

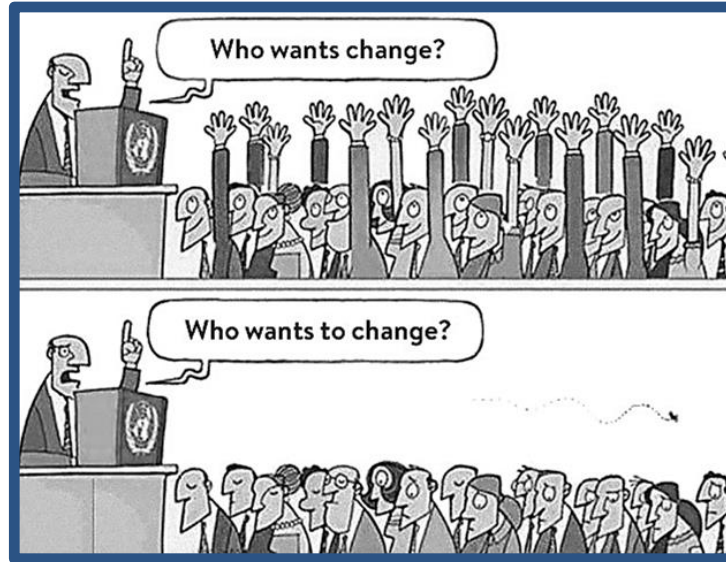


Behaviour change science and practice in low- and middle-income countries

Jo Hart
University of Manchester

Focus on health workers' practice

Involves health workers
doing things differently



People find it hard to change
and to sustain that change

Behaviour change call to arms

“Behaviour is crucial throughout global health interventions. The discipline of behaviour change offers distinct expertise needed across 6 different domains of behaviour. Such expertise is in short supply, however. We will not have effective and sustainable health systems, nor achieve our ambitious health goals, without seriously addressing behaviour change.”

6 domains - Lifestyle behaviours, help seeking behaviours, adherence / collaboration, provider behaviour, prosocial behaviour, policies

Shelton JD. The 6 domains of behavior change: the missing health system building block. Glob Health Sci Pract. 2013;1(2):137-140. <http://dx.doi.org/10.9745/GHSP-D-13-00083>.



James D. Shelton, MD, MPH
With USAID for more than three decades and awarded USAID's Distinguished Career Award

Health partnerships / health links

“A health partnership is an on-going 'twinning' or 'linking' arrangement between counterpart health institutions in high-income settings and developing countries.

The partnerships' primary aim is to share knowledge and information to train health workers and improve health services.

The range of their capacity-building projects is very broad: clinically, technically, geographically, and in scale.”

<http://www.thet.org/our-work/what-is-a-health-partnership>

Partners' experiences of health partnerships

- Changes in practice seemed difficult to make
- Suspicions (and evidence) that changes are not sustained

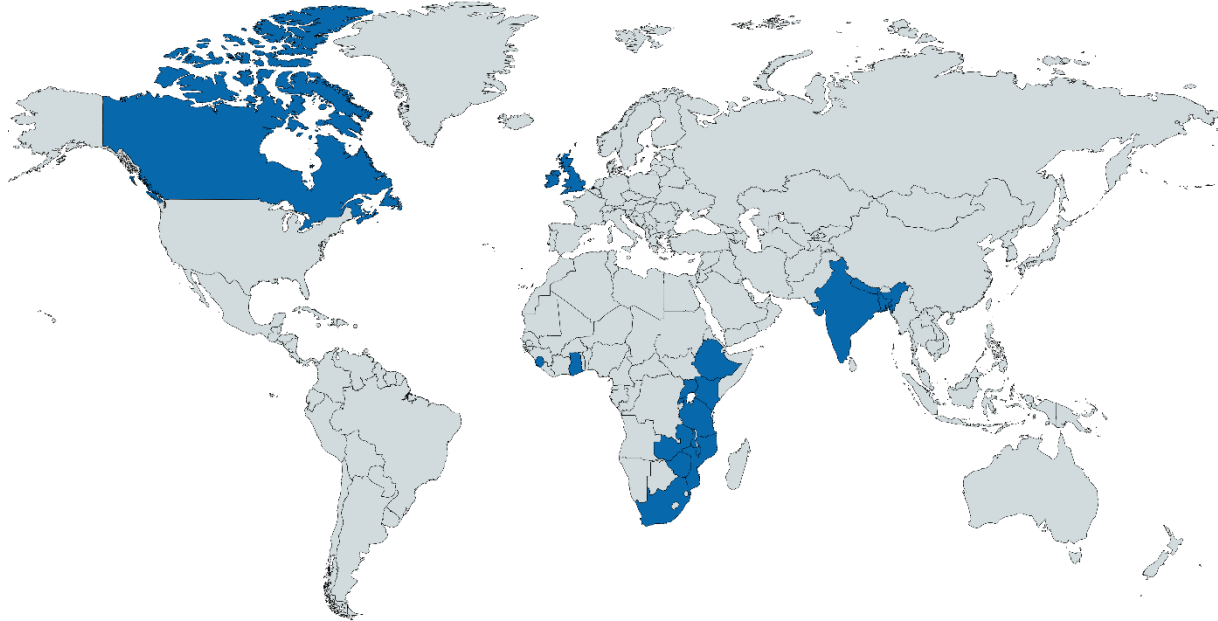
The Change Exchange



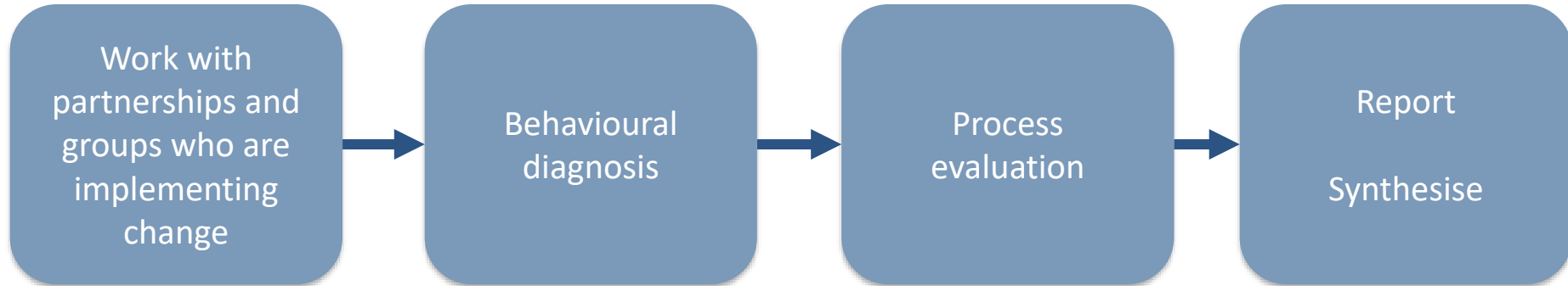
- Gulu-Man partnership (*Uganda*) 2013-2016
- UK Department For International Development through Tropical Health and Education Trust (THET) & Global Health Exchange (*Uganda, Sierra Leone, Mozambique, Ethiopia*) 2015-2017
- World Federation of Societies of Anaesthesiologists/Association of Anaesthetists of Great Britain & Ireland (*Tanzania, Zimbabwe, Bangladesh, Nepal, Kenya, Uganda, Zambia, Ethiopia, Malawi*) 2016-2020
- United Nations World Food Programme (*Ethiopia*) 2018
- UK Department for Health & Social Care/Fleming Fund through THET (*Ghana, Uganda, Tanzania, Zambia*) 2018-2021
- Health Education England/West Bengal Government (*India*) 2018-2021
- Ongoing Collaborations: *South Africa, Rwanda*



The Change Exchange



Overall Approach



Moore, G and others. 'Process evaluation of complex interventions'. UK Medical Research Council Guidance. London: MRC Population Health Science Research Network: (2014)

2 examples of how behavioural science can help understand practice change.

Process evaluations, embedded in
implementation projects

Research, teaching, consultancy

Viral Haemorrhagic Fever (VHF) Resilience in Sierra Leone



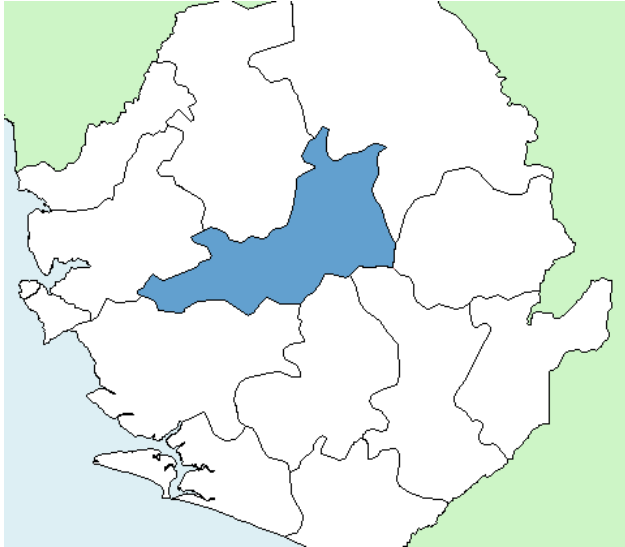
- Plymouth University Peninsula School of Medicine & Dentistry & Massanga Hospital, Sierra Leone
- Resilience to future VHF outbreaks using immersive teaching (high fidelity simulation)

THE CHALLENGE

- More infection prevention and control measures necessary to avoid further outbreaks of Ebola and other VHF
- What are the barriers and enablers to IPC measures in healthcare workers and community members?

Viral Haemorrhagic Fever (VHF)

Resilience in Sierra Leone



Sierra Leone

- Ebola free on 17 March, 2016 (flare up – was 7 Nov 2015)
- 14,124 cases reported, 3,590 lives lost
- Tonkilili district, Sierra Leone
- Serving population of 400,000

VHF Resilience in Sierra Leone: methods



Training programme to help the Sierra Leonean Health Service to fight future outbreaks of viral haemorrhagic fever.

- 7 Focus groups with 31 healthcare professionals
- Virtual learning packages using computer gaming technology – simulation/immersion. Delivered using tablets.
- Semi-structured, mixture of English, Krio and translated in situ
- Approximately 6-months post training
- Inductive thematic analysis (3 researchers)
- Deductive framework analysis (COM-B– behaviour change wheel)

Michie S, van Stralen MM, West R. The behaviour change wheel: a new method for characterising and designing behaviour change interventions. *Implement Sci.* 2011;6:42.

VHF Resilience in Sierra Leone: results.

4 inductive themes

- ▶ Knowledge is power – and we have knowledge

“If Ebola were to come again...it will not affect us as it did the last time because we know now you have to wash your hands”

- ▶ Mortal men are hard to control – but strong clinical leaders can influence whole communities

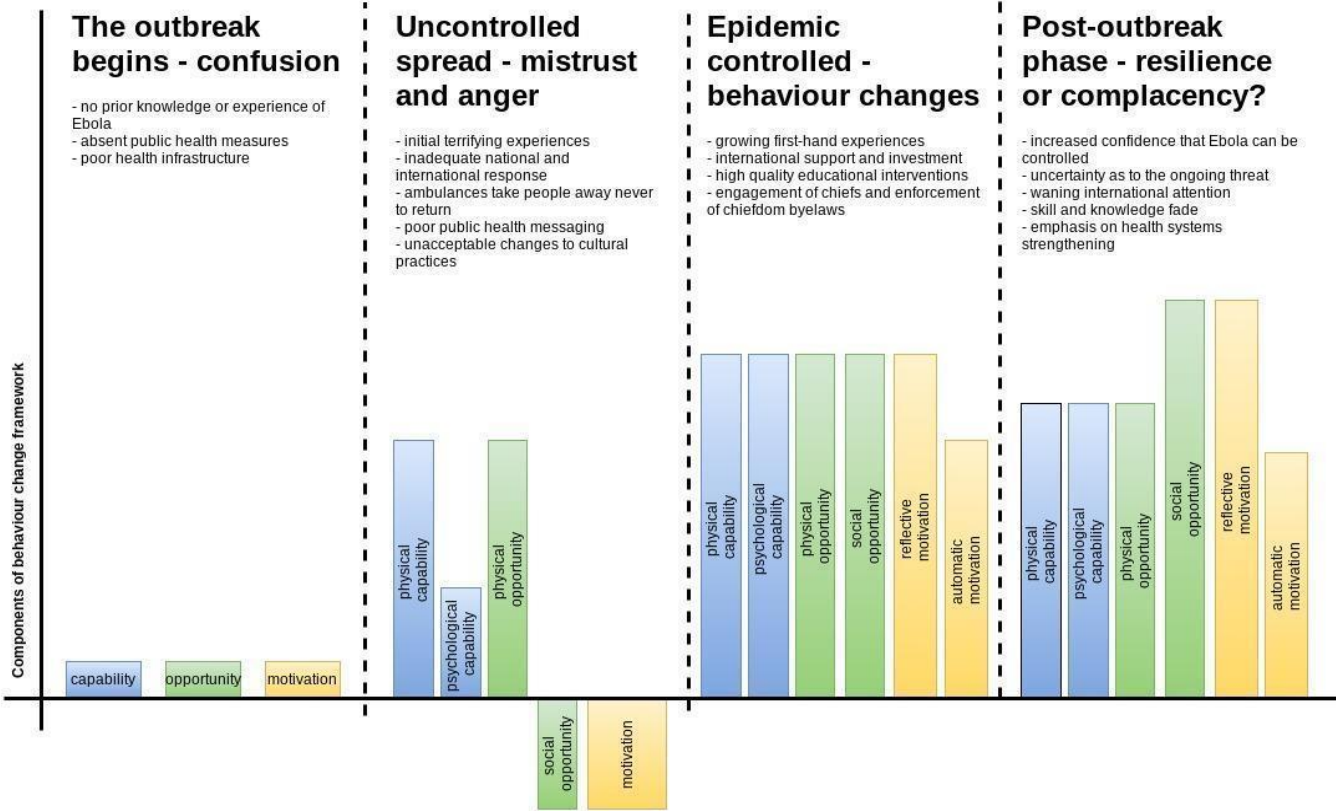
“The CHO here never sees patients without using PPE...any patient you want to see, if you are not well dressed [in PPE] he will send you out. He says if you want to see patients you have to protect yourself”

- ▶ Agonising decisions – Ebola risk wanes and other priorities threaten IPC

“So I just have to put on my sterile gloves and catch the baby. They wait until they are fully dilated and I don’t want complications so I have to do it. But I hate it”

- ▶ Now Ebola is over – the challenge of maintaining behaviours in resource-poor healthcare system

“They always come and teach us about IPC but we tell them we do not have boots. Why are they not bringing us those items when they keep coming and telling us that we need to continue the IPC?”



The outbreak begins - confusion

- no prior knowledge or experience of Ebola
- absent public health measures
- poor health infrastructure

Uncontrolled spread - mistrust and anger

- initial terrifying experiences
- inadequate national and international response
- ambulances take people away never to return
- poor public health messaging
- unacceptable changes to cultural practices

Epidemic controlled - behaviour changes

- growing first-hand experiences
- international support and investment
- high quality educational interventions
- engagement of chiefs and enforcement of chiefdom byelaws

Post-outbreak phase - resilience or complacency?

- increased confidence that Ebola can be controlled
- uncertainty as to the ongoing threat
- waning international attention
- skill and knowledge fade
- emphasis on health systems strengthening

Safer Anaesthesia From Education: Overview

Pre-course
MCQ, skill,
behavioural
determinants, self-
report behaviour

During-course
BCT coding
Activities with data

Post-course
MCQ, skill,
behavioural
determinants



Follow up
MCQ, skill,
behavioural
determinants,
Observation
interviews

Safer Anaesthesia From Education: Projects

The Change Exchange:
supervision

Paediatrics: Uganda, Kenya, Malawi,
Ethiopia, Zambia (n=381)
Obstetrics: Kenya (n=119)

Paper 1

Paper 2



The Change Exchange:
Design evaluation,
supervise volunteers,
analyse data, write up

Obstetrics: Tanzania, Nepal,
Bangladesh, Zimbabwe (n=355)

Paper 3

Paper 4



The Change Exchange:
Design evaluation,
supervise clinicians

Operating Room: Uganda (n=109)

Paper 5

Paper 1: Boyd, N, Sharkey, E, Nabukenya, M, Tumukunde, J, Sipuka, N, Zyambo, M, Walker, I, Hart, J & Byrne-Davis, L (2019). The Safer Anaesthesia from Education (SAFE)[®] paediatric anaesthesia course: educational impact in five countries in East and Central Africa', *Anaesthesia*.

Paper 2: Lilaonitkul, M., Mishra, S., Pritchard, N., Andhoga, J., Olang', P., Kibet, E.B., Walker, I.A., Hart, J. and Byrne-Davis, L. (2020), Mixed methods analysis of factors influencing change in clinical behaviours of non-physician anaesthetists in Kenya following obstetric anaesthesia training. *Anaesthesia*.



[View Module](#)

Learn about
healthcare
professional
behaviour



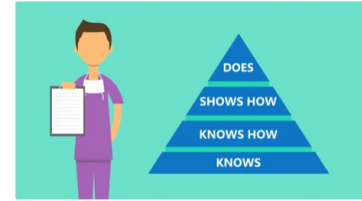
[View Module](#)

Specifying the
behaviours you
want to change



[View Module](#)

Measuring
behaviour



[View Module](#)

Measuring
determinants of
practice

Knowledge exchange – Cards for Change



Goals & planning
Action planning

misc

Prompting detailed planning of performance of the behaviour (must include at least one of context, frequency, duration and intensity) context may be environmental (physical or social) or internal (physical, emotional or cognitive).

Note. Includes implementation intentions.

Key points:
Action plans should be specific, measurable, achievable, realistic and time-bound (SMART).

Brief
★☆☆☆☆

Online
★★★★☆

Ease
★★★★☆

Individual
★★★★☆

Impromptu
★★★☆☆

Goals & planning
Action planning

Activities:

Making a SMART plan: Ask trainees to write down the wanted behaviour. Ask them to then make a detailed plan of how and when they will perform the behaviour. The plan should be SMART: specifying the behaviour; saying how you will know you've done the behaviour; saying when you will do the behaviour and then checking that the behaviour is realistic and achievable in terms of what and how (intensity, duration, context).

Or: Ask trainees to identify cues that automatically help the behaviour happen in that context. For each cue, ask them to make a simple statement, linking the cue and the behaviour: "If [cue] happens then I will do [behaviour]". This is called an 'if-then' plan.

Key points to make the activities work well:
Trainees should come up with their own plans or at least check that suggested plans are SMART. If-then plans are simple. All action plans can be done individually and online or face-to-face.

Conclusions

- Considerable interest in behaviour change
- We shouldn't assume methods and measures are appropriate for use world wide
- Partnership working builds groundwork and enables LMIC partners to lead on needs identification



ibtn
international
behavioural
trials network

Thank you

Jo Hart
University of Manchester