

opportunity for inconsistent application and limits the potential for replication and synthesis of evidence of effectiveness.

This study is the first step towards moving from general descriptions of implementation strategies to full descriptions of their active ingredients. This is essential to understand how strategies at an organisational and professional level can lead to observable changes in individual behaviour.

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#### UNDERSTANDING THE IMPETUS FOR MAJOR SYSTEMS CHANGE: A MULTIPLE CASE STUDY OF DECISIONS AND NON-DECISIONS TO RECONFIGURE EMERGENCY AND URGENT CARE SERVICES

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**Background** The optimal organisation of emergency and urgent care services (EUCS) is a perennial problem internationally. Similar to other countries, the Health Service Executive in Ireland pursued EUCS reconfiguration in response to quality and safety concerns, unsustainable costs and workforce issues. However, the implementation of reconfiguration has been inconsistent at a regional level. Our aim was to identify the factors that led to this inconsistency.

**Methods** Using a multiple case study design, case study regions were selected based on the extent of emergency department reconfiguration in the region (categorised as full, partial and little/no reconfiguration). Semi-structured interviews were conducted with a purposive sample of stakeholders who were centrally involved in the reconfiguration process in each region. Interview data were supplemented with documentary analysis of proposals for EUCS in each region. Data were analysed using a framework approach, drawing on an existing conceptual framework for major system change. Cross-case analysis was conducted iteratively to identify patterns and differences across the regions.

**Results** Six regions were selected for analysis and 42 interviews were analysed. The impetus to reconfigure ED services was triggered by patient safety events, and to a lesser extent by having a region-specific plan and an obvious starting point for changes. However, the complexity of the next steps and political influence impeded reconfiguration in several regions. Implementation was more strategic in regions that reconfigured later, facilitated by clinical leadership and 'lead-in time' to plan and sell changes.

**Conclusion** While the global shift towards centralisation of EUCS is driven by universal challenges, decisions about when, where and how much to implement are influenced by local drivers including context, people and politics. This can contribute to a public perception of inequity and distrust in proposals for major systems change.

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#### EXAMINING TOTAL AND DOMAIN-SPECIFIC SEDENTARY BEHAVIOUR USING THE SOCIO-ECOLOGICAL MODEL – A CROSS-SECTIONAL STUDY OF IRISH ADULTS

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**Background** Sedentary behaviour has been linked with detrimental effects on morbidity and mortality. This study aims to identify the individual, social and environmental correlates of total sedentary behaviour as well as across the contexts that sitting time accumulates in an Irish adult cohort.

**Methods** Cross-sectional analysis of data from 7,305 adults of the nationally representative Healthy Ireland Survey. Multivariate regression analyses were used to examine participants' socio-demographic characteristics, lifestyle factors, workplace activity patterns, physical and mental health status, and environmental factors, and their association with participants' total daily sitting times and sitting times across the domains of work, travel, leisure and screen-time.

**Results** Overall median of sitting time per day was 360 minutes (6 hours). Workplace sitting was the strongest predictor of sedentary behaviour. Male gender, higher education attainment, higher socio-economic classification and living in an urban dwelling were all associated with increased total- and occupational- sitting time ( $p < 0.05$ ). Insufficient physical activity levels was also associated with total sitting time ( $p < 0.001$ ). Male gender, lower education attainment, a possible mental health problem, smoking and insufficient physical activity were all associated with increased screen-time sitting ( $p < 0.05$ ). Higher education attainment, physical illness, a possible mental health problem, alcohol consumption and lower perceived neighbourhood attributes were all associated with higher transportation/leisure sitting times ( $p < 0.05$ ). Variance of the multivariate model for occupational sitting was 39.0% and 25.8% for total sitting.

**Conclusion** Having a sedentary occupation was the strongest predictor of sitting time in this population. The results of this study provide a starting position for the development of targeted interventions aimed at the most sedentary groups, such as professional and higher educated males with sedentary occupations.

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#### SECULAR TRENDS AND COSTS OF MANAGEMENT OF ACUTE MYELOID LEUKAEMIA: EVIDENCE FROM POPULATION-BASED CANCER REGISTRATION DATA

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**Background** Acute myeloid leukaemia (AML) is an aggressive blood cancer that, left untreated, proves fatal within a short period. Though numbers diagnosed annually are relatively small, treatment costs from induction therapy through to clinical remission potentially are in excess of €200,000. We present, for the first time, using cancer registration data, evidence on trends in the incidence of AML for Ireland, together with an assessment of the costs of managing the disease.

**Methods** Cancer registration data on individuals aged 20 years and older diagnosed with AML (ICD-10 C92.0) 1994–2013 were extracted from a population register. EASR and crude incidence rates were calculated with 95% confidence intervals by five-year age bands. Cases were assigned to one of four treatment pathways on the basis of patient characteristics. These were an intensive chemotherapy pathway, a pathway with bone marrow transplantation, a low intensity chemotherapy pathway and a best supportive care pathway. Resource use for each pathway was determined using clinical guidelines,

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  $\leq 17$  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  $\geq 500$  g or gestation at delivery  $\geq 24$  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) ( $< 10$ th customised birthweight centile) and 47.2% were severely SGA ( $< 3$ rd 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