

Scale, balance and levers: learning from research and policy in England

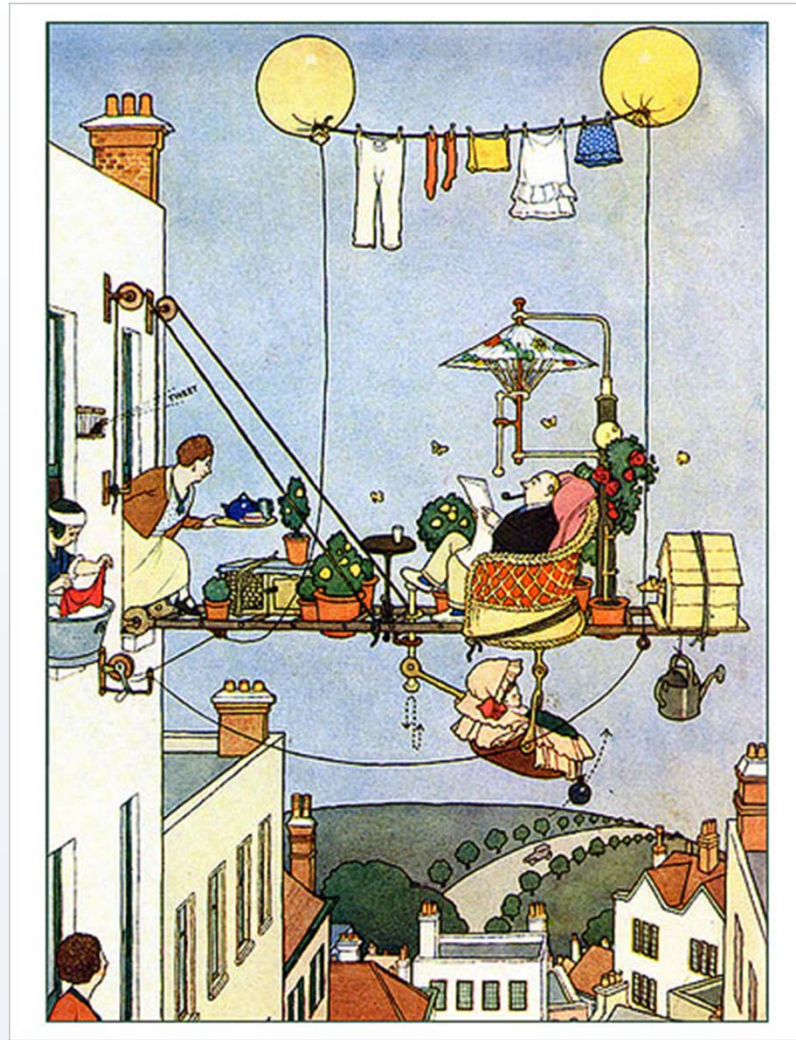
Catherine Law

INRICH 2014, Stockholm

Why me?



Why the title: scale balance and levers?



Why England?

“...with all its weaknesses, this Labour Government probably was the most determined European Government ever to tackle health inequalities”

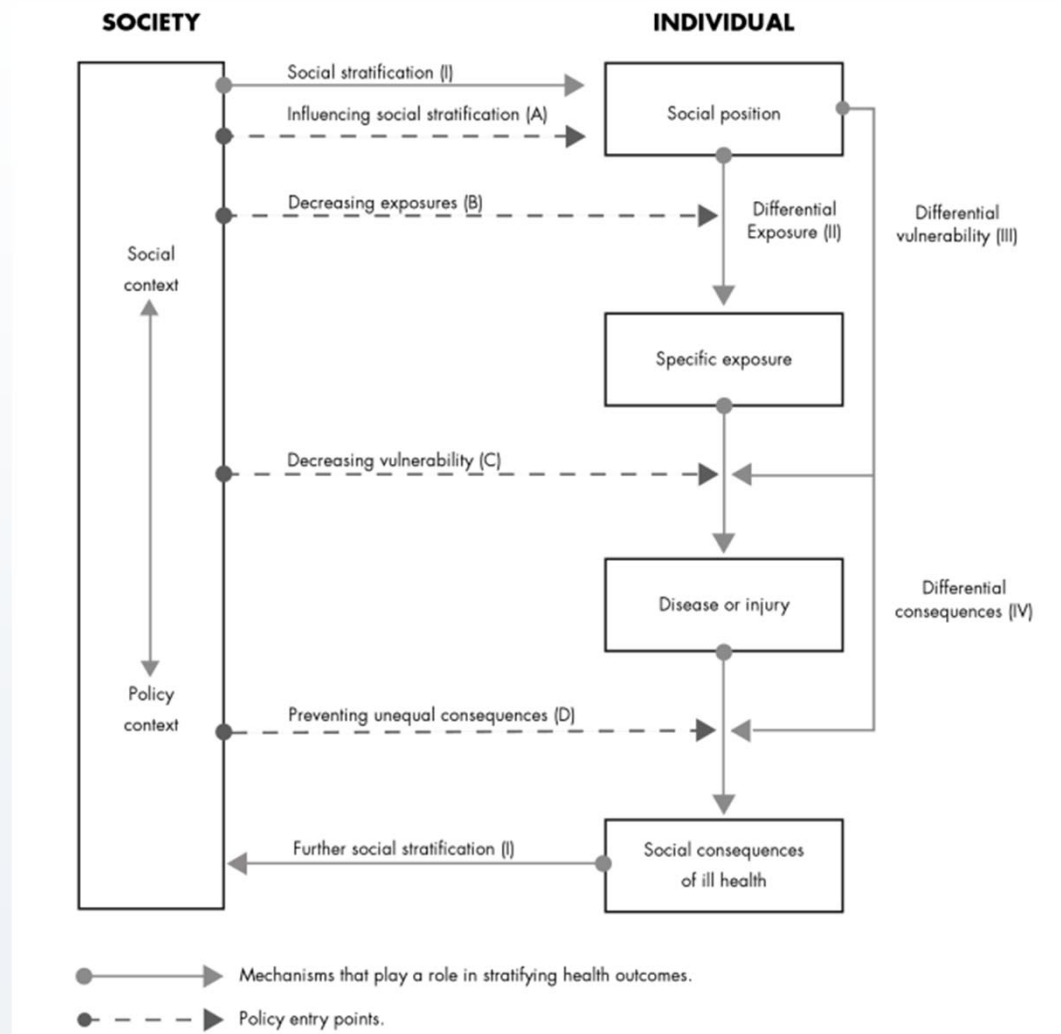


“...Substantially reducing inequalities in overall health is currently beyond our means”



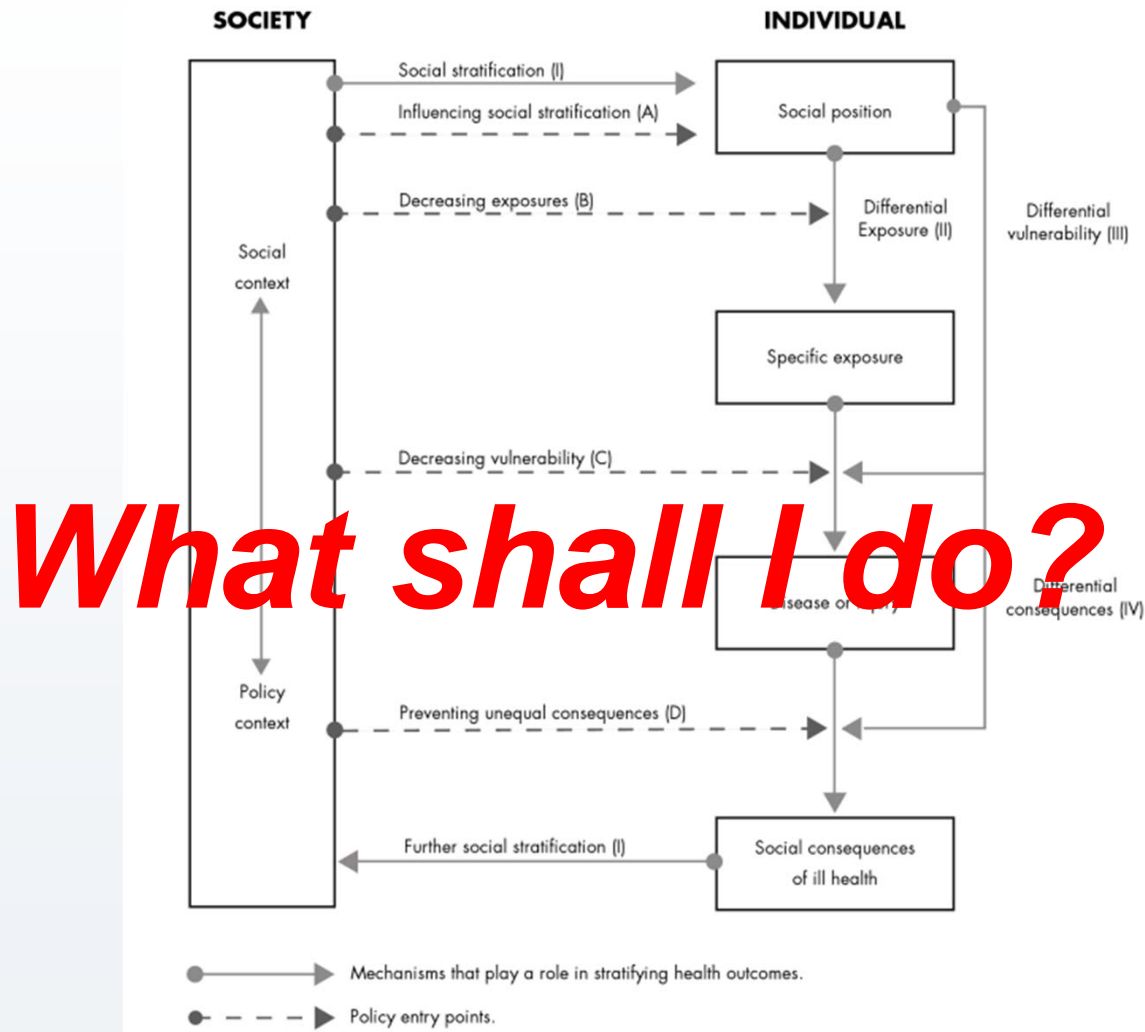
Mackenbach JP. *J Epi Comm Health*, 2011.
 Law CL. *Arch Dis Child* 2012

A framework for elucidating the pathways from the social context to health outcomes and for introducing policy interventions



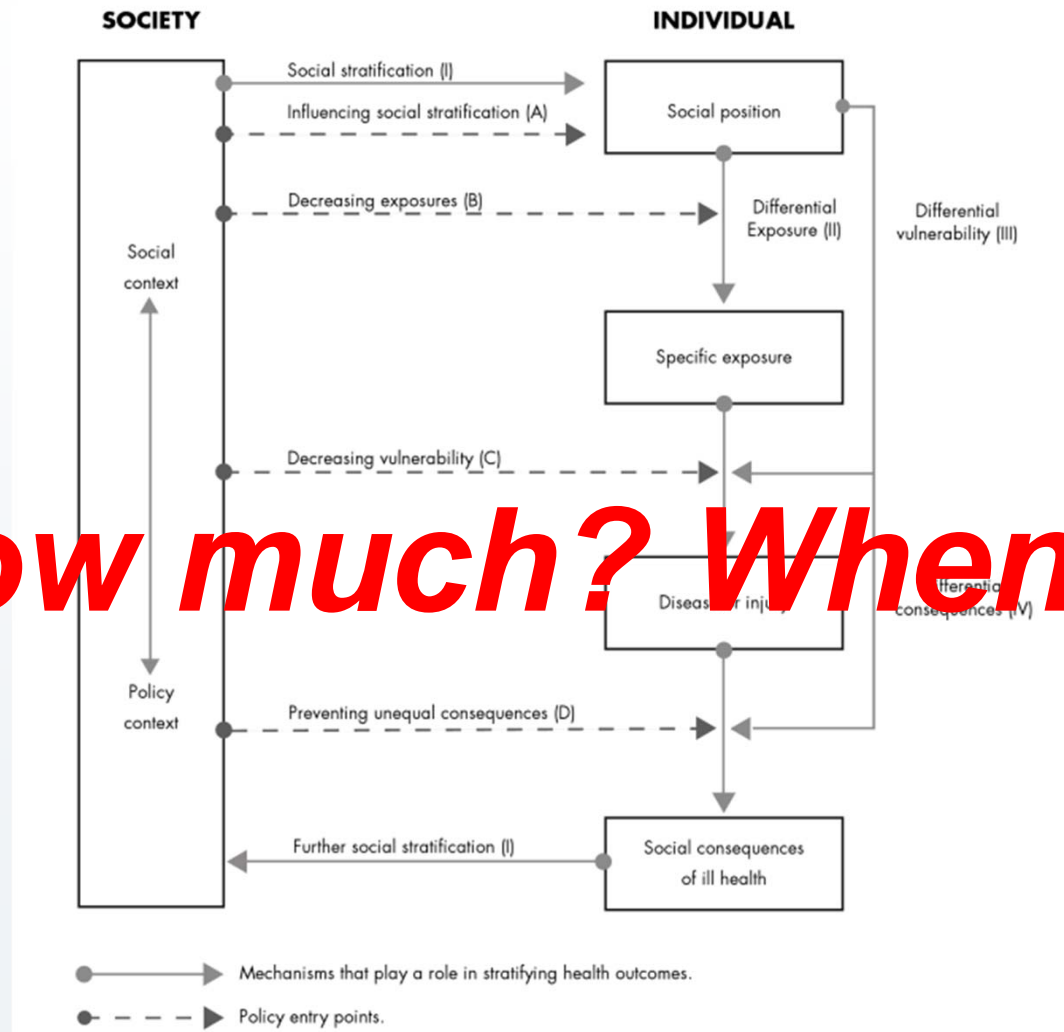
Source: Diderichsen F, Evans T, Whitehead M. 2001. *The social basis of disparities in health*. Adapted from: Diderichsen F & Hallqvist J. 1998. *Inequality in Health-A Swedish Perspective*. Pp. 25-39.

A framework for elucidating the pathways from the social context to health outcomes and for introducing policy interventions

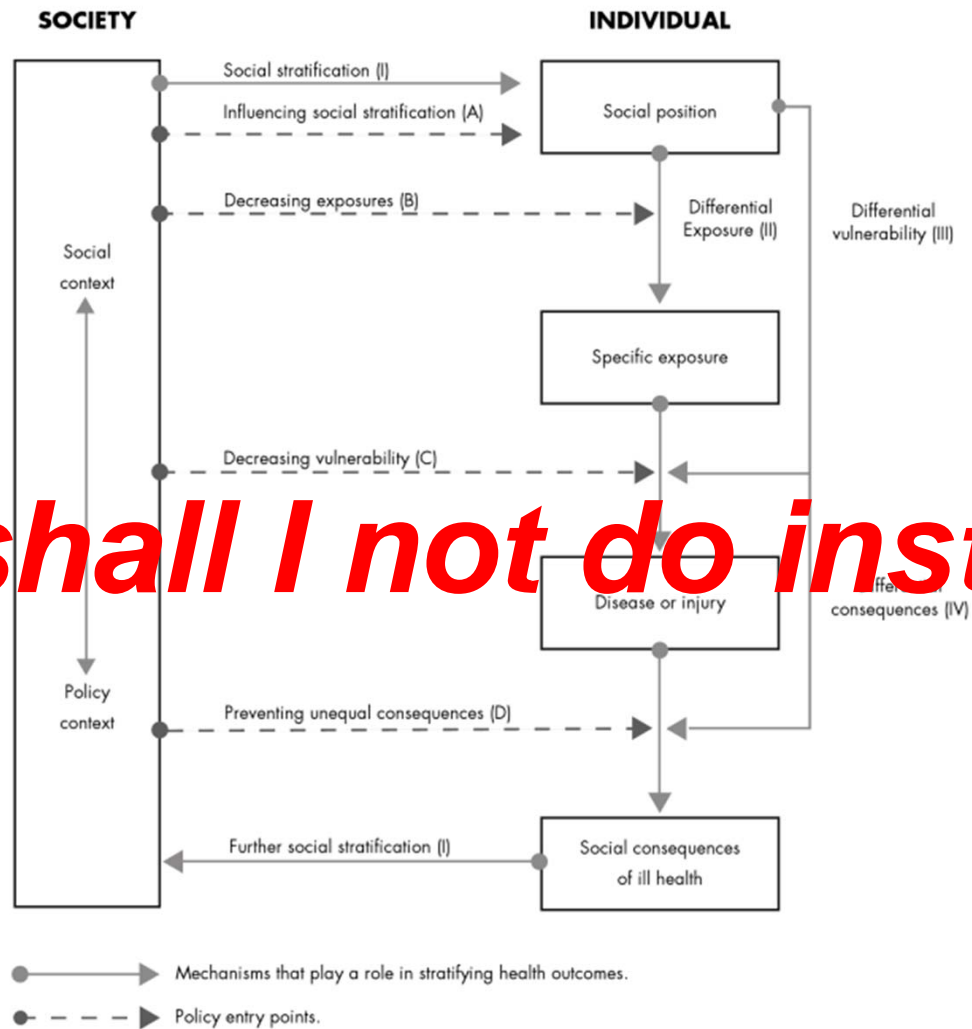


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A framework for elucidating the pathways from the social context to health outcomes and for introducing policy interventions

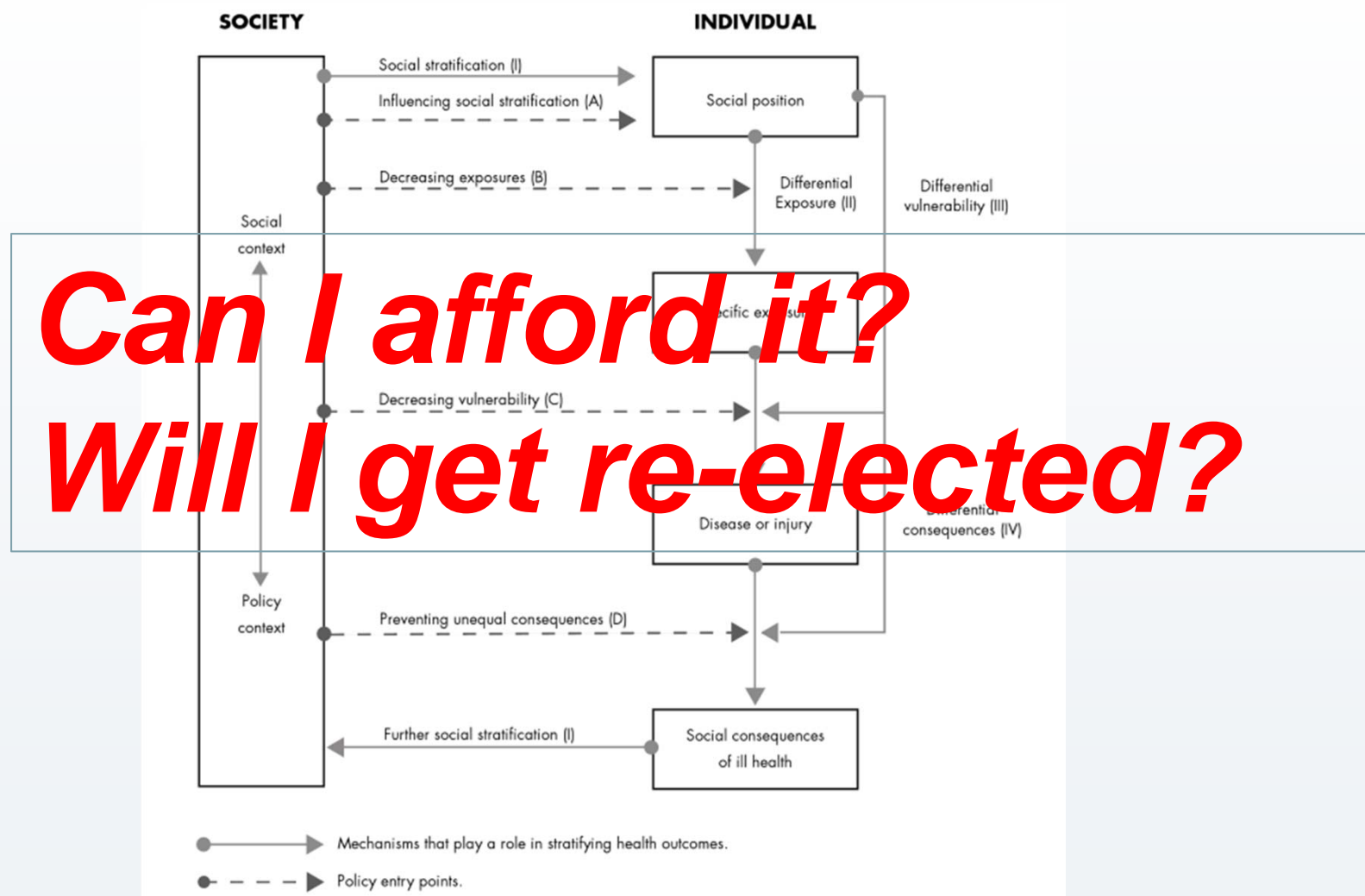


A framework for elucidating the pathways from the social context to health outcomes and for introducing policy interventions



What shall I not do instead?

A framework for elucidating the pathways from the social context to health outcomes and for introducing policy interventions



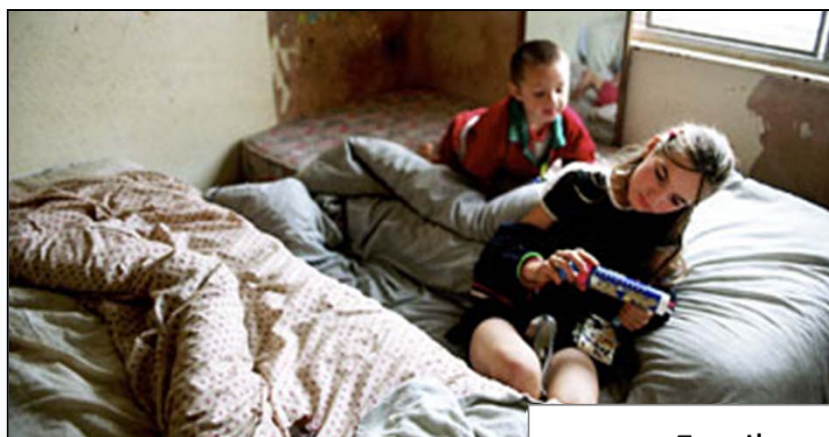
Plan: how might (did) research influence the mechanics of policymaking to tackle health inequalities in England

- Social determinant – family poverty
- Intervention – early
- Health outcome – overweight

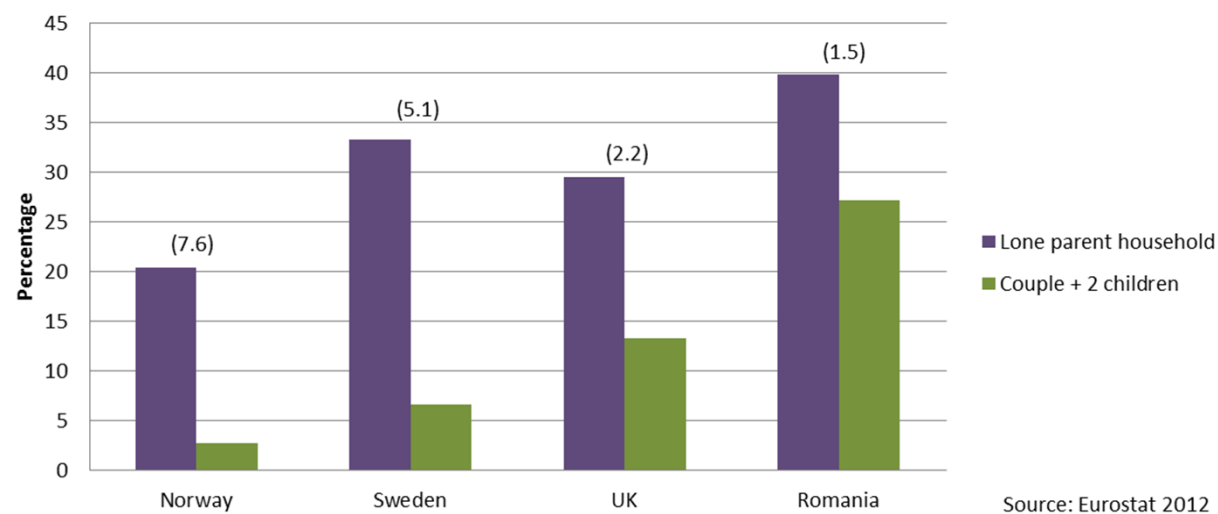
Case studies with general messages

Implications for research(ers)

Tackling family/child poverty



Family poverty rate by household type (cut-off point: 60% of median equivalised income after social transfers)



Levers to reduce family poverty: if poor lone mothers seek employment



- ✓ income
- X breastfeeding
- ✓ day care
- X time for parenting
- ? stress

Net effect on child health X ? ✓

Law C. J Royal Coll Physicians, 2010

Levers to reduce family poverty: if poor lone mothers had increased benefits...



- ✓ income
- ✓ breastfeeding
- X day care
- ✓ time for parenting
- ?stress

Net effect on child health X ? ✓

Balance: returning to employment - choice or necessity



- Policies to increase maternity leave and flexible working
- Breastfeeding rates increased and gap narrowing
- Prolonged and exclusive breastfeeding rates still low
- Women less likely to access longer leave/flexible working if disadvantaged

McAndrew, F. et al. Infant feeding survey 2010. 2012

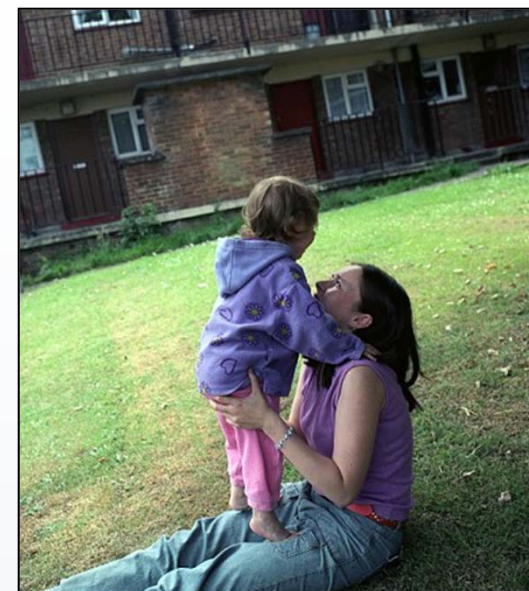
Hawkins SS et al. *Paediatric and Perinatal Epidemiology*, 2007;21:242-7.

Scale

After housing costs, we have

- **43%** (approx 1.29 million) of children in lone parent families and
- **22%** (approx 2.2 million) of children in couple families

living in households with less than 60% of contemporary median household income



Source: *Households Below Average Income: An analysis of the income distribution 1994/95 – 2011/12*. London: Department for Work & Pensions. 2013.

Research focus: interventions as events in systems

“..... focus on the dynamic properties of the context into which the intervention is introduced.....Interventions impact on evolving networks of person-time-place interaction, changing relationships, displacing existing activities and redistributing and transforming resources.....”

Hawe P, Shiell A, Riley T. *American Journal of Community Psychology* 2009;43(3-4):267-76.

Early intervention

Children face
*“increasingly
 disproportionate social
 disadvantage”*

Life- course approach,
 with focus on early
 intervention

Annual Report of the
 Chief Medical Officer 2012

Our Children Deserve Better:
 Prevention Pays



Early intervention: levers



- Child care
- Early education
- Home visiting
- Parenting programmes
- Peer/social support
- Poverty reduction
- Health/social care

Early intervention: levers

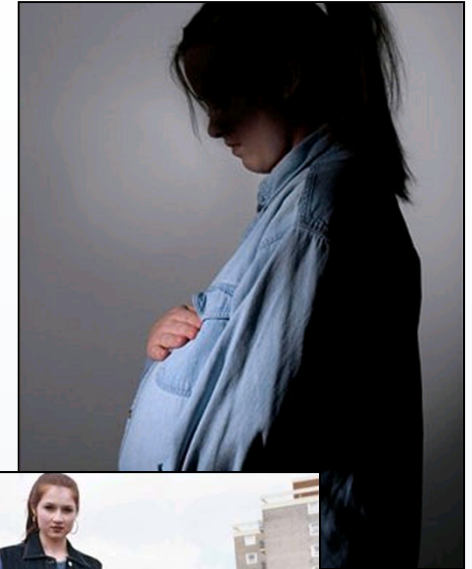


*“..... We report on the long-term health effects of one of the oldest and most heavily cited early childhood interventions with long-term follow-up evaluated by the method of randomization: **the Carolina Abecedarian Project (ABC)**. Using recently collected biomedical data, we find that disadvantaged children randomly assigned to treatment have significantly lower prevalence of risk factors for cardiovascular and metabolic diseases in their mid-30s..... mean SBP control males **143 mmHg V 126 mm Hg** intervention..... Our evidence shows the potential of early life interventions for preventing disease and promoting health.”*

Campbell F et al. *Science* 2014;343(6178):1478-85.

Scale: who gets the intervention

- 6.4% of children with poor development (SDQ) had mothers <20 years at their birth
- 63.6% if add in other predictors – education, financial difficulties, cohabitation, smoking T1 pregnancy, post-natal depression



Chittleborough CR, Lawlor DA, Lynch JW. *Pediatrics* 2011;peds.2010-3222.

Early intervention: levers

“.....The key components of quality in early years settings are highly trained managers and staff with good knowledge of the curriculum and how young children learn, combined with skill in adult–child interaction.....”

Marmot M et al. *Fair Society, Healthy Lives*. 2010; from Sylva K et al. 2003

Early intervention: balance

Inspection judgements for children's centres inspected between April –Oct 13



Source: Official statistics: Children's centres inspections and outcomes, April 2013-October 2013. London:Ofsted. 2014:6

Early intervention

Children face *“increasingly disproportionate social disadvantage”*

Life-course approach, with focus on early intervention

Recommendation: assess progress and build the evidence base

Annual Report of the
Chief Medical Officer 2012

**Our Children Deserve Better:
Prevention Pays**



Research focus: getting the right information about interventions

“...Public health researchers are well aware of the dangers of studying the effect of medical treatment on health outcomes in a non-experimental framework, and should be equally wary of observationally observed “effects” of political decisions on population health...”

(Mackenbach JP. *EJPH* 2014;24(1):2)

“...a plea to reject the double scientific standard of what constitutes acceptable evidence of efficacy for clinical versus public health interventions...”

(Kramer MS. *Clin Perinatol* 2003;30(2):351-61)

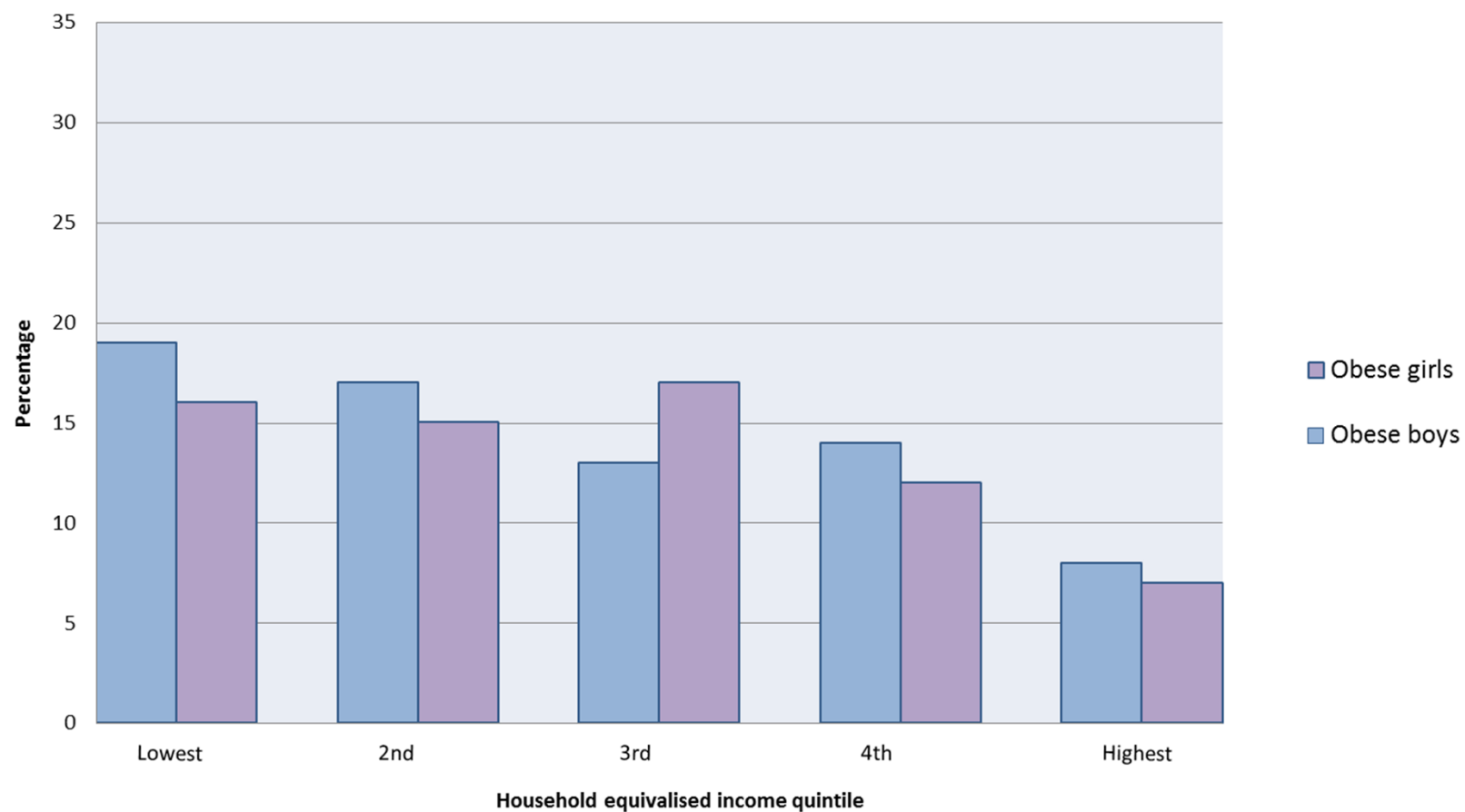
“...However, causal chains in public health interventions are complex, making RCT results subject to effect modification in different populations. Both the internal and external validity of RCT findings can be greatly enhanced by observational studies ...”

(Victora, CG et al. *Journal Information* 2004; 94(3))

Overweight and obesity

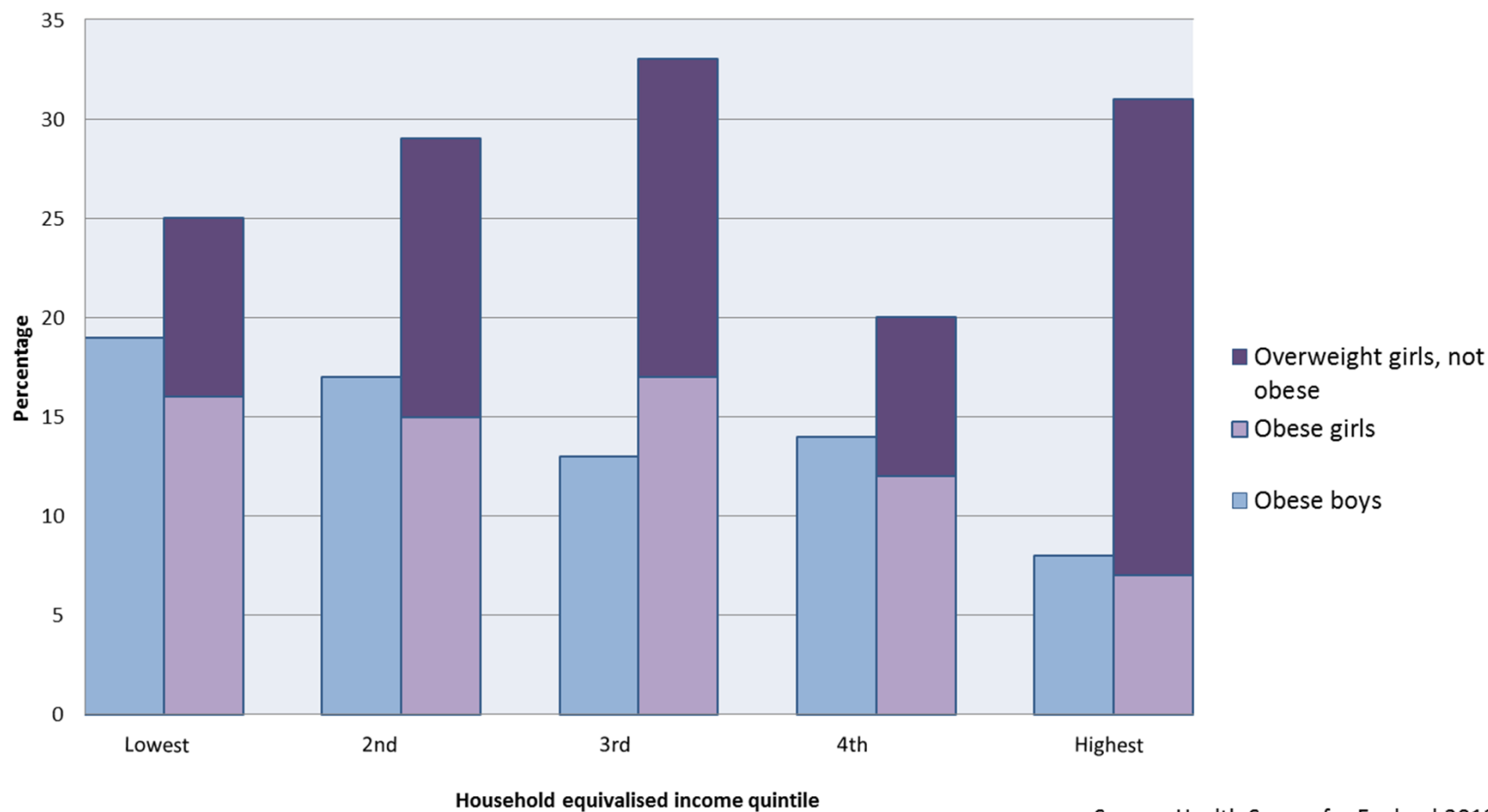


Obesity prevalence in children aged 2-15, by household equivalised income and sex



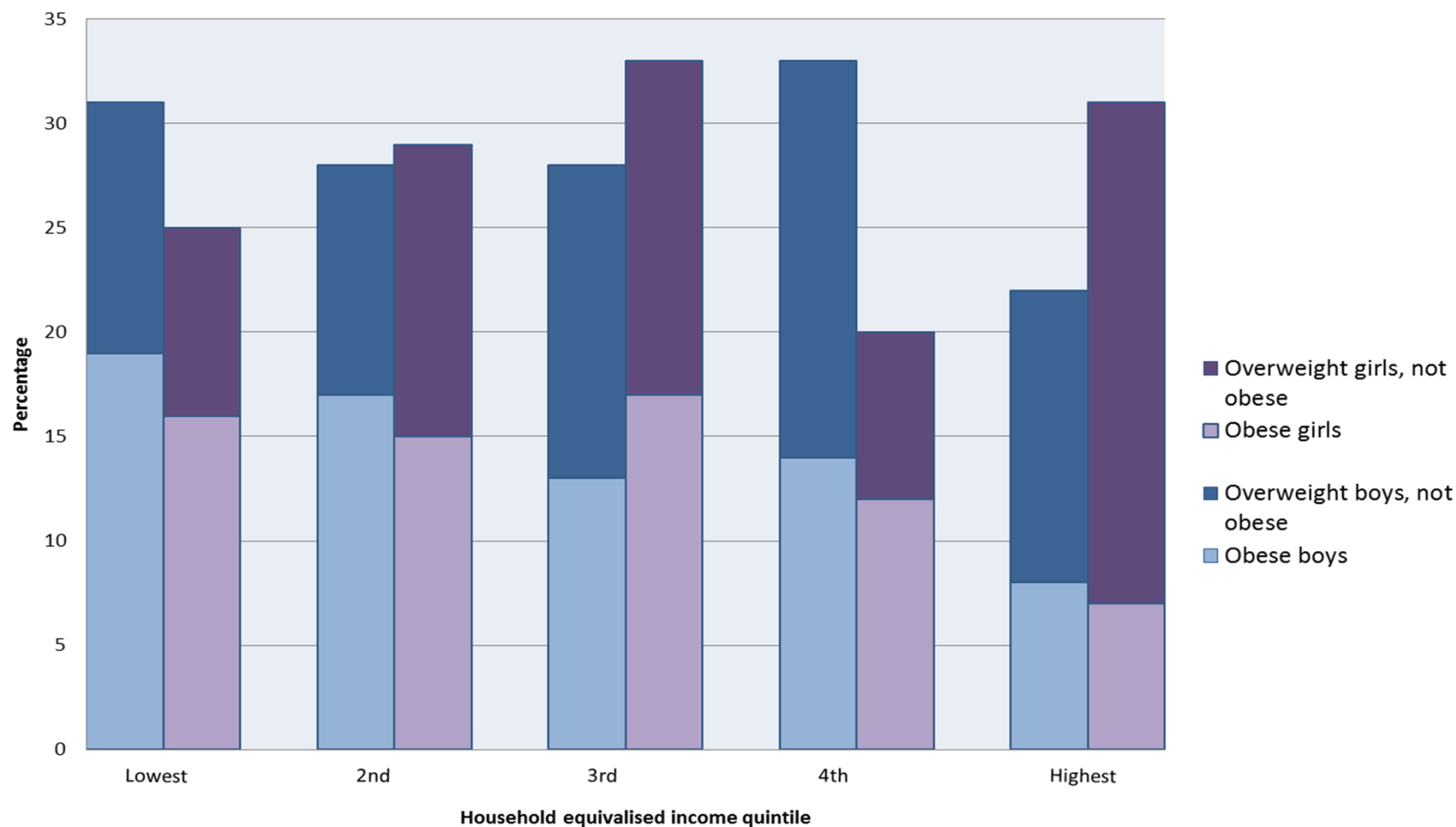
Source: Health Survey for England 2012

Overweight and obesity prevalence in children aged 2-15, by household equivalised income and sex



Source: Health Survey for England 2012

Overweight and obesity prevalence in children aged 2-15, by household equivalised income and sex



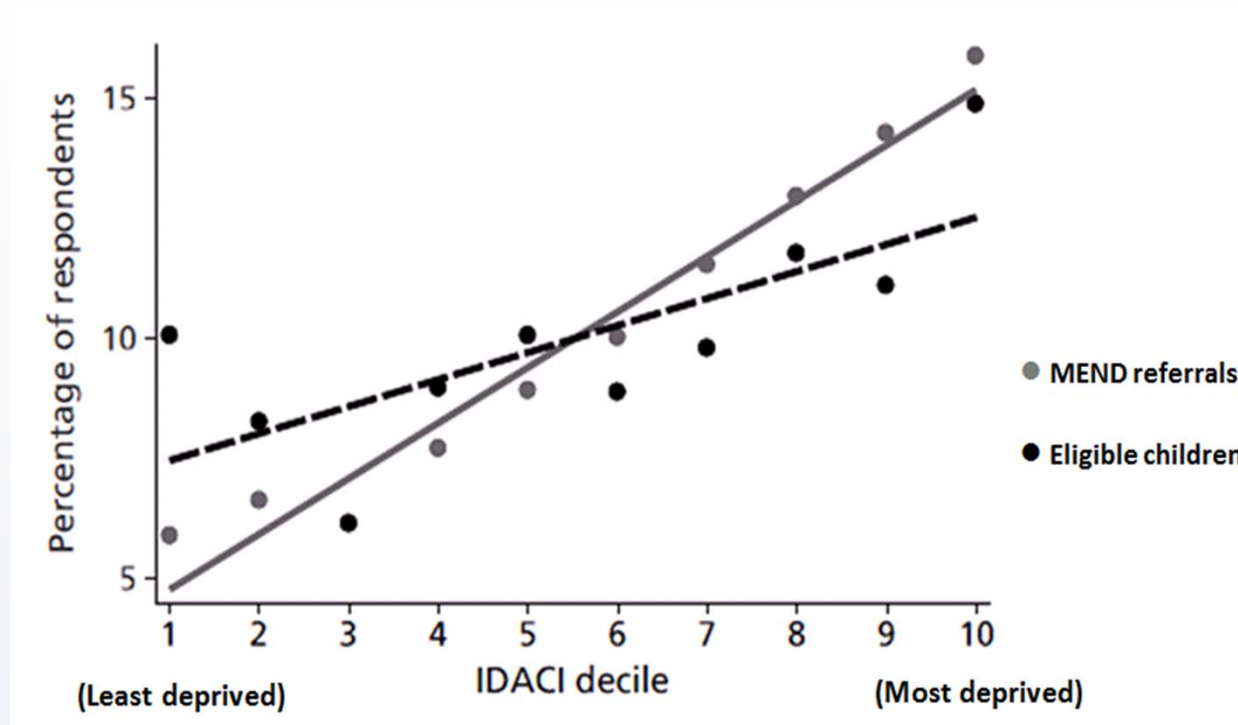
Source: Health Survey for England 2012

Overweight: balance – prevention v treatment



Waters E et al. *Interventions for preventing obesity in children*. 2011
 Oude Luttikhuis H et al. *Interventions for treating obesity in children*.
 2009;1

Levers: implementation in practice



Percentages of children referred to MEND compared to eligible children by Income Deprivation Affecting Children Index (IDACI) 2007

Source: Law C et al. *Public Health Res* 2014; 2 (in press)

Obesity: scale



- Access
- Size of effect: zBMI change of -0.06 (at 6 mo) “*statistically and clinically relevant*”
- Effect size smaller in disadvantaged groups
- Sustainability: hard to achieve in an obesogenic environment

Law C et al. *Public Health Res* 2014; 2 (in press)

Research focus: RE-AIM

Dimension*	Level
Reach (proportion of the target population that participated in the intervention)	Individual
Efficacy (success rate if implemented as in guidelines; defined as positive outcomes minus negative outcomes)	Individual
Adoption (proportion of settings, practices, and plans that will adopt this intervention)	Organization
Implementation (extent to which the intervention is implemented as intended in the real world)	Organization
Maintenance (extent to which a program is sustained over time)	Individual and organization

*The product of the 5 dimensions is the public health impact score (population-based effect)

Glasgow, R. E., Vogt, T. M., & Boles, S. M. (1999). *American Journal of Public Health*, 89(9), 1322-1327.

What research does and doesn't do (for policy)

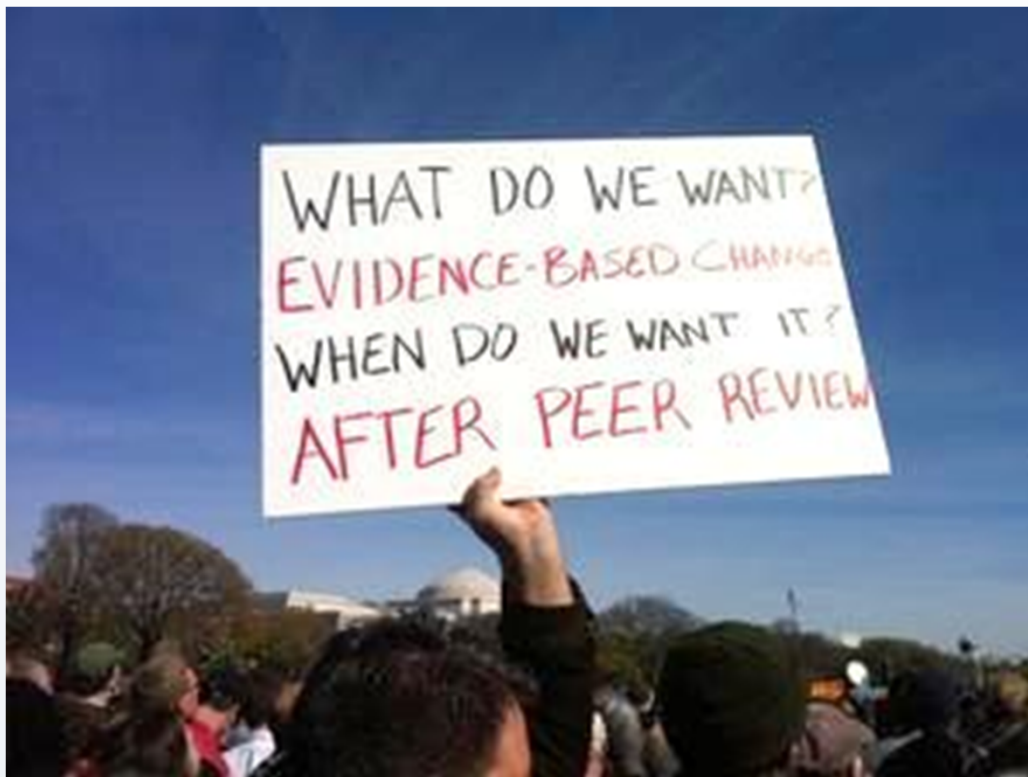
- Raises hypotheses for further testing, gives contextual and supporting information – but doesn't often provide definitive information for policy decision
- Helps to highlight groups of people who might be in need/could benefit – but often doesn't quantify/identify
- Helps identify areas for intervention or interventions– but often doesn't give scalability or other information for equitable implementation

The researcher's developing role

- Methodological development, particularly for evidence synthesis and naturalistic learning
- Implementation science
- Translation or advocacy?

“It's better to light a candle than curse the darkness”

Adlai Stevenson 1962



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