

'Improving health and wellbeing: a guide to using behavioural science in policy and practice'

Deciding on a target behaviour and target population tool



Authors:

Nicky Knowles, Senior Behavioural Science Specialist, Public Health Wales

Ashley Gould, Programme Director, Behavioural Science Unit, Public Health Wales

Contact details:

Behavioural Science Unit, Policy and International Health, WHO Collaborating Centre on Investment for Health & Well-being
Public Health Wales.

Email: PHW.behaviourchange@wales.nhs.uk

Website: <https://phwwhocc.co.uk/bsu>

Twitter: @BSU_PHW

Behavioural Science Unit:

The Public Health Wales Behavioural Science Unit provides specialist expertise on behavioural science, and enables and supports the application of it, to improve health & wellbeing in Wales. The Unit is part of the World Health Organisation (WHO) Collaborating Centre on Investment in Health and Wellbeing.

For further information, or support around the application of behavioural science to improve and protect health and wellbeing in Wales please get in touch.

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Some aspects of this tool have been previously published, and are owned by others. Their content has been translated, with retention of some of the originally published language and design.

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Purpose of this tool

Applying behavioural science helps to optimise the impact of activities, services, policies, and communications. Developing such interventions that account for, or aim to influence, behaviour involves several steps, as shown in Figure 1; these steps are fully described in [‘Improving health and wellbeing: a guide to using behavioural science in policy and practice’](#).

This quick tool focuses on unpacking the first step ‘Deciding on a target behaviour and target population.’ Identifying, prioritizing, and specifying the behaviour and population to be influenced is important. If we don’t gain a thorough and accurate understanding of the problem, we are less likely to develop interventions that would have the precision and impact to achieve the desired outcomes. Adopting a systematic approach, as described within this tool, helps in challenging our assumptions about the problem at hand and in preventing us from prematurely jumping to solutions before fully understanding the issue. By working through the steps outlined in this tool, we can produce a robust *behavioural specification* to guide the collation of behavioural insights, which is the next step in the process of developing an intervention.

An intervention refers to activities, services, policies, and communications that aim to account for, or influence behaviour.

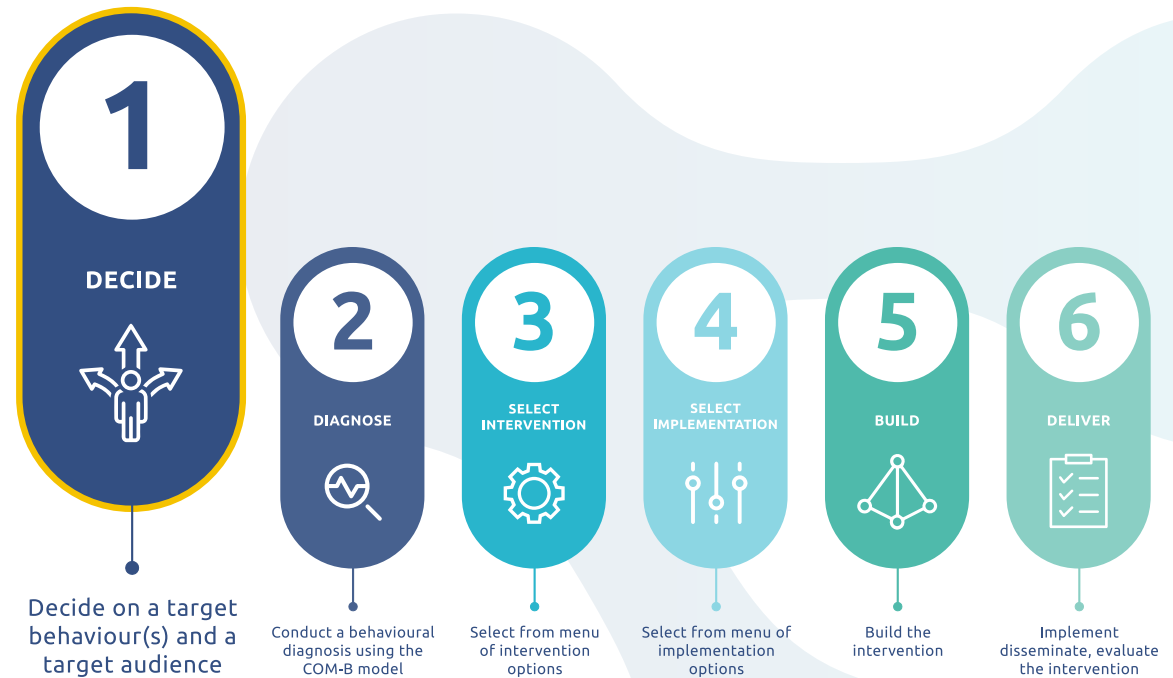


Figure 1. Six steps to developing an intervention

Introduction

The methods described within this tool are intended to be flexible enough to be adapted in response to the time and resources available to you and the project you are undertaking. Throughout this tool we have provided some suggestions as to how you might do this.

Identifying who needs to do what differently to achieve the desired outcome sounds obvious, but it's often easy to make assumptions at this first step and push forward into developing an end-product. The more we understand a behaviour, the better able we are to develop interventions that will be effective in influencing it. The benefits of accurately identifying, prioritising, and specifying the target behaviour and target population include:

- A more accurate understanding of the potential barriers and enablers (in that specific context)
- The development and implementation of interventions more likely to be effective
- Reduced likelihood of unintended negative consequences for both the target audience and those developing and delivering the intervention/policy
- Increased likelihood of achieving the desired impact

When planning to deliver improvement at the population or population-segment level, it remains helpful to understand the specific behaviour at the individual level. This doesn't necessarily mean that the solutions will be solely reliant on individuals' cognitive or psychological processes, they may well require systemic changes in the wider physical and social environment, or to systems and processes. However, a robust definition of the behaviour and the target population ensures a more accurate understanding of factors influencing the behaviour.

This tool therefore provides a step-by-step guide to help you decide on a target behaviour and target population by:

- 1 Ensuring a common understanding of what we mean by a behaviour
- 2 Identifying the range of relevant target behaviour(s) and target population(s);
- 3 Prioritizing a target behaviour and target population/population segment;
- 4 Specifying the behaviour and population in sufficient detail to provide adequate foundation for the next steps in intervention development.

When developing behaviour change interventions, we are often not starting from scratch and may already have a target behaviour, target population, or intervention in mind. Whatever the starting point, it can be helpful to apply these steps, even if retrospectively, as a sense check. For example, if a behaviour has already been identified it may be worth exploring whether there are other relevant behaviours to ensure you target the behaviour and population most likely to contribute to achieving your desired outcome. As Albert Einstein said, "If I had an hour to solve a problem, I'd spend 55 minutes thinking about the problem and 5 minutes thinking about solutions."

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When working through this tool, it is helpful to remember the key principles described in the overarching guide. The first and fourth points are particularly important at this step, wherever possible start with a review of the scientific literature and involve experts in the behaviour of interest [at a level proportionate to time and resources available].

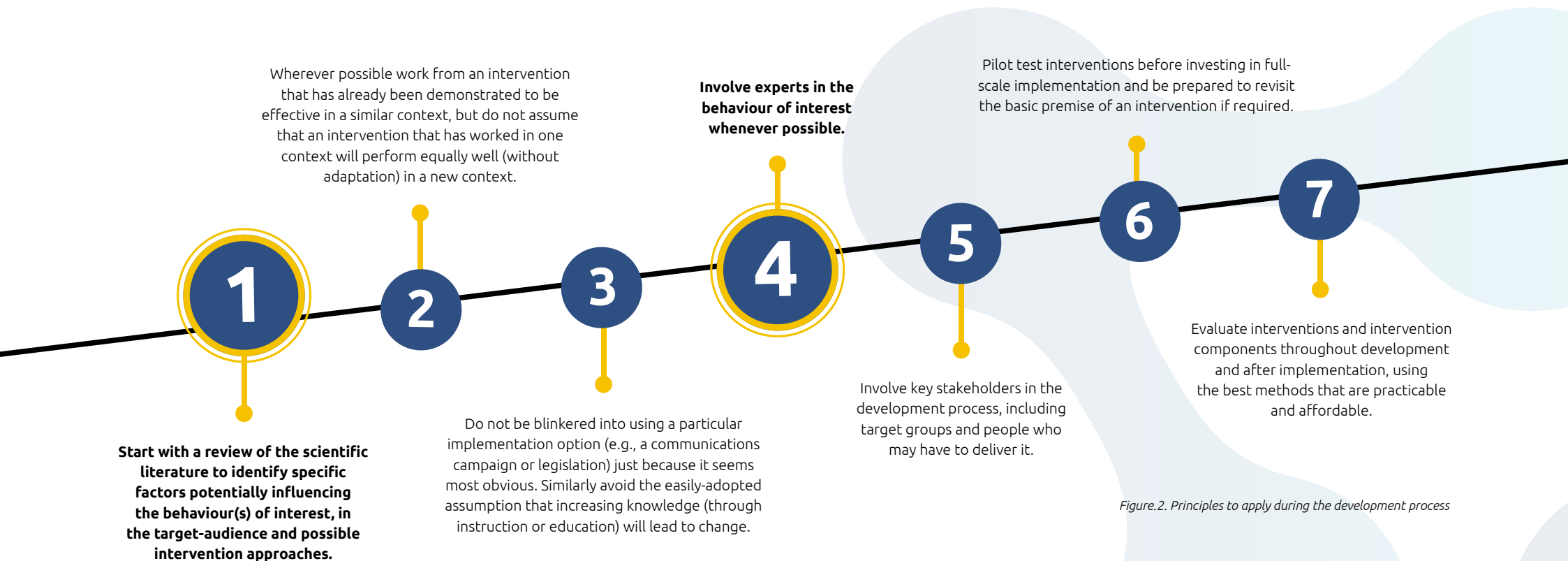


Figure 2. Principles to apply during the development process

1 What is a behaviour?

Before considering behaviours as the focus of public health interventions it is important to ensure a common understanding of what we mean by a behaviour.

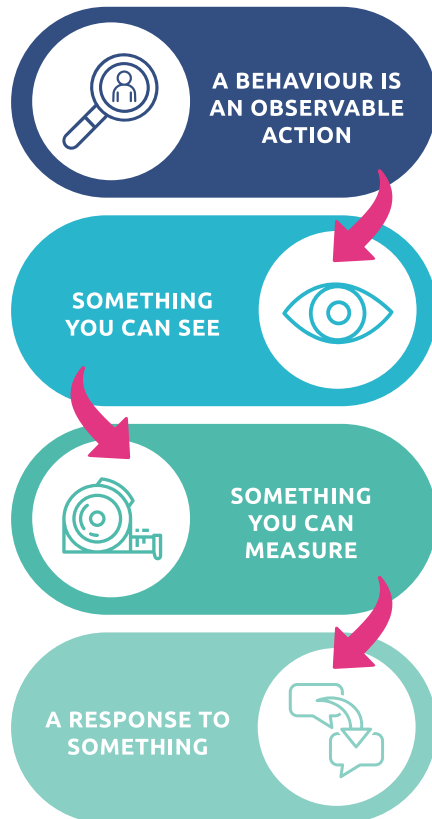


Figure.3. What is a behaviour

Behaviour can be confused with knowledge, awareness, attitudes, emotions, intentions, influences, and outcomes, so it is important to ensure a common understanding of these key terms.

There are many factors that influence behaviour, including but not limited to: attitudes, beliefs, and emotions, self-image and identity, knowledge and skills, intentions, other people, and the physical environment and resources. These factors are **influences**, also called determinants, of behaviour.

An **intention** is something that a person plans to do; intending to do something does not mean that they will actually do it, so intentions are different to behaviours.

Outcomes are the end goal or desired impact that we want to achieve by influencing behaviours.

Influences:

Affordability of electric cars
Walking/cycling infrastructure
Attitudes and beliefs towards climate change
Intention to change

Behaviours that need to change at population level:

- Switch from petrol/diesel fuelled cars to electrically powered public transport
- Installation of heat pumps within domestic dwellings
- Increased walking and cycling rather than travelling by car
- Reduction in consumption of meat
- Reduction in consumption of dairy
- Increased recycling

Desired outcome:

Achieve Net Zero by 2050

Reference: [How to produce net zero, BIT, 2023](#)

2 Identifying the range of relevant target behaviour(s) and target population(s)

It may be that you haven't yet considered a target behaviour/target population, it may appear obvious what behaviour/whose behaviour to focus on, or you may have multiple behaviours/multiple populations to choose from. Whatever the scenario it is worth pausing to consider all relevant behaviours to ensure that the selected behaviour and population are most likely to help in achieving our desired outcome.

There are several methods for identifying behaviours relevant to the problem you are trying to address, the approach taken will be determined by the time and resources available to you as indicated in Figure 4.

Behavioural systems mapping is likely to require advance behavioural science expertise so you may want to consider seeking support from the BSU or commissioning a behavioural science provider to facilitate the mapping.



Figure 4. Scalable approach to identifying relevant behaviours/populations

When identifying target behaviours and target populations, it can be helpful to work backwards from our desired outcome. For example, if our desired outcome is to achieve net zero carbon emission, we can use the above methods to identify individuals/groups/organizations, and their behaviours, contributing to high carbon emissions.

Start by creating a list of all relevant behaviours, along with who performs each of these; try not to exclude or prioritise, include any behaviours/populations that are associated with the desired outcome. It is often best to start with 'end state' behaviours rather than 'process behaviours.' For example, "Install a heat pump" that might follow-on-from "Research the best heat pump", "Go to the shop to buy a heat pump", "Arrange delivery of a heat pump." All of which are observable measurable actions themselves.

Tips:

- Where possible, focus on promoting desirable behaviours rather than reducing undesirable behaviours - what we (ideally) want people **to do** rather than what we want them to **stop doing**
- Ensure the behaviour is an **observable** and **measurable** action

Below is an example of the behaviours contributing to food waste highlighting the necessity to segment/ clearly define our target behaviour and target population, and the importance of taking a considered (helicopter-type) view of behaviours early on:

Table 1. Examples of behaviours/groups contributing to a reduction in food waste

| Desired outcome: Reduce food waste | |
|------------------------------------|---|
| Population group | Behaviour(s) |
| Farmers | <ul style="list-style-type: none"> • Use pesticides within sustainability guidelines • Select misshapen vegetables • Compost harvest waste |
| Processors | <ul style="list-style-type: none"> • Reduce packaging • Utilise reusable/recyclable packaging |
| Importers | <ul style="list-style-type: none"> • Store food appropriately during transportation • Prevent damage to goods during transportation |
| Retailers | <ul style="list-style-type: none"> • Rotate stock • Clearly display expiration information • Discount perishable goods close to expiry |
| Hospitality | <ul style="list-style-type: none"> • Donate unused food • Compost waste |
| Consumers | <ul style="list-style-type: none"> • Store food appropriately • Re-use leftover food |

Reference: [How to produce net zero, BIT, 2023](#)

Your turn...

Thinking about the problem you are trying to address, generate a list of relevant behaviours and the owners of these behaviours (individuals or more preferably groups/organisations) using one of the methods described in Figure 4.



| Desired outcome: | |
|--|---------------------------------------|
| Behaviour (observable measurable action) | Person/group performing the behaviour |
| | |
| | |
| | |
| | |
| | |
| | |
| | |

3 Prioritising a target behaviour and target population

Now we have identified potential target behaviours/target populations, we need to decide which behaviour and population to focus on. It isn't feasible to develop one intervention to influence all these behaviours/populations; it is likely that multiple interventions will need to be delivered by various stakeholders. To optimise the impact of our intervention, we need to prioritise one or two target behaviours and target populations that will likely contribute most to achieving the desired outcome. For example:

Desired outcome/policy objective: Achieve net zero

- What behaviours should we focus on?
Behaviours relating to household energy use, transport, food and agriculture, waste
- What kind of changes should we focus on?
Starting a new behaviour, modifying an existing behaviour, or stopping a behaviour
- Who do we focus on?
Consumers, retailers, policy makers

Reference: Michie S, Atkins L, West R. (2014) *The Behaviour Change Wheel: A Guide to Designing Interventions*. London: Silverback Publishing. www.behaviourchangewheel.com.

Prioritizing a target behaviour and target population

It is best for interventions to focus on one behaviour and one population at a time; once we make progress with the initial behaviour and population we can select more. Although tempting, trying to achieve too much at once can hinder our chances of success and evidence suggests that supporting incremental change is more effective. To help in prioritizing a behaviour and population, it can be helpful to assess and compare those we have identified in the previous step using the below criteria. It is important that this assessment is underpinned by evidence to challenge the assumptions and inbuilt biases we all carry.

1. How much of an impact will changing this behaviour, in the identified population, have on the desired outcome?
2. How likely is it that the behaviour can be changed in the identified population with time and resource you have?
3. How likely is it that the behaviour will have a positive and/or negative impact on other, related behaviours?
4. How easy will it be to measure the behaviour in the identified population?

Different criteria will be more or less important dependant on the problem we are seeking to address. We may also want to consider additional criteria that might be relevant to our project, for example current adoption levels in the target population as it may be better to focus on behaviours where there is currently low uptake. For example, there is no point focusing on recycling to achieve net zero if there are already high levels of recycling within our target population.

The criteria can be scored numerically, for example 1-5 with 1 being low and 5 being high. An assessment of the identified behaviours can be done in several ways, informed by the time and resources available, as suggested in Figure 5:

Having assessed each behaviour, we can then select a target behaviour and target population based on the outcome of the assessment. It is helpful to consider the relationship between other relevant or dependent sub-behaviours when undertaking the assessment as they will need to be taken into account when developing our intervention.

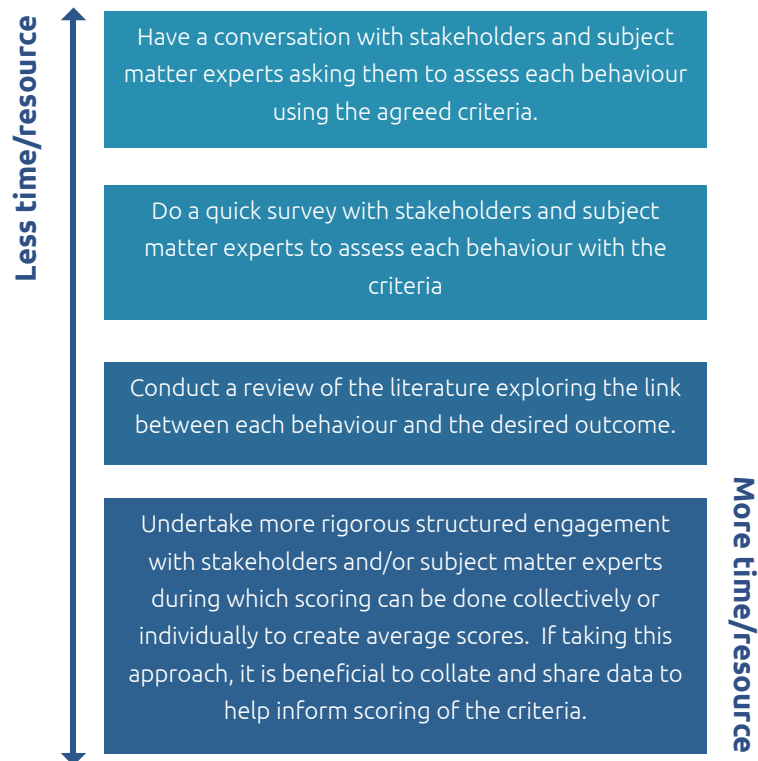


Figure 5. Scalable approach for prioritising a target behaviour and target population



Record your assessment of potential target behaviour and populations here:



| Desired outcome: | | | | | |
|--|---|----------------------------------|---|----------|---------------------------------|
| Potential target behaviour and target population | Impact of behaviour change on desired outcome | Likelihood of changing behaviour | Likelihood of positive/negative impact on other, related behaviours | | Ease of measuring the behaviour |
| | Scoring criteria: | | 1 = Low | 5 = High | |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| Summary of assessment outcome: | | | | | |
| Selected target behaviour and target population: | | | | | |

Segmentation of the target population

Now we have identified a target behaviour and target population, it is important to consider whether we need to further segment our target population. The more specific we can be about the population we are aiming to influence, the more able we are to understand their needs and tailor an intervention to address these. The target population can be segmented based on several factors including:

| | |
|------------------------|--|
| Demographic | Age, sex, ethnicity, socio-economic status, occupation, education |
| Geographic | County, health board area/local government area, postcode, density (urban/rural) |
| Psychographic | Values, lifestyle, personality |
| Epidemiological | Health status, risk factor status |
| Behavioural | Frequency, intensity, regularity (e.g., meat eater/non-meat eater) |

Whether the priority segment of our target population is unclear, obvious, or already prescribed/indicated; it can be helpful to consider the below factors:

- The data available on the target population to inform segmentation
- The total number of people in the target population; the greater the number of people the more likely it is that you need to break it down into smaller segments
- Whether anticipated gains vary within the target population
- Equity and social justice considerations – are there segments of the population who experience health/social inequalities and thus warrant targeted intervention

Your turn...

Record your target population/population segment here:

Target population.....

Segment of the population (if applicable)

Rationale for targeting this segment.....

Reference: Donovan, R. J., Egger, G., & Francas, M. (1999). TARPARE: a method for selecting target audiences for public health interventions. Australian and New Zealand journal of public health, 23(3), 280-284.

4 Specifying a target behaviour and target population

Now we have decided on a target behaviour and target population/population segment, we need to specify the behaviour in as much detail as possible. The more specific we are, the better able we are to understand the behaviour and thus to design interventions most likely to have the desired impact.

Similar behaviours will have different drivers depending on the audience and the context in which they are performed, and it is therefore important to consider and define this within your behavioural specification. Additionally, you may (depending on your selected intervention type) want the target audience to understand exactly what it is they are being asked/enabled/encouraged to do and need a clearly defined behavioural outcome to enable impact to be monitored and measured.

It is also important to consider whether we are seeking to change the behaviour of individuals, groups, or populations so that we can specify the behaviour accordingly. The prompts to the right can help with this.



WHO needs to change/adopt the behaviour?



WHAT does the person/group/population need to do?
What is the behaviour (observable and measurable action) and how does it need to change (start, stop, increase, decrease)



WHEN will they do it?
When do they need to change/adopt the behaviour? And possibly for how long? (Depending on your behaviour of focus)



WHERE will they do it?
Where will they change/adopt the behaviour? (Depending on your behaviour of focus)

Behavioural specification examples:

Meat-eating adult population living in Anglesey will **have two meat free days per week**

Housing providers will **install heat pumps in all new homes developed in Wales from 2024**

Adults living in Cardiff who own a car will **replace short, local car journeys with active travel at least once a week**

Your turn...**Record your behavioural specification here:**

| | |
|--------------|--|
| WHO | |
| WHAT | |
| WHERE | |
| WHEN | |



5 Summary

By working through the steps outlined within this tool, we have developed a robust behavioural specification. This process included:

1. Establishing a common understanding of what we mean by a behaviour
2. Identifying the range of relevant target behaviour(s) and target population(s);
3. Prioritizing a target behaviour and target population/population segment;
4. Specifying the behaviour and population in sufficient detail to provide adequate foundation for the next steps in intervention development.

Now that we have our behavioural specification, we are ready to explore the drivers of the target behaviour by conducting a 'behavioural diagnosis.' The aim of a behavioural diagnosis is to identify what makes it harder (barrier) or easier (facilitator), for your target population to adopt the target behaviour. This is the next step in the process and is described in more detail in the 'Collating Behavioural Insights' tool.

We are really interested to hear about your experience of applying behavioural science – in the spirit of all share – all learn, so please do share your quick reflections on using this tool with us via :

PHW.behaviourchange@wales.nhs.uk

References

1. Australia, BehaviourWorks; Kneebone, Sarah; Boulet, Mark; Jungbluth, Lena; Downes, Jenni; Klemm, Celine (2021): Chapter 5: Getting ready to Deep Dive - Defining, identifying and prioritising behaviours. Monash University. Chapter. <https://doi.org/10.26180/14515794.v1>.
2. Donovan, R. J., Egger, G., & Francas, M. (1999). TARPARE: a method for selecting target audiences for public health interventions. *Australian and New Zealand journal of public health*, 23(3), 280-284.
3. Michie S, Atkins L, West R. (2014) *The Behaviour Change Wheel: A Guide to Designing Interventions*. London: Silverback Publishing. www.behaviourchangewheel.com

Additional resources

- [BSU repository](#)

Access all the resources you need from our repository page; curated by us, applied behavioural science resources from across the globe, including our own.

