WESSEX PUBLIC HEALTH CONFERENCE 2018

NHS Health Education England

Abstract Booklet

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Abstract Booklet

Oral presentations

Session LPH1A

Local Public Health Action: Living Well

Authors: D.J. Lemon, Sarah Long & Stuart Burly, Public Health Dorset

Title: Preliminary analysis of a novel behaviour change programme

Presentation time: 10:30 am

Location: Markus Liebherr Suite

Aim: we present here the results from the preliminary analysis of a novel behaviour change programme.

Introduction: We have implemented an innovative behaviour change service using The Capability, Opportunity, Motivation & Behaviour, COM-B, change model. This approach to behaviour change formalises the process by which a client is referred to an appropriate intervention. In a significant and systematic advancement over traditional behaviour change methods we are now able to track participant pathways through behaviour change programmes allowing for a continual improvement process.

Methodology: Every 4th contact to our weight loss service was assigned an intervention via COM-B. The others were referred following regular coaching. Each client is followed-up for 12 months.

Using descriptive epidemiology and logistic regression we assess how effective the COM-B approach was in helping clients to achieve their weight loss goals at 3 months.

Results: Compared to advice only, the OR for achieving a weight loss goal at 3 months via the COM-B and traditional coaching approaches is 0.8 (95%CI 0.52-1.26) and 1.5 (95%CI 0.87-2.3). The average difference in typical weight change between the two paths was small 1.1kg (±1.2kg 95%CI).

Those with a higher initial weight achieved the most weight loss. There was no significant variation with deprivation.

Conclusions: We can find no statistically significant difference in the effectiveness between the COM-B, coaching and advice approaches in helping people achieve their weight loss goal at 3 months.

Given this is the very first implementation of a COM-B method in public health practice we are encouraged by this outcome, particularly as we expect the effectiveness of COM-B to be greater over the long-term. Additionally, as COM-B is an automated algorithm that can be used by a consultant or even directly by the client, it means we have already achieved a more cost-effective behaviour change approach.

Session LPH1A

Local Public Health Action: Living Well

Author: Robin Poole, Public Health Specialty Registrar

Title: It doesn't rain, it pours – a review of the media response to the publication of an umbrella review on coffee drinking and multiple health outcomes

Presentation time: 10:45 am

Location: Markus Liebherr Suite

Background: The British Medical Journal published our umbrella review of coffee consumption and multiple health outcomes in November 2017. The summary findings of the research were that moderate coffee drinking, in the region of 3-4 cups per day, was more likely associated with benefit than harm. Forty-eight hours prior to online publication, the BMJ issued a press release. This resulted in a flurry of media attention that led to a number of live and pre-recorded TV and radio interviews, print and online newspaper articles, blogs, and tweets.

Objective: To review the breadth of media interest in the coffee umbrella review, and the interpretation of the public health message.

Method: The research team reflected on their personal interaction with the media. The Altmetric score was accessed to contextualise attention across different media. Print and online newspaper articles were accessed and article text extracted. News article public comments were also extracted, as well as blogs and tweets. Rapid responses to the article on the BMJ website were also extracted.

Results: One week after online publication the

Altmetric score ranked the article as number 169 out of over 8.5 million outputs ever scored, number 9 out of 35,681 outputs from the BMJ and number 1 output from the BMJ within a three-month period. This included 123 news outlets, 12 blogs, and 2106 tweeters. Most media interest interpreted the message as positive news and correctly emphasised the limitations of the evidence. There were several inaccuracies in the portrayal of the message by others.

Conclusion: Media interest in the publication of the coffee umbrella review was vast, concentrated over a short period, and settled quickly. Media and social media have the potential to rapidly spread important public health messages emanating from research. Keeping key messages simple may help to mitigate misinterpretation.

Session LPH1A

Local Public Health Action: Living Well

Author: Katherine Barbour, Wessex Academic Health Science Network

Title: iSPACE – dementia friendly GP surgeries

Presentation time: 11:00 am

Location: Markus Liebherr Suite

This submission relates to a part of the iSPACE dementia friendly surgery project, which was a quality improvement and innovation programme delivered in GP surgeries. The project aimed to improve the pathway of patients and carers through primary care. Ultimately, it was about keeping more people at home, in dementia friendly communities, and preventing a move to care. It was implemented in 153 GP surgeries across Wessex (Hampshire, Dorset, Isle of Wight and southern Wiltshire), and over 2,900 staff received training.

This submission focusses on the staff training element of the project which was undertaken during dedicated training sessions.

The aim of the training was to get all staff to at least tier one level of Health Education England dementia training. The course was delivered in the surgery to clinical and non-clinical staff. The training covered facts about the four main types of dementia, what part of the brain is being affected in each type of dementia and behaviours that people exhibit.

Public Health had developed a leaflet called "Dementia: helping your brain to stay healthy," and this was handed out along with how to reduce the risk of developing vascular dementia. It was recommended that this leaflet was given out at all dementia reviews. Posters on how to reduce dementia risk were shared and some surgeries started to display these.

Staff were asked to rate their confidence dealing with a person with dementia before and after the course. In an analysis of 810 feedback forms knowledge of dementia grew from 4-6 to 7- 8 in a 9-point scale and confidence dealing with someone with dementia rose from 3-7 to 7-8 again in a 9-point scale.

This training supported the cultural shift in surgeries and empowered staff to recognise their role in supporting carers and people living with dementia.

Session LPH1A

Local Public Health Action: Living Well

Authors: Rupert Lloyd[1] and Julie Hammon[2]

[1] Healthy Places Project Co-ordinator, Public Health Dorset,
[2] Dorset AONB/Stepping into Nature

Title: Stepping into Nature: tackling inequality in access to nature for people living with dementia

Presentation time: 11:15 am

Location: Markus Liebherr Suite

Dorset AONB, supported by Big Lottery, are delivering 'Stepping into Nature' (SiN) a programme of activities enabling older people, people with dementia and carers to spend time in nature. By working in partnership with health & environment organisations SiN aims to: improve physical and emotional wellbeing, reduce social isolation, and increase independence by providing more opportunities for accessing greenspaces.

Over 40% of Dorset is designated Area of Outstanding Natural Beauty (AONB) with the primary purpose of conserving and enhancing natural beauty, and a clear measure of the quality of Dorset's natural environment. The varied health and wellbeing benefits of spending time in high quality natural environments characteristic of the AONB are widely acknowledged, but equally varied are the barriers that prevent people from doing so.

For older people, particularly people living with dementia and their carers, barriers exist even when they live in close proximity to spaces that are readily accessible by other populations. These include physical accessibility, cost, uncertainty of unfamiliar

places, and lack of awareness among activity providers of their needs.

Public Health Dorset is carrying out an evaluation of the programme in partnership with SiN to identify what benefits spending time in nature brings to participants, and how to increase access to beneficial environments for older people, those living with dementia and their carers.

In the context of a growing older population, and rising need for limited services, SiN provides an opportunity to understand how the natural environment can support people to 'live well' in later life, and play a role in prevention across the population. The project is facilitating interdisciplinary understanding of how the natural environment can be managed to enhance accessibility for older people, and those living with dementia, beyond the bounds of the AONB.

Session LPHA2

Local Public Health Action: Place

Authors: Gemma Ward[1], Jennifer Barker[1], Adam Goulden[2], Helen Farley[2], Narges Sheikhansari[3], Cllr Dave Shields[4], Debbie Chase[4]

[1]Health Education England, [2]The Environment Centre Southampton, [3]University of Southampton, [4]Southampton City Council

Title: Southampton Healthy Homes (SHH): Taking a needs based approach to reducing fuel poverty risk amongst Southampton residents

Presentation time: 12:00

Location: Markus Liebherr Suite

Approximately 10,000 households in Southampton City are fuel poor. Low income, inefficient housing and high energy costs all increase the risk of fuel poverty, which can lead to health problems in children, older people and those with a long-term disability or illness. Previous local fuel poverty initiatives have been demands led. This was a needs led approach to reducing fuel poverty risk in vulnerable people.

SHH was a British Gas Energy Trust (BGET) and Southampton City Council (SCC) funded fifteen-month project delivered by the Environment Centre (tEC) and other local delivery organisations. The project aimed to reduce fuel poverty risk through increasing energy efficiency, reducing energy costs and maximising income. tEC worked with local networks to identify high risk individuals via community outreach, Integrated Care teams and local health, energy efficiency and deprivation data. Project staff received training in Healthy Conversations (HC).

Overall, the project received £541,291 of funding (£41,164 from SCC) and generated£424,034 worth of secured benefits for Southampton residents as well as leveraging£93,826 of external grants for energy efficiency measures. Energy Performance Certificate Ratings (EPCs) improved for 42 households, with 21 households entering the A to C band. Project staff felt that using HC enabled more effective client conversations.

SHH demonstrates the value of using a multidisciplinary, needs based approach to tackling fuel poverty, showing that modest local authority investment can result in financial benefits to residents, access to external funding and improvements in local housing stock.

Session LPHA2

Local Public Health Action: Place

Authors: Rachael Marsh, Janis Baird, Hazel Inskip, Medical Research Council Lifecourse Epidemiology Unit, University of Southampton

Title: The Effect of Crowding within Households on Behavioural Problems in Children: A Quantitative, Prospective Cohort Study in Southampton

Presentation time: 12:15

Location: Markus Liebherr Suite

Background: Children with behavioural problems are at increased risk of mental and physical health problems, criminal convictions, and poorer employment prospects. In England, nearly one child in every ten, lives in overcrowded housing (using the Bedroom Standard). This is likely to worsen with the increasing population size, urbanisation, and housing crisis. Studies have already shown overcrowding has numerous negative impacts but the effect on behavioural problems is yet to be confirmed.

Aim/Objectives: To test the hypothesis that there is a positive association between crowding in the household and behavioural problems in children, as well as factors that are potential mediators in this relationship. Additionally, to test whether subjective and objective measures of crowding agree.

Methods: This was a secondary data analysis using the prospective cohort study Southampton Women's

Survey. 2,602 three-year-old children met the inclusion criteria (exposure and outcome measured) between 2001-2010. Crowding was measured by people per room (PPR) and the mothers' perception of space. Behavioural problems were assessed with the Strengths and Difficulties Questionnaire (SDQ), a validated method. Univariate and multiple linear regression analysis were performed. Confounding variables included sex, single parents, parental education, income, and occupation. Ethics approval was received.

Results: Characteristics of the sample were broadly representative of the population in England. In a household that was more crowded by one PPR than another, children had more behavioural problems by 1.30SDQ points (95%CI 0.70-1.90, $p<0.001$) after adjustment for confounders. This relationship was partially mediated by greater maternal stress and depression, increased use of childcare, less sleep and strained parent-child interactions. Subjective and objective measures of crowding appeared to agree.

Conclusions: The positive association between crowding and behavioural problems in children is consistent with the majority of literature, has implications for housing policies and can be used to identify families likely to benefit from existing local support services.

Session LPHA2

Local Public Health Action: Place

Authors: D.J. Lemon, Sarah Sutton & Coralie McGown, Public Health Dorset

Title: Developing an air quality monitoring network: siting the monitors

Presentation time: 12:30

Location: Markus Liebherr Suite

Aim: we attempt to develop a transparent, pragmatic, and objective technique to identify locations for air quality monitors to assess the impact of long-term exposure to background air pollution.

Introduction: Policymakers and researchers are showing a renewed interest in the effects of long term exposure to air pollution. To address this, we are developing a network of air pollution monitors. However, we need to be able to site them in areas where there is a mix of higher air pollution and a sizable population susceptible to its effects.

Method: To identify suitable areas for the location of air monitors we adopt a weighted demand surface methodology. This demand surface is developed by comparing the pollution measurement at each point in the study area to its neighbours. A weighting strategy is then applied to the demand surface to identify areas with vulnerable populations. This weighting strategy combines sociodemographic characteristics deemed to be markers of populations susceptible to the effects of air pollution and applies it to the demand surface. Finally, to avoid clustering in urban areas, we add-in the extra criteria that each site must be at least 5km from its nearest neighbour.

Results: Following this strategy we were able to rank all LSOAs and identify the 10 most likely to contain a mix of susceptible population and higher air pollution. These locations have a good geographic and population coverage, and pass a face validity test.

Conclusions: We have developed an objective and transparent technique to identify locations of air pollution monitors incorporating public health concerns. Although the final decision on the exact location of the monitors was determined pragmatically, the technique developed here was of significant use in identifying the geographical areas of interest. Additionally, it provides cover to help minimise any possible future political interference.

Session LPHA2

Local Public Health Action: Place

Author: Rebecca Wilkinson, Public Health Specialty Registrar

Title: Embedding public health in spatial planning in Hampshire

Presentation time: 12:45

Location: Markus Liebherr Suite

There is a growing recognition of the significant role spatial planning plays in the health and well-being of communities. This has been reflected in recent Government planning guidance and, following their move into Local Authorities, Public Health professionals across the country are now considering how best to influence their local planning system. This paper reports on the work already well underway in Hampshire to embed public health into planning.

A 'Public Health and Planning Position Statement' was jointly developed by the Hampshire County Council (HCC) planning and public health teams; it sets out the vision and practicalities of working together on the creation of healthier places. This work-stream

forms an important part of Hampshire's whole-system approach to tackling healthy weights and is a key aspect of the 'thriving communities' priority in the county's Public Health Strategy.

A major objective of the Position Statement is for public health to be consulted on, and to make robust responses to, major planning applications and Local Plan reviews.

Operationalising the Position Statement has been done through the following three-pronged approach:

- Upskilling the HCC Public Health team
- Public health engagement with, and support for, district planning teams
- Working on bespoke projects with individual districts

The paper provides further details of these approaches and also describes the barriers encountered when trying to implement the position statement.

The monitoring framework is explained which, based on the Donabedian model, has been developed to enable evaluation of this work.

Early outcomes are reported including the development of health-specific policies in local plans and a new requirement for Health Impact Assessment for major HCC planning applications.

Session LPHA3

Local Public Health Action: Starting well

Authors: Polly Louise Langdon[1,2] Kathryn Woods-Townsend[1,3], Holly Aiston [4], Jacquie Bay [5], Lisa Bagust[1], Hannah Davey[1], Donna Lovelock[1], Andri Christodoulou[1], Janice Griffiths[1,6], Marcus Grace[1], Keith M Godfrey[2,3,7], Mark Hanson[2,3] and Hazel Inskip[3,7]

[1] Southampton Education School, University of Southampton, [2] Institute of Developmental Sciences, Faculty of Medicine, University of Southampton, [3] NIHR Southampton Biomedical Research Centre, University of Southampton and University Hospital Southampton, NHS Foundation Trust, [4] St Anne's Catholic School, Southampton, [5] Liggins Institute, University of Auckland, New Zealand, [6] Mathematics and Science Learning Centre, University of Southampton, [7] MRC Lifecourse Epidemiology Unit, University of Southampton

Title: LifeLab Southampton: Improving science literacy as a tool for increasing health literacy in teenagers – a pilot cluster-randomised controlled trial

Presentation time: 14:00

Location: Markus Liebherr Suite

Background: Behavioural risk factors are the largest contributor to the non-communicable disease burden. Adolescence offers a window of opportunity whereby improvements in health behaviours benefit the long-term health of individuals and their future offspring. Supported by teachers, we developed an educational intervention, LifeLab, including a purpose-built laboratory in University Hospital Southampton, to engage adolescents in understanding implications of their health behaviours for themselves and their future children.

Aims: To assess whether LifeLab increases adolescents' science literacy, improving health literacy and hence health behaviours, as a pilot study prior to a large cluster-randomised trial of LifeLab.

Methods: Six schools assessed the effects of LifeLab in changing knowledge, attitudes and intended and actual behaviour in relation to diet and lifestyle; three schools were randomised to intervention, with three controls. 392 students completed online questionnaires at baseline and 12-month follow up.

Results: At follow-up, intervention students had greater understanding of the influences of health behaviours on their long term health and that of their children, although no reported sustained changes in behaviours. The intervention group were more likely to agree that nutrition starts to affect future health early in life (PRR 1.87 (95%CI 1.42-2.45) and that the food a father eats before having a baby could affect the health of his children (PRR 4.05 (95%CI: 2.34-7.01)), but no more likely to agree that it was important to eat healthy food now (PRR 1.19 95%CI: 0.79-1.79)).

Discussion: Students' scientific awareness and health literacy can be improved and maintained as measured 12 months after the intervention, but this does not necessarily translate into behaviour change. Interventions require more than knowledge acquisition to motivate and sustain behaviour change. Acquiring knowledge is a first step towards motivation to change behaviour and LifeLab shows promise as part of a more extensive intervention to achieve such change.

Session LPHA3

Local Public Health Action: Starting well

Authors: Donna Lovelock[1], Lisa Bagust[1], Carol Bralee[9], Keith Godfrey[2,4,5], Marcus Grace[1], Janice Griffiths[1,3], Mark Hanson[2,5] ,Hazel Inskip[2,4] , Amy Nelson[8], Ravita Taheem[6], Samantha Taplin[7], Leanne White[8], and Kathryn Woods-Townsend[1,2]

[1]Southampton Education School, University of Southampton, [2] NIHR Southampton Biomedical Research Centre, [3]Mathematics and Science Learning Centre, University of Southampton, [4]MRC LIfecourse Epidemiology Unit, University of Southampton, [5]Institute of Developmental Sciences, University of Southampton, [6]Southampton City Council, [7]Faculty of Medicine, University of Southampton, [8]No Limits Southampton, [9]Solent NHS Trust Southampton

Title: Youth Health Champions: hearing the pupil voice for promoting health and wellbeing through peer mentoring

Presentation time: 14:15

Location: Markus Liebherr Suite

Background: LifeLab has partnered with Southampton City Council and No Limits to continue the delivery of the Royal Society for Public Health's Youth Health Champions (YHC) level 2 qualification and training of peer mentors for health and wellbeing in the city's secondary schools.

Aim: The aim is to increase participation of schools and students in the YHC programme through engagement with LifeLab.

Methods: The LifeLab Secondary education module was approved by RSPH as meeting the requirements for module 1 of the YHC qualification. A training package was designed to cover modules 2, 3 and the optional module. This was offered to all schools who participated in the LifeLab programme.

Results: In the academic year 2015-2016 19 young people qualified as YHC from 3 city schools. In 2016-2017 a further 13 from 2 of these schools were selected and are currently participating in the training programme. In the current academic year (2017-2018), students from the pre-existing schools will participate with a new school recently signed up to participate. The training included a range of activities centred around healthy eating, physical activity, effects of smoking and alcohol and emotional health and wellbeing. All the students commented that interactive activities were the most interesting and enjoyable ways of learning and all commented that booklet based assessment was not engaging. 83% of the students involved rated module 1 (LifeLab) as very interesting/interesting and 92% rated it very useful/useful. 92% rated the training as very good/good and 92% agreed/strongly agreed that it gave them the skills to be an YHC in their school.

Implications: The YHC qualification has empowered young people to take the lead on health and wellbeing. The next steps are to engage more schools and students with all aspects of the training through maintaining and further developing the current YHC partnerships.

Session LPHA3

Local Public Health Action: Starting well

Authors: Abbie Twaits[1], Nisreen A Alwan[2]

[1]Hampshire County Council, [2]Primary Care and Population Sciences, Faculty of Medicine, University of Southampton

Title: Association between area-based deprivation and change in body-mass index over time in primary schoolchildren: a population-based cohort study in Hampshire, UK

Presentation time: 14:30

Location: Markus Liebherr Suite

Background: Childhood obesity is a serious health challenge. Cross-sectional evidence indicates that the burden of obesity impacts most on more deprived children, yet longitudinal research is lacking. We aimed to assess the association of home-based and school-based deprivation indices with change in childhood body-mass index (BMI) z-score and BMI status over 6 years.

Methods: This cohort study linked the National Child Measurement Programme data for Hampshire children from age 4–5 years (2007–08 to 2009–10) to 10–11 years. The dataset was analysed in two groups: 18 733 children for whom home deprivation quintiles, according to the Index of Multiple Deprivation (IMD), remained constant, and 6153 children who moved home to more deprived quintiles over time. The associations between IMD quintiles and change in BMI z-score and status, defined using the British 1990 growth reference, were analysed with multiple linear regression and multinomial logistic regression, respectively, and adjusted for age, sex, ethnicity, and school Ofsted status. Ethics approval was granted by the University of Southampton.

Findings: 11 924 children (63.%) remained a healthy weight, 585 (3.1%) remained overweight, 990 (5.3%)

remained obese, 1560 (8.3%) became overweight, and 1921 (10.3%) became obese. Children living in the most deprived quintile increased their BMI z-score by 0.13 units more than those in the least deprived quintile (95% CI 0.08–0.19). There was no significant difference for school-based quintiles. Children attending school in the most deprived quintile were significantly more likely to remain obese (relative risk 1.3, 95% CI 1.53–2.44) and become obese (1.90, 1.55–2.32).

Home-based deprivation quintiles displayed stronger associations with change in BMI status than did school-based quintiles (relative risk for remaining obese 2.23, 95% CI 1.78–2.79; becoming overweight 1.36, 1.16–1.60; and becoming obese 2.42, 2.08–2.81). Moving home to a more deprived quintile was only associated with becoming obese (1.22, 1.04–1.43).

Interpretation In Hampshire, UK, home-based deprivation level is more strongly associated with negative change in childhood adiposity than school-based deprivation level. Although schools provide ample opportunities to deliver interventions, focus should not be lost on the obesogenic home environment. This study used robust measures, and a large sample size was analysed. However, consideration of familial influences of obesity is paramount. Further research of the obesogenic environment is required, combining individual and area-based measures.

Session LPHA3

Local Public Health Action: Starting well

Authors: Caoimhe O Sullivan, Public Health Specialty Registrar

Title: Health Visiting Service Review 2016

Presentation time: 14:45

Location: Markus Liebherr Suite

Background: In October 2015, NHS England transferred the responsibility of service for children between the ages of 0 to 5 years, including the health visiting service, to local authorities. Public Health Dorset reviewed the health visiting service in Bournemouth, Dorset, and Poole in 2016.

Methods: The aims of the review were to better understand health visiting service for 0-5 year olds, to articulate areas of value for future investment, and to inform future joint working to improve outcomes and experience of 0 to 5 year olds and their families.

The review included a focus around the six high impact areas:

Maternal mental health	Healthy weight
Two-year health and wellbeing check; school readiness	Managing minor illnesses and reducing hospital attendances and admissions
Breastfeeding	Transition to parenthood and the early weeks

A public health needs assessment approach was used to describe the current service and how it operates, profile local need, make comparisons between areas, and collect the knowledge and views of key stakeholders.

Face-to-face interviews were carried out with 162 parents and carers at 21 different children's centres/community groups across Dorset. An online survey had approximately 1,200 responses and 17 focus groups/interviews were held with 84 staff across Bournemouth, Poole, Dorchester and Wimborne.

Conclusion: The health visiting service in Bournemouth, Poole and Dorset is high performing when compared with other services in England. Overall, parents and carers expressed high levels of satisfaction with the service including consistent messages, having the right information to hand, and knowing where to access the service. The review highlighted strengths of the service (e.g. universal; good examples of joint working with early years settings; highly valued clinics and support groups) and areas for improvement (e.g. enhanced training in breastfeeding; maternal mental health). Some wider system issues were also identified.

Session LPHA3

Local Public Health Action: Starting well

Authors: Frances Tilley, Victoria Hodges, Public Health, Isle of Wight Council

Title: A comparison of the quality and cost effectiveness of oral health data between the national epidemiological survey and the local Isle of Wight (IOW) school survey.

Presentation time: 15:00

Location: Markus Liebherr Suite

Background: Information about children's oral health has been collected since the 1980s through dental surveys which measure the numbers of decayed, filled or missing teeth (dmft). Falling levels of consent threaten the validity of the data.

Aim: To identify the most appropriate method of collecting meaningful, valid and cost effective data in order to appropriately inform the commissioning of services to monitor and improve oral health.

Method: To research the quality of the data yielded by the dental epidemiology survey and school questionnaire survey by critically examining the results in terms of validity and utility including their capacity to capture the "voice of the child". In order to do this, we examined the positive and negative aspects of the data collection in each survey.

Results:

Epidemiological survey **-** Collects quantitative data on measured decay however, participation is dependent on parental consent, which has been falling and may result in biased data. Children's perceptions about the impact of poor oral health and their experience of dental care are not captured.

*School survey***-** Access to a large sample of learners increases the validity of data. It provides an opportunity for the 'voice of the child' to be heard through questions that illicit their perceptions of their own oral health. The responses can be correlated with other aspects of health and wellbeing captured through the same questionnaire, e.g. healthy eating, providing the opportunity to examine the association between oral health and the wider determinants that affect oral health.

Implications: School survey data may provide an opportunity to effectively design services to meet the needs of local children and is cost effective in comparison with the epidemiological survey.

Session HP1

(Health Psychology)

Presenter: Angel Chater, Centre for Health, Wellbeing and Behaviour Change, University of Bedforshire

Title: Integrating health psychology with public health. A behavioural science approach to building an effective physical activity intervention for those with CVD risk and mental health concerns: The 'Active Herts' programme

Presentation time: 10:30

Location: President's Suite

A common question that is salient to the public health agenda is; 'How can health promotion and treatment efforts be improved to enhance the health and wellbeing of the nation?' The major epidemics of non-communicable disease now facing us, such as obesity, diabetes, cardiovascular disease (CVD) and cancer suggest we need to focus our efforts on embracing a strategic shift from treatment to prevention, while also enhancing national wellbeing.

Applying health psychology and behavioural science to public health settings to understand and change behaviour can maximise the scale of the impact of public health interventions at a national level and assist in the mission to improve population health and wellbeing. With this in mind, this talk will introduce the Health Psychology in Public Health Network and give examples of how members from the network have come together to apply psychological theory and behavioural science to a community-based programme named 'Active Herts'.

It will give an overview of what factors influence physical activity behaviour, key behaviour change techniques that have been used in effective physical activity interventions from a systematic review of the literature (Howlett, et al., 2018), key considerations when developing a programme for those with CVD risk and mental health concerns (Howlett, Jones, Bain & Chater, 2017) and conclude with evidence and case studies showing an improvement in physical activity levels, health and wellbeing of those who have been part of the programme.

Session HP2

Behavioural Insights Unit, Public Health England

Presenter: Natalie Gold, Behavioural Insights Team, Public Health England

Title: Behavioural insights Team, Public Health England – Current directions for behavioural science in public health

Presentation time: 12:00

Location: President's Suite

Many interventions rest on the assumption that knowledge-provision is enough to engender behaviour change. However, people often have limited will-power and cognitive capacity, meaning that we seldom behave in an entirely logical way. In fact, we often rely on mental heuristics and biases in our busy day-to-day lives, resulting in efficient but imperfect decision making.

The behavioural insights approach capitalises on these mental shortcuts to make the healthy behaviour the easy behaviour. In this workshop, we will cover some of the basic theory behind the behavioural insights approach, and introduce you to some of the core considerations to be made when designing behavioural interventions.

By the end of the workshop, you will have had experience in identifying behavioural targets for intervention and conducting behavioural analyses, as well as being left with additional resources to further your understanding of applying behavioural insights to intervention design.

Session HP3

How Health Psychology can Improve Engagement in Public Health Initiatives

Authors: T. Rose[1], S. Strömmer[1], C Vogel[1], N. Harvey[1,2], C. Cooper[1,2], H. Inskip[1,2], K. Woods-Townsend[2,3], J. Baird[1,2], M. Barker[1,2], W. Lawrence[1,2]

[1]MRC Lifecourse Epidemiology Unit, University of Southampton, Southampton General Hospital, [2]NIHR Southampton Biomedical Research Centre, University of Southampton and University Hospital Southampton NHS Foundation Trust, [3]Southampton Education School, Faculty of Social and Human Sciences, University of Southampton

Title: Why do women respond differently to interventions designed to improve diet and increase physical activity in pregnancy?

Presentation time: 14:00

Location: President's Suite

Background: Women who are overweight or obese in pregnancy are at increased risk of disease and of having children with increased risk. Interventions are usually designed for a general population of pregnant women, and trial outcomes show an average impact that does not represent the differences between individuals. To inform the development of future interventions, this study explored the factors that influenced women's diet and physical activity during pregnancy and aimed to identify the needs of these women with regards to lifestyle support.

Methods: Women who completed a trial of vitamin D supplementation and nurse support in pregnancy were invited to take part in an interview. Seventeen women were interviewed about their lifestyles during pregnancy, the support they had, and the support they wanted. Interview transcripts were coded thematically and analysed to characterise the diets and physical activity levels of these women and their engagement with resources that could provide support.

Results: Women identified barriers to eating well or being physically active, and pregnancy-specific issues like nausea and pain were common. Other issues varied between participants and appeared to place women on a continuum of engagement with diet and physical activity support. Women's interest in maintaining a healthy lifestyle and their engagement with lifestyle support was related to the extent to which they self-identified as healthy people. Health-disengaged women were disinterested in talking about their lifestyles while health-focused women did not feel that they needed extra support. Women between these ends of the 'health identity' spectrum were interested in improving their health, and were able to identify barriers as well as sources of support.

Conclusions: Lifestyle interventions in pregnancy should be adaptable to meet the needs of individuals with different health identities, and encouraging a change in health identity may be one way of supporting sustained change in health behaviours.

Session HP3

How Health Psychology can Improve Engagement in Public Health Initiatives

Authors: Sofia Strömmer[1,2], Leanne Morrison[3], Hora Soltani[4], Judith Stephenson[5], Melissa Whitworth[6], Rachel Rundle[7], Jane Brewin[8], Lucilla Poston[9], & Mary Barker[1,2]

[1]MRC Lifecourse Epidemiology Unit, University of Southampton, [2]NIHR Southampton Biomedical Research Centre, University of Southampton, [3]School of Psychology, University of Southampton, [4]Faculty of Health and Wellbeing, Sheffield Hallam University, [5]Reproductive Health, University College London, [6]Medical and Human Sciences, University of Manchester, [7]Sheffield Business School, Sheffield Hallam University, [8]Tommy's the Baby Charity, [9]Division of Women's Health, King's College London

Title: Development of a complex intervention to improve quality of diet in pregnant teenagers: The Babies, Eating and LifestyLe in Adolescence Study (BELLA)

Presentation time: 14:15

Location: President's Suite

Purpose: Teenage pregnancy has a high risk of poor outcomes for mother and baby. Teenage girls have the poorest diets of any population group in the UK, a recognised determinant of poor pregnancy outcome. Pregnant teenagers trust advice from their midwives, but midwives feel they do not have time to discuss diet and nutrition or the confidence and knowledge to do so. This study aimed to develop a complex intervention that uses the relationship between pregnant teenagers and their midwives to deliver support to improve diet quality in pregnant teenagers.

Methods: The study used an innovative Person-Based Approach to intervention development in conjunction with Social Cognitive Theory to design format and content of the intervention. Interviews were conducted with pregnant teenagers and their health and social care practitioners regarding diet and lifestyle, and what form of support they might find helpful. Content analysis was then used to identify guiding principles for the design of the intervention, which were mapped onto appropriate behaviour change techniques to inform intervention design.

Results/findings: A total of 106 young women and 49 practitioners were interviewed. Findings suggest that pregnant teenagers find it difficult to prioritise a healthy diet; they often feel isolated and not in control of their own lives. Pregnant teenagers and their midwives lack a reliable resource for immediate support with eating healthily. Midwives felt that it was their role to support young mothers with diet in pregnancy, but were anxious about initiating conversations and felt they lacked clear guidance.

Conclusions: An effective intervention to improve pregnant teenagers' dietary quality must empower and motivate teenage mothers and their midwives, provide an engaging and easy to use 24-hour source of information and support, and enable connections with other young mothers. The resource will be introduced by the midwife to support pregnant teenagers between appointments.

Session HP3

How Health Psychology can Improve Engagement in Public Health Initiatives

Author: Wendy Lawrence[1,2] & Mary Barker[1,2]

[1]MRC Lifecourse Epidemiology Unit, University of Southampton, [2]NIHR Southampton Biomedical Research Centre, University of Southampton

Title: Seeing Public Health interventions through a Health Psychology lens

Workshop time: 14:30

Location: President's Suite

Abstract

Health psychology and the behavioural sciences have made a substantial contribution to the development of interventions to improve population health. Since women from more disadvantaged backgrounds have poorer quality diets and the worst pregnancy outcomes, they need to be a particular focus of intervention. Translating health psychology interventions of known effectiveness into routine public health practice is rarely achieved however, and engaging the most vulnerable is particularly challenging.

This workshop will give delegates the opportunity to reflect on their own ideas and beliefs about behaviour change, and how best to develop interventions that are engaging and effective; this could include consideration of such issues as building trust, matching agendas and changing culture.

Attendees will gain insight into how health psychologists can work within the public health arena to support improvements in population health.

Session PPH1

Prioritising Public Health in an age of Austerity

Authors: Jillian Owens, Guy Battle, Terry Brewer, Rachel Wells,

The Academy of Public Health for London and South East and The Social Value Portal Ltd

Title: Social Value – Additional benefits from procurement

Workshop time: 10:30

Location: Terry Paine Suite

Background: The Public Services (Social Value) Act 2012 enables public bodies in England and Wales to consider how the services they commission, procure and deliver might improve the economic, social and environmental well-being of the public they serve.

Introduction: Social value requires commissioners to consider how inclusion of additional social value outcomes can potentially reduce pressures in other areas and provide capacity and funding for improved community benefits. Experience from local government shows that it should be possible to achieve +20% additionality on contract values. By embedding Social Value through procurements in health this benefit could also be achieved.

Aim/objective: The aim of the workshop is to showcase case studies and demonstrate techniques which will support the public health and commissioning workforce to embed the use of Social Value techniques in procurement.

Methods: The workshop will demonstrate the following techniques to help the public health and commissioning workforce to make practical use of the provisions in the Social Value Act:

- Social Value Policy – provides 'golden thread'
- Standardising Social Value in all procurements (over £50K)
- Using Themes, Outputs and Measures (TOMs) to express Public Health needs to contractors in a consistent and objective way
- Adopting a non-prescriptive approach- setting out areas where contractors might be able to assist delivery of health outcomes
- Incentivising Social Value offers from contractors by allocating a percentage of weighting in procurements to Social Value
- Ensuring contract management is in place for benefits realisation

Results: By adopting and embedding Social Value into procurement practices commissioners support the public health system to obtain significant benefits from contractors in addition to original contractual requirements.

Conclusions/implications: Use of Social Value in procurement can provide significant potential benefits for prevention, population health and sustainability without additional cost to the public health system, which are currently not being fully realised.

Session PPH2

Prioritising Public Health in an age of austerity: Local innovation and service transformation

Authors: Rob Carroll[1], Sarah Williams[2] and Tom Nadarzynski[2,3]

[1]Hampshire County Council; [2]Solent NHS Trust; [3]University of Southampton

Title: Love & Sex in a time of Austerity: transforming Sexual Health Services through STI home-sampling

Presentation time: 12:00

Location: Terry Paine Suite

Introduction: Increasing demand for STI testing at local sexual health services at a time of reducaing public health financial resources led to the piloting and implementation of a difital STI home-sampling service for low risk asymptomatic residents in Hampshire, Portsmouth and Southampton.

Aim: The aim of the pilot was to:

- Test the acceptability of STI home-sampling for low risk asymptomatic residents
- Reduce clinic attendance for asymptomatic attendance by 10%
- Increase access to groups that have not attended services for STI testing before
- Develop a more cost-effective approach to STI testing

Methods: A mixed methods approach was taken to evaluate the pilot which included an online service user feedback survey: in-depth interviews with service users; a focus group with clinical staff; web analytics

and statistical analysis of service uptake, utilisation and STI positivity by key demographics.

Results: The pilot started in September 2015 and STI home-sampling has now been mainstreamed into core service provision due to high levels of acceptability, uptake and cost-effectiveness.

Patient acceptability of the service has been higher than expected and demand for the service has continued to rise. The majority of those using this service during the pilot phase had never been to a sexual health clinic before (60%) suggesting that the service is reaching both existing clinic users and a new demographic.

Positivity rates in those using the service during the pilot were similar to those seen in asymptomatic residents attending clinics. Patient satisfaction with the service is also very high, with over 95% saying they would use it again and recommend to friends and family. There is evidence that the service has been successful in reducing clinic attendance by low-risk asymptomatic residents, releasing savings and more capacity for clinics to see more complex and higher risk residents.

Session PPH2

Prioritising Public Health in an age of austerity: Local innovation and service transformation

Author: Sue Cochrane, Public Health Specialty Registrar

Title: Review of Tier 3 weight management services in Southampton and Portsmouth: Generating evidence to support decisions on investment

Presentation time: 12:15

Location: Terry Paine Suite

Background: Tier 3 weight management services are provided for obese individuals who have not responded to previous tier interventions. They consist of targeted support from a multi-disciplinary team of clinical, behavioural, physical activity and dietary specialists.

A review of the effectiveness of Tier 3 weight management services was conducted across Southampton and Portsmouth, in light of NHS England commissioning guidance outlining CCGs as the preferred commissioners and wider cost saving measures across both local authorities.

Objectives of the review: Provide an overview of current Tier 3 weight management services across Southampton and Portsmouth.

- Assess the effectiveness and cost effectiveness of current delivery, comparing services with available evidence and arrangements in other areas
- Present evidence based options for the future of Tier 3 weight management services

Methods: A rapid systematic review of the evidence of effectiveness of Tier 3 weight management services was conducted. The results of the review were compared against patient outcomes to assess the effectiveness of existing services. Information on existing Tier 3 services and commissioning arrangements was collected from Public Health teams across the country, allowing a comparative evaluation of patient outcomes and cost effectiveness.

Outcomes: In Southampton, absolute weight loss across all patients in 2015-16 was lower (1.38kg) than comparative studies from similar services across the UK (2.6-13.2kg). 18% (13 patients) lost 5% of their baseline weight at 6 months, which falls at the bottom range of comparative studies (16-45%). The proportion of patients losing 10% of their baseline weight was lower (5%, 4 patients) than comparative studies (7-72.4%). Similarly in Portsmouth across 2015-17, 25% (39 patients) lost 5% of their baseline weight and 4% (6 patients) lost 10% of their baseline weight at 6 months.

The review has created an evidence based evaluation of current service performance and impact to inform future commissioning.

Session PPH2

Prioritising Public Health in an age of austerity: Local innovation and service transformation

Authors: Kate Glyn-Owen[1], Julia Parkes[2,] Hilda Hounkpatin[1], Nida Ziaddeen, Paul Roderick[2],

[1]Wessex CLAHRC Research Fellow, Specialty Registrar in Public Health, NIHR CLAHRC Wessex, University of Southampton, Primary Care and Population Sciences; [2]Primary Care and Population Sciences, University of Southampton

Title: Alcohol calories and obesity in the National Dietary and Nutrition Survey

Presentation time: 12:30

Location: Terry Paine Suite

Background: The relationship between alcohol and obesity is non-linear and complex. Understanding this relationship further is important. There is a substantial obesity-attributable disease burden in the UK from cardiovascular disease, diabetes, stroke, some cancers and fatty liver disease.

Aim: To investigate data on alcohol consumption, calories from alcohol and obesity in the NDNS RP dietary survey.

Methods: Data on frequency of alcohol consumption, calories from consumption of alcoholic beverages and body mass index were explored. Descriptive statistics and logistic regression were performed using STATA.

Results: In a logistic regression model the odds of being obese were significantly lower in high frequency drinkers (≥ once per week), compared to low frequency drinkers (≤ twice per month) (OR 0.71, 95%CI 0.60 – 0.84, p<0.000, model adjusted for age, sex, social class, education, smoking and physical activity). The proportion of total calories which came from alcoholic beverages varied according to day of the week, with Friday (20.4%) and Saturday (21.6%) having the greatest proportion of calories from alcohol. Mean total calorie intake in those who consumed alcohol was 351 - 596 calories greater per day than in those who did not drink alcohol on that day.

Conclusions: Many factors influence the relationship between alcohol and obesity. Trying to pick apart the associations and their inter-relationship has proved difficult for researchers. This analysis has a very clear message - total calorie consumption is significantly higher in those that consume alcohol. Calories from alcohol could be significantly contributing to weight gain in the UK population. Reducing alcohol consumption, particularly at weekends, could be a helpful message for public health professionals around obesity. This would also have wider health benefits, as alcohol and obesity are both risk factors for a number of other diseases including liver disease and cancer.

Session PPH2

Prioritising Public Health in an age of austerity: Local innovation and service transformation

Author: Martin Knight, Director of Public Health Policy, Strategic Public Health Unit, Jersey

Title: A Food and Nutrition Strategy for Jersey

Presentation time: 12:45

Location: Terry Paine Suite

Diet-related disease is a leading cause of preventable death, and local data in Jersey shows that our population has not escaped this trend. We know that there are health inequalities in rates of obesity between primary school children in urban areas, and those in rural areas. We estimate that dietary risk factors cost our Islands wider economy in the region of £43 million. The aim of the Food and Nutrition Strategy for Jersey is to address these issues, and to reduce the impact of diet-related disease in our population.

The strategy is guided by principles to ensure actions are based on evidence of effectiveness, promote a life course approach, empower individuals and communities through health-enhancing environments, reduce health inequalities in achieving a healthy diet, and deliver actions through a multi-sector alliance. We have chosen to focus efforts on early intervention to address identified gaps in provisions for early years and primary school aged children, in light of evidence that this will achieve the greatest reductions in obesity and diet-related disease with our available investment.

The key programmes to commence from 2018 onwards include a local version of the Healthy Start programme, HENRY (Health, Exercise and Nutrition for the Really Young), a family weight management programme, and UNICEF Baby Friendly. This work will be complemented by supporting and growing local work in schools around cooking skills, growing programmes and breakfast clubs. An outcomes based approach will be used to monitor progress and success from service performance through to population level outcomes. This approach will fit the food and nutrition agenda within wider government priorities of health and well-being and help support sustained as well as new investment over the medium to long term.

The strategy was launched in July 2017 and has seen significant buy in from key stakeholders and service leads across government, private and community sectors. We would like to share our experience of the public health journey in generating support and securing resources that led up to the public launch of the strategy.

Session PPH3

Prioritising Public Health in an age of Austerity

Presenters: Kate King-Hicks, Health and Wellbeing Programme Lead[1], Scott Mahony, Health Economist, PHE, Jo Wall & Peter Cornish, Principle Knowledge Transfer Facilitators[2],

[1]PHE South East Centre; [2]PHE Local Knowledge and Intelligence Service (South East)

Workshop Title: Making the most of your public health budget – application of Public Health England's Prioritisation framework

Time of Workshop: 14:00

Location: Terry Paine Suite

This interactive session will introduce participants to the new PHE Prioritisation Framework that will be launched later this year. The framework builds on the work of David Gardner in PHE's North East Centre who has run successful prioritisation exercises with several local authorities in the North East. The process is largely based on the idea of multi-criterion decision analysis (MCDA) as way of pulling together large quantities of information and producing easy to understand metrics. It supports transparent decision making by looking to document how decisions were reached.

Session GPH1

Genomics and Public Health

Presenters: Melanie Watson, Consultant Genetic Counsellor

Workshop Title: From Genetics to genomics: establishing a regional service for Familial Hypercholesterolaemia.

The Wessex Familial Hypercholesterolaemia (FH) service was launched in June 2014. It was among the first genetic testing services to be commissioned by CCGs in England and was pump-primed with funding from the South Central Cardiovascular Network and the BHF. The service is currently commissioned by 12 CCGs covering a population of 2.5 million people across Hampshire and West Berkshire1. As of January 2018, the service has assessed 1000 patients and identified over 400 positive cases2 including 60 children.

Since this service was established there has been both a national and regional focus on Genomic Medicine. Wessex was appointed as a Genomic Medicine Centre as part of the 100,000 genome project in 2015 and has been delivering the MSc in Genomic Medicine since 2016. The ever evolving Wessex FH service will be given as an example to demonstrate the relevance of genomics to public health.

[1] From NICE Guidance to Clinical Practice: The challenge of Setting up a Service for Familial Hypercholesterolaemia (FH) Poster by Subhashini Balasingham, Angela Cazeaux and Melanie Watson, Wessex Clinical Genetics Service, Southampton, UK.

[2]BHF-funded FH nurse update for central SGM, March 2018

Session GPH1

Genomics and Public Health

Presenters: Robert Pears[1], Hampshire County Council. Melanie Watson[2], Consultant Genetic Councillor, Wessex. Matthew Dorian, Guernsey GP, Part of Wessex

[1] Consultant in Public Health, Hampshire County Council

Workshop Title: Scaling up: A Familial Hypercholesterolaemia Service fit for England

Workshop time: 10.30

Location: Boardroom

Introduction: Familial Hypercholesterolaemia (FH) is an inherited condition that affects 1 in 250 people. It results in very high cholesterol levels and an increased risk of early CHD. FH has gained prominence and is now part of the NHS Health Check pathway. However, only a third of England's population have access to FH services.

Purpose: To describe how FH services have been scaled up from research pilots to population based services, and to consider how best to facilitate this scale up across the rest of England.

Methodology: The components of Moore's model for creating public value (Harvard, 1995); public value, authorising environment and operational capacity; will be used as a framework for describing how services are scaled up. The Wessex FH service will be used as a case study. There will be some emphasis on the role of public health in supporting service development and implementation: at a national level within PHE, in local settings and in academia.

Results: Public value: are FH services cost effective? NICE guidance in 2008 demonstrated that FH services were highly cost effective, though commissioners were slow to respond. Research in Wessex demonstrated that cost effectiveness could be increased through generic statin use and pathway redesign. New 2017 NICE guidance further encourages the development of new regional services.

Authorising environment: is there political (big 'P' and little 'p') approval for FH services? There are three main challenges: (i) CCGs are the lead commissioner and so have to coordinate themselves to develop regional services, (ii) austerity, and (iii) the reductions in myocardial infarctions and revascularisations take years to materialise but most costs are up front. Regionally commissioners have had varying degrees of success. Wessex succeeded through interdisciplinary cooperation. National drivers are: policies such as DH's CVD Outcomes Strategy (2013), the increased focus on CVD prevention, the 100,000 Genome Project, the NHS Health Check; funding from charities such as British Heart Foundation and HEART UK; further economic research, and national champions.

Operational capacity: who can deliver an FH service? There is regional variation on whether the FH care pathway is led by GPs or specialists. In Wessex there were concerns about flooding lipid services and potentially unaffordable level of requests for genetic testing. Evaluation of the new FH service provided assurance that concerns were unfounded. Nationally new 2017 NICE guidance should encourage and facilitate the development of new regional services. The current regional variation in delivery could exacerbate inequalities.

Conclusion: The commissioning structure of the NHS in England means that a national service cannot be imposed from the centre. However new regional services continue to be developed. Until regional services cover the whole of England there is a danger that inequalities will be exacerbated.

Session GPH2

Genomics & Public Health: the relevance of genomics to public health development and health protection

Presenter: Catherine Mercer, Wessex Clinical Genetics Services, Princess Anne Hospital, Southampton

Workshop Title: HEE Genomics Education Programme

Workshop time: 12:00

Location: Boardroom

65 years after the discovery of the structure of DNA, our understanding of the genome and how variants in the genetic code impact health are now having a significant impact in healthcare. Until recently, the sequencing of DNA had been confined to individual genes and the cost was prohibitive to application outside of very rare diseases. In 2012, the 100,000 Genomes Project was launched, part of the purpose of which is to establish underlying molecular diagnoses for those with diseases primarily due to variants in the genome. Applicable to public health, reaching an underlying genomic diagnosis in an individual then allows identification of individuals at risk of a particular condition and for appropriate screening programmes to be put in place for those at risk. In addition, the generation of a large cohort of genomic data and the concurrent collection of medical records in association with this is hoped to be a gateway to better understanding of our DNA. It is anticipated that this will lead increasingly to a molecular sub-classification of common diseases such as diabetes and the subsequent identification of more specific and appropriate tailored treatments.

Session GPH3

Ethics in Prioritisation and Decision-Making in Public Health

Presenter: Caroline Vass, Public Health Specialty Registrar, Adrian Viens, University of Southampton, Farhang Tahzib, Chair of Faculty of Public Health Ethics Committee

Title: Ethical considerations for prioritisation and decision making in public health. Launch of the South East Public Health Ethics Forum

Workshop Time: 14:00

Location: Boardroom

Ethical concepts relating to the prioritisation of healthcare in an acute setting have been extensively discussed, and these tend to focus on the individual relationship between the practitioner and the patient. However, ethical issues relating to population based decision making in public health, concerned as it is with the relationship between the state and the population, require a different analyses of pertinent moral dilemmas to underpin the decision making process. Unfortunately, in public health these have been less well rehearsed and in practice the consideration of public health moral dilemmas tend to default to the principles of acute health care, which can impact on the process and outcomes.

In the current climate of austerity with the impact on budgets and outcomes, it is imperative for public health professionals to be able to provide a clear rationale to the decisions that they make.

The additional challenge for population based interventions is that in a pluralistic society there will be differing views about what decisions are morally acceptable, thus any decision maker or policy implementer will need to understand the relevant public health ethical issues and apply appropriate frameworks to the decision making process to provide clarity to the process.

This presentation will:

- highlight the different ethical concerns between health care and public health services;
- introduce some of the related ethical concepts; and
- explore some of the current frameworks available to support a transparent prioritisation process for public health, including an assessment of the degree to which they may trigger conflict between societal norms which champion individual liberty and those which target improved population outcomes.

Poster Presentations

Posters in the Mike Channon Suite from 11:30 until 12:00, and 13:00 until 14:00

Poster Reference: 01

Author: Samantha Belfrage, Public Health Development Manager, Portsmouth City Council.

Title: Public Health Needs Assessment to identify the barriers and facilitators to promoting health and wellbeing in secondary schools, as identified by newly qualifies teachers.

Background: Adolescent years are a time when risk-taking behaviours begin and healthy lifestyle habits can be formed. Teachers can be important role models and may act as gatekeepers for students seeking health services. Personal, social, health and economic education (PSHE) is one way that teachers can promote health and wellbeing in schools, however this is not currently mandatory.

Aim and Objectives: To determine the barriers and facilitators to promoting health and wellbeing of pupils in secondary schools as identified by newly qualified teachers.

To understand the current PSHE provision in southern Hampshire.

To explore the impact of initial teacher training (ITT) on promoting health and wellbeing.

Methods: Two cohorts of NQTs (2016/17 and 2017/18) in southern Hampshire (n=263) were sent a link to an online survey. Overall survey response rate was 24% (n=63). All PSHE leads (n=39) within the same area were sent a link to an online survey to determine the current PSHE provision. Response rate was 51% (n=20). Quantitative data were analysed using SPSS, with interviews being audio-recorded, transcribed verbatim, then thematically analysed using NVivo.

Results: There was a significant difference between health and wellbeing topics covered during ITT depending on the NQTs' subject specialism. Staff training and planning time were identified as facilitating factors by PSHE leads and NQTs. Barriers to promoting health and wellbeing included a lack of training and a reluctance from other teachers to teach sensitive topics such as relationships and sex education. Only 67% (n=40) of NQTs reported they felt knowledgeable about whole school health promotion initiatives.

Conclusion and Recommendations: Training was repeatedly highlighted as a facilitating factor which is currently lacking. Training should be provided to in-service teachers (IST) on the health and wellbeing topics not covered during initial teacher training. Schools should consider internally assessing and observing PSHE lessons to improve the quality of the content and delivery and to enable them to target the lessons to the needs of their students. This would raise the profile and status of the subject within the school.

Poster Reference: 02

Author: Ravita Taheem, Senior Public Health Practitioner, Southampton City Council.

Title: Developing Children and Young Peoples Healthy Weight Plan for Southampton.

Background: In Southampton, 23.2% of children in year R are overweight or obese, and this increases to 35.0% of children in year 6, these figures are similar to the England average. A local analysis of linked data revealed that 40% children obese in year 6 were a healthy weight in year R, indicating interventions aimed at those identified as overweight or obese in year R are not enough. The Southampton City Council strategy 2016-20, included children and young people getting a good start in life and prevention and early intervention as part of its strategic priorities. A local plan was required to enable the Council and its partners to work collaboratively to start to address childhood obesity.

Aim: To develop a plan for the prevention and management of childhood obesity in Southampton that goes beyond individual health education/ behaviour change and includes wider environmental determinants.

Methods: A prioritisation exercise including a rapid assessment of current services.

- Several stakeholder meetings/workshop held to:
    - develop a framework
    - agree and prioritise actions
- Plan submitted to the Health and Wellbeing board for approval

Results: The framework encompassed 4 areas (**Place**, **Settings**, **Targeted Prevention** and **Treatment**) to: 1) create a healthy weight environment through work with the Planning and Transport departments, 2) influence settings such as schools, early years and workplaces to create a health promoting culture, 3) ensure prevention activities target those at risk and 4) make sure those identified as having excess weight through the National Child Measurement Programme have the support they need to achieve a healthy weight. A majority of the actions are embedded in existing work stream and can be achieved. The plan also includes actions which set out aspirations of intent if adequate resources can be secured.

Conclusions/implications: Southampton has a tangible set of time specific actions to start to address childhood obesity locally.

Poster Reference: 03

Author: P. L. Langdon[12] and C.M. Jacob[12] , H. Inskip[3,4], T. Rose[3], M. Hanson[1,2,4], K. Woods-Townsend [4,5,] J. Baird[3,4]

[1] Human Development and Health, Faculty of Medicine, University of Southampton; [2] Institute of Developmental Sciences, University of Southampton; [3] MRC Lifecourse Epidemiology Unit (University of Southampton), Southampton General Hospital; [4] NIHR Southampton Biomedical Research Centre, University Hospital Southampton NHS Foundation Trust, University of Southampton; [5] Southampton Education School, Faculty of Social and Human Sciences, University of Southampton.

Title: A systematic review of school-based educational interventions to improve diet, physical activity, BMI and body composition in adolescents (aged 10-19 years).

Background: Adolescence is a transitional period marked by critical changes that place adolescents at an increased risk of becoming overweight and obese. Health education in school may improve health literacy by encouraging critical thinking about these issues. To develop effective interventions, it is necessary to understand which intervention elements are effective. We conducted a systematic review of school-based educational interventions to increase physical activity (PA), improve diet and achieve a healthy body mass index (BMI) in adolescents (aged 10 to 19).

Methods: In October 2016 a search of MEDLINE, PsycINFO, CINAHL, and ERIC was conducted. Titles and abstracts were assessed by two independent researchers. Review inclusion criteria were: a) health education intervention studies conducted in schools in high income countries with a control or comparison group, b) participants aged 10-19 years, c) studies that measured diet, PA or BMI/ body composition at baseline and follow-up. Information was extracted from included papers, risk of bias was assessed, and the findings synthesised.

Results: Searches identified 29,174 publications, of which 312 studies full texts were selected as potentially meeting the inclusion criteria; 226 of these studies were excluded. Finally, 85 studies met the inclusion criteria, 10 of which included a digital component. Preliminary findings suggest that school-based interventions are effective in producing significant health behaviour change in adolescents, and that the use of emerging technology, multi-component interventions, goal setting strategies and improving self-efficacy to enable behaviour change are associated with effectiveness.

Conclusions: This systematic review of school-based educational interventions demonstrates the features associated with effectiveness in improving diet, PA, and BMI outcomes. It also supports the use of emerging technologies as a means of delivering interventions to adolescents. Our review reinforces the evidence base that shows the need for school-based interventions to link with other components targeting individual adolescents.

Poster Reference: 04

Authors: Hannah Davey[1], Andri Christodoulou[1], Janice Griffiths[1,4], Marcus Grace[1], Keith M Godfrey[2,3,5], Mark Hanson[2,6], Hazel Inskip[2,5] and Kathryn Woods-Townsend[1,2]

[1]Southampton Education School, University of Southampton; [2]NIHR Southampton Biomedical Research Centre, University of Southampton and University Hospital [3]Southampton, NHS Foundation Trust; [4]Mathematics and Science Learning Centre, University of Southampton;

[5]MRC Lifecourse Epidemiology Unit, University of Southampton; [6]Institute of Developmental Sciences, Faculty of Medicine, University of Southampton

Title: Understanding healthy choices through scientific enquiry: a primary school-based intervention to support knowledge translation and behaviour change.

Background: Childhood obesity is a major public health problem. In 2016/17, almost one in four children aged 4-5 were overweight or obese. By the time they leave primary school this figure will have risen to one in three.

Early LifeLab (ELL) is a novel educational intervention for primary schools. It aims to engage children in the science behind health messages, thus improving their scientific literacy and health literacy and hence their health behaviours.

Aims: To pilot a series of ELL teaching modules in primary schools.

Methods: The intervention included professional development (PD) for teachers and 'Teaching Toolkits'. The PD package supports teachers, most of whom are not science specialists, by building confidence in giving pupils genuine scientific enquiry tasks. Toolkits provide fully resourced, cross-curricular modules for enquiry-based activities.

30 teachers, teaching assistants and trainee teachers attended PD sessions, and modules were piloted in 8 primary schools in Hampshire. Teachers' and pupils' feedback and practical aspects of the intervention were evaluated.

Results: Teachers rated PD sessions highly and remarked on the sustained increase in confidence they felt in teaching scientific enquiry in their schools. Pupils responded positively to materials and were able to identify changes they wished to make in their health behaviours. ELL was presented at the Southampton primary head teachers conference, and stimulated much interest: all indicated support for conducting ELL as a more extensive initiative.

Implications: Engaging primary school children through scientific enquiry with understanding drivers of their health will give them a lifelong academic and health advantage. This is particularly of relevance in areas of socio-economic disadvantage such as Southampton which is the 67th most deprived of 326 local authorities in England. Based on this pilot we now plan to conduct a formal randomised controlled trial of ELL in Southampton schools.

Poster Reference: 05

Author: Authors: Emma Bennett[1], Hannah Williams[1] and Ian Hall[1]; James Hayward[2]

[1]Health Protection and Medical Directorate, Public Health England; [2]Imperial College, London

Title: Creating resources for public health engagement activities in schools

Background/Introduction: Science curriculum enrichment activities can have a huge impact on children's learning. Following the delivery of science school outreach workshops, "*Epidemic Outbreak*" and "*Tick Awareness*", to a local primary school in 2016/2017 we developed two off-the-shelf public health resource packs, "*Operation Outbreak*" (response to infectious disease outbreaks) and "*Tricky Ticks*" (promoting tick awareness) for teachers and STEM ambassadors to deliver their own lessons and activities.

Aim: Resources are aimed at providing engaging science activities and public health messages to primary school Key Stages 1 and 2.

Methods: Developed with school science teachers and Imperial College, London, each rucksack pack contains curriculum-based activity plans and supporting information and equipment. They can be used for stand-alone activities or as whole-day workshops. The loaning of packs to schools and STEM ambassadors is managed through local lending schemes. Digital versions of the resources are available to widen their reach and flexibility and allow them to be used independently of the physical resources.

Operation: *Outbreak* activities involve conducting a sticker infection outbreak response; understanding spatial and temporal transmission of infection; microorganism feature cards; careers in public health and design a superbug. *Tricky Ticks* resource activities include learning what a tick is; where you can come into contact with them; tick bite prevention and what to do if bitten.

Conclusions/implications: These resource packs are a platform from which to disseminate public health messages and health awareness to schools, as well as to promote STEM topics and inspire the younger generation. Tick awareness resources are of particular relevance in the South of England as it is an area of high-risk of Lyme disease. It is clear from discussions with schools in the area that ticks and Lyme disease are an important issue and raising tick awareness in children (and by extension, in parents) is well received.

Poster Reference: 06

Authors: Inna V. Walker[1,2,3] and Jenny A. Cresswell[3]

[1] Health Education England, Wessex; [2] MRC Lifecourse Epidemiology Unit, University of Southampton; [3]London School of Hygiene and Tropical Medicine (LSHTM)

Title: Maternal obesity and multiple deprivation in Portsmouth

Introduction: Maternal obesity is known to lead to a range of adverse outcomes both for the mothers and the children. Residential area deprivation, as measured by the Index of Multiple Deprivation (IMD), has been shown to contribute to health inequalities in the UK. Maternal obesity may be associated with higher deprivation, but this has not been demonstrated consistently, and may depend on the overall distribution of deprivation in the region. Characterising populations of pregnant women is vital in enabling targeting of public health initiatives aimed at reducing maternal obesity, without which the existing health inequalities can worsen.

Aim: To investigate the relationship between maternal obesity and deprivation in Portsmouth and adjoining boroughs of Hampshire, where areas of significant deprivation are surrounded by a much less deprived region.

Methods: The study used records of 3830 women who gave birth under the care of Queen Alexandra Hospital in Portsmouth from 1 April 2013 to 31 March 2014. Logistic regression was used to analyse the association between national IMD quintiles and maternal obesity, accounting for the potential confounders of age, ethnic origin, smoking status and parity.

Results: Following adjustment for the above confounders women living in the most deprived IMD quintile were 1.64 (95% CI 1.16, 2.31) times more likely to be obese compared to those in the least deprived quintile. Women in the more deprived quintiles tended to be younger, were more likely to be smokers and be multiparous. Maternal obesity was also found to be associated with ethnicity, but not with age or smoking status.

Conclusion: Maternal obesity increased with increasing deprivation a high deprivation area in an overall affluent region of England. This study will help inform public health initiatives, both locally and nationally and add to the existing knowledge on the use of IMD as a group-level indicator.

Poster Reference: 07

Author: Samantha Taplin, Public Health Speciality Registrar

Title: Modelling routine screening programme data to reduce health inequalities

Early detection is key to improving outcomes for bowel cancer. Screening with faecal occult blood testing followed by referral for colonoscopy for those who test positive, provides the opportunity for asymptomatic individuals with the disease to be identified early. It is estimated to pick up 10% of all bowel cancers. A health equity audit (HEA) in Southampton City showed that people from deprived areas and males were less likely to complete screening.

Routine data (2015/16 PHE fingertips, 2016 BCSP data) was used to create five selection models to guide prioritisation options for targeted interventions. This aimed to provide options for key decision makers locally, aiming to improve cancer outcomes and reduce health inequalities, and to provide a useable framework for future similar decision making processes.

GP surgery populations were used to match uptake data to IMD score, and used as the unit of analysis in modelling. According to the criteria of each model, GP surgery populations were ranked, and used to identify reach and potential impact of each prioritisation model.

Prioritisation models:

1. Uptake (%) by GP surgery population
2. Greatest number of people not screened in GP surgery population
3. Most deprived GP surgery population
4. Funnel plot derived; below 99.8% lower limit for uptake of screening
5. Deprivation score for GP surgery combined with number of unscreened people and uptake

In order to reduce inequalities, it is recommended that model 5 which includes deprivation along with reach should be employed. This report has been submitted to local managers at the CCG and NHS England, who plan to work across health and social care settings, and to use the findings of this HEA in the next 12 months as part of a specific programme of work to improve outcomes for bowel cancer in Southampton.

Poster Reference: 08

Author : Duncan Fortescue-Webb, Public Health Specialty Registrar

Title: Increasing the availability and use of publicly-accessible defibrillators in Portsmouth

There are at least 100 sudden cardiac arrests in Portsmouth each year where paramedics attempt defibrillation. Strengthening the 'chain of survival' following sudden cardiac arrest (early recognition and contact with emergency services, immediate high-quality cardio-pulmonary resuscitation, rapid defibrillation, and early advanced cardiac life support) can reduce related mortality and morbidity. This project addressed how the use of publicly accessible defibrillators in Portsmouth following sudden cardiac arrest could be improved.

The project's purpose was to gather evidence for factors that contribute to rapid defibrillation, to identify those areas where installation of publicly-accessible defibrillators will bring most benefit, and to develop strategies to encourage effective installation and use of defibrillators

Methods included a literature review which confirmed the effectiveness of defibrillators, provided criteria for where they should be installed, and recommended ways to increase the willingness of the public to use them. We reviewed data on historic ambulance call out locations, and high footfall areas in order to agree which priority areas of the city had greatest need for defibrillators. The locations and accessibility of existing defibrillators were gathered from public sources and compared with the priority areas. Finally, strategies were developed to leverage a small fund to encourage community groups and businesses to install and maintain defibrillators where further provision would bring most benefit.

We found that, of 86 existing defibrillators identified in Portsmouth, 23 were publicly accessible 24-hours a day. Provision of defibrillators poorly matched the priority areas. Cost-effective strategies to improve defibrillator use include: developing clear information packs for businesses about the benefits of installing defibrillators, donation of cabinets so that defibrillators otherwise kept inside a business can be moved outside, and collaboration with the ambulance service to offer training around first aid and rapid use of defibrillators.

Poster Reference: 09

Author: James Morris, Public Health Speciality Registrar

Title: Self-harm in Portsmouth: a health needs assessment

Background: Self-harm can be defined as any act of self-poisoning or self-injury, carried out irrespective of motivation. It is a major and growing public health issue, with increasing rates of self-harm observed nationally. Self-harm is most often a coping mechanism for overwhelming emotional distress, with consequences both in its own right and as a risk factor for completed suicide. In order to better inform efforts to reduce self-harm in Portsmouth, during 2016-17 a health needs assessment (HNA) was undertaken in the city, focused specifically on the issue of self-harm.

Objective: The objective of this HNA was to make recommendations to inform work to prevent and manage self-harm in Portsmouth.

Methods: A systematic approach was adopted in identifying unmet health and healthcare need around self-harm in Portsmouth. Both quantitative and qualitative methods were employed, with a particular focus on front-line stakeholder perspectives to enable exploration of issues in granularity. Healthcare data utilised included local hospital attendance and admission data, and provider activity data. Importantly, this was an all-age HNA, enabling a focus on self-harm in adults and older age groups in addition to young people.

Results and recommendations: In accordance with national trends, rates of self-harm in Portsmouth were seen to be increasing, and local hospital admission rates were above the national average. Young people exhibited the highest levels of self-harm, however self-harm in adults and older people conferred significant healthcare burden, and merits appropriate recognition. Opportunities to enhance health system performance, for example in joined-up working and information sharing, were identified and specific recommendations made. Addressing a service gap for those at intermediate risk of self-harm, the need to promote emotional resilience in children and young people, and the importance of professional training, emerged as key. In total, twenty-one recommendations were made to inform work to address self-harm in Portsmouth.

Poster Reference: 010

Authors: D.J. Lemon & Chris Skelly, Public Health Dorset

Title: Can we understand the effects of traffic related air pollution without measuring air pollution?

Aim: Our aim is to develop an approach that will provide a rapid but good-enough estimate of the effects of traffic related air pollution for use by local planners and environmental health teams.

Introduction: Various studies have looked at traffic-related air pollution and mortality, however, the overall evidence base remains mixed. Additionally, most of these studies are large cohort studies, so not easily replicable or timely.

Method: We identify four specific cause of death groups. For each death we use residential postcode to estimate the distance to the neatest traffic count point (TCP). There are 150 TCPs distributed along the major road network. At each TCP the annual average daily traffic flow is estimated. Using a logistic regression model and taking all other natural deaths as our reference group, for each of the specific cause of death groups, we calculate the odds ratio (OR) of death within 100m of a TCP. We adjust for year, sex, deprivation and traffic intensity.

Results: Only mortality from COPD showed a significant association with distance from a count point, OR at 0-100m 4.29 (95% CI 2.03-9.06, p-value<0.01).

We also find associations with being male, deprivation and traffic intensity. Additionally, there is an interaction between deprivation and distance, with deprivation appearing to have a "protective effect". This could be the result of higher smoking rates in more deprived areas, reducing the contribution of traffic to a COPD death a secondary effect.

Conclusions: Using publicly available traffic data as a proxy for air pollution exposure we have developed an approach to estimate the effect of traffic related air pollution. Although our results are in-line with the wider literature, larger studies will be needed to validate this method. However, if successful it could present a "low cost" technique to understand population level effects of local pollution levels.

Poster Reference: 012

Author: Megan Saunders, Food Portsmouth

Title: "The Sharing Table; Food Partnerships in Practise"

Objective: To better connect public, private, charity, and community organisations and individuals through good food that supports a healthy lifestyle, and a healthy environment. Initiate a 'Food Partnership' for Portsmouth based upon the work collated nationally through the Sustainable Food Cities network.

Implementation: Delivery and support for networks, actions groups, events, and delivered projects. Creating collaborative tools such as mapping. Sharing local project successes with national Sustainable Food Cities network.

Outcomes: Better information sharing and awareness, better partnership working, best practise examples, co-delivered actions, greater number of volunteers engaged. Sharing local actions with the national Sustainable Food Cities network.

Conclusions: Cities/ areas can benefit from better connections and multi-disciplinary working between departments, sectors, and groups. Sharing of skills and knowledge can be time and cost efficient.

Poster Reference: 013

Authors: Samuel Honour & Claire Currie, Public Health Portsmouth.

Title: Assessing the health needs of undergraduate students in Portsmouth

Undergraduate students present a specific set of health needs with increasing rates of mental ill health and high rates of sexually transmitted infections. They are also a population that have specific challenges in accessing and engaging with healthcare, an issue most acutely affecting international students. More than 25,000 students currently attend Portsmouth University, of whom over 5,000 are international students.

The aim of this project is to quantify the specific health needs of undergraduate students within Portsmouth and assess how these needs could be met locally.

A literature review will be conducted to find previous research findings and identify best practice standards. Data will be sourced from local health care practices, publicly available health data, and stakeholder sourced data. A survey of students will be used to identify specific needs and barriers. Comparative data and service pathways from similar university towns will be used to benchmark services.

The results will inform local commissioning decisions regarding the most appropriate way to provide healthcare services to this population and ensure equitable access for all local residents. Key areas of interest are expected to be mental health, substance misuse, sexual health and continuity of care for pre-existing conditions. By improving access to care and preventative services this will reduce reliance on acute secondary care and will protect students' health in the long term.

Poster Reference: 014

Authors: Marisol Warthon-Medina[1], Jozef Hooson[1], Neil Hancock[1], Nisreen A Alwan[2], Andy Ness[3], Petra A Wark[4], Barrie Margetts[5], Sian Robinson[6], Toni Steer[7],

Polly Page[7], Paul Finglas[8], Tim Key[9], Mark Roe[8], Birdem Amoutzopoulos[7], Darren C Greenwood[10], Janet E Cade[1]

Title: Development of Nutritools, an interactive dietary assessment tools website, for use in health research

[1]Nutritional Epidemiology Group, University of Leeds; [2] Primary Care and Population Sciences, University of Southampton; [3] NIHR Biomedical Research Centre Nutrition Theme, University of Bristol; [4]Centre for Technology Enabled Health Research, Coventry University; [5]Faculty of Medicine, University of Southampton; [6]MRC Lifecourse Epidemiology Unit, University of Southampton; [7]MRC Elsie Widdowson Laboratory, Cambridge; [8]Quadram Institute Bioscience, Norwich; [9]Nuffield Department of Population Health, University of Oxford; [11]Faculty of Medicine & Health, University of Leeds

Background: Measuring dietary intake is difficult, and strategies that enable researchers to select the most appropriate dietary assessment tools are needed. The aim of this work was to improve the quality of dietary data collected in epidemiological studies. Therefore, the DIETary Assessment Tools NETwork (DIET@NET) partnership, a network of scientific experts, has created the Nutritools website.

Methods: Development of the Nutritools website was divided into three strands: creation of best practice guidelines, developed with the Delphi technique to obtain expert views (the guidelines enable researchers to choose the most appropriate dietary assessment tool for their work); creation of an interactive dietary assessment tool e-library, with eligible dietary assessment tools being identified through a systematic review of reviews that searched seven databases; and creation of an online interface between food tables and dietary assessment tools—namely, the Food Questionnaire Creator (FQC). The work was guided by the DIET@NET partnership.

Findings: Interactive dietary assessment guidelines were generated with feedback from 57 international experts. 43 guidelines and a summary of the strengths and weaknesses of the dietary assessment methods were included. The dietary assessment tool e-library included data for 62 UK validated tools, which were obtained from 43 systematic reviews identified. The tool library will provide in-depth information about the tools, validation study characteristics, and results. This information is also provided visually through bubble and summary plots, allowing easier comparison between the dietary assessment tools. The FQC was based on the principles of common food frequency questionnaires and allows users to create and develop new online food questionnaires. Users can map their online questionnaires to the latest UK food database (McCance and Widdowson's Composition of Foods, 7th edn). The FQC will also host a number of validated dietary assessment tools that have been adapted for online use.

Interpretation: The DIET@NET partnership has created a unique dietary assessment reference website (live from November, 2017) using expert guidance and systematic review. The website allows visual comparison of dietary assessment tools and hosts validated, interactive tools. The best practice guidelines assist researchers in selecting the most appropriate tool for their study. Researchers can access validated dietary assessment tools through the e-library and create their own using the FQC.

Poster Reference: 015

Authors: Emily Walmsley[1], Julia Sinclair[2,3], Leonie Grellier[3,4], Brad Keogh[1,5], Anastasios Argyropoulos[1,3], Kathy Wallis[3], Amelia Middlemiss[3]

1University of Southampton, 2University Hospital Southampton; 3Wessex Academic Health Science Network; 4Isle of Wight NHS Trust; 5National Institute for Health Research Collaboration for Leadership in Applied Health Research and Care

Title: Treatment of Alcohol Related Liver Disease (ARLD) by Acute Trusts in Wessex: A Mapping Exercise to Understand Local Activity.

Background: Deaths from liver disease have increased steadily over recent years and 70–85% of these are alcohol-related.[1] Alcohol-related harm is putting a huge burden on NHS services and increasing focus on prevention is likely to provide benefits for both health outcomes and economically. To support the development of pathways for Alcohol Related Liver Disease (ARLD) it is useful to understand the pattern of hospital activity locally.

Aims: To use local Trust data to map ARLD hospital activity in Wessex with the aim of providing evidence for decision making around service development to reduce service use and improve outcomes for patients.

Methods: The study used a retrospective cohort design of secondary data from hospital episode statistics from nine Trusts in Wessex as part of the Wessex AHSN ***Reducing Harms from alcohol*** programme[2]. The dataset comprised all admissions for liver disease January 2011 - December 2015 (~27,000 admissions). Admissions for ARLD were compared with non-ARLD for patient demographics, length of stay, mortality, and diagnoses. Local data was applied to patterns of hospital activity identified in a national study[3] to make predictions about potential cost savings of early intervention.

Results: Analysis is due to be completed by 31/1/2018. Results from an initial phase of analysis show the number of liver disease admissions in Wessex are increasing each year and 38% are for alcohol-specific conditions. ARLD patients are younger, more likely to be male, have a greater number of admissions and longer length of stay.

Conclusions: This is an innovative method of using local Trust data to map hospital activity around ARLD to provide decision-makers with evidence that can be used to make the case for earlier intervention. Initial data analysis has provided a set of data packs which have been have disseminated to Trusts, Local Authorities, and Clinical Commissioning Groups in Wessex.

Poster Reference: 016

Authors: Sarah Webb[1] and Simon Fraser[2]

[1]Health Education England Wessex; [2]Primary Care and Population Sciences, University of Southampton

Title: Supporting workforce wellbeing: A systematic review of interventions designed to maintain or improve the wellbeing of junior doctors.

Background: Doctors are known to suffer particularly high levels of mental ill-health. Responsibilities such as prescribing or critical level decision-making place doctors under unique stress, even in comparison to other healthcare workers. Feelings of under-preparedness for high responsibility tasks, as well as frequent transition between job roles and locations may also contribute. Much research has focused on the prevention of poor mental health (depression, burnout etc) but there is little evidence to show how wellbeing may be improved at the positive end of the spectrum.

Methods: Five electronic databases were searched for articles using variations of the following keywords "junior doctors" AND "wellbeing" AND "intervention". 1061 studies were retrieved using this process. Studies were included in the review if they had an abstract published online in English and had quantitative design. Articles were only included if they studies junior doctors as participants, used an intervention which aimed to maintain or improve wellbeing and measured outcomes before and after the intervention. There were no limitations imposed in date, geography or clinical setting.

Results: Nine studies were included in the final analysis: 7 based in the USA and two in Germany. There were a mix of RCT, quasi experiment, cohort and cross-sectional study designs. Quality was generally poor, although articles remained in the analysis due to the limited pool of evidence available. Meta-analysis was not possible in this review due to heterogeneity of outcomes measurement tools used in the studies. Interventions were broadly categorised into three groups: individual, group and system-level interventions. The most promise was seen in group-level interventions, although the evidence was not strong. This study showed the potential for system-level interventions to result in a worsening of wellbeing.

Conclusions: The evidence for interventions maintaining or improving welbe3ing in junior doctors is limited. Group-level interventions may be a starting point in the strategy to produce meaningful changes in the wellbeing of this group.

Poster Reference: 017

Author: Jennifer Barker, Fangzhong Su, Nisreen Alwan , Academic Unit for Primary Care and Population Sciences, University of Southampton

Title: Risk factors for type 2 diabetes after gestational diabetes: a population-based cohort study

Background: Gestational diabetes affects 4% of UK pregnancies, and women affected are estimated to be seven times as likely as those without the disorder to develop subsequent type 2 diabetes. We aimed to determine incidence of and risk factors for type 2 diabetes after a pregnancy affected by gestational diabetes.

Methods: This longitudinal population-bsed cohort made use of the Hampshire ~Health Record, a heal-care database covering around 1.2m residents in Hampshire. All women diagnosed with gestational diabetes between Set 30, 2007 and Sept 30 2015 were identified. If women had multiple pregnancies affected by gestational diabetes during the study period, only the first pregancne was included. Multivariable Cox proportional hazards regression modelling was used to assess clinically significant risk factors, based on previous evidence, that were available in the dataset including body-mass index (BMI) before pregnancy, ethnicity, family history of diabetes, treatment type for gestational diabetes, age (at time of diagnosis), area deprivation level, hypertension, hyperlipidaemia, cardiovascular disease, and a history of gestational diabetes. Diagnoses of type 2 diabetes during the study period were used to calculate incidence of type 2 diabetes after gestational diabetes.

Findings: 3033 women with gestational diabetes were identified. 171 of 2654 women who were tested for type 2 diabetes during the study period (6.4%, 95% CI 5.5-7.3) were diagnosed with this condition (mean follow-up 4.1 years [SD 2.2]). Obesity was the strongest riak factor, with adjusted hazard ratios (aHR) for obesity (BMI 30-35 kg/m^2) of 2.8 (95% CI 1.5-5.3) and for severe obesity (>35 g/m^2) of 3.4 (1.5-7.8; p<0.0001 for trend). Other significant risk factors included Asian ethnicity (aHR 2.9, 95% CI 1.6-5.3), previous gestational diabetes (1.7, 1.1-2.6), and pharmacological treatment for gestational diabetes (insulin 2.9, 2.0-4.2; oral medications 1.9, 1.2-3.1).

Interpretation: Routinely collected electronic health-care data can be used to assess real-life risk factors for type 2 diabetes after gestational diabetes. Challenges include missing data and inaccurate coding, which can impact validity of findings. However this study provides a basis to develop and test a regional risk-scoring system for prioritising referrals to interventions for diabetes prevention after gestational diabetes.

Poster Reference: 018

Authors: V Toomey[1], S Harris[2], D Smith[3]

1Southampton City Council; 2Primary Care and Population Sciences, University of Southampton; 3Geography and Environment, University of Southampton.

Title: Using Multi-level modelling as a robust cost-effective way to determine environmental and individual factors associated with being overweight (including obese) among Portsmouth children.

The literature shows that both area and individual level factors impact the odds of excess weight in childhood, which increases risk of multiple poor health conditions later in life. Identifying factors with the strongest influence, using methods which are both established and low resource, is key to aiding intervention and policy design in a climate of limited funding.

The most recent (2015/16) excess weight rates for England are: 22.1% of Reception Year (YR) pupils and 34.2% of Year 6 (Y6) pupils and for Portsmouth 23.7% of YR pupils and 35.1% of Y6 pupils, showing little variation since monitoring began in 2006/07[1].

This study's main objective was to assess for locality (north/central/south) differences in childhood obesity-related explanatory variables in Portsmouth, to aid planning Public Health community interventions using repeatable methods. A secondary data analysis using multilevel modelling used 11,205 National Child Measurement Programme (NCMP) data records (2013/14 to 2015/16) and evidenced explanatory variables from publicly available data at different geographic levels. Strength of association with child excess weight and evidence of interaction with locality determined the variables included in the multivariable models.

The study findings show area (e.g. neighbourhood crime levels and surrounding density of unhealthy food outlets) and individual (e.g. age and gender) explanatory drivers influence the odds of a Portsmouth child having excess weight. The risk of excess weight is 76% higher for Y6 pupils compared to YR pupils (OR 1.76, p<0.001), 11% more for male pupils (OR 1.11, p=0.012) and 52% more for the most deprived pupils (OR 1.52, p<0.001). Risk

is greater in the north of the city after adjusting for the interaction between locality and unhealthy food outlets.

Now with Public Health embedded in local authorities, cost-saving and collaborative working across the local authority could be facilitated using a similar methodology for other outcomes.

It will map how closely care across Trusts in Wessex follow a best practice pathway for screening and interventions in patients admitted with a liver disease diagnostic code. Comparisons will be made across different Acute Trusts, and by liver disease grouping. It will aim to identify any evidence for potential causes of any disparity in management based on the data collected. Results will be used to inform developments in local alcohol services.

Poster Reference: 019

Authors: Samantha Taplin[1], Harriet Gordon[2], Leonie Grellier[3] and Julia Sinclair[4]

1University of Southampton; 2Hampshire Hospitals Foundation Trust; 3Isle of Wight NHS Trust; 4University Hospital Southampton

Title: The assessment and management of alcohol use in liver patients across acute trusts in Wessex. Using audit to inform local service development and prioritisation.

Background: Alcohol-related harm places a significant and growing burden on public services. Liver disease is now the 4th most common cause of years of life lost in people aged under 75, with alcohol related liver disease as the greatest single contributor to death from liver disease in England. The use of best practice pathways for screening and appropriate specialist referral for alcohol misuse is an important element in improving liver disease outcomes. This audit will look at the documented evidence for screening of alcohol misuse and its management in patients with liver disease diagnoses

Aim: To identify patterns of hospital activity for alcohol screening and interventions in patients with Liver Disease in Acute Trusts in Wessex, in order to inform decision making for the development of services.

Methods: The study will use retrospective audit data collected from all patients with a liver disease diagnosis in seven Acute Hospital Trusts in Wessex.

Inclusion criteria: 1. Admissions between 1 st January 2015 and 31st March 2015 2. All disease codes and sub-codes within: K70, F10 and all non K70 and F10 liver disease coded) 3. Age: >18yrs 4. Length of stay: > 24hrs

Analysis (to be completed 31/01/18) will identify documented evidence for alcohol assessment and interventions. Logistic regression will be used to identify associations between characteristics of patients, screening and interventions experienced.

Poster Reference: 020

Author: Nida Ziauddeen[1], Paul J Roderick[1], Nicholas S Macklon[2], Nisreen A Alwan[1]

1Primary Care and Population Sciences, University of Southampton; 2Human Development and Health, University of Southampton

Title: Use of maternal and early life risk factors to predict childhood overweight and obesity: a systematic review

Background: Childhood obesity is a serious public health challenge, and identification of high-risk populations for early intervention to prevent its development is a priority. We aimed to systematically review prediction models for childhood overweight–obesity and critically assess the methodology of their development, validation, and reporting.

Methods: Medline and EMBASE were searched from dates of inception to Dec 31, 2016, for studies published in English describing the development, validation, or both, of a model that could predict the development of overweight–obesity between 1 and 13 years using maternal and early life factors. We used the following search terms: {Pediatric Obesity/ OR Fetal Macrosomia/ OR [(child or childhood or children or paediatric* or infant* or toddler or embry* or prenatal* or neonat*).mp. AND (obes*.mp. OR overnutrition/ or obesity/ or overweight/ OR overweight.mp. OR over weight.mp.)]} AND [exp causality/ OR ((Reinforc* or Enabl* or predispos*) and factor*). mp. OR (risk* or predict* or causal* or prognos* or causation).mp.] AND [exp Maternal Behavior/ OR maternal.mp. OR mother*.mp. OR early life.mp.]. Data were extracted with the Cochrane CHARMS checklist. The TRIPOD statement was used to assess transparency in reporting.

Findings: Ten studies were identified that developed (one), developed and validated (seven), or externally validated an existing (two) prediction model. A median of 23 TRIPOD items (IQR 22–24) out of 37 (31 for derivation or validation alone) were reported.

Models, apart from one, were developed with automated variable selection methods. Only four studies included complete cases, and two studies used multiple imputation to handle missing data. Maternal body-mass index, birthweight, and sex were the most commonly included predictors. Median area under the receiver operating characteristic curve was 0 78 in development and internal validation and 0 71 in external validation.

Interpretation: Owing to considerable model heterogeneity, it was not possible to combine the results. Some included models have not been externally validated or compared with existing models to assess performance. New methods are needed to combine findings from existing prediction models. Future prediction models need to be developed,

validated, and recalibrated to target populations using standard robust methods to refine the applicability of the resulting scores.

Poster Reference: 021

Authors: Aoife Barror[1,2] & Em Rahman[1]

[1]Health Education England Wessex; [2]Hampshire County Council

Title: A behaviour change framework and toolkit to support workforce development.

Health-related behaviour is increasingly recognised as central to population health, and advancing behaviour change support capacity is therefore increasingly recognised as a key area of development for the health and social-care workforces. Within the *NICE Guidance on behaviour change: individual approaches,* four levels of intervention are outlined (very brief, brief, extended brief and high intensity), with recommendations on who should administer each level, and in what contexts. While this guidance is considered comprehensive, practically segmenting the workforce for development was identified by HEE, Wessex as being a challenge for workforce planners.

The barriers and facilitators affecting behaviour change development and workforce segmentation were identified through qualitative interviews and findings were combined with the recommendations in the NICE guidance to develop the framework and toolkit. Themes identified included: the need for a basic behaviour change literacy among all health and social care workforces, the importance of a person-centred approach as a basis for behaviour change, and the importance of focusing primarily on service-user needs, rather than workforce characteristics, to broadly determine training requirements. The toolkit, including an algorithmic e-survey and behaviour change resources, is being iteratively developed in collaboration with workforce planners across several regions of England.

The behaviour change development framework aims to promote a consistent approach to behaviour change support, as well as providing of a practical and engaging framework and practical resources to support behaviour change segmentation and development of the workforce.

Poster Reference: 022

Authors: Lyn Wilson, Jo Adams, Anne Rogers and Paul Fleming, Faculty of Health Sciences, University of Southampton.

Title: Rating health literacy – the theory and the reality.

This presentation/poster will present the development of a health literacy scaling tool for use with people living with low literacy and a long term condition.

The development of the tool has been undertaken as part of a doctoral study investigating how people self-manage when they have low literacy and at least one long term condition.

Health literacy is defined in this study as an individual's ability to obtain, understand, apply and evaluate information required for health decisions and action. Nutbeam's (2008) definitions of health literacy and his idea that there are three levels of health literacy; functional, interactive (or communicative) and critical, have been influential. Arguing that communication and interaction are essential basic skills required for a functional level of health literacy it is proposed that the important skill for a level of proficiency beyond functional is enabling the application of new information to a range of situations or changing circumstances. This second level is referred to in this study as 'applied health literacy'. This also brings the three levels of proficiency into alignment with Bloom's taxonomy and levels of learning.

The scaling tool was developed following a review of the large range of health literacy measures already available. The tool was written using an iterative process and by drawing on the Functional, communicative and critical health literacy tool

(FCCHL, Ishikawa et al 2008) and the All Aspects of Health Literacy Scale (AAHLS, Chinn & McCarthy 2013).

The tool has been piloted face-to-face with five participants and use of the tool has been reinforced with a semi-structured interview.

This presentation/poster will explore the 'theory' of health literacy and compare this with the 'reality' of the participant lived experience.

Poster Reference: 023

Authors: Cassandra Powers, Tim Pettis, Debbie Chase, Southampton City Council

Title: 'I bet you will get less than 10 responses!': How adding behavioural psychology increased response rate of a local authority extreme weather alerts audit from the expected 2.5% to 25%.

Introduction: The Southampton City Council Emergency Planning Team (SCC EPT) regularly sends out 'Extreme Weather Alerts' (EWAs) to alerts key council employees and other organisations working with vulnerable individuals of poor weather (heat waves, cold snaps, flooding) so that they can enact emergency plans. A rapid online audit was commissioned to understand how individuals and organisations were using EWAs; however, concerns were raised about potential response rates, encouraging honest responses, and how best to understand if current EWAs were fit for purpose.

Methods: An online questionnaire was designed and emailed to all individuals that receive EWAs from SCC EPT (n=416). To encourage response key principles from behavioural psychology were drawn upon:

- The questionnaire was very short; it took less than 10 minutes to complete.
- It was believed that individuals were likely to complete the survey immediately when received or not all, email timing was critical: Tuesday, 10:45am.
- A single reminder email was sent with key wording: 'Many of you have already completed this survey…'
- The survey was closed after one week; this was emphasised in the reminder email.

Results: After the initial email was sent, we received 61 responses (RR=15%). As expected, over 50% of these responses were in the first hour; 90% occurred on Tuesday. Following the reminder email, an additional 37 responses were received. This brought the total responses to 98 with a cumulative response rate of 24%.

Discussion: Senior local authority employees are often inundated with emails and are reluctant to spend time completing questionnaires, particularly around an alert that is an item that clutters their inbox. Taking the time to use the theory of behavioural psychology can increase expected response rate and help gain valuable insight.

Poster Reference: 024

Authors: Alexandra Kenchington, Gunnar Ljungqvist, Harriet Bellenie, Sophie Scott, FY2 doctors, Public Health Community Fellowship

Title: Trussell Trust Food Banks, Portsmouth.

We have been working on a service evaluation project with the Trussell Trust Food bank, King's Church branch (in Southsea), where we have been looking at the need for and provision of non-nutritional items. Our research has found that the food bank rely on very irregular donations of hygiene products, and as such have been unable to offer this as a continuous service to their local population. We conducted a survey however that showed 99% of respondents would find hygiene products of use. Our survey identified deodorant, soap, dental products, and toilet paper (in descending order) as the items of leading importance to the service users.

The next step of the project, and what we are currently engaged in, is to identify and contact local businesses, GP surgeries, schools, and dental services from which to source these specific products. So far the response has been encouraging, and we hope to confirm several supply agreements. Once we have a list of confirmed suppliers we will be handing the project back to the food bank for implementation. Our ambition is to establish a regular and ongoing supply of these hygiene products so that these can be included in the food bank crisis packs - should this be a success, we may even be able to roll this out into other branches.

Poster Reference: 025

Authors: Jason Gupta, Tinashe Hwara, Olivia Scott, Robbie Bremner, FY2 doctors, Public Health Community Fellowship

Title: One Community, Eastleigh.

One Community provide a 'visiting scheme' which is a free and confidential service where a trained volunteer spends up to two hours at a time visiting a socially isolated or lonely member of the local community. The scheme was launched in May 2015, and by March 2016 had delivered 500 hours of companionship to 32 individuals.

Social isolation and loneliness most affect older people and are associated with poor physical and mental health including depression, cardiovascular disease, and impaired immunity. Befriending schemes, such as One Community's, have been found to be effective services for combating isolation and loneliness. One review found that such schemes had a typical cost of £80 per person but yielded a value of £300 each year due to reduced need for healthcare treatment and improved quality of life.

The fellows are working to help One Community evaluate and demonstrate the value of their visiting scheme. The fellows have identified an appropriate tool to assess loneliness, and are integrating it into the forms that are filled out at the first and final visits to an individual. They are also working to develop training so that volunteers understand the benefits of using the loneliness tool. And finally, they are exploring ways to increase referrals to the scheme from primary care.

Poster Reference: 026

Authors: Abigail Jackson-Wilding, Ben Clayton, Jack Houlton, Megan Lewis, Will Divall, FY2 doctors – Public Health Community Fellowship

Title: Dorchester Strollers, Dorset.

The fellows in Dorset have collaborated with Public Health Dorset and Active Dorset to develop a project around physical activity and health, working with a local group known as the 'Dorchester Strollers'.

The overall aim of this project is to identify the perceived barriers and enablers to older adults joining the Dorchester Strollers walking programme, and to suggest key interventions to increase participation in walking groups.

Enabling factors were found to be the sociability aspect of the organisation, as well as perceived safety of walking in a group. Several individual and organisational factors were implicated as barriers, notably a perceived lack of GP support and encouragement for the program.

The fellows are developing interventions based on these findings that will help the Dorchester Strollers to improve participation and increase referrals from primary care. Ultimately this will increase physical activity and associated health benefits in Dorset.

Poster Reference: 027

Authors: Jaimie Oldham, Laetitia Lloyd-Davies, Kirsty Clarke, Gabriella Gavins FY2 doctors, Public Health Community Fellowship

Title: The Environment Centre, Southampton.

The UK has the highest rate of deaths due to cold homes in Europe. The quality of housing has an impact on the population's health comparable to smoking or alcohol. Fuel poverty is associated with cold homes, being driven by low household income, high costs of energy, and poor energy efficiency of the home. Over 12,000 households in Southampton are in fuel poverty. Health conditions exacerbated by inadequately heated homes include COPD, CHD, asthma, and mental illness.

The Environment Centre is an independent environmental charity. Their goals are to reduce carbon emissions, improve sustainability, and tackle fuel poverty. One of their more recent projects is Southampton Healthy Homes, which aims to reduce the risk of fuel poverty by providing upgrades such as heating improvements, insulation and draught proofing; support with benefit checks, budgeting and debt; switching energy tariff or supplier to reduce bills; and tackling condensation and mould.

The fellows are working to understand and overcome the reasons why many people identified as likely to benefit from the Healthy Homes project do not go on to engage with the service. Additionally it will explore ways the community wellbeing nurse teams can target people at highest risk of fuel poverty, and will recommend ways to improve access to the Healthy Homes Project for hard-to-reach groups.

Poster Reference: 028

Authors: Aoife Barror[1,2], Duncan Fortescue-Webb[3], Richard Povey[4]

[1]Health Education England; [2]Hampshire County Council; [3]Portsmouth City Council; [4]St Hilda's College, University of Oxford

Title: A Systematic Review of Universal Basic Income as a Public Health Intervention.

Income inequality and poverty are strongly associated with adverse mental and physical health outcomes. There is a nineteen-year difference in healthy life expectancy, and seven- to nine-year difference in life expectancy, between the most and least deprived deciles of the UK population[3]. However, there is little consensus about the best way to reduce this stark social gradient in health. A universal basic income (a regular payment to every resident sufficient to fund the basic needs of life, and that is not conditional on circumstances or behaviour) has been proposed as one way forward. This review introduces and assesses the rationale and principles of universal basic income, and summarises the empirical evidence for its impact on health outcomes.

The literature is reviewed to enumerate the characteristic features of universal basic incomes, the mechanisms by which they may be sustainably implemented, and their effects on the wider economy. The literature is also systematically reviewed to identify all trials of universal basic income that have measured health outcomes, and to compare the types and effect sizes of the impacts on health.

By setting out the mechanisms by which a universal basic income could be implemented, and the evidence for its effectiveness to improve health outcomes, this review provides a basis for considering that the introduction of a universal basic income in the UK would be an effective and desirable strategy to improve public health.

Poster Reference: 029

Authors: Denyse King[1], Alison Potter[2], Em Rahman[2], Nisreen Alwan[3]

[1] University of Bournemouth, [2] Health Education England; [3] Primary Care and Population Sciences, University of Southampton.

Title: NoObesity – Digital Solution to bringing workforce development and service delivery together in the prevention and management of childhood obesity.

Introduction: Childhood obesity is a Government priority with a need to ensure that a system approach at multilevels is developed to support families to lead healthier lives. This initiative focused on the development of two apps to support the workforce and families in the prevention and management of childhood obesity. The Apps focuses on the workforce in developing their knowledge and skills to support families through behaviour change. The family's App supports families to develop behavioural goals as a family. The two Apps are then able to be linked allowing the professional to review the progress on the goals set by the family enabling them to tailor the support they provide, taking a MECC approach.

Qualitative research into what families and healthcare professionals wanted for support to reduce obesity, highlighted that 'one-size- fits-all' health advice doesn't meet the needs of families, and that healthcare professionals' reported lack of confidence in this area of reducing obesogenic behaviours.

Method: Qualitative research was conducted by the University of Bournemouth via online focus groups and survey to explore the challenges professionals and families faced when trying to address overweight and obesity in children and families. The qualitative research was used to inform the development of the digital solution which focused on providing interactive tools to develop knowledge and skills of families and professionals. Along with developing a SMARTER approach to developing behavioural goals. A multi stakeholder collaboration then informed the content of the Apps which ranged from Consultant Paediatrician to Safeguarding Lead to Oral Health Leads.

Results: This project has now developed the two Apps which focus on:

- Family App – Families set health goals, identify barriers and strategies to overcome them, parenting tips, health focussed in-App gaming, useful links and more.
- Professional App– includes guidance on how to best support service user behaviour change, how to handle common objections, stories showing families' different interactions with healthcare professionals to encourage practitioner reflection and response to heighten and deepen their learning.

Conclusion: The initiative has now engaged with the University of Southampton as the Academic Partner who will be involved in evaluating the impact of the Apps as it get used by the workforce and families.

Poster Reference: 030

Authors: Helen Bingham[1], Caroline De Brún[2], Elizabeth Land[3], and Jennifer Moth[4]

[1]Health Education England; [2]Public Health England; [3]Hampshire Hospitals NHS Foundation Trust; [4]Isle of Wight NHS Trust

Title: Knowledge resources and library services for public health staff.

Objective: To illustrate how staff working in local public health teams can access knowledge resources and library services to support their roles, and the potential benefits of using these.

Various resources and services are offered by Health Education England (HEE), Public Health England (PHE) and local NHS libraries, but we acknowledge it can be difficult for local public health staff to determine what is available and how. We aim to demonstrate how library and knowledge specialists are working to improve signposting and simplify access, and will include examples of how these services are making an impact.

Poster Reference: 031

Authors: Rachel Partridge, Charlotte Booker (Public Health Dorset), Sarah Moore (DWFRS)

Title: Safe and Independent Living – there's no place like home 'Safe & Well': Enabling Dorset and Wiltshire Fire and Rescue Service (DWFRS) to offer Health and Wellbeing interventions during safety visits.

Introduction: Public Health England and partners in 2015 highlighted opportunities to engage fire and rescue services in improving health and wellbeing. A joint initiative, emphasising preventive interventions with vulnerable groups, was developed between Public Health Dorset and Dorset and Wiltshire Fire and Rescue Service (DWFRS). The principle was to locally effect the national commitment to more integrated care, closer to people's home. This project adds to a growing evidence base on public sector collaborative working on prevention at scale.

Aim:

- To develop the existing Home Safety Checks performed by DWFRS into 'Safe and Well' visits.
- Provide training in health and wellbeing to 'Safe and Well' staff.
- Evaluate the effectiveness of staff training and the 'Safe and Well' visits.

Methods: A Safe and Well training package was developed for DWFRS staff, including:

- Healthy Conversation Skills, Mental Health First Aid, Malnutrition, Dementia awareness, Falls prevention and Healthy Homes

Pre and post training questionnaires were completed to assess knowledge and confidence.

Number of visits and onward referrals are collected electronically, along with case studies.

Results: Post intervention resident experience/ satisfaction survey was piloted and DWFRS are to continue to use.

- Following training, 83% of staff experienced an increase in knowledge, competence and confidence
- Between April 2016 and October 2017, there have been **1,569 Safe & Well visits**
- There have been **192 onward referrals** to agencies such as Livewell Dorset, a single point of contact to support adults to change their lifestyle, Falls Prevention and Safe & Independent Living (SAIL)

Conclusion: By working in partnership in the wider health and wellbeing context, fire and rescue services can help to enhance and improve shared outcomes beyond what could be achieved in isolation.

Poster Reference: 032

Authors: Dr Anne Mills. Bournemouth University.

Title: Embedding Making Every Contact Count (MECC) within a Nursing Undergraduate Programme.

Background: Nurses make up a large percentage of the NHS workforce, most have direct contact with service users; this positions them as key practitioners to support improvements in the health and wellbeing of the people they care for. However current evidence suggests that nursing practice is

predominately limited to providing health education and giving information (Kemppainen et al 2013). Work by Shoqirat (2014) indicates that many nurses working within the acute setting place more value on clinical practice and other tasks than their role of promoting health and wellbeing. It is against this placement backdrop that student nurses gain their practical public health skills and competencies.

Recognising this situation, academics working in public health and lecturing on a nursing programme at a UK university were keen to develop practical promoting health skills underpinned by theory in the undergraduate nurse. Numerous initiatives have been trialled over time in an attempt to develop health promotion skills. The most recent initiative involved integrating MECC into a second year academic unit for 360 students and involved lecturers becoming MECC trainers.

Aim: Provide student nurses with the practical and theoretical skills required to initiate health enhancing conversations and the confidence to engage in brief interventions to promote client centred health and wellbeing.

Method: Questionnaires and self- reported experiences.

Results: Indicate that students feel confident they have the practical skills to embark on conversations they would not previously have attempted. Longer term work is ongoing in this field. However students who themselves, feel they have lifestyles which are not healthy are less likely to engage clients in health promoting conversations. In addition students expressed concern that a client centred promoting health approach was not evident within all of the units they studied. Few student nurses had seen registered nurses use the skills advocated by MECC in their placements; so are concerned they will receive limited support when using these skills in practice.

Discussions: Students need to 'see' that Public health and the skills required to promote health are integrated and embedded within all academic units within the undergraduate programme. Although it is anticipated that students will become agents of change for public health, they cannot be expected to change the culture on their own. Ongoing help and support will be required and nurse leaders have a role to play in facilitating a strategic organisational approach to supporting healthy conversations with service users and staff.

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Kemppainen, V., Tossavainen, K., Turunen, H. 2013 Nurses' roles in health promotion practice: an integrative review Health Promotion International, 28 (4): 490-501.