Sexual health of the Irish adult population: Findings from SLÁN

Frances Shiely, Cecily Kelleher, Miriam Galvin







Sexual health of the Irish adult population: Findings from SLÁN

Dr. Frances Shiely, Professor Cecily Kelleher, Ms. Miriam Galvin, Department of Public Health Medicine and Epidemiology, University College, Dublin.

ISBN: 1-905199-00-7

Foreword

Two general health related surveys were commissioned by the Health Promotion Unit, Department of Health and Children in 1998 and 2002. SLÁN (Survey of Lifestyle, Attitudes and Nutrition) asked women and men aged over 18 years questions about their general health, smoking, alcohol and other drug use, food and nutrition, exercise and accidents.

While SLÁN 1998 and 2002 are not sexual health surveys they did ask all respondents a question about frequency of contraceptive use over the last year and what kinds of contraception they used over the last year. A detailed breakdown of this data was not provided in the main SLÁN reports.

The Crisis Pregnancy Agency is delighted to now have available a report which describes a secondary analysis of the SLÁN data exploring contraceptive use among sexually active adults aged 50 years and under.

An essential part of the Agency's research activities involves disseminating research findings to as wide an audience as possible. The Crisis Pregnancy Agency is pleased that these important findings are now in the public domain as they will be of interest to researchers, practitioners, members of the public with an interest in sexual health and policy makers, among others. The findings are especially important for those who are designing further research to build upon this data.

The Agency would like to thank the Department of Health and Children for commissioning these studies in the first instance and the authors of the CPA report, Dr. Frances Shiely, Professor Cecily Kelleher and Ms. Miriam Galvin for their work on compiling this report.

It is my sincere hope that the findings of this report will further contribute to our evidence base on sexual health and contraceptive behaviour in Ireland.

Sharon Foley Director

Acknowledgements

The National Health and Lifestyle Surveys are funded by the Health Promotion Unit, Department of Health and Children.

Funding for the secondary analysis was provided by the Crisis Pregnancy Agency.

The views expressed in this report are those of the authors and do not necessarily reflect the views or policies of the sponsors.

TABLE OF CONTENTS

Exec	utive s	summar	y	8
1.0	Intro	duction		11
	1.1	Backg	round	11
	1.2	Metho	dology of the National Health and Lifestyle Surveys	11
		1.2.1	Procedures	11
	1.3	Metho	dology of the secondary analysis	12
		1.3.1	Procedures	12
		1.3.2	Questions	14
		1.3.3	Statistical methodology	14
2.0	Prev	alence o	of sexual activity	15
	2.1	Preval	ence of sexual activity	15
	2.2	Influer	ncing factors on sexual status	16
		2.2.1	Educational status	16
		2.2.2	Social class	16
		2.2.3	GMS status	16
		2.2.4	Gender	17
		2.2.5	Marital status	17
		2.2.6	Location/health board areas	17
		2.2.7	Smoking/alcohol status	18
	2.3	Self-ra	ated health and quality of life	19
3.0	Prev	alence o	of contraceptive use	20
	3.1	Preval	ence of contraceptive use for SLÁN 98 and SLÁN 02 separately	20
		3.1.2	Contraceptive use x age	20
		3.1.3	Contraceptive use x gender	21
		3.1.4	Contraceptive use for single/never married group	22
	3.2	Contra	aception type for SLÁN 98 and SLÁN 02 separately	22
	3.3	Preval	ence of contraceptive use – merged data sets	23
		3.3.1	Gender	23
		3.3.2	Age	23
		3.3.3	Marital status	25
		3.3.4	GMS status	26
		3.3.5	Social class	26
		3.3.6	Educational status	27
		3.3.7	Health board	28
		3.3.8	Location	29
		3.3.9	Smoking status/alcohol consumption	30
	3.4	Contra	aceptive type	31
	3.5	Religio	on	34
	3.6	Unprotected sex		
	3.7	Pregna	ancy	36

4.0	Prev	Prevalence of sexual activity and contraceptive use				
	for t	hose aged under and over 35	38			
	4.1	Prevalence of sexual activity	38			
	4.2	Contraceptive use	41			
	4.3	Contraceptive type	45			
		4.3.1 Contraceptive type x gender	45			
5.0	Mult	tivariate analysis	46			
	5.1	Predictors of sexual activity	50			
	5.2	Predictors of contraceptive use	52			
	5.3	Predictors of condom use (men only)	53			
	5.4	Predictors of OC pill use (women only)	54			
6.0	Cond	clusions and recommendations	55			
	6.1	Discussion	55			
	6.2	Recommendations	58			
	Refe	erences	59			

LIST OF FIGURES

Figure 2.1: Figure 2.2:	Sexually active population x age group (SLÁN 98 and SLÁN 02) Prevalence of sexual activity x marital status (SLÁN 98 and SLÁN 02)
Figure 2.3:	Sexual activity x location (SLÁN 02)
Figure 2.4:	Sexual activity x health board area (SLÁN 02)
Figure 2.5:	Alcohol consumption of the sexually active population (SLÁN 98 and SLÁN 02)
Figure 3.1:	Contraceptive use x age (SLÁN 98 and SLÁN 02)
Figure 3.2:	Percentage contraceptive use x gender (SLÁN 98 and SLÁN 02)
Figure 3.3:	Contraceptive use (merged data)
Figure 3.4:	Contraceptive use x gender (merged data)
Figure 3.5:	Contraceptive use for individual age groups (merged data)
Figure 3.6:	Contraceptive use amongst men (merged data)
Figure 3.7:	Contraceptive use amongst women (merged data)
Figure 3.8:	Marital status x contraceptive use (merged data)
Figure 3.9:	Contraceptive use x marital status and age (merged data)
Figure 3.10:	Contraceptive use x social class (merged data)
Figure 3.11:	Contraceptive use x educational status (merged data)
Figure 3.12:	Contraceptive use within each educational category (merged data)
Figure 3.13:	Contraceptive use x health board (merged data)
Figure 3.14:	Male and female contraceptive use x health board (merged data)
Figure 3.15:	Non-contraceptive use x rural/urban location (merged data)
Figure 3.16:	Male contraceptive use x location (merged data)
Figure 3.17:	Non-contraceptive use x rural/urban location and age group (merged data)
Figure 3.18:	Type of contraceptive use (merged data)
Figure 3.19:	Contraceptive type x gender (merged data)
Figure 3.20:	Contraceptive type x age (merged data)
Figure 3.21:	Condom use x age and sex (merged data)
Figure 3.22:	Religious affiliation x contraceptive type (SLÁN 02)
Figure 3.23:	Unprotected sex x gender (merged data)
Figure 3.24:	Unprotected sex x age group (merged data)
Figure 3.25:	Unprotected sex x 6 or more drinks/session
Figure 3.26:	Number of mothers pregnant (merged data)
Figure 3.27:	Alcohol consumption and pregnancy (merged data)
Figure 4.1:	Sexual activity x education and social class (merged data)
Figure 4.2:	Sexual activity x location (merged data)
Figure 4.3:	Sexual activity x health board area (merged data)
Figure 4.4:	Sexual activity x smoking (merged data)
Figure 4.5:	Contraceptive use x age (merged data)
Figure 4.6:	Contraceptive use x gender (merged data)
Figure 4.7:	Educational status and social class of contraceptive users (merged data)
Figure 4.8:	Rural/urban location of contraceptive users (merged data)
Figure 4.9:	Method of contraception (merged data)
Figure 4.10:	Male contraceptive type (merged data)
Figure 4.11:	Female contraceptive use (merged data)

LIST OF TABLES

- Table 1.1: Percentage gender and age distributions of Census 1996, SLÁN 98, SLÁN 02 and Census 2002
- Table 2.1: Percentage sexual activity x age (SLÁN 98 and SLÁN 02)
- Table 3.1: Percentage contraceptive use amongst sexually active population (SLÁN 98 and SLÁN 02)
- Table 3.2: Contraceptive use amongst the single/never married groups (SLÁN 98 and SLÁN 02)
- Table 3.3: Prevalence of contraceptive use amongst men and women (SLÁN 98 and SLÁN 02)
- Table 3.4: Contraceptive type x marital status (merged data)
- Table 3.5: Prevalence of contraceptive use for pregnant women, women with children and women without children (merged data)
- Table 4.1: Contraceptive use x marital status (merged data)
- Table 5.1: CatPCA and resulting factors for under 50s (merged data)
- Table 5.2: Binary logistic regression Dependent variable sexually active/not sexually active (merged data)
- Table 5.3: Binary logistic regression Dependent variable sexually active/not sexually active (SLÁN 2002 only)
- Table 5.4: Binary logistic regression Dependent variable contraceptive use/not use (merged data)
- Table 5.5: Binary logistic regression Dependent variable contraceptive use/not use (SLÁN 2002 only)
- Table 5.6: Binary logistic regression Dependent variable condom use/not use (merged data)
- Table 5.7: Binary logistic regression Dependent variable OC pill use/not use (merged data)

Executive Summary

Introduction

In Ireland we have long had a highly religious and traditional social structure with an emphasis on family values. The sexual practices of women likely to become pregnant are profoundly important, but so too are the customs and norms surrounding sexual behaviour in society more generally. While sexual behaviour has been influenced strongly by cultural and religious norms, frankness about sexuality or sexual relations has been negligible or absent, with little reliable data for health service provision purposes. In seeking to understand these issues we promote positive and creative aspects of sexuality, identify vulnerabilities if and as they exist and support constructive life choices.

The decision to have a baby is always a life-changing event. When that decision is precipitated by circumstance, it can present a life crisis for a woman of any age, requiring not alone careful thought and planning, but also as much immediate support from family and friends as possible. Self-evidently this is an event by its nature embedded in individual and societal values. The decision to terminate rather than proceed with a pregnancy will, for instance, be determined by a person's values and beliefs, by their immediate social support but also by the formative structures of the surrounding society. To tackle crisis pregnancy is to take a strategic, upstream view; to be proactive rather than directional. The Crisis Pregnancy Agency's strategy document (2003) has highlighted the importance of individual-level, relationship related and situational factors that need to be accounted for in understanding why couples may have unprotected sex when they want to avoid conception. The strategy has set out a framework for understanding those factors and their likely solutions.

The SLÁN survey of lifestyles, attitudes and nutrition provides a profile of the general adult Irish population. It is not primarily designed to study sexual health behaviours but it does include a section on sexual activity and contraceptive use that can be related to a range of socio-demographic, health status and lifestyle indicators. Data were collected in 1998 and 2002 across the 26 counties of the Republic of Ireland, by means of a postal survey, using the Electoral Register database. The sample is representative of the general adult population, with acceptable response rates for this kind of survey of 62% and 53% respectively. It should be noted that information on very young adults is relatively limited and the survey is not designed to reflect particular high-risk groups in the population. Estimates of prevalence must, therefore, be interpreted with caution, as the study was designed to provide summary rather than sub-group population statistics. However, as a snapshot reflecting modern Ireland it presents a valuable and never before seen portrait of the norms surrounding sexual behaviour in Ireland. We believe these data can help to inform more directed research on specific issues and sub-groups as well as providing a basis for more in-depth study on sexual practices and activities.

Sexual activity

The pattern of age distribution of those sexually active in the population is almost identical in SLÁN 1998 and 2002, with highest rates of sexual activity seen in those in their thirties (91.8% and 90.2% for 98 and 02 respectively). There are clear and consistent social gradients in both surveys: those of higher social class and educational

status were more likely to be sexually active but there were no differences according to gender. Those eligible for a GMS [general medical services] card¹ were less likely to be sexually active. Notably, there are neither urban/rural differences nor any significant variations by health board area.

Two types of multivariate analysis, taking account of the relative influence of different social and lifestyle factors were performed. The first model combines data for 1998 and 2002 and the second, on 2002 only, includes information on a wider range of socio-cultural factors. Those who are sexually active are more likely to be male, married, rate their general health well, have regular check-ups, use prescribed medication, take more regular exercise, have tried recreational drugs and be a regular consumer of alcohol. In addition, utilising the 02 data only, those with positive family support were more likely to be sexually active, whilst those with a history of assault associated with alcohol were less likely to be so.

Contraceptive use

Among the sexually active the rate of contraceptive use among men and women is almost identical in both 1998 and 2002. On both occasions, women are more likely than men to always use contraception (56.5% compared to 36% in SLÁN 02) and men are more likely to never use contraception (35.2% compared to 26.2%). There is a strong age effect: the percentage always using contraceptives decreases across the decades between 20s and 50s, whilst the percentage never using contraceptives increases. There is no age pattern to the sometime users. Contraceptive use among single people is also relatively unchanged at 61.8% always using in 1998 and 60.4% always using in 2002. Notably, 10% of sexually active single people report never using contraception in both surveys.

Both datasets were merged to examine socio-demographic predictors in more depth. The peak of always use of contraceptives is in their 20s among men (at around 90%). There is also a clear relationship to marital status. Those who are single are more likely to use contraceptives (90%) than those married or co-habiting (64%). Those under 35 are more likely than older people to use contraceptives in all demographic groupings. This age group was also more likely to have higher attained levels of education.

When considered separately there was no significant variation by health board in patterns of contraceptive use in 1998 or 2002, but when the data were combined a small but significant trend emerged, attributable to an Eastern Regional Health Authority effect (greater city / urbanisation effect). Patterns differ somewhat for men and women, with men in some of the rural health boards being less likely to use contraceptives. There is no variation in urban/rural patterns in those always using contraceptives, but those never using contraception are more likely to be in rural areas (54.7% compared to 45.2%). Regular contraceptive users are more likely to be regular drinkers (87%).

Contraceptive type

Types of contraceptives used are also relatively unchanged between 1998 and 2002. Men are more likely to report condom use (68% and 66% in respective surveys), the most frequent method in women being the oral contraceptive (OC) pill (28% and 27% in 1998 and 2002 respectively) followed by the combined OC pill + condom in both surveys (7% in

¹Holders of the GMS card are entitled (on the basis of low income or special circumstances) to free medical treatment and drugs from their GP and free hospital services.

men and 15% women in both surveys). While male patterns of contraceptive use in those under and over 35 were very similar, among women the younger respondents were more likely to use the OC pill or the OC pill + condom. There is, again, a strong relationship to social class and educational status in those using contraceptives and an inverse relationship to GMS eligibility, true in general and in men only.

Of the two-thirds of women who have ever used the OC pill, 48% were on it 3 years or fewer, 42% for up to 10 years and 10% eleven years or more. Those using natural family planning are overwhelmingly likely to be in a married or co-habiting relationship (97%), as are those using the coil (84%).

Multivariate predictors of contraceptive use

An analysis including men and women combining both 1998 and 2002 datasets found that contraceptive users were more likely to be women, non-smokers, non-GMS eligible, of higher attained education, single, regular drinkers and users of prescribed medication.

An analysis of OC pill use in women indicated that those attending for regular checkups, on prescribed medication, with tertiary education and excellent or very good health were more likely to be OC pill users.

Men using condoms were more likely to be younger, single, regular fruit and vegetable consumers but less likely to have regular check-ups.

Religiosity

There are very high rates of reported religiosity generally; 88% of the sexually active report that they belong to a religion, 94% of these being Catholics. However there is no relationship between religiosity and sexual activity, nor any relationship with use of contraception. Neither is there a relationship between religiosity and the type of contraceptive used.

Unprotected sex

Of the small number of respondents who report having had unprotected sex while drinking (4.8%), these were more likely to be men (67%) than women. Most were under 30 (70%) and 45% were under 25 years old. No relationship with location was observed. Contrary to patterns for other variables, they were more likely to be third-level educated (54%) and in social class (SC) 1-2 (40.6%). They were also more likely to be contraceptive users (78% versus 70%). Those reporting unprotected sex while drinking were also more likely to report having been sexually assaulted as a result of someone else's drinking (3.5% versus 0.5% of population generally), though the numbers are small.

Pregnancy

Of 3.4% of respondents presently pregnant (this figure is almost identical in both surveys) most were in their thirties (64.1%). 74% had used the OC pill previously, 88% were married and 94% had received advice on folate. Over a third (36%) had had a drink in the previous week. Pregnant women and women with children were more likely to use the pill or condom as a means of contraceptive. Women with no children were more likely to use the pill + condom or pill only.

1.0 Introduction

1.1 Background

In 1998, the Health Promotion Unit of the Department of Health and Children commissioned the SLÁN survey (Survey of Lifestyles, Attitudes and Nutrition) to capture health and lifestyle data on the Irish adult population for the first time. Such information is vital to strategic policy and programme planning. A second SLÁN survey followed in 2002, allowing for the identification of lifestyle trends and changes in health behaviour in the Irish adult population.

The SLÁN Surveys (Friel, NicGabhainn and Kelleher 1999, Kelleher et al. 2003) sample a representative cross-section of the Irish adult population. The methodology employed has been described in depth in the main reports and publications previously. The data provide opportunities for exploration of lifestyle trends and health behaviours in relation to adult sexual health. In late 2003 the Crisis Pregnancy Agency requested a more indepth analysis of the summary information on sexual activity and contraceptive use in all adults as presented in the main report published in April 2003 by the Minister for Health and Children. This report is the result of that request. We present here a secondary analysis of the SLÁN data exploring contraceptive use among sexually active adults aged 50 years and under (n = 4495 for SLÁN 98 and n = 3914 for SLÁN 02). It should be noted that this is not intended primarily as a straightforward prevalence estimate survey but rather an exploration of how the SLÁN data might help inform an ongoing programme of research on likely factors influencing sexual activity and behaviours in contemporary Ireland. We decided to focus on younger respondents for this purpose for two reasons. First, preliminary analysis indicated that there was a strongly age-related diminution of sexual activity and second, the focus of interest was on contraceptive practices in adults of childbearing age.

Results are presented in six major chapters. Chapter one is an introduction to the analysis, including the methodology employed. Chapter two presents the prevalence of sexual activity in both SLÁN 98 and SLÁN 02. Chapter three presents the prevalence of contraceptive use amongst the sexually active population and the various demographic and lifestyle factors that influence contraceptive use for both 1998 and 2002. An examination of differences between male and female contraceptive use and related behaviours is also examined. Given that little or no changes occurred over time, the data sets were then merged to increase power for further analysis of likely determinants of these patterns. Chapter four presents the various demographic and lifestyle factors that influence contraceptive use in those aged 35 years and under. Chapter five is a multivariate analysis of the predictors of sexual activity and contraceptive use for those aged 50 years and under. Separate analyses for men and women are also conducted. At the time of the survey collection, 3.5% and 3.4% of the under 50s were pregnant in SLÁN 98 and 02 respectively. Chapter six concludes with a discussion.

1.2 Methodology of the National Health and Lifestyle Surveys

1.2.1 Procedures

In the SLÁN surveys, a representative cross-section of the Irish adult population was surveyed, with a sample powerful enough to detect differences according to socio-

economic status in key variables, smoking, exercise and percentage caloric intake from fat. The a priori assumptions of the national survey were based on summary comparisons, and sub-group analyses must be interpreted with caution for this reason. Allowances were made for non-response and likelihood of ineligibility to participate. The sample was generated randomly from the Irish electoral register supplied by Precision Marketing Information (PMI) Ltd., a subsidiary of An Post.

The sampling procedure for the 2002 survey followed that used in 1998, whereby a national postal sample was generated randomly and proportionately distributed based on health board population size and urban / rural breakdowns, so that each county of the Republic of Ireland was represented. Final selection was at district electoral division level.

The self-completed questionnaires were posted from the National University of Ireland (NUI), Galway with freepost return envelopes enclosed. A helpline to deal with general queries on questionnaire completion was set up in NUI, Galway, and respondents were entered into a prize draw unless they stated otherwise. Following a reminder letter and further reminder questionnaire, all remaining non-respondents were followed up either by telephone where possible or by trained fieldworkers calling to the person's home for questionnaire collection. Excluding those not eligible (that is deceased or confirmed at the follow-up stage to be unavailable at that address) the total valid sample was 12,722 and 11,212 for 1998 and 2002 respectively. The response rates were 62% and 53% respectively. Data entry was carried out by RES Ltd.

1.3 Methodology of the secondary analysis

1.3.1 Procedures

Our objectives in this analysis were to identify whether there appeared to be patterns in sexual activity and contraceptive use according to age, sex and socio-economic status, to see whether these exhibited any discernible trend between the two survey points and if not, to pool the available data-sets in order to increase power to examine, in a series of a priori logistical models, the relative impact of different lifestyle and socio-demographic patterns on sexual activity or patterns of contraceptive use. In this way a useful social portrait could be constructed to serve in planning more in-depth exploration of these questions.

Data for those under 50 years were extracted from the national sample for the purposes of this investigation. This yielded a sample size n = 4495 and n = 3914 for SLÁN 98 and SLÁN 02 respectively. This represents 68.7% (SLÁN 98) and 65.3% (SLÁN 02) of the total respondent numbers. It should be noted that this included a small number of respondents who were pregnant or attempting to become pregnant. For the purposes of the secondary analysis, respondents were categorised in five-year age bands, <20, 20-24, 25-29, 30-34, 35-39, 40-44, 45-50. Analysis by social class, educational status, age, gender, marital status, location and contraceptive type was performed. Comparisons between the two occasions of measurement were also carried out. A separate analysis of the under and over 35s was also conducted on the combined data sets. The valid response for each question has been used (i.e. those who did not answer the question(s) under consideration are excluded in all figures and tables). In some questions

respondents were asked to choose all applicable options. These responses are not mutually exclusive and the presented results for those questions, therefore, may not add up to 100%.

An important question for a survey of this kind is representativeness relative to the general population. In the main reports we employ a standardisation procedure in presenting all summary data across the age spectrum. This serves the purpose of allowing direct comparisons between two populations not confounded by age distribution and gives a prevalence estimate were the conditions in the standard population to obtain. In the main report, published in April 2003, we used the 1996 Census for that purpose in comparing 1998 and 2002 findings. When the findings of the 2002 Census became available in autumn 2003 we used this as the standard population for the regional reports.

In the present report, however, our main purpose was to examine socio-demographic determinants, including age itself and so standardisation was not necessarily appropriate, especially for age stratified analyses. This is especially important given that there have been real demographic shifts in the population between 1998 and 2002 so opting for one or other Census as the population standard will have the effect of artificially altering prevalence estimates. Furthermore, standardisation may also distort prevalence estimates, giving undue weight to smaller sample groups in the datasets. Finally, statistical comparison should, in any case, be undertaken on un-adjusted data.

For all these reasons we have taken the following approach: First we compare the two survey samples to the 2002 Census. Then we compare actual patterns in the two datasets over time according to socio-demographic categories of interest. Standardised summary figures are given as appropriate for the datasets as a whole. Where apparent differences exist according to time or by sub group suitable statistical comparison is made. For the multivariate analyses appropriate adjustment for confounders, including age, is undertaken. As we will show, the trends between time points are negligible so pooling of the datasets to increase power is justified.

Table 1.1 compares the age and gender profile of the respondents in both SLÁN 98 and SLÁN 02 with that of the 2002 Census. The profiles are quite similar in both cases, though there are relatively fewer respondents in the youngest age categories, particularly in the more recent survey, and there are more women than men in this sample. This is a common finding in social surveys and was discussed in the main SLÁN report (2003), in which a detailed breakdown of the demographic representativeness of respondents is given.

Table 1.1: Percentage gender and age distributions of Census 1996, SLÁN 98, SLÁN 02 and Census 2002

Mala	Census 96 (n=1,704,448)	SLÁN 98 (n=4395)	SLÁN 02 (n=3908)	Census 02 (n=1,932,771)
Male	05.4	05.0	45.0	00.0
18-24	25.1	25.3	17.0	23.8
25-29	15.2	12.5	10.9	16.1
30-34	15.0	14.6	11.8	15.8
35-39	14.8	15.5	17.5	14.9
40-44	14.1	16.5	21.5	14.0
45-50	15.9	15.5	21.2	15.4
% of Total Sample	50.0	46.1	38.6	50.0
Female				
18-24	24.2	22.3	14.6	23.4
25-29	15.2	14.5	11.6	16.2
30-34	15.6	18.0	15.2	15.8
35-39	15.2	18.0	19.8	15.2
40-44	14.1	15.6	20.9	14.2
45-50	15.6	11.5	17.9	15.3
% of Total Sample	50.0	53.9	61.4	50.0

1.3.2 Questions

The secondary analysis was centred on the following two questions framed in both surveys: If you have been sexually active in the past twelve months, did you use contraception/protection? Not sexually active \square Always \square Sometimes \square Never \square

If you have used contraception or protection in the past twelve months, please indicate which methods you used most frequently (please tick all that apply). Natural Family Planning \Box Contraceptive Pill \Box Coil \Box Condom \Box Withdrawal \Box Cap/diaphragm \Box Spermicides only \Box Other, please specify.

Socio-demographic questions on age, gender, marital status, education level, social class and indicators of social capital such as religious practice and trust at community level were examined for this analysis in two ways. First, a stratified analysis in relation to sexual activity and contraceptive use (sexually active population only) was undertaken. Then these variables were considered in stepwise multivariate analyses as described below.

If they were pregnant women were also asked if they had been advised to take folic acid supplements and if they had been on the contraceptive pill, for how long. These findings are also presented.

1.3.3 Statistical methodology

Chi squared statistics were used to formally test for relationships between categorical variables at α = 5%. Chi squared tests are reported with the degrees of freedom, total number of subjects in the test, Chi squared value and the p-value.

Prior to logistic regression analysis, Categorical Principal Components Analysis (CatPCA) was carried out. The goal of principal components analysis is to reduce an original set of

variables into a smaller set of uncorrelated components that represent most of the information found in the original variables. PCA finds a linear combination of variables that accounts for as much variation in the original variables as possible. It then finds another component that accounts for as much of the remaining variation as possible and is uncorrelated with the previous component, continuing in this way until there are as many components as original variables. By reducing the dimensionality, interpretation of a few components rather than a large number of variables is possible. CatPCA was thus conducted on the general health, positive lifestyle, negative lifestyle and socio-cultural variables. Three/four dimensions (factors) were extracted in each case, with the exception of the demographic and negative lifestyle factors. In this instance more than four factors were included in the logistic regression.

Binary logistic regressions were carried out to examine the predictors of sexual activity, contraceptive use (for entire sample and also men and women separately), condom use (men) and OC pill use (women). All dependent variables were dichotomised and entry and removal set at 0.10. Backward stepwise method was chosen. The full model is thus fitted including all the variables, and unimportant variables are removed one at a time until all those remaining in the model contribute significantly. At each step, the variable with the smallest contribution to the model (or the largest p-value) is removed. The last category is referenced. Estimates, standard error, Wald test, degrees of freedom, p-value and odds ratios are reported in each instance. Odds less than one indicates less likely to support the dependent variable and odds greater than one indicates more likely to.

2.0 Prevalence of sexual activity

2.1 Prevalence of sexual activity

Table 2.1 presents the percentage of those under 50 who are sexually active for both SLÁN 98 and SLÁN 02 by age group and adjusted to the 2002 Census. Sexual activity significantly changes with the sample age, this is the case for both 98 (χ 2 (6, n = 4007) = 213.04; p = 0.000) and 02 (χ 2 (6, n = 3565) = 69.15; p = 0.000). There is little to no variation between age groups across time except the 20-24 age category, where a small increase in prevalence is noted for SLÁN 02, possibly attributable to the relatively small numbers in this category in the more recent survey.

			,
Table 2.1: Percentage	sevual activity v and	[SI AN 98 an	14 CL VN US)

Age	SLÁN 98 (n=4007)	SLÁN 02 (n=3565)
<20	53.5	50.0
20-24	72.4	77.9
25-29	85.8	85.8
30-34	88.7	89.1
35-39	91.8	90.2
40-44	85.7	84.2
45-50	80.8	79.7
All	82.6 (*82.0)	84.3 (*82.1)

^{*} Age adjusted to the 2002 Census

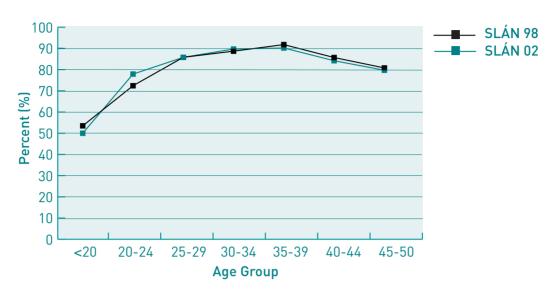


Figure 2.1 shows that the peak in sexual activity is noted in the 35-39 age groups in both surveys. Prevalence figures are the same for both surveys.

Figure 2.1: Sexually active population x age group (SLÁN 98 and SLÁN 02)

2.2 Influencing factors on sexual status

2.2.1 Educational status

A statistically significant educational status effect emerged for both SLÁN 02 (χ 2 (2, n = 3206) = 7.84; p = 0.020) and SLÁN 98 (χ 2 (2, n = 3789) = 18.23; p = 0.000). In SLÁN 02, 76.3% of those with no/primary education were sexually active compared to 84.9% and 83.1% in the secondary and tertiary education groups respectively. Similar trends are observed for SLÁN 98. In both surveys, those who are not sexually active are more likely to have no/primary education.

2.2.2 Social class

There was a significant social class difference in the sexually active population in 2002 ($\chi 2$ (2, n = 3256) = 9.80; p = 0.007) but not in 1998 (p = 0.330). In SLÁN 02, 86.1% of those in SC1-2 and 85.8% of those in SC3-4 were sexually active. This decreased to 80.6% for those in SC5-6. Though the results are not statistically significant for 1998, a similar pattern is observed. 84.7% of those in SC1-2 and 83.3% of those in SC3-4 are sexually active. This decreased to 82.1% for those in SC5-6.

2.2.3 GMS status

Sexual status was also influenced by GMS status in SLÁN 98 (χ 2 (1, n = 3920) = 13.59; p = 0.000) and SLÁN 02 (χ 2 (1, n = 3451) = 42.75; p = 0.000). In 1998, 83.8% of those who did not have a GMS card were sexually active compared to 78.3% of those who had a GMS card. In 2002, 86.0% of those who did not have a GMS card were sexually active compared to just 74.3% of those who had a GMS card.

2.2.4 Gender

Gender was not found to significantly influence sexual status for either SLÁN 98 or SLÁN 02. However, an interesting pattern emerges when the data are combined. There are slightly more women sexually active in middle age but more men are sexually active at younger ages. These variations are nevertheless negligible.

2.2.5 Marital status

Marital status also significantly influenced sexual status for both SLÁN 98 (χ 2 (2, n = 4036) = 664.03; p = 0.000) and SLÁN 02 (χ 2 (2, n = 3542) = 507.77; p = 0.000). Approximately 95% of married respondents are sexually active compared to 67.8% of those who are single/never married and 62.9% of those who are widowed/separated/divorced. There is no variation across time (Figure 2.2).



Figure 2.2: Prevalence of sexual activity x marital status

2.2.6 Location/health board areas

Neither rural/urban location nor health board area was found to significantly influence sexual status for SLÁN 98 or SLÁN 02. Both figures for SLÁN 02 are presented. Figure 2.3 illustrates no difference in rural/urban location. Minor differences are evident in health board area but these differences are not large enough to attain statistical significance (Figure 2.4).



Figure 2.3: Sexual activity x location (SLÁN 02)

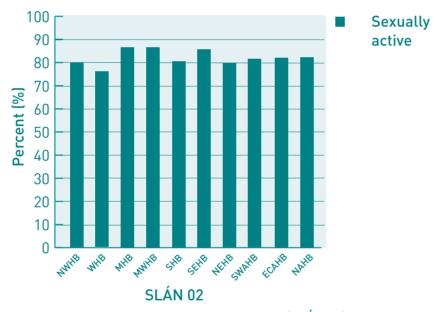


Figure 2.4: Sexual activity x health board area (SLÁN 02)

2.2.7 Smoking/alcohol status

Current smoking status did not significantly influence sexual status in 2002 (p = 0.213) but did emerge as an important influence in 1998 ($\chi 2$ (1, n = 4048) = 21.79; p = 0.000), explained by a slightly higher reported sexual activity among non-smokers in 2002 compared to 1998. In 1998, 86.2% of those who smoked were sexually active compared to 80.4% of those who didn't smoke. In 2002, 85.5% of smokers were sexually active compared to 83.8% of non-smokers. Regularity of alcohol consumption was also a statistically significant factor for both SLÁN 98 and SLÁN 02 ($\chi 2$ (2, n = 3523) = 38.30; p = 0.000) though there was no difference across time. As can be seen in Figure 2.5, those who consumed alcohol in the previous month are more likely to be sexually active.

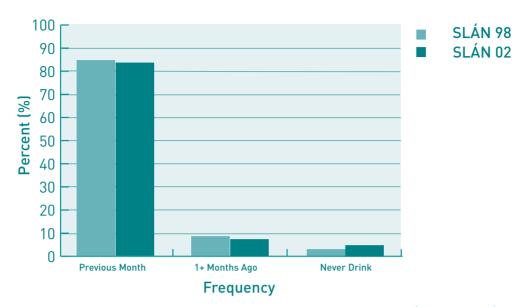


Figure 2.5: Alcohol consumption of the sexually active population (SLÁN 98 and SLÁN 02)

It can be seen, therefore, that there are negligible between-survey differences but quite marked patterns according to socio-demographic group common to both surveys.

2.3 Self-rated health and quality of life

Those sexually active had significantly higher levels of positively rated health compared to non-sexually active respondents in both surveys ($SL\acute{A}N~02-94.1\%$ vs 88.4%; p =0.000; $SL\acute{A}N~98-92.7\%$ vs 90.8%; p =0.044). This was also the case for quality of life ($SL\acute{A}N~02-90.3\%$ vs 80.9%; $SL\acute{A}N~98-89\%$ vs 84.8%)

Given the remarkable similarity between both surveys, the data sets were merged to examine the influence of health and lifestyle factors on sexual activity. Those sexually active had significantly higher levels of positively rated health (n =5888, 93.4% vs 89.8%; p =0.000) and quality of life (n =7538, 89.7% vs 83.2%; p =0.000). Those aged 25-29 (n =989, 13.3% vs 10.9%; p =0.000), 30-34 (n =1193, 16.6% vs 10.4%; p =0.000), 35-39 (n =1359, 19.4% vs 9.4%; p =0.000) and 40-44 (n =1369, 18.2% vs 16.3%; p =0.000) were more likely to be sexually active. Married/cohabiting people (n =7634, 65.9% vs 14.1%; p =0.000), those in higher social classes, SC1-2 (n =6587, 46.2% vs 42.5%; p =0.006), those with second-level education (n =7003, 53.8% vs 47.0%; p =0.000) and non-GMS eligible respondents (n =7382, 84.0% vs 75.6%; p =0.000) were all more likely to be sexually active. Conversely, those with diabetes (n =7650, 1.6% vs 0.8%; p =0.006) were less likely to be sexually active.

Gender or education was not significant. None of the self-reported measures of morbidity or ill-health (angina, heart attack, blood pressure, stroke, high cholesterol, anxiety, depression) were significant predictors either, though prevalence of these conditions, in any case, is low in these age-groups.

Chapter 3.0: Prevalence of contraceptive use

3.1 Prevalence of contraceptive use for SLÁN 98 and SLÁN 02 separately

Table 3.1 displays the percentage of contraceptive users within the sexually active population, both unadjusted and standardised to the 2002 Census. There has been a small increase in the percentage never using contraception as well as a small increase in those always using contraception.

Table 3.1: Percentage contraceptive use amongst sexually active population (SLÁN 98 and SLÁN 02)

Contraception	SLÁN 98 (n=3370)	SLÁN 98 age standardised 2002 Census	SLÁN 02 (n=3004)	SLÁN 02 age standardised 2002 Census
Always	47.0	47.5	48.6	50.1
Sometimes	26.6	26.6	21.8	22.2
Never	26.4	25.9	29.7	27.8
Total	100.0	100.0	100.0	100.0

3.1.2 Contraceptive use x age

A statistically significant age effect was observed for both SLAN 98 (χ 2 (10, n = 3318) = 380.44; p = 0.000) and SLÁN 02 (χ 2 (10, n = 3007) = 350.26; p = 0.000). Those always, sometimes and never using contraception are presented for each age group. Figure 3.1 shows clearly that the number of respondents always using contraception declines with age, while the number of those never using contraception increases with age. There is no change across age groups for those who sometimes use contraception.

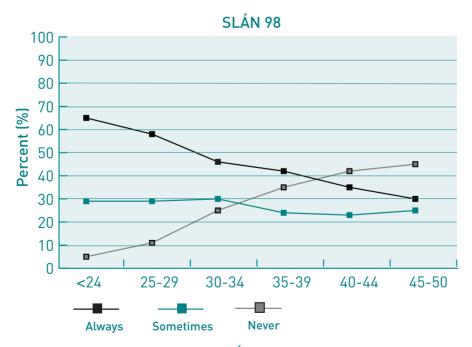


Figure 3.1: Contraceptive use x age (SLÁN 98)

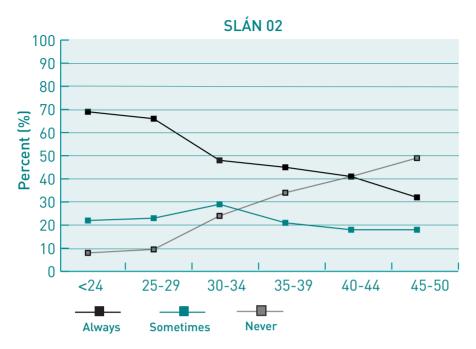


Figure 3.1 (continued): Contraceptive use x age (SLÁN 02)

3.1.3 Contraceptive use x gender

A gender effect was evident for both SLÁN 98 ($\chi 2$ (2, n = 3368) = 64.39; p = 0.000) and SLÁN 02 ($\chi 2$ (2, n = 3004) = 124.58; p = 0.000). Figure 3.2 presents the percentage contraceptive use for both genders in 1998 and 2002. The figures in the bars are the true figures and those outside the bars are standardised to the 2002 Census. Women are more likely to always use contraception while men are more likely to sometimes or never use contraception. There has been an increase across time of the proportion of men and women who never use contraception. Notably, responsibility for contraceptive use resides with women. These figures are higher than those reported in the SLÁN 2002 main report, given that the main report includes all adults aged 18 years and over and contraceptive use declines with age.

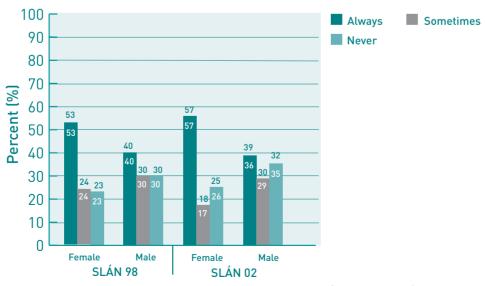


Figure 3.2: Percentage contraceptive use x gender (SLÁN 98 and SLÁN 02)

3.1.4 Contraceptive use for single/never married group

Further analysis was conducted on the single/never married population only. 34% and 32% are not sexually active in SLÁN 98 and SLÁN 02 respectively. Table 3.2 displays contraceptive use amongst the single/never married group. The figures remain largely unchanged across time. The majority always use contraception. Almost 10% never use contraception. Amongst those that are single/never married, women were found to be significantly more likely to always use contraception than men (76.4% compared to 48.4% in SLÁN 02; p = 0.000).

Table 3.2: Contraceptive use amongst the single/never married groups (SLÁN 98 and SLÁN 02)

Contraception	SLÁN 98 (n=1632)	SLÁN 02 (n=1222)
Always	61.8	63.4
Sometimes	28.0	26.7
Never	10.2	9.9
Total	100.0	100.0

3.2 Contraception type for SLÁN 98 and SLÁN 02 separately

In the 1998 and 2002 SLÁN Surveys, respondents were asked: "If you have been sexually active in the past twelve months, please indicate which methods you used most frequently (tick all that apply)". Table 3.3 displays the findings, which were gender significant for both surveys (SLÁN 98 (χ 2 (9, n = 2246) = 311.29; p = 0.000) and SLÁN 02 (χ 2 (10, n = 1988) = 251.18; p = 0.000). Approximately 27% of women use the OC pill exclusively on both occasions of measurement. The prevalence of condom use amongst men and women is similar across time but men are more likely to use condoms than women. Women reported a small decrease across time in natural family planning as a means of contraception.

Table 3.3: Prevalence of contraceptive use amongst men and women (SLÁN 98 and SLÁN 02)

Contraceptive Type	SLÁN 98 (n=2246)		SLÁN 02 (n=1988)	
	Men %	Women %	Men %	Women %
Natural FP	2.7	4.1	2.7	3.6
OC Pill	7.6	28.1	8.0	27.2
Coil	0.7	2.5	2.0	6.0
Condom	68.3	35.5	66.0	33.4
OC Pill + Condom	7.0	15.0	7.3	14.7
Withdrawal	2.7	3.4	0.7	2.2
Condom + Withdrawal	8.7	5.0	7.3	4.1
Cap/Diaphragm	0.4	0.9	0.3	0.6
Spermicide only	0.0	0.0	0.0	0.1
Combination	0.2	0.8	2.6	2.0
Other type*	1.7	4.7	3.1	6.0

^{*}Including sterilisation

3.3 Prevalence of contraceptive use - merged data sets

Given the remarkable similarity observed over time, the data were merged. 16.7% of the combined data set indicated that they were not sexually active. Of those that are sexually active (Figure 3.3), 47.7% always use contraception, 24.3% seldom use contraception and 27.9% never use contraception.

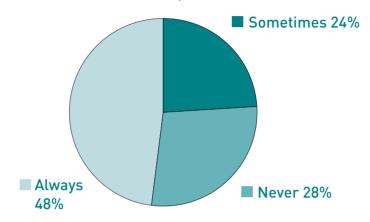


Figure 3.3: Contraceptive use (merged data)

3.3.1 Gender

Further analysis produced a statistically significant gender effect ($\chi 2$ (2, n = 6378) = 181.37; p = 0.000). As can be seen from Figure 3.4, women are more likely to always use contraception and less likely to sometimes/never use contraception. Men, therefore, are more likely to take risks.

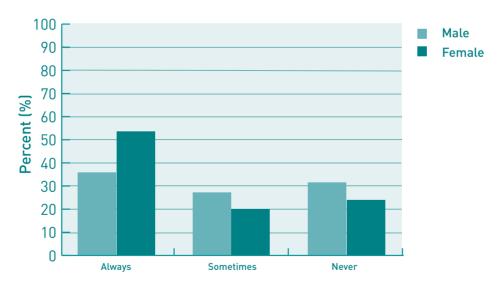


Figure 3.4: Contraceptive use x gender (merged data)

3.3.2 Age

A statistically significant age effect was also observed ($\chi 2$ (6, n = 6325) = 699.42; p = 0.000). Considering each age group as a whole, use of contraception was found to decline with age. Conversely, the number of respondents never using contraception

increases with age. 94.2% of those aged 20-24 always/sometimes use contraception. Approximately 85% of those under 20 use contraception always/sometimes (Figure 3.5).

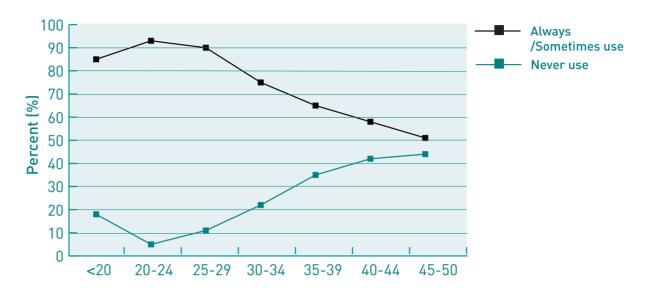


Figure 3.5: Contraceptive use for individual age groups (merged data)

There is a significant difference in contraceptive use for men across each age group (χ 2 (6, n = 2703) = 347.18; p = 0.000). Figure 3.6 illustrates that contraceptive use is highest amongst men between 20 and 29 years. In all but the 45-50 age group, more sexually active men use contraception than do not. Similar trends are observed for women.

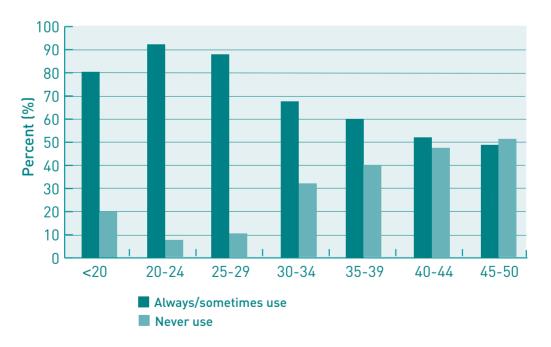


Figure 3.6: Contraceptive use amongst men (merged data)

A similar finding occurred for women ($\chi 2$ (6, n = 3649) = 362.20; p = 0.000). Contraceptive use is also highest amongst women in the 20-24 age group. While 80% of

men under 20 were sexually active, 90% of women in the same age group are sexually active. In all age groups, more women are sexually active than not (Figure 3.7).

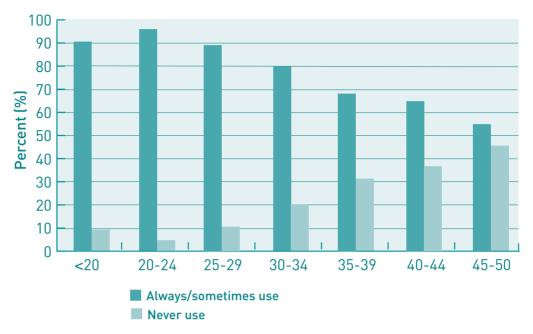


Figure 3.7: Contraceptive use amongst women (merged data)

3.3.3 Marital status

Marital status was found to significantly influence contraceptive use ($\chi 2$ (2, n = 6360) = 426.49; p = 0.000). 89.8% of those who are single/never married use contraception always or sometimes, compared to 70% of those who are widowed/divorced/separated and 64.2% of those who are married/cohabiting (Figure 3.8).

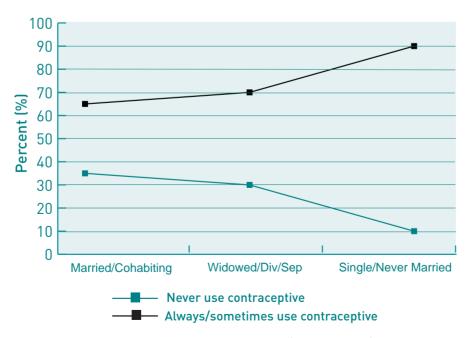


Figure 3.8: Marital status x contraceptive use (merged data)

Contraceptive use was also considered across each age group. Figure 3.9 illustrates the percentage of those in each marital status category (married/cohabiting, widowed/divorced/separated and single/never married) that use (always/sometimes) contraception in each age group. In general, the percentage of contraceptive users, regardless of marital status, declines with age. The 25% registered for those widowed/divorced/separated in the under-24 category represents one person, as there are four people in this age category widowed, separated or divorced. 75% of them, therefore, never use contraception.

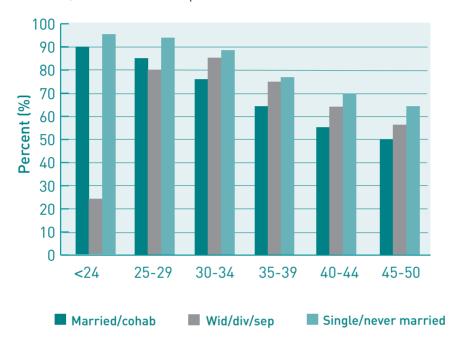


Figure 3.9: Contraceptive use x marital status and age (merged data)

3.3.4 GMS status

GMS eligibility was found to significantly influence contraceptive use/non use ($\chi 2$ (1, n = 6156) = 6.49; p = 0.011). 68.7% of those who have a GMS card use contraception compared to 72.6% of those who do not have a GMS card.

3.3.5 Social class

Social class was also found to significantly influence contraceptive use ($\chi 2$ (2, n = 5557) = 16.85; p = 0.000). Figure 3.10 illustrates the differences. 75.3% of those in SC1-2 use contraception always/sometimes compared to 24.7% who never use contraception. While the results are similar for each of the other social classes, the marked difference lies in those that never use contraception. 31.5% in SC5-6 never use contraception compared to 24.7% in SC1-2 and 27.8% in SC3-4.

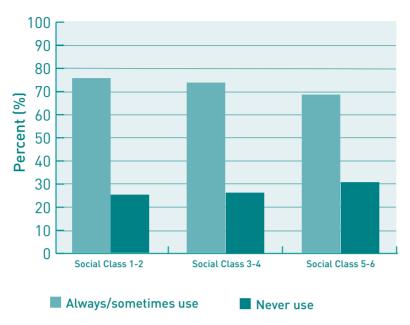


Figure 3.10: Contraceptive use x social class (merged data)

A similar pattern was observed for men only. Men who always/sometimes use contraception are more likely to be in SC1-2. Men who never use contraception are more likely to be in SC5-6 (χ 2 (2, n = 2310) = 8.58; p = 0.014).

3.3.6 Educational status

Educational status was also found to significantly influence contraceptive use ($\chi 2$ (2, n = 2687) = 77.80; p = 0.000). Those who always/sometimes use contraception are more likely to have tertiary education. Those who never use contraception are more likely to have no/primary or some secondary education only (Figure 3.11).

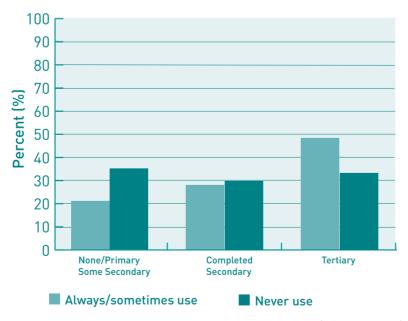


Figure 3.11: Contraceptive use x educational status (merged data)

Within each education group, Figure 3.12 illustrates that contraceptive use increases across each education level. The converse is true for those that never use contraception.

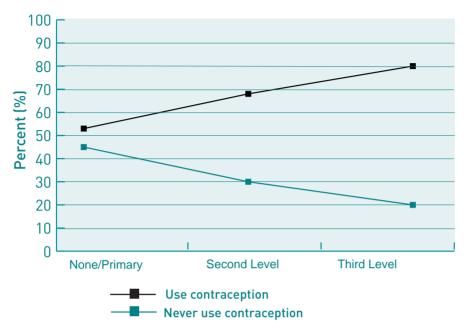


Figure 3.12: Contraceptive use within each educational category (merged data)

3.3.7 Health board

While contraceptive use was not found to differ significantly across each health board area when SLÁN 98 and SLÁN 02 were considered separately, a statistically significant effect emerged when the data were merged (χ 2 (7, n = 6218) = 16.04; p = 0.025). This is due to a small but significant East coast effect (greater city / urbanisation effect) (Figure 3.13).

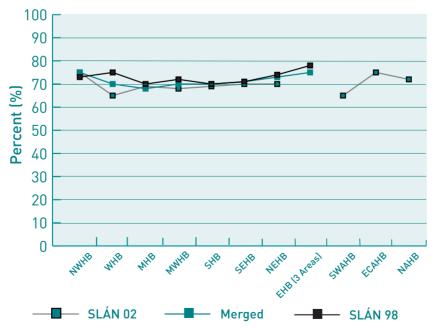


Figure 3.13: Contraceptive use x health board (merged data)

A similar pattern was observed for men, with an East coast effect also visible. An East coast effect was not observed for women and in an opposite pattern to the men, an increase in prevalence of contraceptive use in the MHB was noted (Figure 3.14).

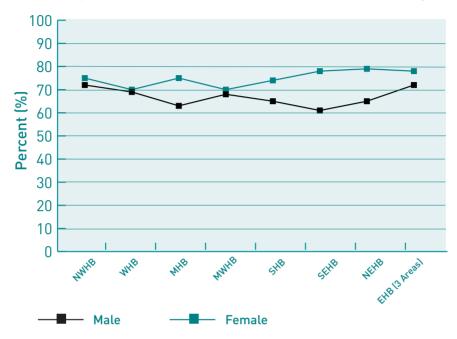


Figure 3.14: Male and female contraceptive use x health board (merged data)

3.3.8 Location

There was no rural/urban effect in the percentages always/sometimes using contraception however, there were significant differences in those never using contraception ($\chi 2$ (1, n = 5941) = 9.05; p = 0.003). Those who never use contraception are more likely to be living in a rural location (Figure 3.15).

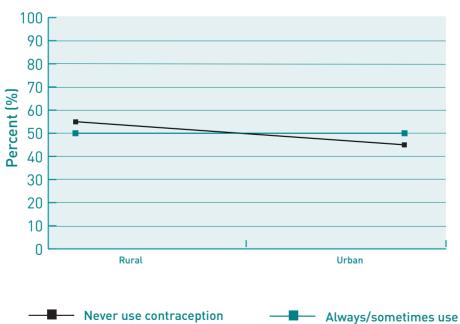


Figure 3.15: Non-contraceptive use x rural/urban location (merged data)

For men, there was also a significant difference in the percentage using/not using contraceptives ($\chi 2$ (1, n = 2538) = 10.85; p = 0.001). 70.8% of those in urban areas use contraception compared to 64.7% in rural areas (Figure 3.16). As observed above, men not using contraception are more likely to be living in a rural area. Male condom use did not differ significantly between rural and urban locations.

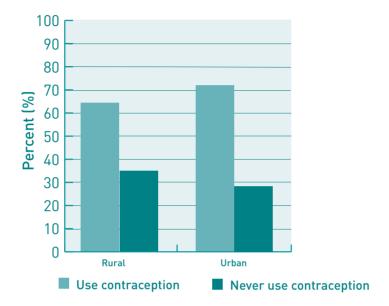


Figure 3.16: Male contraceptive use x location (merged data)

When considered by age, the results do not differ significantly between age group. In all age groups, those who do not use contraception are more likely to be located in a rural area (Figure 3.17).

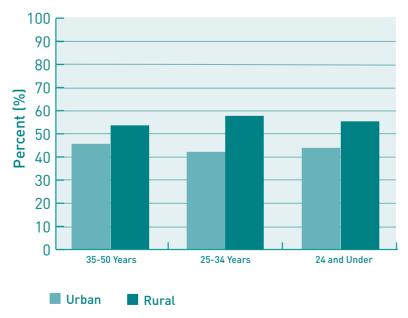


Figure 3.17: Non-contraceptive use x rural/urban location and age group (merged data)

3.3.9 Smoking status/alcohol consumption

Smoking status was not found to significantly influence contraceptive use. 72.5% of

current smokers compared to 71.9% of non-smokers always/sometimes use contraception. Alcohol consumption was found to significantly influence contraceptive use $(\chi 2 \ (2, n = 6302) = 25.43; p = 0.000)$. 66.9% of those who never drink use contraception compared to 73.4% of those who drink alcohol regularly (within the last month). 87% of those who use contraception drink alcohol on a regular basis (within the last month). There are significantly higher rates of contraceptive use amongst binge (\geq 7 drinks at a time) drinkers ($\chi 2 \ (1, n = 4919) = 18.90; p = 0.000)$. 77.5% of binge drinkers always/sometimes use contraception compared to 71.3% of those drinking 6 or drinks or fewer at a time.

3.4 Contraceptive type

Figure 3.18 illustrates the types of contraceptive used amongst those who always/sometimes use contraception. As can be seen, the majority use condoms (46.7%), the OC pill (19.8%) or a combination of both (11.8%). 5.8% use condom + withdrawal. Those using either cap/diaphragm or spermicide constitute just 0.6% of the sexually active contraceptive users. 3.1% use the coil only and 2.6% use withdrawal only.

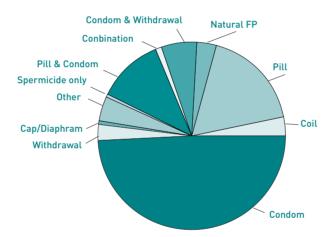


Figure 3.18: Type of contraceptive use (merged data)

Further analysis was conducted on OC pill users. It was found that just over two-thirds of all female respondents have 'ever' been on the OC pill. 48.3% have been on it three years or fewer, 41.8% four to ten years and 9.9% eleven years or more.

Gender was found to significantly influence the type of contraceptive used ($\chi 2$ (10, n = 4278) = 557.75; p = 0.000). Both men and women were more likely to use a condom as the preferred method of contraceptive. 14.7% of women and 7% of men use a combination of condoms and the OC pill. 27.4% of women report being on the OC pill currently (Figure 3.19).

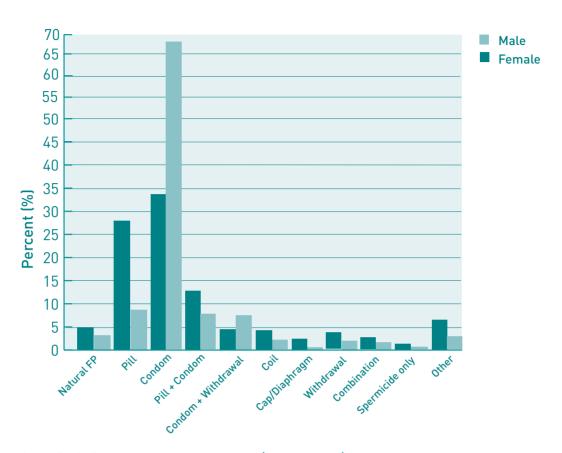


Figure 3.19: Contraceptive type x gender (merged data)

Contraceptive type was also influenced by age $(\chi 2 (30, n = 4231) = 739.06; p = 0.000)$. Figure 3.20 illustrates the findings for the main contraceptives. Condom use is higher in the under 24s than the 25-29 age group but remains static through to the 45-50 age group thereafter. Almost 20% report use of the OC pill exclusively and this is most prevalent in the 30-34 age group. Usage declines with age thereafter. Double protection of OC pill + condom is highest in the under 24s, with more than 50% of this sexually active age group using both. This may indicate that this group are protective against both pregnancy and sexually transmitted diseases or double protecting against pregnancy. The majority who use natural family planning as a method of contraception are 30 years of age and older. Approximately 77% of all users are over the age of 35. Just 3.1% of the sexually active population aged 50 years and under indicated that they use the coil as a contraceptive type. It is seen from Figure 3.20 that use of the coil is largely among those aged 35 to 44 years (67.2%).

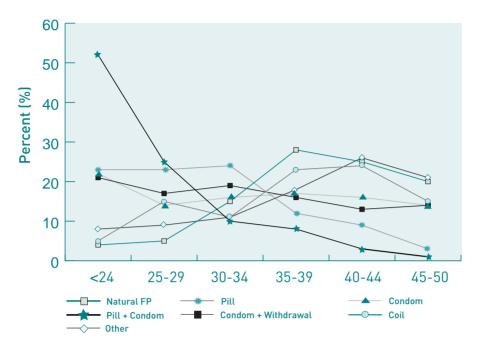


Figure 3.20: Contraceptive type x age (merged data)

Finally, condom use was considered by age and sex. A statistically significant effect emerged ($\chi 2$ (5, n = 2839) = 15.72; p = 0.008). In the under 24s, percentage condom use is greatest among men. However, from age 25 on, condom use is similar amongst the sexes (Figure 3.21).

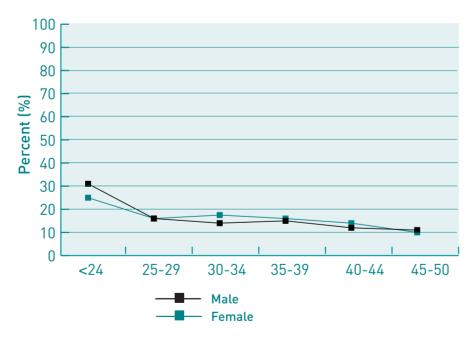


Figure 3.21: Condom use x age and sex (merged data)

Marital status was also found to significantly influence the type of contraceptive used (χ 2 (12, n = 4225) = 404.52; p = 0.000). The condom is the preferred contraceptive in all cases. Table 3.4 displays the percentage use of the main contraceptive types by marital status. As can be seen, natural family planning and the coil are used almost exclusively by those who are married or cohabiting. The OC pill + condom is used mostly by those who are single/never married.

	Married/ Cohab (%)	Wid/Div/ Sep (%)	Single/ Never Married (%)	Total (n=4225)
Natural FP	93.8	2.1	4.1	100
OC Pill	59.8	6.0	34.2	100
Coil	83.8	6.9	9.2	100
Condom	57.3	3.0	39.7	100
OC Pill + Condom	28.9	3.0	68.1	100
Condom + Withdrawal	57.6	4.0	38.4	100
Other	78.7	3.9	17.5	100
Total	58.7	3.8	37.5	100

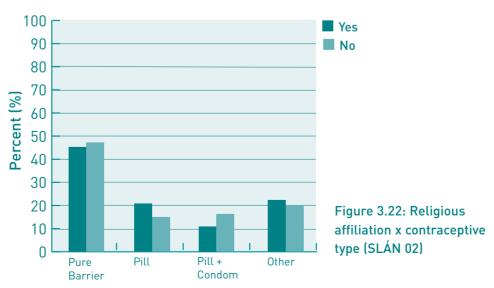
Table 3.4: Contraceptive type x marital status (merged data)

3.5. Religion

Religious beliefs were investigated in SLÁN 02 only. Respondents were asked if they felt they belonged to any religion and if yes, what group or church to which they belonged. Religious affiliation did not influence sexual activity. 87.9% of the sexually active population indicated they belong to a religion, and 94.3% specified themselves as Catholic. 88.2% of the non-sexually active population indicated they belong to a religion and 94.1% specified themselves as Catholic.

Religious affiliation was not found to significantly influence contraceptive use. 69.8% of those who belong to any religion use contraception. 74.2% of those with no religious affiliation use contraception. Contraceptive use amongst those religiously/not religiously affiliated did not vary significantly with marital status.

Contraceptive types were grouped into pure barrier (condom, cap/diaphragm), OC pill, OC pill + condom, and other methods. Religious affiliation was not found to significantly influence the type of contraception used. Figure 3.22 illustrates the minor changes in contraceptive use amongst those who are religiously affiliated and those who are not. Pure barrier methods are the same, while 4.3% more of those religiously affiliated use the OC pill. 4.7% more non-religiously affiliated use the OC pill + condom. These results are not statistically significant.



3.6 Unprotected sex

The survey does not include detail on determinants of unprotected sex generally but does include this as one of a number of potentially high-risk behaviours associated with alcohol consumption. This shows that a small number of respondents - 4.8% (n = 153) of the merged sample - admitted to having unprotected sex as a result of their own drinking. A strong gender effect emerged ($\chi 2$ (1, n = 3000) = 42.28; p = 0.000): 65% of those who had unprotected sex were men compared to 35% women (Figure 3.23). In contrast, of those who did not have unprotected sex, 37.6% were men compared to 62.4% women.

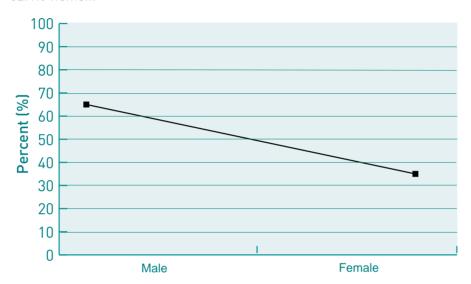


Figure 3.23: Unprotected sex x gender (merged data)

A statistically significant age effect was also evident ($\chi 2$ (6, n = 3000) = 154.91; p = 0.000). As can be seen in Figure 3.24, those who have had unprotected sex are overwhelmingly in the under-24 category. Those iterating they did not have unprotected sex are more or less evenly distributed amongst the age groups.

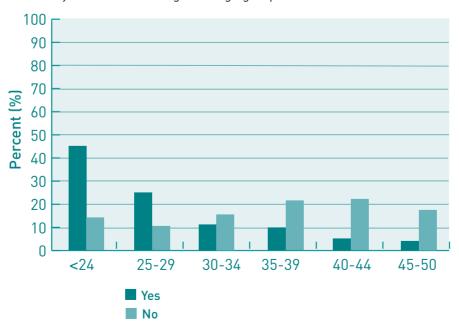


Figure 3.24: Unprotected sex x age group (merged data)

Social class emerged as a significant factor ($\chi 2$ (2, n = 2770) = 5.95; p = 0.051). Those who had unprotected sex as a result of their own drinking were more likely to be in SC1-2 (40.6%) or SC3-4 (39.1) than in SC5-6 (20.3%). Education was significant at the 10% level (p = 0.092). 54.2% of those who reported having unprotected sex were in the tertiary education group compared to 43.2% in the secondary education group and 2.5% in the none/primary group. Rural/urban location was not a significant factor.

Of those who had unprotected sex, 78.3% reported always/sometimes using contraception, indicating that this group generally practise safe sex. Finally, those who reported having unprotected sex are more likely to have been sexually assaulted (as a result of someone else's drinking) ($\chi 2$ (1, n = 300) = 19.56; p = 0.000). 3.5% of those who had unprotected sex reported being sexually assaulted, compared to 0.5% of those who reported not having unprotected sex.

Those who had unprotected sex are significantly more likely to consume six or more drinks 2-4 times per week and once a week (χ 2 (5, n = 2446) = 124.44; p = 0.000) than those who did not have unprotected sex. They are also less likely to have six or more drinks on a less frequent basis (less than once a month) (Figure 3.25).

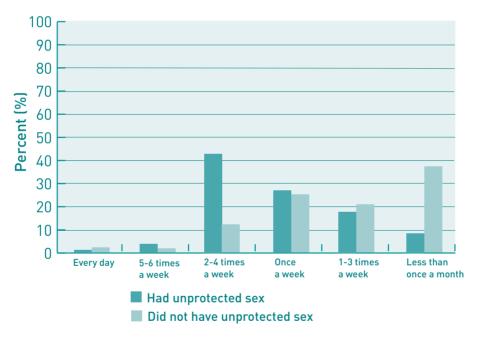


Figure 3.25: Unprotected sex x 6 or more drinks/session

3.7 Pregnancy

In the combined data sets, 3.4% (n = 168) of the population were pregnant. This includes two men who answered on behalf of their partners. Figure 3.26 illustrates the age variation. More than 60 pregnant women are in the 30-34 age group.

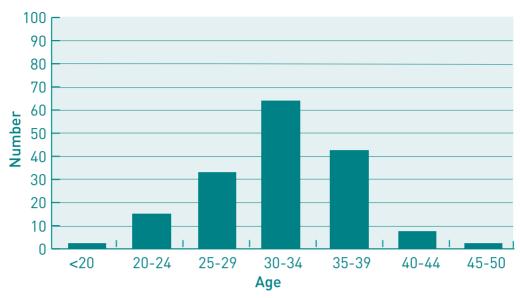


Figure 3.26: Number of mothers pregnant (merged data)

Of the 168 pregnant mothers, 88.1% were married/cohabiting, 11.3% were single/never married and 0.6% were widowed/separated/divorced. 93.8% had been advised by their GP to take folic acid compared to 44% of the general, under-50 population. 73.5% said they had been on the OC pill at some point. 51.5% had breastfed children previously and 57.4% had breastfed their last child. 19.9% were current smokers. Figure 3.27 illustrates the number of pregnant mothers who had consumed/not consumed alcohol. 35.5% (n = 59) had a drink in the previous week. A further 18.7% (n = 31) had had a drink in the previous month.

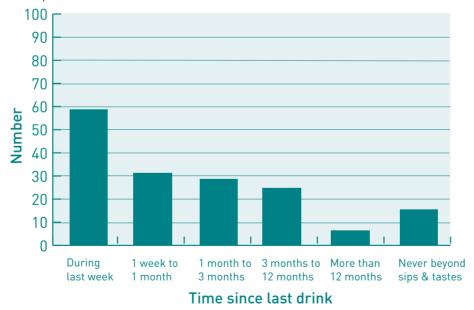


Figure 3.27: Alcohol consumption and pregnancy (merged data)

An age matched sample of women with children and women who never had children were selected to compare contraceptive use and type with the 168 pregnant mothers. Table 3.5 indicates that pregnant women, women with children and women with no children differ in their choice of contraception ($\chi 2$ (12, n = 2089) = 213.81; p = 0.000). Pregnant women and women with children are more likely to use the pill or condom. Women who do not have children are more likely to use a combination of pill + condom or pill only. The prevalence of condom use only is also high. Most notable is the over-representation of pill + condom in women with children. Use of the coil is more prevalent in women with children, while natural family planning is most prevalent in pregnant mothers and women with children.

Table 3.5: Prevalence of contraceptive use for pregnant women, women with children and women without children. – Adjusted standardised residuals in brackets. (merged data)

Contraceptive Type	Pregnant (%)	Women with children (%)	Women with no children (%)
Condom	40.4	36.5	26.5
Pill	35.6	24.8	30.0
Pill + Condom	9.6	7.8	32.6
Condom + Withdrawal	1.9	4.6	3.5
	(-1.2)	[1.3]	(-0.8)
Natural Family Planning	8.7	5.9	1.0
	(1.6)	[2.5]	(-3.7)
Coil	1.0	5.9	1.3
	(-1.9)	[4.0]	(-3.3)
Other	2.9	14.5	5.1
	(-3.1)	[5.5]	(-4.3)
Total	100.0	100.0	100.0

4.0 Prevalence of sexual activity and contraceptive use for those aged under and over 35

Rates of sexual activity were found to be highest amongst those in the 35-39 year age group. Further consideration of the differences in prevalence of contraceptive use and type were thus considered for those under and over 35. Given the negligible differences over time, the SLÁN 98 and SLÁN 02 data sets were merged for the purposes of this analysis.

4.1 Prevalence of sexual activity

There were significant differences in the percentages of those sexually active/not active in the under and over 35s. 81% of those under 35 were sexually active, compared to 85.6% of those over 35. Gender was not found to be a statistically significant factor, with similar numbers of men and women sexually active in both age groups.

Both education level ($\chi 2$ (2, n = 5812) = 281.26; p = 0.000) and social class ($\chi 2$ (2, n = 5554) = 16.88; p = 0.000) were found to be a significant influence on sexual prevalence in the under and over 35s (Figure 4.1). The under 35s are more likely to have tertiary education while the over 35s are more likely to have secondary education. There is a larger percentage of the over 35s in the none/primary education category. For both age groups, those who are sexually active are most likely to be in SC1-2. There are similar numbers in SC5-6.

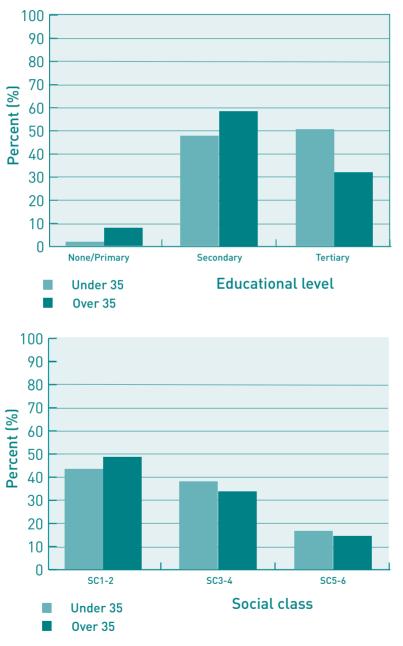


Figure 4.1: Sexual activity x education and social class (merged data)

GMS status was also found to significantly influence sexual prevalence in these two age groups ($\chi 2$ (1, n = 6150) = 12.26; p = 0.000). Of those that have a medical card, 53% are under 35, compared to 47% over 35. 85.6% of the over 35s are married/cohabiting

compared to 44.5% of those under 35. While 8.5% of the over 35s are single/never married, 53.5% of those under 35 are single/never married ($\chi 2$ (2, n = 6353) = 1539.54; p = 0.000). Rural/urban location was also found to be significantly different between the two groups ($\chi 2$ (1, n = 5934) = 10.84; p = 0.001). While there is no difference in the location of those under 35, there are significantly more over 35s living in rural areas (53.7% compared to 46.3%) (Figure 4.2).

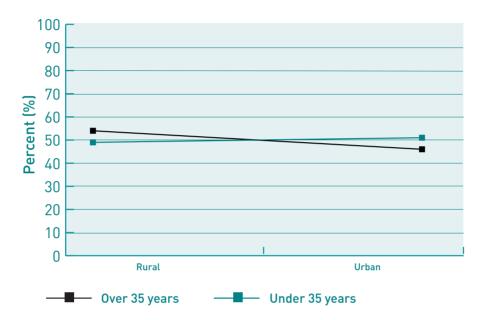
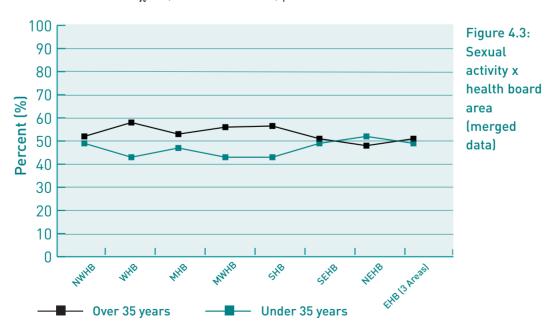


Figure 4.2: Sexual activity x location (merged data)

Figure 4.3 illustrates the percentage of those sexually active (under/over 35) in each health board area. While the percentage of under 35s who are sexually active is similar in all health board areas, there is an increase in the East Coast area. The opposite is true for the over 35s (χ 2 (7, n = 5211) = 20.85; p = 0.004).



Smoking ($\chi 2$ (7, n = 6329) = 110.57; p = 0.000) and alcohol consumption ($\chi 2$ (3, n = 6296) = 42.15; p = 0.000) were found to be significantly different between both age groups. 39.9% of those under 35 were found to be current smokers compared to 27.4% of those over 35 (Figure 4.4). 75.2% of those under 35 had drunk alcohol in the previous week compared to 71% of those over 35. A further 13.6% and 12.2% had drunk alcohol in the previous month.

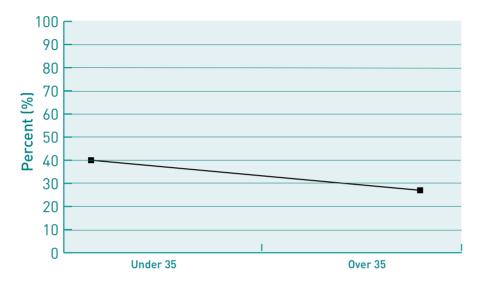


Figure 4.4: Sexual activity x smoking (merged data)

4.2 Contraceptive use

Contraceptive use differed significantly between both age groups ($\chi 2$ (2, n = 6373) = 569.03; p = 0.000). Those under 35 are more likely to use contraception always (58.2% compared to 38.1%) while those over 35 are more likely to never use contraception (40.7% compared to 14.0%) (Figure 4.5).

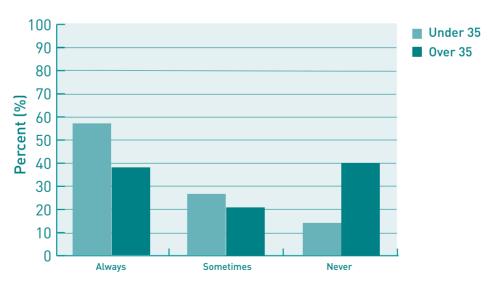


Figure 4.5: Contraceptive use x age (merged data)

Contraceptive use was found to differ significantly for men ($\chi 2$ (2, n = 2722) = 276.36; p = 0.000) and women ($\chi 2$ (2, n = 3649) = 291.38; p = 0.000). Men under 35 are more likely to

use contraception always while men over 35 are more likely to never use contraception. Women in both age groups are more likely to always use contraception with a large proportion of over 35s also never using contraception. Men in both age groups are more likely than women to never use contraception (Figure 4.6).

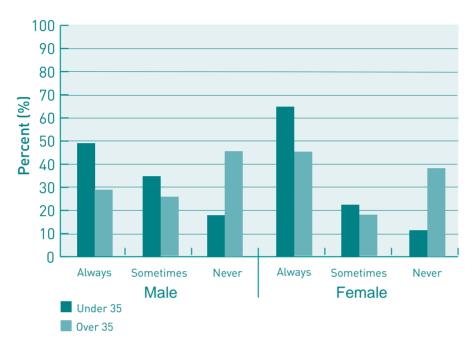


Figure 4.6: Contraceptive use x gender (merged data)

Contraceptive users (always and sometimes use) were considered for further analysis. Educational status ($\chi 2$ (2, n = 4185) = 222.37; p = 0.000) and social class ($\chi 2$ (2, n = 4055) = 19.96; p = 0.000) of contraceptive users was found to differ significantly between the two age groups. Contraceptive users over 35 are most likely to have secondary education only, compared to the under 35s, who are most likely to have tertiary education. The majority of contraceptive users are in SC1-2 for both groups. There are significantly more over 35s than under 35s in SC1-2. The reverse is true for SC3-4. There is little to no variation in SC5-6 (Figure 4.7).

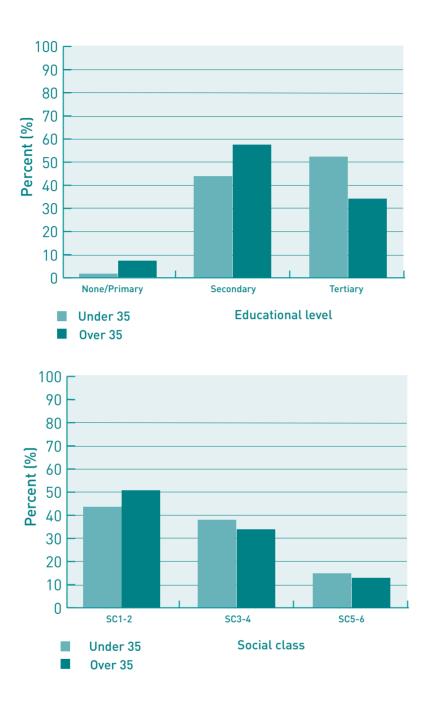


Figure 4.7: Educational status and social class of contraceptive users (merged data)

Marital status was found to differ significantly for both the under 35s ($\chi 2$ (2, n = 3043) = 149.6; p = 0.000) and the over 35s ($\chi 2$ (2, n = 3310) = 21.45; p = 0.000). In the under 35s, 77.7% of married respondents always/sometimes use contraception compared to 57.8% of those over 35. In the single/never married category, 93.2% of the under 35s always/sometimes use contraception compared to 70.36% of the over 35s. This difference is also observed for those who are widowed/divorced/separated (Table 4.1).

		Marr/Cohab (%)	Single/Never Married (%)	Wid/Div/Sep (%)
Under 35	Always/sometimes	77.7	93.2	80.3
	use			
	Never use	22.3	6.8	19.7
Over 35	Always/sometimes	57.8	70.4	66.8
	use			
	Never use	42.2	29.6	33.2

Table 4.1: Contraceptive use x marital status (merged data)

81.8% of those in the under-35 age group who have a GMS card use contraception ($\chi 2$ (1, n = 2942) = 10.38; p = 0.001) compared to 53.8% of those in the over-35 age group ($\chi 2$ (1, n = 3208) = 6.20; p = 0.013). 87.1% of those that do not have a GMS card (under 35 yrs) use contraception compared to 60.0% of the over 35s.

While the proportion of contraceptive users did not vary between health boards (p = 0.078), rural/urban location was found to vary significantly between both age groups (χ 2 (1, n = 4275) = 11.95; p = 0.001). 48.1% of those under 35 live in a rural location, compared to 53.4% of those over 35 years. Conversely, 51.9% of those under 35 live in an urban location, compared to 46.6% of those over 35 years (Figure 4.8).

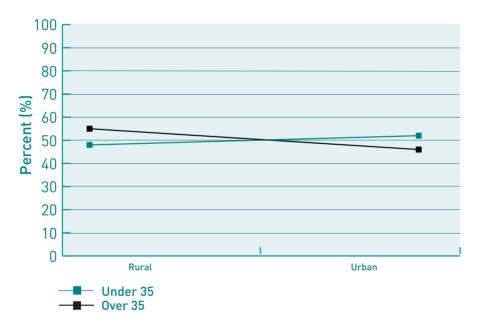


Figure 4.8: Rural/urban location of contraceptive users (merged data)

Smoking ($\chi 2$ (1, n = 4565) = 100.39; p = 0.000) and alcohol ($\chi 2$ (3, n = 4552) = 37.64; p = 0.000) habits of contraceptive users were also found to vary significantly amongst the under and over 35s. 39.7% of contraceptive users under 35 currently smoke compared to 25.5% of those over 35. 7.3% of contraceptive users over 35 never drink beyond sips and tastes compared to 3.9% of those under 35. The other main difference was in those who consumed alcohol within the previous week. 70.9% of contraceptive users over 35 consumed alcohol during the last week compared to 76.3% of the under 35s.

4.3 Contraceptive type

Contraceptive type used by the under and over 35s differed significantly ($\chi 2$ (6, n = 4230) = 504.53; p = 0.000). Figure 4.9 illustrates the source of the differences. The condom was the preferred method of contraception in both age groups but 8.5% more over 35s use this method exclusively. While 24.8% of the under 35s use the OC pill, this declines to 13.4% of the over 35s. Double protection, i.e. OC pill + condom use is preferred by the under 35s, with 18.2% reporting use. Just 3.3% of the over 35s use both methods. While 6.3% of over 35s use natural family planning as a contraceptive method, this reduces to 1.4% of those under 35. Condom + withdrawal, natural family planning, and the coil are used at similar rates in both age groups.

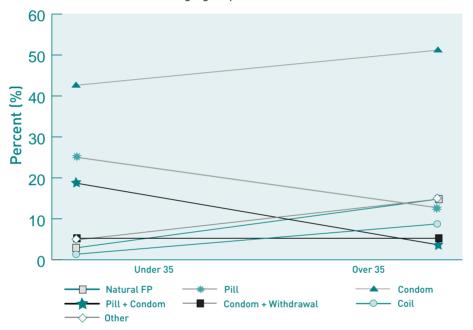


Figure 4.9: Method of contraception (merged data)

4.3.1 Contraceptive type x gender

Figure 4.10 illustrates contraceptive type for men over and under 35 years. This differed significantly between both groups ($\chi 2$ (6, n = 1657) = 130.15; p = 0.000). While the patterns look similar, the under 35s are less likely to choose natural family planning. Under 35s are also more likely to use OC pill + condom and condom + withdrawal.

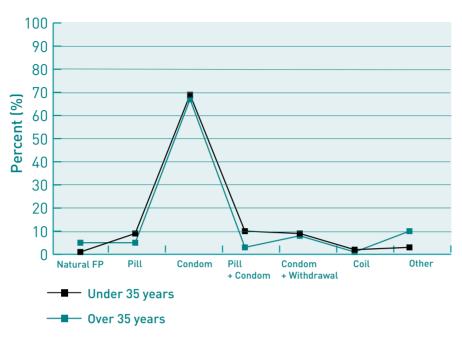


Figure 4.10: Male contraceptive type (merged data)

The differences in contraceptive type are more marked for women ($\chi 2$ (6, n = 2720) = 471.85; p = 0.000). The under 35s are more likely to use the OC pill and OC pill + condom while the over 35s are more likely to use condom only, and coil only (Figure 4.11).

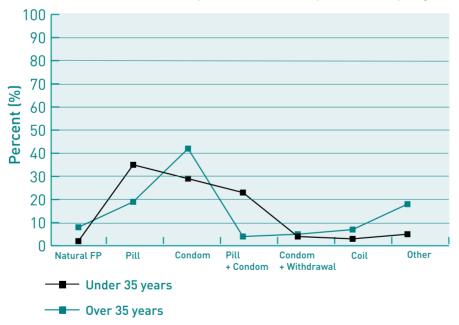


Figure 4.11: Female contraceptive use (merged data)

5.0 Multivariate Analysis

In order to predict the determinants of sexual activity and contraceptive use, the data from SLÁN 1998 and SLÁN 2002 were combined for the purposes of the multivariate analysis. Social capital questions and sexual assault while drinking were an addition to the 2002 questionnaire; therefore predictive models using the 2002 data are also

included. To determine the covariates for the logistic regression, Categorical Principal Components Analysis (CatPCA) was first conducted on groups of candidate variables including general health, demographics, negative lifestyle behaviours, positive lifestyle behaviours and socio-cultural variables. The three most important explanatory factors were extracted in each category. These are listed in the column on the right-hand side of the table below in order of their extraction. More than three extracted demographic factors were included. (See methodology in chapter one for further information.)

The candidate variables selected for the CatPCA are presented in the left-hand column of Table 5.1. The associated questions for each variable are presented in the middle column and the extracted factors, i.e. variables to be inputted in the logistic regression, are presented in the right hand column.

Table 5.1: CatPCA and resulting factors for under 50s (merged data)

	Factors for CatPCA	Factors for final model
Health	Self-rated health. Health satisfaction. No. of days in poor mental health. No. of days in poor physical health. Activity or work affected by long-term ill health. Regularly taking prescribed pills.	Self-rated health Number of days in poor mental health (replace by anxiety/depression statement for merged data). Regularly taking prescribed pills.
Quality of Life	Quality of life	Quality of life
Demographics	Age Sex Education GMS Social class Marital status Location At work/not at work	Education Marital status Gender Location Age GMS
Negative Lifestyle Behaviours	How long since last alcoholic drink? How many drinks on average?	Had unprotected sex as a result of someone else's drinking Been sexually assaulted as a result of someone else's drinking

Table 5.1 (Continued): CatPCA and resulting factors for under 50s (merged data)

	Factors for CatPCA	Factors for
		final model
Negative	Usually drink in a typical wk?	Do you smoke?
Lifestyle	How many days you drink in a typical wk?	Been sexually
Behaviours		assaulted as a
		result of your own
Alcohol		drinking
	How often have you had six or more drinks?	How long since
	How long since last alcoholic drink?	last alcoholic drink
	Have you driven a car after 2 or more drinks?	Ever smoked
	As a result of your own drinking have you:	cigars?
	Been drunk?	Ever taken any
	Felt you ought to cut down?	drugs in your
	Felt the effects at work?	lifetime?
	Missed days from work?	Had unprotected
	Had property vandalised?	sex as a result of
	Had arguments with family and friends?	your own drinking
	Got into a fight?	
	Had financial trouble?	
	Had family/marital difficulties?	
	Been a passenger with a driver who	
	was drunk?	
	Been in a motor accident?	
	Done something you wouldn't usually do?	
	Been verbally abused?	
	Been hit or assaulted?	
	Been sexually assaulted?	
	As a result of someone else's	
	drinking have you:	
	Had property vandalised?	
	Had arguments with family and friends?	
	Got into a fight? Had financial trouble?	
	Had family/marital difficulties?	
	· · · · · · · · · · · · · · · · · · ·	
	Been a passenger with a driver ? who was drunk?	
	Been in a motor accident?	
	Done something you wouldn't usually do?	
	Been verbally abused?	
	Been hit or assaulted?	
	Been sexually assaulted?	
	20011 Soldadiy assudited.	
Smoking	Do you smoke cigarettes now?	
3	No. of cigs smoked?	
	How long been a smoker?	
	Smoke cigarettes in past?	
	Ever smoked cigars?	
	J	

Table 5.1 (Continued): CatPCA and resulting factors for under 50s (merged data)

	Factors for CatPCA	Factors for final model
Smoking	Ever smoked a pipe? Ever tried to stop smoking?	mat modet
Drugs	Ever taken drugs in your lifetime? Ever taken tranquillisers or sedatives without a prescription? Ever used any drugs (cocaine, heroin etc)?	
Diet	How often eat fried foods?	
Positive Lifestyle Behaviours	Folic acid use Breastfeeding How often add salt when cooking? Fruit and vegetable consumption Regular exercise	How often add salt when cooking? Fruit and vegetable consumption Regular exercise
		(Folic acid included for women only – logistic regressions)
	Wear a seatbelt	
Socio-cultural	Literacy Health check-up Religious belief Generally speaking most people can be trusted. People in this neighbourhood do not share the same values People in this area can be trusted Support from: Spouse/partner Parents Children Close relatives Friends Employers/boss Others in the workplace	Support from friends (close relatives for sexually active population only) People in this area can be trusted Spouse/partner support General health check-up

5.1 Predictors of sexual activity

In the final model, a binary logistic regression was conducted with sexually active/not active as the dependent variable. The merged data does not include the social support factors in particular. Backward stepwise method was chosen. At each step, the variable with the smallest contribution to the model (or the largest p-value) is removed. Entry and removal was set at 0.10. Table 5.2 shows the remaining independent factors, i.e. the predictors of sexual activity. The last category is referenced.

Table 5.2: Binary logistic regression – dependent variable sexually active/not sexually active (merged data)

Covariates	Es	timates	S.E.	Wald	df	р	OR
Self-rated				17.901	4	0.001	
Health							
	Poor	-1.458	0.455	10.272	1	0.001	0.233
	Fair	-0.550	0.199	7.646	1	0.006	0.577
	Good	-0.149	0.130	1.316	1	0.251	0.862
	Very good	-0.021	0.122	0.030	1	0.862	0.979
	Excellent						
General Health Check-up	Yes	0.175	0.090	3.774	1	0.052	1.191
	No						
Regularly on Prescribed Pills	Yes	0.470	0.113	17.435	1	0.000	1.600
	No						
Current Smoking	No	-0.466	0.102	20.922	1	0.000	0.627
	Yes						
Gender	Male	0.321	0.091	12.388	1	0.000	1.379
	Female						
Age		-0.048	0.006	73.276	1	0.000	0.953
Regular Exercise	Yes	0.155	0.089	3.036	1	0.081	1.168
	No						
Take Drugs in							
Lifetime				35.736	2	0.000	
	Never	-0.727	0.146	24.863	1	0.000	0.483
	1-5 times	-0.172	0.179	0.923	1	0.337	0.842
	> 6 times						
Marital Status				703.458	2	0.000	
	Married/cohabiting		0.132	677.777	1	0.000	30.394
	Wid/div/sep	0.674	0.165	16.713	1	0.000	1.961
	Single/never						
	married						
Alcohol Consumption				43.057	3		
	Never beyond sips	-0.116	0.204	0.322	1	0.570	0.891
	and tastes						
	During the last week	0.708	0.147	23.262	1	0.000	2.029
	1wk-1mth ago	0.398	0.175	5.182	1	0.023	1.489
	>1 month ago						
Model Chi square		If = 17	P = 0				
Model n	5105	Nagelker	ke R sq	uare = 0.3	351		

Those with fair or poor self-rated health are less likely to be sexually active than those with excellent health. Those who attend for regular health check-ups and those on regularly prescribed pills (which includes the OC pill) are more likely to be sexually active. Men and those who smoke are more likely to be sexually active. As age increases, sexual activity is likely to decrease. Regular exercisers are more likely to be sexually active, and those who have never taken drugs in their lifetime are more likely to be sexually active than those that have taken drugs on 6 or more occasions. Those married/cohabiting are 30 times more likely to be sexually active than single/never married respondents. Widowed/divorced/separated respondents are also more likely to be sexually active than those who are single/never married. Those who drank alcohol in the last week or the last month are more likely to be sexually active than those who drank alcohol more than a month ago.

Table 5.3 displays the results of the logistic regression for the SLÁN 02 data only. This includes social capital variables and other variables that were not available in 1998. The significant predictors of sexual activity in this model were marital status, age, sexual assault as a result of one's own drinking and support from spouse/partner. Those married/cohabiting are almost four times more likely to be sexually active than those who are single/never married. Those who are widowed/divorced/separated are less likely to be sexually active than those who are single/never married. As age increases, sexual activity decreases. Those who have been sexually assaulted as a result of their own drinking are less likely to be sexually active. Finally, those who receive a lot/some support from their spouse/partner are twice as likely to be sexually active than those who receive little support.

Table 5.3: Binary logistic regression – dependent variable sexually active/not sexually active (SLÁN 2002 only)

Covariates	Es	timates	S.E.	Wald	df	р	OR
Marital Status				15.055	2	0.001	
	Marr/cohabiting	1.368	0.402	11.595	1	0.001	3.928
	Wid/div/sep	0.733	0.733	0.008	1	0.931	0.938
	Single/never married						
Age		-0.086	0.020	19.115	1	0.000	0.917
Sexually assaulted	Yes	-2.298	1.178	3.803	1	0.051	0.100
(own drinking)	No						
Support from	A lot/some	0.832	0.341	5.951	1	0.015	2.298
spouse/partner	Very little/little						
	/so-so						
Model Chi square	39.98	df = 8	F	P = 0.000			
Model	1550	Nagelk	erke R s	square = 0	.080		

5.2 Predictors of contraceptive use

In order to determine the predictors of contraceptive use, the same procedures as outlined for the predictors of sexual activity were employed. Table 5.4 presents the findings for the merged data. Women, those who are on regular prescribed pills and those who do not smoke are more likely to be contraceptive users. Those who consumed alcohol in the last week or last month are more likely to be contraceptive users than those who drunk alcohol more than a month ago. As age increases, contraceptive use is likely to decrease. GMS card holders, and those with secondary education are less likely to be contraceptive users than those with tertiary education. Though the odds ratio indicates that the same is true for those with no/primary education, this did not attain statistical significance. Marital status was also found to be a significant predictor, with married/cohabiting and widowed/divorced/separated respondents less likely to be contraceptive users than the single/never married group.

Table 5.4: Binary logistic regression – dependent variable contraceptive use/non use (merged data)

Covariates	I	Estimates	S.E.	Wald	df	р	OR	
Regularly on	Yes	0.210	0.092	5.143	1	0.023	1.233	
prescribed pills	No							
Current	No	0.189	0.085	4.986	1	0.026	1.208	
smoker	Yes							
Gender	Male	-0.510	0.077	44.110	1	0.000	0.601	
	Female							
GMS	Yes	-0.288	0.109	6.943	1	0.008	0.750	
	No							
Age		-0.077	0.006	182.498	1	0.000	0.926	
Education				8.811	2	0.012		
	None/primary	-0.054	0.181	0.088	1	0.766	0.948	
	Secondary	-0.233	0.081	8.364	1	0.004	0.792	
	Tertiary							
Alcohol				7.119	3	0.068		
Consumption	Never beyond sips	0.231	0.186	1.542	1	0.214	1.260	
	and tastes							
	During the last	0.343	0.132	6.760	1	0.009	1.409	
	week							
	1wk-1mth ago	0.338	0.161	4.424	1	0.035	1.402	
	>1 month ago							
Marital Status				67.497	2	0.000		
	Married/cohabiting	-0.980	0.121	65.895	1	0.000	0.375	
	Wid/div/sep	-0.639	0.209	9.303	1	0.002	0.528	
	Single/never							
	married							
Model Chi square	647.42	df = 12P	= 0.000	M	odel	n 4242		
Nagelkerke R square = 0.204								

Table 5.5 presents the findings for the 2002 data which includes social capital indicators. The predictors of contraceptive use were found to be smoking status, gender, age, education and sexual assault as a result of ones own drinking. Women and those that do not smoke are more likely to be contraceptive users. As age increases, contraceptive use decreases. Those with secondary education are less likely to be contraceptive users than those with tertiary education. While sexual assault as a result of ones own drinking emerged in the final model, it is not statistically significant. The finding is the same as the merged data however where those who are sexually assaulted less likely to be contraceptive users.

Table 5.5: Binary logistic regression – Dependent variable contraceptive use/non use (SLÁN 2002 only)

Covariates		Estimates	S.E.	Wald	df	р	OR
Current	No	0.312	0.144	4.667	1	0.031	1.366
smoker							
	Yes						
Gender	Male	-0.462	0.125	13.612	1	0.000	0.630
	Female						
Age		-0.095	0.009	103.907	1	0.000	0.909
Education				7.052	2	0.029	
	None/primary	-0.484	0.338	2.050	1	0.152	0.616
	Secondary	-0.321	0.128	6.323	1	0.012	0.725
	Tertiary						
Sexually assaulted	Yes	-6.109	6.327	0.932	1	0.334	0.002
(own drinking)	No						
Model Chi square	169.86	df = 6 P	r = 0.00	0			
Model n	1378	Nagelkerk	ke R sq	uare = 0.1	61		

5.3 Predictors of condom use (men only)

Table 5.6 presents the predictors of condom use amongst men. Those with excellent/very good health are more likely to be condom users than those with poor/fair /good health. Those who attend for general health check-ups are less likely to be condom users. Those who are married/cohabiting are less likely to be condom users than those who are single/never married. As age increases, condom use decreases. Fruit and vegetable consumption is significant at the 10% level. Those that consume ≥ 4 servings per day are more likely to be condom users.

Table 5.6: Binary logistic regression – dependent variable condom use/non use (merged data)

Covariates	E	stimates	S.E.	Wald	df	р	OR
Self-rated	Poor/Fair/Good	-0.377	0.139	7.318	1	0.007	0.686
Health							
	Excellent/Very Good						
General	Yes	-0.300	0.145	4.301	1	0.038	0.741
Check-up							
	No						
Marital Status				23.129	2	0.000	
	Married/cohabiting	-0.879	0.184	22.955	1	0.000	0.415
	Wid/div/sep	-0.590	0.405	2.129	1	0.145	0.554
	Single/never						
	married						
Age		-0.023	0.010	5.405	1	0.020	0.977
Fruit &	≥4 servings/day	0.258	0.142	3.303	1	0.069	1.295
Vegetable							
	<4 servings/day						
Model Chi square	86.17	df = 6		P = 0			
Model n	1224	Nagelkerke R square = 0.102					

5.4 Predictors of OC pill use (women only)

Table 5.7 presents the predictors of OC pill use amongst women. Those with excellent/very good self-rated health, who had had a general health check-up and those who take regularly prescribed pills are more likely to use the OC pill.

Married/cohabiting or widowed/divorced/separated respondents are more likely to be OC pill users than those who are single/never married. As age increases, use of the OC pill decreases. Those with no/primary or secondary education are less likely to be OC pill users than those with tertiary education.

Table 5.7: Binary logistic regression – dependent variable OC pill use/non use (merged data)

Covariates	Es	timates	S.E.	Wald	df	р	OR
General	Yes	0.434	0.119	13.310	1	0.000	1.543
Check-up							
	No						
Regularly on	Yes	1.437	0.125	132.846	1	0.000	4.208
prescribed pills	No						
Age		-0.130	0.010	182.474	1	0.000	0.878
Education				4.906	2	0.086	
	None/primary	-0.949	0.501	3.588	1	0.058	0.387
	Secondary	-0.161	0.115	1.967	1	0.161	0.851
	Tertiary						
Marital Status				22.010	2	0.000	
	Married/cohabiting	0.134	0.149	0.803	1	0.370	1.143
	Wid/div/sep	1.357	0.301	20.367	1	0.000	3.886
	Single/never						
	married						
Self-rated	Poor/Fair/Good	-0.485	0.120	16.353	1	0.000	0.616
Health							
	Excellent/Very Good						
Model Chi square	550.86		df = 3	8 P	= 0.	000	
Model n	1855		Nage	elkerke R	squ	are = 0.3	347

6.0 Conclusions and recommendations

6.1 Discussion

Many environmental and cultural factors influence sexual behaviour and Irish society is changing rapidly. The Crisis Pregnancy Agency strategy document (2003) identifies some of the many factors. These include:

- changes in patterns of work for parents
- an increase in immigration to Ireland
- liberalisation of attitudes towards sexuality and contraception
- changes in how sexual activity is portrayed in popular culture
- increasing acceptance of single parenthood
- changes in patterns of sexual activity, with earlier sexual initiation
- increases in alcohol consumption and drug use.

It is perhaps not surprising that literature on sexual health/activity and contraceptive use is scant, given the absence of reproductive health from the UN Secretary General's 'Road Map of Millennium Development Goals' (Girard 2001). It is also the case that sexual behaviour is perceived mainly as a public health problem when in fact it is in the main a profoundly positive aspect to personal health and well-being, with important potential benefits.

The data in the current report are interesting in several ways. First they show little change in reported practices between 1998 and 2002, neither in the patterns of sexual activity and contraceptive use, nor in the associated and important socio-demographic patterns observed. Given that the SLÁN surveys are based on self-reported information and have a moderate response rate, in keeping with a postal survey instrument of this kind, the stability of these patterns is really quite notable. This suggests both that the observed findings are relatively reliable and that there has been little major shift in behaviours and attitudes in the intervening time. Furthermore, some of the variables in the two surveys are almost identical so that we can feel confident that these patterns are meaningful and socially coherent.

It should be noted that our focus in this analysis was on the under 50s, that is in younger adults of childbearing age, so there is some difference to the previously reported pattern in the main report in April 2003, which included all adults. The population surveyed is relatively stable and settled, selected as it is through the electoral register, and accordingly the behaviours of the youngest groups in the population and those in higher risk social categories cannot be captured with real accuracy here. While we do present standardised data, our analysis is based on 5-year age patterns and SLÁN is not powered to present such prevalence estimates with precision. Nonetheless, the important demographic findings in this analysis are in keeping with previously emphasised social patterns to lifestyle behaviours. We cannot assess the intention of respondents in relation to sexual activity since these are cross-sectional surveys of reported behaviours; nor do we have data on intention to conceive or plan a pregnancy. However, the demographic associations we present do point to important questions for further exploration. Though sexual behaviour is still under-researched and reported in the literature this positive aspect to personal health and well-being is shown to be one of a number of factors associated with wellness and well-being. We see that men and women show differing social patterns, especially before they form longer-term attachments, which must be comprehensively addressed in health education strategies.

The rates of sexual activity in the population are high, though highest among the married or cohabiting couples in early middle age, as might be expected. The reasonably high 72.4% (SLÁN 98) and 77.9% (SLÁN 02) rates for the 20-24 age group are consistent with the 72% reported in a sample of college students (n=797) in the USA (Siegel, Klein and Roghmann 1999). There are important negatives, too, for policy purposes, in that the regional variations are not particularly notable according to health board and urban / rural location, suggesting that the country is now relatively homogeneous, as has been highlighted in the other SLÁN reports, though with some effect attributable to the urbanisation pattern of the greater Dublin area. The association of sexual activity and contraceptive use with factors related to social position, even in this relatively young group, suggests the importance to well-being and autonomy of financial security, and it highlights again the core role played by equity in promoting health.

Ireland's fertility rate is the highest in Europe (Eurostat 2003) but approximately 48% of those under 50 years report always using contraception (47% SLÁN 98; 49% SLÁN 02). Amongst the single/never married group, this increases to 62% (SLÁN 98) and 63% (SLÁN 02). However, 10% in both surveys report never using contraception. This may

account for the reported 11% (total n = 2000) pregnant single women in attendance at an antenatal clinic in 1996 (Crisis Pregnancy Agency 2003).

At the International Conference on Population and Development (ICPD) in 1994, it was identified that men had not been required to share in the responsibility for family planning and reproductive health with women (Ringheim 1999). The ICPD Programme of Action recommended greater efforts to increase men's share of contraceptive practice, including condom use to safeguard women's (and their own) health. Ten years on, women in Ireland still have the greater responsibility for contraception as indicated in both SLÁN surveys. In fact, there has been an increase in the difference between female and male 'always use' of contraception, with a +13% differential in 1998 and a +18% differential in 2002 (Census 2002 adjusted figures). This coincides with an identified reduction in the use of male methods –condoms, withdrawal, vasectomy and natural family planning – which account for 26% of global prevalence in 1998, down from 31% in 1994 and 37% in 1987 (Ringheim 1999).

Contraceptive choice in developed countries is influenced by, among other factors, perceptions of self and circumstances, the perceived likelihood of partners agreeing to use of the method, perceptions of how easy it is to use the method correctly and consistently and the way in which method use is portrayed by health professionals (Walsh 1997). Research also suggests that contraceptive choice remains a matter of finding the 'least worst' option, rather than of making a positive choice (Walsh 1997). Contraception was legalised in Ireland in 1979. The preferred method of contraception for men and women in the current report is condom use, with prevalence rates of 68% (*Census 02 adjusted = 68%) and 66% (*72%) (SLÁN 98 and 02 respectively) for men and 36%(*36%) and 33% (*27%) for women. The female statistics differ from the British study (Walsh 1997) where 16% (n=744) of the interviewed sample reported condom use, but they are consistent with the US study of college students where condom use was reported by 70% (Siegel et al. 1999). An estimated 44 million couples rely on condoms for contraception, but worldwide men report much higher use of condoms than women (Ringheim 1999). Condoms have a unique role as the first method used by unmarried adolescents and as the method most widely used in this group. (Hulton and Falkingham 1996). This is also the case in the current report, with condom use highest in those under 24 and also highest amongst those single/never married. However, for those under 24, the highest reported contraceptive use is the combination of pill + condom.

While those most likely to practise contraception are the young and single, there are still sizeable proportions sometimes or never using contraception, and the problem rests with men more than women, highlighting the need for a bi-gender approach to sexual health education. In general, the use of contraception has become integrated into Irish life, as seen by the lack of impact of religious belief on contraceptive use and the association of contraception with a number of positive lifestyle practices, as well as with those that could reflect both ways, such as alcohol consumption. The surveys emphasise the fact that sexual health education is by no means a 'greenfield site' in this country, and contextual and focused initiatives are needed.

6.2 Recommendations

- 1. While high rates of protected sex are reported among young singles, there are still 10% who constitute a high-risk group and who must be targeted.
- 2. The high rates of sexual activity among those in their early twenties warrant focus on post-primary sexual education programmes that promote responsible practice. Men require such education more than women.
- 3. While rates of unprotected sex are low in this survey, the high levels of alcohol consumption among both men and women mean that this is a potential problem, which should be addressed in responsible drinking campaigns.
- 4. Health promotion campaigns must take explicit account of the relationship between social position and positive sexuality. This is especially important in education strategies in school settings.
- 5. Inter-sectoral strategies to reduce health inequalities generally will also have an impact on these issues.
- 6. The differences according to GMS eligibility are striking and must be taken account of in the primary care strategy.
- 7. There are many positive aspects to sexual activity revealed in this survey, which should be capitalised upon and maintained.

References

Crisis Pregnancy Agency (2003). Strategy to Address the Issue of Crisis Pregnancy. CPA, Dublin.

Eurostat (2003). Eurostat Yearbook 2003: People in Europe. The European Commission.

Girard, F. (2001). Reproductive health under attack at the United Nations. Reproductive Health Matters, Vol.9, No.18, pp.68.

Hulton, L., Falkingham, J. (1996). Male contraceptive knowledge and practice: what do we know? Reproductive Health Matters, Vol7, pp.90-100.

Larsson, G., Blohm, F., Sundell, G., Andersch, B. and Milsom, I. (1997). A longitudinal study of birth control and pregnancy outcome among women in a Swedish population. Contraception, Vol. 56, pp.9-16.

Ringheim, K. (1999). Reversing the downward trend in men's share of contraceptive use. Reproductive Health Matters, Vol.7, No.14, pp.83-96.

Siegel, D.M., Klein, D.I. and Roghmann, K.J. (1999). Sexual behaviour, contraception, and risk among college students. Journal of Adolescent Health, Vol. 25, pp.336-343.

SLÁN 1998. Friel, S., NicGabhainn, S. and Kelleher, C. The National Health and Lifestyle Surveys – Survey of Lifestyle, Attitudes and Nutrition (SLÁN) and The Irish Health Behaviour in School-Aged Children Survey (HBSC). Department of Health and Children, 1999.

SLÁN 2002. Kelleher, C., NicGabhainn, S. and Friel, S. et al. The National Health and Lifestyle Surveys – Survey of Lifestyle, Attitudes and Nutrition (SLÁN) & The Irish Health Behaviour in School-Aged Children Survey (HBSC). Department of Health & Children, Dublin, 2003.

Walsh, J. (1997). Contraceptive choices: supporting effective use of methods. In Beyond Acceptability: User's Perspectives on Contraception. Published by Reproductive Health Matters for WHO, pp.89-96.

Crisis Pregnancy Agency 4th Floor 89 - 94 Capel Street Dublin 1

tel: 353 1 814 6292 fax: 353 1 814 6282

email: info@crisispregnancy.ie web: www.crisispregnancy.ie

ISBN: 1-905199-00-7