Mid-level theory:

an approach to generalizability and transferability with reference to hand washing and policy uptake of research findings

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What is it and why use it?

- Mid-level (or mid range) theory: A theory of change between general theory and project-level theory

- Tests causal mechanisms rather than specific interventions: so build evidence for mechanism

- Helps assess transferability of findings

Generalizability and transferability

	Definition	Examples
Generalizable	A finding which applies universally $Prob(Y|X)=Prob(Y|Z)$ $\forall$ X & Z Y is outcome; X and Z are states of the world (context) Very rare	Benefits of infant stimulation (and so benefit Parent Training IF they adopt behaviour)
		Supervision of food supplementation to avoid leakage and substitution
Transferable	A finding which can be transferred from one setting to another as key contextual factors are similar Non-transferable: $Prob(Y|X)\neq Prob(Y|Z)$ Very common?	Not transferable: Nurse Family Partnership because of different context
		Transferable: Conditional cash transfers for poor households

What I will talk about

- Examples of mid-level theory
- Focus on behaviour change
- ALL development interventions have a behaviour change component
- But here talk about hand washing and policy uptake of research findings

Three examples of mid-level theory

General theory	Mid level theory	Project-level theory
Supply & demand *How the price mechanism clears the market for goods and services*	**Price subsides** *Price subsidies increase use of the subsidized agricultural inputs*	*Fertilizer subsidies to increase use of fertilizer in low productivity settings*
Structuration theory *How social systems are reproduced through an interaction between structures and agents*	**Role conflict** *Employment versus parenting: when incompatible demands are placed on people, complying with all of them will be difficult*	*Flexible working time to allow working parents to fulfill child care responsibilities*
Transtheoretical model of behaviour change *The six stage process individuals pass through for successful behaviour change*	**Providing information** *Providing information on benefits or harms of health behaviours will support behaviour change*	*Public information campaigns to promote handwashing with soap*

Price elasticities: cost is not always the binding constraint

Free male circumcision: 25% if free down to just 10% with partial subsidy. So price makes a difference, but even if free most uncircumcised men don't change behaviour

Subsidized pensions limited impact on pension enrolment. But opt out rather than opt in has huge impact

Fertilizer subsidy may not increase uptake if inadequate knowledge, lack market for produce or lack complementary inputs

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A story from Quora

I was obese, under conditioned and drinking quite a bit

My Dad was becoming less mobile from years of being overweight. He would no longer visit my kids because he was unable to climb stairs. This was a big wake up call for me. It took me 6-8 months contemplating how to start...

I looked at what my husband was doing and checked out some gyms nearby...

I joined a 'Stay Mobile' fitness class 3 days a week

I made a commitment to go to crossfit 4 days a week for the first 30-60 days with no excuses

I look forward to going to work out. I miss being at the gym on rest days... I know I in a fitness programme for life

This story illustrates the transtheoretical model of behaviour change: six stages of behaviour change

Stage	Definition
Pre-contemplation	Not seriously thinking changing behaviour
Contemplation	Seriously thinking about changing behaviour in the next 6 months + but not within the next 30 days + no attempt in the past year
Preparation	Seriously thinking about changing behaviour in the next 30 days
Action	First 6 months of change
Maintenance	Change beyond 6 months
Termination	Complete absence of temptation for previous behaviour

A story from Quora

Pre-contemplation

I was obese, under conditioned and drinking quite a bit

My Dad was becoming less mobile from years of being overweight. He would no longer visit my kids because he was unable to climb stairs. This was a big wake up call for me.   It took me 6-8 months contemplating how to start...

Contemplation

Preparation

I looked at what my husband was doing and checked out some gyms nearby...

Action

I joined a 'Stay Mobile' fitness class 3 days a week

I made a commitment to go to crossfit 4 days a week for the first 30-60 days with no excuses

Maintenance

I look forward to going to work out. I miss being at the gym on rest days... I know I in a fitness programme for life

Termination

Transtheoretic model provides a good framework for mid-level theory approach to behaviour change

A key insight is that the different stages of the process require different interventions

Pre-contemplation

Mid-level theory: Exposure to information on benefits of handwashing with soap (harms from not doing so) will lead people to consider changing behaviour (transition from pre-contemplation to contemplation)

Pre-contemplation

Mid-level theory: Community engagement in identifying sanitation-related problems and solutions can change social norms regarding handwashing and open defecation

Pre-contemplation

Interventions

- Public information (posters, media)
- Community meetings (awareness raising)
- Community influencers (community and religious leaders, TV stars)
- Entertainment based (street theatre, soap operas, movies)
- School-based

Indicators

- Social norms
- Attitudes & beliefs

Contemplation and planning

Mid-level theory: Providing information on when and how to carry out handwashing with soap will improve knowledge of correct practice (using soap, frequency and duration)
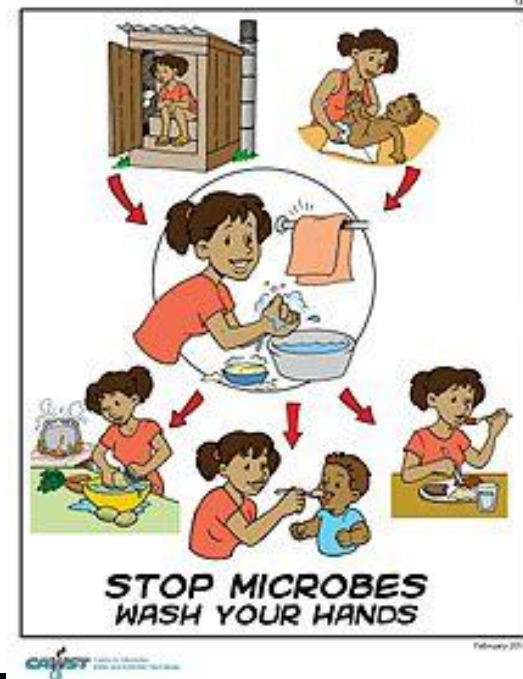
Contemplation and preparation

Interventions

- Public information (posters, media)
- Community meetings with demonstrations
- Entertainment based (street theatre, soap operas)
- School-based demonstrations

Indicators

- Social norms
- Attitudes & beliefs
- **Knowledge**

FIGHT GERMS BY WASHING YOUR HANDS!

1 Wet your hands
2 Soap
3 Lather and scrub - 20 sec
4 Rinse - 10 sec
5 Turn off tap
6 Dry your hands

DON'T FORGET TO WASH:
- between your fingers
- under your nails
- the tops of your hands

Action

Mid-level theory: Financial and non-financial incentives will support adoption of proper handwashing practice

Action

Interventions

Financial incentives:

- Soap subsidy
- Vouchers

Non-financial incentives:

- Giving soap (school or household)
- Handwashing facilities
- Awards to community-leaders
- Community peer pressure

Indicators

- Handwashing facility available
- Soap present and used in household
- Proper practice

Maintenance

Mid-level theory: Following correct handwashing practice for sufficient duration will turn the practice into a habit (sustained proper practice)

Action

Interventions

Indicator

- Sustained proper practice

- Handwashing facilities
- Supply chain (possible subsidy)

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Promoting handwashing and sanitation behaviour change in low-and middle-income countries

August 2017

Systematic Review Summary 10

Water, sanitation and hygiene

What about the evidence?

Figure 1: Effects of promotional approaches on behavioural change

Results as expected:

Community-based approaches no evidence maintenance of effect

Marketing evidence is adherence

Messaging main impact on uptake

AND…

Multi-component programmes more effective:

❖ Community-based approaches work better if add incentives

❖ Combining media campaign with community involvement had impact on knowledge and behaviour, whereas campaign alone did not

❖ One way messaging generally not effective, but may be so with community engagement

Lessons

- Mid-range theory identifies range of interventions which may be appropriate to operate a mechanism
- Different interventions needed to operate different mechanisms (at different stages of causal chain)
- So multi-component programmes more effective (or coordinate between agencies)
- Primary studies, and especially systematic reviews, can test both interventions and mechanisms

Application to policy uptake of evidence

Stage	Theory	Interventions
Pre-contemplation	Exposure to cases of successful use of evidence will increase willingness to consider evidence-based policy	Develop cases of cost savings and welfare impact when evidence has been used Awareness raising workshops (how evidence is being used elsewhere, local examples where there is relevant evidence) Media stories on use of evidence national and globally
Contemplation	Learning different sources and uses of evidence will encourage action and thinking about own possible uses	Use of evidence workshops Evidence needs assessment

Stage	Theory	Interventions
Preparation and action	Policy makers benefit from guidance to navigate the evidence	Activities to identify relevant stakeholders to be engaged, and policy issues to be addressed Direction interaction to interpret available evidence Prepare evidence summaries / briefs
Action	As policy makers become more experienced they can seek out and use evidence themselves (using available research and evidence resources)	Guide users to evidence resources Generate nationally-specific evidence resources
Maintenance		Use of evidence assessments and awards for use of evidence Develop national evidence architecture Build evidence courses into civil service training

Thank you

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And

www.cedilprogramme.org