have greater benefits for women. Study strengths include the large nationally representative cohort followed from birth and prospective measures of CSEP, PF and covariates. However, the current examination based on a complete case analysis, disregards missing data, which will be addressed in future work.

P02   **DOES ALL HEALTH SERVICES AND DELIVERY RESEARCH (HSDR) GET PUBLISHED? A STUDY TO FOLLOW UP THE PUBLICATION STATUS OF COHORTS OF HSDR**

[1]AA Ayorinde*, [2]I Williams, [2]R Mannion, [3]F Song, [4]M Skrybant, [1]SRJ Lilford, [1]YF Chen. [1]*Warwick Medical School, University of Warwick, Coventry, UK;* [2]*Health Services Management Centre, University of Birmingham, Birmingham, UK;* [3]*Norwich Medical School, University of East Anglia, Norwich, UK;* [4]*Institute of Applied Health Research, University of Birmingham, Birmingham, UK*

Background Publication bias has been demonstrated in several high-profile cases associated with clinical trials of pharmaceuticals, but empirical evidence on this bias is scarce in HSDR, which concerns research to produce evidence on the quality, accessibility and organisation of health services. We set out to gauge the existence and scale of publication bias in quantitative HSDR by following up the publication status of four cohorts of studies identified from registries and conferences.
Methods We identified HSDR cohorts from four sources: (1) all quantitative studies funded by the NIHR HS&DR Programme (and its predecessors) between 2007–2014 (n=100); (2) a random sample of quantitative HSDR studies registered with HSRProj (a US-based prospective registry of health service and public health research) and completed in 2012 (n=100); (3) abstracts from the 2012 International Society for Quality in Health Care (ISQua) conference (n=50) and (4) Health Services Research UK (HSRUK) conference, 2012–14 (n=50). We checked the publication status of selected studies in 2018 by searching PubMed and Google. When no relevant publications were found, we contacted the investigators to verify the publication status. We compiled descriptive statistics for each cohort and used univariate analysis to explore the association between reporting of statistically significant findings and publication status.
Results Following online search of publications, we needed to contact investigators for 145/300 (48%) of the studies and had a response rate of 60% (67/111) among those with valid contact details. Publication of findings in academic journals varies between cohorts: NIHR 64%, HSRProj 75%, ISQua 26% and HSRUK 70%. When grey literature (including technical reports available online) was taken into account, the publication rates were NIHR 100%, HSRProj 91%, ISQua 32% and HSRUK 80%. Statistically significant findings were reported by 79% (237/300) of the studies. There was no apparent association between reporting of statistically significant findings and publication in academic journals for the combined NIHR/HSRProj cohort (OR 1.19, 0.50–2.81) and conference cohort (OR 0.88, 0.25–3.10).
Discussion The rates of publication were generally high among HSDR studies that we sampled (which are likely to represent the high rectitude end of distribution), except in the ISQua

cohort where the originators of the studies tended to be service providers rather than academic researchers. The power of our exploratory analysis was limited by the relatively small number of studies reporting non-significant findings and/or having a non-publication status. The publication policy of research funders (e.g. NIHR) appears to be effective in ensuring the publication of research findings.

P03   **A SYSTEMATIC REVIEW OF INTERVENTIONS IN COMMUNITY INFRASTRUCTURE (PLACES AND SPACES) TO BOOST SOCIAL RELATIONS AND COMMUNITY WELLBEING**

[1]AM Bagnall*, [1]J South, [1]K Southby, [1]S Di Martino, [2]G Pilkington, [3]B Mitchell, [2]A Pennington, [2]R Corcoran. [1]*School of Health and Community Studies, Leeds Beckett University, Leeds, UK;* [2]*Institute of Psychology, Health and Society, University of Liverpool, Liverpool, UK;* [3]*Leeds Business School, Leeds Beckett University, Leeds, UK*

Background Stakeholder engagement for the What Works Centre for Wellbeing's (WWCW) Community Wellbeing Evidence Programme identified 'boosting social relations' in communities as a priority policy-related topic. A scoping review of 34 reviews identified evidence gaps relating to social relations in the following areas: community infrastructure (places and spaces); interventions to reduce or prevent social isolation in adults <60 years; community engagement and volunteering; social network analyses. We developed 'community infrastructure (places and spaces)' as a systematic review, as this can be addressed at a local or regional level and has potential to produce immediate practical impact.
Methods We searched 11 bibliographic databases from 1997–2017, performed reference and citation checking, searched the websites of relevant organisations, and issued a call for evidence through the WWCW. We included studies which reported: interventions to improve or make alternative use of physical places and spaces at community or neighbourhood level; outcomes of social relations, community wellbeing and related concepts; quantitative, qualitative and mixed methods studies, and process evaluations. Two reviewers undertook study selection. One reviewer undertook data extraction and validity assessment, with a random 20% checked by a second reviewer. Validity of included studies was assessed using established checklists. Following thematic synthesis of qualitative data, a narrative synthesis was produced for each of eight intervention categories. The GRADE and CERQual approaches were used to rate the overall strength of evidence for each outcome.
Results 51 studies, mostly of poor to moderate quality, were included. The better quality evidence was qualitative, and most of the review's findings come from the thematic synthesis of qualitative evidence

There was moderate evidence that

i.   Community hubs may promote social cohesion, increase social capital and build trust between people, widen social networks and increase interaction between people, and increase people's knowledge or skills;

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**

[1,2]N Bambury, [2]K O'Neill*, [2]CM Buckley, [2]PM Kearney. [1]Department of Public Health, HSE South, Cork, Ireland; [2]School of Public Health, University College Cork, Cor, Ireland

Background Stroke is a leading cause of neurological disability and mortality worldwide[1]. Diabetes is a risk factor for stroke, conferring up to four times the risk[2]. 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**

[1,2]K Bates*, [3]A Kontsevaya, [4]N Bobrova, [4]D Leon, [1]M McKee. [1]Department of Health Services Research and Policy, London School of Hygiene and Tropical Medicine, London, UK; [2]Department for Medical Statistics and Health Economics, Medical University Innsbruck, Schöpfstraße 41/1,Innsbruck, 6020; [3]Department of Non-Communicable Disease Epidemiology, National Research Center for Preventive Medicine, Moscow, Russian Federation; [4]Department of Non-communicable Disease Epidemiology, London School of Hygiene and Tropical Medicine, London, UK

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 theses 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 ≥2 hrs, patient decision time (≥ 1 hr) and transport time (≥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. The 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.