there are conflicting views regarding CVD as a major public health problem for the urban poor, including those living in slums. We examined multivariable risk prediction in a slum population and assessed the number of cardiovascular related deaths within 10 years of application of the tool.

Methods We analysed data from a cross sectional survey conducted in the Nairobi Urban Health Demographic Surveillance population (residents of two slum communities) between May 2008 and April 2009. We used the World Health Organisation/International Society of Hypertension (WHO/ISH) cardiovascular risk prediction tool to examine 10-year risk of major CVD events in a slum population. 3063 men and women aged over 40 years with complete data for variables needed for the WHO/ISH risk prediction tool were eligible for inclusion in our analysis. CVD deaths in the cohort, reported up until June 2018 in regular demographic data collection rounds, with the cause identified through verbal autopsy are also presented. Non-fatal CVD events were not captured.

Results The majority of study members (2895, 94.5%) were predicted to have 'low' risk (<10%) of a cardiovascular event over the next 10 years and just 51 (1.7%) to have 'high' CVD risk (≥20%). 91 CVD deaths were reported for the cohort up until June 2018. Of individuals classified as low risk, 74 (2.6%) were identified as having died of CVD. Nine (7.7%) of individuals classified at 10–20% risk and eight (15.9%) classified at >20% were identified as dying of CVD.

Discussion To the best of our knowledge this is the first study to apply a multivariable risk prediction tool to a population in a slum or informal settlement. This is a low risk population profile in comparison to results from application of multivariable risk prediction tools in other LMIC populations. This indicates that CVD may be lesser issue in slums than in other areas of LMICs cities. We found evidence that the WHO/ISH tool distinguished groups at relatively lower or higher risk of CVD events. While the absolute risk in this population is over-estimated by the tool, this may be due to limitations in our study such as lack of data on non-fatal CVD events. Our findings have implications for health service planning in similar settings.

P59 HOW DO ASSOCIATIONS BETWEEN DIET QUALITY AND METABOLIC RISK VARY WITH AGE? A CROSS-SECTIONAL ANALYSIS IN A UK-REPRESENTATIVE SAMPLE

EM Winpenny*, EMF van Sluijs, NG Forouhi. *MRC Epidemiology Unit, University of Cambridge, Cambridge, UK*

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Background Higher diet quality shows associations with decreased risk of all-cause, cardiovascular disease, and cancer mortality in adults. To understand whether these associations also apply in younger age groups, we can study proximal metabolic risk factors: abdominal obesity, insulin resistance, hypertension and dyslipidemia. In this study we investigate how associations between diet quality and metabolic risk vary with age.

Methods We use data (n=2105) from the UK-representative National Diet and Nutrition Survey (2008–2016), across three age groups: adolescents (age 11–18), young adults (age 19–35), older adults (age 36–60). Four-day food diaries were processed to give an energy-adjusted diet quality index, based on the Dietary Approaches to Stop Hypertension (DASH) diet. Measures of plasma vitamin C, beta-carotene and lutein were combined to form a fruit and vegetable (F&V) biomarker score. Data on the five components of metabolic syndrome (waist circumference, blood triglycerides, blood high-density lipoprotein (HDL) cholesterol, blood pressure, fasting plasma glucose) were standardized by age, sex and ethnicity and combined to give a metabolic risk z-score. We assessed associations of (1) standardized DASH index and (2) standardized F&V biomarker score with metabolic risk z-score, across all ages, adjusted for potential confounders. We tested for interaction of the exposure with the three age groups, to understand moderation of effect estimates by age.

Results Adolescents and young adults showed lower self-reported diet quality ($p<0.001$), and lower F&V biomarker scores ($p<0.05$) compared to older adults. Across the whole analysis sample, both standardized DASH index (beta=-0.15, CI -0.22, -0.08) and standardized F&V biomarker score (beta=-0.33, CI -0.39, -0.27) were associated with metabolic risk z-score. Both DASH index and F&V biomarker score showed significant interactions with age group, with smaller associations with metabolic risk seen among adolescents and young adults compared to older adults ($p<0.05$). Associations between F&V biomarker score and metabolic risk remained significant across all age groups (adolescent: beta=-0.17, CI -0.26, -0.07, young adult: beta=-0.26, CI -0.36, -0.17, older adult beta=-0.39, CI -0.47, -0.32) while associations between DASH index and metabolic risk were attenuated below significance in adolescent and young adult groups (adolescent: beta=-0.00, CI -0.07, 0.08, young adult: beta=-0.07, CI -0.19, 0.04).

Conclusion Higher diet quality was associated with decreased metabolic risk, with stronger and more persistent associations seen using nutritional biomarkers, compared to self-reported dietary data. Across both diet measures, we find weaker cross-sectional associations between diet quality and metabolic risk in young people compared to older populations.

P60 COMPARATIVE TRENDS IN CORONARY HEART DISEASE SUBGROUP HOSPITALISATION RATES IN ENGLAND AND AUSTRALIA: A POPULATION-BASED OBSERVATIONAL STUDY, 1996–2013

[1]FL Wright*, [2]M Greenland, [1]R Goldacre, [2]D Lopez, [1]M Goldacre, [2]M Hobbs, [2]M Knuiman, [2]FM Sanfilippo, [2]L Nedkoff. *[1]Unit of Health Care Epidemiology, Nuffield Department of Population Health, University of Oxford, Oxford, UK; [2]School of Population and Global Health, The University of Western Australia, Perth, WA, Australia*

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Background Population-based coronary heart disease (CHD) studies have historically focused on myocardial infarction (MI) with limited data on trends across the spectrum of CHD. We investigated trends in hospitalisation rates for acute and chronic CHD subgroups in England and Australia from 1996–2013.

Methods CHD hospitalisations for 35–84 year olds were identified using the primary diagnosis in electronic hospital records from 1996–2013 for England and Australia and from the Oxford Region and Western Australia (WA). CHD subgroups identified were acute coronary syndromes (MI and unstable angina) and chronic CHD (stable angina and 'Other CHD'). We calculated age-standardised and age-specific rates, and estimated annual changes (95% CI) from age-adjusted Poisson