

Understanding local environmental influences on childhood obesity

Professor Janis Baird

Dr Christina Vogel


MRC Lifecourse Epidemiology Unit

November 26th 2019

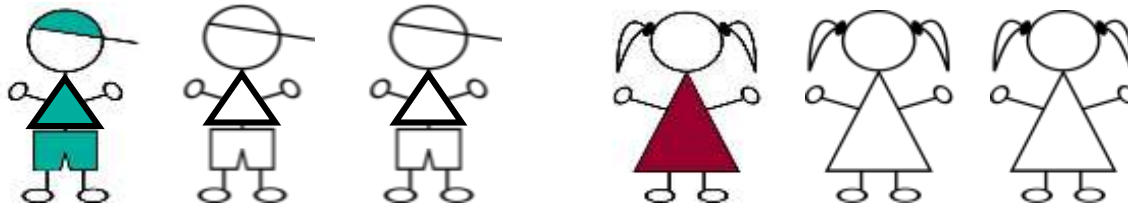
Poor diet and obesity

- Poor diet-related ill health costs the £5.8 billion each year¹



- Over half (56%)  aged 25 to 34 years are overweight or obese²

- One in three children aged 10-11 years are overweight or obese³

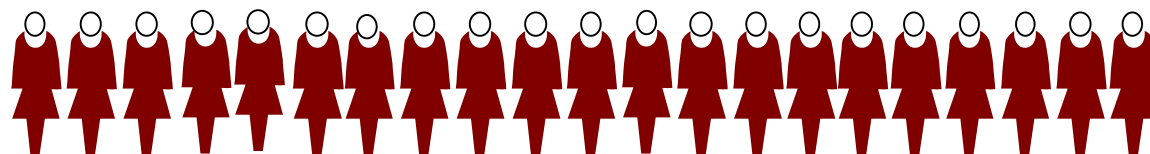


1 Scarborough, JPH 2011

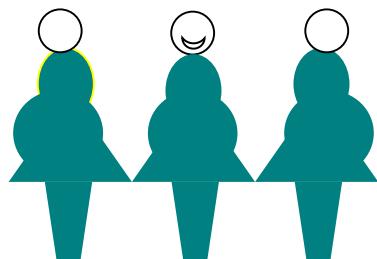
2 HSE, 2017

3 NCMP data 2017/18

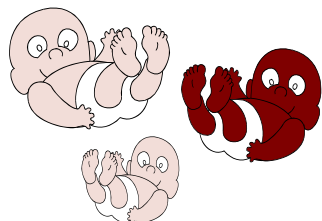
The Southampton Women's Survey



12,583 non-pregnant Southampton women aged 20-34 years interviewed between 1998 and 2002



Subsequent pregnancies studied, ultrasound scans and interviews

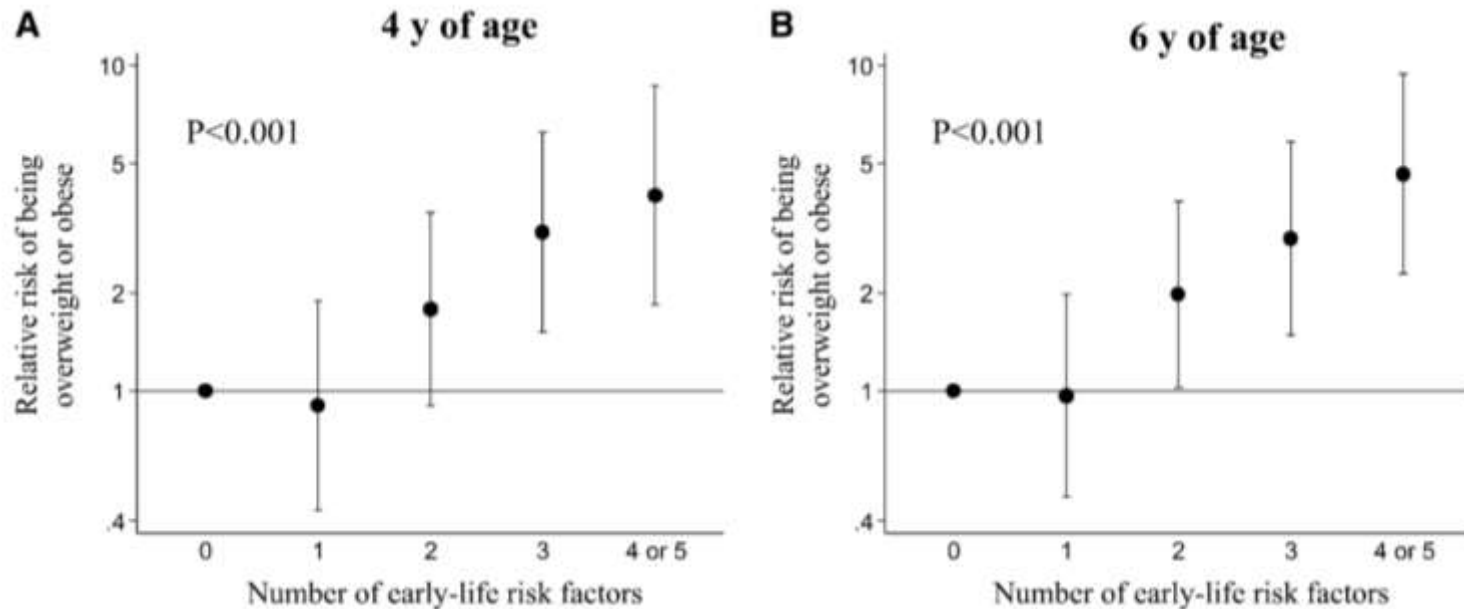


3,158 births



Children followed-up at 6, 12, 24 and 36 months, samples seen at 4, 6-7, 8-9 and 11-13 yrs

Early life risk factors for childhood overweight/obesity



- (1) maternal pre-pregnancy obesity
- (2) maternal smoking in pregnancy
- (3) low maternal vitamin D status in pregnancy
- (4) maternal excessive gestational weight gain
- (5) Not breastfed or short duration of breastfeeding

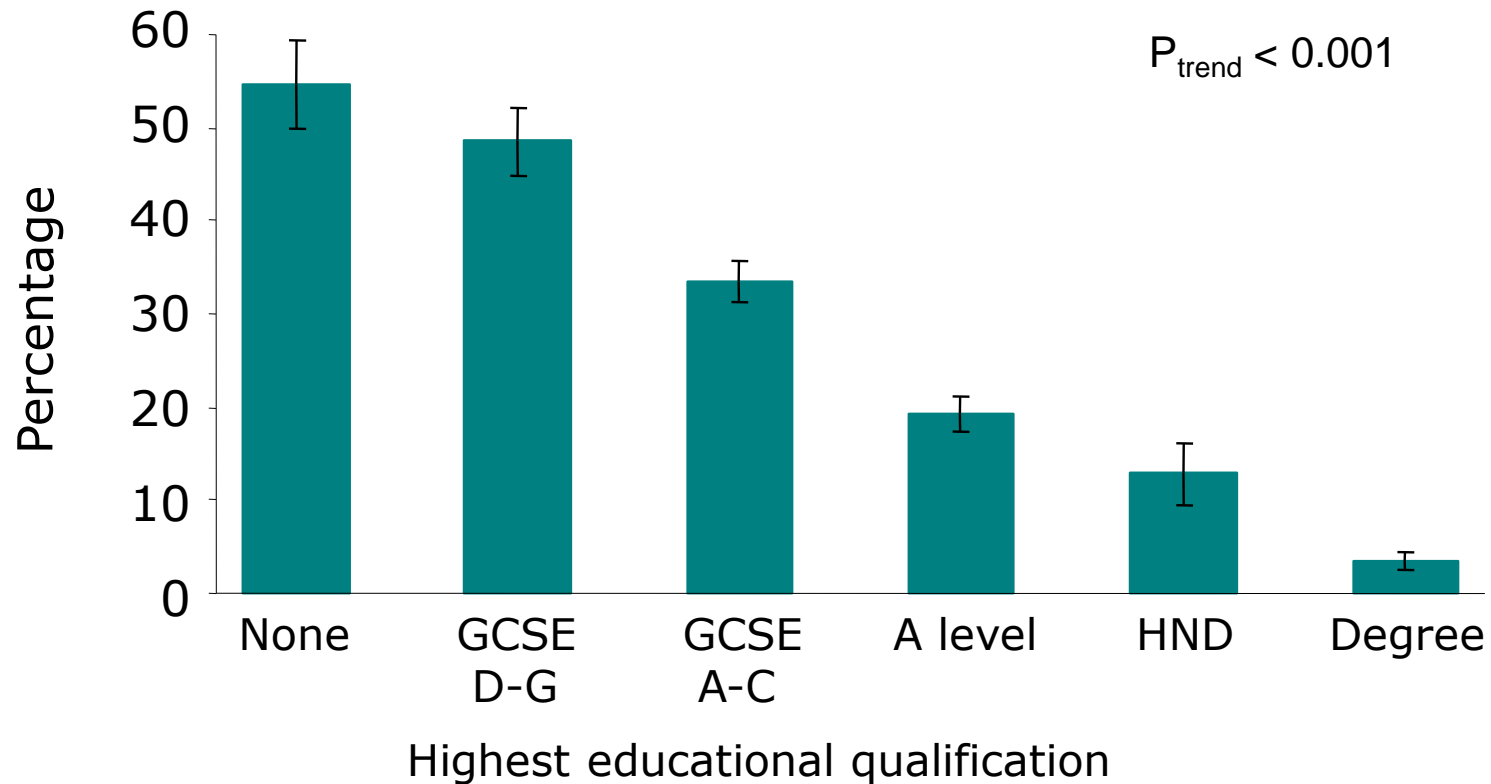


Diets of women and children





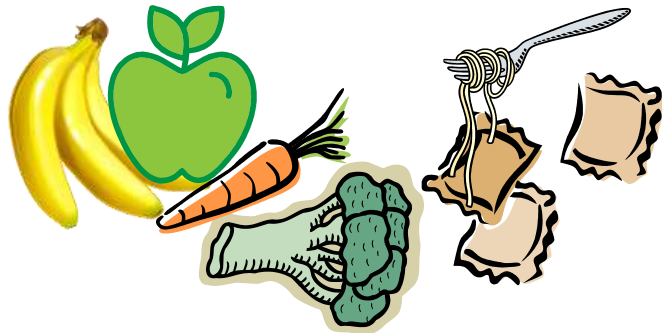
Percentages in the lowest quarter of diet quality score by highest educational qualification



Infant guidelines pattern

High consumption:

- fruit
- vegetables
- rice and pasta
- home prepared foods

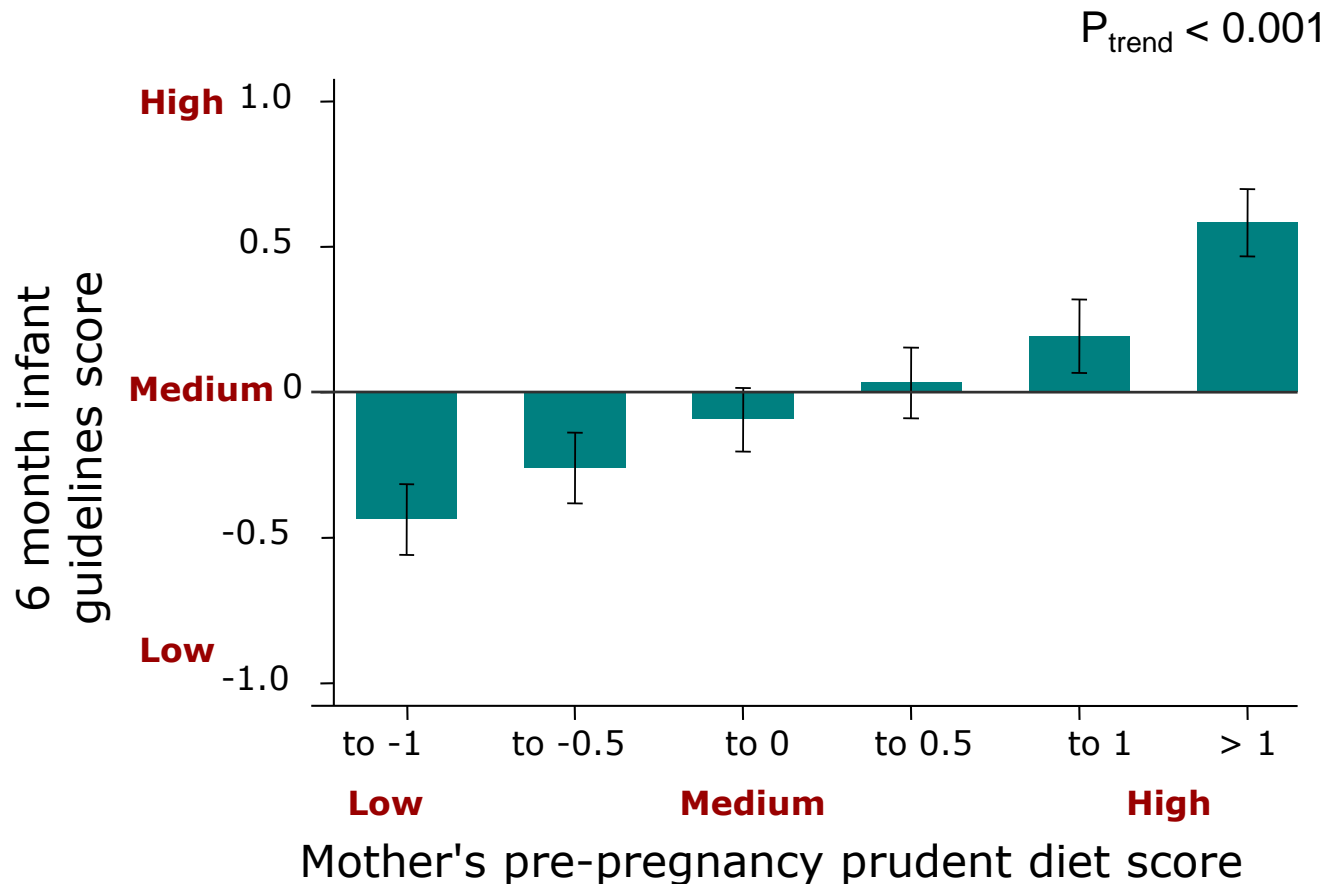


Low consumption:

- commercial baby foods - jars

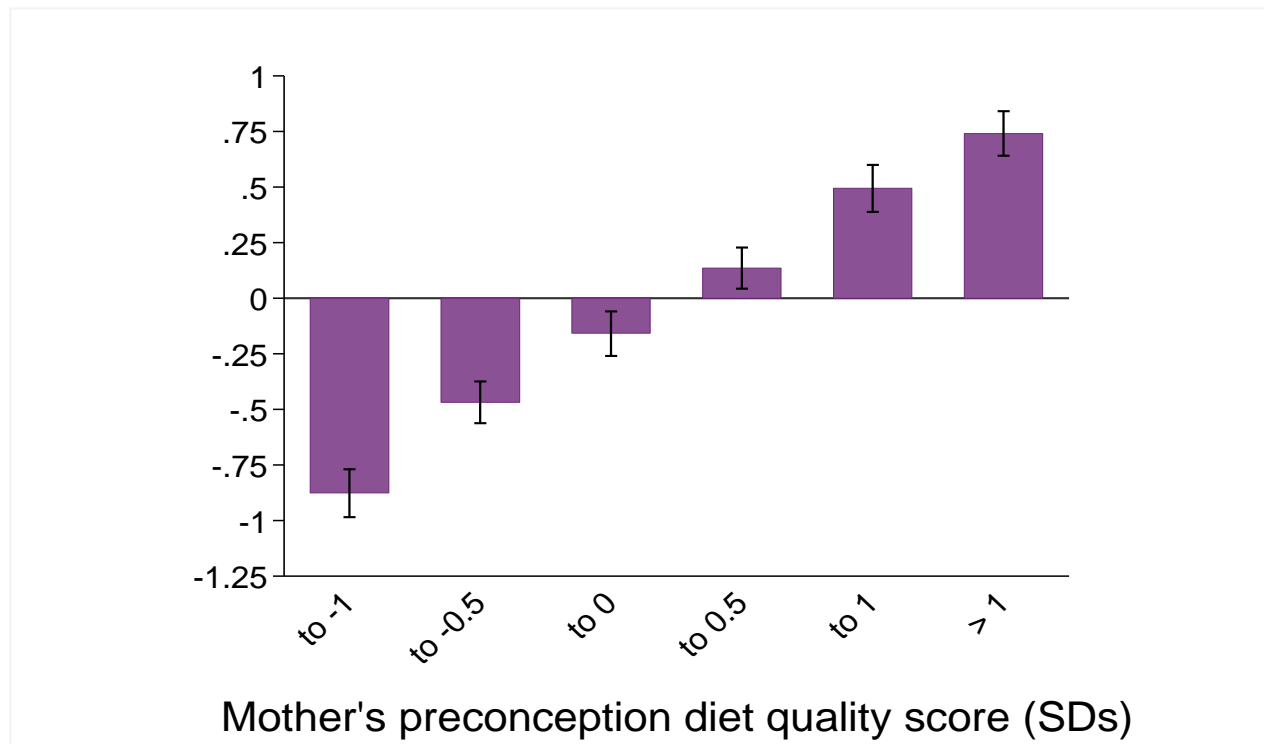


Infant guidelines pattern score according to diet quality score of the mother



Association between childhood diet quality at 3 years and maternal preconception diet

Association between diet quality of mother preconception and child at 3 years



Fisk CM et al. Br J Nutr. 2011

Why do some women have poorer diets?

"Easy to take the kids down to McDonalds or something"

"Fruit and veg is expensive. It's a shame they can't make it cheaper"



"There's always buy-one-get-one-free isn't there on a packet of chicken nuggets or something."

- Colleagues at the MRC Lifecourse Epidemiology Unit including: Hazel Inskip, Mary Barker Cyrus Cooper, Sarah Crozier, Keith Godfrey, Wendy Lawrence, Siân Robinson (now University of Newcastle)
- SWS staff and participants
- Funding bodies including:

