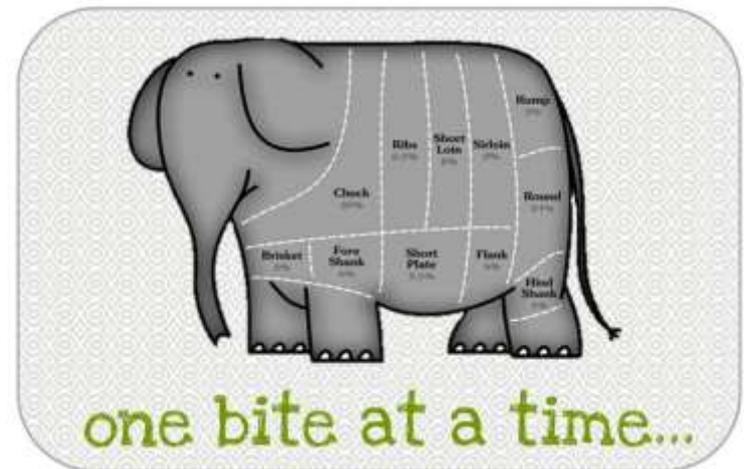


Designing physical activity interventions in socio-economically disadvantaged communities

How to eat an elephant?



Statistics on Obesity, Physical Activity and Diet

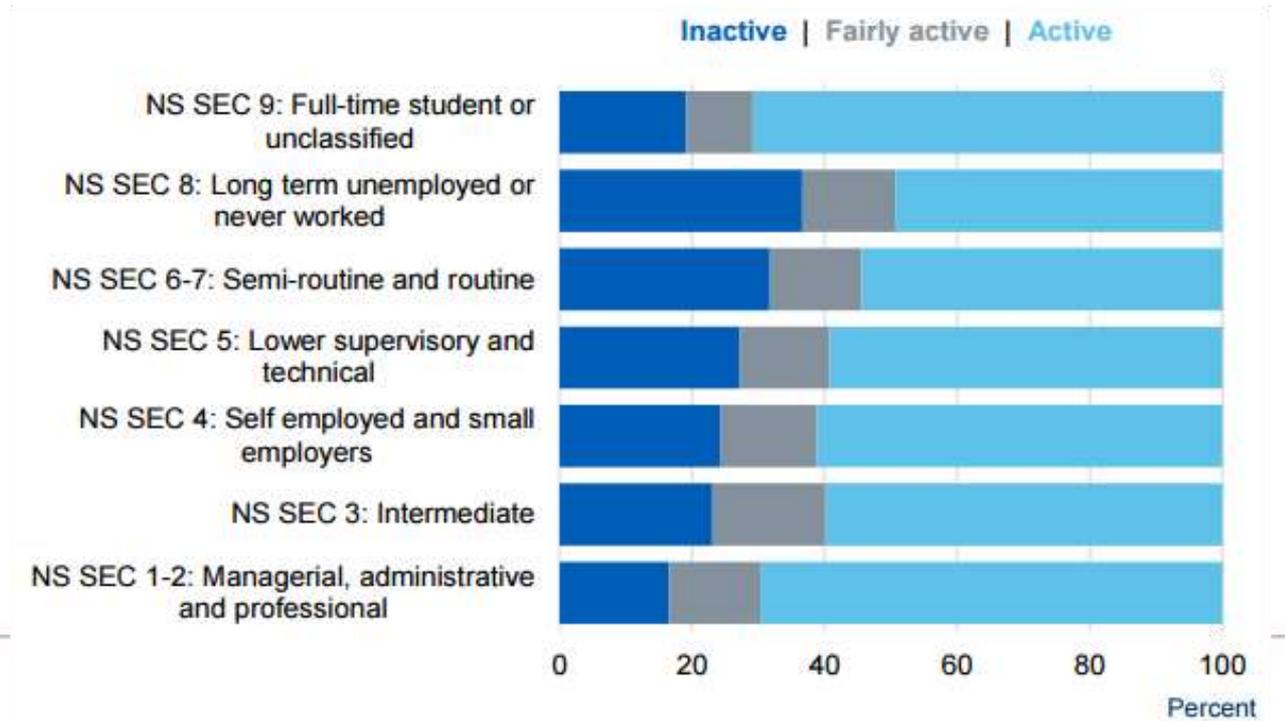
England: 2017

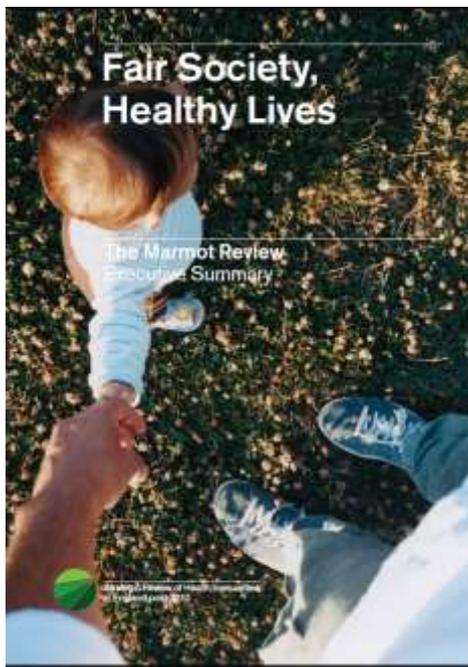
Information and technology for better health and care | Published 30 March 2017

Socio-economic group¹

People who are long term unemployed or have never worked were most likely to be inactive (37%).

Those in managerial, administrative and professional occupations were the least likely to be inactive (17%).





- Annual cost of health inequalities is between £36 billion to £40 billion
- People living in the poorest will on average die seven years earlier than people living in the richest neighbourhoods
- People living in poorer areas not only die sooner, but spend more of their lives with disability - an average total difference of 17 years

Inequalities in Physical Activity Participation

- 60% not doing enough physical activity
- Considerable societal challenge
- Limited resources
- Target those 'most in need'

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Addressing inequalities in physical activity participation: Implications for public health policy and practice

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Characteristics of those doing:

1. No physical activity
2. Some physical activity
3. Sufficient physical activity

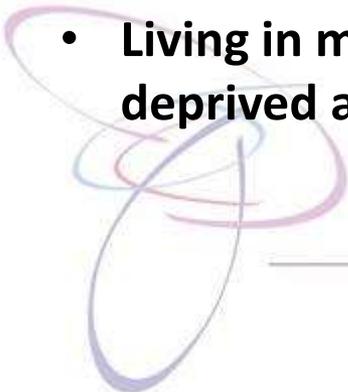


Most 'in need'

- 55 years or older
- Economically inactive
- No car
- Poor health
- Living in most deprived areas



- Poor health



Long term illness

- Sample = 13,683 adults continuous household survey; 26% had a long-term illness/disability
- Fewer of those with (24.5%), than without (55.6%), long-term illness reported sport participation in the previous year

Need to target:

- older people
- married females
- Rural dwelling
- Socio-economically deprived
- Report 'not good' health in last year



Disability
Sport NI

BMJ Open
Sport &
Exercise
Medicine

Correlates of sport participation in adults with long-standing illness or disability

Neil Heron,^{1,2,3} Frank Kee,^{2,3} Margaret E Cupples,^{1,2,3} Mark A Tully^{2,3}

To cite: Heron N, Kee F, Cupples ME, et al. Correlates of sport participation in adults with long-standing illness or disability. *BMJ Open Sport Exerc Med* 2015;1:e000903. doi:10.1136/bmjsem-2015-000903

► Prevalence of disability

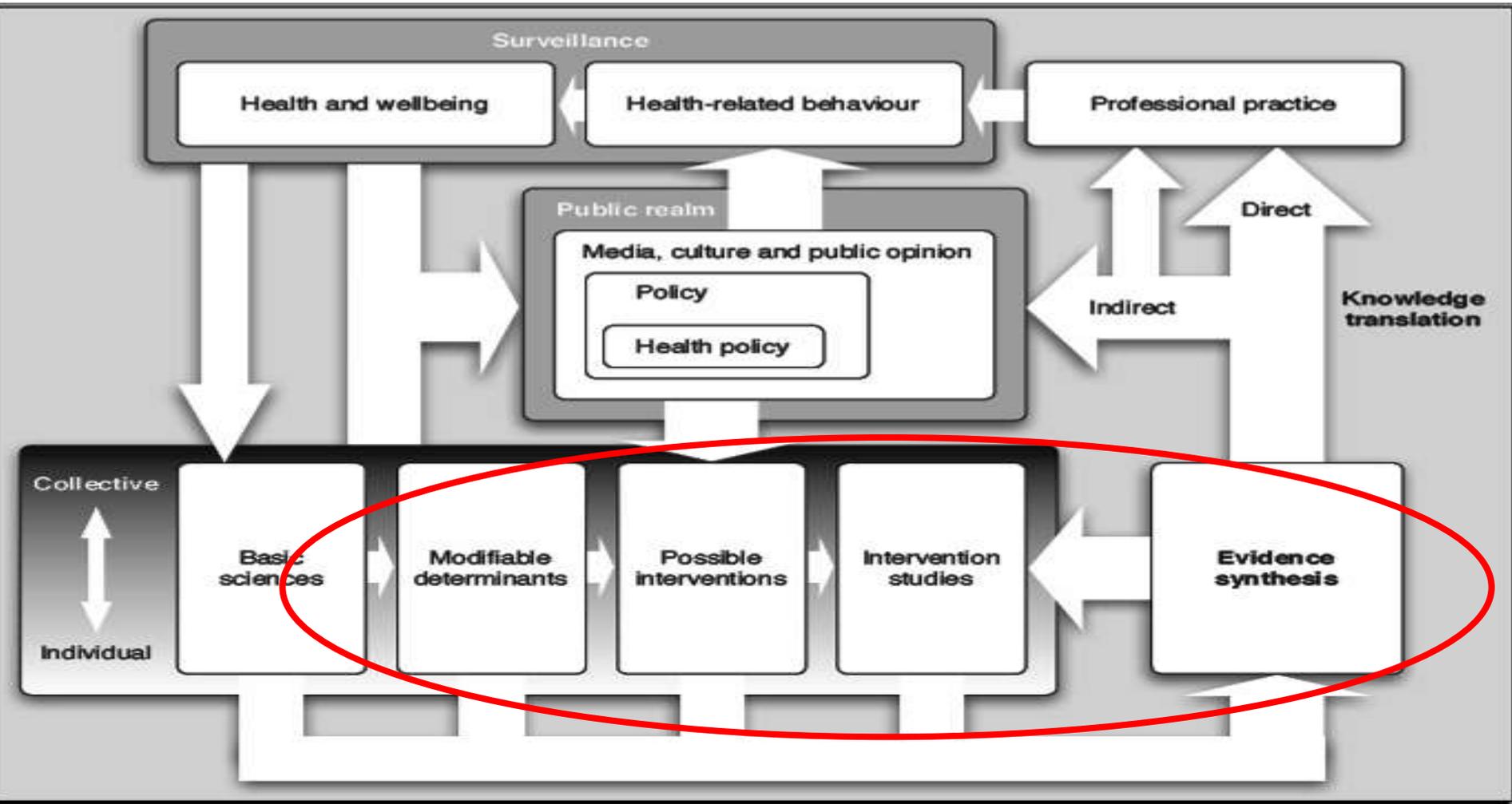
ABSTRACT

Background: Little is known about why people with a long-standing illness/disability are less likely to participate in sport than others. This study aimed to identify for the first time sport participation levels and their correlates among Northern Ireland (NI) adults who report a long-standing illness/disability.

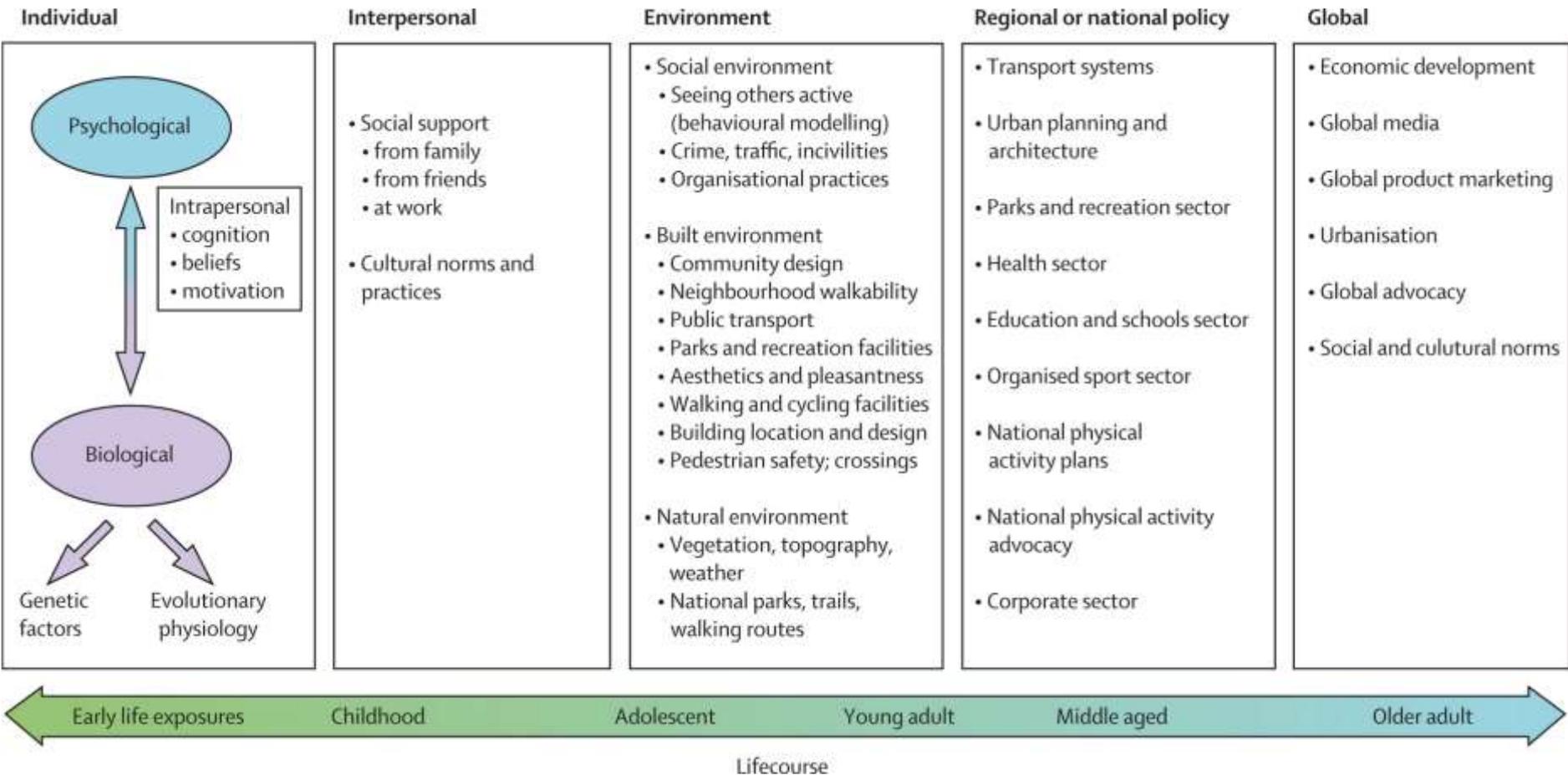
Method: Using data collected in the Continuous Household Survey, an annual survey of a random sample of the NI population, during 2007–2011, we examined

What is already known

- People with a long-term illness or disability are less likely to participate in sport than the general population.
- People with a long-term illness or disability have poorer health than the general population and their failure to participate in sport further exacerbates the known health inequalities.



Adapted ecological model of the determinants of physical activity



Benefits of green space

The health benefits of urban green spaces: a review of the evidence

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ABSTRACT

Background Urban development projects can be costly and have health impacts. An evidence-based approach to urban planning is therefore essential. However, the evidence for physical and non-physical health benefits of urban green space is unclear.

Methods A literature search of academic and grey literature was conducted for studies and reviews of the health effects of green space. Articles found were appraised for their relevance, critically reviewed and graded accordingly. Their findings were then thematically categorized.

Results There is weak evidence for the links between physical, mental health and well-being, and urban green space. Environmental factors such as the quality and accessibility of green space affects its use for physical activity. User determinants, such as age, gender, ethnicity and the perception of safety, are also important. However, many studies were limited by poor study design, failure to exclude confounding, bias or reverse causality and weak statistical associations.

Conclusion Most studies reported findings that generally supported the view that green space have a beneficial health effect. Establishing a causal relationship is difficult, as the relationship is complex. Simplistic urban interventions may therefore fail to address the underlying determinants of urban health that are not remediable by landscape redesign.

Keywords environment, geography, public health

Health Benefits

- Activity levels
- Survival in elderly
- Mental health
- Social capital
- Health inequalities



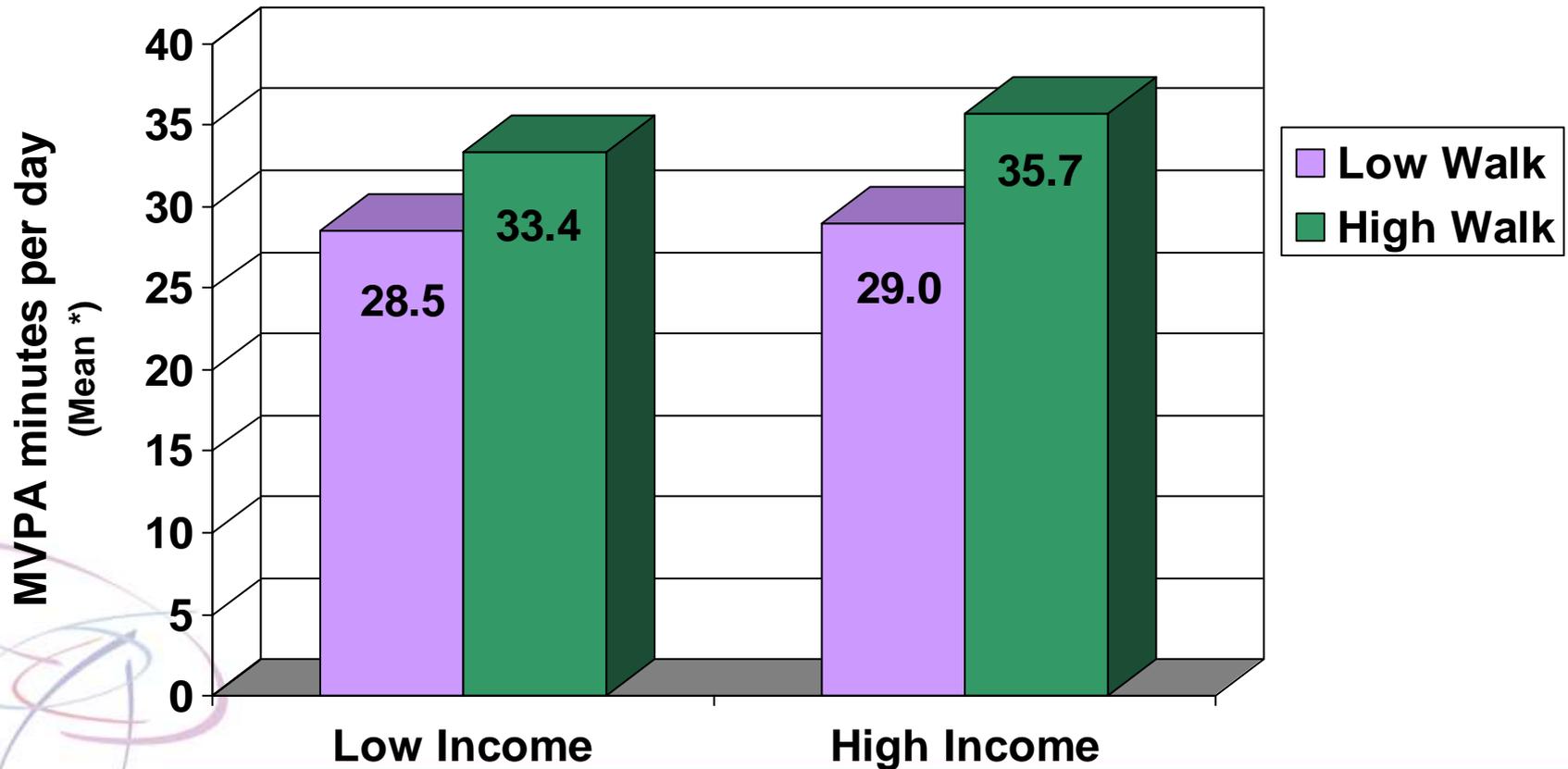
- Consistent reductions gun assaults and vandalism
- Some areas – increased exercise

Accelerometer-based MVPA Min/day in Walkability-by-Income Quadrants

Walkability: $p = .0002$

Income: $p = .36$

Walkability X Income: $p = .57$



* Adjusted for neighborhood clustering, gender, age, education, ethnicity, # motor vehicles/adult in household, site, marital status, number of people in household, and length of time at current address.



This Provisional PDF corresponds to the article as it appeared upon acceptance. Fully formatted PDF and full text (HTML) versions will be made available soon.

Shoe leather epidemiology: active travel and transport infrastructure in the urban landscape

International Journal of Behavioral Nutrition and Physical Activity 2010,
7:43 doi:10.1186/1479-5868-7-43

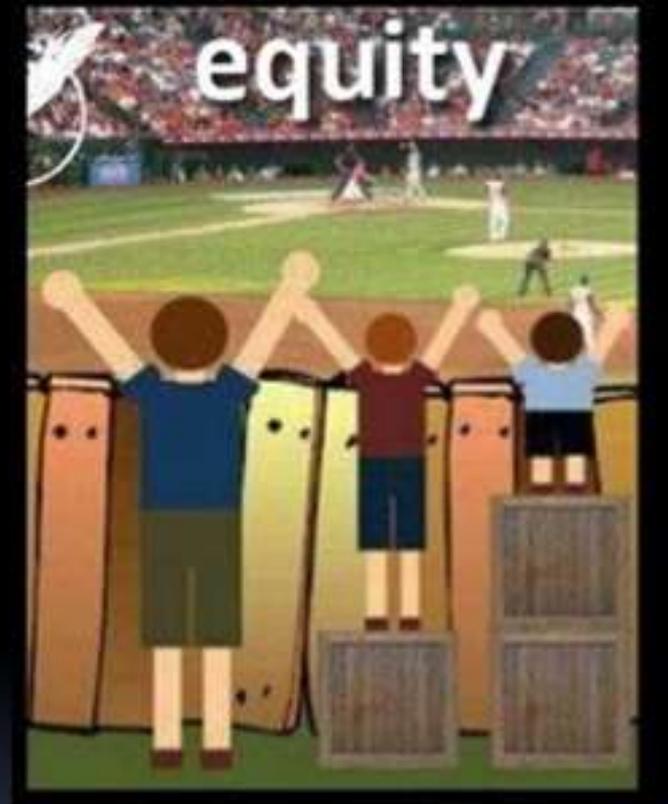
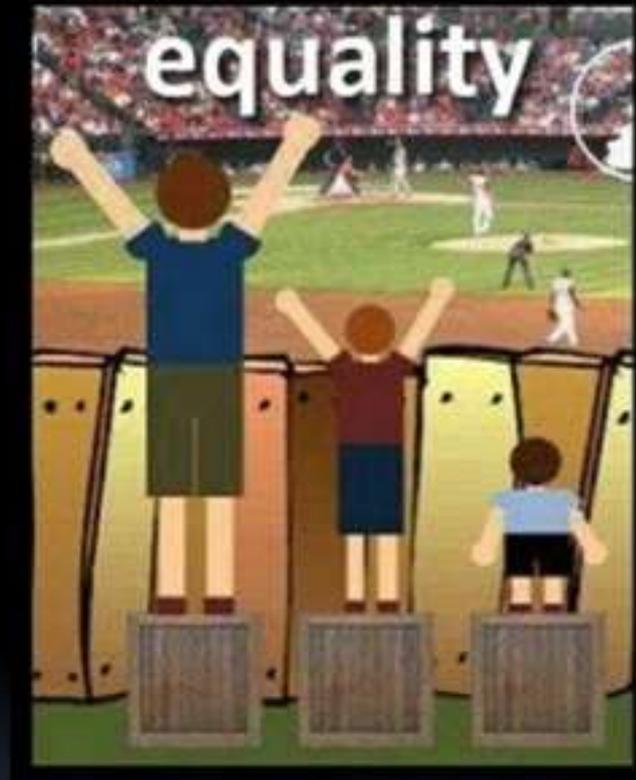
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- People without cars make fewer trips
- Travel 50% further on foot
- Disadvantaged in terms of overall mobility
- May gain the benefit of additional physical activity
- Potentially winning combination of an increase in physical activity coupled with reductions in traffic congestion and use of fossil fuels



- Planners' goals or assumptions about new infrastructure may not be shared
- Walk through neglected surroundings = stressful
- May aspire to the protection, autonomy and prestige afforded by cars

Equality vs. Equity



EQUALITY=SAMENESS

GIVING EVERYONE THE SAME THING → It only works if everyone starts from the same place

EQUITY=FAIRNESS

ACCESS to SAME OPPORTUNITIES → We must first ensure equity before we can enjoy equality

Inequalities: Knowledge of guidelines

- 2011 Chief Medical Officer's recommendations
- Pre-requisite to influencing beliefs and social norms
- Knowledge proceeds action



8% Unaware

Who is unaware?

- **Low level of education**

OR 5.91; 95% CI 1.67, 20.94)

- **Lived in more deprived areas**

OR 4.80; 95% CI 1.87, 12.30)

- **Low income**

OR 2.36; 95%CI 1.63, 3.41)

- **Did no physical activity**

OR 2.74; 95% CI 1.31, 5.76)



- **Younger**

OR 1.03; 95% CI 1.02, 1.05)

- **Reported poor health**

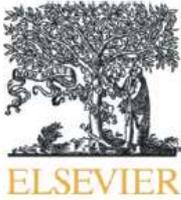
OR 2.71; 95% CI 1.61, 4.58)

Action Needed

Clear need for a health promotion campaign

Targeted = more effective





Review

The effectiveness of physical activity interventions in socio-economically disadvantaged communities: A systematic review

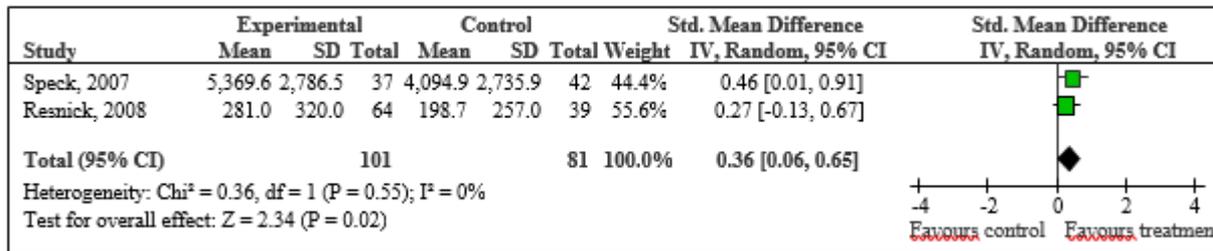


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Group interventions targeting adults



Best hope of narrowing health inequalities lies in interventions at the community or societal level



Recipe



Physical activity intervention in socio-economically disadvantaged communities

Cooking time: <6 months

1. Add a healthy dollop of behavioural theory
2. Spoon in some incentives to remove barriers for participants (access to opportunities for PA, transportation & childcare)
3. Whisk with counselling to enable participants to interact, share ideas, discuss goals and identify sources of support
4. Blend together with professional guidance, self-direction and on-going support
5. Avoid focusing interventions by gender, or age. May miss potential opportunities to utilise existing relationships such as multigenerational units



Exploring lay views on physical activity and their implications for public health policy. A case study from East Belfast



L. Prior^{a,b,*}, D. Scott^{a,c}, R. Hunter^{a,c}, M. Donnelly^{a,c}, M.A. Tully^{a,c}, M.E. Cupples^{a,c}, F. Kee^{a,c}

People rarely consider

- PA as a discrete issue
- one that centres on individuals and their motivation

It is:

- component in a complex web of concerns, processes and events
 - actions of neighbours and relatives
 - material and political environments
 - vandalism, violence, and the weather

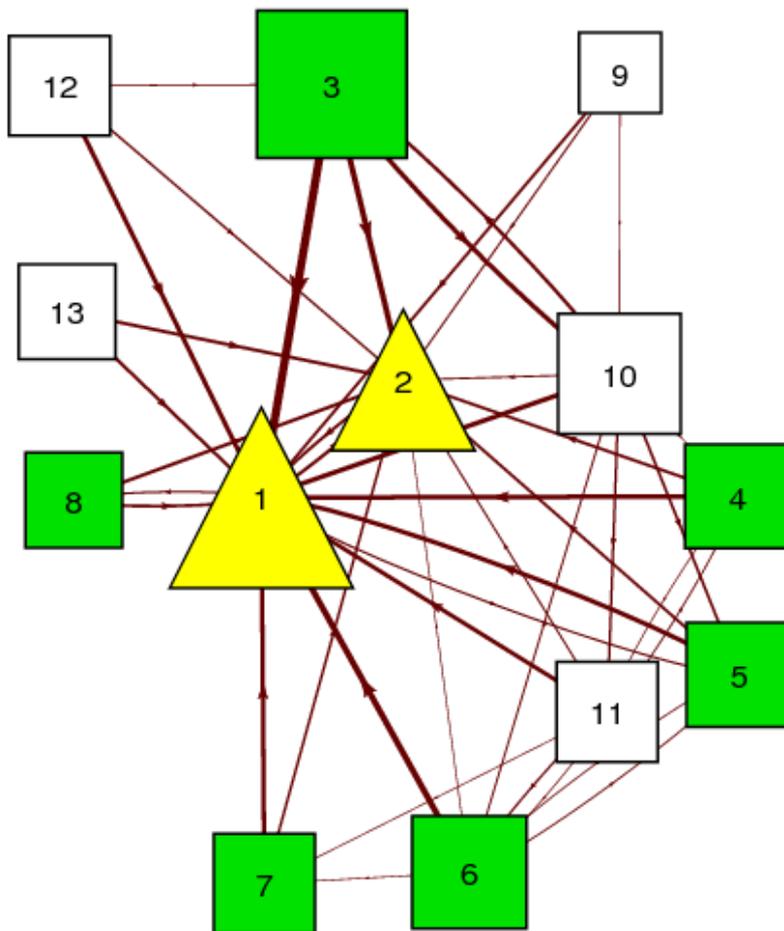


Figure 1. Front Street, Belfast, Northern Ireland, 2013.

Exploring lay views on physical activity and their implications for public health policy. A case study from East Belfast



L. Prior^{a,b,*}, D. Scott^{a,c}, R. Hunter^{a,c}, M. Donnelly^{a,c}, M.A. Tully^{a,c}, M.E. Cupples^{a,c},
 F. Kelly^{a,c}



Index of Activities: 1 = Being out and about, 2= Being Active.

Index of Facilitators: 3=Physical Infrastructure, 4 = Good weather, 5= Other People, 6 = Being Safe, 7 = Greenery and Open Space, 8 = Organizational Infrastructure.

Index of Inhibitors: 9 = Current demands of work and daily life, 10 = Vandalism & Anti-social behaviour, 11 = Territoriality, 12 = Bad Weather, 13 = Urban Infrastructure.

RESEARCH

Open Access

Identifying solutions to increase participation in physical activity interventions within a socio-economically disadvantaged community: a qualitative study

Claire L Cleland^{1,2}, Ruth F Hunter¹, Mark A Tully¹, David Scott¹, Frank Kee¹, Michael Donnelly¹, Lindsay Prior^{1,3} and Margaret E Cupples^{1,4*}

Aim:

To explore residents' and community leaders':

- perceptions of physical activity interventions
- issues regarding their implementation, to improve
- expectations and factors relevant to the planning and implementation of future interventions



- Individual interviews with 12 leaders
- 14 Focus groups with 113 local residents of both genders, a range of ages (14 to 86 years) and varying employment situations

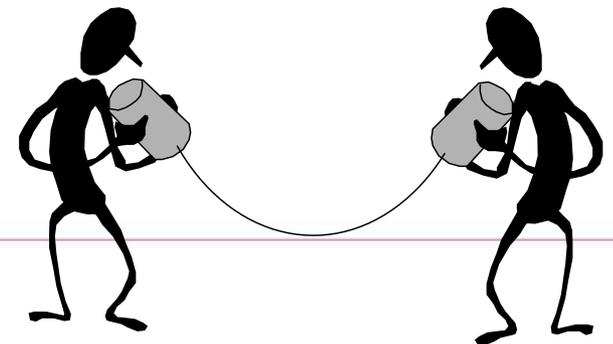
Theme 1: Awareness of Interventions

Participants' *awareness of PA interventions was poor*

Awareness only of interventions in which they were involved directly

Highlights *need for better communications*

Inter-sectoral
Intra-sectoral
With residents



Theme 2: Factors Contributing to Intervention Effectiveness

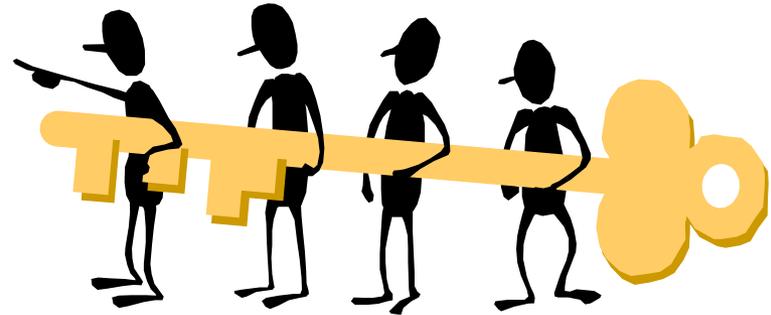
Meaningful *engagement of residents* in planning/
organisation

Tailoring to local context

Supporting volunteers to deliver the intervention

Providing relevant resources

An 'exit strategy'



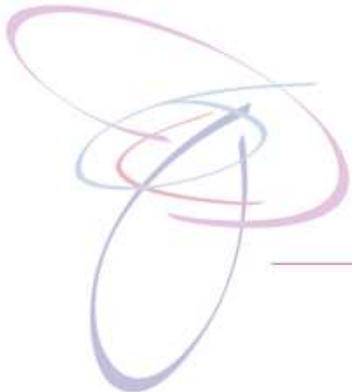
Theme 3: Barriers to Participation in Interventions

Negative attitudes such as *Apathy*

Disappointing experiences

Information with *no perceived personal relevance*

Limited access to facilities

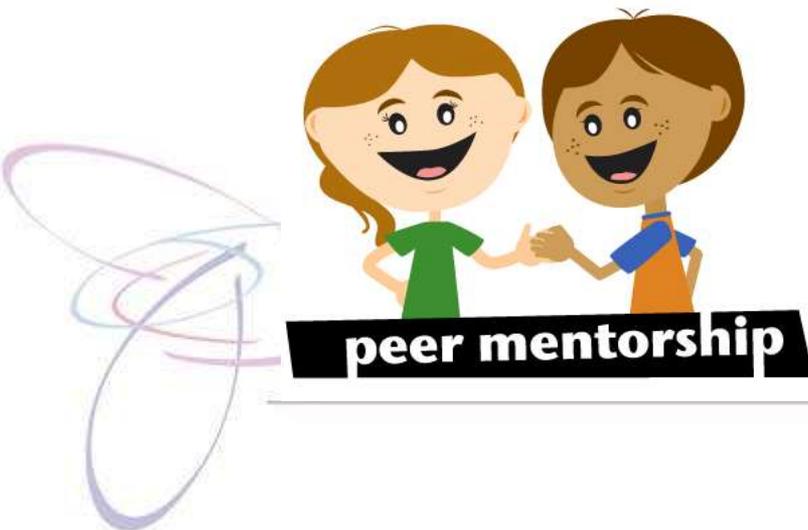


Checklist for the design and development of physical activity interventions in socio-economically disadvantaged communities

Guidance/components		Included (tick)
1	Inter-sectoral steering group for strategic planning	Statutory sector representation
		Voluntary sector representation
		Community residents
2	Identify theoretical framework for intervention development	
3	Establish knowledge sharing pathway within/ between organisations	
4	Involve community	Concept development
		Design (address specific needs)
		Intervention development
		Secure funding
		Share information
		Recruitment
		Delivery/ implementation
5	Engage volunteer support: ensure intervention information, design and resources are relevant to individuals in community	
6	Train community volunteers/champions to provide relevant advice on health and physical activity	
7	Establish an exit strategy	
8	Foster ongoing community support: ensure feedback/ involvement in further planning/ support development of personal skills	

“Walk With Me Study”

Feasibility of a community delivered, peer-led physical activity intervention that promotes physical activity in older adults



Still Hungry?

1

Identify Target Audience

2

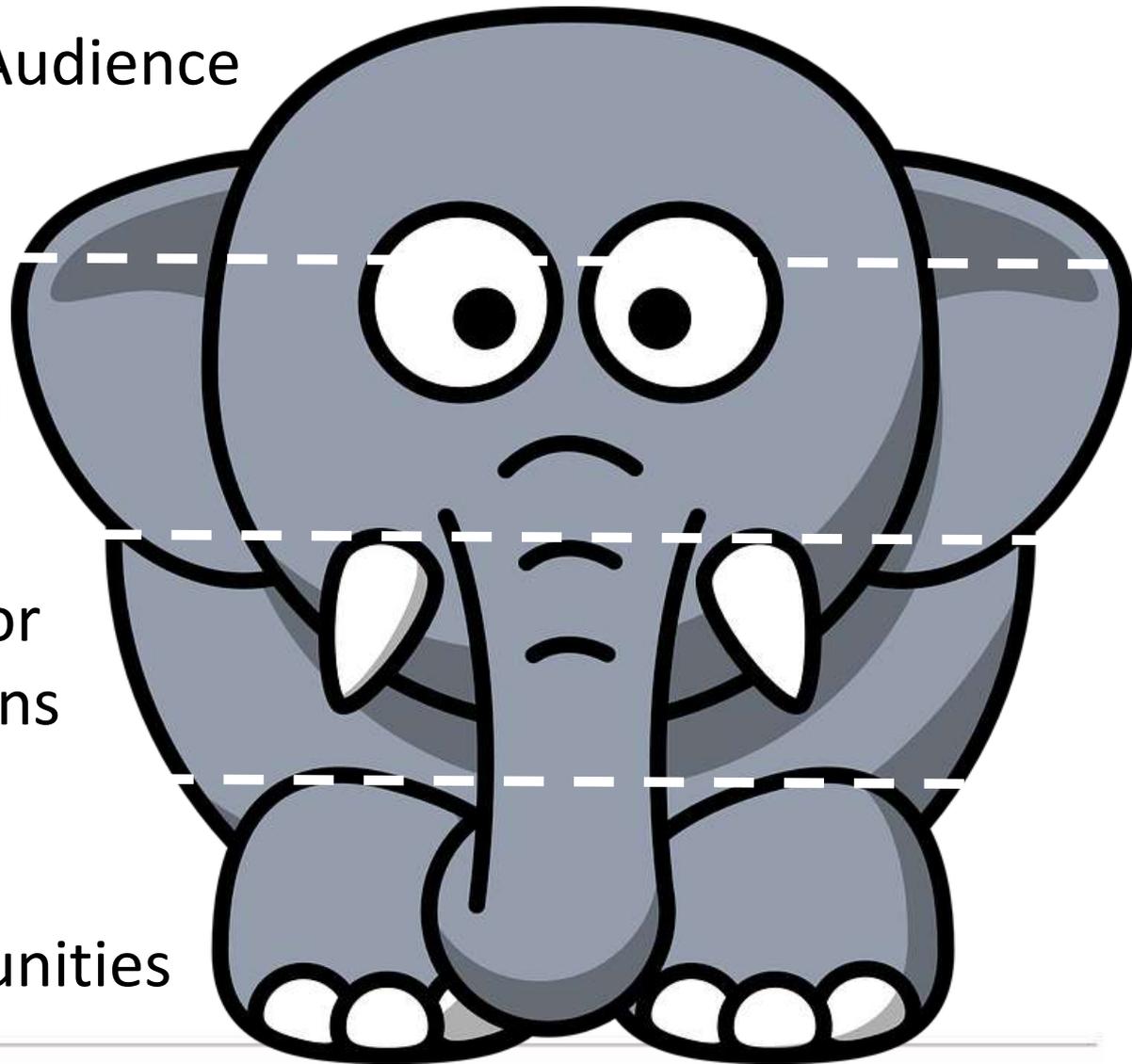
Address
Socio-Ecological
Determinants

3

Target/Tailor
Interventions

4

Engage
Communities



Thanks to our funders...

PARC Study: Physical Activity and the Rejuvenation of Connswater
Funded by National Prevention Research Initiative (G0802045)

Walk with Me Study
Funded by the NIHR (12/133/04)



Thanks for Listening...

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