Move More: A whole system approach to increasing physical activity!

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1. What elements of whole systems approaches interest you most?
2. What will you do as a result of this talk/day?
3. What support might you need to pursue this?
NCSEM-Sheffield
How can we create a population level increase in Physical Activity?
The 'inverse evidence law' of Physical Activity

We know most about the effects of interventions likely to influence the smallest number of people (i.e. individually tailored behaviour change), and least about the effects of interventions likely to influence the largest number of individuals (i.e. population level) interventions.
Logical and planned

- Change is usually conceptualised as rational and as a deterministic process.
- People obtain information, consider pros and cons, make a behavioral decision, and then plan a course of action.
A influences B, which influences C.

• Therefore if I change A, then B and C will also change and in the direction I want them to.
Sugar Tax: A - B - C

Thanks to Professor Harry Rutter, University of Bath for the example
Results of this approach have been limited

- Interventions provide, at most, average effects (Dombrowski et al., 2012)
- Effects reduced when replicated in different contexts and socio-economic groups, leading to inequalities (Bull et al., 2018; White et al.) and ‘noise’ (Grant & Hood, 2017).
- It is argued that this ‘noise’ can be explained by the multiple interconnected system-level and contextual factors that exist within a complex system (Rutter et al., 2017).
Need a whole systems approach

Whole system approach

Sustained changes to individual behaviours across the whole population will require:

- Multiple actions across all parts of the system
- Changes to the food, physical activity and social environments
Wicked problems

• Wicked problems are complex problems, they are difficult to define and have no clearly described single or set of “true” solutions

• Wicked problems are perhaps better thought of as there to be ‘influenced’ rather than ‘solved’.
Systems mindset

• To change the physical activity of people at a population level we need to move away from looking at isolated events and their causes, and start to look at physical activity as a system made up of interacting parts.
Complicated vs. Complex

• Physical activity is complex not complicated
• Complex scenarios create adaptive challenges, not technical problems
• We are used to dealing with technical problems
**Complicated vs. Complex Problems**

- Easy to identify
- Suitable for quick easy solutions
- Change required in limited number of places
- Solutions can be identified by an expert
- Solutions derived from best practice

- Difficult to identify the causes and dimensions of a problem
- Solutions involve changes in beliefs, attitudes or approaches
- Solutions come from stakeholders
- Solutions context specific, not generic practice

*Adapted from: Heifetz and Laurie (1997)*
Sugar Tax: A - B - C

Thanks to Professor Harry Rutter, University of Bath for the example
Study team: Jean Adams, Adam Briggs, Steven Cummins, Oliver Mytton, Tarra Penney, Mike Rayner, **Harry Rutter**, Peter Scarborough, Richard Smith, Martin White
Systems mindset
Whole systems approach

‘There is no recipe, formula, standard approach or evidence-based ‘best practice’ for bringing about changes in systems. Instead the challenge appears to be to detect system components and connections between them, understand the behaviour of the system, and identify points of leverage in order to drive transformation.’

Tsasis et al., 2012
Steps within a whole system approach

1) Bring system actors together & establish vision
2) Map the system based on what is important locally
3) Assess current activity, identify data & opportunity across system map
4) Explore intended & unintended consequences across system
5) Evaluate system level impact
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Bringing the system together
Mapping the system
NCSEM-Sheffield Vision

To create a culture of physical activity that results in Sheffield becoming the most active city in the UK by 2020
NCSEM-Sheffield Mission

Make it easier for everyone in Sheffield to be active as part of everyday life.
Our vision
Create a culture of physical activity.

Our mission
Ensure that everyone (individuals, families and communities) living in Sheffield has the opportunity, environment and human capital to be sufficiently physically active as part of their everyday life, to benefit their health and wealth.

“Changing the way we do things round here”

Our six outcomes

**Empowered Communities**
Engaged and empowered communities who take responsibility and ownership of ‘changing the way we do things round here’ in terms of physical activity.

**Active Environments**
Sheffield is a city designed to make it easier for people to be physically active as they go about their daily lives.

**Active People and Families**
Citizens and communities are better informed, more connected, feel a greater sense of self-efficacy and move more as a normal part of daily life.

**Activity as Medicine**
Sheffield’s healthcare system commissions, values and promotes physical activity as a viable treatment option.

**Active Schools and Active Pupils**
Sheffield children are provided with a positive experience of physical activity through the physical, social and educational environment of the school.

**Active Workplaces and an Active Workforce**
Places that create environments and policies, and provide support, to enable employees (and those seeking work) to move more as part of their working day to improve health and create wealth.
Who is involved in the NCSEM?

Sheffield Teaching Hospitals

Sheffield Health and Social Care

South Yorkshire Housing Association

Sheffield Chamber of Commerce and Industry

Sheffield Hallam University

The Health & Wellbeing Charity

Sheffield City Council

English Institute of Sport

supporting community action

The University of Sheffield
Move More Governance

Insight and Evaluation of What Works and What Doesn’t Work (led by NCSEM Research Group)
http://www.futurehealthsystems.org/blog/2014/10/1/people-centred-health-systems-research-methods
System Connectors: Move More Ambassadors
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Assess current activity
Reducing our serendipity index
Our vision
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Sheffield
UK's Most Active City 2020

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NCSEM Co-located Hubs
Working as a system: look for intended and unintended consequences
Not prefect but start somewhere
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What facilitates a whole systems approach

• Systems thinking mindset
• Form co-operative teams and connect
• Having a clear *shared* end game in mind supported by medium and short term actions that work towards that end game: 20 year vision, 5-year strategy, 1 year plan
• Recognition that small changes in large numbers of people will have a huge population effect – Start somewhere
What facilitates a whole systems approach

- Match capacity to complexity
- Individuals matter – build trust
- Permission to fail fast and learn
- Dedicated system disrupters
- Leaders that seek to give away credit not acquire it

“You can achieve almost anything so long as you don’t want to take the credit for it’. You have to ‘give away ownership’”.

(Nicholas Timmins, 2015 Kings Fund)
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Parachute use to prevent death and major trauma related to gravitational challenge: a systematic review of randomised controlled trials

**Conclusion:** As with many interventions intended to prevent ill health, the effectiveness of the parachute has not been subjected to rigorous evaluation by using randomised controlled trials. On this basis, the evidence for it’s widespread adoption is questionable.

*Remember to weigh-up the strength of the evidence against the reality of capturing that evidence and the necessity of capturing that evidence.*

Contact details

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