Using the *Integrated Model of Behaviour* to improve health and wellbeing

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Executive summary

Changing behaviour is central to the challenge of improving health and wellbeing outcomes. Across government, from public health and employment to criminal justice, environment, and transport, policy success depends on influencing how people act in real-world contexts.

While behavioural science is now well established in policymaking, many interventions continue to underperform. A key reason is that behaviour is often approached through isolated lenses—psychological motivation, economic incentives, or behavioural "nudges"—rather than through a holistic understanding of how behaviours actually arise and persist.

This guide introduces ICF's **Integrated Model of Behaviour**, a comprehensive framework designed to address this gap. The model brings together established theories from psychology, behavioural economics, and economics into a single, coherent structure that reflects how behaviour unfolds in practice. Rather than competing disciplinary perspectives, the Integrated Model of Behaviour offers policymakers a unified way to diagnose behavioural problems and design more effective interventions.

At the heart of the model is the idea that behaviour is the outcome of a **behavioural pathway** comprising several interrelated stages:

- **Motivation** – why someone wants (or does not want) to act, shaped by needs, values, identity, habits, perceived capability, and opportunity.
- **Choice** – how individuals allocate limited resources (such as time and money) across competing behaviours they are motivated to do, influenced by costs, benefits, risk, and timing.
- **Execution** – the practical ability to translate intentions into action, determined by actual capability and opportunity.
- **Outcomes and feedback** – how the experience and perceived impact of behaviour influence future motivation and decisions.

All of these stages operate within an options space: the set of behaviours a person perceives as available to them, which may differ significantly from what is objectively possible.

The guide sets out practical tools to support policy design and delivery, including the Integrated Behaviour Change Wheel, which maps intervention types to specific elements of the behavioural pathway. Overall, the Integrated Model of Behaviour offers policymakers a practical, evidence-informed framework for understanding behaviour in the round. By moving beyond fragmented approaches, it enables a systematic diagnosis of behavioural problems and supports the design of interventions that are more likely to deliver meaningful, sustained improvements in health and wellbeing.

Chapter 1: Why behaviour matters

Understanding behaviour and behaviour change has been a central concern of philosophers, psychologists, economists, and scholars across a wide range of other academic disciplines for many years.

It is also at the heart of much government policy. As Table 1 illustrates, behavioural challenges are central to the mission of some of the biggest government departments. Examples include the Department of Health and Social Care's mission to tackle obesity to the Home Office and Ministry of Justice's work to reduce crime and recidivism.

Table 1: Key behavioural challenges in government

Department	Key behaviour change challenges
Department of Health and Social Care	• Reducing unhealthily eating, smoking, drinking • Increasing exercise, balanced diet, behaviours that improve mental health
Department of Work and Pensions	• Increasing lifelong learning/upskilling • Getting long-term unemployed back to work • Increasing retirement saving
Department for Education	• Reducing absenteeism • Increasing parental support • Reducing abuse and neglect of children
Department for Leveling Up, Housing and Communities	• Increasing positive, prosocial behaviours in deprived communities
Department for Transport	• Reducing car use • Increasing public transport use
Home Office and Ministry of Justice	• Reducing criminal and antisocial behaviour • Reducing recidivism
Defra	• Reducing activities that harm the environment • Increasing activities that support the environment

Viewing these problems with an explicit 'behaviour change' lens rather than a policy-specific one is more recent, however. One driver of this change has been the creation of specialised teams within Government focusing on behaviour change. These include the Behavioural Insights Team (widely known as the 'Nudge Unit') created by the then Prime Minister David Cameron in 2010, and originally led by Cambridge psychologist David Halpern (Rutter, 2020).

That the Government Social Research profession strategy document describes its purpose as providing 'social and *behavioural* research and advice' (GSR, 2021) (italics added), is further evidence that thinking behaviourally rather than just in terms of social research is firmly on the agenda.

Why are existing approaches to behaviour change failing?

Despite the increased interest in behaviour change, it remains stubbornly difficult to change entrenched behaviours. These behaviours could be anything from poor dietary choices to lack of exercise and car use. There are many examples of well-funded, well-thought-out interventions and policies that seem to have had minimal or no impact. This indicates that despite the evidence that has been amassed about behaviour change, we're still a long way from a comprehensive understanding of how to effectively influence people's actions.

One reason for that may be that existing approaches to behaviour change have fallen foul of siloed thinking. Behaviour change experts tend to come from particular disciplines and bring a particular set of tools to a problem. As a consequence, their approach has been 'how can the tools I know about address this problem?' Not, 'what are the most effective tools to address this issue?'

The Integrated Model of Behaviour, described in this guide, aims to help address this problem.

Chapter 2: The Integrated Model of Behaviour

What is the Integrated Model of Behaviour?

The Integrated Model of Behaviour is a holistic approach to understanding behaviour.

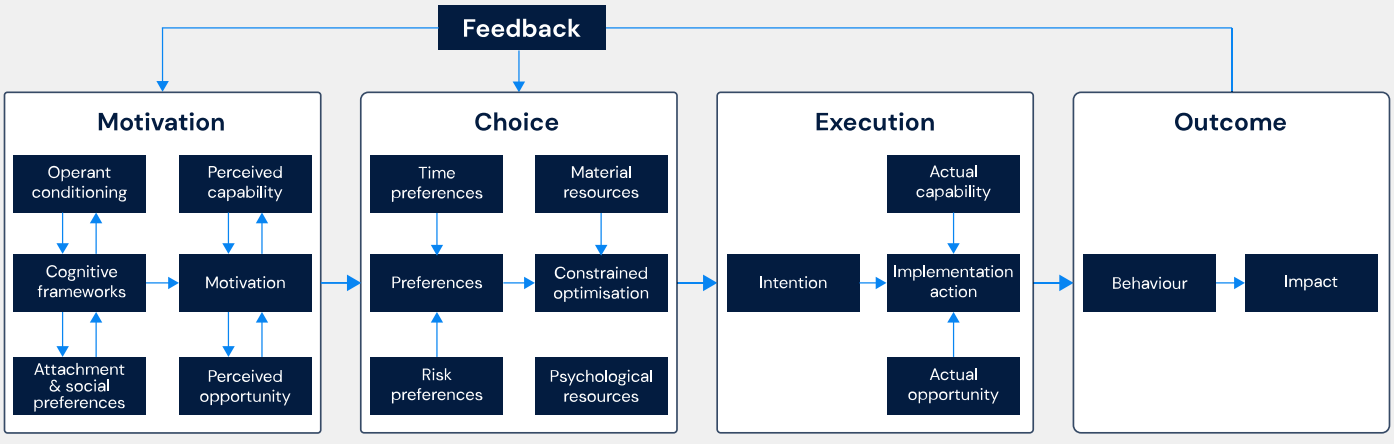
It brings together existing theories and models from psychology and economics and **extends them** to cover important aspects of behaviour and behaviour change. Often, these are not a focus within many well-known frameworks.

It is a 'stage model' that conceives of behaviour as the outcome of a series of consecutive stages (elements). It incorporates feedback mechanisms to reflect the fact that many behaviours are not one-off choices, but instead are part of repeated patterns (or are intended to be).

What are the key elements of behaviour change, according to the model?

The central elements are: **motivation, choice, execution,** and **outcomes**. There is feedback from both the execution and outcome elements back into the choice and motivation elements. Finally, the whole process is seen as being contained with an **'option space'**. The model is set out in Figure 1 below.

Figure 1: The Integrated Model of Behaviour



The following sections discuss each element of the model in turn. We will use the behaviour 'taking more exercise' as an illustration, to demonstrate how each of the elements would be applied to a particular behaviour.

Motivation

Motivation is the core driving force for people to carry out a behaviour. Within the integrated model, the analysis of motivation draws on the COM-B model (Michie, van Stralen and West, 2011) in terms of helping organise the factors that influence it. Also following COM-B, feeding into the model are core psychological theories or sets of theory that provide insight into how human behaviour is influenced.

Psychodynamic theories

The first core sets of theories are psychodynamic theories. These originated with figures such as Sigmund Freud and Carl Jung and argue that unconscious thoughts and drives dictate much of people's behaviour. Early childhood experiences are a particularly important influence. Though many of the theories of Freud and Jung have not received empirical confirmation, modern theories in this tradition have, for example attachment theory (Cassidy, Jones and Shaver, 2013). Attachment theory describes how an 'internal working model' that develops during childhood can influence people's relationships and important aspects of their behaviour. Attachment theory is very well evidenced and widely used by psychologists, therapists, and children's social care services among other professions.

Behaviouralism

Diametrically opposed to the psychodynamic perspective is behaviouralism, which states that human behaviour is wholly or primarily influenced by external rewards and punishments (stimuli) rather than internal unconscious dynamics. These stimuli affect behaviour through a process known as operant conditioning (Staddon and Cerutti, 2003), which makes very specific predictions about how behaviour responds to different types of stimuli.

For example, it predicts that rewards given randomly can be as or more influential than consistent, regular rewards. For anyone who has studied problem gambling behaviour, this is an insight that seems to reflect the real world very accurately. The theory also predicts that once a behaviour is established, it will continue for some time, even when the stimulus is removed, something that links with the everyday notion of habit. Although behaviouralism provides very useful insights about human behaviour, its claim that behaviour is primarily or only influenced by rewards and punishments is now seen as fundamentally flawed.

Social learning theory

The introduction of cognition

Social learning theory (Bandura, 1977) provided a bridge between behaviouralism and models that included and focused on the **cognition** that is involved in behaviour. This theory allowed for observation to be part of the story, unlike **operant conditioning theory**, which focused exclusively on the direct effect of a stimulus on the individual.

This meant that an individual could develop a conditioned response, not by experiencing a stimulus themselves but by observing its effect on others. The classic example of how this works was the evidence that children who observed violence on television or by peers adopt aggressive styles of behaviour. However, unlike other cognitive approaches, the learning can still be implicit or not fully conscious, despite involving cognitive processes such as attention and retention.

Cognitive frameworks

The cognitive tradition, in contrast to behaviouralism, focuses on how internal, mental processes influence the understanding and interpretation of stimuli and affect behavioural responses. Cognitive frameworks (Hogg and Vaughan, 2020) (internal 'structures' or 'scripts' that guide people's thinking and behaviour) are seen as helping explain what people are motivated to do and how those motivations might be influenced. These cognitive frameworks can include things such as attitudes, beliefs, and values that relate to people, objects and behaviours. Though they are likely to be consciously accessible – i.e., if you ask someone about them, they can probably talk about them relatively easily – they are not necessarily accessed in a reflective or thoughtful way. In other words, someone might respond in a way that is informed by their attitudes or underlying values, but they do it almost instantly in a way that might feel 'instinctual'. However, these cognitive structures are not instincts but instead derived from process such as socialisation and cultural norms.

The importance of identity

Identity is one of the most important topics in the cognitive tradition and hugely influential on behaviour. A simple definition of an identity is the internal set of information about the self that enables one to answer the question 'who are you?'.

However, identity is a subtle concept that has profound implications for understanding behaviour. This is particularly the case for behaviour that can't be explained by simply looking at the immediate material costs and benefits of that behaviour for an individual. One important aspect of identity is social identity (Ellemers & Haslam, 2012), referring to the important groups that someone feels they are part of. Social identity affects many aspects of life and people's behaviour, for example often influencing who people would consider marrying, for some their choice of job, the sports team they support and behaviours like aggression and violence, with gang violence being driven by group identity.

At a more individual level, self-discrepancy theory (Higgins, 1987) argues that people have at least two concepts of themselves, their actual self, the qualities and characteristics they perceive they currently have, and their ideal self, the qualities and characteristics they perceive would like to have. A discrepancy between the two is felt as disturbing or even painful and drives people to do things such as buy in an aspirational way – for example, expensive watches, jewelery, or cars, which are associated with the identity they wish to have.

Evolution and neurobiology as drivers of needs

In one way or another, underlying all the theories discussed in this section are those stemming from evolution and neurobiology (Sapolsky, 2017). These focus on the origins of our deep-seated desires (such as the need for safety and security) and describe how they are processed within the brain. A well-known approach to describing people's core needs and their relative importance is a framework known as Maslow's Hierarchy of Needs (Maslow, 1943). This hierarchy has basic needs such as food at the bottom of a pyramid, and progresses through safety, belonging and esteem until it reaches the top and the most complex need, which is 'self-actualisation'. Within this framework, it is assumed that people need to meet their basic needs (at the bottom of the pyramid) before trying to meet their more complex needs.

Intrinsic vs. extrinsic motivation

There are many other perspectives on motivation, which remains one of the most complex and fascinating topics within behavioural science. One that is worth noting is the distinction made between intrinsic and extrinsic motivation (CSDT, 2025). Within this perspective, motivation that reflects core, personal beliefs is seen as more powerful and often persists longer than motivation that is primarily responding to external pressures or influences.

The COM-B model

COM-B also highlights two aspects of the environment that are seen as influencing motivation: capability and opportunity.

1. **Capability** is defined as 'the individual's psychological and physical capacity to engage in the activity concerned' and includes things such as an individual's knowledge and skills to undertake the behaviour.
2. **Opportunity**, in contrast, is defined as 'all the factors that lie outside the individual that make the behaviour possible or prompt it'. In reality, it can sometimes be difficult to decide if a particular factor falls under capability or opportunity, but it's normally clear whether it's one of the two rather than underlying motivation.

How the Integrated Model of Behaviour approaches motivation

A subtle difference between COM-B and the Integrated Model of Behaviour is that at this stage, the Integrated Model includes these factors as 'perceived capability' and 'perceived opportunity', to recognise the fact that someone's evaluation of their own skills and knowledge and of the opportunities available to them may not reflect the reality (both positively and negatively).

In practice

It's clear that people are motivated to take more exercise for a range of reasons, including:

1. Wanting to get fitter or to lose weight for health reasons (**reflective motivation**)
2. Feel stronger or the opportunity to socialise (reflecting **evolutionary drives and the needs** in Maslow's hierarchy)
3. And/or because of the expectations of friends and family or their own identity (reflecting attitudes, values and related **cognitive frameworks**).
4. Their motivation will also be influenced by their perceived **capability** (will they know what to do in the gym and can they find their way there?) and their perceived **opportunity** (is there a gym close enough and will they have enough time to go?).

Choice

A crucial way in which the Integrated Model of Behaviour extends existing approaches is that **it combines psychological behaviour change models** (which primarily focus on motivation) with economic ones, which focus on **choice**.

How is choice analysed?

Choice is analysed within a framework known as **constrained optimisation**. Constrained optimisation (Friberg, 2025) is quite a complex, mathematical model, which is described in Box 3. At its heart, it says that you choose a mix of goods, services, and behaviours that bring you the highest satisfaction given the constraints on your resources, such as limited time or money. It also indicates that in general, people prefer a mix of things rather than all of one thing and none of the other.

The model is built on relatively simple concepts but results in profound insights into behaviour. When one reflects on it, it becomes obvious that almost every single one of the thousands of decisions we make every day is the result of a constrained optimisation process in one way or another. These range from the largest decisions, such as our choice of partner, job or where we live, to tiny ones about what kind of snack we're going to buy or how we're going to travel somewhere. All these decisions involve choices, and all are constrained in some way or other.

Constrained optimisation allows for a very clear analysis of the difference between interventions that aim to work through affecting choices (such as taxes and subsidies) and those that aim to work through affecting motivation or preferences (such as many health campaigns). It also implies that to try and change someone's behaviour, it is not sufficient to only look at their motivation regarding the targeted behaviour, but instead it is important to look at other behaviours that are competing for their time and attention, the costs of undertaking the behaviours, and the total resources at their disposal. What they will decide to do will be the result of the interaction between all those elements.

Constrained optimisation

Constrained optimisation rests on two central assumptions:

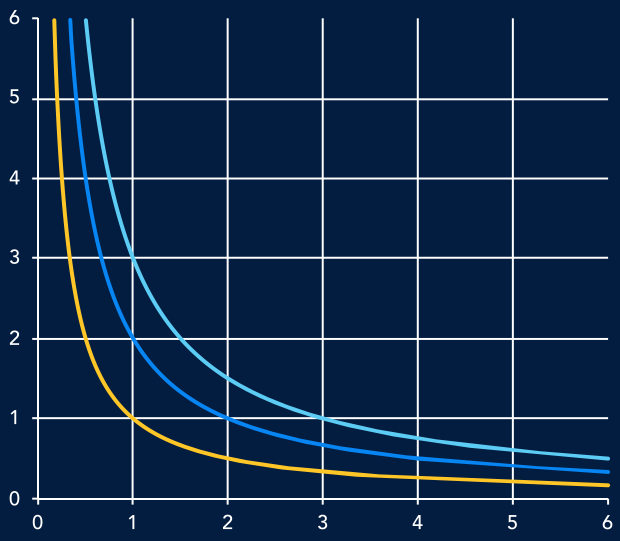
1. That people have limited resources in terms of money (and time and effort). This is where the 'constrained' in 'constrained optimisation' comes from. One can't consume as much as one wants because of limits on the available resources, and so people select the combination of goods or activities that optimises their 'utility' (happiness/pleasure).
2. That the benefit one gets from any one good or behaviour doesn't have a linear relationship with the amount of the good, i.e., the fourth slice of pizza isn't as enjoyable the first. This is known as diminishing marginal utility.

When considering how two goods are traded off against each other, economists often use a 'Cobb-Douglas' function to create indifference curves. The Cobb-Douglas function states that utility (U) is equal to the amount of the first good, y (raised to a power), times the amount of a second good, x (also raised to a power). The rule is that the sum of the powers has to equal 1; if y was raised to the power of 0.5, then x would need to be raised to the power of 0.5.

$$U = y^{0.5}\, x^{0.5}$$

Graphically, this translates into 'indifference curves.' See Figure 2, below.

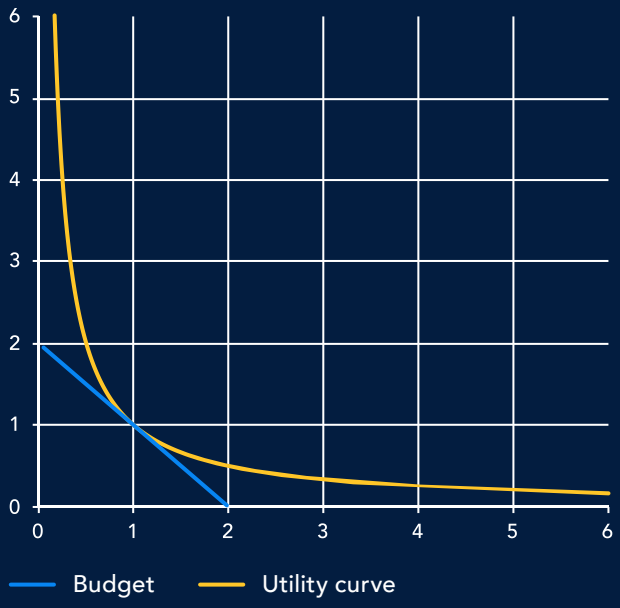
Figure 2: Indifference curves



Indifference curves are shaped the way they are because two apples and two bananas might give you as much utility as five apples and one banana (the consequence of diminishing marginal utilities).

The second element that is needed for constrained optimisation is the constraint, which is conceptualised as a 'budget' line. It assumes the person has a certain amount of resources (e.g., money or time) (K), and that these are used up by buying a quantity of y at price p1 and a quantity of x at a price of p2. These are expressed as 'prices' but could equally be the amount of time taken to do y and the amount of time taken to do x, with the 'budget' being the total amount of time available.

Figure 3: Constrained optimisation



The point where the budget line and an indifference curve just meet is the point of 'constrained optimisation', i.e., the combination of goods that produces the highest utility given the budget available.

The challenges of using constrained optimisation

One of the barriers to using constrained optimisation to analyse choice to those outside of economics is that it has been associated with 'rational choice theory'. Many people feel that human behaviour isn't often or even mostly rational. This is unfortunate, because rational choice theory and constrained optimisation are two of the most powerful and accurate predictors of behaviour available to social scientists and policymakers.

That challenge is also founded on a misunderstanding. The term 'rational' in rational choice theory does not have the same meaning as it does in everyday usage. For example, buying a car because it looks good rather than its fuel efficiency or safety record might be described as 'irrational' in everyday language. Similarly, spending money to buy a football season ticket if you are finding it hard to afford the daily necessities might be described as 'irrational'. However, they would not be seen as irrational within rational choice theory. The rational, in rational choice theory, is much closer to the term 'consistent'.

The price of a car is based on how desirable it is, which will reflect objective considerations, such as fuel efficiency, but also emotional ones such as affiliation with the brand or its design. The buyer's behaviour would only become irrational if they suddenly and arbitrarily changed their mind about how much value they placed on a car's style. This does of course happen in real life, but people do show a lot of consistency in their choices, often to the point that they become habits. This means that the simplifying assumption of rationality (consistency) is realistic, and it allows a very sophisticated mathematical model of behaviour (constrained optimisation) to be created that is unnervingly accurate.

Social ciences can help explain why people have certain preferences and why they are motivated to do certain things. Economics largely takes this as its starting point for analysis (i.e., given existing preferences, what choices do people make with different resources available). But in behaviour change, sometimes trying to change motivations is more important and more effective than changing choices. For example, reducing someone's motivation to commit a crime is likely to be much more effective in the long term than trying to affect their choice through punishment.

Heuristics and cognitive biases

Heuristics

One of the simplifying assumptions of rational choice theory is that people carefully weigh up all the information they have before making a choice. In reality, people use cognitive shortcuts known as heuristics that help them to make decisions more quickly and with less effort (and in some circumstances, making a quick decision is more important than making the optimum one, such as when being chased by a lion or some other emergency). Quick decisions are not necessarily inaccurate, but they may be imprecise.

For example, one could use the rule of thumb that all journeys in London take about an hour. In reality, the time journeys take might vary quite a lot, but the estimate wouldn't be inaccurate if on average they did take about an hour. Sometimes, however, our estimates or rules of thumb are biased; in other words, they consistently under- or overestimate the likelihood of something (Bruckmaier et al., 2021).

Cognitive bias

One of the most interesting kinds of bias is known as motivated reasoning (Kunda, 1990). This is when the desire for a particular outcome influences your estimate of its likelihood. We all know people who are always late, and one explanation for this is that they want journeys to take a short time. So, they consistently underestimate how long it is going to take. They don't deliberately set out late, but their desire for a certain outcome leads them to make unrealistic assumptions, which on average turn out not to be met. A related issue is confirmation bias (Nickerson, 1998), which is when the interpretation of new information is overly influenced by existing beliefs. Thus, someone who is often late can explain away the fact by thinking that the reason was because of exceptionally bad traffic or some other 'unusual' event, but on the rare occasions they are right, they interpret this as the 'normal' situation.

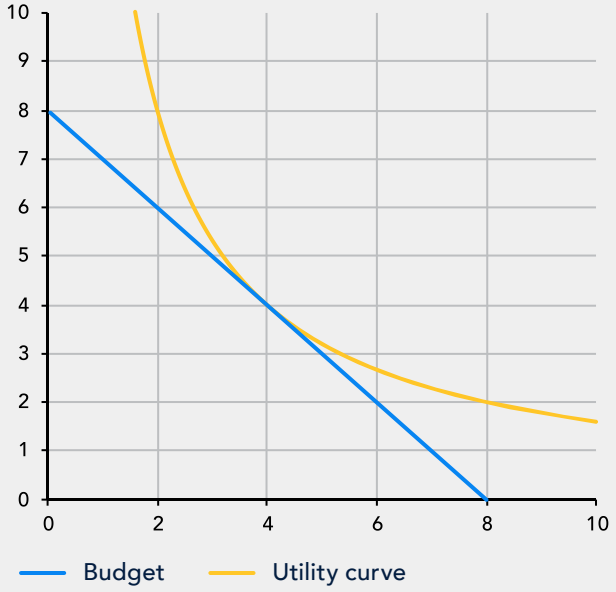
In practice

To illustrate, let's look this time at how **constrained optimisation** can be applied to analysing the process of choosing how much exercise to do. It's useful to start with three simplifying assumptions:

1. That there are two ways to look after one's health: taking exercise and cooking healthy meals
2. That someone has a total of eight hours per week that they can divide between the two activities
3. That someone can only do one or the other (exercise or cook a healthy meal) in each hour.

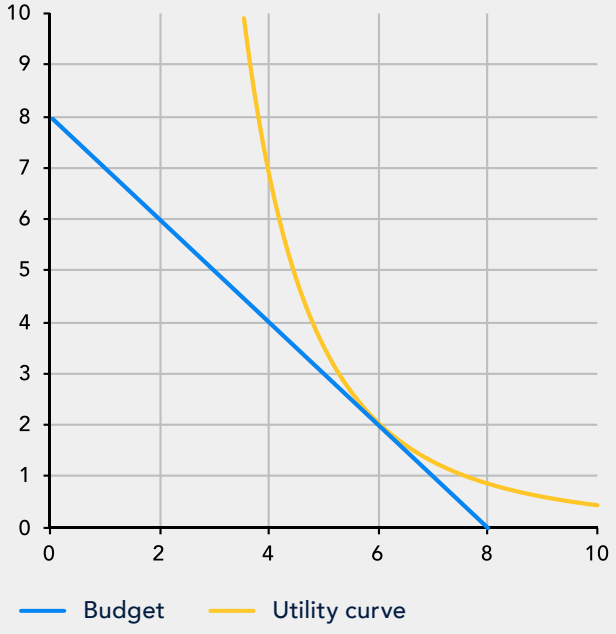
If someone is equally motivated to both take more exercise and to eat healthily (in the language of constrained optimisation, has an equal 'preference' for both), their utility curve will be symmetrical. Their choice of how much time to devote to each activity will be determined by where their budget line (in this case their time) is tangent to the utility curve furthest from the x-y axis (see Figure 4 below). Unsurprisingly, the result is that they spend an equal time doing both, i.e., four hours going to the gym and four hours cooking healthy meals.

Figure 4: Someone's choice if they are equally motivated to go to the gym and cook healthy meals



Now, imagine they are more motivated to cook healthy meals than go to the gym. This would mean their utility curve is no longer symmetrical. Where the motivation to go to the gym is on the y axis and their motivation for cooking healthy meals on the x axis, it means the curve is shifted over to the right. The result, given the same budget, is that they will divide their time differently. With the numbers chosen, it means they will spend six hours cooking healthy food and only two hours in the gym (see Figure 5 below).

Figure 5: Someone's choice if they are more motivated to cook than go to the gym'



It is important to notice that even when they are more motivated to cook healthy meals than go to the gym, they still use some of their time to go to the gym – they don't choose to spend it all cooking healthy meals. This is the result of a diminishing marginal utility–i.e., a mix of activities is almost always better than doing only one activity, even if you prefer one activity to another if you had to make a straight choice. This kind of analysis is not possible without using a framework such as constrained optimisation.

The advantages of constrained optimisation over other approaches to analysing choice

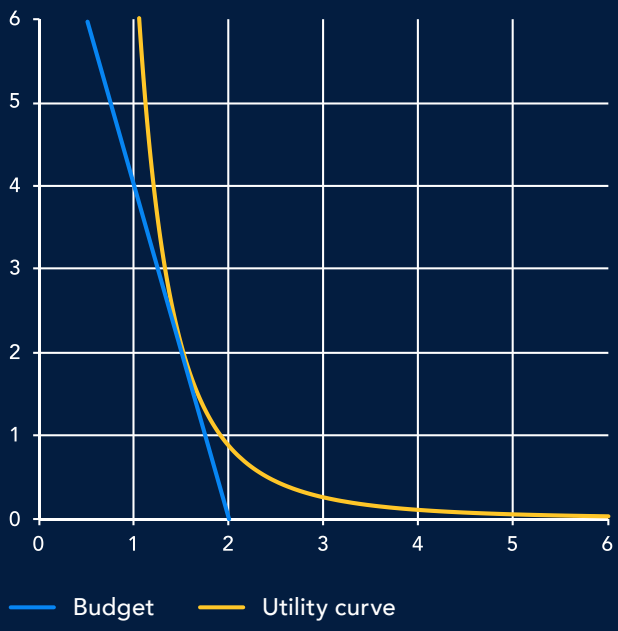
Constrained optimisation – the approach to analysing choice used within the Integrated Model – contrasts with that used or implied by many psychologically-based approaches to understanding behaviour.

These tend to adopt a 'seesaw' model. In other words, they assume that an individual weighs up how motivated they are to do one of two behaviours and then simply does the one they are more motivated to do. The difficulty with this is that it assumes there are only two choices and that the two choices are mutually exclusive. In reality, people often have more than two choices and they are able to choose more than one: it isn't an 'either-or' decision. In addition, the seesaw model does not consider the cost of different options, nor the resources available to someone to undertake the activities.

In practice

A good illustration of the advantages of the constrained optimisation approach is trying to understand why someone might do less of something that they seem to be more motivated to do than other activities. This can be illustrated by continuing with the example discussed above, where someone is more motivated to cook healthy meals than go to the gym. If the budget line is changed – for example if cooking a meal takes four times as long as going to the gym – then constrained optimisation predicts that someone with the same motivation will make a very different choice. Based on the numbers chosen for this example, they now spend more time going to the gym than cooking a healthy meal (see Figure 6). This is despite being much more motivated (all things being equal) to cook a healthy meal compared with going to the gym. The resources required to cook now mean that an individual gets more overall utility by spending more time going to the gym than cooking.

Figure 6: Someone's choice when it takes a lot longer to cook a meal than go to the gym



Time and chance

The analysis described above can be made even more powerful by considering two other factors that influence behaviour in the real world.

The impact of time on decision-making

The first is the impact of **time** on people's decisions, because costs and benefits do not always happen instantaneously. The influence of time is modelled by a process called '**delay discounting**' (da Matta, Gonçalves & Bizarro, 2012). This model says that the further away in time a reward or cost is, the less value we will place on it in the present time. For example, most people will prefer to be given £10 now rather than wait a year and be given £15 – the future amount has been 'discounted' in the present. Evidence indicates that different people apply different 'discount rates'. In other words, they vary in how much they prefer rewards in the present compared with waiting. People who are impulsive tend to have large discount rates, whereas those who seem to be more self-controlled tend to have much lower discount rates.

The impact of likelihood and chance on decision-making

The second important factor that is important to consider in the real world is the **likelihood** of an event occurring. Often, rewards or costs are uncertain and so people have to guess how likely they are to occur. A reward that seems almost certain is generally more attractive than one that is of equal value but much less likely. However, people differ in terms of their appetite for risk (J. Singh, 2014). Many people are 'risk averse', which means they prefer a smaller, certain reward over risking a choice that could give them a large or small reward (but, on average, provides the same reward). 'Risk loving' people are the opposite. They prefer the chance of a large reward even if, on average, a gamble nets them a lower amount. Finally, those in between who value the choices equally, are described as 'risk neutral'.

These factors, **delay discounting**, **likelihood**, and **attitudes to risk**, are relatively easy to incorporate within a **constrained optimisation framework**. This is done by adjusting the value of rewards and costs used, to reflect the perspective of someone making at decision at a particular point in time.

In practice

In terms of our practical example of exercise, someone's decision might be affected if they have to pay a gym membership up front (an immediate cost) but they're not sure how often they will use it (i.e., the benefit is in the future and is uncertain). This means that the cost of gym membership is magnified compared with its benefit, undermining their motivation and potentially meaning they decide not to join up. Gym owners are very aware of this principle, which is why a recurring gym membership will almost always be cheaper for a regular user, to help reduce the cost associated with uncertainty.

Execution

Also contained within the Integrated Model of Behaviour is the **execution stage**, which **incorporates those things one needs to do in order to carry out a behaviour**.

Sometimes this might be as simple as picking up and eating the apple in front of you. In other cases it might be more complicated – for example, if you have to drive to a shop to buy the apple before eating it. Simple or complex, these actions will be influenced by an individual's **actual capability** and their **actual opportunity** (as opposed to the perceived versions that influence them during the motivation stage).

Although **behavioural economics** (Samson, 2014) and **nudges** (Thaler & Sunstein, 2009) are traditional conceptualised as influencing choice, they can also be seen as affecting the myriad of micro-decisions people make when implementing their choice.

The EAST framework

The EAST framework (The Behavioural Insights Team, 2014) was developed as way of encapsulating some of the most important ways in which policymakers can 'nudge' behaviour. The framework has four principles, which advise that nudges should make a behaviour:

1. **Easy** – People often go with what is first presented (the default), and can be put off change by even relatively small amounts of friction. They are reluctant to spend time on complicated messages, meaning that simple communication is often more effective.
2. **Attractive** – A central tool of advertisers and product developers, making something visually or physically attractive can have a dramatic effect on behaviour. The marketing success of the early iMac computers is often ascribed to the fact that they were available in a range of attractive colours, as much as their functional capability.
3. **Social** – Humans are influenced by others, especially those in their own social group. Providing opportunities for a behaviour to include a social element can increase the chance of behaviour change. Extensions of this effect – using social norms (Dannals and Li, 2024) – work too, for example telling people that many people also do a behaviour (descriptive social norms) or that most people consider it something one ought to do (prescriptive norms).
4. **Timely** – As discussed above, the timing of a behaviour and its rewards and costs can be very important. In addition, other aspects of time can influence behaviour change. For example, people may be more receptive to information at particular times when it feels more salient, and less receptive at other times–perhaps when they feel overwhelmed with information.

In practice

We can illustrate the execution phase by returning to the practical example of wanting to take more exercise. If someone does choose to do more exercise, they will have to decide how and where to do it. For example, they may choose to go to the gym. However, their execution of this choice will be affected by how easy it is to get to the gym, whether they can find it, whether the gym is open, and then whether they can use the equipment. In other words, it will be affected by their actual **capabilities** and the actual **opportunities** they have to put their good intentions into practice. As noted earlier, their actual capabilities and opportunities may be different to the ones that they perceive. For example, the gym they intended to use may have closed and the next nearest gym is much further away, which would change their opportunity to go to the gym.

Hyperbolic discounting

The traditional way to analyse the effect of time within rational choice theory is to use the **delay discounting model** (described in the 'Time and chance' section above). However, one of the most fascinating insights from behavioural economics is what is known as '**hyperbolic discounting**' (Lee, 2025). This is a way of formally modelling a phenomenon with which we're all familiar. This effect happens alongside delay discounting, but is more immediate. Here's the difference:

- **Delay discounting** says that any reward or cost in the future is worth less when considered in the present and the further away it is, the less it's worth.
- In contrast, **hyperbolic discounting** is just focused on today versus tomorrow – a cost or reward tomorrow is worth much less than the same amount today.

A practical example of the phenomenon is deciding that to not to eat desert at a restaurant the following week but at the time finding it too hard to resist and having the chocolate gateau. At the restaurant, when actually faced with the reality of not having the gateau, the inclination is to say you'll start the diet tomorrow. Interestingly, people are often aware of this issue and so employ 'commitment devices' (Casaburi and Macchiavello, 2019). This means deliberately limiting your future choices so that you don't have the option of making bad ones. It might be as simple as telling your partner in advance you won't have dessert (thereby increasing the social pressure not to change your mind), or choosing to avoid a restaurant that serves a dessert you particularly like and therefore find particularly hard to resist.

Outcomes and feedback

There are two parts to the outcome of any behaviour.

1. The first is the **experience** of the behaviour itself, what it feels like to do it physically and emotionally.
2. The second is the **impact** of the behaviour.

Behaviour is primarily goal-directed (and the goal is often a key element of people's motivation). This means that **it is not the behaviour itself that is ultimately of interest** but the **result** of the behaviour.

Both these aspects of the outcome – how people felt about doing it and their perception of the behaviour's impact – can feedback into choices and ultimately motivation, reducing or increasing the likelihood that someone will repeat the behaviour.

Attribution error and overdetermination

An important influence on how we interpret the outcome of our own and other people's behaviour is by thinking about what caused it—**attribution**.

Attribution error (Andrews, 2001) describes how people tend to assume their own failure is exceptional and caused by issues other than their own abilities. At the same time, they ascribe other people's failure to their abilities and consider them typical rather than exceptional. There is evidence to suggest that this orientation (if not taken too far) is psychologically healthy, as people who are too accurate in their self-assessments can end up being depressed.

A related phenomenon is the tendency to interpret events that involve chance as more determined than they are after the result is known, the sense that 'it was always going to end up that way'.

For example, if you were given an opportunity to bet on a fair dice and the choice of winning if a 1 or 2 came up or a 3, 4, 5 or 6, it would always make sense to select the first option. If in fact a 1 or 2 came up, then you wouldn't have made the wrong choice even though the outcome wasn't successful.

Unlike betting on dice, lots of events in the real world involve elements of skill without judgement and elements of chance, from sport to managing the economy. And across all those things, in assessing the outcome people have a tendency to retrospectively overly emphasize the importance of skill and judgement and underemphasize the role of chance once the outcome is known. This can have implications for their future behaviour, if the assessment feeds back into their motivation and choices.

In practice

We can illustrate the role of outcomes and feedback by returning to the practical example of getting more exercise.

The experience of exercising at the gym will be **physical** (getting hot, out-of-breath, sweating) and **psychological** (feeling good because you're exercising, feeling that you look good or stupid because of your technique or what you're wearing). Learning how to use equipment properly, and ensuring there is a welcoming atmosphere at the gym, can enhance the experience of exercising (the behaviour). Female-only gym sessions are a good example of addressing the negative experiences that some women have of exercising, because of the perceived or actual behaviour of men.

The impact of exercising can also be **physiological** (the release of endorphins, feeling fitter and stronger, or more negatively, getting injured) and **psychological** and **social** (feeling less worried about health, being complimented by friends). The use of social media to support exercise (such as the running app Strava) directly influences the outcome by providing people with a social impact (sharing the fact that they have run and what time they did).

If exercising in a gym was a horrible experience, you are less likely to go back. In contrast, if you got a substantial hit of endorphins and lots of praise on social media for working out, you'll be more inclined to go back. Modern technology, such as fitness trackers, make use of this feedback loop by making the health benefits of exercise clearer to users.

Both the **experience** of going to the gym and its **impact** will **feed back** into the **process** of making **choices** and underlying **motivation**.

Expectations

One of the distinct features about humans is the extent to which we think about and plan for the future. This means that we generate **expectations** of what will happen and this can have both positive and negative effects.

For example, research has indicated that expectations can have a range of effects on the way in which people feel about and respond to health interventions (Camerone et al., 2025). A famous example is the placebo effect, where an ineffective intervention or medication has a real benefit because of the expectation of the patient. However, there are also potential negative effects, where patients end up disappointed by a positive treatment outcome because their expectations were unrealistic. This **emotional response** can influence both their underlying **motivation** and their **choices** in situations where the behaviour may or may not be repeated.

The options space

In probability theory there is a concept known as the 'event space', which is defined as all possible events associated with an experiment or happening, the combined probabilities of which add up to one. An example of this is that for a normal die, the event space contains the six numbers that can be rolled and the probability of rolling at least one of those six is one (irrespective of whether it is a fair die or whether some numbers are more likely to come up than others).

The idea of the options space

An equivalent concept within the Integrated Model of Behaviour is the 'options space', which is all the potential behavioural outcomes within a particular context.

This can be further divided into an 'objective' options space and a 'perceived' options space.

An example of this is that if you have an argument at work, the objective options space contains all the possible responses including having a discussion about it, complaining to HR, resigning, and verbally or physically attacking the other person. While the objective options space may be similar for lots of people, they may have very different perceived options spaces. Some people might think about resigning but conclude that it isn't worth it (i.e., it is part of their perceived options space but they choose not to take that option). For others, the thought of resigning might not even occur to them, i.e., it is part of their objective option space but it isn't part of their perceived options space, so they don't even consider it or think through the pros and cons.

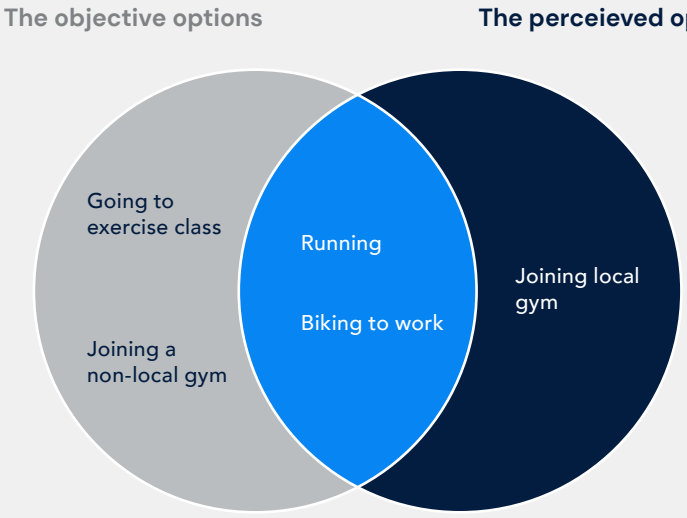
In practice

Returning to the exercise example, there are lots of ways of taking more exercise and the totality of them makes up the 'options space'.

However, someone's perceived option space may only include a subset of all of the options. For example, as illustrated in Figure 7 below, going to an exercise class might be an option but a particular individual may not have ever considered it. This means it falls outside of their perceived option space, and so won't even be part of the behavioural pathway (i.e., they may not even have an attitude to it or have considered its costs and benefits).

In addition, there may be activities that fall within someone's perceived option space, but in fact are not possible. In the example below, if someone's local gym has in fact closed but they are unaware of the fact, it would be something they still consider an option, although in reality it isn't any longer.

Figure 7: The objective and perceived option spaces applied to exercise



Chapter 3: Behaviour in groups and group behaviour

As with most behavioural models, the Integrated Model of the Behaviour is focused on the individual level. Analysis can often simply be scaled up, in the sense that a behavioural influence or barrier that is identified in one person may affect lots of other people in a group.

However, it is important to bear in mind that influences or barriers may be distributed unevenly across a population, i.e., some people may be influenced by one set of barriers while others influenced by a different set (that may or may not overlap with the first set). In these circumstances, it is important to consider whether multiple interventions might be needed.

In practice

Again, taking the exercise example, **barriers** to taking more exercise by joining a gym might exist across the behavioural pathway, from **motivation** to **outcomes** and **feedback**. Figure 8, below, illustrates that individuals may have different combinations of barriers.

For example, person A is scared of the gym (a **motivational barrier**) and finds travelling there difficult (an **execution barrier**). In contrast, person B is also scared of the gym, is put off by high gym fees (a **choice barrier**) but doesn't have any travel issues.

An intervention that focuses on one of these barriers, examples 1 to 4, won't be successful with everyone. The holistic intervention, however, will in theory change everyone's behaviour because it has addressed all the barriers faced by members of the population – not just some of them.

Figure 8: Barriers to going to the gym across populations and the effect of different interventions

	Motivation	Choice	Execution	Outcomes and feedback
Person A	Scared of gyms		Travel difficulties	
Person B	Scared of gyms	Expensive fees		
Person C			Travel difficulties	
Person D		Expensive fees		Cold showers
Intervention 1	Trust building comms campaign			
Intervention 2		Entry discounts		
Intervention 3			Dedicated buses	
Intervention 4				Replacement showers
Holistic intervention	**Trust building campaigns**	**Entry discounts**	**Dedicated buses**	**Replacement showers**

The further challenge of emergence

There are other ways that groups can bring additional complications to understanding behaviour, and one of those is the phenomenon of '**emergence**'. Emergence describes what happens when the result of group interaction can't be easily predicted from looking at the individual preferences of the group members.

A good illustration of this is what can happen when a group discusses the appropriate punishment for a particular crime, and the phenomenon of group polarisation occurs (Gould and Walker, 2021). When asked individually, members of the group may recommend between 2 to 5 years in prison for a crime. From this, you might expect the group to recommend around 3.5 years. However, when they discuss it as a group, it sometimes happens that they end up recommending a punishment of 7 years. In this case, the group dynamics (potentially members wanting to look tough in front of each other) has resulted in a group decision that could not be easily predicted based on any knowledge of the views of each individual. This can obviously complicate any approach to understanding and changing behaviour, and by its nature is complex to predict and analyse.

Game theory

Game theory (Espinola-Arredondo and Muñoz-Garcia, 2023) is a sophisticated approach to understanding group behaviour and working out how individual preferences and priorities might interact.

The classic example of analysis using game theory is the 'Prisoners' Dilemma' (illustrated in Figure 9, below). In this scenario, two suspects are arrested and interrogated separately. Each must choose whether to confess and implicate the other or remain silent. If both stay silent, they receive a light sentence. If one confesses and the other does not, the confessor goes free while the other receives a heavy sentence. If both confess, they each receive a moderate sentence. This means that for each prisoner it is better to confess irrespective of what the other prisoner does, but the end result is that they are both worse compared to if they had both stayed silent. In a single game, this outcome is hard to avoid, but if the prisoners trust each other and are involved in a large number of games (i.e., a long-term relationship), then they can effectively coordinate and stay silent.

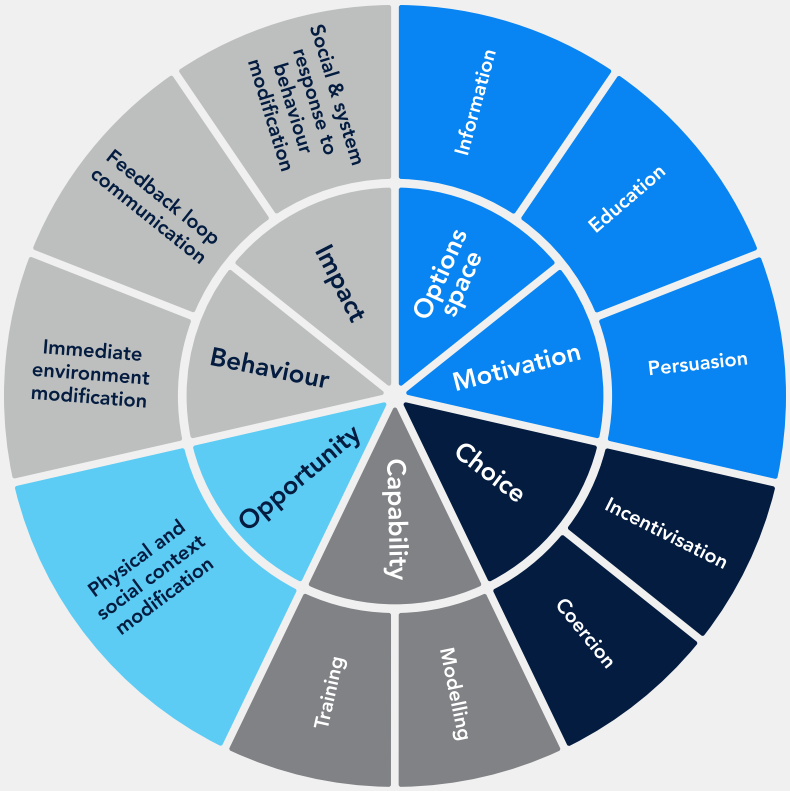
Figure 9: The outcomes of the prisoner's dilemma game

		Prisoner A choices	
		Stay silent	**Confess and betray**
Prisoner B choices	**Stay silent**	Each one serves one month in jail	Prisoner A goes free Prisoner B serves a full year in jail
	Confess and betray	Prisoner A serves a full year in jail Prisoner B goes free	Each serves three months in jail

Chapter 4: Selecting a behaviour change intervention

The next logical step after identifying behavioural barriers is to select one or more **interventions** to change the behaviour. The **Integrated Behaviour Change Wheel** (see Figure 10 below) helps this process by mapping different categories of intervention to the elements in the Integrated Model.

Figure 10: The Integrated Behaviour Change Wheel



The options space

Starting from the **options space** (the set of objective and subject behaviours that people consider available to them) on the inner part of the wheel, interventions that can influence barriers in this part of the pathway include **information provision** and its stronger partner **education**. These would be directed at extending someone's subjective options space so that it includes behaviours that exist within the wider objective options space, but which they hadn't previously considered.

Motivational barriers

Education can also be effective in addressing **motivational** barriers, though sometimes education is not sufficient, and interventions may need to **persuade** individuals. In other words, that means not simply providing them with the information and knowledge they need to allow them to make up their own minds but instead deliberately aiming to influence them cognitively and emotionally in favour of a particular decision. Obviously, a large proportion of advertising has this intention, with companies such as Coca-Cola and Apple being masters in the art of persuasion.

Choice vs. motivation

Within the **Integrated Model, choice is distinguished from motivation** using the rational choice theory concepts of a 'utility function' vs a 'budget line':

- **The utility function** – The utility function reflects how people value different goods or behaviours in relation to each other.
- **The budget line** – The budget line is the reality of how much of a product someone is able to buy or the time and effort they have available that can be distributed between various behaviours.

Choice is the outcome between the interaction between someone's utility function and their budget line (representing the combination of behaviours and actions that achieves their highest possible utility given their budget).

Choice interventions are conceived of as those which influence the budget line but are not intended to influence the utility function. These interventions include **traditional levers used by government**, such as providing **incentives** in the form of subsidies or tax and **coercion** to make a behaviour more costly due to fines or other adverse consequences such as incarceration.

In reality, these interventions might have more subtle impacts as well. For example, making something illegal and punishable by fines or imprisonment might signal that it is socially undesirable behaviour. For some people, this may change their underlying feelings about it (their utility function) rather than simply altering the costs involved. This is a reminder that all models are simplifications and that reality is always more complex than any framework indicates. The trade-off is that the model helps distinguish between noise and signal and therefore helps people make more effective decisions.

Capability barriers

Capability barriers are generally addressed by interventions such as **training** (aiming to directly improve the ability of individuals to carry out a behaviour) or **modelling**, a more subtle way of influencing an individual's capability or perceived capability.

Opportunity barriers

Opportunity barriers are addressed by modifying the environment within which an individual is attempting to carry out a behaviour. This can be controversial, especially within Government policy circles, as it often shifts the burden away from the individual and onto Government, which can have substantial implications for the Exchequer. But the simple fact is that it is much easier to go to the gym, say, if there is one within easy reach or to buy healthier food if your local shops sell it.

Behaviour and impact barriers

Interventions aimed addressing **behaviour** and **impact** barriers similarly can have negative implications as far as government and other bodies are concerned. However, some of the appropriate interventions offer the hope of being low cost and providing quick wins, for example providing **feedback loops**. This is something that some health interventions do effectively through bio-feedback mechanisms. Other interventions may be less palatable as they imply an authority or organisation has to change themselves in order to get individuals to change.

For example, they may need to **change the immediate environment** to make carrying out the behaviour less aversive. An example of this is women-only gym sessions, because some women can feel uncomfortable, or be made to feel uncomfortable, when training with men present. Another example is changing the **actual response to a particular behaviour**. For example, if you want people to engage more in consultation events, you may have to listen to what they say and act on it. Not all consultation events are run on the basis that the consultation is meant to influence the outcome, so this can be a substantial change in mindset.

How the Integrated Model offers additional interventions to existing models

The Integrated Behaviour Change Wheel builds on the Behaviour Change Wheel developed for use with the COM-B model but extends it to include the additional elements included in The Integrated Model of Behaviour. Table 2 below gives examples of interventions within each of the categories that could increase the chances of someone taking more exercise (not all of which are practical in reality, such as fines for not doing exercise, but are included for illustration purposes).

Table 2: Examples of interventions to increase take up of exercise

IMB element	Theme	Example
The options space	Information	Campaign to raise awareness of a new gym opening
	Education	Leaflet explaining exactly where the gym is and its opening hours
Motivation	Education	Workplace talk explaining the benefits of exercise and the health dangers of lack of exercise
	Persuasion	Influencer campaign that makes exercise seem glamourous
Choice	Incentivisation	Subsidising gym membership
	Coercion	Introducing jail sentences for anyone who doesn't do exercise at least once a week
	Commitment device	Making a rule to only watch a favourite TV show while at the gym
Execution – capability	Modelling	Finding a gym mentor
	Training	Hiring a personal instructor
Execution – opportunity	Environment modification	Introducing a new bus route that goes directly past a gym
Outcome – behaviour	Environment modification	Women-only gym sessions
Outcome – impact	Changes in response to behaviour	Introducing rewards for hitting performance goals
Feedback	Feedback communication	Smart fitness tracker

Chapter 5: Implementing a behaviour change project

There are a range of guides to undertaking a behaviour change project. For example, one that was deveveloped by the Behavioural Insights Team is TESTS (BIT, n.d.), another is the approach described in Public Health England's guidance for national and local government partners (Public Health England, 2020). These approaches vary in terms of how they label the different steps, but the underlying process described is very similar:

Step 1: Identifying and defining the behaviour

The first step in a behaviour change project is to **identify** and **define** the behaviour that is to be changed.

Sometimes this is straightforward, but in other cases it can require some consideration and discussion, especially as it's often more effective to target a very specific behaviour rather than a more general one.

In our example, increasing the uptake of exercise is more general than trying to encourage people to go to the gym more (which is only one way of getting more exercise). In addition, there are lots of different kinds of exercise that one can do at the gym, from those that are predominantly aerobic to those that focus on strength. Different types of exercise might be more appropriate for some people rather than others, and for some goals compared to others. For example, people at risk of heart conditions might be advised to focus on aerobic exercise, whereas older women at risk of osteoporosis might be encouraged to concentrate on strength-based and weight-bearing exercises.

It is also important to **distinguish between a behaviour** and the **goal** or **impact** of the behaviour. For example, encouraging people to improve their health might result in them changing their eating habits. While this might be a desirable outcome, if it is felt that the priority is to increase the amount of exercise someone takes (because it will have a bigger impact on their overall health), then the wrong behaviour has changed. (This is just an example and is not to suggest that improving someone's diet is necessarily a negative outcome).

Step 2: Understanding and diagnosing the barriers

The second step in the process is to understand or diagnose the behavioural barriers. This phase may involve:

- **Primary research** – Such as conducting surveys or undertaking qualitative research. Surveys, if undertaken robustly, provide information on the prevalence of barriers across the population, but require an existing and ideally comprehensive list of barriers to already be available. Interviews and focus groups are more exploratory and so can identify new barriers. In addition, qualitative research can provide greater detail and understanding of barriers and a better insight into how they relate to someone's context.
- **Observations** – Which can produce data for quantitative or qualitative analysis, are particularly useful when a behaviour involves subconscious elements. For example, if the behaviour is part of a habit performed with little or no thought, or when the behaviour may be socially undesirable in some way, meaning people might be reluctant to acknowledge it in surveys or in interviews or focus groups.
- **Secondary research** – Including reviewing the literature if there has already been a lot of research related to a particular behaviour change issue (often a good idea in any case).

Step 3: Using the Integrated Model to identify interventions

Once the behavioural barriers have been diagnosed, the next stage is to **solve** the issue through **identifying interventions** using tools such as the Integrated Behaviour Change Wheel (see Chapter 4). Often the interventions will relate directly to the behavioural barrier. For example, if motivation is diagnosed as a barrier to people taking more exercise, then an intervention trying to increase people's motivation will often be selected. However, this is not necessarily the case. For example, a barrier might be the opportunity to do exercise, such as the nearest gym being a long way from where someone lives, and it may be difficult to address that issue. So instead, a solution might be to subsidise gym membership or travel costs.

One implication of using the Integrated Model of Behaviour is that a holistic or multi-faceted set of interventions might be preferable to one that focuses on one part of the behavioural pathway.

As discussed in Chapter 3, this is because individuals may experience more than one barrier. They may lack motivation to go to the gym and think it is too expensive; also, different people within the population may experience different barriers. Most interventions are delivered at a population level (rather than being tailored to individuals), which means a holistic set of interventions is likely to have a bigger overall impact. However, there will also be cost and other considerations about which interventions are selected.

The APEASE framework (FutureLearn, n.d.) is useful in this context, as it provides a way of evaluating different aspects of an intervention and deciding whether it is appropriate or not. The acronym stands for Acceptability, Practicability, Effectiveness, Affordability, Spill-over effects, and Equity, which indicates that there are a range of considerations that need to be evaluated when deciding whether or not to use a particular intervention.

Step 4: Implementing the interventions

The next stage in the process, unsurprisingly, is to **implement** the intervention or range of interventions selected.

This will often require significant planning and preparation, the degree to which will be entirely dependent on the nature of the interventions. What is almost universally recommended is that the intervention is **evaluated as it is being implemented**, as a very high proportion of interventions, even those supported by robust research and theory, do not turn out to be effective. This is something that is perhaps not surprising. History has taught us that behaviour can be very difficult to change, which is why it is the focus of many government departments and policies.

There are a range of ways of evaluating interventions, and the Maryland scale (What Works Growth, n.d.) provides a widely (though not universally) accepted ranking for different evaluation methods, which has randomised controlled trials at the top followed by sophisticated statistical methods known as quasi-experimental designs (QEDs). Often these impact evaluation methods are paired with implementation and process evaluations, which can help explain why and how an intervention is or is not successful and provide important lessons for further **refinement**.

In a **policy** context, building in time for further development and refinement of interventions can be challenging, but given how often interventions are unsuccessful, it is highly recommended if at all possible.

Step 5: Scaling the effective interventions

The final step in a behaviour change process, if the intervention and approach has been found to be effective, is to **scale it up** or make it a mainstream rather than novel approach.

This can be difficult, even if an intervention has been shown to be successful, because of the resources and support required (particularly for complex interventions) and because there can be resistance to changing practices to reflect new evidence. For this reason, and because contexts and delivery can evolve over time (in positive and negative ways) it is useful to continue to monitor the effectiveness of an intervention, and to further modify it if needed – or, to find a different solution if it becomes redundant for whatever reason.

In practice: The Welsh Government's 56-day prescribing policy

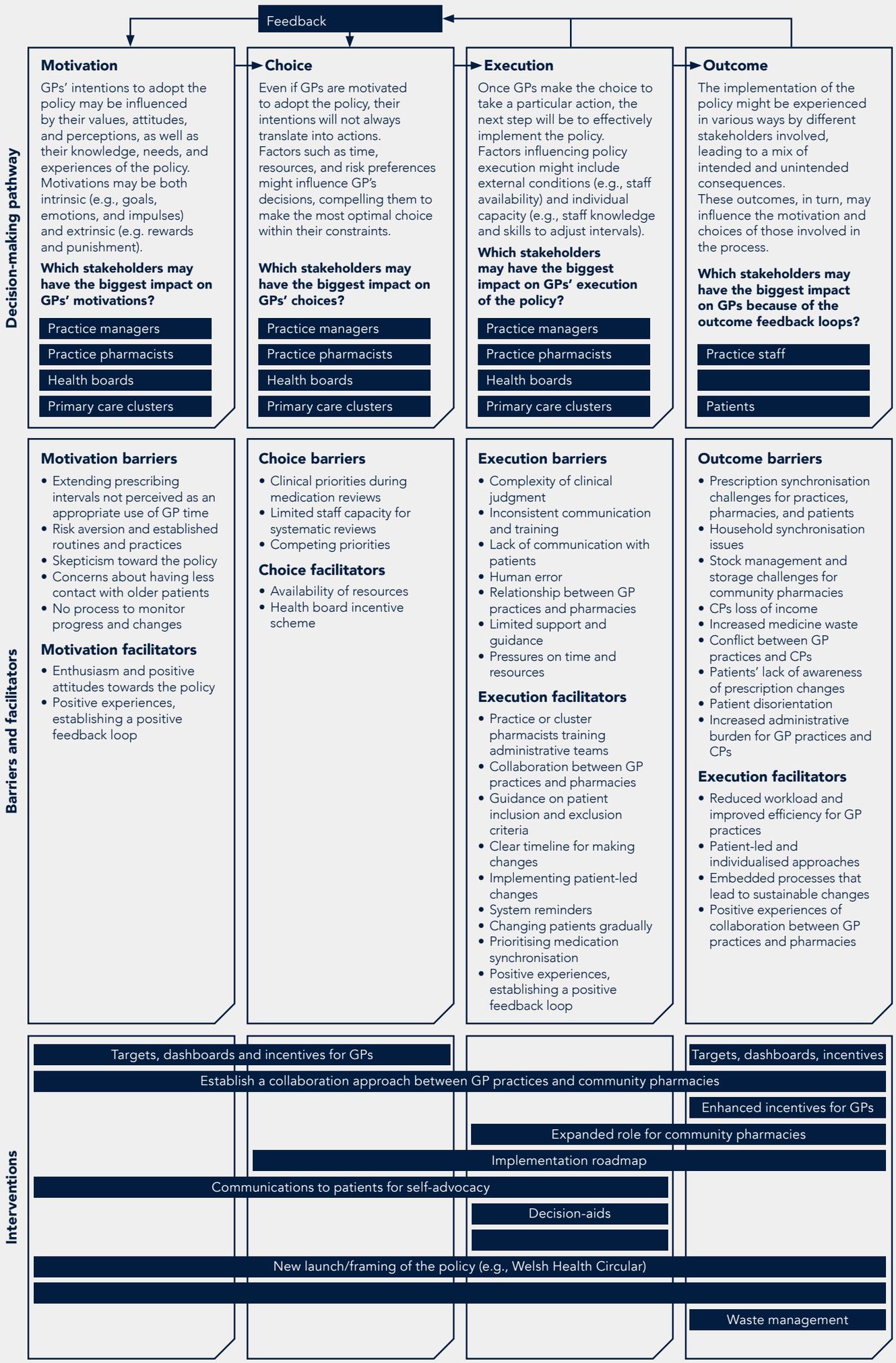
ICF, in partnership with The Behaviouralist, was commissioned by the Welsh Government to explore the barriers to the take up of its 56-day prescribing policy. ICF was also tasked with identifying potential interventions to support the policy's implementation (Barnard et at, 2026).

The introduction of extended prescribing intervals, where clinically appropriate, was an important part of the Welsh Government's efforts to release capacity within primary and community care, specifically within GP practices and community pharmacies. Giving greater flexibility to primary care practitioners to set prescribing intervals that met patient need was aimed at reducing the time spent on administrative tasks within GP practices. For community pharmacies, it would enable them to dedicate more time to clinical service provision through delivery of the Clinical Community Pharmacy Service and Pharmacist Independent Prescribing service.

The ICF team undertook quantitative and qualitative research to map the decision-making pathway, identify barriers and facilitators to implementation, and formulate a range of recommended interventions.

One key finding was the importance of differentiating the behaviour (more individualised prescribing) and the impact (increased average repeat prescription intervals). The team found that some GP practices had switched a large proportion of patients to a longer prescribing interval (to achieve the desired impact), but this had caused problems because some of the patients were suitable for the new regime (i.e., the behaviour was not the one intended). A summary of the key findings from the study are set out in Figure 11 below.

Figure 11: A summary of the decision-making pathway, barriers, facilitators, and interventions related to the Welsh Government's 56-day prescribing policy



Chapter 6: Using the Integrated Model of Behaviour in research and evaluation

The Integrated Model of Behaviour is a powerful framework for guiding behaviour change projects. However, **it can also be used in research and evaluation** more widely because, as discussed above, a large proportion of government policies are aimed at changing behaviour. This means that the model can support the research that goes into informing the development of an intervention and its evaluation.

How can the Integrated Model help with evaluation?

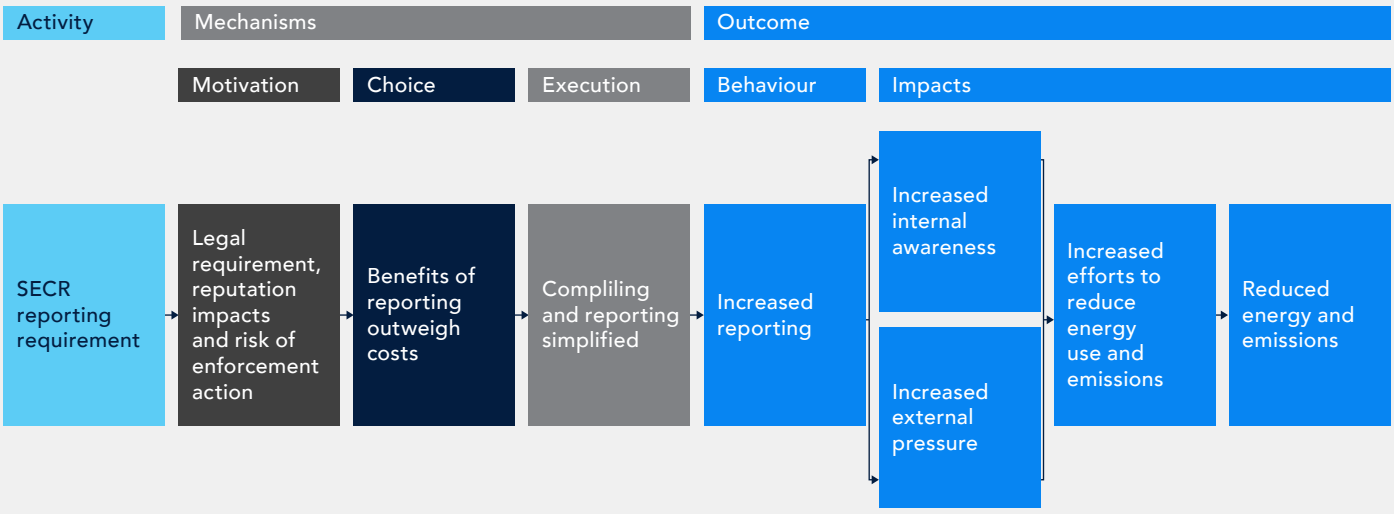
One way in which the Integrated Model can support with evaluation is as part of the **development of a theory of change**. A theory of change is a description and diagrammatic representation of an intervention that identifies its inputs, activities, outputs, impacts and, crucially, the causal assumptions underlying the intervention – that is, why it is believed that the activities being undertaken will result in the achievement of the outcomes being targeted. (Government Analysis Function, 2025)

The Integrated Model helps this process by providing insight into the range of factors that influence behaviour. This clarifies which of these levers is being targeted: i.e., is an intervention aiming to change someone's underlying motivation, the costs and benefits associated with a behaviour, or how easy it is to do it?

In practice: Using the Integrated Model for evaluating policies and interventions

ICF research teams have used the Integrated Model to develop theories of change for evaluations of policies and interventions. These range from those aimed to prevent young people from becoming involved in violence (ICF, 2024), to support drug-using prisoners (ICF, 2025) and to influence companies reporting of their energy use through the Streamlined Energy and Carbon Reporting (SECR) framework (ICF, 2026) – see the theory of change, in Figure 12 below.

Figure 12: A theory of change created using the Integrated Model for the SECR evaluation



Using the Integrated Model for research and analysis

In cases where the Integrated Model has been used to help create a **theory of change**, it is relatively easy then to use this to feed into **research tools** and **analysis**. In the SECR evaluation, the research tools included a quantitative survey of business, along with qualitative interviews with a range of businesses and other key stakeholders, which were implemented alongside a QED impact evaluation. The findings reflect the different elements of the Integrated Model, including those set out in Table 3 below.

Table 2: Examples of interventions to increase take up of exercise

Element of the IMB	Findings
The options space	A small proportion of businesses, 9%, reported had not heard of SECR so were not aware of the option of complying with it or not.
Motivation	The data indicated that business were quite highly motivated to report their energy use, with 83% who complied with SECR stating that they went beyond its requirements.
Choice	Most businesses said that there were limited costs associated with SECR, with 70% reporting that data was easily accessible.
Execution	There were relatively few barriers to responding to SECR, with most businesses indicating that they had the knowledge needed, including 88% saying they either strongly agreed or agreed that they had a good understanding of the requirements.
Behaviour	The majority of businesses, 77%, reported that they complied with the SECR reporting requirements and 79% said SECR had prompted them to disclose data they otherwise would not have done.
Impact	Only 33% businesses said that reporting had increased internal pressure to improve energy efficiency, and 26% that it had led to increased external pressure, but the QED analysis found that SECR had led to energy savings.

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