

# FPH 2017

## Posters

Poster Number: **P1**

**The risk factors for Severe Acute Malnutrition among the children of age group 6 – 59 months a community based case- control study from Southern India**

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Malnutrition is a serious public health problem and a pathological condition that results when a person's diet contains inadequate amount of nutrients. Malnutrition contributes to more than one third of all childhood deaths.

This study aimed to identify the various risk factors and determinants of severe acute malnutrition (SAM) as defined by WHO growth reference standards in children aged 6 months to 59 months living in Vellore.

A community based case-control study matched for age ( $\pm 2$  months), gender and location was done among the children of the age group 6- 59 months residing in both rural and urban Vellore. Children of age group 6-59 months with SAM according to WHO definition, were classified as cases. Children with weight-for-height z-score more than -1 SD and MUAC  $\geq 13.5$  cms were classified as controls. Questionnaires used to identify the risk factors. The Z scores were calculated using WHO anthro software. Analysis was done using SPSS v20.

Majority of the cases 64.8% and 50% of the controls belonged to low SES. After adjusting all confounders, Severe Acute Malnutrition was significantly associated with birth weight

From this study it was concluded that determinant factors of SAM were low birth weight, lack of exclusive breastfeeding, poor calories intake and mother's low BMI.

this study will be helpful for nutritional policy makers.

Poster Number: **P2**

**Combining routine health and socioeconomic data to better understand health inequalities across a locality**

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The link between deprivation and poorer health outcomes is well-established, and reducing health inequalities remains a key public health goal. At the local level, much health and social data exists to allow for insightful analysis of inequalities.

We aimed to determine which medical conditions are most strongly associated with area deprivation in Kent. The results could be used to inform local decision makers about which particular services and programmes would best reduce health inequalities.

The Index of Multiple Deprivation (IMD) is a national methodology which measures the relative deprivation of small geographical areas called Lower Super Output Areas (LSOAs), of which there are 902 in Kent. We used routinely collected QOF disease prevalence statistics from all GP practices in Kent, along with data showing from which LSOAs the GP practice populations are drawn from, to plot the association between LSOA deprivation decile and disease prevalence in Kent, for each of the 22 diseases included in QOF. Linear regression was conducted.

Many conditions demonstrated striking positive correlations between disease prevalence and deprivation. For COPD ( $r=0.93$ ,  $p$

For most conditions, there was higher prevalence in more deprived areas, but the size and strength of the relationship varied markedly, highlighting the differential impact of social determinants on various medical conditions. Conditions not correlated to deprivation in our analysis may be a result of undiagnosed disease in deprived areas, which is not reflected in the GP data, or may relate to affluent populations living longer. Hypothyroid disease and palliative care were inversely related with deprivation which may reflect lower rates of detection and service provision in deprived areas.

This demonstrates how routinely collected health and socioeconomic data can be combined and analysed, in a relatively easy and practical way, to better understand health inequalities across localities, providing focus for decision makers about the strategies and services required to tackle them.

Poster Number: **P3**

**FPH Special Interest Group for Sexual Health: The First 200 Days**

**Patrick Saunders**<sup>1</sup>, Paul Sheehan<sup>2</sup>

<sup>1</sup>Local Board Member, FPH, Birmingham, UK

<sup>2</sup>Public Health Department, Bath & North East Somerset Council, Bath, UK

The Sexual Health SIG was established in November 2016 and this poster will describe its rationale, the process of successfully meeting FPH governance requirements, ensuring a representative, credible and active membership, and its outputs to date

To establish and maintain a functioning, credible and effective sexual health SIG fully compliant with FPH governance requirements that responds to, and meets, members' need for expert advice, advocacy, support, intelligence and analysis

Following requests from local members for FPH to establish a sexual health SIG a small group of FPH members with expertise in the field was recruited to map out the potential membership, representative organisations and disciplines, and establish the expectations of the SIG. Key stakeholders including PHE, NHS, HEE and local authorities, and figures in the field including academics, commissioners, policy makers, sexual health workers and FPH officers were consulted and drew up the application, terms of reference and workplan for 2016-17

The SIG was established in November 2016 and is fully compliant with FPH governance requirements. Membership includes eminent academics and senior policy and delivery figures including a DPH together with front line workers drawn from universities, PHE, NHS, local authorities, HEE and the FSRH. In its first 200 days we have met twice, grown our membership, coordinated FPH input to the FSRHFPH 2017 conference, led the FPH response to key issues e.g. PrEP, circulated updates to members, and established an inventory of expertise. SpRs have recently been offered the opportunity to work in the SIG

The revised FPH SIG application and governance process together with the support of FPH officers provide an opportunity to ensure that SIGs can make a sustained and sustainable contribution to the work of the FPH, its members and beyond. It is important to ensure that membership reflects the reality of service delivery as well as the needs of the FPH. In our case, it was critical that commissioning was effectively represented and the vice-chair was accordingly drawn from the discipline. Outputs must be realistic, responsive to members' expressed needs, and routinely monitored for effectiveness

FPH members and other public health professionals and organisations including commissioners, policy makers and service deliverers especially those working in the field of sexual health.

Poster Number: **P4**

**Review of local antibiotic use in a co-operative hospital in rural Nepal.**

**James Chidgey**, Andrew Pearce, Martin Davies, Karen-Louise Lawlor, Alice Du Preez

<sup>1</sup>NGO called Rural Assistance Nepal (RAN)

The recent review on antimicrobial resistance set out both the danger of increasing drug-resistance globally and interventions to reduce the spread. Whilst a priority for the NHS, on the international stage antimicrobial stewardship is often lacking.

We undertook a series of quality improvement projects in a rural hospital in Nepal. This included a review of antibiotic use and local microbial sensitivities. The aim was to encourage improved local practice through increased awareness and guidance.

Following a period of observation of clinical practice, we reviewed the medical notes of all patients admitted over a 2 month period in a rural co-operative hospital in Nepal. This included recording the initial diagnosis and the prescribing of antibiotics. We then reviewed the local microbial sensitivities from the laboratory records over the previous 3 years. Following analysis the results were then presented to the local medical team and the challenges and possible solutions were discussed.

The results showed widespread antibiotic use and a lack of consistency in prescribing. For example 9 different antibiotic regimens were used for treating simple urinary tract infections, and 11 for upper respiratory tract infections. The review of sensitivities demonstrated high levels of resistance for commonly used antibiotics with urine cultures showing over 70% resistance to amoxicillin and over 40% to co-trimoxazole. Discussion with the medical team unearthed a range of local challenges including managing patient expectations, difficulties with diagnosis and overly cautious practice.

Antimicrobial resistance is already recognised as a growing problem in Nepal, partly due to the easy availability of antibiotics. Our study demonstrated not only frequent antibiotic use but also inconsistency in prescribing. This was partially through a lack of local guidance. However there were also challenges due to patient expectations, and the rural location and poor diagnostics meant the medical team often opted for early prescribing of antibiotics. As well as improving local awareness, we are hoping future work will lead to the development of local antibiotic guidelines.

The learning outcomes from this poster are to highlight that even with a focus on antimicrobial resistance, on the ground local challenges can often mean good stewardship is not put into practice. The work also shows that even a short period of voluntary work can potentially lead to lasting change.

Poster Number: P5

## **What is the Role of FibroScan® in Early Detection of Asymptomatic Chronic Liver Disease? A Review of the Literature**

**Llion Davies<sup>1</sup>**, Linda Bailey<sup>1</sup>

<sup>1</sup>Health Intelligence Division, Public Health Wales, Cardiff, UK

Chronic liver disease (CLD) is often asymptomatic and may cause irreversible damage. Early identification of fibrosis may facilitate disease reversal by removing the trigger, usually alcohol excess, viral infection or obesity in the UK.

This work aimed to investigate the role of FibroScan® as a non-invasive CLD diagnostic tool for population screening or case-finding within targeted groups.

Literature searches were conducted of the PubMed database and Cochrane library identifying 36 studies for inclusion. Scrutinising acquired paper reference lists captured 5 additional studies. This work was undertaken to inform the implementation steering committee for the Welsh Government Liver disease delivery plan.

Six reviews, two commentaries and 33 observational studies were included. Many observational studies had low caseloads and were vulnerable to bias and residual confounding. FibroScan® emerged as a rapidly performed safe test that was acceptable to patients. However, consensus thresholds for CLD definition were lacking. Asymptomatic CLD population prevalence was estimated at less than 6%. Certain population sub-groups had notably higher prevalence: alcohol dependent patients 30-92%; obese ≤85%; diabetes ≤73%; cardiovascular disease 38-69%.

While FibroScan® was well tolerated, no evidence was found to support its' use as a diagnostic screening tool in a general population. FibroScan® is more likely to be useful in facilitating case-finding within high risk sub-groups.

Management of CLD is topical and the main aetiologies in the UK are potentially reversible. Early diagnosis of CLD may facilitate timely treatment. There is no current evidence for the use of FibroScan® in general population screening programmes for CLD.

Poster Number: **P6**

**Neural Tube Defects: Epidemiology and Folic Acid uptake in Wales**

**Llion Davies**<sup>1</sup>, Margery Morgan<sup>2</sup>, David Tucker<sup>2</sup>, Michael Thomas<sup>3</sup>, Linda Bailey<sup>1</sup>

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<sup>3</sup>Hywel Dda LHB, Public Health Wales, Carmarthen, UK

Neural tube defects (NTDs) are congenital anomalies that include spina bifida, anencephaly and encephalocoele. Defects are often severe and many mothers opt for a termination of pregnancy. Preconception folic acid supplements reduce NTD risk.

The primary aim was to explore the epidemiology of NTDs across Wales. The secondary aim was to identify the prevalence of folic acid supplement uptake by case mothers. The work was undertaken to inform policy on reduction of NTD prevalence in Wales.

An observational study analysing data on all 905 NTD cases in Wales between January 1998 and December 2014. Data were acquired from the Congenital Anomaly Register and Information Service (CARIS) database on geography, demographics and folic acid uptake. Total births denominator data were obtained from the Office for National Statistics to calculate prevalence rates. In order to adjust for deprivation, the Welsh Index of Multiple Deprivation (WIMD) 2014 was applied to the cases according to their post codes.

The crude NTD prevalence rate in Wales was 15.9 per 10,000 births (95% CI 14.9-16.9), with no significant variation between Local Health Boards. Folic acid uptake at any time pre or post gestation was reported for 51.7% of case mothers. However, the proportion of case mothers taking folic acid preconception may be less than 10%. At multivariable analysis the factors independently and significantly associated with improved folic acid uptake were lower levels of deprivation ( $p=0.014$ ), more recent year of birth ( $p=0.001$ ) and older maternal age ( $p<0.001$ ).

Welsh NTD prevalence rates are high. Only 1 in 10 case mothers were estimated to have taken preconception folic acid supplements. Given the lack of geographical variation in NTD incidence, it would be prudent for any strategy aimed at improving folic acid uptake to be instigated at an all Wales level. This may include preconception awareness of maternal health, possibly focussing on higher risk groups such as teenage mothers and those in deprived communities. However, mandatory food fortification should be considered as this will protect both planned and unplanned conceptions.

This work highlights an area of ongoing Public Health concern. NTD rates are high in Wales and adequate folic acid supplement uptake by case mothers was low. Dramatic improvement in maternal preconception folic acid levels will almost certainly require mandatory fortification of food.

Poster Number: **P7**

## **Factors Associated with Subjective Life Expectancy**

**Jaekyoung Bae**

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Subjective (Self-estimated) life expectancy (SLE) has been associated with mortality significantly.

In this study, we aim to investigate the associations between major factors affecting SLE. And we also examined whether any differences between SLE and estimated life expectancy in Korea exist.

Cross-sectional survey of 1,000 individuals in Korea aged 20-59 was evaluated. Participants were asked self-reported questionnaire about SLE, general characteristics including socioeconomic factors, stress, environments. Life expectancy from the National Health Insurance database in Korea was also used to evaluate the differences. Age-adjusted least square mean, correlations and regression analyses tested the relationship of SLE with four categories of predictors: demographic factors, socioeconomic factors, health behaviors, and psychosocial fa

Among 1,000 participants, women (mean age, 83.43; 95% Confidential Interval(CI), 82.41 to 84.46 years; 48.0% women) expected life expectancy 1.59 years longer than men. Variables within socioeconomic factors, salary, house type were related to SLE. For health behavior, smoking status, alcohol status and physical activity were associated with SLE. Variables within Psychosocial factors, stress, self-rated health, social connectedness were related to SLE. In comparison with actuarial estimates, they had strong correlation ( $r=0.61$ ) and men expected SLE higher than women.

Demographic factors, socioeconomic factors, health behaviors, and psychosocial factors had significant association with SLE in expected direction. Men and women showed differences with SLE compared to their actuarial estimate. Further studies are needed to determine the reasons for this.

Socioeconomic factors, psychological factors, health behaviors are associated with subjective life expectancy. Actuarial life expectancy in South Korea is also associated with subjective life expectancy.

Poster Number: P8

## **Impact of Healthy Schools programs on children BMI and nutritional knowledge in Lebanon.**

**Miriam Bou Kheir**<sup>1</sup>, Stephen Fallows<sup>1</sup>

<sup>1</sup>Clinical Sciences and Nutrition, University of Chester, Chester, UK

Urbanization, lifestyle and physical inactivity are now causing severe non-communicable diseases. Among them, obesity is one of the major issues, especially childhood obesity. The global prevalence of obesity in 2010 was estimated around 6.7%.

In order to implement a healthy lifestyle, school policies have been designed by many government and communities among them the United States Department of Agriculture (USDA), while in Lebanon few health policies have been implemented among schools

Heights and weights will be collected from two schools' records across middle and high school sections in order to calculate their Body Mass Index (BMI) which will show the difference between the mean BMI of children. One school having some nutrition policies implemented and another with none based on the SNESPCS scaling system. In addition, a questionnaire will be distributed for the children to assess whether a health policy can increase their knowledge, attitude towards obesity susceptibility.

BMI data has been analyzed using the Mann Whitney U-test on SPSS; a significant difference has been shown in Grade 5 ( $p = .007$ ) and grade 11 ( $p = .0001$ ). Nutritional knowledge was assessed based on the number of right answers in the questionnaire given and compared using the Mann Whitney U test because the data were not normally distributed; a higher nutritional knowledge was shown in the school implementing health policies especially in grade 11th. Obesity susceptibility was compared using the Chi-squared test; a higher susceptibility of becoming obese was noted in the school with no policies.

After conducting all the specified tests, results have shown a significant difference in children nutritional knowledge especially in grade 11th, in children susceptibility of becoming obese and in BMI mean average between the two schools. The null-hypothesis can now be confirmed, a lower BMI, better nutritional knowledge and better obesity susceptibility were shown in school implementing health policies. This kind of study would show the importance of school policies on children weight and behavior and the need to implement them in Lebanon as we lack any kind of nutritional school policies.

All public health enthusiasts would be interested in the project, especially professionals interested in public health beyond borders. Also, nutritionists, dietitian and pediatrics are also targeted as children obesity is mainly discussed.

Poster Number: **P9**

**Parc Matters: A Community Based Healthcare Approach in Parc Prison**

**Joanne McCarthy**<sup>1</sup>, Cara Saunders<sup>2</sup>, Judith Tomlinson<sup>1</sup>, Claire Thompson<sup>1</sup>, Jonathan Hines<sup>3</sup>, Kate Wood<sup>3</sup>, Ian Coles<sup>3</sup>

<sup>1</sup>ABM Local Public Health Team, Public Health Wales, Swansea, UK

<sup>2</sup>British Red Cross, Cardiff, UK

<sup>3</sup>Parc Prison, G4S, Bridgend, UK

In Ireland, inmates can enrol as special status Irish Red Cross volunteers and carry out health awareness and education around prisons. Outcomes have been excellent, and inspired by the initiative a new model to fit Welsh prison needs was created.

The aim of the 'Parc matters' programme was to improve community cohesion within the prison, educate prisoners on specific health topics and first aid, encourage peer to peer mentoring and finally to open up opportunities for life after prison.

13 prisoners were selected to be trained as Red Cross volunteers. The 4 month training period included modules on communication and building relationships, first aid, disease prevention and more. Once this was complete a 12 month calendar of events was developed by the volunteers, with topics based on health issues affecting men in Parc Prison. Every month specialists from PHW, BRC & partner organisations taught the volunteers about the topic, before volunteers shared this with the rest of the prison community in peer to peer training.

Volunteers grew in confidence throughout training, and 100% stated that becoming a red cross volunteer had been a positive experience. Monthly topics included tackling the issue of 'SPICE', the smoking ban, first aid, back care, HIV&BBV's and many more. The majority of prisoners who received the peer to peer training stated they had learnt something new from the sessions volunteers delivered across the prison. One volunteer has used the skills he had learnt to help a fellow prisoner having a SPICE related fit. Long term outcomes such as drug use and reoffending rates are yet to be evaluated.

In the short time that the programme has been running, 'Parc Matters' has demonstrated that when working collaboratively across organisations it is possible to implement a prison based community programme, engage and train volunteers from within the prison, and equip these volunteers with the skills they need to deliver health based training sessions to other inmates in their prison community. The prisoners involved in the programme have achieved special 'Red Cross Volunteer' status, and pending interviews will be allowed to volunteer for the Red Cross on their release.

Prisoners, families, organisations with an interest in prisoner health and rehabilitation, Public Health, health professionals and the public

Poster Number: **P10**

**Physical activity and sleeping pattern during Ramadan fasting in Najran area, Saudi Arabia**

**Hatem Mohamed<sup>1</sup>**

<sup>1</sup>Faculty of Health and Allied Science, De Montfort University, Leicester, UK

This study was conducted to assess the effects of Ramadan fasting on the physical activity and sleeping patterns in Saudis residing in Najran area.

To study the effect of Ramadan fasting on the physical activities of fasting people in Ramadan.

Seventy-three male and female literate participants completed a self-reported questionnaire in five consecutive days at Najran University Hospital. The demographic variables of the subjects were recorded such as age, sex, educational level and if they were involved in night work duties and being regularly fasting in Ramadan. We used a certain operational definition to grade levels of physical activities of our participants. Also, we obtained information on the sedentary activities during Ramadan such as TV watching and use of social media sites in addition to the duration and pattern of sleeping, indoor social activities and mood swings.

The results obtained reveal that during the month of Ramadan only 29 (39.9%) of the study participants considered themselves as physically active. In contrast, 44 (60.3%) were physically inactive and were named the sedentary group. The mean age for the physically active group was  $41.60 \pm 8.21$ . Only 7 (31.8%) of the female participants were physically active and the remaining 15 (68.2%) were inactive. Night work duties', mood swings, social indoor activities of participants were linked to physically active and they were significantly p-value (p

The present study suggests that Ramadan affected both physical activity and sleeping patterns of the study participants.

No more information

Poster Number: **P11**

### **Lifestyle Priorities and Perceived Health Needs in West Howe**

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<sup>4</sup>Dorset County Hospital, Dorchester, UK

West Howe is an area identified by the Bournemouth 2026 Trust for regeneration, including addressing causes of poor health and well being. Traditional health needs assessments have led to a number of schemes, however engagement has been variable.

We aimed to explore the lifestyle priorities and felt needs of the community in West Howe. Subsequently to provide recommendations that will help guide the planning of future health and wellbeing schemes in the area valued by the local community.

Participants were recruited opportunistically at events organised by West Howe Community Enterprises during a one month period in October 2016. Participants lifestyle priorities were explored for all three aspects of health – physical, mental and social. Results were obtained using individual structured interviews, small focus groups and a questionnaire in which participants rated health and lifestyle priorities on a Likert Scale from 1 (not important) to 5 (very important). The results were analysed by thematic and statistical analysis.

1. General physical and mental health was consistently ranked as a high lifestyle priority, however specific areas of health were given less importance, identifying a discrepancy in health priorities. 2. Mental Health and Diabetes were the most frequently raised specific health concerns in analysis of interview transcripts. 3. Residents highly value, and are more likely to engage in, projects run from within the community. 4. Health service accessibility, due to travel concerns, is a significant factor limiting engagement by the residents of West Howe.

The results led to the following recommendations: 1. External funding to train locals to set up and run projects - “from the community for the community”-peer to peer support. 2. Local support groups and awareness initiatives for Diabetes and Mental Health. 3. Travel: Increase awareness of the Health Care Travel Costs Scheme. Improve infrastructure to allow better connections and access to regional services. 4. Further research into the causes of the apparent disconnect between awareness of the importance of health but lack of importance attached to specific health issues.

1. West Howe Community Enterprises and other grassroots community organisations. 2. Local government and health authorities including the Bournemouth Borough Council. 3. Primary care groups. 4. Foundation Doctors in the Wessex region as part of the Wessex Public Health Community Fellowship.

Poster Number: **P12**

**Trans fats; the hidden fats – A multi-level behaviour change approach to decrease trans fats consumption in Barnet.**

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<sup>1</sup>Public Health, London Borough of Barnet, London, UK

Artificial trans fats used in fast food outlets increase chronic disease risk and cardiovascular disease. In Barnet CVD is the top cause of premature mortality. Barnet has a high number of fast food outlets used by children and adults.

To reduce consumption of trans fats through a multi-level behaviour change approach, aimed at educating 11- 13 year olds at a critical moment of decision-making and working with targeted fast food businesses to offer healthier alternatives.

Public health has commissioned an innovative low cost intervention to educate Year 7 and 8 pupils in all 24 secondary schools in Barnet on the health impacts of trans fats. The project also identifies which fast food outlets are most commonly used by local children so we can target our work with these businesses to replace trans fats in their cooking and encourage them to sign up to the Barnet Healthier Catering commitment Awards Scheme.

We will present results from our ongoing evaluation to assess change in children's willingness to purchase from fast food outlets as well as the businesses' willingness to offer healthier alternatives and be part of the Barnet Healthier Catering Commitment Award Scheme.

The intervention is expecting to observe change in children's fast food purchasing behaviours and an increase in the businesses engagement with the Healthier Catering Commitment. Trans fats in fast foods is of national concern and we hope that our programme will showcase a low cost approach to tackling this at a local level.

The learning audience are: Public health practitioners, Food manufacturers, Schools, Environmental health, Food businesses and Policy makers

Poster Number: **P14**

**A Mental Health (MH) Needs Assessment of a young, homeless population in The Foyer, Portsmouth. 2016.**

Rufus Ferrabee<sup>1,2</sup>, Laura Angco<sup>1,2</sup>, Phoebe Beal<sup>1,2</sup>, Olivia Bird<sup>1,2</sup>, **Salma Hassan**<sup>1,2</sup>

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A 2015 government report suggests that 45% of homeless people have a MH issue, however utilisation of MH services is often poor. Studies have looked at the barriers to accessing services, but few focus on the young homeless population.

To do a MH needs assessment of 16 to 25 year olds living at The Foyer, a homeless hostel in Portsmouth. To identify the prevalence and types of MH issues within The Foyer, and the barriers faced by clients in utilising MH services.

A review was carried out of academic, government and grey literature around MH in the homeless population. A MH survey was distributed to all clients identifying prevalence of symptoms, use of drug and alcohol and past psychiatric history. In-depth, semi-structured interviews were carried out with 5 clients and 5 staff members and a thematic analysis was undertaken on the data. Serious incident data logged by The Foyer in 2016 was also evaluated.

MH issues are prevalent in The Foyer, particularly in self-harm, suicidal thoughts, anxiety and drug use. Numerous barriers to accessing MH services exist, many of which are known in homeless populations yet seem to be augmented in the young. We suggest this is partly a result of intrinsic factors (behaviour, personality, trust and relationships) that are significant in this population. Additionally we identified specific challenges such as the delineation between substance abuse services and MH services, and the gap clients experience between paediatric and adult services.

There is an unmet need in the young homeless population at The Foyer for MH services. A number of recommendations were included in the final report to take steps to provide for this need. These included stakeholder negotiations with local GPs, specialist services such as substance misuse and CAMHS. The creation of an online resource hub provided by The Foyer to improve awareness of available services. To explore the possibility of an in-house MH presence perhaps via MH outreach services. To develop specialist staff training in managing common MH issues and acute crises.

This project highlights the inadequacy of mental health services to provide for young, homeless populations. It is a crucial topic for mental health workers and public health physicians alike to develop an awareness of this unmet need within a vulnerable population.

Poster Number: **P15**

**Dementia Health Needs Assessment (HNA): A Review of Epidemiology, Services, Health Needs and Models of Good Practice.**

**Claire Beynon<sup>1</sup>**

<sup>1</sup>Public Health, Public Health Wales, Cardiff, UK

There are 35.6m people living with dementia, this will double by 2030...the overwhelming number whose lives are altered by dementia combined with the staggering economic burden on families & nations makes dementia a public health priority WHO,2012.

The aim was to summarise the following: the epidemiology of dementia, the evidence base, best practice, services, and qualitative research describing the views of PWD, carers, stakeholders and staff.

A HNA is a systematic method for reviewing the health issues facing a population leading to agreed priorities and resource allocation that will improve health and reduce inequalities. The five steps are detailed below: Step 1: Scoping Step 2: Identify health priorities Step 3: Identify priorities for change Steps 4 and 5: Communicating and Monitoring Individual interviews were undertaken with 27 carers, staff and stakeholders and a focus group was held with patients. A thematic analysis of this qualitative data was undertaken.

9 themes were identified: Isolation and loneliness is a major issue. PWD should be treated with kindness and compassion. Work is ongoing to improve the co-ordination of services but there is room for improvement. Participants recognised the value of caring for the carers. Carers need to know what to do in a crisis. Primary care was where people want support. An inequity in access to services which is unwarranted was identified. Dementia is everyone's business: society can adapt to make life easier for PWD. Prevention is essential: further work on risk factors is required.

The focus should be on providing services earlier to people to prevent crisis and the use of more intensive, invasive and expensive services "the right support at the right time in the right place" WHO, 2012. This means refocusing action on prevention, increasing diagnosis rates to ensure people are offered the medication, support and care they need. Much work has already been undertaken to shift services to the community, this should continue. Further efforts should be made to engage PWD and carers in the design of services.

The process for conducting a HNA will be of interest to Specialty Registrars as this is part of the curriculum. The results will be of interest to Public Health Specialists and Practitioners, giving a summary of epidemiology and best practice, brought to life with quotes from PWD, carers and staff.

Poster Number: **P16**

## **Screening Saves Lives - Cervical Screening Campaign Middlesbrough**

**Becky James<sup>1</sup>**

<sup>1</sup>Improving Public Health, Middlesbrough Council, Middlesbrough, UK

Cervical screening rates in Middlesbrough have been consistently low with varying rates across GP practices. Before targeted work began only 2 Middlesbrough practices were achieving the national target coverage rate with some as low as 62%.

1) Engagement of GP practices - looking at changing practice to improve the experience for women and increase access via promotion of 'No Fear' practices 2) Community awareness - equipping people with the right information to make informed choices

Insight work with local women to explore barriers to accessing screening Development of bespoke materials based on insight to raise awareness (website, posters, leaflets, myth busters) Advertising and promotion using various methods Engagement of GP practices supported by nurse mentors to become 'No Fear' practices Community engagement - training, events Specific staff clinic at local hospital set up recognising getting time off work as a barrier 'Salons for Screening' promoted in hair salons with specially created magazine to promote message

17 out of 26 practices in Middlesbrough have seen an increase in their coverage rates All of the No Fear practices have seen an increase in their coverage rates - one by 7% A number of improvement measures have been implemented within GP practices as a result 2 dedicated staff cervical screening clinics have now been set up within local hospitals Over 200 community organisations supported the campaign to raise awareness - initial evaluation showed 75% of women recognised the branding 60 salons have engaged in promoting Salons for Screening

Cervical screening takeup has always been low in Middlesbrough. The insight work showed a clear lack of basic awareness and understanding of the programme and a range of myths and misconceptions. It reinforced the need to develop a local approach to increasing awareness in a clear targeted way and the need to communicate messages in different ways. Tackling this from 2 angles building community awareness and encouraging system change within GP practice has been really effective and we are now starting to see the change with Middlesbrough bucking the trend with improving coverage rates.

The approach was tested and evaluated as a 1 year pilot and is now being continued. This model could benefit a range of partners - public health professionals, commissioners, providers and primary care. In Middlesbrough it was developed as a partnership between public health and NHS England.

Poster Number: **P17**

## **MySelfCare: Enabling Self-Management of Long Term Conditions through mHealth**

**Leena Sankla<sup>1</sup>**

<sup>1</sup>Public Health, Solutions 4 Health LTD, Reading, UK

15 million people in the UK suffer from a long term chronic condition costing the NHS 70% of its £115 billion budget. In a society which is living longer the prevalence of these conditions is expected to rise further. Enter MySelfCare

When you have a long term condition your lifestyle defines how well you manage it. MySelfCare aims to empower individuals to better manage their LTC through effective self-management using mHealth as a tool to do so. Resulting in better health and fewer care admissions.

To enable those with high blood pressure and diabetes to better manage their condition we've developed the innovative [www.MySelfCare.com](http://www.MySelfCare.com), which uses mHealth technology to connect individuals, families and the healthcare professional.

Individuals take and monitor their blood pressure and glucose reading using state of the art wireless devices (red dot design award). Their RAG rated results are shared securely and instantly, on their own and/or nominated family members smart device. Healthcare professionals with consent can access trend data.

MSC has yielded positive results from users and their families:

“My Dad has type 2 diabetes, I get daily readings of his blood glucose levels. It gives me peace of mind”

“My daughter gets emails of my readings instantly. Even though she lives far away she can always see how I am doing.”

Slough and Peterborough Council's will be launching MSC in Apr 17. A full evaluation study will be conducted which we anticipate will result in improved wellbeing, improved patient engagement, medication compliance, reduction of hospital admission and lowered treatment costs as per national studies.

MySelfCare has the potential to revolutionise the way LTC's are managed. Improving the management of this cohort's condition has the potential to reduce the burden on current NHS resources.

Those with LTC's are given the education and the tools to empower them to manage their condition more effectively, living healthier and more independent lifestyles in the community.

We are excited to see the future results of this initiative within a commissioned setting and will follow this up with a formal evaluation with the expectation to be able to roll this out nationally.

We expect the following:

- Raise awareness of how mHealth can improve outcomes for those with LTC's
- Recognise and explain the power of integrating a self management tool within public health programmes
- Awareness of the emerging technologies to support improved public health

Poster Number: **P18**

**Making a Difference: making the case for investment in sustainable health and well-being in Wales using international and national evidence**

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Current trends threaten economic sustainability and the health and wellbeing of people in Wales. The unique Welsh policy context has the potential to enable positive change and secure sustainable solutions for the present and future generations.

Using the momentum of the Well-being of Future Generations (Wales) Act 2015, Public Health Wales aims to identify the benefits of investing in the priority areas for preventive action in order to stimulate public debate about investment priorities.

The report gathers selected summarised research evidence, expert opinion, data and contextual information available at the time of the report development. It was informed by Welsh priorities for health and wellbeing as well as the current policy and health context in Wales. Evidence was identified and selected thanks to professional guidance and expertise in public health, policy, social studies, equity and economics as well as topic-focused literature searches following the Public Health Wales Observatory Evidence Service's methodology.

The report identifies three priority areas for preventive action: building resilience across the life course and settings; addressing harmful behaviours and protecting health; and addressing wider economic, social and environmental determinants of health. They encompass ten key public health issues: early years, mental health, violence and abuse, smoking, alcohol and substance misuse, physical activity, nutrition and obesity, health protection and screening, economic and social inequalities, and safe and healthy environments.

There is strong evidence that preventive policies and interventions save lives, money and improve peoples' mental, physical and social well-being, providing short and long-term benefits beyond the health system. By investing in the key priority areas for preventive action identified here, Wales would achieve significant and sustainable improvements in its population's health and wellbeing, a reduction in inequalities, and a maximum return on investment for its economy. The evidence summarized in this report has allowed opening a wider dialogue for a sustainable cross-sector approach to health.

Decision- and policy-makers in national and local governmental roles; senior leaders, planners and managers across all public services; professionals from the public, private and third sector whose role has an impact on health and well-being; local communities.

Poster Number: **P19**

## **Using Community Level Data to Build Public Health Capacity and Focus Community Action**

**Amy McNaughton<sup>1</sup>**, Simon Hodsdon<sup>1</sup>, Nikki Murch<sup>1</sup>, Frances Chinemana<sup>1</sup>

<sup>1</sup>Public Health, Wiltshire Council, Trowbridge, UK

Joint Strategic Assessment is Wiltshire's approach to coordinating data and intelligence. Community Area JSAs provide local communities with information about their area to support community action using evidence not perceptions to focus activity.

The aim of the Community Area JSAs is to inspire locally led action, bringing people together to prioritise issues - based on the data, tackle local challenges with evidence based solutions and make communities more resilient.

The data reports are prepared by public health in partnership with colleagues across the council and public services. Each report includes information on key themes affecting health and its wider determinants. The reports are presented at community events which include table discussions facilitated by thematic experts to identify local priorities and proposed actions. The outputs from these events are recorded and used to inform local community development work and grant funding decisions. Reports are also available online for future reference.

Data reports are produced and presented at 18 community area events – each attracting ~ 100 participants. Following events reports are produced summarising priorities for action which are shared with the Area Board (part of Wiltshire Councils local governance) and thematic partnership boards such as the Health and Wellbeing Board and Community Safety Partnership. Examples of activities communities have championed include delivery of Dementia Friendly training and 'Men's Sheds' a social isolation and skills development programme. Further examples of local activities are available online

Public health has a vital role in coordinating the synthesis of local data to inform priority setting and decision making. The Community Area JSA model shows that when local communities are provided with relevant data they can be mobilised to tackle key issues in innovative ways and build public health capacity. Sharing intelligence in this way both supports communities to become more resilient - understanding the issues that they face and the most effective way to tackle these – but also builds capacity at a time when resources for centrally funded services are reducing.

There are a number of learning audiences for this poster including Public Health Consultants, Intelligence and Data leads, Community Engagement leads and Elected Members.

Poster Number: **P20**

**Learning for Public Health West Midlands**

**Nicola Plant**<sup>1</sup> Helen O'Donnell<sup>1</sup>, Rajdeep Atwal<sup>1</sup>

<sup>1</sup>Public Health Metropolitan Sandwell Council, Oldbury, UK

Learning for Public Health has been operating since 2007. Funding, governance and strategic direction comes from the West Midlands Association of Directors of Public Health and Public Health England West Midlands.

The aim is to provide inter-professional learning and development activity for the wider Public Health workforce across the West Midlands through a range of learning events and supported thematic networks.

Learning for Public Health engages and delivers via a range of different platforms, increasingly maximising the use of technology to reach wider audiences. These include: • Regional network meetings – face to face, virtual and discussion forums • Workshops to support the Directors of Public Health priorities and topics identified by partners and stakeholders • Annual conference • Website • Photos, videos and Podcasts • Social media via twitter - @lphwm • E-newsletter and bulletins

In 2016 over 750 delegates from a range of organisations attended a range of learning events. The website hits increased by 26% from 2015. Learning events included: Health Ageing, Best Start in Life, Reducing Violence and PH, Getting into work – mental health, Getting into work – drugs and alcohol, Health Economics, Basics in Public Health and Modern Slavery. The thematic networks supported include Healthy Ageing, Best Start in Life, Strategic Food Board, Health and Planning, Alcohol Licencing and Public Health, and Public Health Consultant Network. The annual conference is also supported.

LfPH is an effective means of delivering learning and development to the wider public health workforce across the West Midlands. The leadership from the ADPHWM together with PHE ensures the activity is strategically relevant and responsive to developments in Public Health. Maximising the use of technology to increase access to learning across organisations, whilst managing costs, is important.

The target audience for this poster is Public Health professionals and the wider Public Health workforce

Poster Number: **P21**

**'Assessing the effect of short sharp bursts of physical activity on the attitudes of children from Primary one classes'**

**Millie Wood<sup>1</sup>**

<sup>1</sup>University of Edinburgh, Edinburgh, UK

Research in to policies targeting the current childhood obesity and inactivity levels was undertaken. Governmental guidelines were compared with the national curriculum for physical education which identified this window of research and intervention

Critically assess the impact of daily short bursts of physical activity on Primary One students' attitudes towards exercise.

Primary One pupils in Liberton Primary School, Edinburgh were asked to rank their views of physical activity on a Likert scale. This was repeated 6 weeks after a daily physical activity intervention. Pupils' baseline and follow-up scores were matched and recorded. A questionnaire was sent to parents seeking both qualitative and quantitative responses. Parents and children were matched to determine any relationships between their attitudes.

The sample consisted of 71 Primary One pupils (31 girls and 40 boys). A paired samples t-test compared baseline and follow-up attitudes. The intervention positively affected children's attitudes towards exercise: statistically significant changes for boys but not girls.

A daily burst of physical activity significantly affected Primary One children's attitudes towards exercise. The intervention had greatest effect on boys suggesting that girls of this age may benefit more from alternative exercises. Children's attitudes and parental opinions were consistent with recent evidence recommending daily physical activity for Primary One children. The intervention's success, and minimal impact on school resources, suggest it should be tested in other classes and schools, aiming to promote exercise and healthy lifestyles.

All public health professionals including those with a particular interest in the education sector and physical activity and childhood obesity.

Poster Number: **P22**

**Factors influencing caregivers' decisions to consult traditional healers regarding their children in Southwest Uganda**

**Amrita Jesurasa<sup>1</sup>, Jason Horsley<sup>1</sup>**

<sup>1</sup>School of Health and Related Research, University of Sheffield, Sheffield, UK

Health-seeking behaviour of caregivers in Uganda is important given persistent inequities in childhood mortality. Rural mortality is still greater than 100/1000 live births despite significant progress to reduce overall childhood mortality in Uganda.

To determine the factors influencing caregivers' decisions to consult traditional healers (THs) regarding their children prior to seeking conventional medical treatment in Southwest Uganda

Using secondary survey data collected in Uganda in 2007, quantitative analysis was performed on anonymised responses from attendants, regarding their decision to first consult a TH. Data entries from 32 fields of 132 children admitted to hospital were included. Descriptive epidemiological analysis of the data was undertaken. Comparison of characteristics of those attendants and children who consulted a TH versus those who did not was performed. Attendants' responses for the estimated total costs of health centres versus THs were also analysed.

59% of caregivers first consulted a TH regarding their child during the current illness. Furthermore 97% of respondents received advice to consult a TH, of whom 84% considered this advice to be important. Factors likely to be related to caregivers' decisions to consult a TH include: child's age and underlying condition; attendant's level of education; and cost (including the need to sell assets) and time taken to visit a TH, relative to a health centre. Length of illness prior to seeking medical treatment was significantly longer in those who consulted a TH compared with those who did not.

In Mbarara, Southwest Uganda, our results show that consulting a TH is a social norm. Total costs and travel time were found to be prohibitive to accessing healthcare facilities, but significantly less for consulting a TH. Caregiver's level of education appears to be an important factor in deciding to consult a TH. Despite progress, childhood mortality rates remain unacceptably high in Uganda with many rural populations having inadequate access to medical facilities. The health care system cannot afford to ignore the role of THs in the primary care of acutely unwell children.

1. Rural-urban inequalities persist in childhood mortality in Uganda 2. Consulting traditional healers is a social norm in health-seeking behaviour amongst caregivers of young children 3. Sustainable healthcare solutions that recognise the context of local populations are required

Poster Number: **P23**

### **The Joint Strategic Needs Assessment (JSNA) in England: Does it inform commissioning?**

**Bindweep Kaur**<sup>1</sup>, Glenda Augustine<sup>1</sup>

<sup>1</sup>Public Health, City of Wolverhampton Council, Wolverhampton, UK

The JSNA is a continuous process of assessment of the current and future health and social care needs of the local community. The Health and Social Care Act 2013 provides local authorities (LA) and CCGs with a joint responsibility for preparing JSNA.

To undertake a comprehensive review of JSNAs of local authorities in England to identify how data and qualitative evidence (including stakeholder engagement) was used in their development, as well as the ability to influence commissioning decisions.

LAs in England were identified from [www.gov.uk](http://www.gov.uk) website and JSNAs for each LA were obtained and reviewed by Nov 2016 and information on following aspects was noted: • Approach used to develop the JSNA • Section on recommendations for commissioners • Inclusion of stakeholder engagement (SE - service providers, commissioners, users) • Governance structure for management of JSNA

152 LAs were identified, of which 10 JSNAs could not be accessed. 24% JSNAs were developed using a life-course approach, 76% used a thematic approach and 1 JSNA used the asset based approach. 26% JSNAs provided a section on recommendations for commissioners; 32% provided this information within other sections. SE was highly variable with 35% JSNAs providing no evidence of SE on their website or within the JSNA documents. 21% JSNAs provided evidence of SE via their website as well as with local communities and service providers. 70% JSNAs provided no evidence of a governance structure for JSNA

The analysis indicates that 42% of JSNAs didn't appear to provide recommendations that would support commissioning. It is a statutory requirement to involve local community in the development of JSNA; however 35% of JSNAs provided no evidence of SE. A robust governance structure to manage the development of JSNA is essential to ensure that it meets its requirements. Whilst this analysis indicates that a comprehensive process exists for the development of the JSNA, it does raise the question about whether the JSNA actually fulfils the duty to inform commissioning and involve the local community

A number of professionals can benefit from this study including Directors and Consultants in Public Health, JSNA leads, health improvement specialists, healthcare commissioners including CCG and public health, social care commissioners and voluntary organisations.

Poster Number: **P24**

### **How will we know if we are successfully tackling tuberculosis in underserved populations?**

**Emily Smith**<sup>1</sup>, Chanice Taylor<sup>2</sup>, Naveed Syed<sup>1</sup>

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Tackling TB in underserved populations is a national priority for PHE and NHS England: it is a key area for action in the Collaborative Tuberculosis Strategy. Local areas need to be able to monitor the effectiveness of their work with these groups.

To inform the West Midlands TB Control Board's work in this area, we calculated crude incidence rates of TB in "underserved populations", as defined in the Tuberculosis Strategy. This helps establish a baseline for monitoring.

We calculated crude incident rates; adjustment for confounding variables was impossible due to data limitations. We used Enhanced TB Surveillance (ETS) data from 2011-15 for the area covered by the NHS Birmingham and the Black Country Area Team. We estimated the number of homeless people using statutory homelessness data; the number of higher risk drinkers using Local Alcohol Profiles for England; the number of prisoners using Department of Justice data, and the number of drug users with National Treatment Agency and National Crime Survey data.

Crude incident rates of cases were: 21.5/100,000 person years in homeless individuals (12.7, 34.0); 16.9/100,000 person years in higher risk alcohol drinkers (13.4, 21.1); 14.8/100,000 person years in drug users (9.9, 21.2); 66.3/100,000 person years in prisoners (30.3, 125.9). This compares to 25.9/100,000 person years in the general population of this area (25.0, 32.5). As far as the authors are aware, no similar work has been completed in England for these population groups. This work provides a baseline estimate from which to monitor progress in services in this geographical area.

This work shows the challenge of accurately estimating the burden of TB in underserved populations: there is much uncertainty in our estimates of the size of vulnerable populations, due to the lack of good quality available data and the assumptions we have had to make, as well as potential uncertainty about the validity of ETS data on social risk factors. However, without good estimates of incidence rates, it is difficult to monitor the effects of the Tuberculosis Strategy. We feel that this is an area that needs careful consideration in order to move forward with the Tuberculosis Strategy.

This work provides a detailed possible model for other teams to build on, critique and improve when considering how to measure the burden of TB amongst underserved populations in their area and so move forward in improving access to TB services for these groups.

Poster Number: **P25**

**Protecting, promoting and improving the health of Nigeria's next generation – One village at a time**

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Discussions of African health problems at international fora portray Africans as unable to find their own health solutions. The African Health Solutions Network sought to promote African solutions to health related Millennium Development Goals(MDGs)

To promote an adapted UNICEF and partners' literature - 'A package of Care'(POC)in rural communities and as part of activities marking an annual Maternal and Child Health Week of the National Primary Health Care Development Agency in Nigeria,

Following a community survey by MAYO Resource Centre for Children, Youth and Carers (MAYO4CYC), a Charity, and in partnership with Public Health Impact Research Centre (PHIRC), a WHO, UNICEF and international partners' endorsed literature was adapted for use in communities with low literacy level under an initiative tagged Adopt Your Own Village (AYOV). The Ministry of Health (MOH) in Ekiti State identified a community. The POC included: Immunisation, Birth Registration and spacing, De-worming, Exclusive breast feeding, Vitamin A supplements

About 250 mothers, fathers, care givers, pregnant women and market women benefitted from presentations on health protection and health promotion messages and POC fliers distributed MAYO, MOH officials, the State Educator, and a representative of WHO are exploring how to evaluate fully this project to inform targeting more villages through AYOV and state co-ordinated events. Outside Nigeria, PHIRC is using initial findings to advocate and engage with individuals and organisations in diaspora to embark on AYOV projects in their home communities thereby contribute to attaining health for all

Low cost, simple health protection and promotion messages as illustrated in POC still works in African's remote and rural communities. Targeting and reaching remote and rural communities with low literacy levels and apparent high child mortality could be enhanced through these key steps: A community survey to identify level of need, collaborative working with the local Ministry of Health, adapting already existing, evidence based literature/ resources as is cost-effective and raising awareness amongst communities in diaspora of projects such as AYOV could be mutually beneficial to all.

AYOV - 'One village at a time' principles could reveal a path to sustainable solutions for health related MDGs in rural settings, Africa and beyond Anyone interested in supporting NGOs globally through low cost public health interventions- Public, Private or Voluntary sector staff or trainees.

Poster Number: **P26**

**Community Health Worker Delivery of Integrated TB and HIV Care in Low- and Middle-income Settings: A Systematic Review.**

**Kevin Brown**<sup>1</sup>, Alison Grant<sup>1,2</sup>

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<sup>2</sup>Department of Clinical Research, London School of Hygiene and Tropical Medicine, London, UK

Tuberculosis and HIV represent a devastating co-epidemic in sub-Saharan Africa. Centralised treatment models are insufficient and marginalise many from acceptable care. Community health workers may represent an alternative, more accessible model.

The aim of this study was to summarise current published literature on the roles of community health workers in integrated TB/HIV care in low- and middle-income settings.

A systematic review was conducted through database searching. Inclusion criteria were applied to retrieved articles. Quality assessment was carried out using the Effective Public Health Practice Project Quality Assessment Tool for Quantitative Studies.

Nineteen articles met the criteria for review. Many were retrospective analyses with small sample sizes. Some prospective studies were limited by lack of control group and randomisation. Concurrent TB medication/antiretroviral therapy delivery by community health workers appears to be feasible and safe. HIV testing in TB patients appears acceptable. The role for treatment adherence support is unclear. All areas require a more robust evidence base.

Community health workers may be part of the answer to the human resource problem in resource-restricted settings. Delivery of aspects of integrated TB/HIV care in the community appear to be feasible, but more robust evidence may be required to realise this. Treatment delivery may be a key area for programme planners to focus on.

This talk is aimed at those with an interest in HIV and TB medicine. Based on an MSc thesis, this talk summarises evidence for the provision of decentralised HIV and TB care by community health workers in low and middle income settings. Audience members should observe alternative models of care.

Poster Number: **P27**

**Painkillers and population harm: an ecological study of the association between opioid prescribing and drug-poisoning death in England**

**Hannah Maiden<sup>1</sup>, Ben Barr<sup>1</sup>, Jennie Day<sup>1</sup>**

<sup>1</sup>Public Health and Policy, University of Liverpool, Liverpool, UK

Community prescriptions for opioid (morphine-related) painkillers in England have more than doubled in a decade and continue to rise, prompting national concern about their potential to cause drug-poisoning death, which has risen annually since 2012.

This ecological study aimed to address a gap in existing research by examining the population-level relationship in England between exposure to prescribed opioid painkillers and drug poisoning death, an outcome with known inequality.

Routine data from 2011 to 2014 regarding both opioid painkiller prescriptions dispensed in the community and drug-poisoning deaths involving heroin and opioids was gathered for 150 local authorities in England. To avoid data being disclosive, at this level deaths from both illicit and prescribed opioids are combined, hence heroin deaths are included. Cross-sectional and longitudinal multiple linear regression was used to estimate the independent effect of opioid prescribing on death rates.

English local authority areas that experienced greater prescribing of opioid painkillers also experienced greater increases in opioid-related deaths (2011-14). The study model estimated that for every additional 'average daily quantity' (a standardised prescribing measure) of these painkillers prescribed per patient per year in a local authority, an additional five deaths involving opioids per million residents per year would occur. This association remained after adjustment for confounding factors (gender, cancer and disability living allowance rates, population per general practitioner).

The findings suggest an iatrogenic association in England between opioid prescribing and drug-poisoning deaths involving opioids. With ongoing rises in both prescription levels and drug-poisoning deaths, this requires an urgent public health response. With one in seven young adult deaths in 2014 due to drug poisoning, the burden of premature years of life lost from this cause is of particular significance. Further research is needed in England into the wide geographical variation in opioid prescribing rates observed in this study and into the pattern of diversion of prescribed opioids.

Anticipated learning outcomes include: awareness of prescription painkillers as a current and pressing public health issue nationally; awareness of the limitations of current data pertaining to research in this area; the opportunity to contribute ideas on dissemination of this research.

Poster Number: **P28**

**A review of integrated community based Hepatitis C virus (HCV) treatment models that enable people who inject drugs (PWID) to access HCV treatment**

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In England about 160,000 people live with HCV; this review summarises current evidence regarding barriers to HCV hospital treatment for people who inject drugs. New HCV treatments provide community delivery opportunities that overcome these barriers.

To identify effective integrated HCV treatment models that successfully target at risk marginalised populations. Key learning aims to stimulate discussion about how to optimise HCV care in marginalised populations and identify new research priorities

This evidence synthesis included: a rapid literature review to identify studies relating to HCV care models including: the grey literature; a review of relevant case-studies of innovative ways to deliver HCV care and a series of semi-structured interviews with key stakeholders that included clinical, commissioning and academic experts. The findings were combined to determine the most effective treatment model strategies and intervention types. Key learning aims to stimulate discussion about how to optimize HCV care in marginalized populations.

95 documents were selected for inclusion from over 1000 reviewed. There is good evidence regarding barriers to accessing HCV treatment, key themes include: Structural: physical service location, lack of appointment flexibility, lack of service evaluation; Social: PWID with mental health problems; Professional: poor staff HCV education and poor HCV care pathway communication. Good practice interventions include: improved service design that specifically target PWID; HCV pathway integration; co-location within existing services; dually qualified staff; flexible appointments and practical support

This evidence synthesis identified that HCV is a major health problem that primarily affects disadvantaged groups and that current HCV pathways in England are largely failing to meet the needs of PWID. While there is general agreement regarding how to improve access barriers and good practice elements, there are few well evaluated published interventions. Alongside the focus on therapeutic innovation, if we want to achieve elimination of HCV as public health problem better research evidence on the cost-effectiveness of integrated community-based HCV treatment models must be prioritized.

This review found that HCV is a major health problem that primarily affects disadvantaged groups. Current HCV treatment pathways in the UK do not meet the needs

of vulnerable populations Better research must be prioritized on the cost-effectiveness of integrated community-based HCV treatment models.

Poster Number: **P29**

**Targeted latent TB infection (LTBI) and blood borne virus (BBV) screening in high risk primary care settings pilot in Milton Keynes**

**Lucy Hubber<sup>1</sup>**, Bharathy Kumaravel<sup>1</sup>

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Milton Keynes has a high population growth rate; the number of residents born outside of the UK has more than doubled in 10 years. Nationally, LTBI and BBV prevalence rates have increased and preventative actions are required to protect health.

To pilot screening for LTBI and BBV in primary care settings with populations at increased risk of infection in order to refer patients into treatment pathways and complete contact tracing, as appropriate, at an early stage in disease progression.

Five GP practices were identified using practice profiles to find high risk populations and disease prevalence rates. Implementation commenced with LTBI, followed by BBV screening. After training, practices invited (using a variety of techniques) either newly registered patients or identified patients registered within the last five years to attend screening clinics, administered by HCAs. Patients were referred to local services for treatment and contact tracing, as appropriate. Activity was monitored via GP systems and qualitative interviews.

Data collection is ongoing and full activity data will be presented at conference. Early findings demonstrate a prevalence rate of 20% for LTBI, in line with expected rates for immigrants from high-risk countries. Initial Phase 1 (LTBI) qualitative review showed that challenges to implementation arose primarily from administrative requirements, such as complex data recording processes and resource-intensive identification of retrospective patients. These were addressed in Phase 2 (BBV).

The pilot demonstrates the importance of understanding population and disease profiles within a geographical area, to identify where pockets of high prevalence exist. Screening populations at risk of LTBI and BBV ensures effective treatment at an early/asymptomatic stage, reducing morbidity, transmission and NHS resources. Initial learning demonstrated the importance of embedding pilot activity into established clinical practice and using simplified administrative processes. In phase 2, these changes improved implementation and the learning can be applied to future pilots.

This work is relevant to health protection teams; CCG and LA commissioners; LA public health teams; primary care practitioners; GP practice managers; Public Health England; NHS England; and migrant health teams.

Poster Number: **P31**

**Paediatrics and Child Public Health in post-Apartheid South Africa, two decades on: Stars and Scars - A helicopter view from a UK professional tour.**

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A group of mostly Community Paediatricians, GP, Academia and Public Health specialist led by a past president of the Royal College of Paediatrics and Child Health (RCPCH) visited iconic healthcare settings across South Africa to glean and learn from.

To lean in, glean from and share lessons learnt from post-Apartheid, re-organised and iconic healthcare settings with a paediatric public health focus so as to mitigate against potential post-Brexit and post-Trump lean years.

Study Tour of: The world's 3rd biggest hospital, ex-military and TB hospital later renowned for its Drip and Kangaroo Mother Care Units One of the world's largest private hospital groups located in South Africa's economic hub, renowned for its multidisciplinary Kidney Banz Accredited rural Health promotion, ex-missionary hospital on the mountains, reaching patients using helicopters and acknowledging 'Nyangas'. African's largest paediatric healthcare institution working collaboratively with African governments to keep African Doctors in Africa

We heard, we saw and we learnt: Rota virus vaccination drastically reduced admission rates Maternal education on rehydration and vaccinations reduced usage of short stay wards Education and medication have reduced TB-HIV related morbidity and mortality Psychology, planned shows and play sessions help children undergoing dialysis Collaboration work with African Governments is reversing the brain drain Collaborating with NGOs to provide social, psychological and material support to young patients and their parents, have improved health outcomes and quality of life

Integrating public health into daily living and all levels of healthcare system appears to be the norm. Public Health in settings visited, appeared collective in nature. All levels of care: quaternary, tertiary and secondary appear to: - recognise change is inevitable and prepare to adapt - implement evidenced based public health interventions - collaborate with private and public sectors in first and third worlds to address public health needs. This is despite a prevailing culture of financial challenges, political uncertainty, widening inequalities, constant transition and more

One of the hospitals visited though located in 'a community in flux, neither first nor third world' was described as 'rises out of its own ashes every time'. Public health and Paediatric trainees, Consultants, Trainers, Policy makers, Managers in Trusts with limited resources,

Poster Number: **P32**

**Equity assessment of NHS Health Checks in Birmingham – A lower super output area deprivation analysis**

**Lynn Gibbons<sup>1</sup>, Adrian Phillips<sup>1</sup>, Hashum Mahmood<sup>1</sup>, Elaine George<sup>1</sup>, Kathy Lee<sup>1</sup>**

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This study investigated the equity of responses to the NHS Health Checks and the resulting referrals to lifestyle services, as well as inclusion on to primary care disease registers.

1) Is there any link between patient deprivation (by LSOA) and the likelihood of being invited to and attending an NHS Health Check? 2) Is there any link between deprivation and referrals to lifestyle service and inclusion on disease registers?

Anonymised NHS Health Checks data for 2015-16 was extracted from primary care clinical systems using MSDi software. The following fields were extracted: • Attendance: eligible, invited and completed an NHS Health Check. • Outcomes - referrals to lifestyle services • Outcomes - inclusion on disease register (Decile 1 = Most deprived, Decile 10 = Most Affluent)

A total of 26,484 NHS health checks were completed during 2015-16 in Birmingham. Variation was observed in uptake of health check by deprivation decile that did not follow a directly linear relationship. The percentage of those invited who completed a health check ranged between 48% (Decile 8) and 63% (Decile 1). Approximately 4% of those who completed an NHS Health Check were referred to a weight management programme. The average for inclusion on the Diabetes register was 1.16% of the population completing a Health Check.

Lower Super Output area deprivation analysis of NHS Health Checks has shown that the uptake is relatively constant across the deprivation deciles within Birmingham, therefore indicating an equitable service and thus not exacerbating current health inequalities. There is variation in the uptake and the level of referrals for lifestyle services that do not reflect the known risk factor proportions across the deprivation deciles. It is also difficult to understand the wider impact of NHS Health Checks as the data available does not allow for understanding of follow up.

NHS Health Checks leads would find utility within this analysis as it provides deprivation analysis on a granular level, enabling to gain a better understanding of variation. CCGs and primary care practitioners may gain further insight of referral options and pathways for disease management.

Poster Number: **P33**

**Public Health in Planning – influencing health through the planning process**

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A major fast-food restaurant submitted plans to build a restaurant close to a local comprehensive school. Public health staff prepared a robust defence of the committee decision leading to a successful outcome at a planning inquiry.

To develop new and transferrable approaches to health impact assessment and response at a planning inquiry, supporting the contention that siting a fast food restaurant close to a large school would adversely affect the health of local children.

An evidence review relating to fast food proximity and obesity. Intelligence relating to the levels of obesity and poverty for the ward was combined with review evidence to argue the socioeconomic case for refusing the application. A novel method for categorising the ‘healthiness’ of menu items was implemented. A selection of local survey and statistical data was used to establish frequency of fast food consumption. Reference to planning policy, as well as ongoing liaison with the barrister, ensured evidence was communicated appropriately.

Evidence was presented demonstrating the link between planning decisions, health outcomes and the increased risk associated with ready access to fast-food. The Planning Committee refused planning permission. Initially an appeal was lodged but this was withdrawn prior to a final hearing. Key learning points were drawn concerning the process, language (legal v public health) and practical aspects of linking planning policy to health policy, including the potential of working with community groups to influence decisions.

Refusal of planning permission is achievable on health grounds through evidence-based public health argument. Clear linkage to national and local planning policy is essential. The use of key local data to support the planning process is essential. An understanding of the legal processes and the planning system is essential alongside an understanding of how public health evidence can be effectively applied in a legal setting. Learning from this informed the development of novel planning policy for restricting hot food takeaways.

Public Health professionals working alongside colleagues in planning, planners, planning committee members.

Poster Number: **P34**

**Evaluation of Door to needle time for the administration of streptokinase and the factors associated with the delay for patients with STEMI .**

**Rayan Mamoon<sup>1</sup>**

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A critical step in the management of STEMI is the opening of infarct related artery rapidly so AHA suggest a door to needle time of less than 30 min to achieve the best outcomes .

To Calculate door to needle time for fibrinolytic administration, list the possible causes of delay and document the in hospital complications.

Prospective observational descriptive cross-sectional hospital based study using a standardised questionnaire and checklist

24 patients were enrolled, The mean Age was 56.7, 14 were males and 10 were females. 62.5% had HTN, 45.8% Had DM and 50% had dyslipidemia, 8.3% received Oxygen, 83.3% Nitrate, 95.8% Aspirin, 66.7% Statin, 66.7% Clopidogril and another 66.7% anticoagulants. All of the patients had ECG done for them, 83.3% had Troponin, the ECHO was done for 8.3%. Out of the 24 patients only 15 were eligible for fibrinolysis a door to needle of less than 30 was achieved in only 26.8% the delay was due to lack of Senior and patient transferring to ICU, 4 patients develop in hospital complications HF, cardiogenic shock.

The recommended door to needle time of less than 30 min was achieved in a small minority of patients reflecting a poor hospital quality in dealing with such sensitive cases.

Ministry of health, Hospitals managers, Doctors who can't read the ECG, and every doctor who lost his patient because of injustice.

Poster Number: **P36**

**Evidence into practice into evidence: Learning about impact of community development on health and about evaluating complex community initiatives.**

**Gail Findlay<sup>1</sup>, Patrick Tobi<sup>1</sup>**

<sup>1</sup>Institute for Health and Human Development, University of East London, London, UK

Community development (CD) in health has a long history, but evidence for such asset-based approaches is still limited and holds back mainstream investment. This unique, collaborative programme of CD research and development is now in its 9th year.

Aim was to develop a robust, evidence based framework for community development for health that will realise community capacity, assets and control, influence policy and practice to improve wellbeing and resilience and help reduce health inequalities

The theory of change and framework CD intervention were developed, tested and refined in two phases over eight years through the Well London partnership work with 33 of London's most disadvantaged neighbourhoods. A collaborative programme of qualitative and quantitative research, at different levels, has run alongside from the outset; the latter including a population level CRCT in Phase 1 and participant level cohort study in Phase 2. Implementation support was provided, to ensure the fidelity of, and learning about, the developing model.

A range of positive impacts of Well London CD framework approach was identified, including: high levels of participation and high proportions of participants reporting improved mental well-being, physical activity and healthy eating and other important benefits, including increased confidence, social support and community cohesion and training, volunteering and job opportunities. There were also important findings about the challenges of evaluating CD, the realities of conducting research into such complex community initiatives and barriers to embedding CD in current mainstream systems.

This research and development programme has made important contributions to the evidence base for CD, and the Well London model specifically, as an effective framework for communities and local organisations to work together to improve health and wellbeing. In achieving high levels of participation in very disadvantaged neighbourhoods, the approach has potential to help reduce inequalities in the longer term. However, CD is a very different way of working, requiring systems change to realise its full potential and securing long term investment for CD continues to be very challenging indeed.

Learning relevant to Public Health Specialists, policy makers, commissioners and practitioners; including nationally and in Local Authorities, CCGs, Housing Associations and other organisations concerned with improving wellbeing and reducing health inequalities in disadvantaged communities

Poster Number: **P37**

**Public health interventions to protect against falsified medicines: A systematic review of international, national, and local policies**

**William Hamilton<sup>1</sup>**, Cormac Doyle<sup>1</sup>, Mycroft Halliwell-Ewen<sup>1</sup>, Gabriel Lambert<sup>1</sup>

<sup>1</sup>University of Cambridge School of Clinical Medicine, Addenbrooke's Hospital, Cambridge, UK

Falsified medicines are deliberately fraudulent drugs that pose a direct risk to patient health and undermine healthcare systems, causing global morbidity and mortality.

We aimed to produce a comprehensive overview of healthcare and pharmaceutical policies that could be deployed at international, national, and local scales to reduce the burden of falsified medicines in low and middle income countries (LMIC).

We identified 660 studies in a systematic search of the PubMed, Web of Science, Embase, and Cochrane Library databases, of which 203 met title/abstract inclusion criteria and were categorised according to their primary policy focus: international; national; local pharmacy; internet pharmacy; and drug analysis tools. 84 were included in the qualitative synthesis, along with 108 articles and website links retrieved through secondary searches.

Key policies to secure medicine quality are: 1. Robust pharmacovigilance with monitoring along the pharmaceutical supply chain and reporting to national medicine regulatory authorities; 2. Increased uptake of open-access global reporting systems such as WHO Medical Product Alerts to promote international knowledge sharing on falsified medicines; 3. Increased R&D on poor quality medicine detection; 4. Expanded and subsidised use of point-of-purchase systems like mobile phone verification, allowing consumers to check their medicines' authenticity and integrating with other "mHealth" initiatives.

Overall we emphasise the public health burden and prevention strategies for poor quality medicines, rather than focusing narrowly on intellectual property (IP) related concerns. We describe how anti-falsifying strategies that target different levels of the pharmaceutical supply chain can be combined to safeguard medicine authenticity, requiring national pharmacovigilance and international data sharing. Consumer medicine verification by mobile phone represents a new and rapidly growing area. The huge increase in mobile phone usage across Africa and Asia makes this a very promising strategy.

Safeguarding medicine quality depends on international, national and local processes. Pharmacovigilance involves monitoring along the pharmaceutical supply chain, including by the consumer at point-of-purchase. Information must then be passed up to national and international reporting systems.

Poster Number: **P39**

**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**

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<sup>1</sup>Public Health, IOW Council, Newport, UK

Since 1973 a national epidemiological survey has collected data on children's oral health, however low levels of consent threaten the validity of the data. The epidemiological survey collect data by visual examination in contrast to data collected through the IOW school survey, which is anonymous and provides data about children's experience/perceptions and can be correlated with related health areas, such as appearance and eating habits.

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.

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.

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 oral health responses can be correlated with other aspects of health and wellbeing captured through the same questionnaire, providing the opportunity to examine the association between oral health and the wider determinants that affect oral health. However, does not provide objective evidence of decay through visual examination.

With regard to resources the data collected and analysed by the school survey provides in-depth information about the child's oral health/wellbeing and their experience of oral health and disease. Whist this does not include visual measurement of decay; it gives a richer picture of the child's experience and perceptions. The oral health responses can be correlated with responses to other health/wellbeing questions which together provide a more detailed understanding of oral health within overall health and the wider determinants of health. These data make it is possible to more effectively design services to meet the needs of local children and are cost effective in comparison with the epidemiological survey.

PH commissioners, oral health practitioners, Public Health England, DPH's and researchers.

Poster Number: **P40**

**The South Gloucestershire Diabetes Prevention Programme (SGDPP): A pilot project**

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NICE recommends intensive lifestyle change programmes for 'at-risk' individuals, to prevent or delay onset of type 2 diabetes. This project offered the opportunity for individuals to receive such support and education, previously unavailable locally.

This study examined the impact, implementation, and delivery costs of a group-based diabetes prevention education programme for participants at risk of developing type 2 diabetes. Learning from the project will shape future diabetes prevention care.

Patients identified as 'at risk' from GP practice records were invited to attend a six-week X-PERT Prevention of Diabetes (X-POD) programme, delivered locally by trained educators. Changes from baseline to six months in objective measures of weight, BMI, waist circumference, HbA1c, and self-reported physical activity, diet, health status and psychological wellbeing were assessed. Focus groups and interviews were conducted to assess programme implementation. A unit cost economic evaluation of the programme was also undertaken

Attendance at group education sessions and six-month follow-up were maintained above 84%. Amongst 91 participants providing follow-up data for the outcome evaluation, significant positive changes were observed for weight (4.04kg loss), BMI (1.43kg/m<sup>2</sup> reduction), waist circumference (5.32cm loss), HbA1c (3.45mmol reduction), physical activity, and diet (all p

This project depended on close partnerships with all stakeholders, including LA Public Health, NHS South Gloucestershire CCG, Sirona, LTC Clinical Group, Primary Care, the Voluntary Sector and University of West of England researchers. It provides evidence of high acceptability, good retention, positive health and wellbeing impacts, and potential cost-effectiveness of a group-based diabetes prevention education programme. This information enables best practice to be embedded locally, forming a robust foundation to support development and roll-out of the National Diabetes Prevention Programme

Learning from this pilot will be relevant to Directors of Public Health, public health consultants, public health practitioners, commissioners, GPs and academics. It will also provide useful information for members of the public as the NHS DPP continues to be rolled out nationally.

Poster Number: **P42**

**Realising the true impact of film: Developing a novel framework to evaluate the impact of film on health**

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<sup>3</sup>Public Health, King's College London, London, UK

There are mounting concerns regarding our ability to address contemporary public and global health challenges using traditional public health tools and in the context of declining resources. Novel approaches using film may have a role to play.

We aimed to develop an evidence-based framework for evaluating the impact of films on public and global health outcomes.

Following a review of the current literature and consultation with stakeholders through an evaluation workshop, we hypothesised a theory of action relating films to population health outcomes. From this theory we developed a novel framework designed to provide guidance on effective ways of documenting and evaluating films that seek to improve public and global health outcomes.

The framework includes a nomenclature for films relating to health. It builds upon methods applied in other specialties and is similar to related initiatives in being guided by standard evaluation frameworks for public health interventions. It considers the components of a film, such as artistic qualities and the potential diverse public health effects of films, both direct and indirect. The framework suggests methodologies for assessing the impact of a film and allows for comparison between projects.

There remains limited evidence for the use of public and global health films with no existing validated methods for evaluation. Filmmakers, health professionals, policy makers, economists and researchers bring different perspectives and approaches to the task of evidencing impact and value. Our work proposes a common terminology and evaluation framework for films relating to health and would benefit from further validation in the field.

This research has implications for professionals in both public and global health, particularly those working in health communication and health promotion. Film, when used effectively, as guided by an evidence-based approach, can be a tool with diverse uses and far-reaching impacts.

Poster Number: **P43**

**Co-producing interventions to mitigate the impact of population mobility on patient health outcomes and service capacity in primary care**

**Patrick Tobi**<sup>1</sup>, Kevin Sheridan<sup>1</sup>, Caroline Frostick<sup>1</sup>, Ruby Farr<sup>1</sup>, Gopalakrishnan Netuveli<sup>1</sup>, Jin Tong<sup>1</sup>, Moses Ikpeme<sup>1</sup>, Ashwin Shah<sup>2</sup>, Gail Findlay<sup>1</sup>

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London has high levels of population migration and accounts for 37% of short-term residents in the UK. Understanding population mobility enables services to accurately estimate demand, plan, budget, allocate resources, and target care efficiently.

The project “Mitigating the impact of population mobility on health outcomes and primary care in Newham” aims to understand the local picture of mobility, identify patient and service impacts, and co-produce quality improvement responses.

A mixed-methods design was used involving (a) a scoping literature review, (b) analysis of general practice patient list churn rates, (c) geospatial mapping at practice and ward levels, and (d) a community and stakeholder engagement, assessment and co-design process (the Well Communities CSEAD) to map the ‘highly mobile’ patient journey from service user and provider perspectives. This involved patient and professional interviews, stakeholder co-design and prioritization workshops, using ‘world cafe’ and ‘appreciative enquiry’ methods

The evidence base was weak. The literature highlighted delayed general practice (GP) registration by new arrivals and barriers to access for migrants and mobile groups. Population mobility increased the workload of GP teams, demand for other primary care services and inappropriate use of emergency services. The prioritisation process identified four areas for action: a) patient experience (continuity and consistency of care), b) supporting staff and sharing good practice, c) patient understanding (access and navigation of health system), and d) communication between professionals and patients.

The co-production approach facilitated consensus on priorities for action emerging from the research by all stakeholder groups (patients, health professionals and service commissioners) and buy –in for the recommended interventions. The interventions aimed to improve better identification of, and service responsiveness to mobile patients. Given the systemic nature of the interventions, Newham Clinical Commissioning Group (CCG) committed to embed the implementation in its existing systems and structures and project manage them as part of its ongoing quality improvement programme.

Intended beneficiaries were health professionals, service commissioners, academics and patients. The research findings were therefore disseminated in different formats including presentation of headline finding, priorities for service intervention, academic papers and a patient newsletter.

Poster Number: **P44**

### **Perceived Help Seeking Behaviour of Breast Cancer Among Women in South Western Nigeria**

**Obioma C Uchendu**<sup>1,2</sup>, Danladi Adamu<sup>2</sup>, Olayide Olabumuyi<sup>1</sup>, Samson Idowu<sup>1</sup>, Oladipo Ogunbode<sup>1</sup>, Bolaji Ahmed<sup>1</sup>, John Akinola<sup>1</sup>

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Breast cancer has been identified as the commonest female cancer worldwide and late presentation is a major reason for the mortality burden. Interventions aimed at improving the help seeking behavior can improve breast cancer treatment outcomes.

This study was conducted among rural women to assess their help seeking behaviour (HSB) of breast cancer and also to determine the factors associated with their HSB.

A community based cross-sectional survey among 387 women aged 20-65 years was conducted in a rural community in Oyo state, Nigeria using multistage sampling. Information was obtained on socio-demographic characteristics, attitudes to breast cancer and perceived help seeking behavior. Multi-variate analysis was done to determine factors associated with HSB at  $p < 0.05$ .

Majority (88.6%) of respondents were within the reproductive age group with over half (54.4%) living above \$2/day. Respondents with good perception to breast cancer myths, outcome and treatment were 30.2%, 24.3% and 37.5% respectively. Respondents who were living on less than \$2/day had 0.5 odds of good HSB. (OR=0.5; 95% CI=0.29-0.87)

Health seeking behavior of women in rural areas is low. Poverty influences HSB hence the need to improve economic status of rural women to enhance their HSB for breast cancer.

The study was able to show that economic status has a role to play in prevention and early detection of breast cancer. Policy makers in health sector and non-governmental organizations interested in rural communities and community leaders will benefit from the finding of this work.

Poster Number: **P45**

**Assessment of Knowledge and the Practice of Breast Cancer Screening Among Rural Women in South Western Nigeria**

**Obioma C Uchendu**<sup>1,2</sup>, Olayide Olabumuyi<sup>1</sup>, Samson Idowu<sup>1</sup>, Danladi Adamu<sup>2</sup>, Oladipo Ogunbode<sup>1</sup>, Bolaji Ahmed<sup>1</sup>, John Akinola<sup>1</sup>

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Breast cancer remains a major public health concern in low-income countries. Late presentation at healthcare facilities and poor participation in breast cancer screening program has contributed significantly to the burden of disease.

This study was conducted to assess the level of knowledge and factors that determine the practice of breast cancer screening among rural women and to identify the factors that limit participation in screening programmes.

A community based cross-sectional survey using multistage sampling was used to select 387 women aged 20-65 years. An interviewer-administered questionnaire was used to obtain information on socio-demographic characteristics, perception and utilization of breast cancer screening. Multivariate analysis was done.

The mean age of respondents was 32.2years (S.D. 11.3), 343 (88.6%) were within the reproductive age group and 252 (65%) had less than tertiary education. Few respondents, 114 (29.5%) had ever heard of breast cancer screening and mostly (63; 55.3%) from health workers. Most of them (81; 71.1%) knew breast self examination (BSE) as a screening method. Women who had less than tertiary education were 3.3 times less likely to uptake breast cancer screening compared to those with tertiary education. (OR=0.3; 95% CI=0.09-0.97).

Knowledge and uptake of breast cancer screening among women in rural communities is low. Health workers have an important role in educating rural women on breast cancer and BSE including conducting clinical breast examination at well-women clinics that should be inculcated into primary healthcare (PHC) services.

The study was able to show the effect of educational status on likelihood of uptake of breast cancer screening programmes. With the increase in the burden of non-communicable diseases, policy makers in health sector and education sector as well as PHC workers are target audience

Poster Number: **P46**

**Strengthening national capacity on evidence-based vaccine policy making in India using transferable skills acquired from UK public health practice**

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My UK public health training and skills enabled me to support national capacity building for improved vaccination policy-making while leading the Scientific Secretariat, Evidence to Policy, Ministry of Health and Family Welfare in India in 2014/2015.

To support and strengthen institutional, organizational and individual capacity for evidence-based vaccination and immunization policy in India.

- Developing 'Code of Practice' for standard operating procedures and functioning of NTAGI
- Training of Trainers to improve understanding of evidence-based recommendations, critical appraisal skills and national capacity
- Introducing standardised 'Evidence Review Framework' to support informed decision-making on new and under-utilized vaccines in India's Immunization Programme
- Conducting an exchange visit to Advisory Committee on Immunization Practices (ACIP) at US CDC for learning and sharing best practice in immunization policy

The various capacity strengthening initiatives led to institutionalising evidence-based decision-making of the NTAGI. The Code of Practice and Evidence Review Framework contributed to enhancing evidence-based recommendations made by the NTAGI such as introduction of pneumococcal vaccine in India.

Public health skills of evidence-based policy and practice are often lacking in low-middle income settings. Capacity building in evidence review, synthesis and applying evidence for national policy-making requires Governmental commitment to addressing potential barriers at individual, organizational and institutional level. The high standards of UK public health training I had with strong emphasis on evidence-based policy and practice enabled me to contribute to developing credible, transparent and robust decision-making processes in vaccination policy in India.

The lessons learnt will be helpful for public health professionals working in resource constrained settings reinforcing the importance of a multipronged approach for addressing individual, organizational and institutional constraints to strengthening capacity for evidence-based policy and practice.

Poster Number: **P47**

**Unaccompanied Asylum Seeking Children - A Health and Wellbeing Needs Assessment for the North West Region**

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Since 2012, the number of Unaccompanied Asylum Seeking Children (UASC) in the UK is rising. Local authorities (LA) have a duty to safeguard their health and wellbeing under the Children Act 1989. Literature and LA knowledge of UASC needs is limited.

This health and wellbeing needs assessment identifies, analyses and prioritises the health and wellbeing needs of UASC arriving to LA, in order to inform strategies and the development of services.

A mixed-method approach was used for this health needs assessment. A scoping review of academic and grey literature was conducted to identify health and wellbeing priorities for UASC. Available national and local-level epidemiological data regarding prevalence, demographic characteristics and trends in UASC was analysed. Engagement and consultation was undertaken with key cross-sectoral stakeholders in the North West Region, e.g. the Regional Strategic Migration Partnership and experienced third sector organisations.

There are four commonly described distinct phases of experience: pre-flight, flight, temporary settlement, and resettlement. UASC may have suffered war, starvation, violence, trafficking, exploitation and infectious disease (ID). Good access to culturally sensitive primary and secondary care provision is essential. Treating and preventing mental illness is a major priority. A pressing need for immunisation catch up and ID screening exists. UASC's wellbeing also depends on wider determinants of health e.g. education, community, language, housing and leaving care legislation.

UASC are a heterogeneous population with complex health and wellbeing needs. This assessment outlines key health priorities including mental health, primary care and infectious disease. Wider social determinants need to be addressed to ensure wellbeing of UASC. In an environment of growing financial pressures, the identification of joint funding options for service development on a sub-regional level will be important to ensure these needs are met. For LA, these findings inform the strategic response to challenges faced by UASC.

Learning audience: Public Health Representatives; Members of Local Government; Third Sector Organisations; Health and Social Care workers

Poster Number: **P48**

**Strengthening the position and role of the Alliance for Health Policy & Systems Research (AHPSR)**

**Stephanie Collier**<sup>1,2</sup>, Daniela Valdes<sup>3,4</sup>

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<sup>4</sup>Global Healthcare Delivery Graduate, Harvard T.H. Chan School of Public Health, Boston, USA

With increasing recognition of the importance of health policy and systems research, the leadership of the AHPSR can be further strengthened to maximise its impact in the context of public health reform.

This oral presentation will provide suggestions from the international Public Health community and voices such as those of the Lancet for the AHPSR to increase its leadership, recognition, and evidence base in public health reform.

This oral presentation will develop the case to explore three opportunities for the AHPSR to increase its leadership and recognition, as well as to strengthen health policy and systems research. Our presentation will start with an outline of the current role of the AHPSR. We will next present a case for change and describe three future opportunities. We will then describe the expected benefits and outcomes for the AHPSR in embracing these opportunities.

This oral presentation will outline three main opportunities for the AHPSR: (1) Consult and develop a framework to guide priority setting for health policy and systems research at a global scale. (2) Lead the creation of a global fund that would channel resources to strengthen health systems research (3) Establish a task force within the Alliance to develop standards for incorporating evidence. These opportunities should lead to an improved evidence framework for public health reform at the national and local level.

Twenty years ago the WHO highlighted the need to strengthen health policy and systems research. Our oral presentation will describe three opportunities for the AHPSR to maximise its impact in the context of public health reform. The scope of health policy can be fundamentally altered with increased leadership, a wide-reaching strategy, adequate and targeted funding for health system research, and improved standards for incorporating evidence into decision-making. This may lead to greater arguments in favour of public health reforms at a national and local level.

This presentation is aimed at Public Health practitioners interested in Health Policy and Systems research, as well as those interested in Health Reform and creating standards for

evidence-based health reform. The presentation would suit early- to mid- career professionals working in health policy.

Poster Number: **P49**

**London Sexual Health Transformation Programme (LSHTP); joint working for new services, new pricing mechanisms and coordinated clinical specifications**

**Andrew Howe<sup>1</sup>, Jonathan O'Sullivan<sup>1</sup>, Mary Cleary<sup>1</sup>**

<sup>1</sup>Public Health, London Borough of Harrow, London, UK

The LSHTP is a partnership of 32 London Boroughs working to deliver a new collaborative commissioning model for open access sexual health services, producing better outcomes for patients and better value for commissioners

Taking opportunities offered by London's unique circumstances to drive change by comprehensive collaboration; embracing innovation, improving patient outcomes, protecting public health through reduced infections and making the most of resources

Led by a programme board, the collaborative has balanced strategic leadership with respecting local structures, agendas and decision making. Extensive consultation with clinicians, patients and the public led to a clear vision and the establishment of work groups to deliver the outcomes needed. A clinically led group agreed a new specification; an e services group developed the product and led procurement and a channel shift group explored ideas to support behaviour change; a system redesign group maintained oversight of interacting changes

The LSHTP has developed a new pan London e-services model for sexual health to better signpost patients to the right services and provide home testing kits where clinically justified; developed a new pricing mechanism that supports flexibility and planning; and supported sub regional groups to re commission face to face services with a new agreed clinical specification to support overall system transformation objectives

By championing and driving collaborative working the LSHTP has

- Transformed services; a new online offering, and a new London wide clinically agreed service specification.
- Improved resident access and experience. Patients will no longer need to attend a clinic but will access expert advice, triage and testing in their home or safe space elsewhere.
- Delivered substantial contract efficiencies through collaborative commissioning and channel shift away from expensive clinic attendance
- Built and maintained partnerships across London; sustaining a collaborative of 32 London boroughs

Groups in the health and public sector looking to transform services, improve outcomes and make the best use of diminishing resources can learn from the collaborative approach taken in London.

Poster Number: **P50**

### **The Return on Investment of Public Health: A Systematic Review**

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Benjamin Franklin once famously stated that “an ounce of prevention is worth a pound of cure”. We wanted to test this theory and understand the financial return on investment of public health interventions.

In 2015 the UK Treasury announced £200m cuts to public health budgets in England. To help inform the potential impact of these proposed disinvestments in public health, we set out to determine the return on investment of public health interventions.

We searched the PubMed, Medline, Scopus, CINAHL, Cochrane, PsycInfo and AMED databases using the following search terms: ‘public health’ (all fields) AND ‘return on investment’ OR ‘cost benefit analysis’ (title or abstract). We also hand searched the references of the included analyses to identify any further studies. A grey literature search was completed using Google, yielding three additional results. Limits were set to publications in English language. Studies with poor generalisability to the UK were excluded.

We identified 2957 potentially relevant titles, after excluding 2559 duplicates. A further 2816 papers were excluded following title or abstract review. We finally included 52 relevant titles published over four decades. Results were stratified by public health specialty and by interventions at local level or national level. The median Return on Investment (ROI) for all public health interventions was 14.3, and the median Cost Benefit Ratio (CBR) was 8. We calculated the opportunity cost of the £200m cuts as £1bn to the English NHS system over 10 years, with a further £1bn cost to partners.

We found that even with the most rudimentary economic evaluations, it was clear that most public health interventions are substantially cost saving. We demonstrated a public health “effectiveness hierarchy”. Public health interventions at local level averaged an impressive return on investment of 4:1. However, “upstream” interventions delivered on a national scale generally achieve greater returns with a median of 46:1. Therefore, any cuts to budgets will likely generate billions of pounds of additional costs to the health service and wider economy.

Public Health professionals, policy makers, UK Treasury Department.

Poster Number: **P52**

**Delivering system transformation and efficiency in sexual and reproductive health through online services**

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Online services can transform sexual health systems through increased access, integrated service provision and promotion of self-management. SH:24 is a design-led service providing online STI testing, chlamydia treatment and oral contraception.

This study evaluates the impact of SH:24 on different levels in the sexual health system in 2 London Boroughs with high rates of sexual ill health, specifically total STI testing capacity, access for new populations, treatment choices, contraception

SH:24 uses an agile, design-led and collaborative approach to service development which places an emphasis on user experience. The service has been developed with extensive involvement with and testing by users, clinicians, public health experts, and designers. To evaluate its impact, we used routinely collected, anonymised service activity data from the whole sexual health economy to investigate the effect of the introduction of the online service provided by SH:24.

Online services increased STI testing capacity by 9.6% from 73,714 (01/04/14-31/3/15) to 80,757 (01/04/15-31/03/16). 90.8% of online users were asymptomatic with a positivity rate of 6.8%. New populations were engaged - 19% of users had never used a clinic before. 11,353 chlamydia treatments were provided in 2015/16. A pilot of online treatment showed 95% uptake demonstrating the potential impact of this pathway. Users engage with online medical histories, self-reported blood pressure and SMS-based clinical conversations for contraceptive prescribing.

Online services have the potential to transform sexual and reproductive health systems by increasing capacity, increasing access, offering new treatment choices and therefore promoting self-management. By embedding a collaborative, agile approach, SH:24 minimises cost and risk while improving user experience - this approach can add value in public services.

All public health professionals and those involved in commissioning of sexual health services, developing patient pathways and promoting user experience.

Poster Number: **P53**

**Can you guess where you are? A comparison of online STI testing service use across England.**

Glyn Parry<sup>1</sup>, **Joia de Sa**<sup>1</sup>, Mark Clune<sup>1</sup>, Alex Critchell<sup>3</sup>, Paula Baraitser<sup>2</sup>, Gillian Holdsworth<sup>1</sup>

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Online sexual health testing services can enable access to testing by different population sectors. An innovative online service designed in partnership with terrestrial services is commissioned in 7 areas in the UK, including Telford & Wrekin

This study aims to compare uptake and use across commissioned areas.

We used routinely collected testing data to analyse use of the service in different areas by demographics and service uptake and use. We included cumulative data on use of the service since roll-out in each area.

In areas outside London, fewer users had been to a clinic before - see Table 1. Positivity rate was also generally higher outside London. The majority of users were asymptomatic, which is appropriate for the service. Within the London boroughs, the majority of users (51.8%) were in the 25-34 age bracket while in all other areas there was a higher proportion of younger users. In all areas, females used the service more than males. Use by ethnicity was related to local area demographics. We will include a table showing use of service as of end November 2016 - can you guess which one is T&W?

The online service increased access to STI testing in all commissioned areas and shows important differences in online service use in different geographical regions. This may reflect differences in unmet need and access to terrestrial services. Further work is needed to understand these differences.

All public health and allied health professionals, particularly those involved in sexual health services.

Poster Number: **P54**

**Health screening, the media- A growing public health communication tool.**

**Nike Arowobusoye**, Modupe Omonijo

<sup>1</sup>Public Health , Public Health , London, United Kingdom

Screening is an evidenced based public health intervention which is cost effective and saves lives using health communication strategies. The media is a useful health communication tool that influences and informs many people to improve their health.

To raise awareness of health communication in screening using visual representation of the information from a range of media sources.

We undertook a literature review (including grey literature) on health screening programmes in England. We conducted a thematic analysis of screening outcomes. We carried out an appraisal of media sources from 2012 to 2016 to obtain health screening related messages and stories. We summarised our findings in a visual representation that included the screening programme implementation timelines.

There is a range of information about screening in the media. This information is on the increase. We found that we could access the information easily. There are a variety of communication channels through which health screening messages are spread to the public. These messages vary in content and style. The public seem to have engaged with media health screening communication. Screening programmes benefit the population by earlier detection.

Health communication is a public health promotion strategy. There is widespread information and public interest about health screening messages in the media. The use of the media in health screening communication can result in intended and unintended consequences. Consistency in content and style of health communication may be helpful to achieve the objectives of the health screening to improve health the overall population health.

Informing public health stakeholders about health screening materials available in the media to highlight the relevance of this tool. Health communication strategies play a role in improving population health. The public is interested in health screening information in the media

Poster Number: **P55**

**The cost-effectiveness of ulipristal acetate versus levonorgestrel for emergency hormonal contraception: systematic review and updated cost modelling.**

**Saran Shantikumar**<sup>1,2</sup>, Janet Hutchins<sup>1</sup>, Vivienne Robbins<sup>1</sup>

<sup>1</sup>Department of Public Health, Leicestershire County Council, Leicester, England

<sup>2</sup>Department of Health Sciences, University of Leicester, Leicester, England

Emergency hormonally contraceptive pills (EHC) are frequently used to prevent pregnancy on a per episode basis. Levonorgestrel is the current EHC of choice. A newer drug – ulipristal acetate – has a lower failure rate, but is more expensive.

We compared the cost-effectiveness of levonorgestrel (LNG) and ulipristal acetate (UPA) in preventing pregnancy in women following an episode of unprotected sexual intercourse (UPSI).

The study was done in two parts. Firstly, a systematic review was performed to identify any form of economic evaluation which included a head-to-head comparison of LNG and UPA. The last search was done in November 2016. Following screening, the resulting citations were critically appraised and a narrative review undertaken. Secondly, an up-to-date NHS-centric cost-effectiveness model was produced to include direct healthcare costs. Incremental cost-effectiveness ratios (ICERs) were calculated, and sensitivity analyses performed.

Four studies compared the cost-effectiveness of LNG and UPA as EHCs. These were based in the NHS, in France and the USA. All studies were of reasonable methodological quality. Despite the large variations in settings, the costs of drugs, and the costs of unintended pregnancy, UPA was consistently found to be more cost-effective than LNG at avoiding pregnancy. Using recent cost data from the NHS, our model suggests that the routine use of UPA would result in a cost saving of £172 per additional pregnancy avoided (or between £58 and £285 in a sensitivity analysis varying outcome costs by  $\pm 10\%$ ).

UPA is sufficiently more effective than LNG to render it cost-effective overall if routinely prescribed as first-line EHC. We only modelled the direct healthcare costs of pregnancy until birth. As further direct and indirect costs would be incurred, our savings estimate is an underestimation. The healthcare costs of unintended pregnancy are borne by the CCG, whilst local authorities (LAs) bear the cost of EHC prescriptions in pharmacy and specialist services. The fragmentation of commissioning responsibilities may delay UPA implementation, with continuing pressures on LA public health grants.

From this poster, the audience will see how creating a simple economic model can give a dynamic approximation of cost-effectiveness. This example demonstrates a situation where LAs and CCGs could work in partnership to simultaneously save money across the system and improve health outcomes.

Poster Number: **P56**

**The impact of restricting the use of e-cigarettes in public places: a systematic review**

**Kimberley Cann**<sup>1</sup>, Kate Heneghan<sup>2</sup>, Teri Knight<sup>3</sup>

<sup>1</sup>All Wales, Public Health Wales, Cardiff, UK

<sup>2</sup>Observatory Evidence Service, Public Health Wales, Cardiff, UK

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There is much debate over the possible benefits and harms of allowing the use of e-cigarettes in public places. It is not known whether restricting their use will deter smokers from switching for harm reduction purposes.

To explore the research evidence on whether restrictions on using e-cigarettes in public places deter smokers from switching to e-cigarettes for harm reduction purposes.

We undertook a systematic search of the scientific and grey literature. Fourteen online databases, three topic specific websites, and an online search engine were searched. Reference lists of included studies were searched. All articles were screened by title and those included by abstract and full paper. Repeatability checks of screening were undertaken. Risk of bias was assessed in included papers using a checklist.

Of 352 articles identified, one estimated willingness-to-pay for the ability to use e-cigarettes in public places. Twelve studies estimated the proportion of smokers citing the ability to use e-cigarettes in public places as a reason for use. Fourteen studies reported attitudes towards restrictions in public places. Former and current smokers were significantly less likely to support restrictions on, or more likely to support the use of, e-cigarettes in public places than never smokers. Former smokers were significantly less likely to than current smokers.

Although our findings suggest that restrictions on use of e-cigarettes in public places play a role in smoker's use of e-cigarettes and that the size of that role varies between populations and by smoking status, there is an overall lack of evidence on whether restrictions on e-cigarettes in public places will reduce the likelihood of smokers switching to e-cigarettes as an aid to quit or reduce their smoking.

The ability to use e-cigarettes in public places may play a role in smokers' choice to use e-cigarettes and the size of that role may vary between populations and smoking status. Former smokers are less likely to support allowing the use of e-cigarettes in public places than current smokers.

Poster Number: **P57**

**An overview of systematic reviews on the public health consequences of social isolation and loneliness.**

**Nicholas Leigh-Hunt**<sup>1</sup>, David Bagguley<sup>1</sup>, Kristin Bash<sup>1</sup>, Stephen Turnbull<sup>1</sup>, Victoria Turner<sup>1</sup>, Nicole Valtorta<sup>2</sup>, Woody Caan<sup>3</sup>

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Social isolation and loneliness have been associated with ill health and are common in the developed world. A clear understanding is needed of their implications for morbidity and mortality and the extent of the associated public health challenge.

To provide a systematic evidence summary of the wider consequences of social isolation and loneliness, identify any differences between the two, determine differences from findings of non-systematic reviews, and to clarify the direction of causality.

Following Cochrane Handbook guidance, seven databases were searched from 1950 to 2016 for English language reviews covering social isolation and loneliness but not solely on social support. Suitability for inclusion was determined by two or more reviewers, the methodological quality of included systematic reviews assessed using the AMSTAR checklist, and the quality of evidence within these reviews using the GRADE approach. Non-systematic reviews were sought for a comparison of findings but not included in the primary narrative synthesis.

Forty systematic reviews of mainly observational studies were identified, largely from the developed world. Meta-analyses have identified a significant association between social isolation and loneliness with increased all-cause mortality, and social isolation with cardiovascular disease. Narrative reviews suggest associations with worse mental health outcomes, with less strong evidence for behavioral outcomes and other physical health outcomes. No reviews were identified for wider socio-economic or developmental outcomes, or studied the relationship between duration and impacts observed.

This overview highlights that social isolation and loneliness have a considerable impact on morbidity and mortality through cardiovascular and mental health. Therefore prevention strategies for them should be developed working across the public and voluntary sectors and taking asset based approaches. The role of social isolation and loneliness in other conditions and their wider socio-economic consequences is less clear. More research is therefore needed on associations with cancer, health behaviors, and the impact across the life course and wider socio-economic consequences.

Policy makers, commissioners in local government and for health should consider these findings on the role of social isolation and loneliness as upstream factors impacting on

morbidity and mortality due to cardiovascular and mental health, and address them when designing prevention strategies.

Poster Number: **P58**

**Pneumococcal vaccine uptake amongst patients with nephrotic syndrome requiring immunosuppressive treatment at Alder Hey Children's Hospital**

**Joanne Dangerfield<sup>1</sup>**, Laura Morris<sup>1</sup>, Caroline Jones<sup>1</sup>

<sup>1</sup>Nephrology department, Alder Hey Children's Hospital, Liverpool, UK

Patients with nephrotic syndrome are recommended to have PPV23 vaccination every five years. A patient, having not received PPV23, was admitted with severe pneumonia. This prompted a review of vaccination status in patients with nephrotic syndrome.

To review PCV and PPV23 vaccination status of children with nephrotic syndrome requiring immunosuppressant therapy. Once non-immunised patients were identified, implementations were to be put in place to improve uptake of PPV23.

30 patients with nephrotic syndrome using immunosuppressant therapy were selected for assessment. This group was perceived to be most at risk of invasive pneumococcal disease. General practices were contacted in August 2015 to confirm the patients' pneumococcal vaccination history. If a patient had not received PPV23 vaccination in the previous five years, their parents and general practitioners (GPs) were advised to arrange the vaccination. The vaccination status of the same group of patients was reassessed in February 2016.

Vaccination histories were available for 29 patients. 48% of patients had completed a primary PCV course. 10% of the 29 had received PPV23 within the last five years. Following intervention, 38% had received PPV23. A non-immunised patient then presented with pneumococcal spontaneous bacterial peritonitis and bacteraemia. The results of this review led to all other patients at Alder Hey Children's hospital with nephrotic syndrome (and their GPs) being contacted to arrange PPV23. The review raised awareness within the nephrology team of the importance of immunisation. Annual review is planned.

Pneumococcal immunisation rates of children with nephrotic syndrome requiring immunosuppressive therapy at Alder Hey Children's Hospital are low. It can, therefore, be assumed that most other patients with nephrotic syndrome, will not have received PPV23. As PCV was only introduced as part of the routine immunisation programme in 2006, a large proportion of the patients have no pneumococcal cover. This reiterates the importance of PPV23 uptake in this group of patients. More effort is required to promote the need for pneumococcal vaccination in this at-risk group.

Annual audit of patients would identify patients needing PPV23. A proactive approach would be best practice: education of the parents, prompts to GPs once diagnosis established, a review of immunisation history at every hospital attendance, having vaccines readily available in nephrology clinic.

Poster Number: **P59**

### **Community Engagement of Mosques in Health Promotion in Birmingham**

**Ainee Khan<sup>1</sup>**, Mohammed Vaqar<sup>1</sup>, Claire Pennell<sup>1</sup>

<sup>1</sup>Health and Wellbeing Team, Public Health England, West Midlands, Birmingham, UK

Health inequalities exist in Sparkbrook ward areas in Birmingham. The majority of residents in this area identify as being Muslim according to census data. There is evidence linking faith with health has the potential for positive health outcomes.

A collaborative pilot project with the community was undertaken to explore the role of faith institutions as conduits of health improvement incorporating both faith-based and faith-place based health initiatives. This was summarised in a toolkit.

A life course approach: synthesis of local health data, national guidance and case study examples from mosques on health promotion in the toolkit aimed at faith leaders to support them to promote health and wellbeing in the community. Areas included: child health, healthy eating, physical activity and mental wellbeing, preventing obesity, violence and addressing smoking, shisha and substance use disorders, early identification and protecting against diseases as well as wider economic and environmental determinants of health.

Mosques were undertaking a range of initiatives around health and wellbeing. Some used faith to embed health initiatives; others brought elements of faith into activities aimed to promote health and wellbeing. Examples included mental health first aid, mindfulness sessions centred around reflection in faith, park walks in between prayers, healthy eating classes for children, encouraging congregants to access local services aimed to improve lifestyle behaviours, mosque job clubs and community allotments. Engaging led to a reciprocal learning process between community and services.

Linking faith with health, both faith-based and faith-placed occurred in mosques in Birmingham. A range of health and wellbeing initiatives were taking place mostly due to volunteer efforts. However, most initiatives were one-off events leading to a lack of sustainability. The toolkit is the first step to support mosque communities to address health issues in the community and plan initiatives in a sustainable and structured way. The toolkit (with self-assessment) can be adapted by other communities in other areas to promote linking health and wellbeing with faith to reduce health inequalities

Communities, faith groups, local authorities, public health, health professionals. Engaging with faith communities to support them to encourage people to take control of their lives by altering lifestyles. These actions can reduce the likelihood of developing chronic health conditions.

Poster Number: **P60**

**“Outside the borders of the hospital- are community pharmacies an untapped resource for parents of children with minor illness?”**

**Mitch Blair**<sup>1</sup>, Godwin Oligbu<sup>2</sup>, Omar El Tokhy<sup>1</sup>, Michael Levitan<sup>3</sup>, Paul Gouldstone<sup>4</sup>, Peter Lathlean<sup>4</sup>

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Each year the number of children attending the Emergency Departments (ED) for minor ailments increases by 5% 2. Many parents are using ED services as a first point of contact. A large proportion of the attendances are low acuity. Greater use of community pharmacy services for minor ailments could help relieve pressure on healthcare providers in high-cost settings.3, 4 There are no systematic studies of community pharmacy use by parents.

To describe the use of community pharmacist minor ailment service (MAS) by parents in a single London Borough

A north London Borough CCG had put in place a service level agreement with community pharmacists for MAS. Mandatory completion of every consultation was carried out over a 12-month period. Age, presenting illness, time to consultation and feedback on the service were collected. Descriptive analysis of data.

There were 6974 consultations by 4174 patients over 12-month period (02/2013 to 02/2014) involving 47 Pharmacies with the provision of 70 over the counter (OTC) medication for 20 ailments. More than half (57%, n=2,379) of these were children below the age of 16 and half (52%, n=3,593) of these consultations occurred in less than one year old, of which only 2% (143) were signposted to either the GP or accident and emergency. 58% of total consultations (fever, sore throat and hayfever). 96% seen within 10 minute.99% (4273) fed back they would reuse the service again.

Community pharmacists contribute a valuable service for this group of children and may allow for more appropriate demand management in the community for less severe illness. There is potential for further involvement of paediatricians and public health specialists in supporting community pharmacy. This study needs to be repeated in other sites.

Participants will learn about an innovative use of community pharmacists to support demand management for acute childhood illness and hopefully inspire them to consider this relatively undervalued service.

Poster Number: **P61**

**Working with Primary care and Community networks to influence Public health outcome and reduce health inequalities**

**Barbara Wonford<sup>1</sup>**, Annapurna Sen<sup>2</sup>, Jeremy Phillips<sup>3</sup>

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<sup>3</sup>Public Health , Bedford Borough Council, Bedford , Bedfordshire

Public health report identified low performing practices which were failing to meet national or local standards in public health interventions and subsequently increasing health inequality within practice population.

A project was carried out to support Primary Care to reduce health inequalities in practice populations.

26 Bedford practices were ranked across 25 performance indicators including immunisations, screening, NHS Health Checks and Stop Smoking services. The seven lowest performing practices across all measures were visited to discuss the barriers facing practice populations in accessing services. These practices showed a higher level of deprivation; therefore, the team engaged with local community groups to identify ways to support public health in improving preventative interventions. Effective community engagement was achieved with community networks.

The most recent data on key preventive measures for these seven practices show a picture of change; mixed for immunisation and screening while NHS Health Check and Stop Smoking measures have generally improved. Evaluation demonstrates some issues facing practices are internal such as staffing and resources and findings were reported to the CCG board.

Effective engagement with community network improved their understanding of public health interventions and its importance in maintaining health outcome of Bedford's diverse communities. Community networks are now proactively working with Public health and primary care to support local health economy.

Primary care services in most deprived demography benefit from partnership working with public health and community networks in order to influence uptake of preventative interventions and improving health outcomes.

Poster Number: **P62**

**Oxfordshire Health Inequalities Commission: getting health inequalities on the agenda**

**Emily Phipps**<sup>1</sup>, Sian Griffiths<sup>2</sup>, Joe McManners<sup>3</sup>

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The social injustice of health inequalities is a preventable cause of lives being led in poor health and cut short. In 2016 the first independent Health Inequalities Commission was set up in Oxfordshire to quantify the problem and facilitate change.

An independent commission to review evidence on health inequalities in the county, drawing upon local experience and national best practice examples, in order to produce robust and achievable recommendations for action.

The commission, chaired by Professor Sian Griffiths with independent membership from stakeholders representing local political, healthcare, academic and charitable sector organisations, was established. Evidence was presented in writing and through face to face sessions engaging an audience invited to give comment. Evidence was then collated into a report and recommendations were presented to the Oxfordshire Health and Wellbeing Board who remain guardians of their implementation.

The Commission reviewed over 80 separate written evidence submissions from 39 organisations and 30 oral presentations from members of the public, healthcare organisations, charitable groups and council members. Five key principles were identified as essential to tackling health inequalities including resource reallocation, the need for a whole systems approach using Health in All Policies and better data to monitor progress. Key findings from the process included difficulty engaging under-represented populations, accessing accurate data and sustaining interest in implementing recommendations.

Variation in health and deprivation affects all counties, no matter how affluent. The formal processes of the Oxfordshire Health Inequalities Commission facilitated a transparent and robust method to identify the key issues relevant to the local area and form recommendations that were valid and achievable. The remit and processes of the Commission could be repeated by other authorities to influence choice across the local economy. Buy-in and representation from key stakeholders is essential to ensure the validity and sustainability of recommendations for action.

Delegates involved in health policy, commissioning and delivery will find this poster useful as it addresses a concern that is relevant and important to all levels of services. We

intend for all delegates to draw learning from the poster to implement similar processes in their organisations.

Poster Number: **P63**

**Increasing uptake of influenza vaccination among social care workers in Southwark using behavioural insights techniques.**

**Suzanne Tang<sup>1</sup>**, Sarah Robinson<sup>1</sup>, Sophie Baird<sup>1</sup>

<sup>1</sup>Public Health, Southwark Council, London, England

Flu vaccination uptake in social care workers is poorly understood. Previously in Southwark, vaccines were provided through a pre-paid voucher scheme with minimal promotional activity. No uptake information has previously been analysed locally.

Our aim was to use behavioural insights techniques to encourage vaccine uptake in frontline social care workers and identify an effective process to analyse health behaviour and increase vaccine uptake, which can be replicated for future programmes.

Staff groups were identified as those who have sustained or repeated exposure to vulnerable risk groups for flu. Instead of the usual voucher method, a novel approach using an online pharmacy reporting tool was employed to commission local pharmacies to deliver the vaccines with payment by activity. Staff could choose any participating pharmacy and attend without an appointment. A thorough and sustained strategy for communication and promotion using behavioural insights techniques was implemented throughout the programme to encourage uptake.

96 vaccinations were delivered to frontline social care workers in Southwark during the 3 month programme. Over a third of these were delivered to Social Workers. Only 37% of those vaccinated had taken up the flu vaccine last year. One social care team reported an uptake rate of 88%, which was likely to be due to an actively engaged and motivated team leader and direct encouragement from the Public Health team through a question and answer session. It was difficult to estimate the uptake rate overall due to very limited information on the total number of eligible staff.

This programme achieved a high uptake rate of up to 88% with positive feedback from both service users and providers. It highlighted the usefulness of behavioural insights techniques in health promotion and provided a template for future service provision. The majority of those vaccinated did not take up the vaccine last year, suggesting a change in health behaviour; and we expect that a positive experience this year will encourage future uptake. We recommend a thorough evidence review to identify relevant at-risk staff groups and engagement of relevant team leaders earlier in the process.

This presentation will be useful for trainees, consultants and other public health professionals working in health promotion and health protection in the local authority setting. It is also relevant for those with an interest in behavioural insights and community engagement.

Poster Number: **P64**

**A Public Health and third sector partnership approach to support evidence based delivery of sport to tackle HIV/AIDS in Sub Saharan Africa.**

**Ryan Swiers**

<sup>1</sup>Health and Wellbeing, Public Health England, Nottingham,UK

6000 deaths each day in Africa are attributed to HIV/AIDS; more than conflict, famine and floods. WHO and the United Nations (UN) support using sport to tackle health and social problems citing its ability to transcend boundaries and reduce stigma.

A joint working arrangement between Public Health England (PHE) and Cricket Without Boundaries (CWB) aimed to deliver an evidence review of sport based interventions tackling HIV/AIDS to underpin a strategy for the future work of the charity.

A comprehensive literature review was conducted in order to assess the strength of evidence regarding sport based interventions and develop recommendations for action. Search terms were reviewed by PHE library staff. Abstract review led to selection of relevant papers which were critically appraised and assessed for both quality and applicability. Recognised tools and methodology (e.g. GRADE) were used throughout. Recommendations were made based on review findings.

39 papers were screened and 16 deemed relevant. Overall evidence was positive around using sport to address HIV/AIDS, particularly relating to awareness, condom use, stigma and gender equality. The quality of studies was generally low to medium. No studies found adverse effects. A broad range of metrics were used within studies making comparison difficult and details around 'how' sport was used as the vehicle for health promotion were limited. Applicability of evidence for CWB strategy development was questionable as no evidence was found relating specifically to cricket.

A lack of high quality studies was unsurprising although the evidence was supportive of sport based interventions used in this context. Grey literature was not searched extensively although further evidence may exist beyond academic literature. The joint working arrangement shows possibilities for linking public health, particularly registrars, with third sector bodies for mutual benefit. Furthermore it has led to a multidisciplinary stakeholder event, improved evaluation and evidence based strategy. Collaboration with academic partners internationally to add to the evidence base is planned.

Audience members are expected to learn about the evidence base for the use of sport in the context of international health promotion. It is also hoped this work will prompt further discussion around registrar training opportunities and the role of public health more generally within the third sector.

Poster Number: **P65**

**'Stress Control': a population-level CBT/wellbeing 'class' for the common mental health problems. What does the recent research tell us?**

**Jim White**

<sup>1</sup>Consultant Clinical Psychologist, Stress Control Ltd, Glasgow UK

'Stress Control' is a 6 session approach widely used in the NHS and across the world. Participants do not discuss personal issues but, through the use of presentations, booklets, internet and audio, they are taught to 'be your own therapist'

Three recent treatment outcome papers, published in 2016 in peer-reviewed journals by independent NHS research teams (2 in IAPT services; one in NHS Northern Ireland, were analysed to see how well 'Stress Control' performed in routine settings.

Delgadillo et al reported on 4,451 participants: mean class size = 49, 71% of whom self-referred to community-setting classes Mills et al reported on 170 participants (90% completion rate) Burns et al reported on 2,814 participants (73% completion rate; mean class size 74, range 23-106). All three studies looked at pre-post performance using well-known anxiety and depression measures. Large class size is the hallmark of 'Stress Control': a recent class in Malahide, Ireland started, and finished, with 450 people

All three produced evidence of highly significant change on anxiety and depression measures pre to post. Burns suggested that results were at least as good as recent (IAPT) individual therapy published research and showed that 'Stress Control' was able to effect significant reductions for those with 'severe' anxiety and depression. Mills reported 100% of participants would recommend the class to a friend. Delgadillo reported outcomes consistent with efficacy benchmarks for guided self-help interventions such as computerised CBT and the importance of treatment fidelity in optimising outcomes.

Delgadillo: "The effectiveness of Stress Control in routine practice appears to be comparable to that of other brief interventions including CCBT. The delivery ratio and minimal need for clinician-patient contact enable Stress Control to considerably enhance access to support at low cost" Mills: "Stress Control was effective and feedback was overwhelmingly positive" Burns: "Stress Control appears comparatively clinically equivalent to the other IAPT interventions and produced higher recovery rates than the Green et al (2014) and Firth et al (2015) analyses of one-to-one work"

NHS services, focused on individual therapy, can see only the tip of the iceberg. 'Stress Control' appears to offer a cost- and clinically-effective approach for those with existing serious mental health problems and can offer a way to get in early and get beneath the tip of the iceberg

Poster Number: **P66**

**Stoke-on-Trent City Council 0 – 5 Years Healthy Child Programme Services Review**

Nisha Patel, **Susan Roberts**, Fiona Watson, Paul Trinder, Andrea Muirhead, Ray Lu, Henry Fong

<sup>1</sup>Directorate of Public Health and Adult Social Care, Stoke-on-Trent City Council, Stoke-on-Trent, United Kingdom

As part of the Healthy Child Programme, all children aged 0-5 years are supported by midwives, health visitors and the Family Nurse Partnership (FNP). Stoke-on-Trent City Council acquired overall responsibility for the programme in October 2015.

A services review was undertaken to establish families', staff and stakeholders' perspectives regarding current provision of Council commissioned 0-5 years services and to inform what they should look like in the future.

Current services were reviewed by consulting with those who used or were involved with delivering the health visitor service and FNP. These included families who used health visitor and FNP services, the health visitors and family nurses, and also other professionals that worked closely with the service. The review involved: delivery of 4 structured questionnaire surveys; 2 semi-structured questionnaire surveys; facilitation of 10 focus groups and 3 think tanks; and examination of service performance data.

550 people that used the health visitor service and 65 that used the FNP in Stoke-on-Trent responded to questionnaires. Over 90% of families were happy with the health visitor service, and all responders were happy with the FNP. 52 responses were received from the health visitor staff: 71% wanted to spend more time with families. 82 responses were received from wider stakeholders, which largely echoed findings from the health visitor staff questionnaire. FNP uptake data suggested only 16% of teenage mothers in Stoke-on-Trent were being supported by this service, rather than by health visitors.

The services review suggested that most people were happy with current provision but that improvements could be made in key areas. Recommendations included: Improving technology to increase efficiency allowing more health visitor time with families; and maintaining a universal, needs-led service so families can be stepped between levels of support as required. In addition, all families previously eligible for the FNP will now be cared for by health visitors at the highest level of support, alongside other families with higher need, resulting in more equitable care for everyone across the city

This review demonstrates the benefits of an evidence-based approach to commissioning in local government, particularly with regards to health and social care. It also highlights the importance of close partnership working and is relevant to both health and local government professionals.

Poster Number: **P67**

**Health Inequalities in Jersey: a mixed methods study**

**Marguerite Clarke**<sup>1,2</sup>, Priya Paudyal<sup>2</sup>, Duncan Gibaut<sup>3</sup>

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<sup>3</sup>Statistics Unit, States of Jersey, Jersey, Channel Islands

Health inequalities (HI) in the UK have been investigated and monitored for decades. However, little is known about HI in high-income small Island populations, such as the Channel Island of Jersey.

The study aimed to explore HI in Jersey by examining the differences in life expectancy at birth by geographical location and gender. To explore to the knowledge and understanding of HI and its causes among key civil servants.

A mixed methods approach was used; quantitative research was conducted using period life tables to calculate life expectancy for different demographic groups living in Jersey. Qualitative study was conducted using semi-structured interviews with nine civil servants from different government departments. The interviews were recorded, transcribed and analysed using a thematic framework approach.

A significant difference was found in life expectancy between urban and rural residents. A boy born in 2013-2015 living in urban areas could expect to live to 77.4 years, whereas a baby boy living in suburban areas could expect to live to 80.7 and rural baby born to 81.4 years (p-values

This is the first study to look at HI in a high income Island population. This empirical study not only shows that differences in health outcomes do exist for different parts of the population but also suggests some of the causal mechanisms at play amid a range of political and organisational contexts, at local, national and global levels.

This paper starts the discussion on how HI affect Islanders in crown dependencies in the British Isles and elsewhere. Islanders, public health practitioners and researchers with an interest in Island health will wish to further explore this area.

Poster Number: **P68**

**Mental skills training for life (MST4Life™): a public health approach to tackling in homelessness in young people in the West Midlands**

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Mental skills training for life (MST4Life™) is a 10-week youth development programme delivered in partnership with the University of Birmingham and St Basils youth homelessness charity.

The programme is designed to build resilience and promote the self-discovery and development of different mental strengths such as emotional control, teamwork, problem solving and organisation skills. The project assessed indicators of mental health, physically activity, substance use, self-harm and suicidal ideation.

The programme involves 10 weekly sessions and a short outdoor pursuit residential using the theory of psychologically informed environments.

Programme evaluation revealed high levels of enjoyment and satisfaction. By the end of MST4Life™, young people reported significantly improving their resilience and optimism. In addition to these, indicators of mental health, young people also report being significantly more physically active and, in some specific cases, reducing substance abuse, self-harming, and suicidal ideation. Several weeks after a programme has finished, young people report continued benefits to day-to-day living such as being better able to self regulate their thoughts, feelings and behaviours.

In two years, MST4Life™ has reached over 350 homeless young people living in supported accommodation. By the end of MST4Life™, young people reported significantly improving their resilience, self-worth, engagement and optimism.

Public Health; local authorities; housing; homelessness; VCS; children and young people; NHS

Poster Number: **P69**

**Open Online Courses in Public Health: experience from Peoples-uni**

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Open Online Courses (OOCs) were developed by Peoples-uni to complement courses run for academic credit, by providing a wide range of online learning topics beyond those usually found in credit bearing Public Health courses.

To report early experience with self-paced, self-enrolled courses and explore the potential of these courses to build capacity within the public health and broader health professional workforce both in low and middle-income countries and in the UK.

Courses are on a Moodle open source educational platform at <http://ooc.peoples-uni.org>. Learning outcomes are specified and links given to online resources, with metadata to direct students through the resources. Questions are posed for students to reflect upon. Quizzes test knowledge, and a certificate of completion is automatically generated if various criteria are met such as accessing resources and completing the quizzes. There is no specified timetable and students pace themselves through the courses which are free to access.

In the first two years, 1174 participants registered, from 100 countries, 18% from the UK. Criteria for the award of a certificate vary - overall 15% were awarded certificates with some variation between courses. Participants were evenly distributed between males and females, mostly born between 1970 and 1989, and 58% were health professionals and 25% students. The majority of participants came through recommendation and this would be their first experience of online learning. Comments from feedback forms were generally positive, although suggestions for improvement were made.

Easily accessible and appealing to a wide geographical and professional audience, OOCs have the potential to play a part in establishing global Public Health capacity building programmes. Through the development of OOCs, Peoples-uni has built on its successful track record as an international volunteer-led provider of Masters-level online courses.

Public Health colleagues might consider the use of easily accessible online education for the extended public health workforce in the UK and beyond, and for CPD for existing public health professionals. There are opportunities to collaborate with Peoples-uni on further developments.

Poster Number: **P70**

**Title: Revisiting Rickets – Are we under-reporting?**

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Background: Rickets is the commonest childhood complication of vitamin D deficiency. Since the last national survey in 1945, there has been a steady rise in incidence of rickets.

Aim To establish if there are additional non- paediatric sources of case ascertainment in a single Trust which might inform national surveillance.

We performed a key word search of the Computerised Radiology Information System (CRIS) over the 18 month period of the current BPSU reporting period for Rickets (03/2015 to 08/2016), for children up to the age of 16 yrs. We interrogated all requests and reports which contained the key word "Rickets." We analysed the referrer source, images obtained and outcome of the film. This was also matched with their corresponding vitamin D serum level and clinical background from case files to fulfill the British Paediatric Surveillance Unit criteria

Results: A total of 32 patients {General Practitioner (GP) referred 15 (47%), Outpatients (OP) 12 (37), Emergency Department (ED) 4 (13%), inpatients 1 (3%)} were found to have a request containing the key word "Rickets." Of these, 8 patients had a diagnosis of rickets on imaging. 25% (n=2) were referred from GP, 50% (n=4) OP, and 25% (n=2) from ED. Interestingly, none (100%) were reported via orange card system and only 62.5% (n=5) were followed up by consultant paediatricians.

Conclusions: Our results showed a significant under reporting of rickets. Additional strategies will therefore be required to enhance complete reporting. Standardizing collection and reporting of individual cases across regions and by professionals may allow monitoring of trend of rickets over time. In addition, given the number of referral and reporting from the GP, educating GPs and involving them with BPSU reporting systems may enhance case ascertainment.

Learning Outcome: A BPSU survey is in progress to establish the current national status, in order to determine the incidence of nutritional rickets in the UK from March 2015 to March 2017 using the “orange card” system. Accurate and complete ascertainment is a key objective.

Poster Number: **P71**

**Making public health everybody's business: from education to practice**

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There is a growing need for doctors to take a holistic approach to patient care and tackle inequality. As we move towards integrative care, medical graduates should also be equipped with skills to address the social determinants of health.

The medical school aims to develop an innovative curriculum where students will be trained across all sectors to promote health and tackle inequality. We would like to foster a local community of practice, 'making public health everybody's business'

Public health as a longitudinal theme is being embedded across the curriculum in integrated seminars, innovative student selected components, clinical vignettes and OSCEs. Public health specialists teach alongside clinical specialists in hospital settings. Opportunities for experiential learning within social care, community services and public health services in the council are being explored. In addition to council staff being involved in teaching, the council is also offering in-house teaching facilities for students.

The curriculum has been revised to incorporate public health and evidence based practice into clinical rotations. Social care and community placements are being incorporated into elderly care and acute medicine rotations. Students are trained to address lifestyle factors and social determinants alongside treatment of illness. To evaluate the effectiveness of this integrated curriculum, we are gathering data which can demonstrate changes in students' attitudes, knowledge, behaviours, skills and clinical outcomes (Kirkpatrick's model of evaluation).

It has been feasible to establish links between the medical school, acute trust, primary care, council, CCG and community services. Preliminary findings suggest that this is promoting an evidence based practice ethos and expanding public health capacity within the health and social care community. These collaborations have fostered knowledge exchange, research and innovation. The medical school's innovative curriculum will provide a workforce which will be better placed to embrace the sustainability and transformation agenda and tackle health inequalities.

This work is relevant to academic public health teams, local authority public health teams, medical schools, CCGs, primary care practitioners, Health Education England, PHE and NHS England. Key message: medical schools have a role in establishing local communities of public health practice

Poster Number: **P72**

**Community-based medical education: A transformational approach to better connect our universities with public health practice**

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A global push is ensuring medical education enables evidence based clinical learning responsive to societal needs. Potential benefits include graduates sensitive to relevance of public health in clinical practice and responsive to health inequalities

Faculty members in two medical schools aim to enhance medical education through community-based learning. Medical students are being trained to develop a holistic approach to medical practice and be responsive to diverse community needs.

Public health is being embedded horizontally and vertically across the curriculum in both medical schools in the form of clinical vignettes, PBLs, seminars, OSCEs and innovative 'real life' learning outside classrooms. Teaching by clinical specialists and council staff is being explored. Both schools are exploring student placements in community-based services including local councils and primary care teams. One school is also working to enhance the learning experience in the form of local communities hosting students for a week.

Students in both schools are being trained to develop a holistic approach to medical practice with emphasis on health advocacy. "Hands on" visits and placements are being built into elderly care and social care settings for insight into health, illness, access to preventive and curative services from a socio-economic-environmental perspective. Curriculum is being revised in one school to incorporate a rural familiarisation week to enhance community-based learning. Data is being gathered to evaluate effectiveness of integrated curriculum with one school using Kirkpatrick's model of evaluation.

Universities can play a crucial role in unlocking public health potential that exists within the model of community-based medical education. Two new medical schools, with comparable country profiles, are establishing links with community services in health and non-health sectors with a view to producing medical graduates sensitive to culture and community needs and advocates for preventive services. Preliminary findings from the UK school suggest that such an approach is promoting an evidence-based ethos, expanding public health capacity in the community, fostering research and innovation.

Community-based medical education can facilitate evidence based clinical learning responsive to societal needs. It has potential to address inequity and health inequalities, even attracting future doctors to disadvantaged areas. Universities play a key role in driving this transformational approach.

Poster Number: **P73**

**Promoting Immunisation – Shropshire School Debate Competition**

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Immunisation coverage in Shropshire is higher than national averages, however uptake rates vary across different areas in the County. A school debate was organised as part of various local promotional initiatives.

- To raise awareness about immunisation among school aged children
- Explore school aged children's perception about vaccinations

A school debate was organised in Shropshire on topic of “whether immunisation should be made compulsory for school admission”. All secondary schools were invited to send teams. Each team was asked to present arguments for and against the compulsory vaccination. A panel of experts from the Shropshire Community Trust and Shropshire Council Public Health department were available to respond to queries from schools.

44 students from years 7 to 9, from 10 secondary schools participated in the debate. The key arguments in favour of compulsory vaccination included herd immunity and protection of friends and family members from life threatening diseases. Personal, religious and culture factors were highlighted as main arguments against compulsory vaccination. Majority of the participants reported that they are more aware about immunisation after attending the debate (95%) and over 80% of the participants feel comfortable in recommending immunisation to their friends and family.

A number of schools were successfully engaged in the debate and found the whole experience very enjoyable. The debate resulted in increasing awareness of immunisations among school aged children. The feedback also showed that debate promoted discussions between children, and their family and friends. Though a number of students used online NHS resources to collate information to support their arguments, it was clear that some of the evidence was obtained from unreliable online resources. Information packs were provided to schools to provide key facts about vaccination.

- A school debate is a good initiative to promote public health messages.
- Population has access to health information on a range of online platforms. This could include incorrect information. Therefore there is a need to ensure that population is signposted to accurate information

Poster Number: **P74**

### **High Incidence of Tuberculosis and Hepatitis B Infection in Unaccompanied Asylum Seeking Children**

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In 2016, 3175 unaccompanied asylum seeking children (UASC) arrived in the UK. The majority were from TB endemic countries. The incidence of active and latent tuberculosis infection and hepatitis B in this high risk group are unknown.

The aim of this retrospective case note review using routinely collected health data was to assess the incidence of active TB disease, latent TB infection and hepatitis B in UASC presenting to paediatricians in two centres.

The notes of all UASC seen by TB services in 2016 were reviewed by treating clinicians in two centres. All were screened for TB. Hepatitis B screening was done according to local guidelines. Results were reviewed and entered into an Excel database. The following case definitions were used: Latent TB infection: tuberculin skin test result of  $\geq 5$ mm or positive interferon-gamma release assay (Quantiferon-Gold) Active TB disease was diagnosed in accordance with NICE guidelines.

Results were available on 49 children. 11 children (22%) were diagnosed with and offered treatment for latent TB, all of whom accepted therapy. Three children (6%) were diagnosed with and treated for pulmonary TB; two were referred through the emergency department following failure of timely screening. Of the 14 children tested for hepatitis B, three were positive with high hepatitis B viral loads, requiring referral for treatment. Four children had asymptomatic helminthic infection. We will now offer all UASC an infectious diseases consult and are working to improve referral pathways.

There was a high pick up rate of hepatitis B, latent TB and cases of active TB amongst UASC seen in our clinics. The numbers here are small and collaborative collection through TB networks would be useful to obtain a national picture of the infectious diseases health needs of this group. Screening for TB and infectious diseases is not being done in a timely fashion with subsequent avoidable morbidity and onward transmission of infection. There is an urgent need for better coordinated national and local processes to meet the complex needs of this vulnerable group.

Key learning points: - There is a high pick up rate of TB and Hepatitis B in this high risk and vulnerable group. - A timely referral process for screening could reduce morbidity. Audience: General Practitioners, community and general paediatricians, commissioners, public health specialists.

Poster Number: **P75**

**Promoting Public Health Messages – Shropshire Recovery Film Season**

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Shropshire DAAT team is leading on addressing the imbalance between the medical treatment model and recovery focussed system. One of the key elements is to raise public awareness of harm related to alcohol misuse.

- To raise public awareness of recovery focused systems in Shropshire

As part of 2016 National Alcohol Awareness week, celebrating recovery from alcohol, a Recovery Film Season was organised for members of public and service users in Shropshire. Four Hollywood movies with focussing on alcohol dependency and recovery, were chosen by the Service Users Recovery Forum (SURF) and were shown at four different locations in Shropshire in partnership with local film clubs and premises. This series of films was supported and fully funded by Film Hub North West, which is a member of the BFI Film Audience Network.

DAAT team provided a background to the local Recovery agenda and services at these events. Feedback from the event was extremely positive, with respondents describing their experience as • Stimulating • Amazing • Gripping • Thought Provoking • Moving and Realistic Discounted tickets were made available to service users and their family and friends. Feedback from those service users who did attend was again very positive. Majority of the respondents attended the screenings in these venues for the first times and majority feedback that are likely to attend similar sessions in future.

Though the number of attendees was small, the film season was successful in promoting the services and aims and objectives of Recovery. DAAT team received excellent support from the screening venues including promoting services through leaflets and posters. This has resulted in developing new working relationships and the potential for future partnership work between the Public Health Department and the participating venues.

Public health messages can be promoted through various channels including working in partnership with local film clubs and service users.

Poster Number: **P76**

## **Inequalities in diagnoses of sexually transmitted infections across Greater Manchester**

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In recent years, many United Kingdom sexually transmitted infection (STI) rates have risen. Local authorities must now commission STI-testing. Devolved power to Greater Manchester (GM) local government has prompted plans to transform such services.

The aim of this study was to explore the distribution of STI diagnosis (and related inequalities) in GM residents by demography, place, and other factors related to clinic access.

Descriptive epidemiology by time, place, person used STI diagnoses for GM residents from three routine data systems: --Genitourinary Medicine Clinic (GUM) Activity Datasetv2 (GUMCADv2), --Chlamydia Testing Activity Dataset (CTAD), --HIV and AIDS Reporting System (HARS). Basic analysis used frequencies and proportions. The primary outcomes compared: 1) chlamydia diagnoses in GUM clinics vs community (place); 2) STI diagnoses in a distant vs local GUM clinic (place); 3) late vs timely diagnoses of HIV (time), all including person characteristics

Being a man and being aged 45 years-old was associated with late diagnosis, odds ratio=3.13 (95% confidence interval: 1.58-6.18). Incomplete data on country of birth or country of infection may well have affected the ability to determine any association between these and late diagnosis.

There were inequalities in diagnoses of STIs across Greater Manchester. The associated factors were specific to the STI diagnosis, the setting and, for HIV, the different stages of disease. Sexual orientation, age, and gender were all associated with differing clinic access. These findings could be used to improve access to care by informing the design of services, particularly related to the different ways that subgroups access testing. For HIV, the needs of older people at risk of HIV (as well as other groups with high need) should be a priority to ensure timely diagnosis.

The Greater Manchester local authorities are working together on one system of sexual health services to commission in 2019. These findings inform that planning and should help: --public health professionals interested in how STI diagnosis/care differ by subgroups, --commissioners of such services.

Poster Number: **P77**

## **An audit of TB in Prisons & Immigration Removal Centres in the South East of England**

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Prison and Immigration Removal Centre (IRC) settings present a challenge to the prevention of TB given the high turnover and proximity of detainees, multiple risk factors for disease and on-going pressures on prison staffing levels and facilities.

This audit aims to investigate whether cases of TB in places of prescribed detention (PDDs) are identified, screened, contact traced and discharged and whether training and screening is available for prison staff, in accordance with NICE guidelines.

Public Health England (PHE) developed a TB audit tool to measure organisational structure relating to TB, as well as training, screening and follow up of detainees with TB against national standards set out in the NICE guidance. This audit tool was self-completed by 21 PDD health care teams representing 20 prisons and three IRCs, as well as eleven community TB nurses working with these PDDs, in July to September 2016. The responses were collated, analysed and summarised by PHE South East.

This audit demonstrates that the majority of prisons and IRCs across the South East of England have appropriate policies and care pathways in place to appropriately screen new receptions for TB and provide investigations, follow up and treatment for the duration of detainment. It remains, however, that one third of prisons and IRCs do not have a TB lead or TB policy in place, while over 40% of prisons/IRCs do not have an agreed care pathway for TB. Over three quarters reported no latent TB screening policy or incorporation of testing into the current substance misuse screening programme

This audit highlighted variations in practice relating to screening, management and follow up of detainees with TB in PDDs across the South East. This could reflect differences amongst PDDs and TB teams, including resource provision, the type of detention and the incidence of TB in different localities. A particular concern is the absence of TB policies in around a third of prisons. There remain significant areas for improvement, including health promotion for detainees, staff training on the signs and symptoms of TB, provision of directly observed therapy and access to PDDs by TB services.

Given what is already known about TB, and the broad availability of adequate treatment and services, the scope for improving the overall management of TB in PDD settings provides an exciting opportunity to further progress towards its elimination.

Poster Number: **P78**

**Title: Cerebrospinal Fluid Pleocytosis following Meningococcal B vaccination**

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01/09/ 2015, UK infants were offered primary Meningococcal B vaccine, followed by a booster at 12m. Because of high rates of fever post-vaccination, parents were advised to give three doses of paracetamol with the first dose given as soon as possible

To establish if there are additional health impact of non compliant with administering paracetamol following Meningococcal B vaccination in infants

Case Summary: 11 weeks old otherwise well infant presented to the accident and emergency with 24 hours history of fever following his first dose of immunisation with a temperature spike of 40.4C. A dose of paracetamol was not administered until the following day. Prior to this admission, He was treated for GBS sepsis at 8 weeks of age with a 7 days course of ceftriaxone. He had a full septic work up then with a peak CRP of 92 and a clear CSF but positive blood culture

Results: On examination, apart from being miserable, no other significant findings. He had a full septic work up with a CRP of 112, WBC 19, Neutrophil 13, platelets 407, lymphocyte 4.2 and normal clotting. The CSF showed 29 polymorphs, 7 lymphocytes, 82 red cells, and no organism was seen. The CSF culture and PCR including bacterial and viral were all negative. His blood culture, urine, throat swabs and NPA were also negative His temperature settled after 48 hours and he remained well in the hospital. He was discharged after 2 weeks course of ceftriaxone. His follow up was unremarkable

Conclusions: There is currently lack of data to inform the management of this increasing number of infants presenting to the emergency department (ED) following meningococcal B vaccination. In addition, a detailed surveillance is needed to further assess the health and economic impact of this vaccine.

Early administration of paracetamol can significantly reduce ED attendances and unnecessary investigations in this vulnerable infants

Poster Number: **P79**

**Age and sex –related patterns of ethnic disparities in childhood BMI: a multi-level analysis of locally available data in Coventry**

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Research suggests that there is variation in childhood obesity across ethnic groups in the UK, although findings are inconsistent. The influence of other variables such as individual, school and neighbourhood characteristics is not well understood.

The aim of this study was to establish whether there is variation in childhood BMI across ethnic groups in Coventry, and the influence of additional individual, school and neighbourhood factors.

National Child Measurement Programme data was combined for years 2007/8 - 2014/15. Multi-level analysis using Monte Carlo Markov Chain methods was used to account for the clustering of children within schools and neighbourhoods, using MLWiN v2.36 for Stata v13. Ethnic group differences in BMI z-score (zBMI) were explored as models were built, introducing individual, school and neighbourhood characteristics sequentially, with White British as the reference group. Model fit was based on changes in the Bayesian Deviance Information Criterion.

At 4-5 years (n=29,727), ethnic group differences were similar for boys and girls. Children from South Asian, Other White, Chinese and Other ethnic groups had a significantly lower zBMI whilst Black African children had a higher zBMI than White British (WB) children. At 10-11 years (n=26,682), boys from White Other, Bangladeshi, Black African and Black Caribbean groups had a significantly higher zBMI than WB boys. For girls, only children from Black ethnic groups showed a significantly higher zBMI. These differences were not explained by individual, school and neighbourhood characteristics.

The findings indicate ethnic disparities in childhood adiposity in Coventry, with patterns that differ by age and sex, which has implications for the targeting of local resources and services. There is a need for further exploration of the factors driving this variation, in particular the influence of contextual, cultural and environmental factors using qualitative methods. Strengths of the study include utilisation of local data and a large data set, allowing exploration across a broad range of ethnic groups. However, as a secondary analysis, the variables are limited by the available data.

The findings will be of interest to those working with families in Coventry, for the targeting of local resources; to public health analysts in other regions, who may value the methods described; and to other researchers in the field, through the highlighting of directions for future research.

Poster Number: **P80**

## **The Barriers of Binary Thinking: Tackling Health-related Worklessness on the Wirral**

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High levels of health-related worklessness on the Wirral are estimated to cost the taxpayer around £69 million annually. The issue is particularly acute in Birkenhead where, in some areas, up to one in three people are claiming ESA.

Wirral Council commissioned insight work to shed new light on the daily experiences of those experiencing health-related unemployment, and uncover solutions to improve health and support individuals back to work.

A mixed method, ethnographically inspired approach was used, triangulating experiences from a range of individuals in the system. This included stakeholder interviews (with frontline staff and decision-makers), place-based ethnography, natural focus groups, and depth interviews with residents. Over 150 residents were interviewed across the methodological strands. Following the fieldwork, an innovation process consisting of co-design and test-and-learn workshops and group discussions was undertaken

Key insights included: v ESA-claimants are being dissuaded from using services which are deliberately aimed at the 'ESA cohort' –rarely seeing themselves as similar to other claimants v Binary fitness-to-work distinctions can make the end goal of getting back to work feel insurmountable, encouraging claimants to give up v Some individuals feel unable to do any activity that improves wellbeing as it does not mirror their understanding of what a claimant 'should' be doing. Wirral Council developed and are implementing a jointly-funded commission for new services aimed to address these barrier

Achieving strategic, large-scale change requires effort over a long time, requiring a cultural shift in how the current system is working, and changes to many operational aspects. With closer dialogue between healthcare and employment professionals, a more complete 'treatment' solution for the individual can be established, looking at the impact of healthcare decisions on an individual's trajectory back to work. This will not be achieved through one discrete programme. The Investment Team and Public Health Team have therefore undertaken a collaborative commissioning exercise.

The key audience are commissioners and frontline staff working with this cohort (across health and work services and community organisations) locally and nationally. To date stakeholder engagement has included local authority, the Vanguard, DWP and CCG.

Poster Number: **P81**

**Reflective Practice Meetings: An evaluation of the effects of a workplace intervention in reducing sickness absence days**

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Reflective practice meetings are recommended for supporting the wellbeing of public health practitioners. Little is known about the time taken to produce beneficial effects and the size of such benefits.

The study evaluates the outcome of introducing regular reflective meetings to a small departmental team in terms of impact on sickness absence days, costs, benefits and experience of reflective meetings.

Intervention; Analytically Informed Reflective Practice. Focus: emotional impact of work, team relationships, re-organisation and organisational culture. Duration: 90 minutes, monthly. Delivered in a group format by a facilitator external to the department. Participants; A team consisting of art therapists, music therapists, assistants and departmental manager. Quantitative Measures; Baseline and follow-up of sickness absence days Qualitative Measures; Semi-structured interviews of participants conducted by an independent interviewer.

Sickness absence rates reduced four-fold in quantity from baseline. The total annual reduction in sickness absence days equated to five-fold the total time used for the reflective practice meetings. At interview the participants reported the experience of reflective practice meetings as being beneficial. Success of the initial evaluation led to the expansion and adoption of the model by the wider department encompassing approximately 120 staff.

Reflective practice delivered in this way was associated with improved sickness absence patterns. The improvement does not occur immediately but could be detected by the ninth month of the intervention. The time-scale for improvement was consistent with a mode of action similar to group psychotherapy. Staff found team supervision beneficial and improved their understanding of team relationships. The treatment was cost-effective in terms of cost saved through reducing staff sickness. Other benefits include improved resilience in terms of the team maintaining an increased caseload.

The poster will be of benefit to public health practitioners wishing to set up, evaluate or make a case for introducing reflective practice meetings or group supervision to their work place. The presentation will also give guidance on the time-points for collecting data for pre-post evaluations.

Poster Number: **P82**

**Developing a prioritisation framework for Northamptonshire county council**

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Applying approaches for prioritising resource allocation learned from healthcare would allow council commissioners to allocate resources where they can achieve the best outcomes, both in terms of outcomes for individuals, e.g. from social care, and also population and place outcomes.

The aim of this project was to develop and implement a framework and process for prioritising resource allocation for the county council. The framework was to be appropriate to the culture and applicable to the entire business of the council.

A literature review was carried out to identify some possible prioritisation approaches that could be tried in the context of the council. An options appraisal was carried out to determine which approach, or approaches would be most appropriate in the local context. The change management model was loosely based on Kotter's 8-step process and included a significant element of public engagement.

The prioritisation framework and process were developed, taking a mixed methods approach, involving socio-technical and multi criteria decision-making, plus stakeholder engagement, underpinned by an ethical framework. This combined approach enables participation for increased transparency and acceptance of decisions; uses evidence, intelligence and expert input to make robust decisions; is intelligence led: informed by robust public health and business intelligence and soft intelligence from members, staff, residents and service users; will be managed within existing resources.

Despite some initial opposition, from both colleagues and some members, the plan for introducing a prioritisation framework was approved by the Cabinet and accepted within the council. A clear statement of values and principles for prioritisation helps to bring people together behind the framework and increases the likelihood that it is successfully implemented.

Public health and other local authority staff and members will learn about the application of evidenced-based prioritisation to improve resource allocation to achieve outcomes.

Poster Number: **P83**

**Public health in India: outcomes of an overseas study programme for public health students at the University of Wolverhampton.**

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Public health students gain an understanding of how policy and practice differs in other parts of the world through interactions with overseas students. This overseas field trip provides an additional opportunity to explore global health issues.

Through an experiential learning process, this two week course enables students to understand how public health practitioners address health needs in India and the opportunities and constraints policy and funding has on their practice.

Opportunities to study alongside and learn from overseas students has reduced due to changes to UK student visa rules. Through joint partnership with the a large University in India, Dr Khutan (Head of Public Health) and Mrs Solanki (Senior lecturer) developed a programme to address this gap, and provide students with first hand experience of practice in India. Focussing on health needs, students learn about approaches initiated by the government as well as those coordinated and delivered by NGOs and local populations to address local need.

This experience enhances students' understanding of public health and gives them experiences and examples that could not have been gained from reading books or articles alone. Exposure to health and wellbeing issues in India enables students to understand and reflect on what can be learned by public health workers. Students learn about practices and methods that may translate to populations in the UK, both for Indians currently resident in the UK, and the wider population. Joint research opportunities were also developed.

Students were able to see how population culture impacts on practice, as well as the role of the government, NGOs, faith organisations and the collective efforts of society to protect and promote health. Students were also able to consider how their future practice can be developed to address these global health issues. The learning opportunities and benefits of such a programme are wider – e.g. to current public health practitioners working with migrant communities from India in the UK; ways of extending this opportunity to others is therefore being considered.

How an overseas study programme enhances public health education, international relationships, and helps develop research opportunities to address the health needs of migrant populations residing in the UK. The wider benefits of this programme to current public health practitioners.

Poster Number: **P84**

**'Out' at work: Developing a healthy working environment for Lesbian, Gay, Bisexual and Transgender staff at the University of Wolverhampton**

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LGBT people's rights are actively considered in public health efforts to improve the health of populations, but due to discrimination inequalities still exist in the workplace; this can impact on individual health as well as organisation productivity

Through training and support from all levels at the University, we aim to provide a safe and open working environment and in doing so raise our Stonewall Workplace Equality Index (WEI) ranking.

To foster a strong commitment to an inclusive campus environment for all, members of the LGBT staff network liaised with our Human Resources Dept to look at how LGBT staff could be supported in the workplace. With the notion in mind that people perform better when they can be themselves, impacts of discrimination on health and wellbeing were examined and training for all managers was put in place.

Response to the initiatives have been very good, staff have been able to work collectively with managers across the university and with students. This has resulted in greater understanding of LGBT health issues as a result of awareness events and training courses. LGBT staff have felt more comfortable being 'out at work' and this has been reported in questionnaires and a reduction in staff absence.

The public health needs of LGBT staff in the workplace are hidden and left unaddressed if this population are not allowed to feel open about their sexuality. Through a collection of activities the University of Wolverhampton has supported LGBT staff to feel comfortable in the workplace, addressed discrimination and in turn enhanced its position in the Stonewall Equality Index.

Employers wishing to improve the physical and mental health and wellbeing of LGBT staff and engage with the Stonewall Workplace Equality Index, or increase their current ranking.