Behaviour change in the context of sustainability, health & social inclusion

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www.ucl.ac.uk/behavior-change
Behaviour is everywhere …

• Understanding and changing patterns of behaviour are key to
  • promoting health and well-being,
  • social cohesion and equity
  • a sustainable environment
  • efficient and equitable delivery of services
  • a productive economy
  • .... and pretty much everything!
Behaviours relevant to climate change

Global Warming of 1.5°C

An IPCC special report on the impacts of global warming of 1.5°C above pre-industrial levels and related global greenhouse gas emission pathways, in the context of strengthening the global response to the threat of climate change, sustainable development, and efforts to eradicate poverty.
- Insulate buildings
- Use solar water heaters
- Drive electric vehicles
- Walk or cycle short distances
- Replace business travel with tele-conferencing
- Buy less meat and dairy
- Install heat pumps
- Use low-carbon building materials
- Line dry laundry
- Lower thermostats
- Engage as a citizen
- Buy local, seasonal food
- Use energy efficient appliances
- Use mass transit rather than flying
- Use low-emission alternatives to aluminium
- Reduce food waste
- Buy local, seasonal food
- Engage as a citizen
Systems approach to changing behaviour

• Need changes at city/population-wide levels AND individual levels
• Not either/or, these can work synergistically with each other
City-wide transformation

Complex Urban Systems for Sustainability and Health

High income
- Rennes
- London

Middle income
- Ning-bo
- Beijing

Low income
- Kisumu
- Nairobi
How will we bring about transformation?

• **Aim:**
  • Transform environmental quality, sustainability, population health and health equity

• **Methods:**
  1. **Participatory engagement** and systems thinking
  2. **Partner** with local organisations to:
     • improve understanding of the effects of policy actions and
     • develop viable paths for policy implementation

*Stakeholder workshop, Kisumu, Kenya*
Systems and implementation

1. Analyse **multiple interactions** between different parts of the urban system and draw on the best global and local scientific evidence.

2. Consider policy **implementation** and **behaviour change** from beginning.
Example of indoor air pollution system in Nairobi

Figure 6: Simplified causal loop diagram of the model
Designing behaviourally-sensitive policies requires ...

1. A **model of behaviour** for understanding behaviour in its context

2. A **framework** linked to this model for designing interventions and policies to change behaviour
Behaviour: part of a system of behaviours ....

• ... that facilitate and compete with each other
  • within and between individuals
  • influenced by their social and material world

• Understanding the system of behaviours and the influences on them is the starting point for identifying where best to intervene and how
Behaviours are different and contexts are different

- If we are to develop effective interventions to change behaviour:
  - identify key players
  - understand the specific behaviours in their specific contexts

For each group of people, who needs to do
- what,
- when,
- where,
- how?
Which behaviour to start with?

• **Map the system** of actors, behaviours and relationships between them that are relevant to your problem.

  What is the best entry point in the system?

  1. If I change this, what is the likely **impact**?
  2. How **easy** is it to bring about change?
  3. **Preference**, acceptability, cost?
  4. **Spillover/generalisability** to other behaviours and people?
Understand the behaviour in context

• Why are behaviours as they are?
• What needs to change for the desired behaviour/s to occur?

• Answering this is helped by a model of behaviour ...
The COM-B system: Behaviour occurs as an interaction between three necessary conditions

- **Capability**: Psychological or physical ability to enact the behaviour
- **Motivation**: Reflective and automatic mechanisms that activate or inhibit behaviour
- **Opportunity**: Physical and social environment that enables the behaviour

Michie et al (2011) *Implementation Science*
Frameworks simplify complexity
Frameworks of behaviour change

• Systematic literature review identified 19 frameworks of behaviour change interventions and policies
  • related to health, environment, culture change, social marketing etc.
  • none met criteria of comprehensive, coherent, linked to model of behavior
• So .... Synthesised the 19 frameworks
• ‘The Behaviour Change Wheel’

Behaviour at the hub …. COM-B
Nine intervention ‘functions’
Add policies to maintain change **long-term**
Seven policies categories

Policies: decisions made by authorities concerning interventions
Applying to the local context: The APEASE criteria

- Affordability
- Practicability
- Effectiveness/cost-effectiveness
- Acceptability
  - public
  - professional
  - political
- Side-effects/safety
- Equity

www.behaviourchangewheel.com
1. **Design** interventions and policies

2. "Retrofit" – **identify** what is in current interventions and policies
   - eg by Government departments

3. Provide a framework for **evaluation**
   - How are interventions working?

4. Structure **systematic reviews** of evidence
## International applications of the BCW

<table>
<thead>
<tr>
<th>Country</th>
<th>Projects</th>
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| **Australia**    | • Management for Borderline Gestational Diabetes Mellitus  
                   • Reduce hip/knee surgery in osteoarthritis                         |
| **Ghana**        | • Reduce risk of infection in changing toilet cartridges in slums        |
| **India**        | • Smartphone app to reduce cardiovascular disease risk                   |
| **International Red Cross** | • Train volunteers                                                      |
| **Kenya**        | • Improve paediatric health care                                         |
| **Kosovo**       | • Improve maternal health guideline implementation                       |
| **Netherlands**  | • An organisational intervention tool                                    |
| **Papua New Guinea** | • Change Betel nut chewing behaviour                                     |
| **Thailand**     | • Preventing melioidosis                                                 |
| **USA**          | • Improving colorectal cancer screening                                  |
|                  | • Providing long-acting reversible contraception to adolescents         |
|                  | • Improve parenting practices for children with challenging behaviour  |
A final work on equity

• How far will the intervention increase or reduce,
  • Social inequality?
  • Economic inequality?
  • Health inequality?

• Conduct ‘equity audits’ of interventions, think in terms of systems
Behaviour change in whose interests?

• The ‘population’
  • Which sections?
    • Special interest groups, marginalised groups, rich/poor

• Government, national or local
  • To get re-elected, to improve welfare

• Industry incl. multinational corporations
  • In search of maximising profit

• Within organisations,
  • Managers vs staff

• Etc.
Centre for Behaviour Change resources… e.g.

All proceeds from CBC teaching, training, books and products go to further development

www.ucl.ac.uk/behaviour-change
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