Conclusion Contrary to what is found in similar studies in SSA, where hypertension is highest in urban areas, we found that rural residence, abdominal obesity among men and generalised obesity among women were the most important predictors of hypertension. Intervention to reduce hypertension could be further targeted towards rural areas. Sensitisation campaigns should promote awareness of the risk factors, especially on the importance of maintaining a healthy weight.

Background Ecological findings from Europe in the 1970s demonstrated an interaction between deprivation during early life and adult cardiovascular disease (CVD) mortality. These findings hold renewed significance today in the context of emerging epidemics of CVD in rapidly developing countries. If generalizable to such settings, understanding of the interaction between early life deprivation and CVD mortality might improve disease projections and targeting of resources to high risk areas. To investigate this, we studied economic development rates since 1940 and current CVD mortality in Brazil.

Hypothesis Currently, higher GDP/capita is associated with higher CVD mortality at municipality level in Brazil. We hypothesised that if deprivation was a risk factor for CVD mortality during the early life period, municipalities which have undergone the greatest shifts from low to high GDP/capita in the past 50–70 years would have higher CVD mortality rates today than those with consistently high or low GDP/capita.

Methods We used municipality-level data on deaths, demographics and gross domestic product (GDP) from the Brazilian Institute of Geography and Statistics. Our primary outcome was CVD mortality rate in 2005–14, defined and adjusted according to the WHO Global Burden of Disease protocol. We compared the trajectory of municipality GDP/capita between time of birth and time of death, defined by tertiles of GDP/capita at each time point. Analyses were age-standardised and stratified by sex. Municipalities were grouped to reflect 1940s borders and excluded where this was not possible. We conducted analyses on R.

Results In 1577 included municipalities, 367 had a low-low GDP/capita trajectory, 44 had low-high and 329 had high-high. Age-adjusted CVD mortality rates for >50 years-olds, per 100,000 person years, in low-low, low-high and high-high trajectory municipalities, respectively, were 656.7 (95% CI: 636.2, 677.2), 758.2 (95% CI: 713.8, 802.5) and 821.9 (95% CI: 810.7, 833.2) among men (p-value trend test <0.001); and 447.0 (95% CI: 430.5, 463.4), 414.4 (95% CI: 383.5, 445.3) and 449.5 (95% CI: 442.0, 457.0) among women (p-value trend test >0.1). These findings were not substantially altered in sensitivity analyses checking for the potential effects of internal migration.

Conclusion Contrary to what we hypothesised, Brazilian municipalities which have shifted from low to high GDP/capita did not exhibit higher rates of CVD mortality than consistently high or low municipalities. This reminds us to be cautious extrapolating evidence generated in high-income settings to rapidly developing settings where social and economic contexts surrounding CVD differ markedly. Further individual-level studies with robust designs are needed, as inference from ecological studies has limitations.
encourage screening for established cerebrovascular risk factors in this high-risk, vulnerable group.

Conclusion Current NHS Health Checks implementation appears neither equitable nor cost-effective. The addition of structural policies proved equitable and cost saving. Future research might now seek to identify the optimal combination of structural policies at local level.

SSM annual scientific meeting 2017
Plenary (PL) presentations

THE IMPACT OF CO-LOCATED WELFARE ADVICE IN PRIMARY HEALTHCARE SETTINGS ON MENTAL HEALTH AND HEALTH SERVICE USE: A MIXED METHODS EVALUATION

Background Co-locating welfare advice services in primary healthcare settings has been one approach to tackling health inequalities by increasing income among socially deprived individuals. It is also hoped to relieve pressure on general practices in supporting patients with ‘non-clinical’ needs. Previous evaluations have been methodologically limited and lack theoretical underpinning. We aimed to examine the impact of co-located welfare benefits and debt advice on mental health and primary care service use, and to develop theory linked to pathways of effect.

Methods A prospective, controlled quasi-experimental study with an embedded qualitative component was carried out (December 2015–December 2016) in eight intervention and nine comparator sites across North Thames, London. Before-and-after quantitative data were collected via self-report questionnaires. Comparison group members were propensity score weighted for analyses. Outcomes included change in symptoms of common mental disorder (CMD) (12-item General Health Questionnaire), well-being (Shortened Warwick and Edinburgh Mental Well-being Scale), three-month GP consultation rate and financial strain. Data from qualitative interviews with 24 primary care staff, funders and advice providers were analysed using a modified realist evaluation approach to understand how co-located welfare advice could influence practice outcomes.

Results For the quantitative study, n=285 and n=633 individuals were recruited into advice and comparison groups respectively at baseline. 72% and 84% were retained at 3 month follow-up. Relative to controls, CMD caseness reduced significantly among female and Black/Black British advice recipients. Significant reduction in financial strain overall but no change in three-month consultation rate was found. Per capita, advice recipients received £15 per £1 of funder investment. Qualitative findings were used to inform underlying theory linking service activity to general practice outcomes. These were reduced GP consultations for ‘non-clinical’ issues and reduced practice staff time supporting patients with such issues. The findings revealed key implementation, context and agency factors that facilitated or hindered the potential for co-located advice to influence these outcomes.