

- ii. Changes to neighbourhood design may positively affect sense of belonging and pride in a community;
- iii. Green and blue space interventions that provide the opportunity to participate in activities or meetings improve social interactions, increase social networks, bonding and bridging social capital, physical activity and healthy eating, and improve people's skills and knowledge.

There were also common themes relating to facilitators and barriers to successful interventions.

**Conclusion** The review found moderate evidence that a range of intervention approaches to community infrastructure can boost social relations and community wellbeing. Future research should prioritise high quality evaluations using repeated measures and validated tools, with robust and credible qualitative evidence.

#### P04 TRENDS IN INCIDENCE OF ISCHAEMIC STROKE IN PEOPLE WITH AND WITHOUT DIABETES IN IRELAND 2005–2015

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**Background** Stroke is a leading cause of neurological disability and mortality worldwide<sup>1</sup>. Diabetes is a risk factor for stroke, conferring up to four times the risk<sup>2</sup>. We aimed to estimate trends in incidence of ischaemic stroke (IS) and in-hospital mortality (IHM) associated with IS among people with and without diabetes in Ireland from 2005 to 2015.

**Methods** Data were extracted from the national Hospital Inpatient Enquiry (HIPE) database. Incidence rates (IR) and IHM rates in people with and without diabetes were calculated. Poisson regression models, adjusted for age, were used to calculate the incidence rate ratio (IRR) and trends over time.

**Results** In males with diabetes there was an average decrease in IR of 1.7% per year (IRR 0.983 (95% CI 0.974–0.991),  $p < 0.001$ ) over the 11 years. In males without diabetes, the IR remained unchanged (IRR 0.998 (95% CI 0.994–1.00),  $p < 0.25$ ). In females, there was an average decrease in IR of 3.3% per year in those with diabetes (IRR 0.967 (95% CI 0.957–0.976),  $p < 0.001$ ) and 1% per year in those without diabetes (IRR 0.99 (95% CI 0.985–0.994),  $p < 0.001$ ).

The IRR for the association between diabetes and IS was 2.0 (95% CI 1.95–2.06),  $p < 0.001$  for males and 2.2 (95% CI 2.12–2.27),  $p < 0.001$  for females over the study period. The IRR of IHM is higher in males (IRR 1.81 (1.67–1.97) and females (IRR 2.0 (95% CI 1.84–2.18) with diabetes compared to those without diabetes. Over the 11-years, 8.2% of incident cases were attributable to diabetes.

**Conclusion** This study provides evidence of the significant contribution of diabetes to IS incidence and mortality in Ireland. Estimates of national trends are necessary to deliver public health interventions targeted at high risk groups.

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#### P05 PRE-HOSPITAL DELAY IN PATIENTS WITH SUSPECTED MYOCARDIAL INFARCTION: A PROSPECTIVE OBSERVATIONAL STUDY IN THE RUSSIAN FEDERATION

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**Background** Russia has one of the highest mortality rates from cardiovascular disease (CVD) in the world. For patients with acute myocardial infarction (AMI), longer pre-hospital delays are associated with increased complications and mortality. The aim of this study is to use multivariate analyses to identify risk factors for prolonged pre-hospital delay and its components (patient decision time delay and transport time delay) in the Russian Federation for AMI patients.

**Methods** A total of 1128 hospitalised patients with suspected AMI were recruited in a prospective observational study with a representative sample of suspected AMI patients from 16 hospitals in 13 regions of Russia, of these 6 cases were excluded as they had an MI while already hospitalised, 243 cases were excluded due to missing date/time data. Data were collected from both patient questionnaires and clinical records. Pre-hospital delays analysed include total pre-hospital delay  $\geq 2$  hrs, patient decision time ( $\geq 1$  hr) and transport time ( $\geq 1$ ). Logistic regression models were used to identify patient (sociodemographic, socioeconomic, previous medical history), symptom and admission related predictors of increased delays.

**Results** The median total pre-hospital delay was 4.83 hrs (IQR 2.64–10.82), decision time 1.25 hrs (IQR 0.38–4.5), and transport time 2.03 hrs (IQR 1.23–4.5). No age differences were found across total, decision or transport related delay. The odds of admission within 2 hours from symptom onset (total prehospital delay) significantly decreased with poorer wealth status, indirect route to hospital and symptom onset between 12–6am. Additionally, taking aspirin was associated with lower odds of arriving within 2 hrs. Whilst symptom presentation and co-morbidity was not significantly associated with total delay, patients who thought their symptoms were due to a problem with their heart were more likely to reach the hospital within 2 hours (OR1.65, 95% CI 1.03–2.62). Odds of transport delay  $> 1$  hr were significantly greater for patients travelling indirectly but significantly lower for male patients. Symptom onset overnight was associated with increased transport time. Odds of decision time  $> 1$  hr were significantly greater among patients that did not attribute their symptoms to a heart problem and patients with symptoms stating overnight (12–6am). Sociodemographic, socioeconomic and comorbid status were not significantly associated with decision time.

**Conclusion** Pre-hospital delay in the Russian Federation is protracted, particularly when patients travel indirectly to their definitive health facility. Symptom characteristics (time of onset and attribution to heart) are important for all components of pre-hospital delay in the Russian Federation. This is initial evidence that male patients experience reduced transport times, but further analyses are required to understand why. Tractable areas for improvement exist; reducing patient decision time and increasing use of EMS.