the models developed by Hall and colleagues (2011) and data from the 1990 Canadian Health Promotion Survey.

Results Our analysis identifies a 95.8 kilocalorie per capita per day increase in caloric intake after CUSFTA in Canada compared with the synthetic control. These changes coincided with a \$1,820 million (95% CI: 1,179.2 to 2,464.1) increase in US investment in the Canadian food and beverage sector, and a \$5,258.3 million (95% CI: 4,894.8 to 5,621.8) rise in food and beverage imports from the US. This estimated rise in caloric intake corresponds to an average individual weight gain of 5.7 kg for women and 5.1 kg for men aged 40 and with low physical activity levels, or 2.5 kg for women and 2.2 kg for men aged 40 and who are very active.

Conclusion Our findings suggest that US FTA can substantially alter dietary behaviour by increasing caloric intake. FTA negotiations may be a critical window for shaping dietary behaviours to prevent overnutrition, obesity and related diseases.

OP76

EVALUATING THE HEALTH IMPACTS OF RESTRICTIONS TO INCOME SUPPORT FOR LONE PARENTS: A NATURAL EXPERIMENT STUDY USING UNDERSTANDING SOCIETY

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Background Lone parents experience poorer health and socioe-conomic disadvantage compared to coupled parents. The UK Government has restricted access to Income Support, the primary income replacement benefit for lone parents. Under Lone Parent Obligations (LPO), lone parents are transferred from Income Support to Jobseeker's Allowance once their youngest child reaches an age threshold (which has been reduced incrementally), and they must prove they are actively seeking work or face sanctions. We investigated the effects of introducing LPO on the health of lone mothers in the UK.

Methods We analysed 2009-2013 data from Understanding Society, a panel study representative of the UK general population. Our primary outcome was the mental health component of SF-12, with the physical health component and selfrated health assessed as secondary outcomes. We identified two intervention groups: lone parents newly exposed following the cut-off change from seven to five years and from ten to seven years. Each of these intervention groups were compared to two control groups: remaining unexposed (since the youngest child was below the age cut-off), and already exposed (since the youngest child was older than the existing age cut-off). We estimated a pooled LPO effect to increase precision. We conducted a difference-in-difference analysis using linear regression to estimate the 'intention to treat' causal effect, adjusting for maternal age, number of children and maternal education. Multiple imputation was used to address item missingness.

Results Our primary analysis included a total of 2257 participants. Mental health of lone parents consistently declined in intervention groups compared to control groups, whereas physical health and self-rated health showed little change. For lone parents with children aged 5–7 years who were newly exposed, the mental health score of SF-12 changed by –1.39 (95%CI –4.08,1.29) compared to those unexposed and –2.29 (95%CI –4.57,0.00) compared to those remaining exposed. Equivalent figures for the cut-off change from 10–7 years

were -2.45 (95%CI -5.48,0.57) and -1.28 (95%CI -4.00,1.45), while for the pooled effect were -2.13 (95%CI -4.17,-0.10) and -2.21 (95%CI -4.13,-0.30). A complete case analysis and inclusion of males within the analytical sample led to similar results.

Discussion Increasing conditionality attached to the receipt of welfare benefits adversely impacted mental health of lone mothers but had no short-term impacts on physical health. Our study had limited statistical power and was only able to investigate short-term effects, but the pattern of findings was consistent across comparison groups. Planned extensions to LPO should be reconsidered.

Neighbourhoods and communities

OP77

EVALUATING THE ASSET MODEL: FINDINGS FROM A RAPID REVIEW OF EVALUATION STRATEGIES

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the assessment of assets.

Background Ten years on from Morgan and Ziglio's call to revitalise the evidence base for public health through an asset model, there are still gaps in understanding about how best to evaluate asset-based approaches. The demand for better evidence poses some challenges as asset-based working emerges from radically different traditions from the mainstream deficit model in public health. This paper will present findings from a rapid evidence review on the measurement of asset-based approaches.

Aims The rapid review aimed to improve understanding of categories of measurement in the evaluation of asset-based approaches for health and wellbeing and to identify indicators and frameworks that can used in practice. The review was part of a project to develop an asset-based theory of change in health, care and wellbeing, funded by the Health Foundation.

Methods Rapid Evidence Assessment techniques were used to produce a map of evaluation approaches and measures. The search strategy used strings of common terms (eg Salutogensis, Asset Based Community Development) combined with synonyms of measurement/evaluation. Academic databases were searched from 2005 along with relevant websites. Additionally, the results of a previous search were screened and reference lists mined. Publications were included if they explicitly discussed the asset model and measurement. Data were then extracted across various fields including population, conceptual framework, measurement type and application. Findings were summarised in tables, with some additional thematic analysis. Results 8689 publications were identified and 91 full text articles assessed for eligibility. In total, 33 publications were included in the review. Many of these flagged up the challenges of evaluation and the need for better outcome measurement. Reported research strategies varied considerably from the practical to the theoretical. Also the purpose, level and specificity of measurement ranged from validated indicators through to broad domain frameworks. Seven clusters were identified: Asset Based Community Development; Asset Mapping; Community-based evaluation; Conceptual frameworks for measurement; Resilience; Salutogensis; Other. One key theme was the importance of communities being involved in