future reports could move beyond the top level analysis provided here and introduce some age-standardised estimates to account for the different age profiles within each income and NS-SEC group, and regression could be conducted to estimate the independent effects of various factors on knowledge, attitudes, motivations and behaviours.

References and notes

1 See, for example: Marmot, M. and Wilkinson, R. [eds] (2005) *Social Determinants of Health*. Second edition. Oxford: OUP; Dahlgren, G. and Whitehead, M. (1991). Tackling inequalities: a review of policy initiatives, in Benzeval, M., Judge, K. and Whitehead, M. [eds] *Tackling Inequalities in Health: an agenda for action*, London: Kings Fund.

2 Leyland, A., Dundas, R., McLoone, P. and Boddy, F. (2007). *Inequalities in mortality in Scotland 1981-2001*. Glasgow: MRC Social and Public Health Sciences Unit, Occasional Paper 16.

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