downstream effect on adolescents' sense of control over their health and on their risk behaviors. This study aimed to test whether primary care provider (PCP) training on motivational interviewing together with implementation of an electronic screening and feedback tool would impact provider counseling on health risks and adolescent risk behaviors.

Methods We used a stepped wedge study design and recruited adolescents aged 13-18 from 6 clinics. In the control period, 135 youth received their usual primary care appointment. In the intervention period, 167 youth received an electronic screening and feedback tool prior to their visit, with results sent to the PCP. In between the control and intervention periods, PCPs participated in an online interactive training demonstrating motivational interviewing skills using video-based scenarios, and met to discuss clinic-level reports summarizing adolescent-reported receipt of counseling.

Youth were surveyed at baseline and three months about their health risk behaviors, and following the well-child visit regarding the receipt of counseling. We calculated the total number of behaviors counseled on divided by the total number of risk behaviors endorsed and compared across groups using chi-squared analyses. An adjusted linear mixed model was conducted to examine whether the intervention was associated with changes in the mean risk score at the 3-month assessment, adjusting for clinic, age, gender, and baseline risk.

Results Control group participants reported receiving counseling on 35% of moderate risk behaviors compared to 43% of behaviors for intervention participants ($p=0.009$). Likewise, adolescents reported receiving counseling on 23% of high risk behaviors in the control group compared to 36% of behaviors in the treatment group ($p<0.001$). The linear mixed model indicted that the intervention was associated with a 0.64 greater reduction in overall risk score at 3-month follow up, relative to the control group (95% CI:-1.03, -0.24; $p=0.002$).

Conclusion Results show promise for electronic screening and feedback and brief provider training to improve the quality and results of healthcare to adolescent patients in primary care settings.

P5 PSYCHOSOMATIC SYMPTOMS OF CHINESE ADOLESCENTS WHO ARE VICTIMS OF BULLYING

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Aims The association between bullying and mental health outcomes is well recognized in many countries, but there is little evidence from China. This study aimed to investigate whether there is an association between being bullied and psychosomatic well-being among Chinese middle school children.

Methods This cross-sectional survey study was conducted in 12-15-year-olds in Zhejiang, Henan and Chongqing provinces, representing Eastern Central and Western regions from May to September, 2018. It included two urban and two rural middle schools in each province, so 12 schools in total. Classes were randomly chosen to achieve roughly the same sample size in each year group in each province. A self-completion questionnaire was completed by the students in the classroom setting and included: traditional bullying, cyberbullying, and classic psychosomatic symptoms of headache, abdominal pain and sleep problems. Data analyses were performed with SPSS 24.0.

Results There were 3774 completed questionnaires, and the mean age was 13.58 (SD 0.87). 567(15%) stated they had experienced only traditional bullying, 520(14%) only cyberbullying, and 645(17%) both. The commonest forms of traditional bullying were verbal bullying experienced by 1034 (27.6%) and rumour-spreading experienced by 540(14.4%). Commonest forms of cyberbullying were being teased online, 703(18.6%) and being excluded online, 690(18.5%). 491 (13.3%) reported they often had headache, 607(16.5%) abdominal pain, and 597(16.1%) sleep problems. After adjusting for confounders, we found that traditional-cyber victims (adjusted OR 1.8, 95% CI 1.4-2.1), only-traditional victims (1.4, 1.1-1.7), only-cyber victims (1.6, 1.3-2.0) were more likely to have headache. Traditional-cyber victims (adjusted OR 1.8, 95% CI 1.5-2.2), only-traditional victims (1.3, 1.0-1.5), only-cyber victims (1.4, 1.1-1.7) were more likely to have abdominal pain. Traditional-cyber victims (adjusted OR 2.0, 95% CI 1.7-2.5), only-cyber victims (1.4, 1.2-1.8) were more likely to have sleep problems.

Conclusion The prevalence of bullying victims is substantial among Chinese adolescents, and is associated with psychosomatic conditions. Measures to reduce bullying are needed in Chinese schools. There needs to be increased awareness of the harm caused by bullying.

P6 IMPROVEMENTS IN SOCIAL DETERMINANTS AND DECLINES IN ADOLESCENT PREGNANCY AND CHILD MARRIAGE IN RURAL UGANDA, 1994–2018

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Aims To identify the relationships among social determinants, public policies, behaviors, and adolescent pregnancy and child marriage – in the context of a declining HIV epidemic in the Rakai region of rural Uganda. Social determinants may influence key adolescent social transitions such as leaving school, marriage, and childbearing.

Methods Data on young women 15-19 years from 17 surveys (1994-2018) in a population-based, open cohort of households in 28 communities followed continuously since 1994. Social determinants included school enrollment, a household assets measure of socioeconomic status (SES), and orphanhood (death of one or both parents). A previously validated measure (the Pregnancy Risk Index or PRI) was used to estimate young women's risk of becoming

pregnant - based on their sexual activity, nonuse of contraception or use of specific contraception methods, and method-specific contraceptive failure rates. The PRI was compared with current pregnancy, based on self-report and urine testing. Child marriage was measured as ever-married before age 18. Statistical evidence for change over time was assessed using regression analyses with robust variance estimation. The sample included 15,606 women-rounds of observation.

Results School enrollment rose from 26% in 1994 to 61% in 2018 ($p<0.001$), coinciding with a national policy of universal primary education instituted in 1997 and considerable increases in household SES. Rates of orphanhood declined from 52% in 2004 to 23% to 2018 ($p<0.001$), corresponding to availability in antiretroviral therapy from 2004. Child marriage among women 15-19 years declined from 33% to 4% ($p<0.001$). Current pregnancy declined by 65%; a parallel 58% decline in the average PRI score reflects a decline in sexual experience (67% to 40%) and increases in current contraception use (29% to 42%, all trends $p<0.001$). Adjusted for age and survey rounds, school enrollees compared to non-enrollees reported less sexual experience (43% vs. 79%, $p<0.001$), greater use of condoms (55% v 20%, $p<0.001$) and greater use of any contraceptive method (61% v 39%, $p<0.001$).

Conclusions Adolescent pregnancy and child marriage declined from 1994 to 2018 as enrollment in school and socioeconomic status increased and HIV-related orphanhood declined. Social determinants can have an enormous influence on adolescent health and social transitions.

P7 TRENDS, DETERMINANTS AND INEQUALITIES IN ADOLESCENT MOTHERHOOD IN 74 LOW AND MIDDLE-INCOME COUNTRIES: A POPULATION-BASED STUDY

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Aims Reducing adolescent motherhood is an important indicator of several global health-related goals. Assessing the epidemiological burden of adolescent motherhood is important in supporting prevention initiatives to achieve these goals. Thus, the purpose of this study is to examine the trends, inequalities and determinants of adolescent motherhood in low- and middle-income countries (LMICs).

Methods We analysed 238-nationally representative demographic health surveys conducted between1990-2016 in 74 LMICs. The annual weighted prevalence of adolescent motherhood was estimated, and their trend was examined using time-series method. We estimated and compared the average annual rate of change (AARC) in adolescent motherhood. Inequalities in adolescent motherhood along different socio-demographic characteristics were described using the normalized concentration index (C) proposed by Wagstaff. A generalized estimating equation model was used to identify determinants for adolescent motherhood.

Results In total, 704,077 adolescent girls (15-19 years) were included in this study. The average weighted prevalence of adolescent motherhood was 19.46% (95%CI, 18.16%-20.75%) during 1990-2016. The prevalence varied from 7.20% to 24.90% across different regions, with the highest prevalence in Sub-Saharan Africa. Adolescent motherhood declined (AARC= -0.80%) in LMICs with some variations across regions and countries. The highest decline was observed in South & Southeast Asia (AARC= -1.79%) whereas no reduction was observed in the Latin & Caribbean region. Further, 28.10% (16/57) of the studied countries exhibited increasing in adolescent motherhood. Significant inequalities in adolescent motherhood were observed by wealth quintile (C= -0.249), level of education (C= -0.215), area of residence (C= -0.138), and exposure to media (C= -0.069). Pooled adjusted model showed that wealth quintile, employment status, media exposure, early marriage, knowledge about ovulation, partner's greater age difference, and partner's desire for more children are significant determinants for adolescent motherhood.

Conclusion Overall reductions in the prevalence of adolescent motherhood were observed in LMICs; however, inequalities in the prevalence persist. There was no progress in reducing the prevalence in some high burden countries. Early marriage, partner's age difference, and their desire for more children are consistently identified as determinants for adolescent motherhood in most of the region. International policymakers could be beneficial from these findings in designing interventions to prevent adolescent motherhood.

P8 ADOLESCENT PSYCHOSOCIAL HISTORY USING HEADSS IN A TERTIARY PAEDIATRIC EMERGENCY DEPARTMENT

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Aims To describe current practices and referral outcomes using HEADSS psychosocial screening for adolescents presenting to the Emergency Department at a tertiary metropolitan referral hospital.

Methods Hospital records of patients aged 13 to 20 attending the emergency department were reviewed over a 4-week period. Basic patient demographics, presenting complaint and the role of the health professional documenting the HEADDSS assessment was noted. Records were assessed for documentation of psychosocial history items in accordance with the HEADSSS psychosocial screening tool. The number and type of referrals resulting from HEADSS screening was recorded. Data was analysed using basic statistical methods.

Results 363 adolescents aged 13 to 20 years attended the Emergency Department during the study period. Documentation of persons present during HEADSS screening was often incomplete However, only 7% of adolescents were seen alone. HEADSS screening was largely completed by doctors, with just 17% of performed by nurses. Overall, HEADSS screening rates were poor. 43% of patients were not asked about any aspect of HEADSS psychosocial screening. 60% of adolescents were asked about at least one category, but less than 2% had a complete HEADSS screening performed. Home, education and substance use were the most frequently asked about categories. Activities, mental health and sexuality were asked about less commonly, while