

the published literature and expert opinion. Costs were adjusted to 2016 prices.

**Results** There were 1,675 cases of adult AML between 1993 and 2013 with 733 (44%) in women and 942 in men (56%). There was a statistically significant annual percentage change of 2.45% in the incidence of AML in men while incidence in women also increased significantly by 1.21% per year...The costs associated with intensive chemotherapy management were € 89,750 per case while the costs for transplantation, low-intensity chemotherapy and best supportive care were € 145,220, € 11,790 and € 12,745 respectively. The annual cost of managing AML in Ireland between 2010 and 2015 was on average € 12.8 million.

**Conclusion** The rising incidence of AML, together with improving survival means that more patients will be treated, achieve clinical remission and also require management for relapse. As novel treatments for this complex condition transition into practice, the costs of managing the disease will also rise. While routinely-collected cancer registration data can help to quantify this cost, better information on treatment patterns and recurrence will be necessary to accurately project and model the burden of this disease into the future.

**P77 UNMET NEEDS OF CANCER SURVIVORS IN IRELAND: A SCOPING REVIEW OF THE EXISTING EVIDENCE**

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**Background** Due to advances in treatment and new drugs, more people in Ireland are surviving cancer. However, evidence is accumulating that cancer survivors have ongoing (and often unmet) needs for support and care. Supportive care interventions are required to meet these needs and maximise survivors' quality-of-life. International research illustrates the importance of targeting interventions to the specific needs and characteristics of the recipients. In order to address these variable needs, a better understanding of the unmet needs patients living with and beyond cancer is required. We conducted a scoping review of the current evidence on the unmet physical, emotional, practical and social needs of those living with and beyond cancer in Ireland.

**Methods** Five databases were searched to identify studies conducted in Ireland, published between 1998 and 2018. Studies reporting on adult survivors of childhood cancer, those including participants aged ≤17 years, and those which reported on palliative care services were excluded. Unmet needs were classified into eleven primary domains including physical, psycho-social/emotional, family-related, social, practical, health system/information and patient-clinician communication needs. A narrative synthesis of the data was undertaken.

**Results** 28 studies were included in the review consisting of both quantitative and qualitative studies. Most studies examined unmet needs between 1–3 yrs post treatment and the most frequently studied cancers were prostate, colorectal and breast cancer. Although melanoma, testicular and kidney cancers contribute significantly to total cancer prevalence, these received little attention in the Irish survivorship literature. Unmet physical, psychological and information needs were common across all cancer types with clear evidence of inter-relationships between various unmet needs. This review also

identified significant gaps in the literature in relation to a lack of availability of longitudinal data as well as a lack of information about the relationship between unmet needs and survivors' socio-demographic characteristics.

**Conclusion** As far as we are aware, this is the first scoping review of its kind conducted in Ireland. Gaps in the evidence-base for unmet needs, suggests that limited research has been conducted to understand the care needs of Irish cancer survivors. The planning and design of survivorship strategies in Ireland would benefit from routine collection of detailed information, with specific unmet need survey instruments, across multiple diseases. The National Cancer Strategy has identified survivorship care as a key challenge until 2026. The findings of this scoping review further reinforces the importance of enhancing survivorship services to address the unmet needs of cancer survivors.

**P78 PERINATAL MORTALITY IN IRELAND, 2016 – A NATIONAL CLINICAL AUDIT INTO PERINATAL MORTALITY IN THE REPUBLIC OF IRELAND**

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**Background** Perinatal mortality is a significant measurement of the outcome of obstetric and neonatal care. For this reason, in 2011, the National Perinatal Epidemiology Centre (NPEC) established the first national clinical audit of perinatal mortality in Ireland.

**Methods** Anonymised data on perinatal deaths that occurred between January 1 and 31 December 2016 were collected by contributors from each of the 19 maternity units in Ireland using a validated and standardised notification form. National rates per 1,000 births and corresponding 95% confidence intervals were calculated. Customised birthweight centiles were calculated for all perinatal deaths using the Gestational Related Optimal Weight (GROW) software.

**Results** Based on the criteria of birthweight ≥500 g or gestation at delivery ≥24 weeks, in total in 2016, 374 deaths were reported to the NPEC, of which 250 were stillbirths and 124 were early neonatal deaths. Stillbirth, early neonatal and perinatal mortality rates (PMR) were 3.9, 1.9 and 5.8 per 1,000 births respectively. The PMR corrected for congenital malformation was 3.6 per 1,000 births. Maternal factors such as advanced age and increased body mass index (BMI) were found to be associated with increased perinatal mortality. Major congenital anomaly was the primary cause of death in both stillbirths (n=78/250, 31.2%) and early neonatal deaths (n=68/124, 54.8%). The use of customised birthweight centiles showed that fetal growth restriction (FGR) was common. In cases of stillbirths, 60.0% of all stillbirths were classified as small for gestational age (SGA) (<10th customised birthweight centile) and 47.2% were severely SGA (<3rd customised birthweight centile) compared to 33.9% and 25.0% of the cases of early neonatal deaths. Although the use of customised birthweight centiles showed that FGR occurred frequently, an antenatal diagnosis of FGR was only made in less than one in five (19%, n=69 of 363, unknown for 11 cases) of perinatal deaths.

**Discussion** Clinical audit of perinatal outcomes in all maternity units in Ireland is vital for monitoring and improving patient

care. Major congenital anomaly remains the main cause of death in stillbirths and early neonatal deaths. FGR continues to appear as a significant associated factor with perinatal mortality. Improved antenatal detection is a potentially modifiable factor. As recommended by the Institute of Obstetrics and Gynaecology, second trimester fetal anomaly ultrasound scanning should be universally available for all pregnant women in Ireland. A public health education programme on perinatal deaths and modifiable risk factors should be developed.

**P79 THE PREVALENCE AND CORRELATES OF TOBACCO SMOKING IN IRISH UNIVERSITY STUDENTS, FOCUSING ON SOCIAL SMOKING AND SELF-IDENTIFICATION OF SMOKERS; A CROSS-SECTIONAL STUDY**

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**Background** Social smoking is becoming increasingly common, emerging as a separate and distinct pattern of smoking behaviour to regular smoking. Smoking denial, too, has become more prevalent, with those who engage in smoking behaviour often not self-identifying as smokers. This study aims to examine the prevalence of smoking and social smoking in Irish university students and the self-identification of same, along with assessing other factors for any association they may have with smoking behaviour, namely smoking identity, frequency of tobacco consumption and alcohol and drug use.

**Methods** A cross-sectional study was carried out in the form of a web questionnaire distributed to undergraduate students of University College Cork (UCC). 1,606 initial responses were collected. Exclusion criteria were applied, removing graduate students, those who had incorrectly completed the questionnaire and a small number of duplicates, yielding a final sample size of 1,434 and a final response rate of 10.4%. Data were analysed using IBM SPSS software and the method of analysis included both chi-square testing and multinomial logistic regression analyses.

**Results** 58.2% (n=834) of respondents are smokers with 77.2% (n=644) of those being social smokers. Social smoking has significant associations with a number of smoking characteristics including decreased frequency of habit (OR=0.084; 95% CI=0.044–0.160;  $p<0.001$ ), sourcing tobacco from others (OR=2.211; 95% CI=1.401–3.489;  $p<0.001$ ), less inclination to quit (OR=0.426; 95% CI=0.231–0.792;  $p=0.007$ ) and being influenced to smoke while drinking (OR=3.698; 95% CI=1.461–9.362;  $p=0.006$ ) or if others are smoking (OR=3.085; 95% CI=1.495–6.365;  $p=0.002$ ). While 76.8% of regular smokers self-identified as smokers, only 12.3% of social smokers self-identified as smokers (OR=0.078, 95% CI=0.040–0.153;  $p\leq 0.001$ ). Smoking in general is associated with substance use and misuse (OR=2.754; 95% CI=1.613–4.705;  $p<0.001$ ) in comparison to non-smokers.

**Conclusion** Social smoking is a prevalent behaviour in university students and constitutes the majority of smoking behaviour amongst those surveyed. The difference in results between social smoking and regular smoking groups reinforces that social smoking is a distinct smoking pattern. There is a vast discrepancy in the self-identification of smokers and their smoking behaviour, more so amongst social smokers than

regular smokers. Limitations of this study included low response rate and potential for self-selection bias. Further study could be carried out in this area with regards to smoking interventions and potential need to target these groups specifically in public health campaigns.

**P80 THE JOINT CONTRIBUTION OF SOCIOECONOMIC CIRCUMSTANCES AND ETHNIC GROUP TO VARIATIONS IN PRETERM BIRTH, NEONATAL MORTALITY AND INFANT MORTALITY IN ENGLAND AND WALES – A POPULATION-BASED RETROSPECTIVE COHORT STUDY USING ROUTINE DATA FROM 2006 TO 2012**

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**Background** Neonatal and infant mortality rates in England and Wales have declined in recent years. However, disparities in outcomes persist. This study aimed to describe the variation in risks of adverse birth outcomes across ethnic groups and socioeconomic circumstances, and to explore the evidence of mediation by socioeconomic circumstances on the effect of ethnicity on birth outcomes.

**Methods** The data came from the 4.6 million singleton live births in England and Wales between 2006 and 2012. Socioeconomic circumstances was measured using the Index of Multiple Deprivation (IMD). We estimated the slope and relative indices of inequality to describe differences in birth outcomes across IMD, and the proportion of the variance in birth outcomes across ethnic groups attributable to IMD. We investigated mediation by IMD on birth outcomes across ethnic groups using structural equation modelling.

**Results** Neonatal mortality, infant mortality and preterm birth risks were 0.2%, 0.3% and 5.6% respectively. Babies in the most deprived areas had 47% to 129% greater risk of adverse birth outcomes than those in the least deprived areas. Minority ethnic babies had 48% to 138% greater risk of adverse birth outcomes compared with white British babies. Up to a third of the variance in birth outcomes across ethnic groups was attributable to differences in IMD, and there was strong statistical evidence of an indirect effect through IMD in the effect of ethnicity on birth outcomes.

**Conclusion** There is evidence that socioeconomic circumstances could be contributing to the differences in birth outcomes across ethnic groups.

**P81 THE ASSOCIATION BETWEEN AIR POLLUTION AND ACUTE HOSPITAL ADMISSIONS IN DUBLIN 2007–2016**

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**Background** Outdoor air pollution has a significant impact on human health and has been declared a 'public health emergency' by the World Health Organisation. An estimated 14,400 years of life are lost annually in Ireland due to 1200 premature deaths caused by air pollution. Cardiovascular disease and stroke are the commonest causes of premature death, followed by respiratory disease. Numerous studies worldwide