Perceived weight discrimination and chronic biochemical stress
A population-based study using cortisol in scalp hair

Dr Sarah Jackson
s.e.jackson@ucl.ac.uk

Health Behaviour Research Centre, University College London

Background

Weight stigma: “the last acceptable form of prejudice”

Social stressor, activation of HPA axis, cortisol

Experimental studies: immediate effects on cortisol reactivity

Lasting effects on stress levels?

Methods

**Sample**
- English Longitudinal Study of Ageing
- BMI ≥30kg/m²
- Non-smokers
- n = 563

**Measures**
- Discrimination: questionnaire
- Cortisol: scalp-nearest 2cm hair segment
- Height and weight: objectively measured

**Analysis**
- ANCOVA
- Covariates: age, sex, ethnicity, SES, BMI

**Results**

- **33% higher hair cortisol**
  \[(F=12.01, \ p=.001)\]

- **44% higher hair cortisol**
  \[(F=11.58, \ p=.001)\]
Conclusions

Extends previous literature

Weight discrimination implicated in obesity-related comorbidities

Vicious cycle of discrimination and weight gain