Sexual behaviour, initiation and contraceptive use among adolescents in Ireland

Findings from the Health Behaviour in School-aged Children (HBSC) Ireland study

Summary Report

Honor Young, Lorraine Burke and Saoirse Nic Gabhainn

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1.INTRODUCTION

Sexual health is fundamental aspect of physical and social well-being and a key component of public health. Not only does sexual health encompass the absence of disease and infection but also a positive approach to sexuality (WHO, 2006). Good sexual health practices lead to enhanced well-being, the ability to control fertility and pregnancy as well the experience of positive personal relationships (HSE Eastern Region, 2005). Sexual health status is shaped by a range of socio-cultural, psychological, physical, cognitive, religious, legal, economic and political factors, a number of which adults - and adolescents - have little or no control over. An individual's sexual health is dependent on the complex interaction of a combination of these factors (WHO, 2010).

Policies influence the conditions in which people live and work. Effective policy development can promote the conditions under which people can be healthy and can provide a model for consistent activity across organisations and society as a whole. The importance of recognising sexual health as a key issue for the population of Ireland has been acknowledged in national health policy documents (e.g., Department of Health and Children, 2000). The importance of adequate sexual health has also been acknowledged at a local level through regional strategies (e.g., HSE Eastern Region, 2005; Southern Health Board, 2001; HSE Midland Area, 2005 and national strategies addressing HIV/AIDS and crisis pregnancy (Department of Health and Children, 2008; HSE Crisis Pregnancy Programme, 2012). More recently the Royal College of Physicians in Ireland has emphasised the need for sexual health to be acknowledged as a salient public health concern in Ireland. They have highlighted the broad scope and range of sexual health and recognise its extension beyond healthcare together with its cultural, societal and legal implications (RCPI, 2012). These documents emphasise the need for a reduction in sexual health problems and the promotion of positive sexual practices. At the time of writing the first nationally co-ordinated sexual health strategy is pending.

Adolescence is an influential stage of life when young people are developing physically, emotionally, spiritually, socially as well as sexually. It is typical for adolescents to engage in experimental behaviours that help them to identify who they are as they make the transition into adulthood (National Youth Council of Ireland, 2004). However this experimentation often includes a range of risk behaviours (e.g., sexual risk behaviours) which can greatly impact on their present or future quality of life. Sexual behaviours such as inconsistent condom use, multiple partners and casual sex are recognised risk factors for unplanned pregnancy and STI transmission (Kirby, 2001). These outcomes have been associated with a combination of behavioural, biological and cultural factors specific to the population (Centers for Disease Control and Prevention (CDC), 2010; Finer & Henshaw, 2006). Early onset of first intercourse is also a risk factor associated with poor sexual health outcomes both at first intercourse and later in life (McBride *et al.,* 2012; Paul, Fitzjohn, Herbison, & Dickson, 2000; Rundle, Layte & McGee, 2008). Men and women who reported first intercourse before 17 years were less likely to have used contraception at that point, more likely to experience regret about the timing

of first intercourse and less likely to have planned to have sex at that time when compared to those who first had sex at an older age (Rundle *et al.,* 2008). Early onset of first sexual experience has also been linked to socioeconomic status and gender. Males and those from lower socio-economic backgrounds and with lower educational attainment are more likely to report experience of first sex below the age of consent than their peers (Layte *et al.*, 2006).

Use of contraception at first sexual intercourse is increasing and findings from the Irish Contraception and Crisis Pregnancy Study (ICCP) 2010 indicated that the majority of young adults reported contraceptive use at first intercourse. Those who have received sex education were almost twice as likely to use contraception at first intercourse compared to those who have not received sex education (McBride *et al.,* 2012). Respondents who had sex at age 16 or younger were however significantly less likely to have used contraception at first intercourse (McBride *et al.,* 2012). Research from the 2010 ICCP study tells us that 37% of men and 26% of women aged 18 to 24 became sexually active before the (now) legal age of 17 (McBride *et al.,* 2012). The number of teenage births has decreased by 47% from 2001 to 2012 (a rate of 20 per 1000 to a rate of 12 per 1000). However there were 1,639 births to mothers who were under the age of 20 years in 2012 (Central Statistics Office, 2013). The number of STI notifications in Ireland has increased steadily since 1995. Though this may reflect an increase in STIs, it may also relate to increased testing and reporting. In 2011 the number of STI notifications was reported at 1,536 for those under the age of 20 years. This equates to 11.6% of all STI notifications (HPSC, 2011). These figures highlight the need for sexual health promotion among adolescents to remain on the political and practice agenda.

Increasingly, emphasis has been placed on integrating empirical evidence when planning and implementing effective health promotion decision-making at both a policy and practice level. However limited data on adolescent sexual health and behaviours have been available in Ireland which has meant that retrospective reporting by adults has been used to inform prevention programmes and service planning. The area of adolescent sexual behaviours has been under-researched compared to that of the adult population in Ireland, similar to the adolescent populations of countries such as the U.S. and U.K. The lack of current data therefore hampers the development of comprehensive evidence-informed policy and practice.

The Health Behaviour in School-aged Children study is a WHO collaborative cross-national research project which aims to increase the understanding of young people's health, well-being and behaviours, including sexual behaviours. Internationally comparable data are collected from over 200,000 students aged 11, 13 and 15 year olds every four years across 43 participating countries. HBSC Ireland is the key nationally representative and internationally comparable study providing a representative profile of the health, wellbeing and associated behaviours along with the social and developmental context of young people in Ireland. The findings are used to inform and influence population health, health services and health education policy and practice at local, national and international levels.

This report explores the findings from the 2010 HBSC Ireland study with specific focus on the newly introduced sexual behaviour questions. It provides the first representative profile of

school attending adolescents' sexual behaviour in Ireland. Interest and demand for national data on adolescent sexual health and behaviour has previously been highlighted (Layte *et al.,* 2005; National Children's Office, 2005). Data have been collected on the sexual health of the Irish adult population (Shiely *et al.,* 2004), and while retrospective data on adolescent sexual behaviour is available (e.g., Layte *et al.,* 2006), as well as some regional and local studies (e.g., Bonner, 1996; McHale & Newell, 1997), never before have nationally representative data been collected directly from children on their sexual health and behaviour.

This report and series of analyses are explicitly designed to mirror the work conducted by Shiely and colleagues (2004) as part of their secondary analysis of the 1998 and 2002 SLAN studies. It provides information on the patterns of sexual behaviour of the adolescent population in Ireland in terms of sexual intercourse, age of sexual initiation and contraceptive use. These behaviours were explored in relation to a number of socio-demographic factors and characteristics such as age, social status, family affluence, region, rurality, ethnicity, disability status, traveller status, household composition and engagement in other risk behaviours. Through the use of regression analyses the relationships between these characteristics and adolescents' sexual behaviours were also explored. One of the aims of these analyses was to investigate possible factors that may predict sexual risk behaviours such as early sexual initiation and failure to use contraception.

2. METHODS

2.1 The Health Behaviour in School-Aged Children (HBSC) Ireland study

Compared to the international research, data collection in Ireland extends to include young people aged 9 to 18 years. The study uses self-completion questionnaires, administered in classrooms to gain the perspectives of a representative proportion of 9-18 year old school-going children in the Republic of Ireland. Data were collected from 256 schools totalling 16,060 children of whom 4494 were aged 15-18 and were used in the current analysis. The HBSC study includes a section on adolescent sexual behaviours and contraceptive use. Four sexual behaviour questions have been mandatory for participants aged 15 years and older in the HBSC study since 2002. For practical, political and ethical reasons, these questions have only been included as mandatory in the Irish study since 2010. The questions were derived from the Youth Risk Behaviour Surveillance (YRBS) (Brener *et al.,* 2004; Grunbaum *et al.,* 2002; Kolbe, Kann, & Collins, 1993) and from reviews and analyses of sexual health optional packages from previous HBSC surveys. These sexual health items have therefore been used in previous adolescent sexual health research and have also been subjected to qualitative pilot tests in a number of HBSC countries, including Ireland, prior to inclusion in the mandatory questionnaire. The sexual health section of the 2010 HBSC Ireland survey included questions on the experience of sexual intercourse, age at first sexual intercourse, and the use of methods

to prevent pregnancy at the last sexual intercourse and the use of condoms to prevent STIs at last sexual intercourse.

Research Ethics Committee approval was granted for the collection of these data from children aged 15 years and over. These items were asked only of students from the 15 year-old age plus group as the vast majority of younger adolescents are less likely to have experienced sexual intercourse and to avoid potential objection from parents and school management teams.

2.1.1 Data collection procedure

Sampling for the HBSC Ireland 2010 study was conducted to reflect a representative proportion of children in Ireland. Census data were used to indicate population distribution across geographic regions. The sampling frame consisted of both primary and post-primary schools, lists of which were provided by the Department of Education and Skills (formerly Education and Science). Schools within geographical regions were randomly selected for participation, followed by the random selection of class groups within schools. In primary schools, sampling consisted of 3rd to 6th class, whereas in post-primary schools, all classes were sampled, with the exception of Leaving Certificate groups.

School principals were approached by post and following positive responses, HBSC questionnaires were offered in English or Irish. Questionnaires were provided to students along with blank envelopes to facilitate anonymity, information sheets for teachers, parental consent forms and classroom feedback forms. A helpline was established in NUI Galway to manage general queries surrounding questionnaire completion. All returns were facilitated through the provision of FREEPOST envelopes. Postal reminders were dispatched to schools followed by telephone calls from research staff at the Health Promotion Research Centre, NUI Galway in order to maximise response rates. Data were entered according to the International HBSC protocol (see www.hbsc.org). A total of 256 schools were recruited with a response rate of 67%. Overall, 16,060 school children took part in the HBSC 2010 survey with a response rate of 85%.

2.2 Methodology for analysis

2.2.1 Procedure

The objective of this study was to undertake a detailed quantitative analysis of the 2010 Irish Health Behaviour in School-Aged Children (HBSC) data on the sexual behaviour of young people aged 15-18. Where possible, the analysis followed those conducted by Shiely *et al.,* (2004) exploring sexual health patterns within the Irish adult population. The report used the methodological framework reported by Shiely *et al.,* (2004), however differences in the nature of the sample and the data collected prevented a direct replication.

Prior to analysis it was necessary to consider the representativeness of the sample. It is acknowledged that the data is not spread equally over 15-18 year old students. The sample size

for 18 year olds is the smallest and is not likely to be representative of 18 year olds in the population. This group however represent 18 year olds who are still attending post-primary education and may therefore be of particular interest. The 15-18 year old subset of the HBSC sample used in this analysis represents the structure of the overall HBSC sample. This overall HBSC sample is representative of the CSO 2006 census.

The primary sampling unit for data collection in the HBSC is at a classroom level. It is possible that there may be an impact of classroom clustering which may influence the independence of pupil responses and lead to underestimation of standard errors and type II mistakes. Clustering was therefore accounted for based on the Primary Sampling Unit (classrooms) using the Complex Samples function on SPSS.

For the purposes of analysis it was necessary to identify and manage inconsistencies in the data. In general, inconsistent or unfeasible responses resulted in exclusion from the analyses. For example, students who did not report engaging in sexual intercourse but who reported an age of first sexual intercourse and/or the use of contraceptive methods at last intercourse were recorded as never having engaged in sexual intercourse. Students who reported condom use on either question relating to condom use (for STI prevention or for pregnancy prevention) were credited with condom use at last intercourse. For some questions (e.g., contraceptive use at last intercourse), respondents were asked to select all applicable options. These responses are not mutually exclusive and consequently the results for those questions did not total 100%. Additional constraints were imposed by the structure of the data. The youngest participants answering questions about sexual behaviour were those aged 15 years. Sexual initiation was therefore defined in relation to sexual intercourse occurring at age 15 years old or younger. Additionally the data is not spread equally over 15-18 year old students. The sample size for 18 year olds is the smallest and is not likely to be representative of 18 year olds in the population. This group however represent 18 year olds who are still attending post-primary education and may therefore be of particular interest.

The analysis first explored the prevalence of sexual intercourse, age of initiation and contraceptive use according to gender and age. Following the identification of gender and age differences, separate analyses were conducted for boys and girls. The analysis then focused on the patterns of adolescents' sexual intercourse, age of initiation and contraceptive use at last intercourse in relation to potential determinants including social class, family affluence, rurality, disability status, traveller status, household composition and engagement in other risk behaviours. Following this exploration, a series of logistic regression analyses were conducted to establish the relative relationships between different socio-demographic and lifestyle factors and sexual intercourse, age of sexual initiation and contraceptive use at last intercourse.

2.2.2 Questions
The analysis was conducted on four sexual behaviour questions. These questions were designed to measure the proportion of students who had engaged in sexual intercourse, the age of sexual initiation and the extent to which students are protected against pregnancy and sexually

transmitted infections (STIs). Engagement in sexual intercourse was measured by asking students 'Have you ever had sexual intercourse? (Sometimes this is called "making love", "having sex" or "going all the way").' Participants were not however provided with an anatomical definition of sexual intercourse. The age of sexual initiation of sexually active participants was measured using the question 'How old were you when you had sexual intercourse for the first time?'

In order to address pregnancy prevention, participants were asked 'The last time you had sexual intercourse, what method(s) did you or your partner use to prevent pregnancy?' Possible response options included two reliable methods of contraception - 'birth control pills' and 'condoms' and one non-reliable but frequently reported method - 'withdrawal'. In addition, the response options 'other', 'no method was used to prevent pregnancy' and 'not sure' were offered and participants were provided with space to report other methods of pregnancy prevention used at last intercourse. Participant were also questioned specifically on condom use 'The last time you had sexual intercourse, did you or your partner use a condom?'. For the purpose of the analyses, participants who reported condom use in either of the contraceptive questions were credited with having used a condom at last intercourse.

Socio-demographic and lifestyle questions including those measuring gender, age, social class, family affluence, rurality, disability status, traveller status, household composition and engagement in other risk behaviours were included in the analyses. Social class is represented by SC 1-2, SC 3-4 and SC 5-6 corresponding to high, middle and low social classes respectively. The Central Statistics Office (CSO, 1986) measure of social classification (occupation and income level of respondent) was used to identify social class for each respondent. In the case of the HBSC study social class was determined by parental occupation and used the highest social class available for each respondent. The HBSC Family Affluence Scale (FAS) (Currie, Molcho, Boyce, Holstein, Torsheim & Richter, 2008) measure's young people's socio-economic status. It is based on a set of questions on the material conditions of the households in which participants live, including car ownership, bedroom occupancy, holidays and home computers. A composite score is calculated for each participant providing values of low, middle and high family affluence.

These variables were first considered in relation to ever having had sexual intercourse, age of initiation and contraceptive use and were subsequently entered into regression analyses. Other items relating to key dimensions of adolescent life (e.g., health, lifestyle behaviours and sociocultural factors) were also considered in a series of multivariate analyses as described below.

2.2.3 Statistical methods
Chi-square tests were used to test for relationships between categorical variables at $\alpha = 5\%$. Prior to conducting the logistic regressions, Categorical Principal Components Analysis (CatPCA) was conducted (Linting & Van Der Kooij, 2012). The purpose of the CatPCA is to reduce an original larger set of categorical variables into a smaller, linear set of uncorrelated

components that represent most of the variance. The analysis enables the interpretation of a smaller number of factors as opposed to a larger number of individual variables. CatPCA was conducted on individual variables relating to the dimensions of health, positive lifestyle behaviours, negative lifestyle behaviours and the socio-cultural environment in which adolescents live (Shiely *et al.,* 2004). Items related to each dimension were first identified then entered into a CatPCA. All meaningful factors were extracted for each dimension. These factors were extracted for the purposes of inclusion in the binary logistic regressions.

Binary logistic regressions were conducted to examine the predictors of sexual intercourse, age of initiation and contraceptive non-use. Regression analyses were conducted separately for boys and girls where sample sizes allowed. Dependent variables were dichotomised prior to analysis and tests of multicolinearity were not violated.

3. RESULTS

3.1 Sexual intercourse

Sexual intercourse is determined by students' reports of whether they have ever engaged in sexual intercourse. A higher proportion of boys (28.8%) had engaged in sexual intercourse compared to girls (22.8%). Older participants were also more likely to report having had sexual intercourse than younger participants.

Social class
Social class is represented by SC 1-2, SC 3-4 and SC 5-6 corresponding to high, middle and low social classes respectively. The categories are used for social class were standardised and were determined by parental occupation. There were clear social gradients in relation to adolescent sexual behaviour. Boys from middle (30.2%) and lower (29.3%) social class groups reported higher engagement in sexual intercourse compared to those from higher social class groups (23.2%). Girls from middle (25%) and lower (27.9%) social class groups also reported higher engagement in sexual intercourse compared to those from higher social class groups (17.6%). These social class differences were found for participants aged 15 and 16 years old.

Family affluence
The Family Affluence Scale is used as a measure of family material wealth. Four items ask students questions they are likely to know about their family relating to cars, bedrooms, holidays and computers. A composite score is calculated for each participant. Girls from low (29.9%) affluent groups also reported significantly higher engagement in sexual intercourse compared to those from middle (25.2%) and high affluent groups (19.3%). Boys from low (35%) affluent groups also reported higher engagement in sexual intercourse compared to those from middle (27.7%) and high (26.8%) affluent groups; however this finding was not

statistically significant. The sexual intercourse differences between adolescents from families with different levels of affluence were found for those aged 17 years old.

Region
Across the sample, 63.7% of participants reported living in an urban area and 36.3% reported living in a rural area. There were no differences in reported sexual intercourse according to urban or rural residential status.

Disability and Chronic Illness (D/CI)
Across the sample, 21% of boys and 19.8% of girls reported experience of a Disability and/or Chronic Illness (D/CI). Girls who reported experience of D/CI reported higher levels of sexual intercourse (26.8%) compared to girls' who reported no experience of D/CI (21.7%). No association was found between boys' sexual intercourse and D/CI. The relationship between sexual activity and D/CI was found for those aged 17 and 18 years.

Members of a Travelling Community
Overall 1.6% of boys and 1.1% of girls reported being members of a Traveller community. Boys from the Traveller community (84.4%) reported more engagement in sexual intercourse than those from the settled community (27.9%). A similar though less extreme pattern was also identified for girls with 45.5% of girls from the Travelling community reporting that they had engaged in sexual intercourse compared to 22.6% of non-travellers. The very low number of participants from the Traveller community means that caution must be exercised when interpreting these findings. These differences were found for participants aged 15, 16 and 17 years old but not for participants aged 18 years old.

Household Composition
Household composition was determined by whether participants lived with both biological parents or did not live with both biological parents. Within the sample 25.5% of boys and 25% of girls reported not living with both parents. A higher percentage of boys (40.7%) and girls (32.3%) who did not live with both parents reported having engaged in sexual intercourse compared to boys (25.5%) and girls (19.8%) who lived with both parents. These differences were found at age 15, 16 and 17 years old.

Other risk behaviours
At all ages, boys who engaged in risk behaviours such as alcohol consumption (41.7%), smoking (54.5%) and cannabis use (71.2%) in the last 30 days were more likely to report ever having had sexual intercourse compared to those who had not engaged in alcohol consumption (12.6%), smoking (19.4%) and cannabis use (22.1%). The same pattern was also identified for girls. Girls who engaged in alcohol consumption (34.8%), smoking (50.4%) and cannabis use (76.1%) in the last 30 days were more likely to report ever having had sexual intercourse compared to those who had not engaged in alcohol consumption (7.2%), smoking (11.8%) and cannabis use (18.6%).

3.1.1 Predictors of sexual intercourse

Chi Square tests provide a useful indication of the relationship between two variables. They do not however determine the relative significance of each variable. The next stage of the analysis employed multiple regression analyses to identify whether any socio-demographic and lifestyle characteristics could be used to significantly predict adolescent sexual behaviour (i.e., those young people who had engaged in sexual intercourse). Separate analyses were conducted for boys and girls.

Figure 1: Socio-demographic and lifestyle predictors of sexual intercourse

The first model identified predictors of boys having ever engaged in sexual intercourse. Older boys were more likely to report having ever engaged in sexual intercourse, as were boys who reported living in poorer neighbourhoods or being from the Traveller community. Living with both parents reduced the likelihood of boys reporting having engaged in sexual intercourse as did higher involvement in music and drama activities. Boys who reported having had sexual intercourse also reported better communication with their friends and reported partaking in more extra-curricular activities. Sexual intercourse was associated with high levels of engagement in risk behaviours such as involvement with alcohol, tobacco and cannabis in the last 30 days. Boys who took medication for physical symptoms (e.g., headache, stomach-ache) were also more likely to have had sexual intercourse.

The second model identified predictors of girls having ever engaged in sexual intercourse. Older girls were more likely to report having ever engaged in sexual intercourse, as were girls who were from middle social class groups (compared to high social class groups) and those who reported living in poorer neighbourhood environments. Girls reporting good communication with friends were more likely to have had sexual intercourse, as were those who reported bullying others or being bullied themselves. Sexual intercourse was associated with high levels of engagement in risk behaviours such as involvement with alcohol, tobacco and cannabis in the last 30 days as well as an unhealthy diet. Girls who were involved in music and drama activities were less likely to have engaged in sexual intercourse.

3.2 Age of sexual initiation

Data reported for age of sexual initiation are taken only from participants who reported ever having sexual intercourse (28.8% boys, 22.8% girls). Participants who had ever had sexual intercourse were categorised into two groups based on age of sexual initiation; those who had initiated sexual intercourse between age 14 and 15 (14-15) and those and those who had initiated sexual intercourse before 14 (<14).

Sexual initiation before age 14 was more commonly reported by boys (33.3%) compared to girls (19.7%). A higher proportion of boys from rural areas (42.1%) reported engaging in sexual intercourse before age 14 compared to boys from urban areas (27.8%). Girls from rural areas were also more likely to report sexual initiation under 14 (26.4%) compared to girls from urban areas (16.0%). Girls (31.6%) who reported using cannabis in the last 30 days also reported

sexual initiation before 14 years compared to girls (15.7%) who reported never using cannabis. Girls (23.0%) who reported smoking in the last 30 days also reported sexual initiation before 14 years compared to girls (12.6%) who reported never smoking. Boys from the Traveller community were more likely to have initiated sexual intercourse before age 14 (68%) compared to boys who were not from the Traveller Community (30.6%).

There were no significant associations between social class or family affluence and sexual initiation before age 14 or aged 14-15 years. Neither were there associations between household composition, Disability/Chronic Illness and young people's age of sexual initiation. While a significant association was found between cannabis use and smoking, and age of initiation, no association was found between sexual initiation before age 14 or aged 14-15 years and alcohol consumption.

3.2.1 Predictors of sexual initiation under 14 years old

Data reported on the age at which participants first had intercourse are taken only from participants who reported ever having had sexual intercourse (28.8% boys, 22.8% girls). Out of the young people who reported intercourse, 33.3% of boys and 19.7% of girls reported sexual initiation before the age of 14. Though the Chi-square tests provide an indication of the relationship between two variables, regression analyses were used to predict the socio-demographic and lifestyle characteristics of the young people who were most likely to have engaged in sexual intercourse before the age of 14. The reference group in this analysis was participants reporting sexual intercourse aged 14-15 years.

Figure 2: Socio-demographic and lifestyle predictors of sexual initiation

Multivariate analyses identified that those who had engaged in sexual intercourse before age 14 were more likely to live in rural areas, to have reported taking medication for psychological symptoms (e.g., difficulty getting to sleep, nervousness), to have reported regularly bullying others and to have reported higher cannabis and alcohol involvement. Young people who reported better communication with their friends, who reported more experience of negative physical and psychological symptoms (e.g., headache, stomach ache, backache, feeling low, irritability or bad temper) and who attended more health visits (e.g., doctor and dentist) were less likely to report having sexual intercourse before age 14.

3.3 Contraceptive use

The data reported for contraceptive methods used at last sexual intercourse are taken only from participants who reported ever having had sexual intercourse (28.8% of boys and 22.8% of girls). Sexually active participants were divided into three categories according to their reported contraceptive use at last intercourse; those engaging in unprotected sex (no method of contraception), those using one method of reliable contraception (either condom or birth control pill) and those using dual methods of contraception (both condom and pill).

Among those participants who reported having engaged in sexual intercourse, boys (10.5%) were more likely to report using no method of contraception at last intercourse compared to girls (6.8%). Girls (24.3%) were more likely to report using dual methods of contraception at last intercourse (condom and birth control pill combined) compared to boys (17.6%). A higher percentage of participants aged 15 years reported engaging in unprotected sex (11.9%) compared to 16 year olds (7.2%), 17 year olds (8.7%) and 18 year olds (6.4%). Consistently, 18 year olds were more likely to report the dual use of contraception (34%) compared to 15 year olds (15.8%), 16 year olds (22.5%) and 17 year olds (20.8%). Girls from families with lower levels of family affluence reported higher levels of engagement in unprotected sex (13%) at last intercourse compared to those from a medium (4.1%) or high (6.7%) affluent family. Boys who reported using cannabis in the last 30 days had higher levels of engagement in unprotected sex (17.9%) at last intercourse compared to who those who did not use cannabis (8.2%). There were no significant associations between the contraceptive methods used at last intercourse and participants' social class, rurality or household composition. Neither were there significant associations between contraceptive methods and participants experience of Disability/Chronic Illness, being a member of the Traveller community and alcohol consumption or smoking behaviour.

3.3.1 Predictors of contraceptive use
Data reported on the age at which participants first had intercourse are taken only from participants who reported ever having had sexual intercourse (28.8% boys, 22.8% girls). Out of the adolescents who reported intercourse, 10.5% of boys and 6.8% of girls reported engaging in unprotected sex at last intercourse while 17.9% of boys and 24.3% of girls reported using dual methods of contraception. Though Chi-square tests provide an indication of the relationship between two variables, regression analyses were used to predict the socio-demographic and lifestyle characteristics of the young people who were most likely to have engaged in contraceptive use.

Figure 3: Socio-demographic and lifestyle predictors of contraceptive use

Multivariate analyses identified the predictors of contraceptive use among those participants who reported ever having engaged in sexual intercourse. Those who had last engaged in sexual intercourse without the use of dual methods (both pill and condom) were younger, more likely to be male and engaged in higher alcohol involvement. Those who had last engaged in sexual intercourse without the use of condoms were those taking medication for physical symptoms. Those who were more physically active and who reported more parental influencing behaviours (e.g., tooth brushing and seatbelt wearing) were less likely to have last engaged in intercourse without condom use.

3.4 Comparing the adolescent sample with an adult sample (Shiely *et al.,* 2004)

At present there is limited data available in Ireland surrounding adolescent sexual health. Shiely *et al.,* (2004) have previously conducted detailed analysis on the sexual practices of adults in Ireland. This has resulted in the identification of a number of socio-cultural, behavioural and biological predictors of sexual behaviour among this population. The findings of the current report have been considered in relation to those of the youngest adult population (aged 18-24).

Factors including age, gender, substance use and positive lifestyle behaviours have been consistently identified among both the adult and adolescent populations as predictors of intercourse and contraceptive use (Shiely *et al.,* 2004). Their presence in both analyses may suggest consistency in protective and risk factors from adolescence through to adulthood. Early intervention with specific focus on these characteristics may be useful to promote positive sexual health in adolescence and later in life.

The analysis has also revealed predictive factors related to sexual intercourse, initiation and contraceptive use which are specific to the adolescent population. Not only are certain factors predictive for adolescents, but some are gender-specific. These findings highlight marked differences between adults and adolescents. They demonstrate that adolescents are a distinct group with unique influences in relation to their sexual health and behaviour.

4. CONCLUSION

For the first time, a detailed quantitative analysis of the reported sexual behaviours and practices of adolescent across Ireland has been conducted. The findings highlight the prevalence of sexual intercourse, sexual initiation and contraceptive use among both boys and girls aged 15-18 years. The analysis has identified socio-demographic variables associated with each of these sexual behaviours. It has also considered the predictors of adolescent sexual intercourse, initiation and contraceptive use. The identification of these predictive factors

captures a profile of both those young people who are sexually active and also those at risk (of early initiation and non-contraceptive use).

5. KEY SUMMARY POINTS

- This report is the first detailed quantitative analysis of the reported sexual behaviours and practices of adolescents across Ireland

- The findings highlight the prevalence of sexual intercourse, sexual initiation and contraceptive use among both boys and girls aged 15-18 years.

- The analysis has identified socio-demographic and lifestyle variables associated with sexual intercourse, sexual initiation and contraceptive use.

- Multivariate analyses have identified demographic, socio-cultural, health and positive and negative lifestyle behaviours which were predictors of adolescents' engagement in sexual intercourse, sexual initiation before age 14 years and contraceptive use.

- While factors including age, gender, substance use and positive lifestyle behaviours were identified among both adult and adolescent populations as predictors of sexual intercourse and contraceptive use, other demographic, socio-cultural, health and positive and negative lifestyle behaviours were predictive of sexual intercourse, initiation and contraceptive use specific to the adolescent population. This highlights adolescents as a distinct group with unique influences in relation to their sexual health and behaviour.

- Within the adolescent population gender differences were identified in reported sexual behaviour and among the predictors of sexual behaviour. This reinforces the distinction between girls and boys within sexual health research, promotion and intervention.

- The results highlight the value of developing and implementing specifically targeted policy and interventions which take a holistic approach in addressing the needs of those most at risk.

- More research is required to further the understanding of the sexual health and practices of adolescents' across Ireland.

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