

common drug used at last overdose. Of the resuscitation methods reported at last personal overdose, none included naloxone administration. Knowledge of the correct signs of overdose was similar pre- and post-video (97% pre vs. 100% post, $p=0.32$). The proportion of responders correctly answering overdose risks (51% pre vs. 89% post, $p<0.001$), proper use of naloxone (46% pre vs. 100% post, $p<0.001$), and order of resuscitation steps (49% pre vs. 86% post, $p<0.001$) significantly improved post-video.

Conclusions Many AYA with severe opioid use disorders have witnessed overdoses, and naloxone appears to be underutilized in this population. Although overdose signs were well recognized, naloxone resuscitation mechanisms were not well understood. A brief video at time of prescription significantly improved knowledge of proper use of naloxone. Future study should investigate whether increased knowledge results in improved naloxone use.

P41 **INNOVATIVE EXPERIENTIAL PROGRAMMES ADDRESSING CYBER SHAMING AND BULLYING: A WORK IN PROGRESS**

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Aims We describe two experiential programmes toward school shaming and bullying (S/B), aiming at prevention, identification and early intervention.

Methods Teachers attended a 2-day train-the-trainer workshop. 1st day: 8 simulation-based S/B scenarios, where communication with pupils and with parents role-played by actors was exercised. Teacher-actor encounters were video-recorded to be screened during debriefing sessions. 2nd day: Teachers were trained to conduct school discussions on S/B with other school staff, utilizing video-recordings of their own training. Teachers completed a 4-grade-Likert-scale questionnaire rating the workshop's quality, value, and relevance for approaching S/B situations, as well as open ended questions regarding their workshop's experience.

Results 91 teachers attended 6 train-the-trainer workshops. The average rates for the workshop's quality, value, and relevance were 3.86, 3.57 and 3.71 respectively. A unanimous satisfaction was expressed with a plea for further training and professional supervision. Work in progress: Following the teachers' programme, we developed an S/B experiential one-day workshop for secondary school pupils. It included: a. An Internet-based-survey regarding psychological effects of S/B; b. A child psychiatrist's talk on outcomes related to S/B victims. Perpetrator-victim characteristics were emphasized and tools for identifying and coping with S/B were suggested; c. A virtual-reality scenario (developed in collaboration with Openmind 360 Inc.) of cyber-shaming that allows the viewer to choose different pathways that may follow the shaming situation. A social worker led a discussion about the shaming scenario and the alternative pathways; d. A stage performance: a teenage boy (actor) proudly tells a friend about himself bullying another boy. He then admits being a violence victim at home. A discussion of the scenario was led by a school counselor; e. A discussion based on the results of the pupils' pre-

lecture survey and the experiential exposure in each group concluded the workshop. In the course of 2 school years 690 10th grade pupils (48 groups) attended the programme. Analysis of the pre-workshop surveys and the workshops' impact within the schools is in progress.

Conclusions Simulation-based educational programmes addressing S/B for both teachers and pupils were valued as relevant and helpful for prevention, identification and early intervention. Long-term evaluation of their effectiveness is in progress.

P42 **YPAGNE – ENGAGEMENT AND INVOLVEMENT. ENSURING THE VOICE ON YOUNG PEOPLE IS HEARD**

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Aim To imbed the voice of young people in research design and delivery in order to improve input and influence of young people (YP) in the development of clinical and public health research.

Methods YPAGne hold regular meetings, employ innovative facilitation strategies that draw on skills from youth work, patient and public involvement and engagement (PPIE) techniques and participatory design methods. YPAGne captures instant feedback from members and visiting teams using innovative technology developed with colleagues at Newcastle University. The group also adopts tight cycles of reflection to improve the YPAGne participatory approach on a month-to-month basis. Innovation is at the core of YPAGne's DNA and we have the privilege of working with a truly dynamic and thoughtful group of young innovators who want to see the health of the nation improved through their input. The success of the group is built on a strong management team which employs a distributed model of leadership and reflective practice to ensure the group continues to push boundaries and grow.

Results Research studies with PPIE involvement and engagement in YPAGne develops life skills, increases confidence, resilience and self-esteem almost by stealth. Members join out of curiosity, parent persuasion and UCAS application impact; they stay because they have an opportunity to make a difference, to be involved in decision making and are listened to.

Conclusion YPAGne has attracted the attention of not just researchers, funders and national bodies but young people from around our region are hearing about how they can make a real difference to health in their nation. Involvement in groups such as YPAGne helps young people with resilience, increases confidence and equips them with valuable skills.

P43 **MODELLING THE IMPACT OF CALORIE-REDUCTION INTERVENTIONS ACROSS THE RANGE OF DEPRIVATION**

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Aims Given that overweight and obesity are primarily caused by an energy-rich and low nutrient diet which contributes to a positive net energy imbalance, the primary aim of this study

was to simulate a range of policy-relevant calorie-reduction interventions to measure the impact on obesity and inequalities.

Methods The predicted probability of obesity at age 11 was estimated using marginal structural models adjusted for total calorie consumption, as calculated from three-day diet diaries at age 7 years, and other baseline and intermediate confounding using data from Avon Longitudinal Study of Parents and Children (n=10,680). Socioeconomic inequalities were indicated using maternal social class and assessed using odds ratios for absolute and relative inequalities. Complete case and multiple imputation analyses were conducted to manage survey attrition and missing data. A series of probabilities were estimated by manipulating the mediator to simulate daily calorie-reduction interventions, including targeted and informed scenarios.

Results Using imputed data and adjusting for inequalities and confounding, 18.3% of children were living with obesity at 11 years. Maternal social class at baseline and total daily calories at 7 years significantly predicted obesity at 11 years. A simulation to reduce intake down to recommended levels, a 6% reduction in daily calories, universally applied but with random variation, reduced overall obesity prevalence by 0.8% with the greatest decrease observed among the lowest social class, meaning this intervention would reduce inequalities. Targeted interventions by income led to variations in reductions by social group. Informed interventions for children with overweight or obesity, or for children who ate excess calories daily, both at age 7 reduced obesity prevalence at age 11 by 0.9% and 1.5% respectively.

Conclusions A universal decrease in total daily calories to the recommended daily limit would reduce childhood obesity and inequalities but disproportionate uptake targeted across SES would have little impact on the overall effect. Informed interventions to reduce caloric intake among children who ate excess calories daily, or with overweight or obese at age 7, would be effective at reducing obesity and inequalities.

P44

ADOLESCENT SEXUAL ACTIVITY, CONTRACEPTIVE USE AND PREGNANCY IN BRITAIN AND THE UNITED STATES: A CROSS-NATIONAL COMPARISON

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Aims Pregnancy rates among adolescents have declined in the US and Britain, but remain high compared to other high-income countries. This comparison examines trends in pregnancy rates, recent sexual activity and contraceptive use among women aged 16-19 in the US and Britain to consider the behavioural drivers of the decline in pregnancy rates in the two countries and the differences between them.

Methods We use data from two rounds of the US National Survey of Family Growth, conducted 2002-3 and 2011-15, and the British National Survey of Sexual Attitudes and Lifestyles, conducted 2000-2001 and 2010-2012, to examine differences between countries and over time in sexual activity and contraceptive use. We calculate pregnancy rates using national births and abortions data.

Results Pregnancy rates declined in both countries from 2001 to 2013 (US 45%, England and Wales 33%; this decline began earlier in the US and was steeper. In the later period a higher proportion of adolescents in Britain than the US reported ever having sex (GB 65% v. US 49%), sex in the last six months (59% v. 39%) and four weeks (48% v. 29%) and using highly-effective contraception (68% v. 52%). Between the two time periods there was no change in sexual activity in Britain, but in the US the proportion reporting recent sex declined. In both countries, there was a shift towards more effective contraception. IUD and implant use increased from 1% to 13% in Britain and from less than 1% to 5% between 2002 and 2013 (p<0.001). Pill, ring and patch use declined in Britain (58% to 49%, p=0.02), but did not change in the US. No method use declined only in the US (8% to 4%). Neither country had changes in condom or withdrawal use.

Conclusions In both countries, improvements in contraceptive use appear the main driver of the decline in pregnancy rates. Comparing Britain and the US shows that more sex among young people does not have to mean more pregnancies, and supports expanding comprehensive sex education programmes and youth-friendly contraceptive services in both countries.

P45

SMOKING AND DRINKING BEHAVIOUR OF BISSAU-GUINEAN ADOLESCENTS AGED 15-16 COMPARED TO EUROPEAN PEERS

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Aims With the Sustainable Development Goals 2016-2030 increased attention is given to adolescents' health and well-being, and the multiple challenges they face related to their health and wellbeing with trajectories of importance for their later adult health. A recent trend within childhood and youth studies acknowledges commonalities of lived experiences of young people in middle- and low-income countries, where the majority of them lives, *vis-à-vis* high-income countries. In sub-Saharan Africa adolescents comprise 23% of the population compared to 12% in high-income countries. Here we describe and analyse the prevalence of smoking and use of alcohol by Bissau-Guinean adolescents aged 15-16 and compare to peers European cities.

Methods Survey with locally adapted and pilot tested *Planet Youth* questionnaire was conducted in June 2017 in 16 secondary schools in the capital Bissau, Guinea-Bissau. It targeted adolescents aged 15-16 years in randomly selected classes with information that is comparable with data from eight European cities in 2015-2016.

Results In Bissau, 871 adolescents aged 15-16 participated (52% girls and 46% boys) compared to 6,534 peers in eight European cities (49% girls and 51% boys). In total, 2.2% of the Bissau-Guineans reported daily smoking (boys=3.9%; girls=0.7%) compared to 11.3% of their European peers (boys=13.2%; girls=9.4%). About 1/3 of the Bissau Guineans had life-time experience of drinking alcohol compared to about 2/3 of the European ones, with no difference among boys and girls; 10.6% of Bissau-Guineans reported having been drunk during the last 30 days compared to 14% of the