

Results 1) Initial findings from the systematic literature review reveals that universal supplementation of vitamins such as folic acid significantly reduces the incidence of preventable ill health due to vitamin deficiencies such as neural tube defects compared to a targeted approach.; 2) In areas using the targeted approach, the uptake of children's drops and women's tablets was 1.46% and 2.56% respectively. In the area that adopted a universal approach, the uptake of children's drops and women's tablets was 3.97% and 7.72% respectively.; 3) Barriers shared by both approaches include a lack of awareness of the scheme amongst health professionals, onerous administrative processes and the availability of vitamins. The universal approach is supported by health professionals because it does not stigmatise recipients.

Conclusion 1) From the systematic review, mandatory universal fortification of foods, e.g. flour is a major public health opportunity for the UK.; 2) Uptake of Healthy Start food vouchers and vitamins is low whatever the implementation strategy. However, uptake of Healthy Start vitamins is significantly higher in areas adopting a universal approach to implementation. A universal approach to implementation is supported by the literature and this study suggests that it may overcome some barriers to the implementation of the Healthy Start scheme nationally.; 3) In particular, a universal approach may reduce some of the administrative hurdles confronted by a targeted approach and will also address the stigma associated with the use of Healthy Start vitamins.

Producing evidence for the cost effectiveness of the scheme will be critical for its continued support.

PS17 COMMISSIONING CARE FOR PEOPLE WITH LONG TERM CONDITIONS

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Background The landscape of health care commissioning is being reshaped in England, as clinical commissioning groups prepare to take on the role now held by Primary Care Trusts (PCTs). Long term conditions are likely to remain a priority area, with concerns about increasing prevalence driving a shift towards care delivered in the community and early intervention to avoid hospitalisation. We report on a NIHR-funded study which used action research in three NHS local health communities to examine in detail the practice of PCT commissioning of care for people with long term conditions.

Methods The study was undertaken in three contrasting PCT areas (Somerset, Wirral and Calderdale), and focused on diabetes and another locally selected condition in each site. The design combined a largely ethnographic approach with action research, allowing for responsive intervention to meet local commissioners' needs. Formal data collection over a 15 month period to January 2012 consisted of 104 semi structured interviews, observation of 27 meetings, and analysis of over 300 documents. A thematic framework was developed to guide analysis in terms of processes, resources and outcomes of commissioning.

Results Findings highlighted the complex nature of health care commissioning, far removed from the 'commissioning cycle' which sets out a formal, sequential model emphasising contracting. Instead, commissioning developments took place over a number of years through an incremental process of review and revision where negotiation and relationships were prominent. Providers often played a significant role in identifying needs and designing new models of care. The sheer scale of labour involved in commissioning was striking. Greatest success with shifting models of care towards nationally recommended good practice came where there was a combination of effective prioritisation of developments, persistence

and pragmatic bounding of tasks within a wider strategic framework. Measuring the impact of commissioning practice on clinical outcomes was challenging.

Conclusion To fulfill national policy towards remodelling care for people with long term conditions, NHS commissioners are engaged in labour-intensive, steadily paced and incremental work with providers. Planned reforms to commissioning in England raise questions about whether this approach can continue in the face of straitened budgets for management support, an increased emphasis on provider competition and disruptions to established relationships between commissioners and providers.

PS18 ANALYSIS OF EMERGENCY 30-DAY READMISSIONS IN ENGLAND USING ROUTINE HOSPITAL DATA 2004-2010. IS THERE SCOPE FOR REDUCTION?

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Background A number of health systems including the NHS have recently introduced arrangements to deny payment if a patient is readmitted to hospital as an emergency soon after a period of care. These approaches assume that emergency admissions are a reflection of poor quality of care and of errors or failure in the original care episode. Our objectives were to assess the extent and types of readmission within 30 days and possible causes and scope for reduction.

Methods Retrospective analysis of 83 million routinely-collected national hospital episode statistics (HES) records covering NHS hospitals in England for a 6 year period (2004–10). Records were linked at the individual level using an anonymised person level identifier. Numbers of 30-day readmissions were calculated. We categorised readmissions using pre-defined discharge-admission diagnostic pairs, overall admission patterns and the "Bridges to Health" patient group categories.

Results There were 7,166,304 emergency 30-day readmissions over a six year period equivalent to 8.7% of all hospital discharges. Readmissions were grouped into six categories:

Potentially preventable (probable or possible suboptimal care during index admission): 1,988,967 (27.8%);

Approach to care (anticipated but unpredictable hospital care): 1,503,282 (21.0%);

Preference of patients or staff in admission or discharge timing: 56,514 (0.8%);

Artefact in data collection: 139,508(2%);

Accident or Coincidence: 1,473,583 (20.6%);

No obvious cause: 2,107,339 (29.4%)

Conclusion Very large numbers of emergency readmissions fell into potentially preventable categories and to categories amenable to immediate reduction by hospitals. Denial of payment for emergency readmission has the potential to improve quality of care by improving data systems and reducing error. Action to address the majority of emergency readmissions requires assessment of care delivery across health and social care providers for those with complex, chronic or terminal conditions. In conclusion, new systems of denial of payment will be dangerous if they invoke perverse incentives which reduce access to necessary hospital care for patients.

PS19 LIFETIME SOCIOECONOMIC INEQUALITIES IN PHYSICAL AND COGNITIVE AGEING

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Background The maintenance of physical and cognitive function for the maximal period of time is a key component of healthy ageing, associated with continued independent living, better quality of life and reduced morbidity and mortality risk. There is growing interest in investigating life course influences on healthy ageing to identify potential intervention targets, beyond those already identified by chronic disease epidemiology.

Using data from the MRC National Survey of Health and Development (NSHD), we assess:

1. the relative importance of socioeconomic position (SEP) in childhood and adulthood across a range of physical and cognitive functional ageing outcomes at age 60–64; 2. the contribution of key social, behavioural and developmental intermediary factors to the relationship between child SEP and functional ageing

Methods Ageing outcomes (lung function, grip strength, chair rise time, standing balance, timed up and go (TUG), verbal memory, processing speed and simple reaction time) were regressed on childhood and adult SEP ridit scores (calculated as the proportion of the population higher than the midpoint for each category) and sex. The ridit score coefficient is the slope index of inequality (SII), interpreted as the absolute difference in outcome between the hypothetical top and bottom of the SEP gradient. These were converted to the relative index of inequality to provide an estimate of the relative SEP difference across outcomes and over time. Regression models were then adjusted to examine the influence of potential mediators (education, smoking, BMI, height and childhood cognition) on the SII.

Results Substantial childhood and adult socioeconomic gradients were observed in all physical and cognitive outcomes. The hypothetical top of the childhood SEP distribution performed between 9 and 18 per cent better, relative to the hypothetical bottom ($p \leq 0.05$ for association between childhood SEP with all outcomes). These associations persisted on adjustment for adult SEP, with the exception of standing balance. The hypothetical top of the adult SEP distribution performed between 6 and 26 per cent better, relative to the hypothetical bottom ($p \leq 0.05$ for association between adult SEP with all outcomes). With the exception of processing speed (in women only), chair rise time, and TUG, associations between adult SEP and outcomes persisted on adjustment for childhood SEP. Adjusting for potential mediators attenuated specific associations.

Conclusion Child and adult SEP were independently associated with physical and cognitive ageing at age 60–64. The different social, behavioural and developmental pathways partly mediating these associations may guide appropriate intervention strategies.

PS20 PROSPECTIVE AUDIT OF PAEDIATRIC UNINTENTIONAL INJURY

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Background Injury is a leading cause of death among children and adolescents and around 16% of the world's burden of disease can be attributed to injury, reflecting the disproportionate burden of injuries among young people and added years of life lived with disability. The majority of injuries can be prevented or at least controlled and the costs of prevention are much lower than the costs of the consequences of injuries.

There is a crucial lack of data and injury surveillance systems to inform prevention. In high income countries it has been shown that many child and adolescent injuries can be prevented through careful analysis and appropriate action. In January 2012 The Department of Health published 'A public health outcomes framework for England, 2013–2016', which includes 'Hospital admissions caused by unintentional and deliberate injuries in under 18s' as an indicator of population health.

Research has shown that a relationship exists between increasing numbers of children presenting to Accident and Emergency with injuries and higher levels of area level socioeconomic deprivation. The Indices of Deprivation 2010 show that the London Borough of Tower Hamlets (LBTH) remains one of the most deprived areas in the country.

Methods A prospective audit has been designed for use in The Paediatric Emergency Department at The Royal London Hospital in the LBTH. The audit tool will include the WHO core minimum dataset for injury surveillance and ICD-10 for injuries, as part of an enhanced injury dataset that has been incorporated in the College of Emergency Medicine's proposed 'emergency medicine minimum dataset'. Subsequent mapping of injuries to LBTH postcodes will allow identification of injury 'hot spots' requiring further investigation and targeted interventions.

Results A preliminary retrospective audit of paediatric unintentional injury using data collected from computerised Accident and Emergency records for children aged 0 to <18 years who attended Royal London Hospital between July to September 2011 showed that unintentional injury results in high rates of attendance, with 40% of children attending as consequence of unintentional injury ($n=3,013$ attendances). The main reasons for attendance were for fractures, joint and head injuries and soft tissue inflammation. However, details of where injuries occurred, mechanisms and severity were lacking; prompting a prospective audit.

Conclusion Knowledge of the epidemiology of paediatric injury is lacking. It is imperative that routine monitoring and surveillance of paediatric injuries occurs nationally in order to inform effective injury prevention strategies.

PS21 EVALUATION OF MATERNITY CARE INTERVENTION IN RURAL NEPAL: CAN A HEALTH PROMOTION EXERCISE IMPROVE MATERNAL HEALTH AND SERVICE UPTAKE IN RURAL NEPAL?

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Background In developing countries, where the majority of the world's maternal deaths occur it is recognised that to target maternal mortality within limited resources, safe motherhood strategies need to be targeted to rural areas and to the poor in order to increase access to antenatal care and delivery care. In these populations, a lack of understanding of local beliefs and practices, and the reasons for them, can hinder the development of appropriate interventions.

The Green Tara Nepal intervention, Pharping, Nepal, aims to improve the uptake of maternal care practices in rural Nepal via health promotion activities in the community. The expectation is that the measured aspect of health-seeking behaviour should improve in the intervention area relative to the control.

Methods In 2008, Green Tara Nepal (GTN), a Nepalese Non-Governmental Organisation implemented a 5 year health promotion intervention to improve maternal and neonatal health in 2 rural village development communities (VDC) in Pharping, Nepal. The GTN programme works with midwives and community health workers to target fertile women, in health promotion groups and on a one-to-one basis. During this interaction, women receive advice on health behaviours and care-seeking practice.

Two surveys were conducted a baseline (2008) and a midline (2010) on the intervention communities and in 2 control communities; 833 women of childbearing age with their last child of less