

# Sub-RésEAU MENA webinar: Systematic behaviour change in development projects - Overview and introduction

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# Goals



1. Introduction into systematic behaviour change
2. RANAS approach of systematic behaviour change



# Why a behaviour change approach?

- Designed interventions to change behaviours of populations
    - ➔ not as successful as expected.
  - If raising knowledge about the dangers of a disease/ a health or environmental threat has only a small effect on people's behaviour
    - ➔ interventions need to be adapted to include other drivers of behaviours.
  - Need and motivation for a better understanding of how behaviour is changed.
- ➔ Reasons to use a (more) systematic approach for behaviour change.



# Introduction systematic approaches



- New behaviour change approaches are provided by the growing understanding of what drives WASH and other prevention behaviours.
- Identifying and addressing the psychosocial determinants of disease and other prevention behaviours are crucial first steps in developing effective interventions.
- Assumption of the approaches: behaviours are caused by people's cognitions, which can be modified when tackled in an appropriate way.



## WASH promotion: access to infrastructure and materials

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- Promoting handwashing with soap and water when soap is not available is futile.
- Same for OD: people need access to latrines before they can stop practicing OD.
- Promotion is not only providing information, it includes the provision of appropriate materials, facilities and to support people to enable them to follow good hygiene practices.
- Hygiene kit distribution and purchase are often first steps.



# Why behaviour change?



Mosquito nets



## Misused hardware

Solar cooker



Rainwater harvesting



# Emergency: Haiti, after earthquake

- Introducing handwashing
- But no compliance

How can we **motivate** people to perform more handwashing at key times?



# SODIS, peri-urban Harare, Zimbabwe



- Promoting Solar Water Disinfection (SODIS)
- But only limited or partial or even no uptake

How can we **motivate** people to apply a correct water treatment method?





# Solid waste in a Syrian refugee camp in Lebanon



Heavy contamination of the environment

How can we **motivate** people to dispose their garbage properly?



# How to introduce behaviour change?



**Motivation, not education or information**

Supply with information

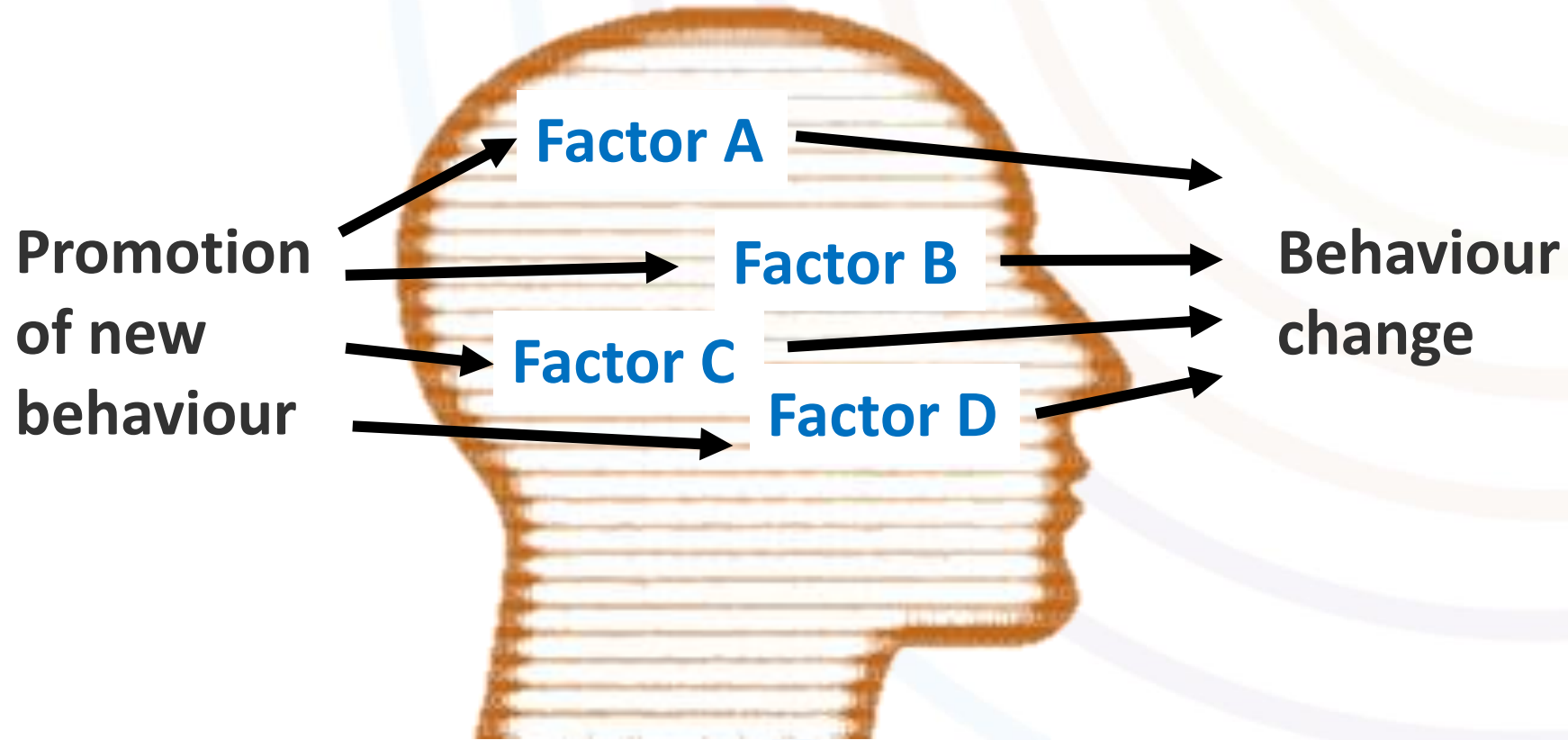


Behaviour change

Behaviour change starts in the heads of people!

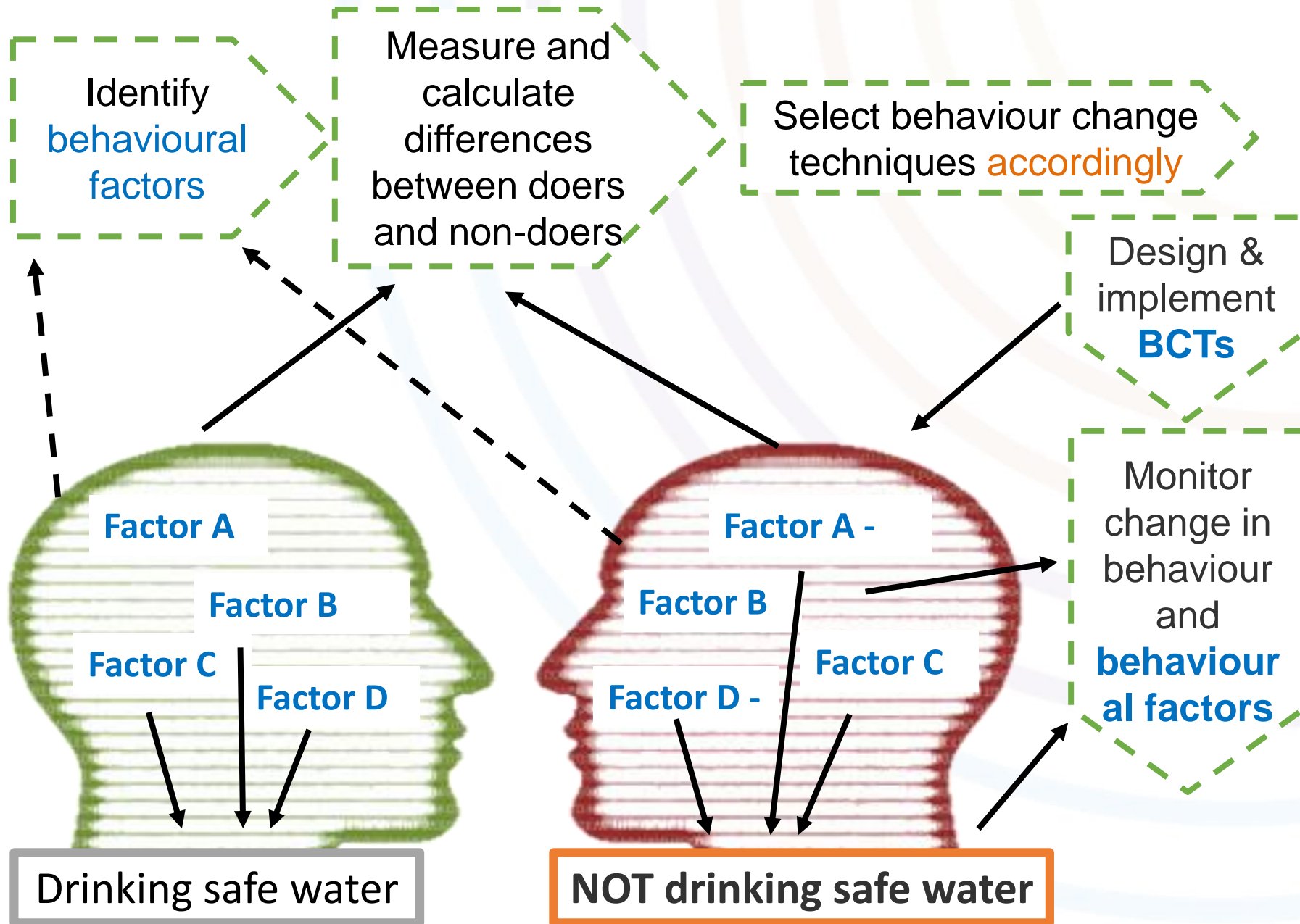


# How to introduce behaviour change?



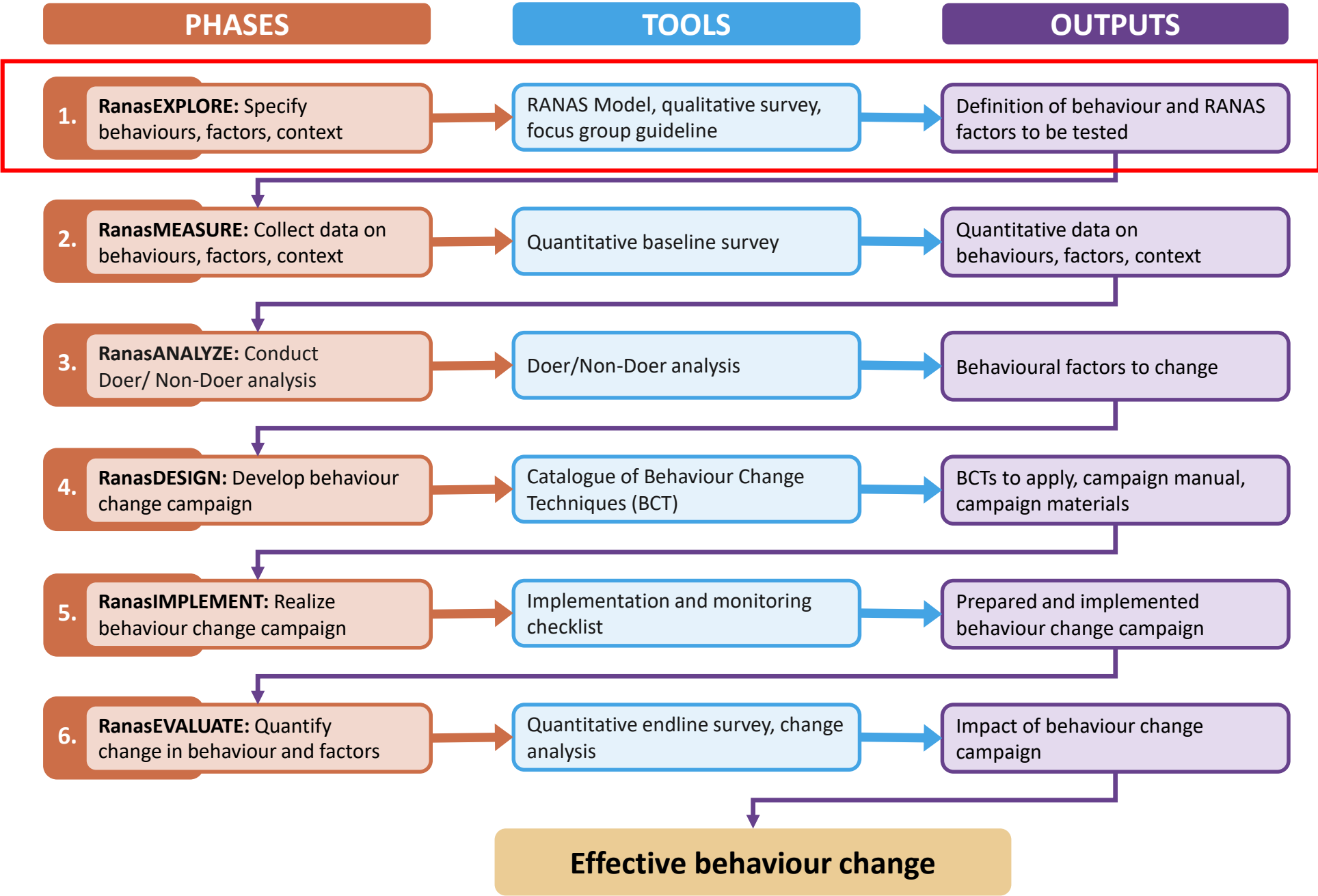
Motivating is about changing behavioural factors in the mindsets of people

# How to introduce behaviour change?



# The RANAS model of systematic behaviour change

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# Behavioural factors/motivators/drivers

- Effective and sustainable behaviour change: needs to include a broad spectrum of behavioural factors beyond **risk perceptions, such as perceived cost and benefits, feelings, social norms, ability beliefs and self-regulation processes.**
- WASH interventions = interventions to reduce people`s exposure to diseases with measures to break the cycle of disease.

**➔ involves both behaviours and facilities which work together to form a hygienic environment.**



How to manage it?

Can I do it?

What will others say?

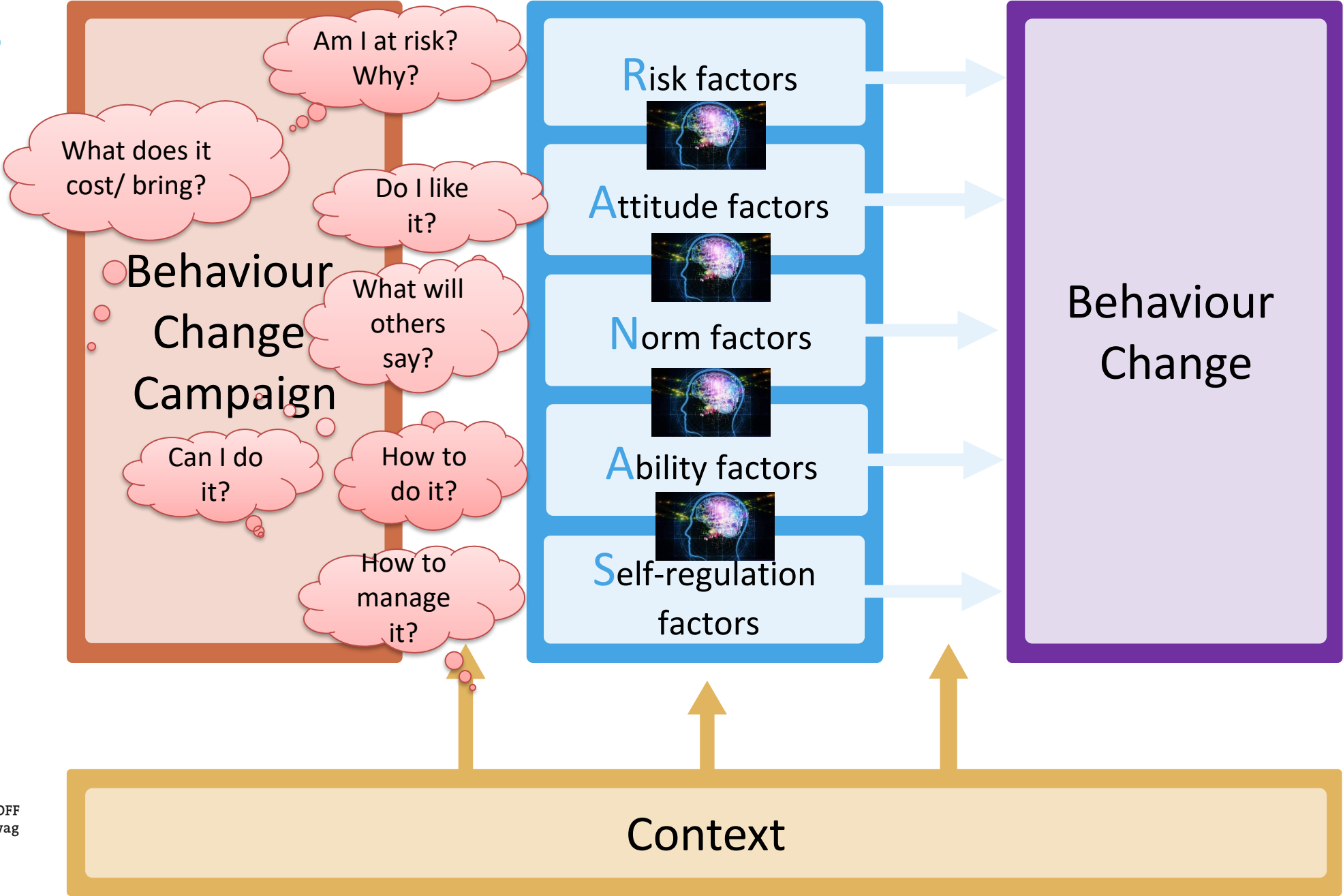
Do I like it?

What does it cost/ bring?

Am I at risk? Why?

How to do it?

# The RANAS model of systematic behaviour change






# The RANAS model of systematic behaviour change

## Behaviour change techniques

- Information**  
Present facts and scenarios, inform about personal risk, arouse fear
- Persuasion**  
Costs/benefits, rewards, prompt to talk to others, describe consequences of behaviour/omission
- Promotion**
- Provide instruction, infrastructure and training, organize social support
- Planning**  
Encourage planning, discuss coping with barriers, strengthen commitment

## Behavioural factors

- Risk factors**  
Am I aware of the risk?  
How vulnerable am I?  
How serious could it be for me?
- Attitude factors**  
What are the (monetary/non-monetary) costs/benefits?  
What feelings are there?
- 
- Do I have the confidence to continue to do so?
- Self-regulation factors**  
Do I feel an obligation?  
When, where and how do I act? How do I overcome barriers?

## Desired behaviour

- Behaviour A**  
Intention  
Use  
Habit
- Behaviour change**
- Behaviour B**  
Intention  
Use  
Habit

- Social context**
- Physical context**
- Personal context**

# Household observations and qualitative individual interview



## **Spot check observations:**

- Is there any infrastructure for performing the behaviour (e.g. handwashing station)? Ask for the facilities.
- How does the facility look like? (status of cleanliness, material available etc.)

## **Interviews, focus group discussions**

- Doer/Non-Doer
- Reasons for practice
- Beliefs and knowledge disease/health threat
- Behaviour assessment, action control/context
- Feelings & Cost benefits beliefs
- Barriers, remembering
- Barrier planning
- Communication channel

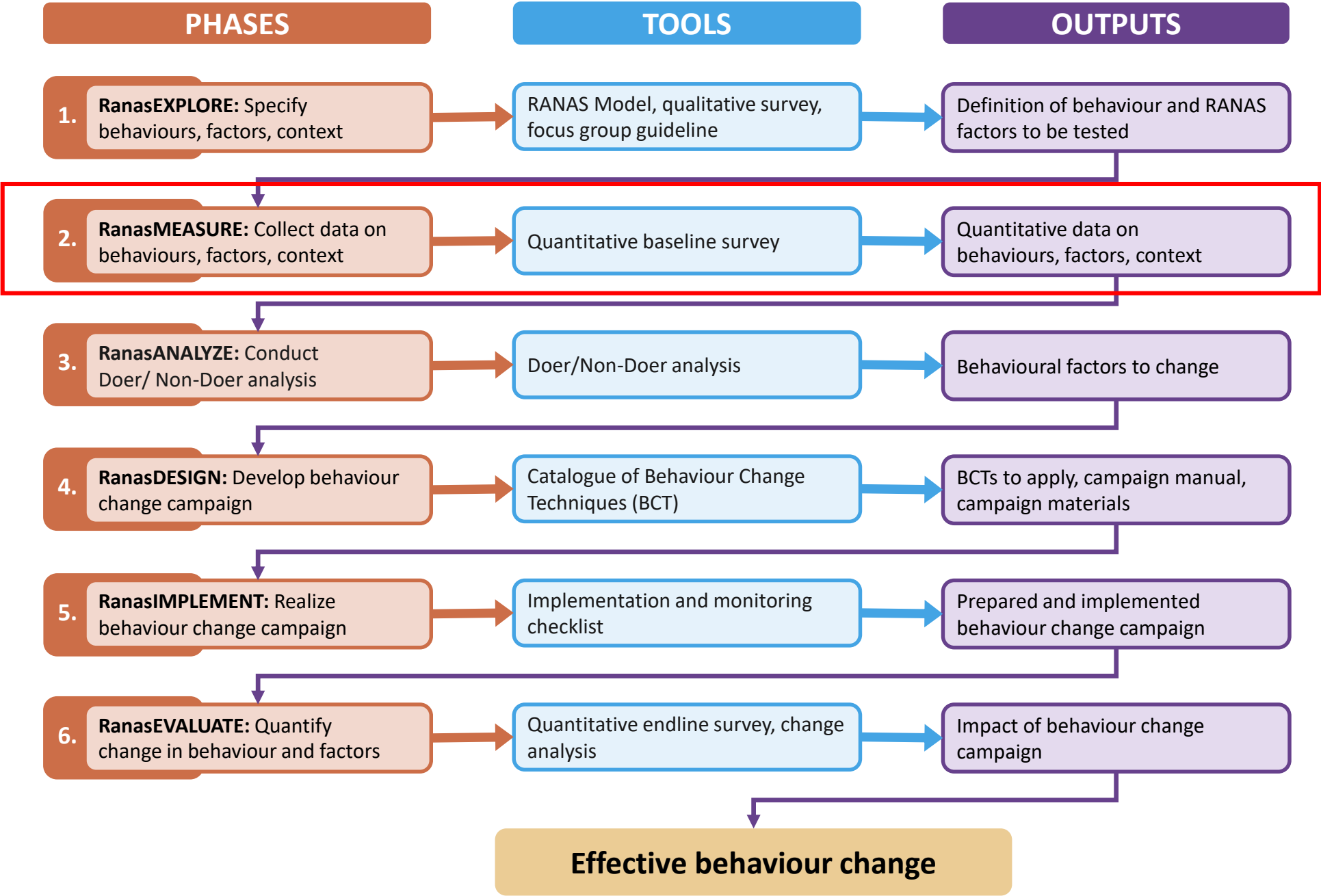
Questions	Factor
0 Do you practice <b>behaviour xy</b> ?	Doer/Non-Doer
1 1.1 If yes: Why do you practice <b>behaviour xy</b> ? (Interviewer, please ask: any other reason?) 1.2 If no: Why do you don't practice <b>behaviour xy</b> ? (Interviewer, please ask: any other reason?)	Reasons for practice
2 If a certain disease (Cholera, Covid-19 etc., diarrhea) is of interest: 2.1 What do you think about <b>disease xy</b> ? 2.2 Where does it come from? 2.3 Do you try to avoid it? If yes: how?	Beliefs and knowledge disease/health threat
3 3.1 How do you perform <b>behaviour xy</b> ? 3.2 When during your daily activities timings, key moments: 3.3 Place for <b>behaviour xy</b> performance: 3.4 Materials: what material do you use for <b>behaviour xy</b> ?	Behaviour assessment, action control/context
4 4.1 What are your positive feelings and emotions connected with the <b>behaviour xy</b> ? (Interviewer, please ask: any other positive feelings?) 4.2 What do you like about <b>behaviour xy</b> ? (Interviewer, please ask: anything else?) 4.3 What do you think which are the advantages of practicing <b>behaviour xy</b> ? (Interviewer, please ask: any other advantages?)	Feelings & Cost benefits beliefs
5 5.1 What are your negative feelings feelings and emotions connected with the <b>behaviour xy</b> ? (Interviewer, please ask: any other negative feelings?) 5.2 What do you dislike about <b>behaviour xy</b> ? (Interviewer, please ask: anything else?) 5.3 What do you think which are the disadvantages of practicing <b>behaviour xy</b> ? (Interviewer, please ask: any other disadvantages?)	



6	6. Do you see any barriers/problems to perform <b>behaviour xy</b> ? Tell me about any situations when you do not (or are unable to) perform <b>behaviour xy</b> ? (Interviewer, please ask: any other barriers you can think of?)	Barriers, remembering
7	7. Do you have any ideas about how to overcome these barriers? What helps you to start performing <b>behaviour xy</b> again? (e.g., materials/ assistance/ support)? (Interviewer, please ask: anything else you can think of?)	Barrier planning
8	8. What are the sources where you usually get your information from (e.g., radio, community workers, TV, social media)? (Interviewer, please ask: any other sources that you use?)	Communication channel
9	9. Which way to receive important messages/information about health issues do you prefer? (Interviewer: it is about personal preference, not telling you who/which organization is providing information)	

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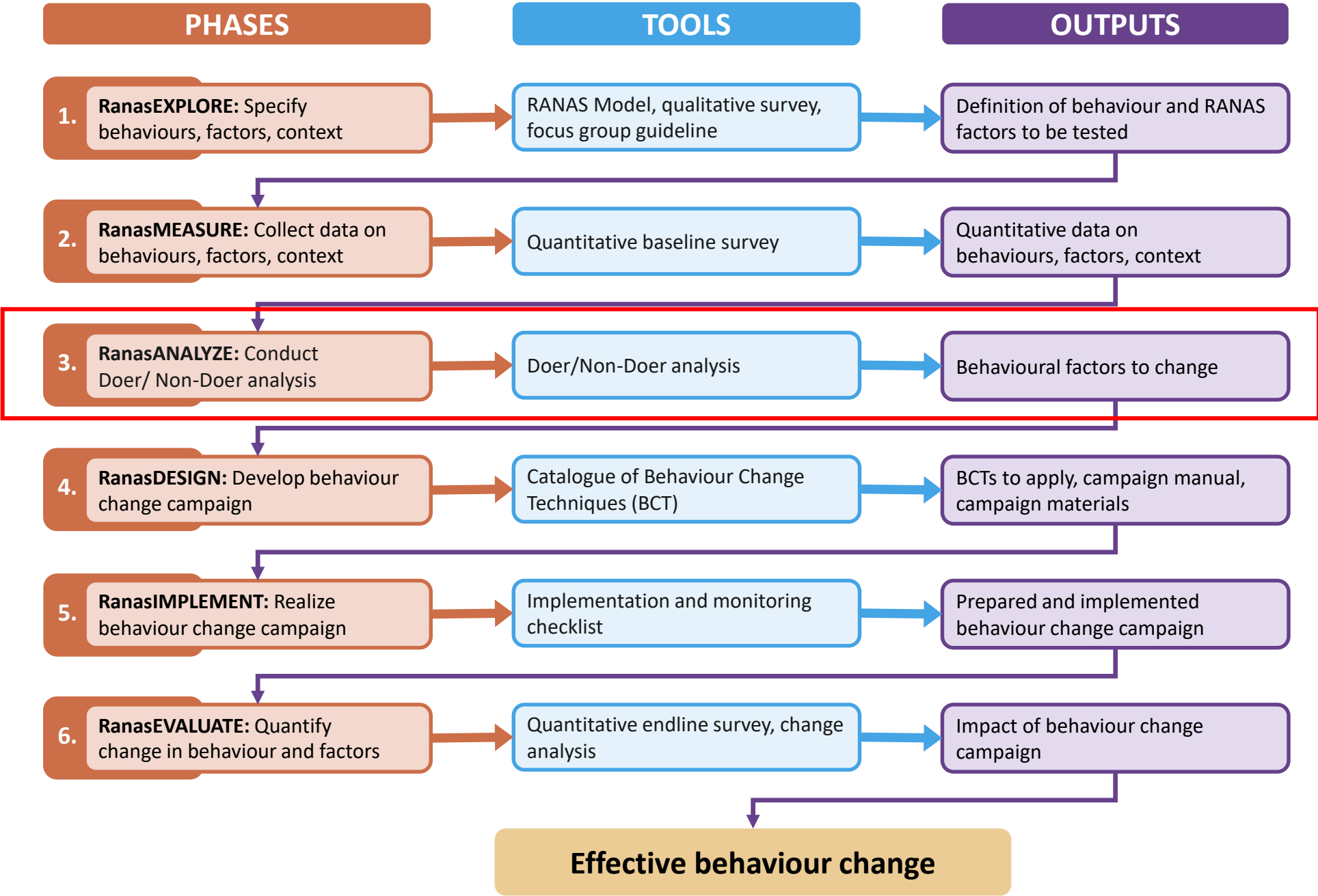
# Standardized survey: questionnaire



Block	Factor	Exemplary questionnaire item (with response scale)
Behaviour	Open defecation	On how many of the last 7 mornings did you personally defecate in the open (e.g., field, bush, roadside, side of canal, back of house, etc.)? On how many of the last 7 days did you personally use the toilet to defecate when you were at home? (1 = almost never (0 days) to 5 = almost always (7 days))
Risk	Vulnerability	Generally, how high do you think is the risk that you get diarrhea? (1 = <i>no risk</i> to 5 = <i>high risk</i> )
	Severity	Imagine that you contracted diarrhea how severe would be the impact on your life in general?' (1 = <i>not severe</i> to 5 = <i>very severe</i> )
	Health Knowledge	Can you tell me what causes diarrhoea? (open ended question)
Attitude	Beliefs about costs and benefits	How effortful is it for you to defecate in the open/ use a latrine for defecation? (1 = <i>not at all</i> to 5 = <i>very much</i> )
	Feelings	How pleasant or unpleasant is it for you to defecate in the open/ use a latrine? (1 = very unpleasant to 5 = not at all unpleasant)
Norm	Others' behaviour	What do you think, how many people of your relatives practice open defecation/ use a latrine for defecation? (1 = ( <i>almost</i> ) <i>nobody</i> to 5 = ( <i>almost</i> ) <i>all of them</i> )
	Others' (dis)approval	People who are important to you, do they rather approve or disapprove if you practice Open Defecation/ use a latrine? (1 = <i>nearly all disapprove</i> to 5 = <i>nearly all approve</i> )

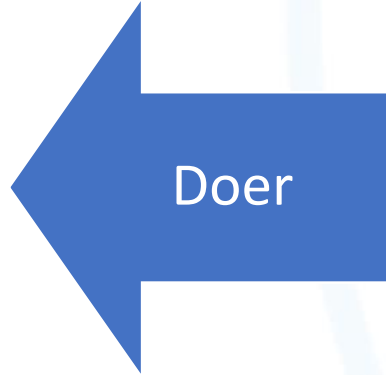
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# Doer/non-doer analysis



1. Classification based on behaviour
2. Comparison of doers and non-doers



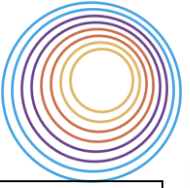
Doers: latrine users		
Person	Score in perceived effort	Score in others' approval
A	2	4
D	3	3
F	4	4
H	2	2
I	1	1
J	3	4
L	3	4
P	3	3
R	0	0
S	4	4
U	3	3
V	2	4
W	2	3
Mean score	2.46	3.00

Non-doers: non-users of latrines		
Person	Score in perceived effort	Score in others' approval
B	4	4
C	2	0
E	2	1
G	1	1
K	3	2
M	2	2
N	3	2
O	1	1
Q	0	0
T	1	0
X	1	1
Y	2	2
Z	4	3
Mean score	2.00	1.46

→ Difference in mean score is higher for *others' approval* therefore this factor should be tackled.



## Why is it important to differentiate between Doers and Non-Doers?



Survey question: How expensive is chlorination?

**No Differentiation:** 80% rate chlorination as expensive

→ Intervention: (if possible) make purchase of chlorine less expensive

**Differentiation:** 80% of Doers as well as 80% of Non-Doers rate chlorination as expensive

→ **NO** intervention on price of chlorination

because **independently** of expensiveness chlorine is purchased or not

However: if 20% of Doers but 70% of Non-Doers rate chlorination as expensive

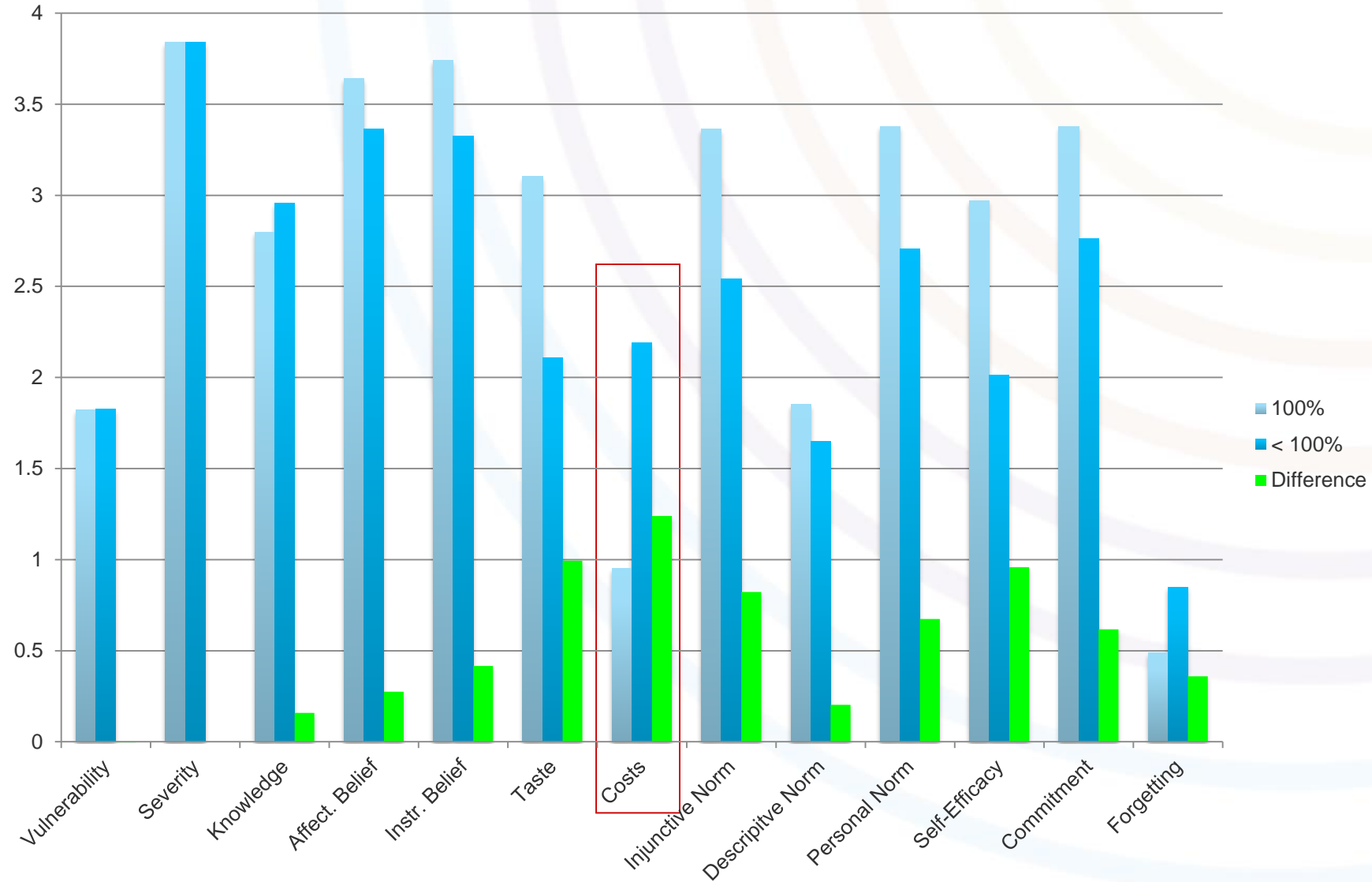
→ then the price for chlorination is a reason for not purchasing chlorine

→ Intervention on perceived price

# Example Ethiopia community filter: Results of baseline

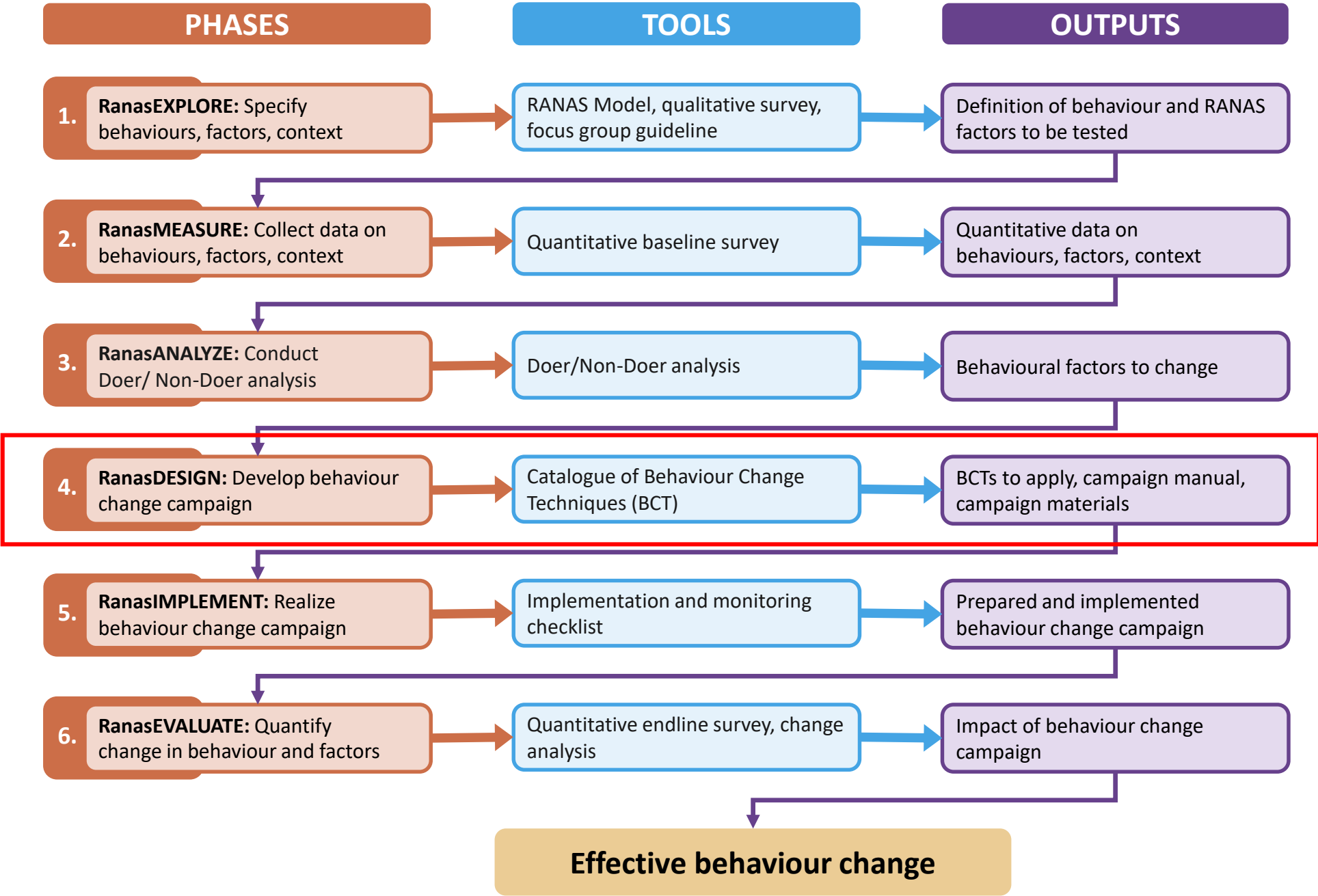


Differences in mean of 100% users and less than 100% users



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# RANAS Catalog of behaviour change techniques



## Behavioural factors      Behaviour change techniques

### Information BCTs – Risk factors

Health knowledge	<p><b>1. Present facts:</b> present information about the circumstances and possibilities of contracting a disease and about the relationship between a behaviour and the disease.</p>
Vulnerability	<p><b>2. Present scenarios:</b> present situations in the everyday life of the participant, showing how they relate to the disease.</p>
Severity	<p><b>3. Inform about and assess personal risk:</b> present qualitative and quantitative assessments of the risk to the person in such a way that the person realizes that his/her health is at risk.</p>
	<p><b>4. Arouse fear:</b> use threatening information that stresses the severity of contracting a disease.</p>



### Persuasive BCTs – Attitudinal Factors

Beliefs about costs and benefits	<p><b>5. Inform about and assess costs and benefits:</b> provide information about costs and benefits of a behaviour (omission) and conduct a cost-benefit analysis.</p> <p><b>6. Use subsequent reward:</b> reward the person each time she/he has performed the desired behaviour to reinforce the behavioural outcome.</p> <p><b>7. Prompt to talk to others:</b> invite participants to talk to others about the healthy behaviour.</p>
Feelings	<p><b>8. Describe feelings about performing and about consequences of the behaviour:</b> present the consequences of a healthy behaviour as pleasant and joyful and its omission or an unhealthy behaviour as unpleasant and aversive.</p>

### Norm BCTs – Norm factors

Others' behaviour	<p><b>9. Inform about others' behaviour:</b> point out that a desired behaviour is already adapted to the environment.</p> <p><b>10. Prompt public commitment:</b> let people commit to a favorable behaviour and make it public, thus showing to others that there are people who perform the behaviour.</p>
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**Personal water budget sheet**

How many family members are living in your household? \_\_\_\_\_ people  
 How many children of yours are under 13 years? \_\_\_\_\_ children  
 Where do you normally fetch water (if you do not fetch at the Community filter)? \_\_\_\_\_  
 How much does the water cost at this water point? \_\_\_\_\_ Birr per \_\_\_\_\_ liters

	How many cups does one child drink per day?	How many cups does one adult drink per day?	How many jugs do you use for cooking per day (including food, coffee, shai)?
cups/jugs			
liters	0.2	0.2	1
Total liters			
Total per day	Sum of total drinking and cooking: _____ liters		
Total per week	Above multiplied by 7 days: _____ liters		
Total jerrycans per week	Above divided by 20 liters: _____ jerrycans of 20 L		
Total expense per week	Above multiplied by 0.50 Birr: _____ Birr		

So if you want that your family only consumes filtered water you have to buy: \_\_\_\_\_ jerrycans of 20 liters per week at the Community Filter.

This will cost you \_\_\_\_\_ Birr per week.  
 That is only \_\_\_\_\_ Birr more than if you consume fluoride contaminated water.

All other water you need, for your cattle, animals, for washing and cleaning you don't have to buy at the Community Filter, you can buy untreated water, which is cheaper.

# Communication channels vs. behaviour change techniques



## Household visits by promoters



## Community meetings



## Advertising

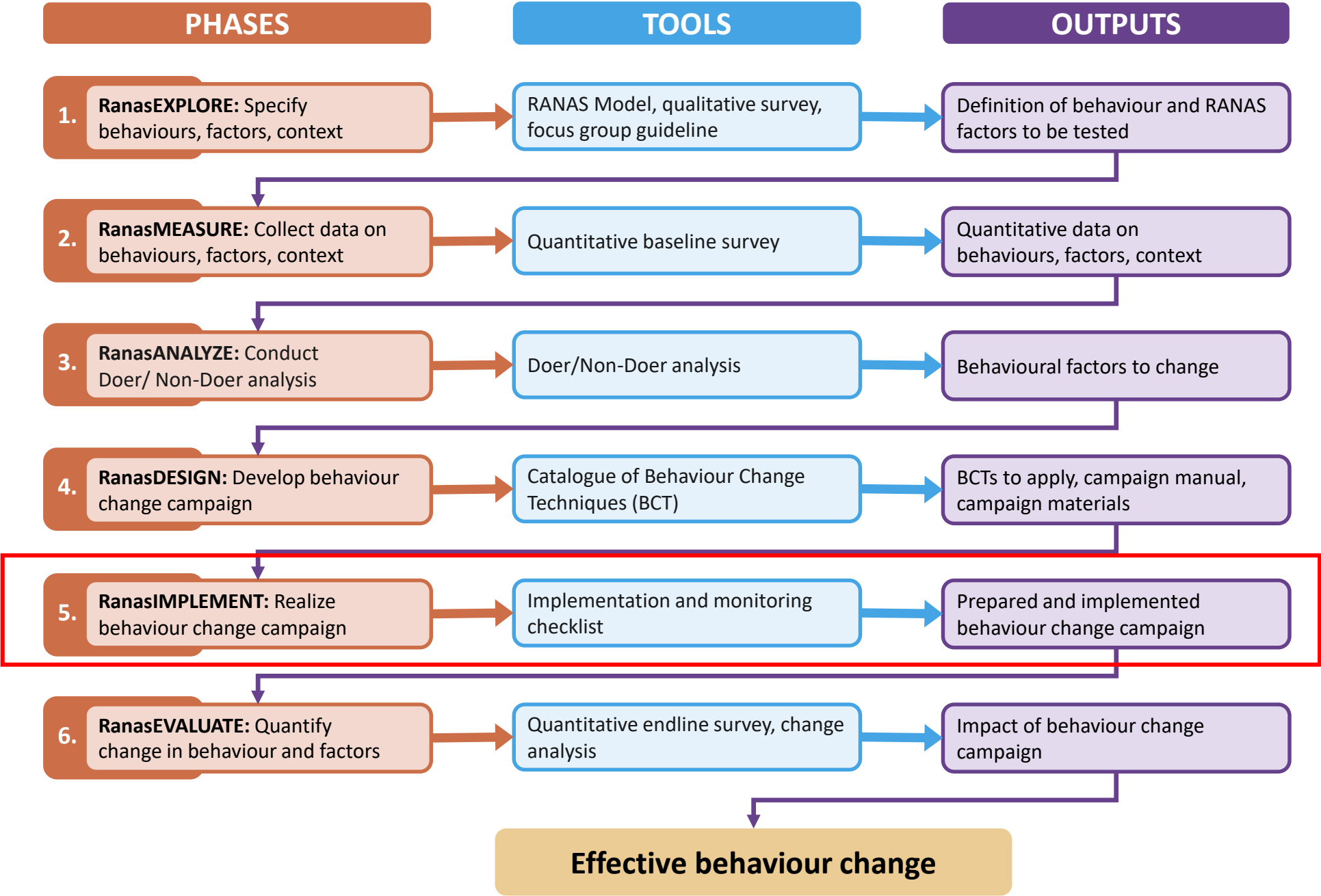


## Loudspeaker trishaw



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# Example Ethiopia community filter: Inform about and assess costs and benefits: Persuasion on perceived costs

Higher price = better quality

Examples with common  
consumables (red teff vs. white  
teff, oil vs. butter)

## Personal water budget

- Promoter calculates water consumption of family
- How much water do they need from community filter?
- How much money does it cost?

**Intervention sheet on perceived costs**

I would like to talk to you about the costs of treated water and find out together with you how much money you would have to spend if you decide to consume filtered water from the Community filter.

**Persuasion: costly = better quality**

Imagine you grow to different types of teff, the red and the white teff. You take the teff to the market.

- For how much would you sell 1 sack of red teff?
- And for how much would you sell 1 sack of white teff?
- So white teff is much more expensive than red teff?
- Why is it more expensive?
- So you think white teff is better quality teff than red teff? Even though it is both teff?

→ So, it is logical, that white teff is more expensive than red teff, because it's quality is a lot better?

Imagine you cook wat. So you can use butter or oil for cooking wat.

- Which one is better of taste? Butter or oil?
- Which one is better for your health? Butter or oil?
- Which one is more expensive? Butter or oil?
- So at the end, which one is better quality? Butter or oil?

→ So, it is logical that butter is much more expensive than oil, because it is healthier and it's quality is a lot better?

The same it is with water in Weyo Gabriel. There are different water sources. All of the sources contain a lot of fluoride, which is very dangerous for your health. Still you have to pay money for water at any water source. The community filter offers fluoride treated water, which is very good for your health because it prevents you from getting fluorosis. If you compare now for example the Community filter water with water from Shibre or Mesken Sefer water point...

- Which is better for your health?
- Which has better quality?
- Which is more expensive?

→ Even if both are water their price is different (like red and white teff or butter and oil). But it is logical that community filter water is more expensive than untreated water, because it is much healthier and it's quality is a lot better?

**Personal water budget for the household**

→ Take the **budget sheet** and fill it out with the family!

**Personal water budget sheet**

How many family members are living in your household? \_\_\_\_\_ people  
How many children of yours are under 13 years? \_\_\_\_\_ children

Where do you normally fetch water (if you do not fetch at the Community filter)? \_\_\_\_\_

How much does the water cost at this water point? \_\_\_\_\_ Birr per \_\_\_\_\_ liters

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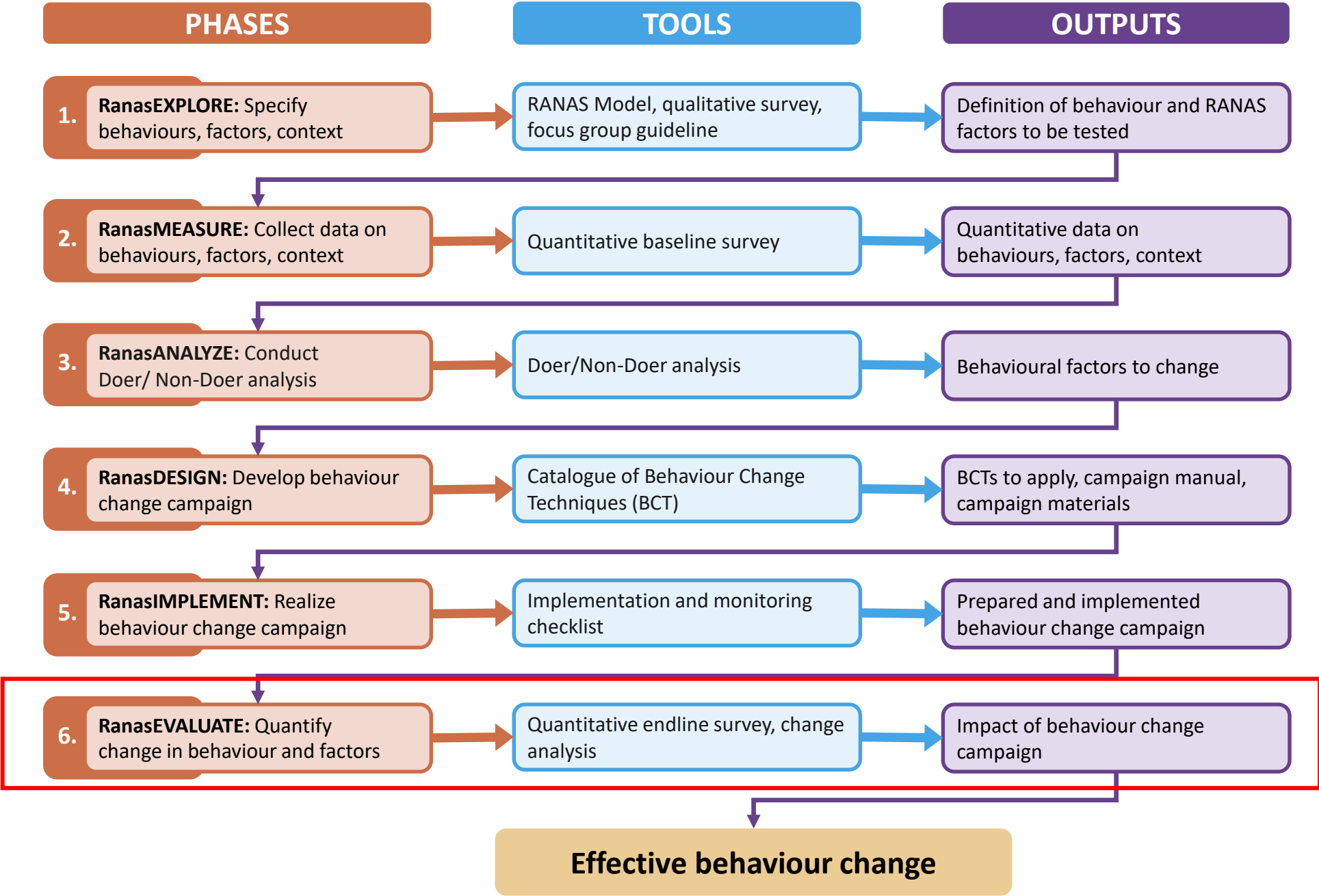
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# Evaluation of the change in the behaviour

Percentage of safe water consumption

Person	With campaign			Person	Without campaign		
	Before	After	Change		Before	After	Change
A	40	80	40	K	20	30	10
B	35	85	50	L	30	45	15
C	30	60	30	M	30	45	15
D	10	30	20	N	35	35	0
E	55	95	40	O	25	25	0
F	40	85	45	P	15	35	20
G	40	95	55	Q	35	45	10
H	30	95	65	R	45	70	25
I	35	85	50	S	45	45	0
J	35	95	60	T	30	40	10
<b>Mean</b>	35%	80.5%	45.5%	<b>Mean</b>	31%	41.5%	10.5%

- Big difference between the group with intervention compared to the change in the group without intervention
- Behaviour has changed differently

# Evaluation of the change in behavioural factors



How expensive is safe water?

5 = not at all exp.; 4 = slightly exp.; 3 = medium exp.; 2 = expensive; 1 = very expensive

Person	With campaign			Person	Without campaign		
	Before	After	Change		Before	After	Change
A	2	5	3	K	2	3	1
B	1	3	2	L	1	3	2
C	2	4	2	M	2	2	0
D	2	5	3	N	2	3	1
E	1	5	4	O	1	2	1
F	4	5	2	P	3	3	0
G	1	4	3	Q	1	3	2
H	1	5	4	R	1	2	1
I	2	5	3	S	2	2	1
J	1	3	2	T	1	1	0
<b>Mean</b>	1.7	4.4	2.7	<b>Mean</b>	1.6	2.5	0.9

→ perceived costs and consumption of safe water changed without changing real prices of the filtered water

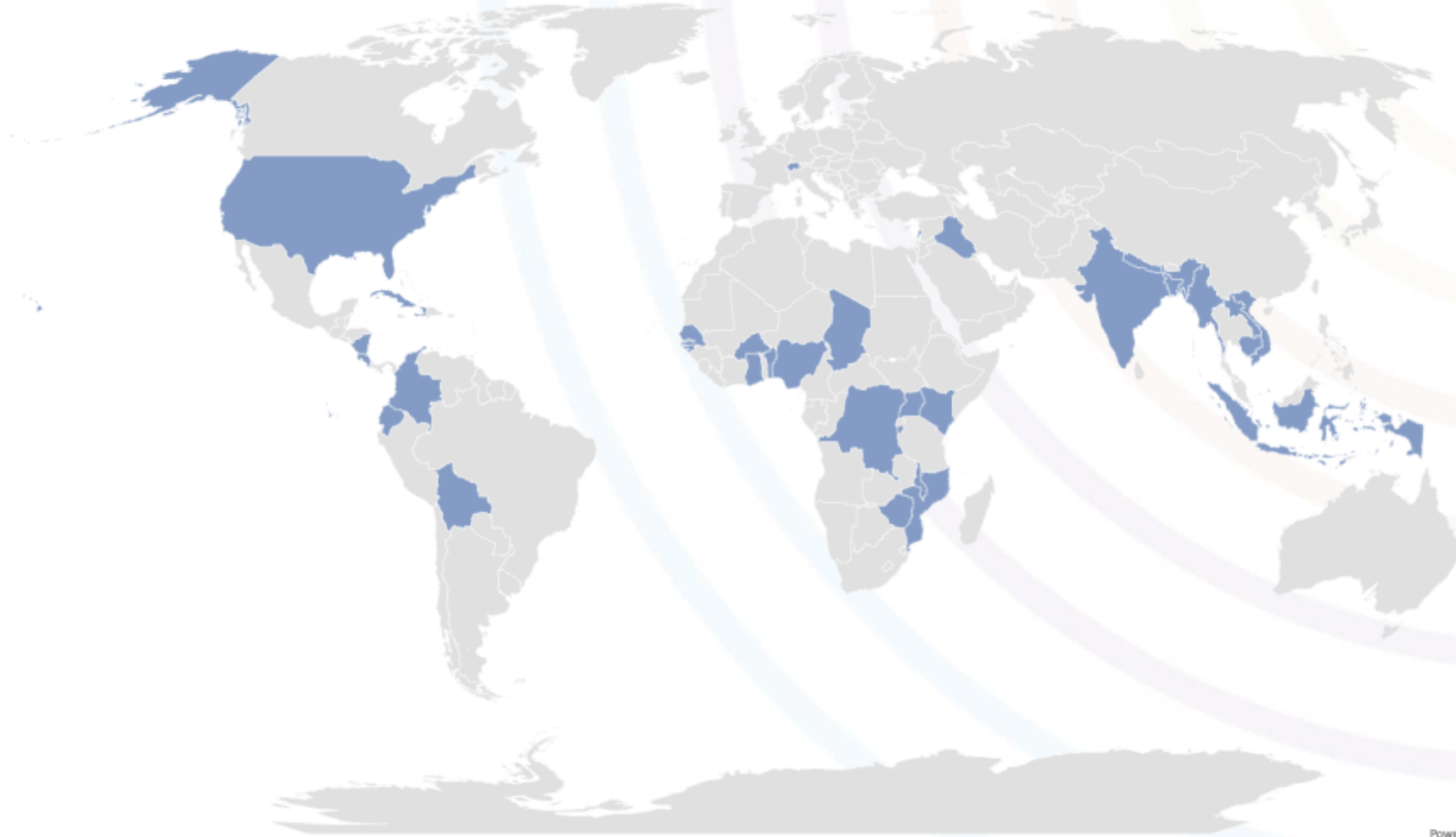
- Big difference between the group with intervention compared to the change in the group without intervention in the factor perceived expensiveness
- Perceived expensiveness has changed differently

# RANAS approach: Effectiveness in changing behaviour



Country	Behaviour	Change (control group)
Zimbabwe	Solar water disinfection (observed)	75% (10%)
Bangladesh	Use of arsenic free wells	65% (10%)
Ghana	Reducing open defecation	-51% (1%)
Uganda	Cleaning of shared toilets	30% (8%)
Zimbabwe	Handwashing frequency (observed)	28% (5%)
Zimbabwe	Handwashing technique (observed)	+ 2 steps (+ 0 steps)
Chad	Chlorination of drinking water	64% (42%)

# Approach approved in more than 40 countries



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## Duration of a RANAS project

- 1 week preparation
- 1 week survey
- 1 week data analysis and development of interventions
- 4 weeks of implementation
- [3 weeks of letting the interventions sink in]
- 1 week of follow-up survey
- 1 week of data analysis and reporting

➔ after 3 weeks interventions developed

➔ after 12 weeks whole process finished

**Requirement:** dedicated team of 1 field coordinator and 5 data collectors



# Upcoming trainings in the RANAS approach

- Ranas course in English: planned for March/April 2023
- Interest for a course in Arabic?  
Please let us know and we can arrange it!

→ [anna.gamma@ranas.ch](mailto:anna.gamma@ranas.ch)

# Project implementation



Behaviour change project implementation using the RANAS approach, backstopped by Ranas Ltd.?

→ [anna.gamma@ranas.ch](mailto:anna.gamma@ranas.ch)