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Prevention and Behavioural Science Cell

Using behavioural science in public communications to prevent transmission of COVID-19

Identifier Code: SUP-015	Category: Public Health Guidance (Supplementary)
Audience: Internal and External	Response Area: Supporting the national health protection response & partners
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Date: 19 November 2020	Status: Final Version: 2.1
Review Date: 19 th November 2021	
Distribution: <ul style="list-style-type: none">• Risk Communication and Behavioural Insights TAC• Directors of Public Health/Local Public Health Teams• Consultants in PH supporting the NHPR Cell	<ul style="list-style-type: none">• Welsh Government• Health Boards• Local Authorities• Public Health Wales
Purpose and Summary of Document: <p>This guide sets out a process which communications professionals and others across the Public Sector in Wales can use to more systematically</p>	

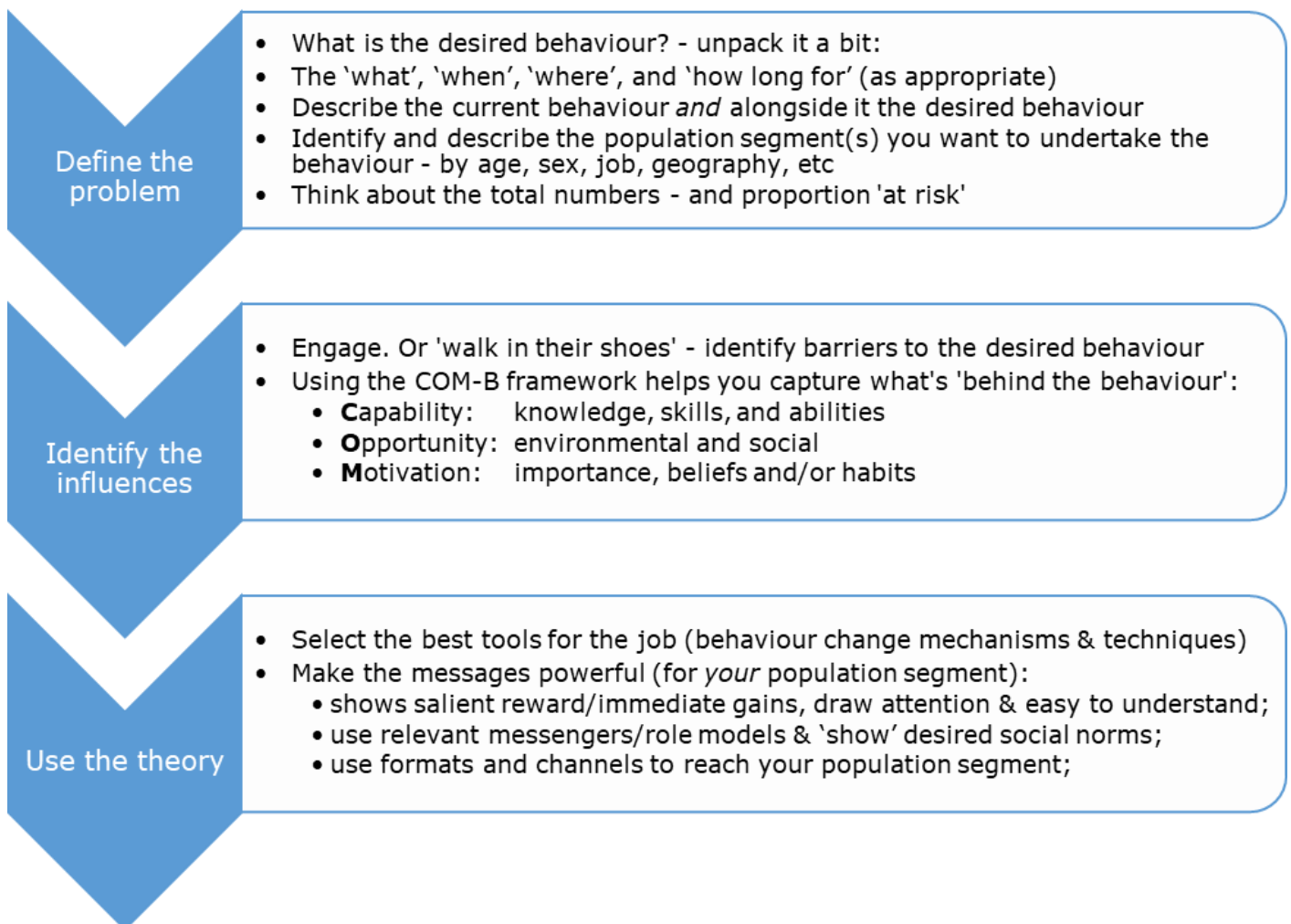
apply behavioural science in public communications to help increase impact on preventing the spread of COVID-19.

This guide is intended to supplement professional communications expertise and existing capability in applying behavioural insights extant in communications and other teams across Wales.

To provide feedback on this guide, please contact PHW.BehaviourChange@wales.nhs.uk with any questions or comments.

Document Location: [SharePoint](#)

Quick Guide



1 Background and purpose

1.1 Background

All human behaviour is a product of biological, psychological, economic, environmental and social influences. To modify behaviours those determinants need first to be understood and then 'treated' with relevant behaviour change techniques. More systematic application of behavioural science in the development of public communication interventions (and policy) increases the likelihood they will have the desired effect.

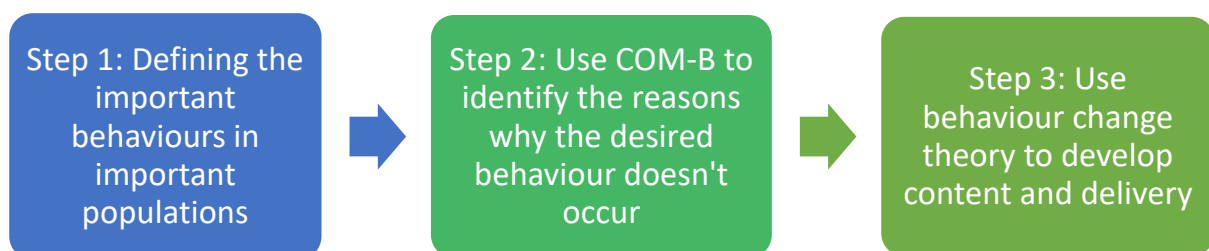
1.2 Purpose

This guide is written for anyone who develops and delivers public communication interventions that aim to increase behaviours which will prevent the transmission of COVID-19.

The guide sets out how to apply behavioural science to improve the effectiveness of public communication using the following steps (Figure 1):

1. Defining the behavioural goal(s) specifically including when, where, for how long as well as the 'what', and in which populations. Selection of the *important behaviours in the important populations* should be based on the time/persons/place of greatest opportunity to prevent transmission and inequality of impact.
2. Identify the determinants of the behaviour(s), the barriers to change, using a *behaviour change framework* which is broad enough to help identify all important barriers to the behaviour (this guide uses COM-B¹)
3. Select behaviour change *mechanisms of action* relevant to the identified determinants to develop core content, then use other elements of behavioural science to make the message powerful (this guide uses elements of the EAST framework²).

Figure 1: Process flow for behaviourally informed communication interventions



¹ Michie, van Stralen and West (2011) The behaviour change wheel: A new method for characterising and designing behaviour change interventions. *Implement Sci.* 2011; 6: 42.

² Service, et al, (2012) EAST: Four simple ways to apply behavioural insight. Behavioural Insights Ltd

Step 1: Defining the important behaviours in important populations

Making an assessment of *which* preventative behaviours within *which* populations will have biggest impact, is a critical first step.

Being as certain as possible that the behaviours we are targeting are those which are causing the most transmission of COVID-19, either from the scale of the behaviour in the population or because of inequalities in rates of transmission and harm, will help ensure the biggest impact and efficiency.

Defining the behaviours within a target population will also lead to a better understanding of the core components of communications campaigns – the barriers to the preventative behaviours will be different in different groups AND the salience of messaging and channels with those groups will also be different.

Further definition of the behaviour with as much clarity as possible will provide the right focus for our communications (Table 1). There may be only be one behaviour, or there may be sub-behaviours which contribute to the overarching behaviour.

Table 1. Clearly defining the behaviour

<p>Define the Behavioural Objective</p> <p>What are the overarching objectives of this communication, focussing on the desired behaviours and actions (to maintain/improve health and wellbeing)?</p>	<p><i>e.g. increase the number of young people washing their hands in accordance with the hand hygiene guidance</i></p>
<p>Specify the Behaviour</p> <p>Taking our objective, we need to break it down into specifics of behaviours – <i>who</i> needs to do <i>what</i>, <i>when</i> and <i>how long for</i>?</p> <p>What is the current behaviour(s) that needs to change?</p> <p>Are there sub-behaviours to consider?</p>	<p><i>e.g. wash hands for 20 seconds using the recommended hand washing techniques before and after eating food, entering/exiting buildings, after using the toilet, and before/after touching your face.</i></p> <p><i>People not washing hands? Not using soap and water, not washing thoroughly enough, not washing frequently enough, not washing at key times?? –different behaviour requires different communication.</i></p> <p><i>Using hand gel when not able to use soap and water, need to obtain gel, need to carry gel at key times.</i></p>

The scale of analysis you undertake to confirm the *important* behaviours, and *important* populations, will depend on available resources. This could range from a rapid desk-top exercise – what do you/your organisation already 'know' about your population?, what can other (local) sources add?, what is past experience indicating?; and/or your analysis might also include a more comprehensive review of epidemiological data, with/without analytical support, to identify groups, settings, locations.

Step 2: Identify what influences the behaviour

Use COM-B to identify why the desired behaviour does or does not occur (gather insight)

To elicit a behaviour change amongst your target population it is critical to understand which behavioural determinants are stopping them from engaging in the desired behaviour. No one acts (behaves) rationally (as expected) all of the time - behavioural diagnosis will help reveal the key aspects that your communication intervention needs to focus on, for your target population.

For example, if your population segment already believe that hand washing is *important* and *intend* to wash their hands thoroughly and frequently but then don't because they don't have easy access to water and soap out of home, your communication would be very different to if your insight gathering reveals they didn't believe hand washing was important. We often predict and presume how people will act – this step is about checking that, and understanding what's 'behind the (actual) behaviour'. Similarly, if your audience feel that self-isolation is important because they think it will protect others, but do not follow-through because they can't afford to – then communication telling them why it is important is unlikely to lead to the adherence to advice (the desired behaviour).

These examples illustrate that often significant barriers to change are identified, which communications interventions alone might not 'solve'. A communications campaign might be very useful in providing more information on financial assistance available and creating easier access to it, but *only* if policy/other interventions are in place. For the handwashing example, a communications campaign could influence the carrying and use of hand gel but, audience insight might point towards the focus of the behaviour change work being about influencing employers/business to make it easier for people to wash their hands.

As in Step 1, the scale of diagnosis you undertake will depend on available resources. You might undertake a desk-top exercise – noting what collective past experience indicates about barriers to the behaviour?; and/or what other sources locally are revealing about barriers/enablers to the

behaviour(s)?; and/or what other sources of information about these behaviours are accessible, with/without support for analysis; and/or you might commission the direct gathering of insight from your target audience?

Regardless of the level of diagnostic analysis using a behaviour change framework (like COM-B) - that accounts for cognitive, psychological, social and environmental influencers of the behaviour - will help identify the critical foundation-stones for your communications, and so maximise its impact. The **COM-B** model suggests that there are three conditions that need to be met before behaviour takes place; **capability, opportunity** and **motivation** to perform the behaviour (Figure 2). The framework is underpinned by theoretical behaviour change domains, which are the specific mediating mechanisms of action that influence behaviour and are organised within those three conditions C-O-M.

Figure 2: COM-B model



For each condition, consider what is preventing people from engaging in the behaviour, and if there is any evidence already about the existence of these barriers.

Table 2 (below) contains some questions about the target audience to help you more systematically identify the critical behavioural determinants which will be the targets of the information you will be providing.

Again, the scale at which you undertake this behavioural diagnosis will depend on your purpose and the resources you have available. It could be a desk-top exercise from existing knowledge about your population, it could be more systematic review of published evidence of the behavioural causes

or it could be primary insight gathering from the audience. Whichever level you need to undertake, it is a critical step in ensuring your communications have the desired impact.

Continuing with the example for handwashing behaviour:

Capability

- May not have the knowledge about the correct hand washing technique
- May not have the knowledge about when to wash their hands
- May not remember to wash their hands in certain situations
- May not know the consequences of washing/not washing hands.

Opportunity

- May not have access to facilities to wash their hands
- May not believe they have the time to wash their hands thoroughly
- May not believe/see other people washing their hands in every recommended situation.

Motivation

- May not believe hand washing is effective in preventing infection
- It is in line with their motivation to protect and care for somebody
- It is part of their identity to protect and care for somebody
- Their attitudes towards hand washing are positive
- Washing their hands in the recommended circumstances is not a habit (a repeated action).

Table 2. COM-B Framework to identify causes of the behaviour

Capability	
Do they have the right knowledge and skills ?	<p>Do they have the ability to do the desired behaviour?</p> <p>Do they know what the behaviour required is?</p> <p>Do they know how to do the desired behaviour?</p> <p>Do they know about the consequences (health, environmental, social) of doing the desired/undesired behaviour?</p>
Do they have the physical and mental ability to carry out the behaviour	<p>Do they have the physical skills to do it?</p> <p>Or the cognitive skills:</p> <p>Do they remember to do the desired behaviour? Does memory influence it?</p> <p>How are they managing their behaviour? Are they aware of what barriers there are, how they can overcome these, and how often they are doing the behaviour?</p>

Opportunity	
Do they have the resources to undertake the behaviour?	<p>What resources (e.g. environmental or financial) might they need to facilitate the behaviour?</p> <p>Would they have access to any equipment that would help them do the behaviour?</p> <p>Can the resources they need be signposted to online? Or does this require different intervention types to fix?</p> <p>What online tools or apps may be useful?</p> <p>Signposting to resources available in their community.</p>
Do they have the right systems, processes and environment around them to help facilitate the behaviour?	<p>How is the environment influencing their behaviour? What cues are prompting their behaviour?</p> <p>Can these be meaningfully highlighted in communications activity or would they require other interventions to change them.</p>

Opportunity	
<p>Do they have people around them who will help or hinder them to carry out the behaviour?</p>	<p>What do they believe most people (like them) are doing (do we need to emphasise a different norm?)?</p> <p>Are there relevant (to them) role models doing the behaviour?</p> <p>Who do they listen to?</p> <p>What practical/emotional support is available for them?</p>

Motivation	
<p>Do they want to carry out the behaviour?</p>	<p>What is their motivation/incentive for doing the desired behaviour?</p> <p>How does the desired behaviour fit with what's important to them? What do they gain by changing?</p> <p>What do they believe are the consequences of doing the desired behaviour (or of continuing with the undesired behaviour)?</p> <p>Pay particular attention to the short-term outcomes for them?</p> <p>How confident are they at doing the desired behaviour? What would make them more confident they can perform the behaviour? How can we change this?</p>
<p>Believe that they should?</p>	<p>What are their attitudes towards the desired behaviour (positive/negative)?</p> <p>Is the desired behaviour in line with how they see themselves? What is their identity, self-image or perceived social (or professional role)? How can we encourage them to view the desired behaviour as something someone <i>like them</i> does?</p>
<p>What habits are in place which would need to be disrupted?</p>	<p>What is reinforcing the habit?</p> <p>People? Cues in the environment? Past behaviour?</p>

Step 3: Applying behavioural science to develop the communications

Developing core message components; applying behavioural mechanisms of action to the insight from Step 2

Once it is clear what is influencing the behaviour, the appropriate behavioural mechanisms of action (MOA) can be used to shape the messaging. The MOA are the factors which mediate between an individual's action and the desired behaviour. This step is about selecting the relevant MOA based on the insight from *Step 2* (a full list of the MOA are in Appendix 1).

When you have identified the mechanisms which match the insight, the content for your communications should be focussed on changing them. Using our example of hand washing we have completed *Table 3* below, matching behaviour change techniques to the mechanisms of action which are linked to the insight gathered in *Step 2*.

Table 3. Mechanisms of Action to core components of messages

Insight	Mechanism of Action	Core component of message
May not have the knowledge about the correct hand washing technique	Knowledge	Messages to contain clear instructions on the correct hand washing technique
May not know the consequences of washing/not washing hands	Knowledge	Add information about the risks of catching covid-19 and unwashed hands. Try to focus on the more immediate consequences. Frame messages in a way which highlight protecting others
May not believe/see other people washing their hands in every recommended situation	Social norms	Highlight and emphasise how the majority of other carers are washing their hands thoroughly and regularly, being as specific about the behaviour as possible (e.g. specific situations when hand washing). Try to promote a norm.
May not believe hand washing is effective in preventing the spread of germs	Beliefs about consequences	Provide information about the effectiveness of hand washing, specifically in relation to the context of carers' situation. Prompt carers to consider the pros and cons of washing their hands thoroughly and regularly and what might happen if they don't do this.
It is in line with their motivation to protect and care for somebody	Motivation Self-image	Frame appropriate handwashing as one the best way to protect and care for someone. Promote carers to consider pros and cons of handwashing.

Making the message more powerful

Through the above steps consideration has been given to *who* needs to do *what* (and *where* and for *how long*), and an understanding has been built around why they are not doing it and what it might take to change behaviour. This process has led to development of the core components of your communications intervention. The next step is about applying behavioural science to make the messages and creative content more impactful and make those behaviours more likely to happen.

We have drawn on elements of the established EAST and MINDSPACE frameworks to create a quick formula/checklist to help with this, shown in Figure 3 (over page).

Coproduce, test and iterate

The process of applying behavioural science to your communications revolves around 'insight' – ideally *gathered* from your target population segment; *underpinning* the determinants of their behaviour and *guiding* the subsequent selection of behaviour change techniques. To ensure your messaging and creative content 'address' this insight, and leads to more of the desired behaviours (defined in Step 1), it's always best to test them with samples of your target population. Find out what works – what to adopt, what to adapt, what to abandon. Even if time constraints dictate this can only be done whilst the first iteration is live, it will improve the impact of your work. Refining and improving your content based on testing and insight is particularly important when the context to your audiences' behaviours is continually shifting. Some output will gain immediate and lasting traction, some might need adjustment, only continuous monitoring and testing will allow differentiation of these.

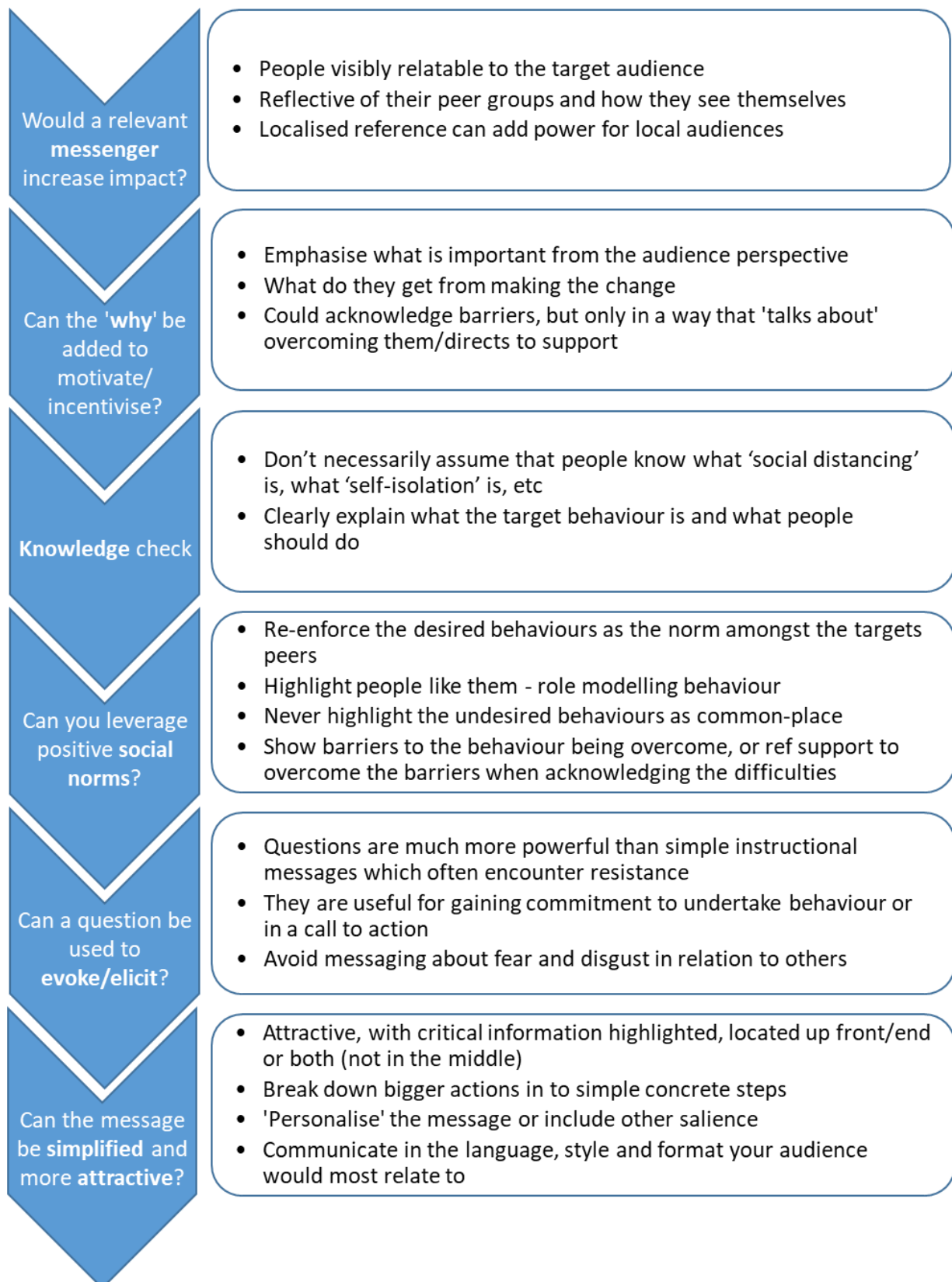
Audience and response area

This guide is intended to be a supplement to your professional communications expertise and the knowledge you already have within your teams on behavioural insight. This guide sets out a process you can follow to more systematically apply behavioural science in your communications development to help increase their impact.

Attribution (authorship)

The (COVID) Prevention and Behavioural Science Cell of Public Health Wales welcomes your feedback on this tool. We can improve this offer with your feedback about its accessibility, its content or its usability in your work. Please email us your feedback or any questions on: PHW.BehaviourChange@wales.nhs.uk

Figure 3: Formula for more impactful communications



Appendix 1**Mechanisms of Actions Descriptions**

COM-B element	Mechanism of Action	Mechanism of Action Description
Physical Capability	Skill	An ability of proficiency acquired through practice
Psychological Capability	Knowledge	An awareness of the existence of something
	Memory, attention and decision processes	Ability to retain information, focus on aspects of the environment and choose between two or more alternatives
	Behavioural regulation	Behavioural, cognitive and/or emotional skills for managing or changing behaviour
Physical Opportunity	Environmental context and resources	Aspects of a person's situation or environment that discourage or encourage the behaviour
	Behavioural cueing	Processes by which behaviour is triggered from either the external environment, the performance of another behaviour, or from ideas appearing in consciousness.
Social Opportunity	Social influences	Those interpersonal processes that can cause oneself to change one's thoughts, feelings or behaviours
	Norms	The attitudes held and behaviours exhibited by other people within a social group

Social Opportunity	Subjective Norms	One's perceptions of what most other people within a social group believe and do
	Social learning/imitation	A process by which thoughts, feelings and motivational states observed in others are internalised and replicated without the need for conscious awareness
Reflective Motivation	Attitude towards the behaviour	The general evaluations of the behaviour on a scale ranging from negative to positive
	Beliefs about capabilities	Beliefs about one's ability to successfully carry out a behaviour
	Beliefs about consequences	Beliefs about the consequences of a behaviour (i.e. perceptions about what will be achieved and/or lost by undertaking a behaviour), as well as the probability that a behaviour will lead to a specific outcome
	Feedback processes	Processes through which current behaviour is compared against a particular standard
	Goals	Mental representations of outcomes or end states that an individual wants to achieve
	Intention	A conscious decision to perform a behaviour or a resolve to act in a certain way
	Motivation	Processes relating to the impetus that gives purpose or direction to behaviour and operates at a conscious or unconscious level
	Values	Moral, social or aesthetic principles accepted by an individual or society as a guide to what is good, desirable or important

Reflective Motivation	Needs	Deficit of something required for survival, wellbeing or personal fulfilment
	Self-image	One's conception and evaluation of oneself, including psychological and physical characteristics, qualities and skills
	Perceived susceptibility/vulnerability	Perceptions of the likelihood that one is vulnerable to a threat
	General attitudes/beliefs	Evaluations of an object, person, group, issue or concept on a scale ranging from negative to positive
	Social/professional role and identity	A coherent set of behaviours and displayed personal qualities of an individual in a social or work setting
	Optimism	The confidence that things will happen for the best or that desired goals will be attained
Automatic Motivation	Emotion	A complex reaction pattern involving experiential, behavioural, and physiological elements
	Reinforcement	Processes by which the frequency or probability of a response is increased through a dependent relationship or contingency with a stimulus or circumstance