mortality), morbidity, total disease burden and selected health risks and determinants for 10-24-year-old Malaysians, by three age groups (10–14, 15–19 and 20–24 years) and sex, from 1990 to 2017.

Results While the total disease burden decreased, most of this decrease was due to mortality, with morbidity mostly unchanged for all age groups and sexes between 1990 and 2017. Most of the reductions in disability-adjusted life years (DALYs) appear driven by a reduction of mortality from vaccine preventable diseases and maternal causes, across all age groups. Communicable diseases remain most prevalent in the 10–14-year-olds and some causes (e.g. diarrheal diseases, dietary iron deficiency) have increased by 2017. Morbidity from non-communicable diseases (NCDs) continued to be high in 2017. By 2017, mental disorders (e.g. anxiety, depression, conduct disorders) and chronic physical disorders (e.g. migraine, low back pain) were important contributors of morbidity for all adolescents. Motor-vehicle accidents were the principal cause of death in 15–19 and 20–24-year-olds of both sexes, while drowning and lower respiratory infections were the leading causes of death in 10–14-year-old males and females, respectively. The prevalence of male tobacco smoking had changed little across all groups, highest for males aged 20-24 years at 49.4% in 1990 and 44.4% in 2017. In contrast, rates of overweight and obesity had tripled in females and quintupled in males. Rates of youth not in education, employment and training rates had decreased, while adolescent fertility rate has halved from 1990.

Conclusion These data highlight that adolescent specific interventions are inadequate and health actions are required to address the disease burden from NCDs, injuries, some communicable diseases and obesity, which in addition to the health sector, will require multisector actions.

P24 UPTAKE OF THE MENACWY VACCINE AND VACCINATION VIEWS AMONG FIRST-YEAR STUDENTS AT A LONDON UNIVERSITY

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Background New university students are at particular risk of invasive meningococcal disease (IMD). Group W, a particularly aggressive strain, is increasing in prevalence and the high case-fatality rate is concerning. This age group has been offered the MenACWY vaccine since 2015. National uptake has been low, leaving students vulnerable to infection.

Aims To investigate MenACWY uptake, knowledge of and attitudes towards vaccination among first-year students, with the aim of informing university vaccination policy and practice.

Methods A mixed methods approach was used, involving a questionnaire (response rate = 4.4%, n=144) and follow-up interviews (n=13). Eligibility criteria were first year students, undergraduates and over the age of 18. Statistical tests, including multiple logistic regression, were carried out and interviews were analysed thematically.

Results MenACWY uptake was 84%, with more socioeconomically disadvantaged students less likely to be vaccinated (aOR = 0.117, p=0.006). Most students thought vaccines were safe (95.1%) and important (97.2%). Students with above average knowledge were more likely to be vaccinated (OR=3.057, p=0.019). Students unaware that meningitis can be fatal were less likely to be vaccinated (aOR = 0.173, p=0.035). Vaccination views were positive and knowledge level was moderate to high. Reasons for vaccination include influence of authority figures and peers, to avoid disease and due to an inherent trust of vaccines. Reasons for non-vaccination included temporary illness, laziness, forgetfulness and difficulty with GP access. Opinions regarding the university's vaccination campaign were positive, and in particular there was praise for the university's awareness campaign. Issues raised by this study include difficulty in accessing GP services and the belief that the vaccine prevents any cause of meningitis.

Conclusion High vaccine uptake is essential to protect students. Uptake was higher than at other universities in previous studies. These results highlight several areas requiring further study, including the association between uptake and socioeconomic group and understanding of post-vaccination risk of meningitis. This research has implications for vaccination policy at UK universities.

P25 INEQUALITIES IN ADOLESCENT SMOKING IN THE UK MILLENNIUM COHORT STUDY: ESTIMATING THE RELATIVE CONTRIBUTIONS OF VERBAL ABILITY AND SELF-REGULATION

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Smoking is a leading cause of morbidity and preventable death in the UK. Adolescence is a time when smoking behaviours are often initiated, therefore it is important to understand potential risks and protective factors. Higher cognitive development in adolescence is related to a lower likelihood of smoking. Cognitive development is characterised by the growth of abilities and skills in multiple domains, including verbal ability. Similarly, higher 'non-cognitive' ability has been associated with lower levels of smoking. One element of 'non-cognitive' ability is self-regulation which refers to an individual's control of thoughts, emotions and behaviour in order to achieve a goal. Socioeconomic disadvantage is associated with higher rates of initiation and progression to daily smoking. In addition, verbal ability and self-regulation are generally lower in socioeconomically disadvantaged children. We investigated whether the relationship between early socioeconomic circumstances and adolescent smoking was partially driven by cognitive development and/or self-regulation. Using an Oaxaca-Blinder decomposition model, we estimated the relative contributions of verbal ability and/or self-regulation at 11 years to the association between early life socioeconomic disadvantage captured by household poverty status at 9 months and smoking in adolescence (at 14 years) in the UK Millennium Cohort Study (N=6,737). Verbal ability was assessed using a validated, age-appropriate test, the British Ability Scales Second Edition (BAS 2). Five parent-rated items from the Strengths and Difficulties Questionnaire were