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SLÁN 2007

Survey of Lifestyle, Attitudes and Nutrition in Ireland

‘One Island – One Lifestyle?’

Health and lifestyles in the Republic of Ireland and Northern Ireland:
Comparing the population surveys SLÁN 2007 and NIHSWS 2005

DEPARTMENT OF HEALTH AND CHILDREN, 2009

Department of Health & Children
AN ROINN SLÁINTE AGUS LEANAÍ

This report should be cited as follows:
Ward, M., McGee, H., Morgan, K., Van Lente, E., Layte, R., Barry, M., Watson, D., Shelley, E. and Perry, I. (2009) *SLÁN 2007: Survey of Lifestyle, Attitudes and Nutrition in Ireland. 'One Island – One Lifestyle?' Health and lifestyles in the Republic of Ireland and Northern Ireland: Comparing the population surveys SLÁN 2007 and NIHSWS 2005,* Department of Health and Children. Dublin: The Stationery Office.

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Department of Health and Children
Hawkins House
Hawkins Street
Dublin 2
Tel: +353 (0)1 635 4000
Fax: +353 (0)1 635 4001
E-mail: dohc@health.gov.ie
Web: www.dohc.gov.ie

Published by The Stationery Office, Dublin

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The SLÁN 2007 'One Island – One Lifestyle?' Report is available to download from www.slan07.ie

The authors of this report are:

Mark Ward, Hannah McGee, Karen Morgan, Eric Van Lente, Richard Layte, Margaret M. Barry, Dorothy Watson, Emer Shelley and Ivan Perry

Royal College of Surgeons in Ireland
Economic and Social Research Institute
University College, Cork
National University of Ireland, Galway

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ACKNOWLEDGEMENTS

We thank all who contributed to the 2007 Survey of Lifestyle, Attitudes and Nutrition (SLÁN) in Ireland and to the 2005 Northern Ireland Health and Social Well-being Survey (NIHSWS). In particular, we are grateful to over 14,000 members of the public throughout the Republic of Ireland and Northern Ireland who gave of their time to complete the surveys.

We acknowledge the SLÁN 2007 Consortium members and everybody who helped with survey planning, analysis and interpretation, together with interviewers from Amárach Consulting and interviewers, field support and data entry staff from the Economic and Social Research Institute's Survey Unit who collected and processed the main survey information.

We thank the Central Survey Unit of the Northern Ireland Statistics and Research Agency (NISRA) for allowing us access to the NIHSWS data. Also thanks to the UK data archive for providing the required files. A number of individuals from the Central Survey Unit, NISRA, deserve special thanks: Dr. Kevin Sweeney, Mr. Stuart Bennett and Mr. Michael MacNeill provided advice and support throughout the production of the report. Thanks also to a number of people for timely and useful commentary on the draft report: Dr. Jane Wilde and Mr. Steve Barron of the Institute of Public Health in Ireland; and Dr. Elizabeth Mitchell and colleagues of the Department of Health, Social Services and Public Safety, Northern Ireland.

Finally, as a research team, we thank the Department of Health and Children in Dublin, particularly Mr. Brian Mullen and the staff of the Health Promotion and Policy Unit, for the opportunity to conduct this comparative analysis as part of the overall SLÁN 2007 project. Input from the SLÁN 2007 Management and Advisory Groups was much appreciated during the project, in particular the coordinating role of Mr. Robbie Breen of the Health Promotion and Policy Unit.

The information provided here gives a sense of the value of comparing population studies between the Republic and Northern Ireland, albeit incomplete comparisons in this case since the studies were conducted independently. We share enough that is both common and unique in our attitudes, health profiles and health systems to enable fruitful comparisons for both sides. Future opportunities for comparison should be more explicitly incorporated into the planning stages of such studies. We hope that this report will provide a catalyst for joint survey planning, such that information forthcoming can inform and benefit policy and practice in the pursuit of good health and well-being in the coming years in both the Republic of Ireland and Northern Ireland.

Professor Hannah McGee *(SLÁN 2007 Principal Investigator),*
Mr. Mark Ward and **Dr. Karen Moran,**
Department of Psychology,
Division of Population Health Sciences
Royal College of Surgeons in Ireland, Dublin

on behalf of the SLÁN 2007 Consortium

ACRONYMS USED

CHS	Continuous Household Survey (Northern Ireland)
CSO	Central Statistics Office
DHSSPS	Department of Health, Social Services and Public Safety (Northern Ireland)
EASIR	European age-standardised incident rate
ESRI	Economic and Social Research Institute
HARP	Healthy Ageing Research Programme
HPA	Health Promotion Agency
IPAQ	International Physical Activity Questionnaire
IPH	Institute of Public Health in Ireland
NISRA	Northern Ireland Statistics and Research Agency
NIHSWS	Northern Ireland Health and Social Well-being Survey
ONS	Office for National Statistics
QNHS	Quarterly National Household Survey
SLÁN	Survey of Lifestyle, Attitudes and Nutrition in Ireland

EXECUTIVE SUMMARY

EXECUTIVE SUMMARY

INTRODUCTION AND METHODS

- The aim of this report is to provide a profile of lifestyles, health attitudes and behaviours, together with activities that promote or damage health, in the Republic of Ireland and Northern Ireland. Regular monitoring of the population in these regions provides essential information for planning and policy regarding population health. Comparisons of present and previous study findings in a given population, and of findings in complementary settings, contribute significantly to our understanding of contemporary trends and the potential effects of interventions. Comparisons between the Republic of Ireland and Northern Ireland have a unique value because of the many similarities and differences between the two parts of the island. However, such comparisons are seldom undertaken. This report takes the opportunity to compare two population surveys – the 2007 Survey of Lifestyle, Attitudes and Nutrition (SLÁN) conducted in the Republic of Ireland and the 2005 Northern Ireland Health and Social Well-being Survey (NIHSWS) conducted in Northern Ireland.

- SLÁN 2007 involved 10,364 respondents in the Republic of Ireland (RoI). Fieldwork was conducted from November 2006 to October 2007, and involved face-to-face interviews with adults aged 18 years and older at home addresses. The response rate to the survey was 62%.

- NIHSWS 2005 involved 4,245 respondents in Northern Ireland (NI). Fieldwork was conducted from February 2005 to March 2006 and involved face-to-face interviews with people aged 16 years and older at home addresses. The response rate to the survey was 66%.

- In order to compare the two surveys more directly, only those NIHSWS 2005 respondents aged 18 years and older (N = 4,145) are included for comparison with SLÁN 2007 respondents.

- The findings from both surveys are analysed by gender, age and social class for this comparative report.

- Direct comparison of estimates are done so tentatively and are mainly useful in examining how responses vary within each jurisdiction by gender, age and social class. Comparison on some topics is difficult due to differences in the design of SLÁN 2007 and NIHSWS 2005, including the order and wording of questions and, in some instances, differences in response categories. Where relevant, differences are noted and cautions provided.

- The statistical significance levels reported with the results of multivariate analysis should not be overstated. Since there was a large number of respondents (RoI: 10,364; NI: 4,145), the power of the statistical procedures means that even small percentage differences could be statistically significant. The comparisons between demographic breakdowns are likely to be more meaningful than direct comparisons of estimates.

GENERAL HEALTH AND WELL-BEING

- The majority of respondents in the Republic of Ireland (90%) rated their quality of life as 'very good' or 'good', compared with 86% of respondents in Northern Ireland. Only 5% in both jurisdictions rated their quality of life as 'poor' or 'very poor'.

- The majority of respondents in the Republic of Ireland (88%) rated their general health as 'excellent', 'very good' or 'good'. In Northern Ireland, somewhat fewer respondents (75%) rated their general health as 'very good' or 'good'.

- One in 10 respondents in both jurisdictions (RoI: 10%; NI: 13%) were diagnosed with a chronic illness at some time. The most frequently reported diagnosed chronic condition in both the Republic and Northern Ireland was asthma, followed by diabetes.

MENTAL HEALTH

- It was not possible to directly compare the mental health results in SLÁN 2007 and NIHSWS 2005 since the two surveys used different measures. However, like NIHSWS 2005, another recent Irish survey called the National Psychological Well-being and Distress Survey, conducted in 2007 by the Health Research Board in Ireland (Tedstone Doherty *et al*, 2007 and 2008), used the GHQ-12 scale and comparison of these two surveys provides some indication of the relative levels of psychological distress in the populations. This evidence suggests that there are higher levels of psychological distress in Northern Ireland compared to the Republic.

HEALTH SERVICE USE

- Three-quarters of respondents in the Republic (74%) and Northern Ireland (73%) had visited a general practitioner (GP) in the last year. Women and older people were more likely to visit their GP in both jurisdictions.

- One in 10 respondents in the Republic (10%) and Northern Ireland (12%) had been hospitalised as an in-patient overnight or longer in the last year. A higher percentage of women than men in both jurisdictions reported an in-patient hospital stay.

- Respondents in Northern Ireland were more likely (14%) than those in the Republic (9%) to have attended hospital for a day procedure in the last year.

CANCER SCREENING

- Cervical cancer screening services for women aged 20-64 years were compared. Almost twice as many women in Northern Ireland (30%) had been tested for cervical cancer in the previous 12 months compared to the Republic (16%). This was a statistically significant difference. Women in higher social classes in the Republic were significantly more likely to have been tested than women in lower social classes. There was no significant social class difference among women in Northern Ireland.

- Breast cancer screening services for women aged 50-64 years were also compared. About 1 in 3 women in the Republic (35%) and Northern Ireland (29%) had been screened for breast cancer in the previous 12 months. The percentage difference was not statistically significant. While there was no significant difference by social class in Northern Ireland, women in higher social class groups in the Republic were more likely to have been screened.

BREASTFEEDING

- In the Republic of Ireland, almost half of women aged 18-64 who had children (42%) reported breastfeeding. In Northern Ireland, only those women who had a child aged 15 or younger at the time of interview were asked about breastfeeding: of these, 45% reported breastfeeding. Women in higher social classes in both jurisdictions were significantly more likely to have breastfed their children compared to women in lower social classes.

BODY WEIGHT AND WEIGHT MANAGEMENT

- Independently measured height and weight data were collected for a sub-sample in both the SLÁN 2007 and NIHSWS 2005 surveys. These measurements were used to calculate the body mass index (BMI) of respondents. One-quarter of respondents in both the Republic (24%) and Northern Ireland (25%) were classified as 'obese' according to their BMI. A further 39% in the Republic and 36% in Northern Ireland were 'overweight'. Only 1% of respondents in the Republic were 'underweight', compared to 5% in Northern Ireland.

SMOKING

- A statistically significant higher percentage of respondents in the Republic of Ireland (29%) were current smokers compared to Northern Ireland (26%). Smoking was more prevalent in lower social classes in both jurisdictions, with over one-third of respondents in lower social classes being current smokers (RoI: 37%; NI: 36%).

- Regarding smoking cessation, one-third of smokers in the Republic of Ireland (34%) had received advice from a doctor or health professional on quitting smoking in the last 12 months. In Northern Ireland, more than half of smokers had been advised by a GP or health professional to give up smoking at some point in the past (58%). Respondents in lower social classes in the Republic of Ireland were significantly more likely than those in higher social classes to have been advised to quit smoking, while there were no social class differences in Northern Ireland.

ALCOHOL

- One-fifth of respondents in the Republic of Ireland (19%) and Northern Ireland (22%) reported never drinking alcohol.

- Two-thirds of respondents in Northern Ireland (65%) and almost half of respondents in the Republic (46%) reported drinking alcohol at least once a week. Men were significantly more likely than women to drink weekly in both jurisdictions.

- One in 10 respondents in the Republic of Ireland (10%) reported drinking above the recommended upper limit (i.e. 14 units of alcohol for women, 21 units of alcohol for men). In Northern Ireland, one-fifth of respondents (19%) reported drinking above the recommended upper limit.

- Men in the Republic of Ireland (13%) were significantly more likely than women (6%) to report drinking above the recommended upper limit; a similar picture emerged in Northern Ireland (23% men compared to 14% women).

PHYSICAL ACTIVITY

- Both SLÁN 2007 and NIHSWS 2005 used the International Physical Activity Questionnaire (IPAQ) to measure levels of physical activity. One in 4 respondents in the Republic of Ireland (24%) were categorised as having high levels of physical activity, with 29% reporting a sedentary lifestyle. In Northern Ireland, almost one-third (30%) reported high levels of physical activity, while 24% were classified as sedentary. There was a pattern of higher levels of physical activity among younger men, reducing with increasing age, in both the Republic and Northern Ireland.

- Respondents in both surveys were asked how physically active they had been over the last 6 months. Respondents in the Republic were more likely (49%) than those in Northern Ireland (34%) to have been physically active for longer than 6 months. Men and those in the youngest age group (18-29 years) were also more likely to have been physically active for longer than 6 months, compared to women and older age groups.

DIET AND NUTRITION

- The dietary assessment methodologies used in SLÁN 2007 and NIHSWS 2005 varied greatly and thus results are presented as illustrative rather than as direct comparisons.

- In the Republic of Ireland, the majority of respondents (83%) reported eating a portion of fruit at least once a day. Women and those in higher social classes were more likely than men and respondents in lower social classes to do this.

  Almost all respondents in the Republic of Ireland (95%) reported eating at least one portion of salad or vegetables a day. Older respondents and those in higher social classes were more likely than younger and lower social class respondents to do this.

- In Northern Ireland, more than half of respondents (58%) ate a portion of fruit at least once a day. As in the Republic, women and respondents in higher social classes were more likely than men and respondents in lower social classes to do this.

  The same percentage in Northern Ireland (58%) reported eating at least one portion of salad or vegetables a day. Older respondents and those in higher social classes were more likely than younger and lower social class respondents to do this.

PROBLEMS IN THE SOCIAL ENVIRONMENT

- Both surveys asked respondents about their experience of a list of specific problems in their social environment. The contexts assessed were somewhat different, with questions in SLÁN 2007 directed at the respondents' own 'neighbourhood/area', while the questions in NIHSWS 2005 did not specify this. Nonetheless, similar patterns were found in both jurisdictions. Rubbish or litter lying around was seen as the most common problem. This was followed by vandalism, graffiti and other deliberate damage to property; by exposure to people being drunk in public; and, lastly, by insults or attacks to do with a person's race or colour.

DISCUSSION AND CONCLUSIONS

- This analysis has allowed valuable comparison of health and social indices across differing systems in the Republic of Ireland and Northern Ireland. Similarities and differences – in services pertaining to health, social and education systems; to geographic, historical and political circumstances; and to the wider legislative and political frameworks – mean that there is a useful opportunity to consider this as 'one island and two systems' shaping health and health-related indices.

- To optimally inform health and social policy on both parts of the island, every opportunity to make research comparisons should be taken. The findings in this report are tentative since some measures were not directly comparable. For this reason, caution should be exercised when interpreting the results. They are presented in the report with this caveat, but also as illustrative of the potential interest in, and value of, more robust comparative evidence. Such research has the potential to inform health-related developments, and ultimately health and well-being, in the Republic of Ireland and in Northern Ireland in the coming years.

1. INTRODUCTION

1. INTRODUCTION

The aim of this comparison report was to compare health and social behaviours in the two jurisdictions on the island of Ireland, i.e. the Republic of Ireland and Northern Ireland. This comparison provides a unique opportunity to consider similarities and differences between the regions and to use the findings to further our understanding of the processes that shape health and social well-being.

The Republic of Ireland recorded a population of 4.2 million inhabitants in the latest 2006 Census (CSO, 2006). Northern Ireland had a population of 1.7 million in its latest 2001 Census (NISRA, 2001a); the 2007 mid-year population estimate was 1.8 million (ONS, 2008). Life expectancy at birth has been increasing in both the Republic of Ireland and Northern Ireland. The life expectancy at birth for all EU-27 Member States is currently 75.6 years for men and 81.8 years for women (WHO, 2008). The life expectancy at birth in the Republic in 2008 was 77.5 years for men and 82.2 years for women. In 2006 in Northern Ireland, it was 76.2 years for men and 81.0 years for women (Stewart, 2008). The gender gap in life expectancy is similar in the two jurisdictions, with women having a longer life expectancy than men. While both men and women in the Republic have a greater life expectancy than the EU average, the life expectancy of women in Northern Ireland is less than the EU average.

Death rates from cardiovascular disease, the largest single cause of mortality, have been falling rapidly in Ireland. For example, Bennett *et al* (2006) documented a 47% reduction in cardiovascular mortality from myocardial infarction in the Republic from 1985-2000. In Northern Ireland, declining mortality rates due to coronary heart disease have led to an increase in life expectancy of 0.8 years for men and 0.5 years for women from 1999-2001 to 2004-2006 (Stewart, 2008). The age-standardised mortality rate due to circulatory disease in the Northern Ireland population aged under 75 years has decreased by 24% from 2001-2006 (Stewart, 2008). Reductions in mortality due to other chronic diseases, such as respiratory disease and cancer, have also increased the life expectancy at birth of the population of the whole island of Ireland.

Medical advances and individual behavioural and social changes have all contributed substantially to this improvement. Such findings prompt further evaluation of the processes involved in generating those changes. Comparison of the general population surveys on both parts of the island is a unique means of understanding patterns and drivers of health and health-related issues.

POPULATION SURVEYS IN THE REPUBLIC OF IRELAND AND NORTHERN IRELAND

In the Republic of Ireland (RoI), a national adult Survey of Lifestyle, Attitudes and Nutrition (SLÁN – the Irish word for ‘health’) has been conducted on three occasions to date – 1998, 2002 and 2007. Adults aged 18 years and older living in private households have been included. SLÁN 1998 and SLÁN 2002 were postal surveys, based on samples from the Electoral Register, involving 6,539 respondents in 1998 (62% response rate) and 5,992 in 2002

(53% response rate). SLÁN 2007 involved 10,364 respondents in face-to-face interviews at home addresses, based on samples from the GeoDirectory (62% response rate). All three SLÁN surveys covered themes of health and social status, and related health service use. Physical examination measures, including blood and urine sampling, were undertaken in a sub-group in the 2007 survey.

In Northern Ireland (NI), the Northern Ireland Health and Social Well-being Survey (NIHSWS) has been conducted on three occasions to date – 1997, 2001 and 2005. Adults aged 16 years and older living in private households have been included. Sample sizes were 3,520 in 1997 (75% response), 5,205 in 2001 (68% response) and 4,245 in 2005 (66% response). The surveys involved home-based interviews on health and social status, and related health service use. Some physical measures and blood sampling for cholesterol were also undertaken in 1997 and 2001.

An overview of the main components of both SLÁN 2007 and NIHSWS 2005 is provided in Appendix 1 (*see Table A1-1*).

COMPARING HEALTH SYSTEMS IN THE REPUBLIC AND NORTHERN IRELAND

To put the survey comparison in context, the broad characteristics of the two health and social care systems, their similarities and differences, are summarised briefly here. More detailed descriptions are provided in a recent overview of EU countries (Gross-Tebbe and Figueras, 2005).

The system in the **Republic of Ireland** is a mix of public and private health service provision. Just under one-third of the population (29%) are eligible for completely free medical care. This is income and/or age-related. From 2001, all those aged over 70 years were eligible for free healthcare. However, this situation changed in October 2008, when eligibility became based on income and is now means-tested: at time of writing, the threshold has been set at €700 per week gross income for a single person and €1,400 for a couple. The remainder of the population pay mainly for primary care services. About half of the population also have privately funded health insurance, which mainly covers the cost of hospital care.

The Republic of Ireland spends 7.5% of gross domestic product (GDP) on healthcare. This was almost 1.5% below the average in OECD countries in 2005. It is difficult to compare health expenditure across countries as the manner in which it is calculated can vary from country to country. When the Republic of Ireland's expenditure on health is expressed as a percentage of gross national income (GNI), the figure rises to 8.8%, which is closer to the OECD average (Department of Health and Children, 2007). In terms of per capita spending, Ireland is above the OECD average, but much lower than a number of other European countries, such as Norway and Luxembourg. Between 2000 and 2006, health spending in Ireland grew by an average of 8.8% per year (OECD, 2008).

General practice in the Republic of Ireland comprises approximately half single practice and half group practices. In 2005, there were 2.9 acute hospital beds and 2.9 doctors overall per

1,000 population – both below the EU-15 average. There were 0.52 general practitioners (GPs) per 1,000 population. Of the EU-15 countries, only the Netherlands had a lower ratio of GPs to population (WHO, 2008). At a rate of 15.3 per 1,000 population, the number of nurses in Ireland is among the highest in the EU-15 (Gross-Tebbe and Figueras, 2005); figures for 2006 show a slight increase in this number, to 15.4 per 1,000 population (WHO, 2008).

Northern Ireland is part of the overall UK health system, but with responsibility locally devolved (similar to the other constituent countries – England, Scotland and Wales). The UK operates a universal public healthcare coverage system (the National Health System or NHS), with only 11.5% of the population having private health insurance (2001 figures). In 2006, the UK spent 8.4% of GDP on healthcare (WHO, 2008). General practice is arranged in group practices, with an average of 3 GPs per practice. One difference between Northern Ireland and the rest of the UK is that it has always had an integrated health and social care service. In 2002, there were 3.9 acute hospital beds per 1,000 population – like the Republic of Ireland, this is below the EU-15 average. In 2004, there were 2.3 doctors and 0.67 GPs per 1,000 population. In 2003, there were 9.3 nurses per 1,000 population – a high rate by EU standards (Office of Health Economics, 2007), although lower than the rate in the Republic of Ireland (15.3).

All the figures quoted above for Northern Ireland are combined figures for the UK, so it is not clear how different the Northern Ireland sector of the UK system is in terms of staffing or other parameters. What is known, however, is that NHS spending in 2004-2005 was 6% higher in Northern Ireland than in England (Office of Health Economics, 2007). Figures for 2001 show that, compared to England, Northern Ireland had more GPs per 1,000 population (0.58 compared to 0.53 in England) and more hospital consultants (0.52 compared to 0.47 in England) (DHSSPS, 2004).

EUROPEAN COMPARISONS

The 2008 Euro Health Consumer Index, which measures consumer-friendliness of European healthcare systems, ranked the Republic of Ireland in 15th place out of 31, scoring 643 points out of a possible 1,000. The score is based on 34 performance indicators in the following 6 categories: waiting times for treatment; e-health; outcomes; patient's rights; patient's information; and the range and reach of services. The 2008 result for the Republic of Ireland is a vast improvement on 2006, when it was ranked 25th of the then 26 European countries included in the index.

Details of Northern Ireland's position in 2008 were not reported since it was included in the results for the UK, which ranked 13th among the 31 countries surveyed, scoring 650 points out of 1,000. The UK's 2008 position is a slight improvement on 2006, when it ranked 15th out of the 26 countries covered (Björnberg and Uhlir, 2008).

ALL-IRELAND COOPERATION ON HEALTH ISSUES

The differences in policy, structures, coverage and funding between the health systems in the Republic of Ireland and Northern Ireland – a 'one island – two systems' situation – provide a unique natural setting for observing the effects of differing systems on issues such as health service uptake. Greater collaboration between the Republic of Ireland and Northern Ireland systems in both service delivery and research can benefit both parts of the island. These issues are discussed further in Chapter 7.

Projects comparing health and social attitudes and behaviour, and related health service use across the systems, provide opportunities to understand the interplay of disease and treatment processes and to consider the similar and different challenges faced in the two parts of Ireland. Some initiatives have already been taken in this regard at a structural level. The Institute of Public Health (IPH) in Ireland was established in 1998 to promote cooperation for public health on the island of Ireland. As an all-Ireland organisation, it is committed to comparative study of major health challenges on the island. One of its earliest reports, in 2001, was entitled *Inequalities in Mortality 1989-1998. A Report on All-Ireland Mortality Data*, which was the first comprehensive profile of comparative death rates and causes of mortality in the Republic of Ireland and Northern Ireland since 1921 (Balanda and Wilde, 2001). Findings showed that all-cause mortality rates were 6% higher in the Republic over the decade 1989-1998 than in Northern Ireland. By 2006, the all-cause mortality rate was the same in the Republic of Ireland as in the UK, with a rate of 6.1 per 1,000 population (the average EU rate was 6.7 per 1,000 population). Concerning specific causes of death between 1989-1998, circulatory disorders were 5% higher in the Republic of Ireland than in Northern Ireland, while deaths from respiratory disease were 6% higher in Northern Ireland than in the Republic (Balanda and Wilde, 2001).

In 2003, the IPH conducted the All-Ireland Social Capital and Health Survey among a sample of 1,000 adults in the Republic and 1,000 adults in Northern Ireland. This survey, referred to here as IPH 2003, provides a very useful overview of perceived health, with particular reference to inequalities (Balanda and Wilde, 2003). Reference will be made to its detailed findings as appropriate throughout this report.

The Republic of Ireland/Northern Ireland comparison was a planned part of the study protocol of SLÁN 2007. The NIHSWS research team made available its study protocol and research advice from the 2005 survey fieldwork (NISRA, 2007a) and worked with the SLÁN 2007 team to maximise compatibility of questions in the planned SLÁN 2007 survey. Comparability of methods is summarised in Chapter 2.

2. METHODOLOGY

2. METHODOLOGY

COMPARISON OF METHODS IN SLÁN 2007 AND NIHSWS 2005

The methods used in the SLÁN 2007 Survey in the Republic of Ireland (RoI) and in the NIHSWS 2005 Survey in Northern Ireland (NI) are summarised in Table 1.

Table 1: Summary of survey methods in SLÁN 2007 and NIHSWS 2005

	RoI SLÁN 2007	NI NIHSWS 2005
Population	Adults aged 18+	Adults aged 16+
Sampling frame	GeoDirectory listing of residential addresses	Land and Property Services Agency's list of domestic addresses
Sample	Multistage probability sample	Systematic random sample of addresses
Stratification	Percentage distribution across townlands. Age groups, social classes and urban–rural locations.	Stratified geographically by district council and ward
Methods	Face-to-face interview and self-completion of Food Frequency Questionnaire	Face-to-face interview
Obtained sample	10,364	4,245 (of which 4,145 were aged 18+)
Response rate	62%	66%

SLÁN 2007 SAMPLING AND WEIGHTING

The sample for SLÁN 2007 was selected from the GeoDirectory, which is a listing of all addresses in Ireland compiled by An Post. The sample used was probabilistic and was selected using the ESRI's RANSAM program, which results in probability samples where each dwelling has a known probability of selection. Four hundred primary sampling units were systematically selected and addresses identified. Respondent selection within a household was by the 'next birthday' rule.[1] No substitution of respondents within households was allowed and only one person per household was interviewed. The methods are described more fully in the SLÁN 2007 *Main Report* (Morgan *et al*, 2008; available on www.slan07.ie), while details of the weighting procedure are given in Appendix 2 of this report. Fieldwork for SLÁN 2007 was carried out from November 2006 to October 2007, with an overall response rate of 62%. The socio-demographic characteristics of the SLÁN 2007 sample (weighted and unweighted) are outlined in Table 2 in relation to those of the general population as recorded in Census 2006.

[1] The interviewer first asked how many adults aged 18 and older lived at the address. If there was more than one, the adult with the next birthday was selected for interview.

Table 2: Socio-demographic characteristics of respondents in SLÁN 2007 compared to characteristics of population from Census 2006

		Number of cases N	Unweighted sample %	Weighted sample %	Census 2006 %
Gender	Male	4,369	42	50	50
	Female	5,995	58	50	50
Age group	18-29 years	1,907	18	25	26
	30-44 years	3,310	32	31	30
	45-64 years	3,178	31	29	29
	65 years and older	1,969	19	15	15
Marital status	Single (including cohabiting)	3,602	35	41	40
	Married	5,211	50	48	49
	Separated or divorced	639	6	4	5
	Widowed	912	9	7	6
Country of birth	Ireland – Republic	8,820	85	83	85
	Northern Ireland	116	1	1	1
	Other UK	644	6	6	5
	Other EU-27	376	4	5	4
	Other Europe	24	0	0	1
	Africa	96	1	1	1
	USA, Canada, South America	67	1	1	1
	Elsewhere or unknown	221	2	3	2
Ethnicity	White or White Irish	9,333	90.0	87.0	87.0
	Irish Traveller	31	0.3	0.4	0.4
	Any other White background	634	6.1	8.0	8.0
	Black or Black Irish; African	60	0.6	0.7	0.7
	Any other Black background	19	0.2	0.1	0.1
	Asian or Asian Irish; Chinese	32	0.3	0.4	0.4
	Any other Asian background	62	0.6	0.9	0.9
	Other incl. mixed ethnic background	71	0.7	1.0	1.0
	Unknown	122	1.2	1.5	1.5

NIHSWS 2005 SAMPLING AND WEIGHTING

The sample for NIHSWS 2005 was based on a systematic random sample of 5,000 addresses drawn from the property database of the Land and Property Services Agency (LPSA). The LPSA addresses were sorted by district council and ward, so the sample was effectively stratified geographically. Only people living in private households were included. Results

were weighted by age and sex to compensate for differential non-response. Mid-year (2005) population estimates of age and sex were used for this. Each interviewer received a monthly allocation of addresses and collected the information covered in the survey by computer-assisted personal interviewing (CAPI). Interviews were sought of all adult members (those aged 16 and older) of eligible addresses to yield a representative sample across Northern Ireland. Fieldwork was carried out from February 2005 to March 2006, with an overall response rate of 66%. The socio-demographic characteristics of the NIHSWS 2005 sample (weighted and unweighted) are outlined in Table 3 in relation to those of the general population as recorded in Census 2001.

Table 3: Socio-demographic characteristics of respondents in NIHSWS 2005 compared to characteristics of population from Census 2001

Note: Mid-year population estimates for 2005 are shown in brackets

		Number of cases N	Unweighted sample %	Weighted sample %	Census 2001 (2005) %
Gender	Male	1,700	41	47	48 (48)
	Female	2,445	59	53	52 (52)
Age group	18-29 years	609	15	22	16 (23)
	30-44 years	1,251	30	29	22 (30)
	45-64 years	1,333	32	31	22 (31)
	65 years and older	952	23	18	13 (16)
Marital status	Single (including cohabiting)	997	24	30	33
	Married	2,378	57	54	51
	Separated or divorced	351	8	8	8
	Widowed	419	10	9	8
Ethnicity	White	4,078	98.4	98.3	99.2
	Chinese	5	0.1	0.1	0.3
	Irish Traveller	1	0.0	0.0	0.1
	Indian	15	0.4	0.4	0.1
	Black – Caribbean	2	0.0	0.1	0.0
	Mixed ethnic group	3	0.1	0.1	0.2
	None of these	11	0.3	0.3	0.1
	Unknown	30	0.7	0.7	*n/a*

n/a = data not available.
Source: NISRA (2001a) and ONS (2008). Crown copyright material is reproduced with the permission of the Controller of HMSO.

COMPARABILITY OF KEY INDICES ACROSS SURVEYS

Social class

NIHSWS 2005 used individual socio-economic group, derived from the SOC2000 classifications of occupations, as the social class indicator. SLÁN 2007 used the CSO96 social class classification.

To facilitate comparison, the NIHSWS data was transformed from SOC2000 to CSO96 using a conversion program provided by the University of Essex. The CSO96 classification uses 6 categories:

- professional workers (social class 1);
- managerial and technical (social class 2);
- non-manual (social class 3);
- skilled manual (social class 4);
- semi-skilled (social class 5);
- unskilled (social class 6).

For the purpose of this analysis, these 6 categories were re-grouped into 3 social classes: SC 1-2, SC 3-4 and SC 5-6. In cases where there was not enough information available to assign a social class classification to a participant, he or she was assigned to an 'unclassified' group.

A higher percentage of respondents in the Republic (31%) were in social classes SC 1-2 compared to Northern Ireland (22%), while Northern Ireland had a higher percentage of respondents in SC 5-6 (24% compared to 16%).

A similar pattern was observed when the economic status of the population of the Republic of Ireland was compared to Northern Ireland. Census figures from 2006 in the Republic and 2001 in Northern Ireland show that, while the proportion of the population who are economically active are alike, a higher proportion of adults in Northern Ireland are categorised as permanently sick/disabled or retired (CSO and NISRA, 2004).

DATA ANALYSIS

Univariate analysis (percentages) was used to describe variables. Bivariate analysis (chi-square where appropriate) was used to describe patterns within socio-demographic variables (age, gender and social class) in relation to the individual outcome variables. The multivariate analysis employed was binary logistic regression. Logistic regression was used to estimate whether observed differences between the two populations (i.e. Republic of Ireland and Northern Ireland) were statistically significant, while controlling for other predictor variables. For this report, these predictor variables were age, gender and social class. The dependent variable in logistic regression has only two outcomes (e.g. smoker, non-smoker). The results of binary logistic regression analysis are presented in terms of odds ratios (ORs). Odds ratios are defined as the ratio of the likelihood of an event occurring in one group to the likelihood of it occurring in another group. An odds ratio of 1 indicates that the outcome under study is equally likely in both groups. In this report, the Republic of Ireland was used as the reference

group and as such the odds ratio shown is in relation to this group. For example, an odds ratio of 1.3 (OR 1.3) means respondents in the Republic of Ireland had a 30% higher probability of reporting belonging to a particular outcome group than respondents in Northern Ireland; OR 0.6 means the likelihood is 40% less.

P-values were presented to indicate whether or not an observed difference in percentages was a statistically significant difference or if it may have occurred by chance. As there was a large number of respondents (RoI: 10,364; NI: 4,145), even small percentage differences could be statistically significant. This is because the statistics used have so much statistical power that they detect even very small differences, which while 'statistically significant' may be substantively trivial. Differences this small may not be relevant to policy. For this reason, caution is advised when interpreting results.

PRESENTATION OF RESULTS

Results are presented for the most comparable questions across the SLÁN 2007 and NIHSWS 2005 surveys. After a general discussion, the socio-demographic characteristics are given for each measure, followed by a 'Results in context' section, which places the present results in the context of findings from related national and international studies.

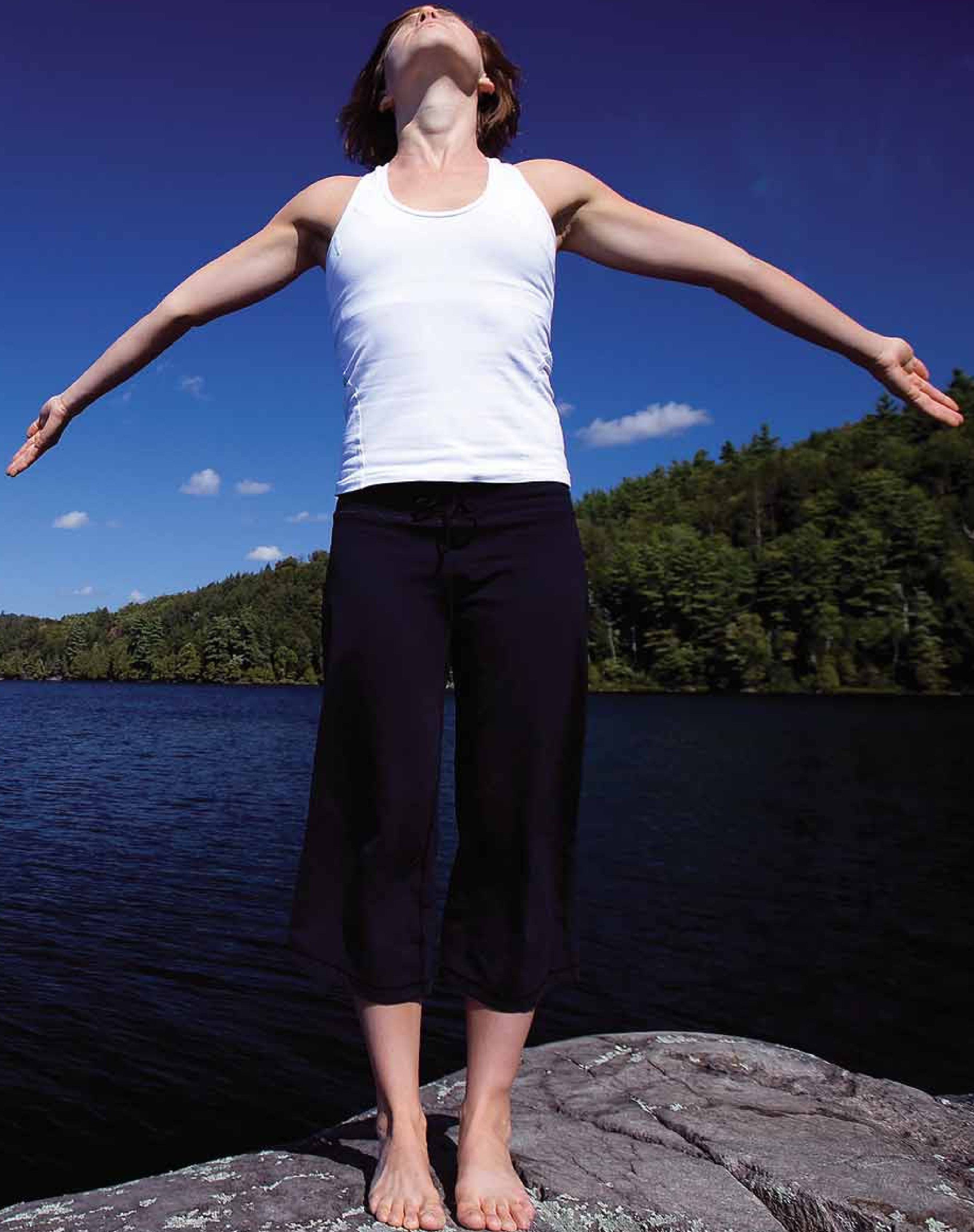
- Chapter 3 covers findings on general health and well-being;
- Chapter 4 examines health service use and indicators of a health-promoting system;
- Chapter 5 gives a profile of various health behaviours, including smoking, drinking, diet and exercise;
- Chapter 6 looks at perceived problems in the social environment.

This is followed by a general discussion of results in Chapter 7 and recommendations for future policy.

For each comparable question, the wording of the question in both surveys is presented first. In some comparisons, there are important differences in wording, such as timeframe distinctions of 'ever' compared to 'in the last year'. For this reason, caution is advised when interpreting the results. In some cases, summary data are presented, with additional detail in Appendices 3 and 4 at the end of this report. Where the wording of questions was quite different, odds ratios are not presented to avoid over-extending interpretations. The findings here will be considered alongside other pertinent evidence to aid interpretation. Future surveys will aim to have greater comparability. Initiatives such as the European Health Survey System (EHSS)[2], involving Core Health Interview Surveys and Health Examination Surveys, aim to promote such compatibility across future European population surveys.

[2] Available on: http://ec.europa.eu/health/ph_information/dissemination/reporting/ehss_en.htm

3. GENERAL HEALTH AND WELL-BEING



3. GENERAL HEALTH AND WELL-BEING

QUALITY OF LIFE

SLÁN 2007 — **How would you rate your quality of life?**

- Very poor
- Poor
- Neither good nor poor
- Good
- Very good

NIHSWS 2005 — **How would you rate your quality of life?**

- Very poor
- Poor
- Neither good nor poor
- Good
- Very good

The quality of life question was identical for SLÁN 2007 and NIHSWS 2005. Respondents in the Republic of Ireland and Northern Ireland were asked to rate their quality of life on a 5-point scale, ranging from ‘very good’ to ‘very poor’.

Overall, 90% of respondents in the Republic of Ireland and 86% of respondents in Northern Ireland rated their quality of life as being ‘very good’ (RoI: 40%; NI: 37%) or ‘good’ (RoI: 50%; NI: 49%) (*see Table 4 and Appendix 3, Table A3-1*).

The quality of life question in SLÁN 2007 was asked as part of the first section of the questionnaire dealing with respondents’ general health issues. In NIHSWS 2005, the question was asked at the end of the section dealing with respondents’ social environment. This difference in the context of the question may account for some of the estimated percentage differences reported.

Socio-demographic characteristics

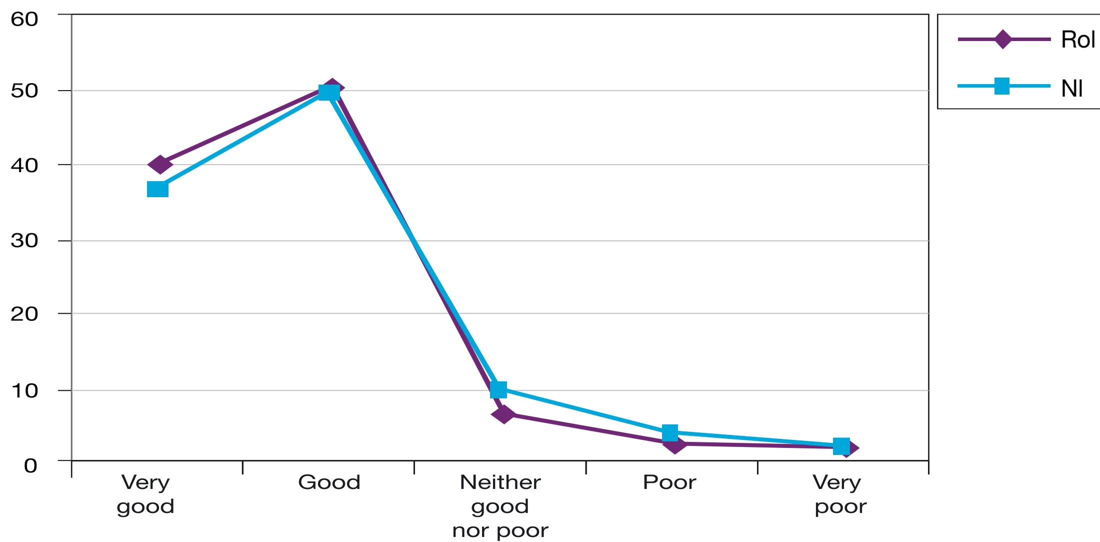
- There were no differences between the percentages of men and women rating their quality of life as 'very good' or 'good' in either the Republic or Northern Ireland.
- In both jurisdictions, a higher percentage of younger respondents rated their quality of life as 'very good' or 'good' compared to older respondents (RoI: $p<0.001$; NI: $p<0.001$).
- A higher percentage of respondents in social classes SC 1-2 in both jurisdictions reported having 'very good' or 'good' quality of life compared to those in SC 3-4 and SC 5-6 (RoI: $p<0.001$; NI: $p<0.001$).

Table 4: Self-rated quality of life, by gender, age and social class (%)

	RoI SLÁN 2007 (N = 10,187)	NI NIHSWS 2005 (N = 4,133)
	Very good/Good %	Very good/Good %
Total	**90**	**86**
Gender		
Men	90	86
Women	90	86
Age group		
18-29	94	91
30-44	91	90
45-64	89	82
65+	82	79
Social class		
SC 1-2	93	94
SC 3-4	91	86
SC 5-6	86	79
Unclassified	86	81

While patterns of quality of life were very similar across the Republic and Northern Ireland (*see Figure 1*), respondents in the Republic were significantly more likely to rate their quality of life as 'very good' or 'good' (OR 1.32, 95% CI 1.18-1.47, p<0.001).

Figure 1: Self-rated quality of life in Republic of Ireland and Northern Ireland (%)



Results in context: Quality of life

Findings in SLÁN 2007 and NIHSWS 2005 are similar to those found in the IPH 2003 survey, where the same question on quality of life was asked. IPH 2003 (Balanda and Wilde, 2003) found that 87% of respondents in the Republic of Ireland rated their quality of life as 'very good' (37%) or 'good' (50%); this compares to 90% in SLÁN 2007. In Northern Ireland, IPH 2003 reported a slightly lower estimate (78%) than that found in NIHSWS 2005 (at 86%), with a percentage breakdown of 26% 'very good' and 52% 'good'.

The age pattern of scores was also similar in IPH 2003, with a higher percentage of younger respondents in both jurisdictions rating their quality of life as 'very good' or 'good'.

SELF-RATED GENERAL HEALTH

SLÁN 2007

In general would you say your health is …?
- Excellent
- Very good
- Good
- Fair
- Poor

NIHSWS 2005

How is your health in general? Would you say it was …
- Very good
- Good
- Fair
- Bad
- Very bad

Respondents rated their general health on a 5-point scale, ranging from 'excellent' to' poor' in the Republic of Ireland and from 'very good' to 'very bad' in Northern Ireland. Since the response category names differed significantly, comparisons are difficult.

One option is to focus on linguistic equivalence and compare all of those above or below an anchor term. The findings can be categorised as good or better compared to fair or worse. Table 5 outlines all those reporting their health to be good or better than good (good/very good/excellent) in the Republic of Ireland and good/very good in Northern Ireland. Overall, using this categorisation, 88% of respondents in the Republic of Ireland and 74% in Northern Ireland rated their general health as good or better. Conversely, 12% in the Republic and 26% in Northern Ireland reported fair or poorer health. Details of age, gender and social class percentages reporting each category are given in Appendix 3, Table A3-2.

Another option was to consider the 'best' and 'worst' health category in each survey. In the Republic of Ireland, 22% reported 'excellent' health, while 34% in Northern Ireland reported 'very good' health. Conversely, 3% in the Republic reported 'poor' health, while 2% reported 'very bad' health in Northern Ireland. The comparison here is mainly useful in examining how responses vary within each jurisdiction by gender, age and social class.

Socio-demographic characteristics

- There were no gender differences in self-rated general health in the Republic of Ireland, while in Northern Ireland a slightly higher percentage of men (75%) than women (73%) rated their general health as good or better.
- The percentage of respondents in both jurisdictions rating their general health as good or better decreased with age (RoI: p<0.001; NI: p<0.001).
- In terms of social class, the percentage of respondents in both the Republic and Northern Ireland rating their general health as good or better was highest in social classes SC 1-2 and lowest in SC 5-6 (RoI: p<0.001; NI: p<0.001).
- The gradient for self-rated health with both age and social class was more evident in the Northern Ireland group.

Table 5: Self-rated general health, by gender, age and social class (%)

	RoI SLÁN 2007 (N = 10,337)	NI NIHSWS 2005 (N = 4,141)
	Excellent/Very good/Good %	Very good/Good %
Total	**88**	**74**
Gender		
Men	88	75
Women	88	73
Age group		
18-29	96	89
30-44	94	83
45-64	84	67
65+	70	52
Social class		
SC 1-2	92	86
SC 3-4	89	75
SC 5-6	82	64
Unclassified	83	63

Results in context: Self-rated general health

These findings may be best interpreted in conjunction with other surveys using self-rated health. The IPH 2003 survey (Balanda and Wilde, 2003) of 2,000 adults in the Republic and Northern Ireland provides the best comparison sample since exactly the same question was put to both sets of respondents. The HARP 2004 survey (McGee *et al*, 2005) also interviewed large samples in the Republic and Northern Ireland (2,033 randomly selected adults aged 65 and older); this survey reported self-rated health using a somewhat different 5-option response category to the other surveys cited. The Quarterly National Household Survey (QNHS) carried out by the Central Statistics Office (CSO, 2008) used the same categories as NIHSWS 2005.

The pattern of scoring across categories in the Republic and Northern Ireland is shown in Table 6. The latest results of the QNHS for the 3rd Quarter of 2007 show that 87% of adults in the Republic of Ireland rated their general health as 'very good' or 'good'. The SLÁN 2007 and IPH 2003 results for the Republic of Ireland were very similar. However, the IPH Northern Ireland scores, for 'excellent' health in particular, were substantially lower than for the Republic (RoI: 25% + 37% = 62%; NI: 22% + 31% = 53%), with the reverse pattern for poorer ('fair' and 'poor') health – ROI: 11% + 2% = 13%; NI: 13% + 8% = 21%. While the HARP study of older people used different response categories, the equivalent pattern of poorer self-rated health in Northern Ireland was also evident.

Table 6: Comparison of self-rated health across adult population surveys in Republic of Ireland and Northern Ireland (%)*

	RoI SLÁN 2007 %	NI NIHSWS 2005 %	RoI QNHS 2007 (3rd Quarter) %	RoI IPH 2003 %	NI IPH 2003 %	RoI HARP 2004 %	NI HARP 2004 %
Excellent	22			25	22		
Very good	36	34	47	37	31		
Excellent/Good						66	44
Good	30	40	40	25	25		
Fair	10	18	11	11	13	26	37
Poor	3		2	2	8		
Poor/Very poor						7	19
Bad		6					
Very bad		2					

* All samples included are aged 18+ years, except HARP 2004 which is aged 65+ years.

CHRONIC ILLNESS

SLÁN 2007 **Have you had any of the following in the past 12 months and was this condition ever diagnosed by a doctor?**

- Asthma
- Diabetes
- Angina
- Heart attack
- Stroke

NIHSWS 2005 **Have you ever been told by a doctor that you had any of the following conditions?**

- Asthma
- Diabetes
- Angina
- Heart attack
- Stroke

Respondents in the Republic of Ireland were asked if they had experienced any of a number of chronic illnesses 'in the past 12 months' or 'ever' in Northern Ireland, and if so, whether the condition was diagnosed by a doctor. The same chronic illnesses were included in both surveys – asthma, diabetes, angina, heart attack and stroke.

Since respondents in Northern Ireland were asked if a chronic illness had 'ever' been diagnosed, the percentage answering 'Yes' in NIHSWS 2005 could be expected to be somewhat higher than the corresponding percentage in SLÁN 2007. However, the percentages reporting a chronic illness were quite similar in both surveys. Overall, 10% of respondents in the Republic and 13% in Northern Ireland reported at least one diagnosed chronic illness (*see Table 7*).

Socio-demographic characteristics

- There was little numerical difference between women and men in reported diagnosed chronic illness in the Republic, but the difference was nonetheless statistically significant ($p<0.001$). There was no gender difference in Northern Ireland.
- In both jurisdictions, older respondents were more likely to report diagnosed chronic illness than their younger counterparts (RoI: $p<0.001$; NI: $p<0.001$).
- There was a greater prevalence of reported diagnosed chronic illness in lower social classes in both jurisdictions. While this difference was not significant in Northern Ireland, it was significant in the Republic ($p = 0.001$).

Table 7: Respondents diagnosed with a chronic illness, by gender, age and social class (%)

	RoI SLÁN 2007 (N = 10,306)	NI NIHSWS 2005 (N = 4,140)
	Diagnosed in past 12 months %	Ever diagnosed %
Total	**10**	**13**
Gender		
Men	10	13
Women	11	13
Age group		
18-29	7	13
30-44	6	10
45-64	11	12
65+	22	21
Social class		
SC 1-2	8	12
SC 3-4	10	12
SC 5-6	12	15
Unclassified	13	14

Table 8 shows that the most frequently reported diagnosed chronic illness in both the Republic and Northern Ireland was asthma (at 6% and 8% respectively), followed by diabetes and angina. Both heart attack and stroke were reported by 1% of respondents in both jurisdictions.

Table 8: Respondents diagnosed with a chronic illness (%)

	RoI SLÁN 2007 (N = 10,306)	NI NIHSWS 2005 (N = 4,140)
	Diagnosed in past 12 months %	Ever diagnosed %
Asthma	6	8
Diabetes	3	2
Angina	2	2
Heart attack	1	1
Stroke	1	1
Total (of above 5 chronic illnesses)	**10**	**13**

Results in context: Chronic illness

Since different timeframes were used in SLÁN 2007 and NIHSWS 2005, the prevalence rates reported for each jurisdiction should be compared with caution. Bearing this is mind, it is still important to note that the pattern of prevalence was very similar between the Republic and Northern Ireland. This was especially true in terms of social class, with a higher percentage of respondents from lower social class groups having had a chronic illness diagnosed by a doctor.

It is also noteworthy that in both jurisdictions, asthma was the most commonly reported diagnosed condition, followed by diabetes and angina.

The results of the QNHS for the 3rd Quarter of 2007 are the same as those for SLÁN 2007, with a similar percentage of respondents having been diagnosed with a chronic illness in the Republic – i.e. 6% asthma, 3% diabetes, 2% angina, 1% heart attack and 1% stroke (CSO, 2008).

MENTAL HEALTH

It was not possible to directly compare the mental health results in SLÁN 2007 with those in NIHSWS 2005 since the two surveys used different measures. Respondents in the Republic of Ireland were asked a series of questions on distinct components of mental health and well-being. As recommended by the European Commission-funded project 'Establishment of a set of mental health indicators for the European Union (1999-2001)'[3], the measures assessed three key aspects of mental health and mental ill-health:

- positive aspects of mental health and well-being;
- non-specific psychological distress;
- diagnoses of major depression and generalised anxiety disorder.

The mental health and social well-being profile of respondents in the Republic of Ireland is described in detail in a separate report in the SLÁN 2007 series (Barry *et al*, 2009).

The following results are presented as a brief overview of mental health and well-being on the island of Ireland.

In the Republic of Ireland, SLÁN 2007 included a standard 5-item measure of psychological distress – the Mental Health Index (MHI-5) from the SF-36 (Ware *et al*, 1993). Findings suggest relatively low levels of psychological distress in the population. Men had statistically significantly higher average scores than women, indicating less psychological distress (83 compared to 81; $p<0.001$). There was no clear pattern across age groups (age 18-29: 82; 30-44: 80; 45-64: 82; 65+: 84). Respondents in higher social classes (SC) reported less psychological distress than those in lower social classes (SC 1-2: 83; SC 3-4: 82; SC 5-6: 80).

In Northern Ireland, NIHSWS 2005 used the short version of the General Health Questionnaire (GHQ-12) to measure psychological distress in the population. Overall, 19% of respondents in Northern Ireland were categorised as showing a probable mental health problem. A higher percentage of women than men (22% compared to 16%; $p<0.001$) reported a probable mental health problem. A higher percentage of respondents in the middle-age groups reported a probable mental health problem compared to the youngest and oldest age groups (age 18-29: 16%; 30-44: 20%; 45-64: 22%; 65+: 16%; $p<0.001$). While there was no significant difference found in terms of social class in Northern Ireland (SC 1-2: 15%; SC 3-4: 19%; SC 5-6: 22%), the pattern was similar to the Republic, with a greater prevalence of psychological distress in lower social classes.

The National Psychological Well-being and Distress Survey, conducted in 2007 by the Health Research Board (Tedstone Doherty *et al*, 2007 and 2008), also used the GHQ-12 scale. Using telephone interviews for a sample of 2,711 people in both the Republic and Northern Ireland (with a response rate of about 50%), it estimated that 12% of the population of the island of Ireland were categorised as having a potential psychological problem, with women (14%) again more likely than men (10%) to report potential psychological problems.

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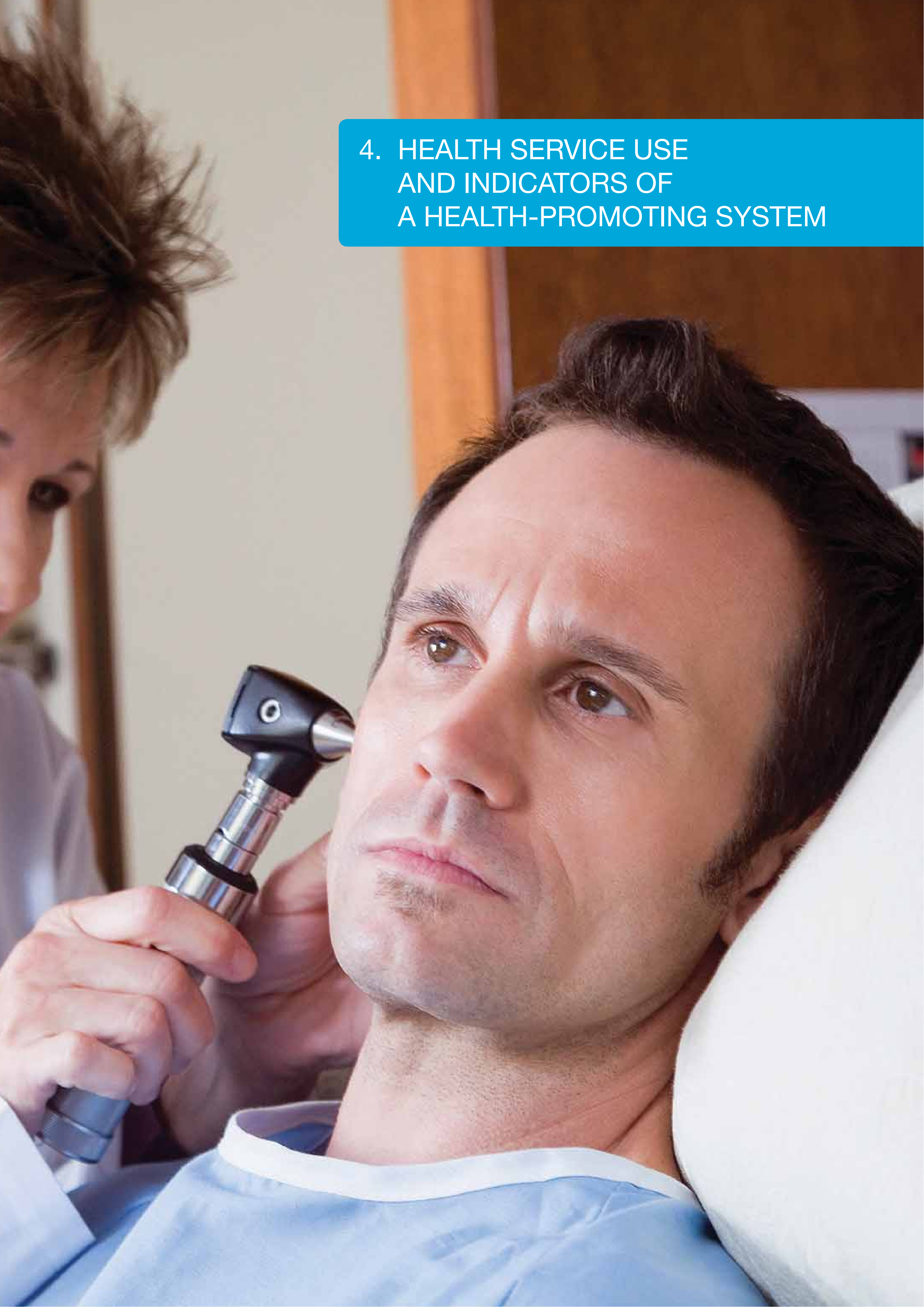
[3] Now superseded by the STAKES Mindful report, *Improving Mental Health Information in Europe* (Lavikainen *et al*, 2006).



4. HEALTH SERVICE USE AND INDICATORS OF A HEALTH-PROMOTING SYSTEM

4. HEALTH SERVICE USE AND INDICATORS OF A HEALTH-PROMOTING SYSTEM

ATTENDING A GENERAL PRACTITIONER

SLÁN 2007 **When was the last time you consulted a GP or family doctor for your own health or health-related needs?**

- In the last 4 weeks
- Between 1 and 12 months ago
- 1-2 years ago
- More than 2 years ago
- Never

NIHSWS 2005 **Apart from any visit to hospital, when was the last time you talked to a doctor on your own behalf?**

- 2-4 weeks ago
- 1-3 months ago
- 3-6 months ago
- 6-12 months ago
- A year or more ago
- Never

Respondents in the Republic of Ireland were asked when was the last time they consulted a GP or family doctor about their health or health-related needs. Responses ranged from ‘in the last 4 weeks’ to ‘more than 2 years ago’ and ‘never’. Respondents in Northern Ireland were also asked how long ago they visited a doctor on their own behalf, with responses ranging from ‘2-4 weeks ago’ to ‘a year or more ago’ and ‘never’.

Overall, a similar percentage of respondents in both populations attended a GP/doctor in the previous 12 months (*see Table 9*). Although the percentage difference was small, it was moderately statistically significant, with respondents from the Republic of Ireland more likely to have attended a GP in the previous 12 months (OR 1.22, 95% CI 1.11-1.33, $p<0.001$).

Socio-demographic characteristics

- A slightly higher percentage of women than men reported attending a GP/doctor in both the Republic ($p<0.001$) and Northern Ireland ($p<0.001$).
- There was a similar age pattern in the Republic and Northern Ireland, with a higher percentage of older respondents attending a GP/doctor (RoI: $p<0.001$; NI: $p<0.001$).
- In terms of social class, there was no significant difference in the percentage of respondents in Northern Ireland who had visited a GP in the last year. In the Republic of Ireland, those in social classes SC 3-4 were more likely to have visited a GP in the last year (SC 1-2: 74%; SC 3-4: 75%; SC 5-6: 72%; $p<0.05$).

Table 9: Attending a GP in the previous 12 months, by gender, age and social class (%)

	RoI SLÁN 2007 (N = 10,256)	NI NIHSWS 2005 (N = 4,141)
	Attended a GP in previous 12 months %	Attended a GP in previous 12 months %
Total	**74**	**73**
Gender		
Men	67	65
Women	80	79
Age group		
18-29	65	62
30-44	68	67
45-64	78	76
65+	92	89
Social class		
SC 1-2	74	70
SC 3-4	75	72
SC 5-6	72	75
Unclassified	71	72

Results in context: Attending a general practitioner

The findings of the National Psychological Well-being and Distress Survey, completed in 2007 by the Health Research Board (HRB), were very similar to SLÁN 2007, with 71% of respondents on the island of Ireland reporting that they had attended a GP in the previous year for a physical health problem (Tedstone Doherty *et al*, 2008). The latest results from the Quarterly National Household Survey (QNHS) for the 3rd Quarter of 2007 also had similar findings, with 69% of adults in the Republic of Ireland reporting that they had visited a GP within the previous 12 months in relation to their own health (CSO, 2008).

Interestingly, a higher percentage of respondents from social classes SC 5-6 in Northern Ireland had attended a GP/doctor in the previous 12 months, whereas in the Republic higher social class groups were more likely to have attended. Previous studies have shown that although GP visits were more frequent among lower income groups in the Republic of Ireland, the probability of having 'any' contact with a GP in a given year was not that different across income groups (Layte, 2007; CSO, 2008). The information available in these surveys does not allow for a comparison based on frequency of visits because neither SLÁN 2007 nor NIHSWS 2005 collected information on the number of visits made to a GP/doctor in the last year.

The latest results from the QNHS for the 3rd Quarter of 2007 show that the average number of GP visits across the adult population in the Republic of Ireland was 2.8 visits per year (CSO, 2008). In all age groups, a higher percentage of women reported consulting a GP compared to men. Frequency of visits increased with age, with an average of 2.0 consultations for 18-24 year-olds, rising to 5.2 consultations for respondents aged 70 and older.

When comparing the Republic and Northern Ireland, consideration must be given to the differences between the healthcare systems. The Northern Ireland system is part of the UK National Health Service (NHS), which aims to provide universal access based on need. While equity of access is a core principle in the Republic of Ireland, the system is a mix of public and private provision (McGregor and O'Neill, 2007). The major operational difference in GP services between the Republic and Northern Ireland is that in the Republic, those who do not qualify for either the general or the GP-only Medical Card are charged for the service (McGregor *et al*, 2008). This has implications for the use of GP services, the nature of which are beyond the scope of this report. Overall, despite these differences, the pattern of GP attendance appears quite similar across the Republic and Northern Ireland.

HOSPITAL USE

SLÁN 2007	**During the past 12 months, have you been in hospital as an in-patient, that is overnight or longer, or for a day procedure?** • Yes, as in-patient • Yes, for day procedure • No
NIHSWS 2005	**During the last year, have you been in hospital for treatment as a day-patient, i.e. admitted to a hospital bed or day ward, but not required to remain overnight?** • Yes • No **During the last year, have you been in hospital as an in-patient, overnight or longer?** • Yes • No

HOSPITAL IN-PATIENT CARE

Respondents in both the Republic and Northern Ireland were asked if they had been in hospital during the previous 12 months as an in-patient, involving an overnight stay or longer. There was no significant difference in the overall number of respondents who had been in hospital as an in-patient in the last year – 10% in the Republic of Ireland and 12% in Northern Ireland (*see Table 10*).

Socio-demographic characteristics

- A higher percentage of women than men had attended hospital as an in-patient during the previous 12 months in both the Republic ($p<0.001$) and Northern Ireland ($p<0.05$).

- In terms of age, a higher percentage of older respondents in both the Republic ($p<0.001$) and Northern Ireland ($p<0.001$) reported an in-patient stay during the previous 12 months.

- In terms of social class, there was no significant difference in the Republic of Ireland. In Northern Ireland, a slightly higher percentage of respondents in social classes SC 3-4 and SC 5-6 reported an in-patient stay during the previous 12 months compared to those in SC 1-2 ($p<0.05$).

Table 10: Hospitalisation as an in-patient for overnight or longer in the previous year, by gender, age and social class (%)

	RoI SLÁN 2007 (N = 10,187)	NI NIHSWS 2005 (N = 4,142)
	In-patient stay %	In-patient stay %
Total	**10**	**12**
Gender		
Men	9	11
Women	11	14
Age group		
18-29	7	10
30-44	10	9
45-64	9	12
65+	16	20
Social class		
SC 1-2	9	9
SC 3-4	10	12
SC 5-6	11	14
Unclassified	11	17

Results in context: Hospital in-patient care

The overall percentage of respondents attending a hospital as an in-patient was similar in both the Republic of Ireland (10%) and Northern Ireland (12%). Respondents aged 65 years and older were the most likely group to have done so in both jurisdictions. The HARP 2004 survey (McGee *et al*, 2005) found that a similar percentage (15%) of the over-65 age group had attended hospital as an in-patient in the Republic of Ireland. However, the HARP Northern Ireland result was lower (16%) for this age group than the result in NIHSWS 2005 (20%).

In the Republic of Ireland, the SLÁN 2007 percentages were very similar to the latest results from the QNHS for the 3rd Quarter of 2007, which found that 12% of women and 7% of men had had an in-patient admission in the previous 12 months (CSO, 2008).

Although the social class pattern was similar in both jurisdictions, with less hospital stays in higher social classes, there was a steeper gradient in Northern Ireland. Whether this is an artefact of the differences in ease of access to services is difficult to ascertain conclusively without further research.

The surveys here did not assess length of stay. However, in other research the average length of in-patient stay had been found to be substantially longer in Northern Ireland: 7.8 days in 2002/2003 compared to 6.5 days in the Republic in 2003 (CSO, 2008). This gap has been narrowing, with 2006 figures showing an average length of stay of 6.4 days in Northern Ireland (DHSSPS, 2008) and 6.3 days in the Republic (CSO, 2008).

HOSPITAL DAY PROCEDURES

Respondents in both the Republic of Ireland and Northern Ireland were asked if they had been in hospital for a day procedure in the previous 12 months. (A day procedure refers to hospital care involving ward and/or bed admission that did not require an overnight stay. Please note that the SLÁN 2007 question is somewhat ambiguous for a day procedure: respondents could have inadvertently included scheduled out-patient clinic appointments in their answers.)

Overall, 9% in the Republic and 14% in Northern Ireland had attended a hospital for a day procedure in the previous 12 months (*see Table 11*). This overall difference was significant, with respondents in the Republic being less likely than those in Northern Ireland to have attended hospital for a day procedure (OR 0.63, 95% CI 0.56-0.70, $p<0.001$).

Socio-demographic characteristics

- There was no gender difference in either the Republic or Northern Ireland for attending a day procedure in hospital.
- Older respondents in both jurisdictions (RoI: $p<0.001$; NI: $p = 0.001$) were more likely to have had a day procedure in the previous 12 months, the highest percentage being in the over-65 age group.
- A higher percentage of respondents from social classes SC 3-4 and SC 5-6 in Northern Ireland had a day procedure than the higher social classes ($p<0.05$). There were no significant social class differences in attending day procedures in the Republic of Ireland.

Results in context: Hospital day procedures

A higher percentage of respondents in Northern Ireland attended hospital for a day procedure compared to respondents in the Republic of Ireland. This holds true in each of the gender, age and social class categories.

Corroborating the SLÁN 2007 figures, the latest results from the QNHS for the 3rd Quarter of 2007 found that 9% of women and 7% of men in the Republic of Ireland had attended as a day-patient in the previous 12 months (CSO, 2008).

Table 11: Attending hospital for a day procedure in the previous 12 months, by gender, age and social class (%)

	RoI SLÁN 2007 (N = 9,010)	NI NIHSWS 2005 (N = 4,141)
	Hospital day procedure %	Hospital day procedure %
Total	**9**	**14**
Gender		
Men	9	14
Women	9	15
Age group		
18-29	7	11
30-44	7	13
45-64	11	16
65+	13	18
Social class		
SC 1-2	10	11
SC 3-4	10	15
SC 5-6	8	15
Unclassified	7	13

SCREENING – CERVICAL AND BREAST CANCER

SLÁN 2007

In the last 12 months, have you been screened or tested for cervical cancer or breast cancer?
[*all women asked*]

- Yes
- No

NIHSWS 2005

When did you last have a cervical smear test?
[*women aged 20-64 asked*]
When did you last undergo breast screening?
[*women aged 50-64 asked*]

- Within the last 6 months
- 6-12 months ago
- 1-2 years ago
- 2-5 years ago
- More than 5 years ago
- Can't remember

CERVICAL SMEAR TEST

All women in the Republic of Ireland sample were asked if they had been screened for cervical cancer in the last 12 months, while women aged 20-64 in Northern Ireland were asked when did they last have a cervical smear test. In order to allow direct comparisons, the NIHSWS responses were re-categorised into 'ever' and 'within the last 12 months'. Only women aged 20-64 from SLÁN 2007 were included in the analysis. The one-year reference point of the survey question does not permit evaluation of full population coverage in the recommended multi-annual screening timeframe.

Overall, women in the Republic of Ireland were less likely (16%) than women in Northern Ireland (30%) to have had a cervical smear test in the previous 12 months (OR 0.45, 95% CI 0.39-0.52, $p<0.001$) (*see Table 12)*.

Socio-demographic characteristics

- In the Republic of Ireland, a lower percentage of women aged 20-29 had a cervical smear test in the last 12 months than women aged 30-34 and 45-64 years ($p<0.001$). In Northern Ireland, a higher percentage of women aged 30-44 had a cervical smear test in the previous 12 months than women aged 20-29 and 45-64 years ($p<0.05$).

- There were significant social class differences in the Republic of Ireland ($p<0.001$), with a greater percentage of women from higher social classes having had a cervical smear test in the last 12 months. There were no significant social class differences in Northern Ireland.

Table 12: Cervical smear in last 12 months for women aged 20-64, by age and social class (%)

	RoI SLÁN 2007 (N = 4,486)	NI NIHSWS 2005 (N = 1,764)
	Cervical smear test in last 12 months %	Cervical smear test in last 12 months %
Total	**16**	**30**
Age group		
20-29	12	29
30-44	18	35
45-64	18	25
Social class		
SC 1-2	22	35
SC 3-4	15	30
SC 5-6	11	27
Unclassified	12	20

Results in context: Cervical smear test

In the Republic of Ireland, there were approximately 199 new cases and 73 deaths from cervical cancer during the period 2000-2004 and a 5-year age-standardised relative survival rate of 61% (Donnelly *et al*, 2009). The National Cervical Screening Programme commenced on 1 September 2008 in the Republic of Ireland, providing free cervical screening to women aged 25-60 (CervicalCheck, 2009). Prior to this, a pilot screening programme was available in the Mid-West.

In Northern Ireland for the period 2000-2004, there were on average 80 cases of cervical cancer and 30 deaths and a 5-year age-standardised relative survival rate of 59% (Donnelly *et al*, 2009). By 1993, all women in Northern Ireland aged 20-64 were included in a national cervical cancer screening programme that provides a free cervical smear test every 5 years (Northern Ireland Cancer Registry, 2009). Approximately 7% of women tested in Northern Ireland receive an abnormal result that requires further investigation (*see* www.cancerscreening.n-i.nhs.uk). Draft results for the 5-year period ending March 2007 estimated that the Northern Ireland Cervical Screening Programme had screened 73% of women aged 20-64 in that time (NHSCSP, 2007).

Overall, incidence rates were 13.9% lower in Northern Ireland than in the Republic of Ireland for the period 2000-2004. There was no significant difference in 5-year age-standardised relative survival rates. However, mortality rates were 19.5% lower in Northern Ireland than in the Republic. International comparisons show that incidence rates of cervical cancer in Ireland during 1998-2000 were higher than those in the EU-15, as well as in the UK itself and Canada and Australia; they were similar to those in the USA and lower than in the EU-27 (Donnelly *et al*, 2009).

Overall, screening rates for cervical cancer in Northern Ireland were double that of the Republic (1 in 3 compared to 1 in 6). This reflects the absence of comprehensive screening services in the Republic of Ireland in 2007, when SLÁN was completed. The recent introduction (in 2008) of a national screening programme should lead to an increase in the number of women screened for cervical cancer. The information provided here is useful as a source of baseline population data.

BREAST CANCER SCREENING

All women in the Republic of Ireland sample were asked if they had been screened for breast cancer in the last 12 months, while women aged 50-64 in Northern Ireland were asked when did they last undergo breast screening. In order to allow direct comparison, the NIHSWS responses were re-categorised into ‘ever’ and ‘within the last 12 months’. Only women aged 50-64 in SLÁN 2007 were included in the analysis.

There was no significant difference in the percentage of women aged 50-64 in the Republic of Ireland and Northern Ireland who had undergone breast screening in the last 12 months, although the trend was for higher rates in the Republic ($p = 0.137$) (*see Table 13*).

Socio-demographic characteristics

- There were no significant differences for breast screening in terms of age in either jurisdiction.
- In Northern Ireland, there were no significant differences in terms of social class. In the Republic, however, a significantly higher percentage of women in social classes SC 1-2 reported having been screened for breast cancer compared to women in SC 3-4 and SC 5-6 ($p<0.05$).

Table 13: Breast screening in last 12 months for women aged 50-64, by age and social class (%)

	RoI SLÁN 2007 (N = 1,263)	NI NIHSWS 2005 (N = 497)
	Breast screening in last 12 months %	Breast screening in last 12 months %
Total	**35**	**29**
Age group		
50-56	33	30
57-64	37	28
Social class		
SC 1-2	40	35
SC 3-4	36	31
SC 5-6	27	24
Unclassified	32	23

Results in context: Breast cancer screening

Breast cancer is the most commonly diagnosed cancer and the leading cause of cancer death in women in both the Republic and in Northern Ireland. On average, there are 3,095 women diagnosed with breast cancer each year on the island of Ireland (Donnelly *et al*, 2009).

The European age-standardised incidence rate (EASIR) in the Republic of Ireland was 112.2 per 100,000 (2000-2004), with 650 deaths per year. The 5-year age-standardised relative survival rate was 77% (2000-2004) (Donnelly *et al*, 2009). BreastCheck is the Government-funded programme that provides free breast screening to women aged 50-64 every 2 years in the Republic of Ireland. By the end of 2008, this service was available in 21 counties; full national coverage should be achieved by the end of 2009 (BreastCheck, 2008). Service evaluation shows that 75% of women who were invited by BreastCheck attended for a screening. Of these, 3% were recalled for further assessment. Of those assessed, cancer was detected in 17% of cases, an incidence rate of 5.3 cancers per 1,000 women screened (BreastCheck, 2008).

The breast cancer incidence rate in Northern Ireland (2006) was 122.1 per 100,000, with 295 deaths (Northern Ireland Cancer Registry, 2009), with a 5-year age-standardised relative survival rate of 79% (2000-2004) (Donnelly *et al*, 2009). All women aged 50-64 in Northern Ireland are eligible for a free mammogram every 3 years. Women aged 65 and older are not

automatically called for screening, but can make an appointment through their local screening unit. In the period 2004-2005, 75% of women took up the invitation to be screened. Of these, 8% were recalled for further assessment. In 2004, incident rates for breast cancer were less than 1 per 1,000 women screened (NHSBSP, 2006).

Overall, incidence rates for 2000-2004 were 3.5% lower in Northern Ireland than in the Republic of Ireland. There was no difference in 5-year EASIRs. During this period (2000-2004), relative survival rates increased in the Republic, while there was no change in Northern Ireland. Mortality rates were 11.5% lower in Northern Ireland. International comparisons show that incidence rates in Ireland on the whole were 3.8% lower than in the EU-15 and also lower than in the USA, Canada and Australia. However, when the newer EU Member States are included, incidence rates in Ireland were found to be 3.6% higher than in the EU-27 (Donnelly *et al*, 2009).

Population reported levels of breast screening (approximately 1 in 3 women) are about half the level of reported uptake rates for programme screening (75%) in Northern Ireland. This may in part reflect the 2- to 3-year screening cycle compared with 'the last 12 months' timeframe for population survey questions. These findings cannot identify the population coverage of the screening invitation. A useful question for future population surveys could address whether participants had received screening invitations.

BREASTFEEDING

SLÁN 2007 — **Did you breastfeed any of your children?**
[*asked of all women who have had children*]
- Yes
- No

NIHSWS 2005 — **Were any of your children breastfed at all?**
[*only asked of women with children aged 0-15*]
- Yes
- No

All women in the Republic who had children were asked about breastfeeding, while in Northern Ireland only women who had a child aged up to 15 years at the time of the survey (2005) were asked. Information on the age of respondents' children was not collected in SLÁN 2007 and so it is possible that children referred to by women in the Republic were older than 15 at the time of the survey (2007).

Overall, 42% of women in the Republic of Ireland answered 'Yes' to the question '*Did you breastfeed any of your children?*', compared to 45% in Northern Ireland (*see Table 14)*.

Socio-demographic characteristics

- There was no significant difference in breastfeeding rates by age of mother in the Republic or Northern Ireland.
- The social class gradient was statistically significant in both jurisdictions, with a greater percentage of women in higher social classes reporting that they breastfed their child ($p<0.001$).

Table 14: Women who breastfed any of their children in the Republic of Ireland, by age and social class (%). Only women with children aged 0-15 were asked in Northern Ireland (%).

	RoI SLÁN 2007 (N = 3,332)	NI NIHSWS 2005 (N = 699)
	Breastfeeding %	Breastfeeding %
Total	**42**	**45**
Age group		
18-29	42	37
30-44	44	49
45-64	40	42
Social class		
SC 1-2	56	70
SC 3-4	38	43
SC 5-6	30	30
Unclassified	32	23

Results in context: Breastfeeding

Data from the Irish National Perinatal Reporting System (NPRS) in December 2007 show that the percentage of mothers breastfeeding in the Republic of Ireland has increased year on year, from 36% in 1999 to 42% in 2004 (ESRI, 2007). Provisional data for 2005 show that this trend continued in 2005, with 44% reporting breastfeeding.

Data for the NPRS are recorded at time of discharge from hospital. Therefore, mothers who begin breastfeeding after discharge are not included. Also, NPRS data record the most recent birth, whereas SLÁN 2007 figures are based on 'ever' breastfed. Early neonatal deaths are excluded in the calculation of percentages.

The Health Promotion Agency Survey carried out in Northern Ireland in 2004 reported that 48% of all mothers had breastfed their children, an increase of 4% since 1999 (HPA, 2006). A similar pattern of reported incidence of breastfeeding was found by the NHS in the UK, which reported an increase in Northern Ireland from 53% in 2000 to 63% in 2005 (The Information Centre, 2006). This is still some way behind the rest of the UK, with reported breastfeeding rates of 78% in England, 70% in Scotland and 67% in Wales. While the prevalence figures in the two reports differ somewhat, the pattern is clear – breastfeeding rates in Northern Ireland are increasing.

In comparison to other European countries, both the Republic of Ireland and Northern Ireland have among the lowest rates of breastfeeding in the EU. For example, the breastfeeding rate in Denmark in 2001 was 98% (Fogh *et al*, 2003; Kronborg *et al*, 2008).

5. HEALTH BEHAVIOURS – PROFILES

5. HEALTH BEHAVIOURS – PROFILES

BODY WEIGHT: MEASURED BODY MASS INDEX

Obesity is a serious risk to health. Body mass index (BMI) is used to estimate the prevalence and associated risks of overweight and obesity within a population. The BMI is calculated as follows:

$$\text{BMI kg/m}^2 = \frac{\text{Weight (kg)}}{\text{Height (m) x Height (m)}}$$

A sub-sample of SLÁN 2007 respondents in the Republic (N = 2,166) had their height and weight measured independently by trained interviewers or nurses, while 3,133 respondents in Northern Ireland were measured by interviewers during NIHSWS 2005. These measurements were used to calculate BMI scores, which were categorised as:

- underweight BMI (<18.49kg/m^2);
- healthy BMI (18.5-24.99kg/m^2);
- overweight BMI (25-29.99kg/m^2);
- obese BMI (>30kg/m^2).

The percentage of respondents classified as obese, overweight, healthy and underweight in terms of age, gender and social class are presented in Table 15 and Appendix 3, Table A3-3. The percentage of respondents with measured obesity was almost the same in the Republic as in Northern Ireland – 24% and 25% respectively ($p = 0.989$). More respondents in the Republic (39%), however, were classified as overweight than in Northern Ireland (36%). A little over one-third of respondents in both the Republic and Northern Ireland had a healthy measured BMI (35% and 34% respectively). Although the percentage of respondents classified as underweight in both jurisdictions was small, there was a significant difference, with a higher percentage in Northern Ireland classified as ‘underweight’ (5%) compared to 1% in the Republic (OR 0.20, 95% CI 0.13-0.32, $p<0.001$).

Socio-demographic characteristics

- Overall, one-quarter of respondents on the island of Ireland were classified, according to their BMI, as obese (*see Table 15*). There was no clear gender difference, with one-quarter of men and women in both the Republic and Northern Ireland being classified as obese (RoI: $p = 0.627$; NI: $p = 0.416$).

- There were no significant gender differences in the percentage of underweight respondents in the Republic, whereas in Northern Ireland twice the percentage of women compared to men were classified as underweight ($p<0.001$).

- There was a significant difference in terms of age in the percentage of respondents assessed as obese in both jurisdictions (RoI: $p<0.001$; NI: $p<0.001$). A higher percentage of younger people aged 18-29 were assessed as obese in Northern Ireland (17%) compared to the Republic (11%). Conversely, in the oldest age group of 65+ years, there was a higher percentage of obese respondents in the Republic (31%) than in Northern Ireland (23%).

- A higher percentage of younger respondents (aged 18-29) were underweight in both jurisdictions. This pattern was more apparent in the Northern Ireland sample (RoI: p<0.05; NI: p<0.001).

- There were no significant social class differences in obesity prevalence in either the Republic or Northern Ireland. However, from a public health perspective, it is important to note that although not statistically significant, there was a social class gradient in obesity rates in both jurisdictions, with a higher percentage of respondents in the lower social classes classified as obese compared to those in higher social classes.

- In the Republic, a higher percentage of respondents from social classes SC 5-6 were underweight compared to SC 1-2 and SC 3-4 (p<0.001). There were no clear social class differences in underweight percentages in Northern Ireland.

Table 15: Measured BMI, by gender, age and social class (%)

Sample: SLÁN (N = 2,170) NIHSWS (N = 3,133)	**RoI SLÁN 2007**	**NI NIHSWS 2005**	**RoI SLÁN 2007**	**NI NIHSWS 2005**	**RoI SLÁN 2007**	**NI NIHSWS 2005**	**RoI SLÁN 2007**	**NI NIHSWS 2005**
	Obese %	**Obese %**	**Over-weight %**	**Over-weight %**	**Healthy %**	**Healthy %**	**Under-weight %**	**Under-weight %**
Total	**24**	**25**	**39**	**36**	**35**	**34**	**1**	**5**
Gender								
Men	24	25	45	41	29	30	1	3
Women	25	24	32	31	41	38	1	7
Age group								
18-29	11	17	27	25	60	46	2	12
30-44	22	26	39	35	38	34	1	4
45-64	32	29	45	41	22	27	1	3
65+	31	23	41	43	27	32	0	3
Social class								
SC 1-2	23	22	42	40	34	34	1	4
SC 3-4	24	26	37	35	38	34	1	5
SC 5-6	29	28	42	37	26	31	3	4
Unclassified	22	16	32	29	43	43	2	12

Results in context: Body weight (measured BMI)

The last known time that height and weight measurements were taken with a sample from an Irish population was in the 2001 North/South Ireland Food Consumption Survey (Irish Universities Nutrition Alliance, 2001). This survey found that 18% of the population of the island were obese. Using this as a baseline, the present surveys of SLÁN 2007 and NIHSWS 2005 suggest an increase of 6%-7% in levels of obesity on the island, which is consistent with the trend internationally. Unlike the latter two surveys, the authors of the 2001 North/South Food Consumption Survey found a higher percentage of men than women were obese.

WEIGHT MANAGEMENT

SLÁN 2007	**Are you currently trying to manage your weight?** • Yes • No **Is it to lose, maintain or gain weight?** • Lose weight • Maintain weight • Gain weight
NIHSWS 2005	**At the present time, are you trying to lose weight, trying to gain weight or are you not trying to change your weight?** • Trying to lose weight • Trying to gain weight • Not trying to change weight

Respondents in the Republic of Ireland were asked if they were trying to manage their weight and if so, were they trying to lose, maintain or gain weight. Northern Ireland respondents were asked if they were trying to lose or gain weight, or not trying to change their weight.

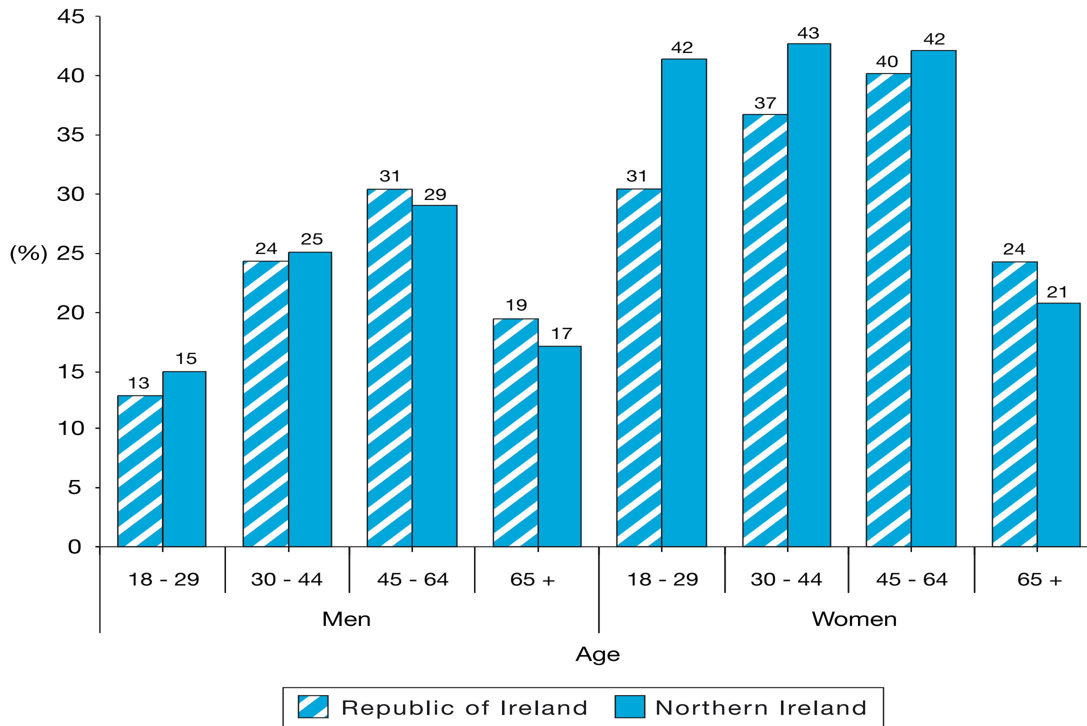
Overall, respondents in the Republic were significantly less likely (29%) to be trying to lose weight than respondents in Northern Ireland (31%) (OR 0.89, 95% CI 0.82-0.97, $p<0.05$) (*see Table 16)*. Details of the percentage of participants for each category are presented in Appendix 3, Table A3-4.

Socio-demographic characteristics

- A higher percentage of women in Northern Ireland (38%) were trying to lose weight compared to those in the Republic of Ireland (34%), while a little under one-quarter of men in both jurisdictions were trying to lose weight (*see Table 16)*. Within both the Republic and Northern Ireland, women were significantly more likely than men to be trying to lose weight ($p<0.001$).

- In both jurisdictions, a higher percentage of middle-aged women aged 30-64, compared to those aged 18-29 and over 65, were trying to lose weight (RoI: $p<0.001$; NI: $p<0.001$) (*see Figure 2)*. A similar, though much smaller trend was seen for middle-aged men.

Figure 2: Trying to lose weight in Republic of Ireland and Northern Ireland, by gender and age (%)



A higher percentage of respondents from social classes SC 1-2 in the Republic of Ireland were trying to lose weight compared to those in SC 3-4 and SC 5-6 ($p<0.001$). In Northern Ireland, a higher percentage of respondents in SC 3-4 were trying to lose weight compared to those in SC 1-2 and SC 5-6 ($p<0.05$). In both jurisdictions, the lowest percentages trying to lose weight were in SC 5-6.

Table 16: Trying to lose or gain weight, by gender, age and social class (%)

	RoI SLÁN 2007 (N = 10,217)	NI NIHSWS 2005 (N = 3,909)	RoI SLÁN 2007 (N = 10,217)	NI NIHSWS 2005 (N = 3,909)
	Lose weight %	Lose weight %	Gain weight %	Gain weight %
Total	**29**	**31**	**1**	**3**
Gender				
Men	23	23	2	3
Women	34	38	1	2
Age group				
18-29	22	29	3	4
30-44	31	34	1	3
45-64	36	35	1	2
65+	22	20	1	3
Social class				
SC 1-2	33	32	1	2
SC 3-4	29	34	1	3
SC 5-6	23	28	2	2
Unclassified	23	20	2	3

Results in context: Weight management

In the Republic of Ireland, information on both weight management and BMI was available for 715 respondents in SLÁN 2007. Of this number, 12% of those who were actively trying to lose weight were classified as having a healthy BMI, 40% were overweight and 48% were obese. In terms of gender, only 4% of men trying to lose weight had a healthy BMI, 45% were overweight and 51% were obese. When compared to men, a far higher percentage of women who had a healthy BMI were trying to lose weight (17% compared to 4%). However, again when compared to men, a lower percentage of women in both the overweight category (37% compared to 45%) and the obese category (47% compared to 51%) were trying to lose weight.

The findings for Northern Ireland were very similar, with 14% of those who were actively trying to lose weight being classified as having a healthy BMI, while 39% were overweight and 46% were obese. A similar pattern was also found when gender was examined, with a far higher percentage of women who had a healthy BMI trying to lose weight (20%) compared to men (5%). However, compared to men, a lower percentage of women in both the overweight category (38% compared to 42%) and the obese category (41% compared to 53%) were trying to lose weight.

Interestingly, in both jurisdictions, women with a healthy BMI were four times as likely to be trying to lose weight compared to men, whereas a higher percentage of men in the overweight and obese categories were trying to lose weight compared to women.

SMOKING

SLÁN 2007

[*Filter question*] **Have you yourself smoked at least 100 cigarettes in your entire life?**

- Yes
- No

If Yes, do you smoke every day, some days or not at all?

- Every day
- Some days
- Not at all

NIHSWS 2005

Please indicate the description that best applies to you:

- I am a current smoker
- I am an ex-smoker
- I have never smoked

In SLÁN 2007, 'never smoked' was defined as a person who smoked less than 100 cigarettes in their lifetime, which is the definition of the World Health Organization (WHO, 1998). 'Former smokers' were current non-smokers who had smoked at least 100 cigarettes in the past.

NIHSWS 2005 did not make this distinction. Instead, the survey asked respondents whether they would describe themselves as a 'current smoker', an 'ex-smoker' or someone who never smoked. It is likely that if respondents who had smoked more than 100 cigarettes in their

lifetime had been included in the Northern Ireland count, the number of respondents in the ex-smoker group would have increased.

In SLÁN 2007, 'current smokers' were respondents who smoked 'some days' or 'every day'. This distinction was not made in NIHSWS 2005.

Bearing in mind the differences in criteria in providing comparisons, 29% of respondents in the Republic of Ireland reported being current smokers compared to 26% in Northern Ireland (p = 0.001) (*see Table 17 and Appendix 3, Table A3-5)*.

Socio-demographic characteristics

- Comparing the two jurisdictions (noting the difference in the questions asked, *see above*), a higher percentage of men in the Republic were current smokers (31%) compared to Northern Ireland (26%), while the percentage of women smoking was the same in both jurisdictions (*see Table 17 and Figure 3*). Rates of smoking were higher for men (31%) than for women (27%) in the Republic of Ireland ($p<0.001$), while there was no significant gender difference in Northern Ireland.

- Higher rates of smoking were reported by younger respondents in both the Republic and Northern Ireland ($p<0.001$).

- A higher percentage of respondents in social classes SC 5-6 reported smoking in both jurisdictions ($p<0.001$). While the differences in terms of social class were noticeable in the Republic, they were even more pronounced in Northern Ireland.

Figure 3: Smokers in Republic of Ireland and Northern Ireland, by gender and age (%)

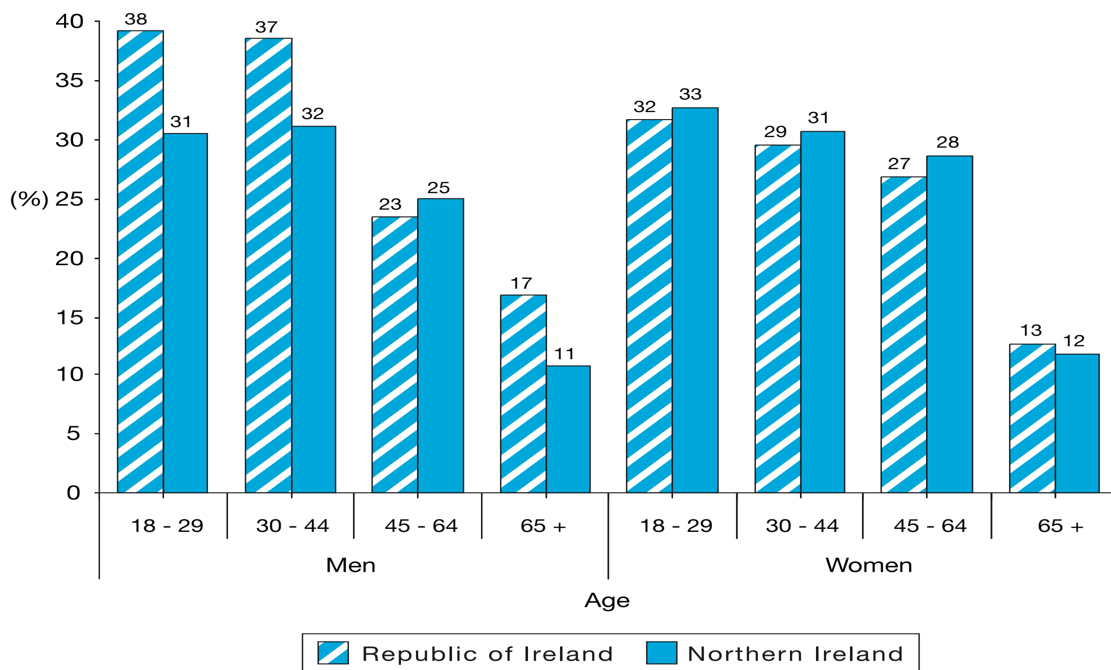


Table 17: Smoking status, by gender, age and social class (%)

Sample: SLÁN (N = 10,237) NIHSWS (N = 4,119)	**RoI SLÁN 2007**	**NI NIHSWS 2005**	**RoI SLÁN 2007**	**NI NIHSWS 2005**	**RoI SLÁN 2007**	**NI NIHSWS 2005**
	Current smoker %	**Current smoker %**	**Former smoker %**	**Former smoker %**	**Never smoked %**	**Never smoked %**
Total	**29**	**26**	**19**	**30**	**52**	**43**
Gender						
Men	31	26	23	37	47	37
Women	27	27	16	25	58	49
Age group						
18-29	35	32	8	23	57	45
30-44	34	32	17	26	49	42
45-64	25	26	25	34	50	40
65+	14	12	30	39	56	49
Social class						
SC 1-2	24	17	24	36	52	48
SC 3-4	30	27	19	31	51	43
SC 5-6	37	36	18	30	45	35
Unclassified	25	23	13	18	63	59

Results in context: Smoking

Like the present surveys of SLÁN 2007 and NIHSWS 2005, similar rates of smoking were found in the IPH 2003 survey (Balanda and Wilde, 2003) where, overall, 29% of the population of the island were smokers. However, at the time of that report, a higher percentage of respondents in Northern Ireland were current smokers (32%) compared to 27% in the Republic. Results from SLÁN 2002 also found that 27% of respondents were 'current smokers' (Kelleher *et al*, 2003).[4] Given the efforts made to reduce the number of smokers in the Republic, not least the internationally acclaimed first national workplace smoking ban introduced in 2004, the numbers continuing to smoke appear disappointing.

Smoking targets have recently been established by the Department of Health and Children's Cardiovascular Policy Group (Department of Health and Children, 2009). The aim is to reduce overall population prevalence of smoking by 1% per annum – from 29% in 2007 (SLÁN 2007) to 19% by 2018 – and to reduce smoking initiation rates by 1% per annum – from 31% (HBSC 2006) to 21% by 2018.

The percentage of 'current smokers' in Northern Ireland appears to have decreased noticeably – from 32% reported in IPH 2003 to 26% reported in NIHSWS 2005. The NIHSWS figures are similar to comparative data for all of the UK for 2005 (25% men and 23% women) (Goddard, 2006). The 2007/08 Continuous Household Survey in Northern Ireland estimated that adult (aged 16+ years) smoking prevalence was 23% for both men and women (NISRA, 2008a). In April 2007, smoke-free legislation was introduced in Northern Ireland (similar to the workplace smoking ban in the Republic, 3 years earlier) and studies are awaited to show what effect this legislation will have on smoking rates there.

[4] Smoking rates in SLÁN 2002 (27%) and SLÁN 2007 (29%) were not statistically different.

The DHSSPS Public Service Agreement has set a target of reducing the proportion of adult (aged 16+ years) smokers to 22% or less by 2011, with a reduction to 27% or less among manual groups (Northern Ireland Audit Office, 2008). One of the measures implemented to meet this goal saw the legal age to purchase cigarettes raised from 16 to 18 years in September 2008.

According to the EU's campaign called 'HELP – For a life without tobacco', the Republic of Ireland ranks 2nd best of 27 EU Member States in terms of tobacco control measures, with the UK now ranked 1st. A country's Tobacco Control Score is calculated over six categories that include price, public place bans (both of which Ireland scored well in), spending on public information campaigns, advertising bans, health warnings and treatment.[5]

ADVICE ON SMOKING

SLÁN 2007 **In the past 12 months, did a doctor or health professional discuss ways of giving up smoking with you?**

- Yes
- No
- No, didn't see doctor

NIHSWS 2005 **Has your GP (or any healthcare professional) advised you to give up smoking?**

- Yes
- No

Respondents in the Republic of Ireland were asked if a doctor or health professional had discussed ways of giving up smoking with them in 'the past 12 months', whereas respondents in Northern Ireland were asked if they had 'ever' been advised to give up smoking (no timeframe specified). Because the timeframes are different in the two surveys, direct comparison of results is not possible. Nevertheless, as might be expected, respondents in Northern Ireland were more likely (58%) to have been advised to quit smoking at some point in their lives (since no time constraint given) compared to those respondents in the Republic of Ireland (34%) who were offered quitting advice only within the past 12 months (*see Table 18*).

In an effort to somewhat improve the comparability of the samples associated with these questions, only respondents who reported having visited a GP in the past 12 months (both in the Republic and Northern Ireland) were included. This, however, does not necessarily mean that respondents in the Northern Ireland sample were advised within the past 12 months.

In the Republic of Ireland, 72% of current smokers had visited a GP in the past 12 months compared to 74% in Northern Ireland. Of these, one-third of respondents in the Republic had received quitting advice within the past 12 months. In Northern Ireland, more than half of respondents had 'ever' been advised to give up smoking.

[5] *See* http://en.help-eu.com/pages/fic-actu-0-2-ALL_THE_NEWS.html

Socio-demographic characteristics

- In both jurisdictions, a higher percentage of women than men had been advised to quit smoking, whether within the past 12 months in the Republic of Ireland ($p<0.05$) or 'ever' in Northern Ireland' ($p<0.05$) (*see Table 18*).
- In both jurisdictions, a higher percentage of older respondents had been advised to give up smoking at some point previously. While those aged 65 and older in the Republic of Ireland were the highest percentage of respondents who had visited a GP within the past 12 months, a slightly higher percentage of respondents aged 45-64 (43%) had been advised to quit smoking. The age differences in the Republic of Ireland were statistically significant ($p<0.001$). There was a noticeable age gradient in Northern Ireland, with higher percentages of older smokers who had visited a GP being advised to quit smoking ($p<0.001$).
- A social class gradient was evident in the Republic, with smokers in lower social classes more likely to have received advice to quit smoking in the past 12 months when attending a GP ($p<0.001$). There was no significant difference in terms of receiving advice by social class in Northern Ireland.

Table 18: Current smokers who visited a GP and were advised to give up smoking, by gender, age and social class (%)

	RoI SLÁN 2007 (N = 2,242)	NI NIHSWS 2005 (N = 1,043)
	Advice on smoking in past 12 months %	Advice on smoking ever %
Total	**34**	**58**
Gender		
Men	31	54
Women	38	62
Age group		
18-29	28	47
30-44	32	57
45-64	43	67
65+	41	69
Social class		
SC 1-2	28	58
SC 3-4	32	56
SC 5-6	44	61
Unclassified	39	66

Results in context: Advice on smoking

Notwithstanding the different assessment timeframes, there was clearly scope for improvement in GP advice regarding quitting smoking in both jurisdictions. In the Republic, only 1 in 3 smokers who attended a GP in the past 12 months (34%) was advised about quitting. In Northern Ireland, less than two-thirds of smokers who had attended a GP in the past 12 months were ever advised by their GP to quit.

The DHSSPS in Northern Ireland has developed a monitoring system to track smoking cessation services in the four Health and Social Services Boards. The smoking cessation services are two-fold: brief opportunistic advice offered by health professionals, including GPs, and specialist cessation services. During 2007/08, there were a total of 7,737 recorded instances of individuals setting a date to quit smoking while attending a GP; of these, 46% reported having successfully quit when asked during a 4-week follow-up (NISRA, 2008a). While this figure was lower than the success rates achieved in other settings, such as hospitals (72%) and community clinics (52%), it does show the potential benefit of GP advice on quitting smoking.

Recent research undertaken by the Research Institute for a Tobacco Free Society reported that there were 93 providers of smoking cessation services in the Republic of Ireland (Currie *et al*, 2008). Settings where smoking cessation services were provided included psychiatric and general hospitals, community settings and health promotion service settings. Unlike in Northern Ireland, there is no national evaluation of cessation services in the Republic of Ireland and this limits the ability to adequately review and evaluate the effectiveness of such services.

ALCOHOL

SLÁN 2007	**How often do you have a drink containing alcohol?** • Never • Monthly or less • 2-4 times a month • 2-3 times a week • 4 or more times a week
NIHSWS 2005	**Do you ever drink alcohol nowadays, including drinks you brew or make at home?** • Yes • No

Respondents in both the Republic of Ireland and Northern Ireland were asked if they drank alcohol. Those who answered ‘Never’ in the Republic and ‘No’ in Northern Ireland were classified as non-drinkers.

DRINKING STATUS – ABSTINENCE

There was no statistical difference in the percentage of respondents reporting that they never drink alcohol (p = 0.18) in the Republic and Northern Ireland (*see Table 19*).

Socio-demographic characteristics

- A higher percentage of women than men reported abstaining from alcohol in both the Republic and Northern Ireland (p<0.001).
- Older respondents were less likely to drink alcohol than younger respondents in both jurisdictions (p<0.001) (*see Figure 4*).
- There was a clear social class gradient in both the Republic and Northern Ireland, with the percentage of respondents who did not consume alcohol higher in lower social class groups (p<0.001) (*see Table 19*).

Figure 4: Abstinence: 'Do not drink alcohol' in Republic of Ireland and Northern Ireland, by gender and age (%)

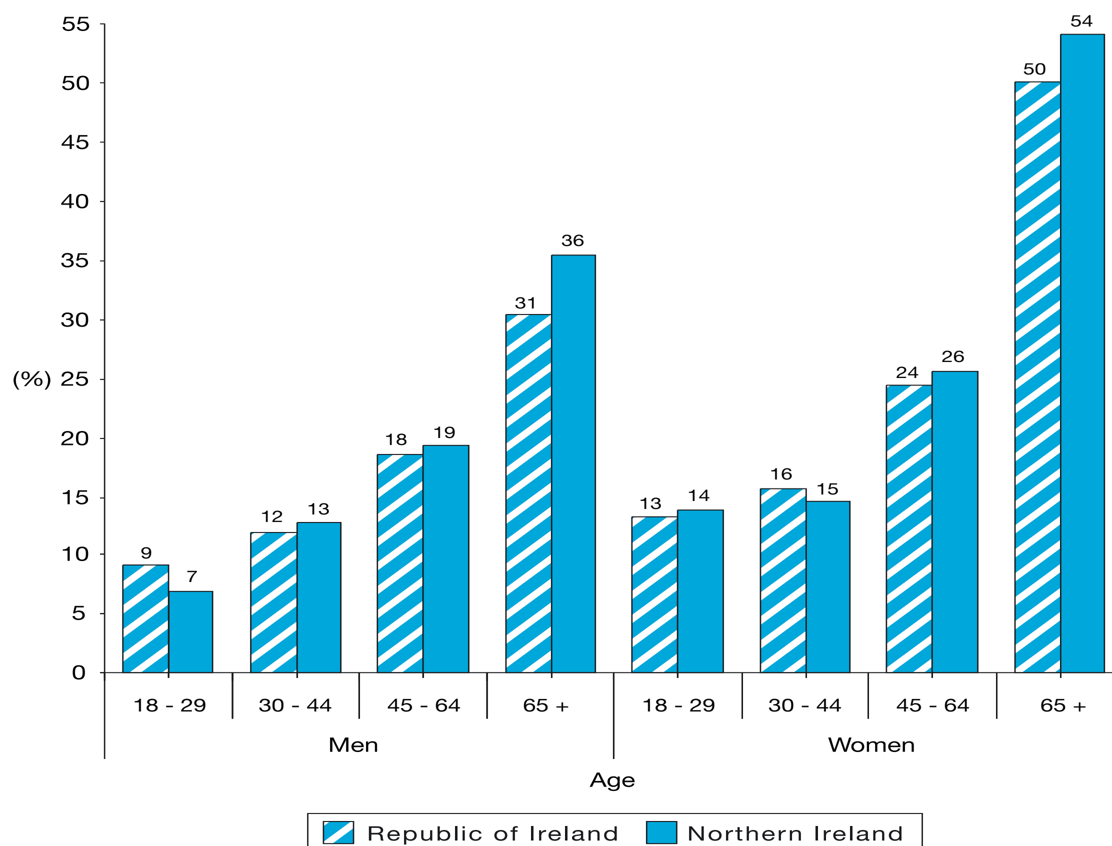


Table 19: Abstinence: 'Do not drink alcohol' in the last 12 months, by gender, age and social class (%)

	RoI SLÁN 2007 (N = 10,313)	NI NIHSWS 2005 (N = 4,116)
	Never drink alcohol %	Never drink alcohol %
Total	**19**	**22**
Gender		
Men	15	17
Women	23	26
Age group		
18-29	11	11
30-44	14	14
45-64	21	23
65+	42	47
Social class		
SC 1-2	13	16
SC 3-4	18	20
SC 5-6	24	26
Unclassified	29	35

Results in context: Drinking status – Abstinence

In the Republic of Ireland, the percentage of respondents who had abstained from alcohol within the previous year has remained constant across the three SLÁN surveys (1998: 18%; 2002: 17%; 2007: 19%). These rates are slightly less than the abstinence rate of 22% reported in the Eurobarometer survey of March 2007, 'Attitudes towards alcohol' (European Commission, 2007), which reports alcohol consumption from the age of 15+, with a mean number of alcoholic drinks consumed in an average week reported as 7 in the Republic of Ireland in 2007.

The Northern Ireland Continuous Household Survey (CHS) for 2004/05 reported abstinence rates of 24% (NISRA, 2005), which were similar to those reported in NIHSWS 2005 (22%). Furthermore, the CHS found a further 1% increase – to 25% – in the abstinence rate over the next year, 2006/07 (NISRA, 2007b).

FREQUENCY OF DRINKING

SLÁN 2007	**How often do you have a drink containing alcohol?** • Every day • 5-6 times a week • 2-4 times a week • Once a week • 1-3 times a month • Less often • Never
NIHSWS 2005	**About how often have you had an alcoholic drink of any kind in the last 12 months?** • Almost every day • 5 or 6 days a week • 3 or 4 days a week • Once or twice a week • Once or twice a month • Once every couple of months • Once or twice a year • Not at all in the last 12 months

Respondents in both the Republic of Ireland and Northern Ireland were asked how often they had a drink containing alcohol. The timeframe used ranged from 'every day' to 'never' in the Republic, and 'almost every day' to 'not at all in the last 12 months' in Northern Ireland.

To compare the two populations, drinkers were categorised into one of two groups: those who drank at least once a week and those who drank less regularly. Overall, drinkers in the Republic of Ireland were less than half as likely as those in Northern Ireland to drink alcohol at least once a week (OR 0.47, 95% CI 0.43-0.52, $p<0.001$). This is reflected in the higher percentage of alcohol drinkers in Northern Ireland who drank at least once a week (65%) compared to the lower percentage of weekly drinkers in the Republic (46%) (*see Table 20)*.

Socio-demographic characteristics

- A higher percentage of men compared to women in both the Republic and Northern Ireland drank at least once a week (RoI: $p<0.001$; NI: $p<0.001$).

- Among those who drank alcohol, the highest percentage who drank at least once a week in the Republic of Ireland where among those aged 45-64 ($p<0.001$). In Northern Ireland, the highest percentage was among those aged 18-29 ($p<0.001$), with almost three-quarters of this age group reporting drinking alcohol at least once a week.

- There were no significant differences in terms of social class in Northern Ireland. In the Republic of Ireland, a significantly higher percentage of drinkers in social classes SC 1-2 drank alcohol at least once a week compared to those in SC 3-4 and SC 5-6 (RoI: $p<0.001$).

Table 20: Respondents who drank alcohol in the last 12 months by frequency of drinking, by gender, age and social class (%)

	RoI SLÁN 2007 (N = 8,146)	NI NIHSWS 2005 (N = 3,084)	RoI SLÁN 2007 (N = 8,146)	NI NIHSWS 2005 (N = 3,084)
	Weekly %	Weekly %	Less than weekly %	Less than weekly %
Total	**46**	**65**	**54**	**35**
Gender				
Men	53	73	47	27
Women	38	57	62	43
Age group				
18-29	42	71	58	29
30-44	43	65	57	35
45-64	52	66	48	34
65+	48	51	52	49
Social class				
SC 1-2	53	69	47	31
SC 3-4	44	63	56	37
SC 5-6	43	66	57	34
Unclassified	38	60	62	40

DRINKING ABOVE THE RECOMMENDED WEEKLY LIMIT

SLÁN 2007

During the past 7 days, how many standard drinks did you have each day? A standard drink is:

- A half pint of beer, lager or cider
- A single measure of spirits
- A single glass of wine, sherry or port
- A bottle of Alcopops

NIHSWS 2005

How many of the following did you drink in a typical week and a typical month? [*responses were then converted to units of alcohol*]

- Shandy (excludes bottles/cans)
- Beer, lager, stout, cider (includes bottles/cans)
- Spirits or liqueurs (e.g. gin, whisky, rum, brandy, vodka, Advocat, cherry brandy)
- Sherry or Martini, Port, Vermouth, Cinzano, Dubonnet
- Wine, champagne, Babycham
- Alcopops (e.g. Hooch, Bacardi Breezer, Smirnoff Ice)
- Other alcoholic drink

The recommended weekly upper limit for the consumption of units of alcohol is 14 units for women and 21 for men. When comparing the Republic of Ireland with Northern Ireland, it is important to bear in mind the differences in the questions asked. SLÁN 2007 asked about alcohol consumption for each of the previous 7 days, whereas NIHSWS 2005 asked about consumption in a typical week and a typical month.

Overall, one-tenth of drinkers in the Republic of Ireland (10%) drank above the upper limit of units. In Northern Ireland, almost one-fifth (19%) drank above the upper limit (*see Table 21*).

Socio-demographic characteristics

- A higher percentage of men compared to women drank above the upper limit in both the Republic ($p<0.001$) and Northern Ireland ($p<0.001$).
- In terms of age, the percentage in each jurisdiction who drank above the upper limit was lower in older age groups (RoI: $p<0.001$; NI: $p<0.001$).
- There were no significant social class differences in the Republic of Ireland in the percentage of respondents who drank above the recommended upper limit of alcohol units each week. There were moderately significant social class differences in Northern Ireland, with a higher percentage of respondents from lower social classes drinking above the limit each week ($p<0.05$).

Table 21: Respondents who drank above the recommended upper limit of units of alcohol per week, by gender, age and social class (%)

	RoI SLÁN 2007 (N = 7,998)	NI NIHSWS 2005 (N = 3,138)
	Above recommended upper limit %	Above recommended upper limit %
Total	**10**	**19**
Gender		
Men	13	23
Women	6	14
Age group		
18-29	13	30
30-44	9	17
45-64	9	16
65+	6	8
Social class		
SC 1-2	10	15
SC 3-4	10	19
SC 5-6	12	21
Unclassified	7	24

Results in context: Drinking above recommended weekly limit

The IPH 2003 survey found that, overall, 11% of men on the island of Ireland and 5% of women drank above the recommended upper limit of 21 units per week for men and 14 units per week for women (Balanda and Wilde, 2003). IPH 2003 found that excessive drinking was more prevalent in the Republic (9%) than in Northern Ireland (6%). While this figure is similar to the findings from SLÁN 2007, it is very different to the 19% found in NIHSWS 2005. This disparity may at least partly be due to the different measures used. While the questions asked regarding alcohol consumption in SLÁN 2007 and IPH 2003 were similar, NIHSWS 2005 used a more detailed list of questions.[6] In 2002, the DHSSPS estimated that 25% of men and 14% of women drank in excess of the recommended limits (DHSSPS, 2002). These estimates are similar to those reported in NIHSWS 2005. The latest available figures from the Northern Ireland Continuous Household Survey showed that in 2006/07, 18% of adults (N = 3,608) aged 18 and older drank above the recommended limits (28% men and 11% women) (NISRA, 2007b).

Compared to Great Britain as a whole, drinking prevalence and excessive weekly drinking is increasing in Northern Ireland. The authors of a recent report on trends in alcohol consumption in the UK suggest that this may be at least partly due to an increase in the number of pubs/bars/clubs since the mid-1990s (Smith and Foxcroft, 2009).

The use of differing measures for alcohol consumption makes comparison across surveys difficult. Added to this is the fact that the SLÁN 2007 estimates of consumption are based on assumptions about the alcoholic content of drinks. However, within a class of drinks (e.g. lager), the alcohol content can vary widely (Goddard, 2007). More detailed questioning, as used in NIHSWS 2005, may partly alleviate this problem in future surveys, time and research priorities permitting.

Another difficulty faced when trying to find comparative data on alcohol consumption is the age criteria used in estimates. Even in the Republic of Ireland, where the minimum legal age at which alcohol can be purchased is 18 years, alcohol consumption per adult is often calculated inclusive of all persons aged 15 years and older. A useful way to address this in future estimates would be to report details for both cut-offs, i.e. for over-15s and over-18s.

LEVELS OF PHYSICAL ACTIVITY

SLÁN 2007	Physical activity scores were based on the International Physical Activity Questionnaire (IPAQ)
NIHSWS 2005	International Physical Activity Questionnaire (IPAQ) *[slightly different wording and scoring method used to SLÁN]*

Respondents in the Republic of Ireland and Northern Ireland were asked a series of questions relating to the time they spent being physically active. The responses were used to calculate a physical activity score based on the International Physical Activity Questionnaire or IPAQ (*see* www.ipaq.ki.se). Scores were categorised as high physical activity (over 10,000 steps per day), moderate (approximately 5,000-10,000 steps per day) or low (less than 5,000 steps per day).

[6] The questionnaire used in NIHSWS 2005 is available at: www.csu.nisra.gov.uk/survey.asp50.htm

It is important to note that since NIHSWS 2005 used an adapted version of IPAQ, caution should be taken when making comparisons with SLÁN 2007. While SLÁN 2007 followed the IPAQ scoring protocol exactly, NIHSWS 2005 did not and rather used three categories named 'sedentary', 'intermediate' and 'above recommended'.

Using the IPAQ protocol, levels of physical activity are set out as follows:

- **Low (Category 1)**
  This is the lowest level of physical activity. Those individuals who do not meet criteria for Categories 2 or 3 are considered inactive.

- **Moderate (Category 2)**
  Any one of the following 3 criteria:
  - 3 or more days of vigorous activity of at least 20 minutes per day; OR
  - 5 or more days of moderate-intensity activity or walking of at least 30 minutes per day; OR
  - 5 or more days of any combination of walking, moderate-intensity or vigorous-intensity activities, achieving a minimum of at least 600 MET-minutes/week.

- **High (Category 3)**
  Any one of the following 2 criteria:
  - Vigorous-intensity activity on at least 3 days and accumulating at least 1,500 MET-minutes/week; OR
  - 7 or more days of any combination of walking, moderate-intensity or vigorous-intensity activities, achieving a minimum of at least 3,000 MET-minutes/week.

Overall, 76% of respondents in the Republic of Ireland were in the moderate (47%) or high (24%) range of physical activity (*see Table 22 and Appendix 3, Table A3-6*). In Northern Ireland, 71% scored in the 'intermediate' range (46%) or 'above recommended' group (30%).

Socio-demographic characteristics

- In the Republic of Ireland, high IPAQ scores were obtained by a greater percentage of men compared to women ($p<0.001$) (*see Table 22*). A similar pattern was apparent in Northern Ireland, with more men than women in the 'above recommended' group ($p<0.05$).

- In terms of age, a higher percentage of younger respondents compared to older ones reported high levels of physical activity in the Republic ($p<0.001$) and 'above recommended' in Northern Ireland ($p<0.001$).

- There was little overall difference in either jurisdiction between the social classes for those reporting high levels or 'above recommended' levels of physical activity.

- However, a higher percentage of respondents in social classes SC 5-6 had lower physical activity levels than those in higher social classes in both the Republic ($p<0.001$) and Northern Ireland ($p<0.001$).

Table 22: Physical activity scores (IPAQ), by gender, age and social class (%)

Sample: SLÁN (N = 10,176) NIHSWS (N = 4,145)	**RoI SLÁN 2007**	**NI NIHSWS 2005**	**RoI SLÁN 2007**	**NI NIHSWS 2005**	**RoI SLÁN 2007**	**NI NIHSWS 2005**
	High %	**Above recommended %**	**Moderate %**	**Intermediate %**	**Low %**	**Sedentary %**
Total	**24**	**30**	**47**	**46**	**29**	**24**
Gender						
Men	32	33	42	44	26	23
Women	16	28	53	48	31	24
Age group						
18-29	32	33	46	57	22	10
30-44	27	37	46	49	27	14
45-64	21	29	51	45	28	26
65+	10	18	46	30	44	52
Social class						
SC 1-2	27	31	50	55	23	14
SC 3-4	25	32	47	46	28	22
SC 5-6	25	30	45	38	30	32
Unclassified	14	22	47	45	39	32

Results in context: Levels of physical activity

The overall pattern of higher levels of physical activity among younger men, reducing with increasing age, contrasts with the relatively low levels of physical activity seen in women across all age groups. Findings from the 2002 Health Behaviour in School-aged Children (HBSC) Survey (Kelleher *et al*, 2003) suggest that this trend starts at school age, with boys significantly more likely than girls to exercise 4 or more times per week. These differences become more substantial in the 15-17 year-old age group.

PHYSICAL ACTIVITY OVER THE LAST 6 MONTHS

SLÁN 2007 and **NIHSWS 2005**

Could you look at this card and tell me which statement best describes how physically active you have been over the last 6 months?

- I am not regularly physically active and do not intend to be so in the next 6 months.
- I am not regularly physically active, but am thinking about starting to do so in the next 6 months.
- I do some physical activity, but not enough to meet the description of regular physical activity.
- I am regularly physically active, but only began in the last 6 months.
- I am regularly physically active and have been so for longer than 6 months.

Identical questions in the Republic of Ireland and Northern Ireland asked respondents to state how physically active or inactive they had been over the last 6 months. 'Physically active' was defined as taking part in exercise or sport 2-3 times per week for a minimum of 20 minutes at a time, or engaging in more general activities, like walking, cycling or dancing, 4-5 times per week accumulating to at least 30 minutes per day.

Overall, respondents in the Republic of Ireland were nearly twice as likely as those in Northern Ireland to report having been physically active for more than 6 months (OR 1.92, 95% CI 1.77-2.07, $p<0.001$). Half of respondents in the Republic (49%) reported being physically active for more than 6 months compared to 34% in Northern Ireland (*see Table 23)*. A small percentage reported regular physical activity that commenced in the previous 6 months (RoI: 6%; NI: 5%). A higher percentage of respondents in Northern Ireland (29%), compared to 24% in the Republic, reported some activity but not at the level great enough to be considered 'physically active', while almost one-third in Northern Ireland (32%) and over one-fifth in the Republic (22%) reported being physically inactive.

Socio-demographic characteristics

- A higher percentage of men compared to women reported being physically active for longer than 6 months in both the Republic ($p<0.001$) and Northern Ireland ($p<0.001$) (*see Table 23 and Appendix 3, Table A3-7*).

- In both jurisdictions, the youngest age group had the highest percentage of respondents who were physically active for more than 6 months. There was a substantial difference in the percentage of respondents aged 65 and older who were physically active for more than 6 months – 46% of those in the Republic compared to 19% in Northern Ireland. The oldest age group in both the Republic and Northern Ireland had the highest percentage of physically inactive respondents (RoI: $p<0.001$; NI: $p<0.001$).

- Higher levels of physical activity were reported by respondents in social classes SC 1-2 compared with other social classes (RoI: $p<0.05$; NI: $p<0.001$).

Table 23: Level of physical activity in last 6 months, by gender, age and social class (%)

	RoI SLÁN 2007 (N = 10,148)	NI NIHSWS 2005 (N = 4,139)	RoI SLÁN 2007 (N = 10,148)	NI NIHSWS 2005 (N = 4,139)
	Not regularly physically active and do not intend to in next 6 months %		Regularly physically active and have been for longer than 6 months %	
Total	**13**	**24**	**49**	**34**
Gender				
Men	13	22	52	39
Women	13	26	46	29
Age group				
18-29	8	8	52	43
30-44	11	13	47	38
45-64	12	28	50	33
65+	27	54	46	19
Social class				
SC 1-2	7	13	53	42
SC 3-4	11	23	49	33
SC 5-6	19	32	48	31
Unclassified	20	35	40	28

DIET AND NUTRITION

SLÁN 2007

Average consumption last year of one fruit or one medium serving of vegetables:

[*see Appendix 4 for detailed list of food items included*]

- Never or less than once per month
- 1-3 per month
- Once a week
- 2-4 per week
- 5-6 per week
- Once a day
- 2-3 per day
- 4-5 per day
- 6+ per day

NIHSWS 2005

Thinking about the food that you eat, I would like you to tell me how often you usually eat the following foods:

- Fruit, including fresh, frozen, dried, tinned and pure fruit juice.
- Salad or vegetables, including fresh, frozen, dried and tinned vegetables, but excluding potatoes.
  - More than once a day
  - Once every day
  - Most days
  - Once or twice a week
  - Less often or never

SLÁN 2007 included a self-completion Food Frequency Questionnaire (FFQ), which was completed by 9,223 respondents (89% of total sample) following the main interview. Full details of the SLÁN 2007 results are contained in the report by Harrington *et al* (2008) entitled *Dietary Habits of the Irish Population.* In NIHSWS 2005, questions regarding diet and nutrition were contained in the main questionnaire.

Although it is possible to describe fruit and vegetable consumption in the two populations, care should be taken when comparing results since the questions asked and methods used for data collection differed substantially in the two surveys (self-completion questionnaire compared to face-to-face interview). Also, the SLÁN 2007 question referred to consumption in the 'last year', whereas NIHSWS 2005 asked about 'usual' consumption. Based on responses to the FFQ in SLÁN 2007, the reported intake of fruit and vegetables was converted to average daily servings. Respondents with a combined intake of at least one serving were defined as consuming a portion of fruit or vegetables. For each of the items, the percentages of respondents in the two populations who ate a portion of fruit or vegetables at least once per day were compared. A detailed list of the fruit and vegetables included in the analysis is given in Appendix 4.

FRUIT

Overall, a higher percentage of respondents in the Republic of Ireland (83%) ate a portion of fruit at least once a day compared to those in Northern Ireland (58%) (*see Table 24*).

Socio-demographic characteristics

- A higher percentage of women compared to men ate a portion of fruit at least once a day in both the Republic ($p<0.001$) and Northern Ireland ($p<0.001$) (*see Table 24 and Appendix 4, Table A4-1*).

- In the Republic, a higher percentage of respondents aged 30-44 ate a portion of fruit each day compared to those in the youngest and oldest age groups ($p<0.001$). The 30-44 age group was not significantly different to those in the 45-64 age group. In Northern Ireland, a higher percentage of older respondents reported consuming fruit each day compared to younger respondents ($p<0.05$).

- A lower percentage of respondents from social classes SC 5-6 ate fruit at least once a day in both the Republic and Northern Ireland. The differences observed in both jurisdictions were statistically significant ($p<0.001$). Social class differences were more pronounced in Northern Ireland, with 67% of respondents in SC 1-2 eating fruit once a day compared to 50% in SC 5-6.

Table 24: Portion of fruit consumed at least once a day, by gender, age and social class (%)

	RoI SLÁN 2007 (N = 9,223)	NI NIHSWS 2005 (N = 4,138)
	Fruit at least once a day %	Fruit at least once a day %
Total	**83**	**58**
Gender		
Men	79	53
Women	86	62
Age group		
18-29	81	53
30-44	85	57
45-64	84	60
65+	78	62
Social class		
SC 1-2	86	67
SC 3-4	82	59
SC 5-6	78	50
Unclassified	82	50

SALAD AND VEGETABLES

Respondents in both SLÁN 2007 and NIHSWS 2005 were asked how often they ate salad or vegetables. Fresh, frozen, dried and tinned vegetables were included, but potatoes were excluded.

Socio-demographic characteristics

- Almost all respondents in the Republic of Ireland (95%) ate at least one portion of salad or vegetables each day compared to 58% in Northern Ireland (*see Table 25 and Appendix 4, Table A4-2*).

- There were small, but statistically significant gender differences in the Republic in the percentage of respondents who ate at least one portion of salad or vegetables every day, with women more likely than men to eat at least one portion ($p<0.001$). In Northern Ireland, a higher percentage of women ate at least one portion of salad or vegetables every day compared to men ($p<0.001$).

- Respondents aged 18-29 in the Republic were significantly less likely to eat a portion of salad or vegetables at least once a day compared to older respondents ($p<0.001$). There was a clear age pattern in Northern Ireland, with older respondents more likely to report eating a portion of salad or vegetables at least once a day ($p<0.001$).

- In both jurisdictions, a greater percentage of respondents in higher social classes ate one or more portions of salad or vegetables per day compared to those in lower social classes (RoI: $p<0.001$; NI: $p<0.001$).

Table 25: Portion of salad or vegetables consumed at least once a day, by gender, age and social class (%)

	RoI SLÁN 2007 (N = 9,223)	NI NIHSWS 2005 (N = 4,138)
	Salad or vegetables at least once a day %	Salad or vegetables at least once a day %
Total	**95**	**58**
Gender		
Men	95	52
Women	96	62
Age group		
18-29	92	48
30-44	96	59
45-64	97	61
65+	96	62
Social class		
SC 1-2	97	66
SC 3-4	94	59
SC 5-6	95	50
Unclassified	95	54

Results in context: Diet and nutrition

Because of the major methodological differences in how information on diet and nutrition was collected in SLÁN 2007 and NIHSWS 2005, it is important not to over-interpret the results shown here. It is for this reason that the two jurisdictions were not compared to see if the observed differences were statistically significant. A more detailed report focusing on the results of the diet and nutrition aspects of the SLÁN 2007 survey is available (Harrington *et al*, 2008).

This is another area where greater collaboration in terms of the methodologies used to collect information at a population level should be considered by future projects in Ireland. This issue is discussed in greater detail in Chapter 7.

6. PROBLEMS IN THE SOCIAL ENVIRONMENT

6. PROBLEMS IN THE SOCIAL ENVIRONMENT

SLÁN 2007 — **How much of a problem are each of the following in your neighbourhood/area?**

- People being drunk in public
- Rubbish or litter lying around
- Vandalism and deliberate damage to property
- Graffiti on walls or buildings
- Insults or attacks to do with someone's race or colour

NIHSWS 2005 — **How much of a problem is/are:**

- People being drunk or rowdy in public places
- Rubbish or litter lying around
- Vandalism, graffiti and other deliberate damage to property or vehicles
- People being attacked or harassed because of their skin colour or ethnic origin

Respondents in both the Republic and Northern Ireland answered on a 3-point scale:

- A big problem
- A bit of a problem
- Not a problem

Both SLÁN 2007 and NIHSWS 2005 asked respondents about problems they perceived in their social environment. Four problems were common to both surveys (*see above*). Problems were assessed on a 3-point scale – as either ‘a big problem’, ‘a bit of a problem’ or ‘not a problem’. While respondents in the Republic of Ireland were asked specifically about problems in their ‘neighbourhood/area’, this limitation was not included in the question asked of respondents in Northern Ireland. Due to this, it was decided not to directly compare the results of the two surveys. Instead, results from both jurisdictions are presented below in ranked order, i.e. the problem in the social environment shown first, with the highest percentage reporting it to be a problem.

Interestingly, the order was the same in both jurisdictions, with the highest percentage reporting rubbish or litter lying around to be ‘a big problem’, followed by vandalism and deliberate damage to property, being drunk in public, graffiti on walls or buildings, and, lastly, insults or attacks to do with someone’s race or colour (*see Table 26*).

Table 26: Percentage of respondents who reported 4 social problems as ‘a big problem’ in Republic of Ireland and Northern Ireland, by gender, age and social class (%)

	RoI SLÁN 2007	NI NIHSWS 2005	RoI SLÁN 2007	NI NIHSWS 2005
	Rubbish or litter lying around (N = 10,182) %	Rubbish or litter lying around (N = 4,130) %	Vandalism, graffiti and other deliberate damage to property (N = 10,167) %	Vandalism, graffiti and other deliberate damage to property (N = 4,129) %
Total	**9**	**18**	**8**	**13**
Gender				
Men	9	18	7	13
Women	10	19	8	13
Age group				
18-29	7	25	8	19
30-44	9	16	8	11
45-64	12	18	8	12
65+	7	17	5	9
Social class				
SC 1-2	8	17	7	11
SC 3-4	10	18	9	12
SC 5-6	10	21	7	16
Unclassified	9	18	8	12
	People being drunk in public (N = 10,157) %	People being drunk in public (N = 4,124) %	Insults or attacks to do with someone’s race or colour (N = 10,131) %	Insults or attacks to do with someone’s race or colour (N = 4,087) %
Total	**5**	**11**	**2**	**3**
Gender				
Men	5	13	2	3
Women	5	11	2	3
Age group				
18-29	6	18	2	6
30-44	6	11	2	2
45-64	5	10	1	2
65+	2	6	0	1
Social class				
SC 1-2	4	8	1	3
SC 3-4	6	11	2	2
SC 5-6	6	16	1	4
Unclassified	5	10	3	2

7. DISCUSSION

7. DISCUSSION

This comparative analysis of SLÁN 2007 and NIHSWS 2005 has provided valuable insights into similarities and differences in health and social indices across the differing systems in the Republic of Ireland and Northern Ireland.

Similarities in services pertaining to health, social and education systems, and the wider legislative and political frameworks, provide an opportunity to consider this as a setting of one island with two separate systems shaping health and health-related indices. To optimally inform health and social policy on both parts of the island, every opportunity to make research comparisons should be taken. In the Republic, early steps have already been taken towards substantial investment in longitudinal studies. The Growing Up in Ireland study (*see* www.growingup.ie) and The Irish Longitudinal Study of Ageing (*see* www.tilda.ie) will be the first comprehensive longitudinal studies of children (N = 18,000) and older people (N = 8,000, aged 50+), respectively, in Ireland over a 10-year period. Such research has the potential to inform health-related developments, and ultimately health and well-being, in the Republic of Ireland and in Northern Ireland in the coming decades.

GENERAL FINDINGS

Findings in both SLÁN 2007 and NIHSWS 2005 in relation to **general health and quality of life** show higher self-reported levels in the Republic of Ireland than in Northern Ireland. These findings were mirrored in two relatively large recent studies, each including approximately 2,000 participants – the IPH 2003 comparative adult population survey (Balanda and Wilde, 2003) and the HARP 2004 survey of adults aged 65+ (McGee *et al*, 2005).

Both SLÁN 2007 and NIHSWS 2005 contained questions relating to **mental health**. However, the measures used were not directly comparable. In the Republic of Ireland, SLÁN 2007 included a standard 5-item measure of psychological distress, the Mental Health Index (MHI-5) from the SF-36 (Ware *et al*, 1993). Findings suggest relatively low levels of psychological distress, with men having statistically significantly higher average scores than women (83 compared to 81; $p<0.001$). A detailed report on mental health and social well-being, based on SLÁN 2007, was published recently (Barry *et al*, 2009).

In Northern Ireland, NIHSWS 2005 used the short version of the General Health Questionnaire (GHQ-12) to measure psychological distress in the population. Overall, 19% of respondents were categorised as showing a probable mental health problem. A higher percentage of women (22%) than men (16%) reported a probable mental health problem. The 2007 National Psychological Well-being and Distress Survey (Tedstone Doherty *et al*, 2008) also used the GHQ-12 and found that about 12% of the population of the island of Ireland were categorised as having a potential psychological problem, again with women (14%) more likely than men (10%) to report a potential psychological problem. All of this suggests that there are slightly higher rates of psychological distress in the Northern Ireland population. Future population surveys in the two jurisdictions would benefit from using the same measurement tools to allow for greater comparability across the island.

Regarding **health service use**, GP visits and hospitalisation rates appear to be quite similar across the two jurisdictions. Because information on the frequency of visits to a GP was not collected, it was not possible to fully investigate the effect the different health service structures in the two jurisdictions might have on service utilisation.

There were higher rates of day procedures in hospitals in Northern Ireland. These findings are broadly similar to those in HARP 2004 on health service use by people aged 65 and older (McGee *et al*, 2005). While the one-year reference point of the SLÁN 2007 question does not permit evaluation of full population coverage in the recommended multi-annual screening timeframe, preventative health services, such as cancer screening, were more evident within the previous year in Northern Ireland. While there were no significant differences in breast cancer screening in the two jurisdictions, the level of cervical screening was significantly higher in Northern Ireland (30% compared to 16%). Cancer screening coverage also appeared to be more equitable in Northern Ireland. In the Republic, women in higher social class groups were significantly more likely to have availed of both breast and cervical screening. This may well reflect the personal funding of such services by women in the Republic in the absence of a widespread screening service and in the two-thirds/one-third public/private health system that exists in the Republic. Overshadowing any differences between jurisdictions, the important message from these population studies is the relatively low coverage of such cancer screening services in both the Republic and Northern Ireland.

Findings elsewhere also suggest a somewhat more developed preventative health approach in Northern Ireland. For example, uptake of the influenza vaccination for those aged 65 years and older was significantly higher in Northern Ireland (78%) than in the Republic (72%) in 2004 (McGee *et al*, 2005).

Health behaviour profiles were also assessed. **Smoking** rates in the Republic were statistically significantly higher than in Northern Ireland (29% compared to 26%). The age and social class patterns were similar, with younger and lower social class respondents more likely to smoke. A workplace smoking ban was introduced in the Republic in 2004 and a similar ban was put in place in Northern Ireland in 2007. The recent decision to increase the legal age for the purchase of tobacco from 16 to 18 years in Northern Ireland has further harmonised the approaches to tobacco control on the island. Northern Ireland appears to be taking a more centralised approach to the provision of smoking cessation services, while the provision of such services in the Republic is currently less consistent. The role of the GP as a source of advice on quitting smoking, as seen in these studies, is under-utilised in both jurisdictions. A detailed report on the policy implications of smoking in the Republic of Ireland, based on SLÁN 2007, was published recently (Brugha *et al*, 2009).

Both SLÁN 2007 and NIHSWS 2005 collected information on **alcohol consumption.** However, different measures were used in both surveys, making comparisons difficult. There were similar abstinence rates reported in the Republic and Northern Ireland (19% and 22%). From the data collected, it appears that a higher percentage of respondents in Northern Ireland drank on a weekly basis and also drank above the recommended upper limit. However, more detailed questions on alcohol use were used in the Northern Ireland survey. Typically, studies with more detailed probing identify higher drinking rates, so results here are at most a challenge to examine the issue unequivocally across the two jurisdictions. There is a need for greater

standardisation in how alcohol consumption is measured, with the more detailed measurement used in NIHSWS 2005 being a move in the right direction.

The International Physical Activity Questionnaire (IPAQ) was used in both SLÁN 2007 and NIHSWS 2005. A greater percentage of respondents in Northern Ireland were classified as having high levels of **physical activity** compared to those in the Republic of Ireland (30% compared to 24%). The Republic had a higher percentage of respondents with sedentary levels of physical activity (29%) compared to Northern Ireland (24%). The overall pattern was similar in both jurisdictions and showed higher levels of physical activity in younger men, reducing with increasing age. In contrast, there was a relatively low level of physical activity in women across all age groups. That said, a higher percentage of people in the Republic reported being physically active for longer than 6 months than in Northern Ireland.

A sub-sample from the Republic and the full Northern Ireland sample had their height and weight measured for the purpose of calculating their body mass index (BMI) in order to estimate the prevalence and associated risks of **overweight and obesity** within both populations. Obesity is a growing concern worldwide because of its serious health implications. The island of Ireland is not immune to this phenomenon, with 1 in 4 people in both the Republic and Northern Ireland classified as 'obese'. This finding has implications for future health policy on the island. Findings from other studies, for example HBSC 2002 (Kelleher *et al*, 2003), show that beginning at a young age, women are far less likely than men to be physically active. This is one of the areas that needs to be addressed if the growing levels of obesity on the island are to be halted.

While the spatial context (neighbourhood) of the questions asked regarding respondents' perception of problems in their **social environment** was different in the two surveys, it was apparent that these problems are ranked similarly in terms of their relative importance in both jurisdictions. Rubbish or litter lying around was the most commonly reported 'big problem' of the four typical social environment problems presented to respondents, while very few reported insults or attacks to do with someone's race or colour. Again, this is an area where greater comparability of results would have been possible if the context of the questions had been the same.

RECOMMENDATIONS

The findings presented here are tentative and in many cases quite speculative since the measures used in the two surveys were not, in general, directly comparable. A tentative answer to the question asked in the title of this report – 'One island – One lifestyle?' – is that there was some evidence of better self-rated health, quality of life and psychological well-being in the Republic of Ireland; some evidence of better health service delivery in Northern Ireland (e.g. day procedures in hospital, cancer screening); and some evidence of better health behaviour profiles in Northern Ireland, particularly concerning smoking and physical activity. However, these findings illustrate the potential of more robust comparative evidence. It is a comparison indicating that differences go in both directions and that service planners and policy-makers have much to learn about their own system by the better, or more challenged profile in the other jurisdiction.

In the coming years, there will almost certainly be a greater sharing of health resources between the Republic of Ireland and Northern Ireland, as is already evident in cross-border initiatives such as Cooperation and Working Together (CAWT) and the Workplace Health Initiative. Economies of scale are also likely to support the development of shared facilities for rare or expensive services. All of these developments would benefit from more shared and equivalent data-gathering mechanisms.

Greater cooperation in terms of population health research would also support what is a small specialist research community, spread across the island of Ireland. Various activities have been undertaken, mainly separately to date, to boost capacity in this small research community. There are common professional research societies and conference events, such as the annual All-Ireland Society for Social Medicine conference. In a similar vein, the recently established Centre for Ageing Research and Development in Ireland (CARDI) aims to promote cooperation in ageing research and policy development, and has supported events and activities to foster cooperation and dialogue in research. An expert committee consisting of members from an all-Ireland constituency and an international panel of advisors has been established by the Health Research Board and will report on strategies to promote population health research capacity in Ireland by mid-2009. Comparative research approaches are likely to be both a mechanism for capacity development and a product of such development. As in other areas of public life, comparative population health research between the Republic and Northern Ireland is likely to benefit all concerned.

In a wider European context, initiatives by the European Commission, such as the European Health Survey System (EHSS) involving Core Health Interview Surveys and Health Examination Surveys, are helping to form a consensus on common health indicators for population surveys. There will, however, always be issues that are of more local or regional concern that benefit from in-depth focus, with the particular culture and context to the fore in forming research questions and methods. This is where cooperation within Ireland can yield substantial benefit. Such research has the potential to inform health-related developments, and ultimately health and well-being, in the Republic of Ireland and in Northern Ireland in the coming years.

SLÁN 2007 Project Team

SLÁN 2007 Consortium		
Professor Hannah McGee	Director	Royal College of Surgeons in Ireland
Professor Ivan Perry	Principal Investigator	University College, Cork
Professor Margaret Barry	Principal Investigator	National University of Ireland, Galway
Dr. Dorothy Watson	Principal Investigator	Economic and Social Research Institute
Professor Ruairí Brugha	Member	Royal College of Surgeons in Ireland
Professor Ronán Conroy	Member	Royal College of Surgeons in Ireland
Professor Richard Layte	Member	Economic and Social Research Institute
Dr. Michal Molcho	Researcher, Member	National University of Ireland, Galway
Ms. Janas Harrington	Researcher, Member	University College, Cork
Dr. Karen Morgan	Research Manager, Member	Royal College of Surgeons in Ireland
Dr. Emer Shelley	Member	Royal College of Surgeons in Ireland and Population Health Directorate, HSE

SLÁN 2007 Additional Research Team Members		
Ms. Nuala Tully	Researcher	Royal College of Surgeons in Ireland
Mr. Eric Van Lente	Researcher	National University of Ireland, Galway
Mr. Mark Ward	Researcher	Royal College of Surgeons in Ireland
Ms. Jennifer Lutomski	Researcher	University College, Cork
Ms. Sylvia Blackwell	Research Analyst	Economic and Social Research Institute
Ms. Carly Cheevers	Research Analyst	Economic and Social Research Institute
Mr. Pat Kane	Survey Operations Manager	Economic and Social Research Institute

Department of Health and Children Management Committee and National Advisory Group Members	
Mr. Brian Mullen	Health Promotion Policy Unit
Mr. Robbie Breen	Health Promotion Policy Unit
Ms. Marian Beakey	Health Promotion Policy Unit
Ms. Deirdre Mahony	Health Promotion Policy Unit
Ms. Sheila Kulkarni	Health Promotion Policy Unit

National Advisory Group Members		
Dr. John Devlin	Deputy Chief Medical Officer	Department of Health and Children
Dr. Brian Gaffney	Chief Executive	Health Promotion Agency, Northern Ireland
Dr. David Gordon	Head of Observatory Division	Public Health Science Directorate, NHS Health Scotland
Dr. Sinéad Hanafin	Head of Research	Office of the Minister for Children and Youth Affairs
Dr. Karen Harrington	Senior Community Dietician	Health Service Executive, South
Ms. Carolyn Hillery	Community Dietician Manager	Health Service Executive, Dublin Mid-Leinster
Mr. Hugh Magee	Senior Statistician	Department of Health and Children
Dr. Maureen McGowan	Community Dietician Manager	Health Promotion Services, Health Service Executive, Dublin Mid-Leinster
Mr. Brian Neeson	Functional Manager, Health Promotion Research and Development	Health Service Executive
Dr. Saoirse Nic Gabhainn	Senior Lecturer in Health Promotion	Department of Health Promotion, National University of Ireland, Galway
Ms. Ursula O'Dwyer	National Nutrition Policy Advisor	Department of Health and Children

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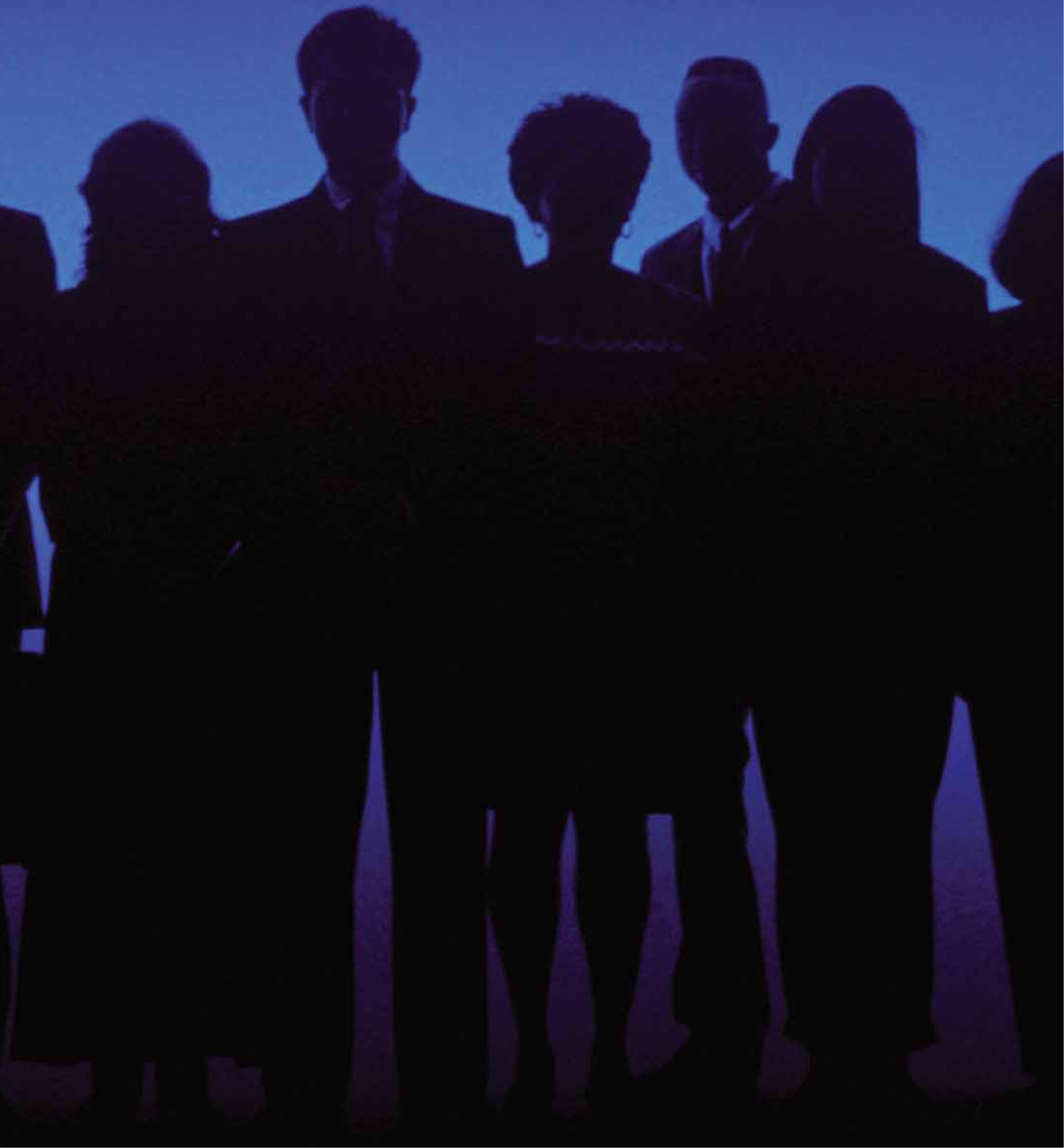
APPENDICES



APPENDIX 1: OVERVIEW OF SLÁN 2007 AND NIHSWS 2005 SURVEYS

Table A1-1: Overview of main components of SLÁN 2007 and NIHSWS 2005

	SLÁN 2007	NIHSWS 2005
Method	Face-to-face interview	Face-to-face interview Self-completion of sub-section Trained interviewer
Time to complete	30 minutes	*Not stated*
Respondents	Adults aged 18+	Adults aged 16+ All adults aged 16+ – General health section
Sections	General health Exercise Tobacco Alcohol Other substances Accident and injuries You and your household (general information) Family, social network and neighbourhood Injuries Food habits Mental health	Basic household information General health Specific medical conditions Adult allergies Physical activity Carer's section Dietary information Dental health questions Work-related illness questions Not work-related illness questions Perceptions of child's weight Child health Breastfeeding Social environment Stress Self-completion – GHQ-12 and social support Smoking and drinking section Education Employment Income and benefits Religion
Physical measurement/ blood samples	• height • weight • hip and waist circumference • blood pressure • total cholesterol • lipid profile	Physical measurements – recorded by the interviewer. Height and weight recorded of all individuals aged 2 and over.

APPENDIX 2: SAMPLING AND WEIGHTING

Weighting NIHSWS

In 2005/06, the results were weighted by age and sex to compensate for differential non-response. This weighting process adjusts the results to those that would have been achieved if the sample had been drawn as a random sample of adults rather than addresses.

Weighting SLÁN 2007 – overall sample data

Weighting was a two-stage process:

1. Construction of a design weight to compensate for the over-representation of individuals in smaller households (a consequence of the sampling frame used).

2. Calibration of the sample distribution to population totals along a number of dimensions:[7]
    - age group (9 categories) by gender;
    - age by gender (2 categories) by marital status (4 categories);
    - gender by economic status (5 categories);
    - gender by level of education (4 categories);
    - occupational category (9 categories);
    - ethnicity (7 categories);
    - household size (5 categories);
    - geographic region (8 categories).

[7] This involved using GROSS, a programme using a minimum distance algorithm and iterative process to calibrate to external controls from national sources, such as the Quarterly National Household Survey (QNHS) or Census 2006.

APPENDIX 3: GENERAL HEALTH AND WELL-BEING

Table A3-1: Self-rated quality of life, by gender, age and social class (%)

Sample: SLÁN 2007 (N = 10,187) NIHSWS 2005 (N = 4,133)	RoI SLÁN 2007 Very poor %	NI NIHSWS 2005 Very poor %	RoI SLÁN 2007 Poor %	NI NIHSWS 2005 Poor %	RoI SLÁN 2007 Neither good nor poor %	NI NIHSWS 2005 Neither good nor poor %	RoI SLÁN 2007 Good %	NI NIHSWS 2005 Good %	RoI SLÁN 2007 Very good %	NI NIHSWS 2005 Very good %
Total	**2**	**2**	**3**	**3**	**6**	**9**	**50**	**49**	**40**	**36**
Gender										
Men	1	1	2	3	6	10	53	52	37	34
Women	2	2	2	3	7	9	47	47	43	38
Age group										
18-29	1	1	1	1	4	7	45	51	49	40
30-44	1	1	1	2	6	7	50	51	41	38
45-64	2	3	2	5	7	11	52	46	37	36
65+	2	2	5	6	12	14	55	50	27	28
Social class										
SC 1-2	1	2	2	1	4	4	44	47	49	47
SC 3-4	1	1	2	3	6	9	52	50	38	36
SC 5-6	2	2	3	5	9	14	57	52	28	27
Unclassified	2	2	2	5	9	12	49	46	37	35

Table A3-2: Self-rated general health, by gender, age and social class (%)

Sample: SLÁN 2007 (N = 10,337)	RoI SLÁN 2007	NI NIHSWS 2005	RoI SLÁN 2007	NI NIHSWS 2005	RoI SLÁN 2007	NI NIHSWS 2005	RoI SLÁN 2007	NI NIHSWS 2005	RoI SLÁN 2007	NI NIHSWS 2005
NIHSWS 2005 (N = 4,141)	Excellent %	Very good %	Very good %	Good %	Good %	Fair %	Fair %	Bad %	Poor %	Very bad %
Total	**22**	**34**	**36**	**40**	**30**	**18**	**10**	**6**	**3**	**2**
Gender										
Men	22	33	35	42	30	17	9	6	3	2
Women	22	35	37	38	29	19	10	7	2	2
Age group										
18-29	31	44	38	45	27	9	4	2	1	0
30-44	25	42	41	41	28	12	5	4	1	1
45-64	17	29	35	38	32	22	13	9	3	2
65+	10	17	24	35	35	33	24	11	6	3
Social class										
SC 1-2	26	43	38	43	28	11	7	3	1	1
SC 3-4	21	35	36	40	31	18	9	6	2	1
SC 5-6	18	26	34	38	30	24	14	9	4	3
Unclassified	20	30	34	34	29	24	13	9	4	3

Table A3-3: Measured BMI, by gender, age and social class (%)

Sample: SLÁN 2007 (N = 2,166)	**RoI SLÁN 2007**	**NI NIHSWS 2005**	**RoI SLÁN 2007**	**NI NIHSWS 2005**	**RoI SLÁN 2007**	**NI NIHSWS 2005**	**RoI SLÁN 2007**	**NI NIHSWS 2005**
NIHSWS 2005 (N = 3,133)	**Underweight %**	**Underweight %**	**Healthy %**	**Healthy %**	**Overweight %**	**Overweight %**	**Obese %**	**Obese %**
Total	**1**	**5**	**35**	**34**	**39**	**36**	**24**	**25**
Gender								
Men	1	3	29	30	46	41	24	25
Women	1	7	41	38	32	31	25	24
Age group								
18-29	2	12	59	46	27	25	11	17
30-44	1	4	38	34	39	35	21	26
45-64	1	3	22	27	45	41	32	29
65+	0	3	27	32	42	43	31	23
Social class								
SC 1-2	1	4	34	34	42	40	23	22
SC 3-4	1	5	38	34	37	35	24	26
SC 5-6	3	4	26	31	42	37	29	28
Unclassified	3	12	43	43	33	29	22	16

Table A3-4: Trying to lose or gain weight, by gender, age and social class (%)

Sample: SLÁN 2007 (N = 10,217) NIHSWS 2005 (N = 3,909)	RoI SLÁN 2007 Lose weight %	NI NIHSWS 2005 Lose weight %	RoI SLÁN 2007 Gain weight %	NI NIHSWS 2005 Gain weight %	RoI SLÁN 2007 Maintain weight %	NI NIHSWS 2005 Not actively managing weight %	RoI SLÁN 2007 Not trying to change weight %
Total	**29**	**31**	**1**	**3**	**13**	**57**	**63**
Gender							
Men	23	23	2	3	13	63	74
Women	34	38	1	2	13	51	60
Age group							
18-29	22	29	3	4	12	63	67
30-44	31	34	1	3	14	54	63
45-64	36	35	1	2	13	51	63
65+	22	20	1	3	11	66	78
Social class							
SC 1-2	33	32	1	2	16	50	67
SC 3-4	29	34	1	3	12	58	63
SC 5-6	23	28	2	2	10	65	69
Unclassified	23	20	2	3	13	62	77

Table A3-5: Smoking status, by gender, age and social class (%)

Sample: SLÁN 2007 (N = 10,237) / NIHSWS 2005 (N = 4,119)	RoI SLÁN 2007	RoI SLÁN 2007	RoI SLÁN 2007	NI NIHSWS 2005	RoI SLÁN 2007	NI NIHSWS 2005	RoI SLÁN 2007	NI NIHSWS 2005
	Smokes every day %	**Smokes some days %**	**All current smokers %**	**All current smokers %**	**Former smoker %**	**Former smoker %**	**Never smoked %**	**Never smoked %**
Total	**24**	**5**	**29**	**26**	**19**	**30**	**52**	**43**
Gender								
Men	25	5	31	26	23	37	47	37
Women	22	4	27	27	16	25	58	49
Age group								
18-29	28	7	35	32	8	23	57	45
30-44	27	7	34	32	17	26	49	42
45-64	22	3	25	26	25	34	50	40
65+	13	2	14	12	30	39	56	49
Social class								
SC 1-2	18	6	24	17	24	36	52	48
SC 3-4	25	5	30	27	19	31	51	43
SC 5-6	32	5	37	36	18	30	45	35
Unclassified	21	4	25	23	13	18	63	59

Table A3-6: Physical activity scores (IPAQ), by gender, age and social class (%)

Sample: SLÁN 2007 (N = 10,176) NIHSWS 2005 (N = 4,145)	**RoI SLÁN 2007**	**NI NIHSWS 2005**	**RoI SLÁN 2007**	**NI NIHSWS 2005**	**RoI SLÁN 2007**	**NI NIHSWS 2005**
	Low %	**Sedentary** %	**Moderate** %	**Intermediate** %	**High** %	**Above recommended** %
Total	**29**	**24**	**47**	**46**	**24**	**30**
Gender						
Men	26	23	42	44	32	33
Women	31	24	53	48	16	28
Age group						
18-29	22	10	46	57	32	33
30-44	27	14	46	49	27	37
45-64	28	26	51	45	21	29
65+	44	52	46	30	10	18
Social class						
SC 1-2	23	14	50	55	27	31
SC 3-4	28	22	47	46	25	32
SC 5-6	30	32	45	38	25	30
Unclassified	39	32	47	45	14	22

Table A3-7: Level of physical activity in last 6 months, by gender, age and social class (%)

Sample: SLÁN 2007 (N = 10,148 NIHSWS 2005 (N = 4,139)	**RoI SLÁN 2007**	**NI NIHSWS 2005**	**RoI SLÁN 2007**	**NI NIHSWS 2005**	**RoI SLÁN 2007**	**NI NIHSWS 2005**	**RoI SLÁN 2007**	**NI NIHSWS 2005**	**RoI SLÁN 2007**	**NI NIHSWS 2005**
	Not regularly physically active and do not intend to in next 6 months %		**Not regularly physically active, but thinking about starting in next 6 months %**		**Do some physical activity, but not enough %**		**Physically active, but only in the last 6 months %**		**Regularly physically active and have been for longer than 6 months %**	
Total	**13**	**24**	**9**	**8**	**24**	**29**	**6**	**5**	**49**	**34**
Gender										
Men	13	22	8	7	23	27	5	4	52	39
Women	13	26	10	9	25	30	7	6	46	29
Age group										
18-29	8	8	9	10	23	30	8	9	52	43
30-44	11	13	12	11	24	31	7	7	47	38
45-64	12	28	8	7	25	29	5	3	50	33
65+	27	54	4	3	22	23	2	1	46	19
Social class										
SC 1-2	7	13	11	8	23	31	6	5	53	42
SC 3-4	11	23	9	8	25	30	6	6	49	33
SC 5-6	19	32	8	7	20	27	4	4	48	31
Unclassified	20	35	8	9	25	23	7	6	40	28

APPENDIX 4: DIET AND NUTRITION

The following **fruits** were included in the SLÁN 2007 Food Frequency Questionnaire:

- Apples
- Pears
- Oranges, satsumas, mandarins
- Grapefruit
- Bananas
- Grapes
- Peaches
- Apricots
- Strawberries, raspberries, kiwi fruit
- Tinned fruit
- Dried fruit, e.g. raisins
- Frozen fruit
- Melon
- Plums

The following **salad and vegetables** were included in the SLÁN 2007 Food Frequency Questionnaire:

- Carrots
- Broccoli, spring greens, kale
- Cabbage
- Green beans, broad beans, runner beans
- Cauliflower
- Leeks
- Garlic
- Sweet peppers
- Green salad, lettuce
- Tomatoes
- Beetroot
- Baked beans
- Spinach
- Brussels sprouts
- Peas
- Courgettes
- Parsnips, turnips
- Onions
- Mushrooms
- Bean sprouts
- Cucumber, celery
- Sweet corn
- Coleslaw
- Dried lentils, beans, peas
- Tofu, soya meat, TVP, vegeburger
- Vegetable soups: homemade/fresh (1 bowl); tinned/packet (1 bowl)

The following **sweets and snacks** were included in the SLÁN 2007 Food Frequency Questionnaire:

- Cakes, e.g. fruit, sponge
- Buns, pastries, e.g. croissants, doughnuts
- Fruit pies, tarts, crumbles
- Sponge puddings

The following **savoury foods** were included in the SLÁN 2007 Food Frequency Questionnaire:

- Crisps or other packet snacks
- Peanuts or other nuts

Table A4-1: Fruit consumed at least once a day, by gender, age and social class (%)

Sample: SLÁN 2007 (N = 9,221) NIHSWS 2005 (N = 4,138)	**RoI SLÁN 2007** More than once a day %	**NI NIHSWS 2005** More than once a day %	**RoI SLÁN 2007** Once a day %	**NI NIHSWS 2005** Once a day %	**RoI SLÁN 2007** At least once a week %	**NI NIHSWS 2005** At least once a week %	**RoI SLÁN 2007** Less than once a week %	**NI NIHSWS 2005** Less than once a week %
Total	**9**	**29**	**35**	**29**	**51**	**33**	**5**	**10**
Gender								
Men	9	26	32	27	53	36	6	11
Women	10	32	37	30	49	29	4	9
Age group								
18-29	10	23	30	29	56	37	4	11
30-44	9	30	34	27	53	34	5	10
45-64	10	32	38	27	47	31	5	9
65+	8	30	40	33	46	29	6	9
Social class								
SC 1-2	11	39	37	27	49	28	4	5
SC 3-4	9	29	36	30	50	32	5	9
SC 5-6	8	22	30	28	55	35	6	15
Unclassified	9	22	33	28	53	39	4	10

Table A4-2: Salad or vegetables consumed at least once a day, by gender, age and social class (%)

Sample: SLÁN 2007 (N = 9,205) NIHSWS 2005 (N = 4,138)	**RoI SLÁN 2007**	**NI NIHSWS 2005**	**RoI SLÁN 2007**	**NI NIHSWS 2005**	**RoI SLÁN 2007**	**NI NIHSWS 2005**	**RoI SLÁN 2007**	**NI NIHSWS 2005**
	More than once a day %	**More than once a day %**	**Once a day %**	**Once a day %**	**At least once a week %**	**At least once a week %**	**Less than once a week %**	**Less than once a week %**
Total	**3**	**16**	**21**	**42**	**74**	**38**	**1**	**5**
Gender								
Men	3	13	18	40	78	42	2	6
Women	3	19	25	44	71	33	1	4
Age group								
18-29	4	14	17	34	77	43	2	9
30-44	3	17	21	42	75	37	1	4
45-64	3	17	22	44	74	36	1	3
65+	3	13	27	48	69	35	1	3
Social class								
SC 1-2	3	22	22	43	74	32	1	3
SC 3-4	4	16	21	43	74	37	2	5
SC 5-6	2	12	20	38	77	44	1	6
Unclassified	3	12	23	43	73	38	1	7

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Department of Health and Children
Hawkins House
Hawkins Street
Dublin 2

Tel: +353 (0)1 635 4000
Fax: +353 (0)1 635 4001
E-mail: dohc@health.gov.ie
Web: www.dohc.gov.ie

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