



# Financial Wellbeing

Using behavioural science to improve financial wellbeing in the UK

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## Executive Summary

Ipsos MORI conducted this literature and evidence review to help the Money and Pensions Service (MaPS) determine the potential scope for developing a behaviour change programme aimed at changing the way people in the UK think about and engage with their money and pensions.

This report summarises the evidence from behaviour change literature about financial wellbeing, alongside a review of interventions aimed at changing people's behaviour more generally. The review included over 40 government and academic studies, alongside interviews with seven behaviour change and financial wellbeing experts.

For the UK Strategy for Financial Wellbeing to be successful, it will need to change people's financial behaviour in a significant and sustained way – and more so than has happened to date, where many interventions have tended to take place in isolation, focusing on a small number of specific outcomes, aspects of individual behaviour, or parts of the surrounding system. To achieve this outcome, a national programme should be:

- Holistic, looking across the spectrum of factors that are necessary for achieving sustained behaviour change: people's knowledge and skills, mindset and attitudes, and social identity and connections;
- Multi-faceted and multi-partner: deploying a variety of approaches and co-ordinating with a range of partners, to address different aspects of people's behaviour as well as the wider system that they operate in; and
- Long-term: enabling the careful development of a complex programme and providing the time needed for sustained behaviour change to be embedded.

These factors were successfully combined in Australia's SunSmart programme in the 1980s and 1990s<sup>1</sup>. SunSmart combined a focus on people's knowledge, attitudes and behaviour about skin cancer, tanning and sun exposure, with making institutional and structural changes in the wider system. It used a range of approaches, such as the well-known 'Slip! Slop! Slap!' media campaign, working with trade unions and schools to co-ordinate messaging, and ensuring the supply and availability of sun cream and other products. The programme was long-term, reflecting the need to change entrenched public attitudes and acknowledged that impacts (such as reduced rates of melanoma) could take even longer to materialise.

### Understanding what influences financial wellbeing

This review first looks at people's financial behaviour and identifies three key areas that are necessary and important for achieving sustained change:

- **Awareness, knowledge and skills**

Good levels of awareness, knowledge and skills are necessary to make effective financial decisions, and are important preconditions for wider financial wellbeing. Many policy and behaviour change interventions have focused on these areas. However, the evidence suggests that a focus on only awareness, knowledge and skills is not sufficient, by itself, to change behaviour – and most interventions which have taken this approach have had a limited effect.

<sup>1</sup> SunSmart – Twenty Years On (Montague, M. et al, 2001)

Such interventions are often based on the premise that people are rational if equipped with awareness and the right skills and knowledge and will make good, informed decisions. But people are not rational decision-makers: they may be aware of the right action to take and even know how to take it, but will not always act on that knowledge, and will often prioritise other aspects of their lives over their finances, or short-term impulses over long term benefits.

There is evidence about how to improve results: by making learning experiential or 'just-in-time', or by identifying more effective channels and messengers for delivery. But interventions in this area are likely to only ever achieve a limited impact on financial behaviour.

- **Mindset and attitudes**

For people to engage with their financial wellbeing, they need to think it is a priority. As such, people's mindset, and the extent to which people can be motivated to engage in, and prioritise, financial wellbeing behaviours, needs to be considered.

The key components of mindset that help to explain why individuals may not take actions which promote their long-term financial wellbeing are: scarcity, self-control, self-efficacy, confidence and shame. For example, scarcity of mental resources (or lack of 'bandwidth') drives people to focus on immediate needs such as paying the next bill, at the expense of longer-term goals and wider financial wellbeing. Shame is another key factor, particularly for certain groups such as those on low incomes. People may avoid having to engage with some financial matters in order to side-step the shame of, for example, making a wrong decision (even when they have the necessary skills and knowledge). On top of the role played by shame, many people also prefer to remain deliberately ignorant of upcoming events, especially if they are likely to be negative<sup>2</sup>.

Given these barriers, good behaviour can be encouraged by simplifying the decision-making environment through the use of nudges and defaults. These make it easier for people to take options that lead to better outcomes and reduce the need for people to reflect analytically (and use up mental 'bandwidth') on the merits of various choices. There is a wealth of evidence about the positive impact that nudges and defaults can have on people's decisions. Nudge techniques have had great successes in facilitating better decisions – such as their deployment in letters from HMRC to deliver an increase in the number of people paying their income tax on time<sup>3</sup>. Defaults are also important, can work at scale and have had demonstrable success in changing behaviours, most notably in pensions Automatic Enrolment which has increased the proportion of UK staff in a workplace pension scheme from 55% to 87% from 2012 to 2018<sup>4</sup>. But there is limited evidence that nudges alter underlying motivations and therefore long-term behaviour. Defaults are unlikely to affect people's attitudes or motivation and may also have unintended consequences: in the USA, Harvard University and the National Bureau of Economic Research found that people automatically enrolled in retirement savings ended up borrowing more money for car loans and first mortgages<sup>5</sup>.

<sup>2</sup> Cassandra's Regret: The Psychology of Not Wanting to Know (Gigerenzer, G. & Garcia-Retamero, R., 2017)

<sup>3</sup> EAST: Four Simple Ways to Apply Behavioural Insights (The Behavioural Insights Team, 2014)

<sup>4</sup> Automatic enrolment commentary and analysis: April 2018–March 2019 (The Pensions Regulator, 2019)

<sup>5</sup> Borrowing to Save? The Impact of Automatic Enrollment on Debt (Beshears, J. et al, 2017)

- **Social identity and connection**

There is a body of sociological literature which suggests that people do not just react to the world around them: they attempt to order and make sense of it through the lens of their social identity – which is a person's sense of who they are, drawn from their perceived membership of certain social group(s). This shapes their decisions and is a major influence on long-term behaviour<sup>6</sup>. People's social identities could therefore be the key to unlock sustained, positive financial behaviour change.

Social identity influences behaviour through prospection: people imagine the future, based on their identities and their aspirations, to identify the immediate actions they might take; and they draw on their experience to help take those actions<sup>7</sup>. This helps people prepare for and adapt to – rather than control – future events and, by doing so, it has a positive impact on people's self-confidence, their belief that they can make a good decision, and therefore their motivation to engage in decisions. There is evidence that prospection can achieve sustained behaviour change, such as the 'Schools to Jobs' study in America that delivered significant and sustained improvements to pupil attendance and grades by linking their current classroom behaviour with their identities and future aspirations<sup>8</sup>.

The challenge for financial wellbeing is that, in the UK at least, people's identities are likely to be associated with spending money today, rather than saving it for tomorrow. For example, figures from the MaPS Adult Financial Capability Survey (2018) indicate that 21% of the UK adult population rarely or never save. The flip side of this challenge is that there is an opportunity for significant change if attractive social identities can be developed around financial wellbeing.

The use of social norming, and the principle that most people will conform to the majority, is one route to influencing people's social identities, although it also presents challenges by the potential to deliver unexpected outcomes. People may not react to social norms in the way we would expect: they may adjust their behaviour to a 'worse' level if they think they are 'better' than the norm, and there are further challenges when the majority (that is the norm) are not displaying the desired behaviours – as noted by Public Health England with regard to unhealthy behaviour<sup>9</sup>.

Rather than pushing people to adopt a new identity (such as 'being a saver'), it may be both easier and more effective to align ideal behaviours with people's existing and strongly-held values, and show how those behaviours can bring a personal benefit (for example, by drawing a connection between active saving and being a good parent). Emerging evidence backs this up, illustrated by a recent study that successfully reduced unhealthy eating among teenagers by framing healthy eating as consistent with adolescent values such as independence from adult control, and taking a stand against unfair practices in the food industry<sup>10</sup>. A similar principle has been employed in the 'This Girl Can' campaign run by Sport England, by encouraging women to see exercise as part of their existing identity, delivering sustained changes in attitudes and behaviour as a result<sup>11</sup>.

<sup>6</sup> For example: Why a nudge is not enough: A social identity critique of governance by stealth (Mols, F. et al, 2014)

<sup>7</sup> For example: Navigating into the Future, or Driven by the Past (Seligman, M. et al, 2013)

<sup>8</sup> Seeing the Destination AND the Path (Oyserman, D. & Lewis, N.A., 2017)

<sup>9</sup> Public Health England Social Marketing Strategy 2017 to 2020 (2017)

<sup>10</sup> Harnessing adolescent values to motivate healthier eating (Bryan, C.J. et al, 2016)

<sup>11</sup> This Girl Can campaign summary (Sport England, 2016)



### Considerations for a successful behaviour change programme

The review of programmes and interventions suggests a number of considerations that should be borne in mind, should any new behaviour change programme be developed:

- **Balancing individual behaviours and wider system changes.** While it is necessary and important to target specific behaviours, the evidence suggests that programmes are more effective when they take a holistic approach, spanning both individual behaviours (and, for example, not just looking at how people use credit, but also how they save, and plan for retirement) and changes across the system – and using a variety of co-ordinated interventions to do so.
- **Balancing short-term and long-term impacts.** Significant and sustained changes to people's motivation, in terms of financial wellbeing, will take significant time to realise. But it may be possible to achieve shorter-term impacts by targeting specific behaviours with tactical approaches such as defaults, where these fit into a co-ordinated longer-term programme. These could also provide useful 'quick wins' that sustain the longer-term momentum of a programme.
- **Planning for the unexpected.** Any intervention can have wider consequences and unexpected effects. For example, a study of UK credit card use by the FCA in 2018<sup>12</sup> found that credit card holders could be successfully encouraged to choose higher fixed monthly repayments, but that they would make fewer additional manual payments, so that there was no impact on the overall amount they repaid each month. Sometimes these effects can be predicted and mitigated for during programme development. Sometimes they will only be uncovered through testing and research, which should therefore be built into any programme to monitor such effects;
- **Delivery styles and methods.** The social context in which people think about money must be reflected in the channels, messengers and language used, and a variety of these will be needed within a programme. Careful co-ordination of channels and language helped to deliver the messages central to the Department of Health's 'Change4Life' programme<sup>13</sup>; Australia's SunSmart used different approaches for population segments; while Public Health England have used broadcast messages for greater reach and to make people feel they are part of something bigger. Different delivery styles need to be co-ordinated and consistent across all the interventions that make up a programme, and should be reviewed across a multi-year period to mirror societal changes;
- **Cumulative effects.** The literature suggests that there may be a 'virtuous spiral' of improved behaviours, as simple changes in one area start to build into something greater and more holistic. For example, if someone is supported to budget more effectively, they may realise some savings as a result, which may enable them to deal with an emergency or buy a treat. This may have a 'eureka' effect, boosting self-confidence and self-efficacy and motivating people to look at other aspects of their financial wellbeing. This is a difficult area to make firm conclusions about, not least because measurement is notoriously difficult, but is an important concept to consider in programme planning.

These considerations, taken together with the factors that influence people's financial behaviour, suggest four overarching attributes which will help to support a successful behaviour change programme:

1. **Be long-term:** while there are some approaches that can address specific behaviours in the short-term, achieving significant changes to long-term behaviour is challenging and will not happen overnight (with some notable exceptions, such as the use of defaults in Pensions Automatic-

<sup>12</sup> The semblance of success in nudging consumers to pay down credit card debt, FCA Occasional Paper 45 (2018)

<sup>13</sup> Behaviour Change Campaigns (Money Advice Service, 2019)

Enrolment, which has a longer-term impact in terms of retirement saving). Time needs to be set aside for the careful design, piloting and roll-out of a programme (including its constituent campaigns and interventions).

A long-term approach has been adopted by Sport England, in their seven-year strategy for 'This Girl Can'. This has allowed for three distinct and evolving phases: 'Realisation', to talk about the fear of judgement and help women realise they are not alone, with articles and films about specific women and how they overcame barriers to exercise; 'Inspiration' to reach as many women as possible and create a new societal norm, through a broad public campaign; and 'Self-identification' to cement new attitudes and habits by encouraging women to 'self-identify' through publicising their exercise.

2. **Be holistic:** changing people's behaviour in one area may have unintended and negative consequences for their behaviour in another area. A financial wellbeing behaviour change programme should build a holistic view of the individual: to understand how different aspects of financial wellbeing relate to each other, and guard against the possibility that a gain in one area of financial wellbeing does not come at the expense of another (which may deliver a temporary positive response but undermine sustained change).

Illustrative examples here are less about interventions that have successfully employed a holistic approach, and more about salutary tales from studies that have highlighted this issue: the FCA study which found that credit card holders could be nudged to adopt higher automatic fixed payments but that this benefit was 'cancelled out' when those same card holders reduced their additional manual payments; or the Harvard University study finding that people automatically enrolled in retirement savings plans borrowed more for car loans and mortgages.

3. **Be multi-faceted:** addressing the whole system around people's finances by incorporating a combination of interventions and campaigns – which may overlap in terms of the behavioural impact they are aiming for, and also focus on changing the system so that it better supports people's improved behaviour. A behaviour change programme should look across the three key areas of behaviour set out in this report: how best to address people's awareness, knowledge and skills; their mindset and attitudes; and their social identity and connections. But, crucially, a programme should also address the wider system that connects with and enables people's behaviour, such as the range of financial products on offer, or the accessibility of advice, guidance or education.

With a relatively simple call to action, Australia's SunSmart programme used a multi-faceted approach to combine its focus on people's knowledge, attitudes and behaviour with broader work across the system, as highlighted above. This involved challenging attitudes and behaviours through public health messages (such as the 'Slip! Slop! Slap!' mass media campaign) and the use of popular role models; working with professionals in the field through training, provision of resources, and provision of small grants to develop local sun protection strategies; developing partnerships with organisations, with support to include health promotion in the way they function; and working with communities to give them the skills and knowledge to solve their local health issues<sup>14</sup>.

4. **Involve a range of partners:** delivering a holistic, multi-faceted behaviour change programme across the financial wellbeing system will, by definition, require a range of partners.

<sup>14</sup> SunSmart – Twenty Years On (Montague, M. et al, 2001)

This attribute is well illustrated by Public Health England's 'Change4Life' programme, which worked with a large number and variety of partners. Their capabilities, contacts and contributions were instrumental in bringing about change in all parts of the system relating to obesity. Partners included 183 national organisations such as Tesco, Kellogg's and Nintendo, charities including the British Heart Foundation and Diabetes UK, other government departments, and local services. An early, intensive period of partner engagement ensured that, when the national campaign began, the public encountered an informed and supportive environment. This integrated partner support has been key to the success of Change4Life<sup>15</sup>.

The main report looks in more depth at the areas discussed above, the role they play in influencing people's financial wellbeing behaviour, and in the development of any new UK-wide behaviour change programme.

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<sup>15</sup> Behaviour Change Campaigns (Money Advice Service, 2019)

# 1. Introduction

This report presents findings from a secondary evidence review of financial behaviours amongst the UK adult population, undertaken on behalf of the Money and Pensions Service (MaPS). The research aims to aid decision-making concerning whether MaPS should develop a behaviour change programme to improve the way people think about, and engage with, their money and pensions.

## Research context

Like most other advanced economies, the UK has a complex financial system. This – paired with changes in social attitudes over time and growth in retail-led culture – has outpaced individuals' ability to understand and manage their money optimally. For example, figures from the MaPS Adult Financial Capability Survey (2018)<sup>16</sup> indicate that 21% of the adult population rarely or never save.

MaPS was established in 2019 to engage with government on policy matters relating to financial wellbeing and debt advice. It is an arm's-length body, sponsored by the Department for Work and Pensions. Together, they have a joint commitment to ensuring that people in the UK have guidance and access to the information they need to make effective financial decisions over their lifetime. The UK Strategy for Financial Wellbeing, led by MaPS, recognises there is a need to influence a system that encompasses regulations, products, services and culture, in order to achieve this commitment.

Financial wellbeing is defined as **the feeling of being secure and in control, being able to pay the bills today, having capacity to deal with the unexpected, and being on track for a healthy financial future**. A key component of financial wellbeing is financial capability, which is the ability to manage money well, both on a day-to-day basis, and through significant life events. This can include, for example, active saving and managing credit use. Financial capability encompasses an individual's skills, knowledge, attitudes, motivations and their connection to the financial system. It is also affected by wider circumstances, such as income and their cost of living, as well as demographics such as age, gender or ethnicity.

The case for building better financial capability and financial wellbeing is clear: it could translate to better outcomes for individuals, with the UK population being potentially better off by around £108 billion over the next 30 years if citizens are better able to manage their money<sup>17</sup>. Moreover, the benefits of improved financial wellbeing extend beyond the individual into their community, in better physical and mental health; into their workplace through increased productivity and reduced stress; and across businesses and the broader economy through sustainable cash flow and increased investments<sup>18</sup>.

<sup>16</sup> Building the Financial Capability of UK adults: Initial findings from the 2018 Adult Financial Capability Survey (Money Advice Service, 2018)

<sup>17</sup> The Economic Impact of Improved Financial Capability (Europe Economics, 2016)

<sup>18</sup> The UK Strategy for Financial Wellbeing (Money and Pensions Service, 2020)

To improve financial capability and wellbeing, MaPS identified a need to explore how best to build the skills and knowledge, the mindset, attitudes and motivations, and the connections to the financial system of people in the UK – and to understand how behavioural science could play a role.

*“We want to help people be more confident and empowered when it comes to money. We would like to know whether there are any interventions we could make, which would alter attitudes and through altering those attitudes, help us deliver on our financial wellbeing agenda.”*

**Sir Hector Sants (Chair of the Money and Pensions Service)**

### About the research

MaPS is seeking to positively influence financial wellbeing in the UK and wishes to understand how this could be supported through a programme of behaviour change interventions. To help inform this decision, Ipsos MORI conducted a review of existing literature and interventions that have aimed to change behaviour, with relevance to how people interact with their money and pensions. This report sets out the evidence around:

- Current understanding about people’s money and pensions behaviour;
- How people could be encouraged to change their behaviour, by looking at national behaviour change programmes from other sectors and other countries; and
- The scope for changing the way that the UK population engages with their financial wellbeing.

The research programme comprised three strands:

- An **evidence review** of over 40 studies, to provide insight into research that has previously been conducted to explain people’s behaviour in relation to their money and pensions.
- A **review of national behaviour change campaigns and programmes** to understand what could be learnt about how and when people are successfully encouraged, at scale, to change their behaviour, and what are the key stimuli or catalysts.
- **In-depth interviews** with eight experts and senior staff involved in such programmes, across a range of public sector, private sector, and academic organisations, to draw conclusions about success factors for public authority behaviour change initiatives, including identifying factors that have led to failure or inconclusive effects. The list of participants is shown below in table 1.1.

**Table 1.1: Experts and senior staff interviewed**

Name	Position and organisation (at time of interview)
Sir Hector Sants	Chair of the Money and Pensions Service
Dr Pete Lunn	Head of the Economic & Social Research Institute's Behavioural Research Unit
Alex Chesterfield	Technical Specialist / Behavioural Economics & Design Unit (BDU) / Strategy & Competition Division of the FCA at the time of this research. Now Head of Behavioural Risk at Royal Bank of Scotland.
Dr Heather Barry Kappes	Assistant Professor of Marketing at London School of Economics and Political Science
Professor Helene Joffe	Professor of Psychology at University College London
Will Sandbrook	Executive Director, Nest Insight
Will Brambley	Research Associate and Behavioural Economist, True Potential Centre for the Public Understanding of Finance at the Open University
Dr Peter Brooks	Head of Behavioural Science, Barclays

The research findings are underpinned by behaviour change theory to provide an understanding of the psychological mechanisms that shape motivation to engage in financial wellbeing behaviours. This understanding is an important first step to ultimately identifying the ways that MaPS can engage with individuals within the broader financial environment. As Pete Lunn mentions:

*"What you certainly need is a good diagnosis that is going to give some confidence that the intervention might be effective. What bothers me about a lot of this stuff is, I'm not sure the diagnosis is right because too often what happens is the policymaker says 'if only people knew what I knew they would change their behaviour.'"*

**Pete Lunn (Head of the Economic & Social Research Institute's Behavioural Research Unit)**

Understanding behavioural theory is a key step in intervention design, evaluation and evidence synthesis for a number of reasons:

- the background and causes of behaviour can be properly understood and identified and therefore more effectively targeted through interventions;
- theory summarises how to change behaviour in relation to different populations, behaviours and contexts;
- subsequent interventions offer an opportunity for that theory to be further tested, which assists in developing more useful theories and, in turn, to optimise future interventions.

## Structure of this report

This report is structured as follows:

- Chapter 1: outlines the purpose of the research and key objectives;
- Chapter 2: summarises the behavioural theory, to build an understanding of what influences financial wellbeing;
- Chapter 3: discusses learnings around the attributes of a successful behaviour change programme, including future implications for MaPS;
- Chapter 4: summarises the main conclusions and outcomes from the research.

## Interpreting the findings

Throughout this report, examples of experimental tests and behaviour change interventions have been summarised in red boxes, to illustrate the points made. While this report mainly focuses on activity in the UK, it also draws on evidence from other countries, which may have application in the UK.

The following definitions have been used throughout this report:

- **Behaviour change programme:** a co-ordinated collection of one or more interventions or campaigns aimed at tackling multiple aspects of a system, over a period of time to a set population, with the aim of changing people's behaviour.
- **Intervention:** a specific activity, usually to a targeted group and with the intention of changing a particular behaviour.
- **Campaign:** above the line marketing (which could be a component of an intervention or a wider programme).

## 2. Understanding what influences financial behaviour and wellbeing

### Chapter Summary:

This chapter explores in detail each of the three key factors that have been identified as being necessary and important for achieving sustained behaviour change in terms of financial wellbeing and the role that they can play:

#### Awareness, knowledge and skills

- Awareness, knowledge and skills are necessary for helping individuals to make better financial decisions.
- They are important preconditions for financial wellbeing but are not sufficient to change behaviour on their own.
- The effectiveness of interventions in this space on behaviour are reduced, because the time and energy people are willing and able to devote to engaging in some issues is limited.
- Therefore, there is a need to examine the mindset that people need in order to engage with their financial wellbeing.

#### Mindset and attitudes

- Five components of motivation (scarcity, self-control, self-efficacy, confidence and shame) help to explain why individuals may not engage with their financial wellbeing.
- Numerous interventions have used nudges and defaults to change the choice architecture around how people make financial decisions. These are important and have led to positive outcomes in some cases.
- However, at present, there is limited evidence on their ability to sustain behaviour change in the long-term, because they do not align with individuals' identities and internalise motivations.
- To achieve sustained behaviour change, interventions need to reflect the social context people live in.

#### Social identity and connections

- People do not just react to the world around them: they make sense of the world through the lens of their own identity, which also shapes their decisions and their behaviour.
- People prospect the future and try make sense of the future.
- People will not necessarily react to social norms in the way we want – especially when the majority (the norm) is not displaying the desired behaviours.
- For lasting, large-scale behaviour change, norm internalisation is therefore necessary.



This chapter explores the areas that play a key role in shaping people's financial behaviour and, ultimately, financial wellbeing. These are people's awareness, knowledge and skills; their mindset and attitudes; and their social identity and connections.

Any future behaviour change programme aimed at improving people's financial wellbeing will need to consider these three areas, the role they play, and how they interact with each other.

This model has some parallels in public health and health literacy (which is people's knowledge and ability to interpret and act on the complex demands of health in modern society). A systematic review by Sorensen et al<sup>19</sup> in 2012 found some consensus around three broad types of health literacy, typified by these, from one particular study<sup>20</sup>:

- Fundamental literacy (skills in reading, speaking, writing and interpreting numbers);
- Science literacy (levels of understanding in the subject matter – such as science and technology);
- Civic literacy (the use of social identity, world-view, customs etc to interpret and act on health information).

As we discuss below, these portray a gradually widening picture of people's behaviour and interaction, from basic skills and knowledge, to more interaction and decision-making, to the role of social identity in shaping behaviour.

## 2.1 Awareness, Knowledge and Skills

The UK public have low levels of awareness, knowledge and skills when it comes to financial wellbeing. Findings from the MaPS' Adult Financial Capability (2018) and Children and Young People Financial Capability (2019) surveys suggest that:

- Fifty-five per cent of working-age adults do not feel that they understand enough about pensions to make decisions about saving for retirement.
- Only 48% of 7–17 year olds say they receive a meaningful financial education in school, at home, or in other settings.
- Forty-seven per cent do not feel confident making decisions about financial products and services.

Studies have also shown that many people do not fully understand the financial products that they are using – a view that is shared by Pete Lunn (Economic and Social Research Institute).

*"I am simply staggered by how little mortgage holders understand the product they have, how little pension holders understand the product they have, how little people who are considering taking out a pension...understand how pensions work."*

**Pete Lunn (Head of the Economic & Social Research Institute's Behavioural Research Unit)**

<sup>19</sup> Health literacy and public health: A systematic review and integration of definitions and models (Sorensen, K. et al, 2012)

<sup>20</sup> Understanding health literacy: an expanded model (Zarcadoolas, C., et al, 2005)

Annamaria Lusardi (Professor of Economics and Accountancy at The George Washington University School) and Leora Klapper (World Bank) have found globally that there is poor financial literacy around four fundamental concepts in financial decision making: knowledge of interest rates, interest compounding, inflation, and risk diversification.

A significant proportion of public policy and behaviour change interventions in the past have, therefore, focussed on equipping people with the information and understanding they need, in order to make better decisions around their financial wellbeing. This strategy is not solely adopted in the field of financial wellbeing. It is also seen in the sphere of physical wellbeing where, for example, Public Health England provide tools and support to encourage users to change their lifestyles and adopt healthier behaviours through their 'How Are You?' quiz.

While improved awareness, knowledge and skills are necessary for making effective financial decisions, and are important preconditions for financial wellbeing, evidence suggests that they are not sufficient to change behaviour on its own, and interventions aimed solely at increasing skills and knowledge have had limited effect. For example, a meta-analysis study conducted by Daniel Fernandes, John Lynch and Richard Netemeyer<sup>21</sup>, found a weak relationship between financial literacy and behaviour, specifically, that interventions to improve financial literacy explained only 0.1% of the variance in financial behaviours studied.

The effectiveness of such interventions is limited by people's engagement with them: they are often based on the assumption that humans are 'rational actors' who would be capable of making good, informed decisions, if only they had better awareness, knowledge and skills. However, people are not always rational decision-makers, and do not always engage with this information. We may have limits in how much time we are willing and able to devote to engaging in some issues, and we have a range of calls on our attention, such as work, children, other household responsibilities and leisure and so on. Finding the best deal in a complex or infrequently visited financial market can require a significant amount of time, especially when the decision concerns a major household expense and is influenced by factors other than price.

People who do not understand financial products (or do not feel confident using them) are often less inclined to engage with the financial resources and support available to them, in case it adds to, rather than decreases, their confusion. The MaPS Adult Financial Capability Survey (2018) reveals that only 36% of people say that they have sought financial guidance in the last year. Recent work from the Financial Conduct Authority (FCA) suggests that risk warnings on savings accounts and compensation letters have limited impact on improving consumer knowledge and understanding – and the FCA warns against overestimating the effectiveness of simply warning or informing people as a way to achieve increased financial literacy and capability<sup>22</sup>. This is mirrored in other sectors, such as research by the US Consumer Financial Protection Bureau exploring the impact of displaying calorie intake information in restaurants,

<sup>21</sup> Financial Literacy, Financial Education, and Downstream Financial Behaviors (Fernandes, D. et al, 2014)

<sup>22</sup> Don't look here: do risk warnings really work? (FCA Insight, 2018)

which found that people filter out information they find uninteresting or irrelevant. A further example is provided in case study one, below.

*"I did some research looking at the impact of risk warnings and I couldn't find an experiment where risk warnings had any really significant impact."*

**Will Brambley (Research Associate and Behavioural Economist, True Potential Centre for the Public Understanding of Finance at the Open University)**

#### **Case study one: Encouraging consumers to act at renewal: Evidence from field trials in the home and insurance markets**

P Adams et al. conducted a series of randomised controlled trials (RCTs) with home and car insurers. The study explored how renewal notices can encourage consumers to switch or negotiate their policy at renewal.

The RCT tested four treatments: (i) including last year's premium next to this year's premium in renewal notices; (ii) sending a leaflet with renewal notices; (iii) simplifying renewal notices by using bullet points and simpler language; and (iv) sending reminders two weeks after renewal notices.

The study found that putting last year's premium on renewal notices caused between 11% and 18% more consumers to switch or negotiate their home insurance policy. However, over a quarter of customers did not recall receiving their renewal notice or did not read them. Further, the customers did not remember much about their insurance products.

With this in mind, it is also understandable why there is a discrepancy between what people say is important and what they actually do. For example, the Adult Financial Capability Survey (2018) finds that 38% of adults think it is very important to save for a rainy day, yet only 21% are regularly saving.

There is evidence that programmes aimed at improving people's awareness, knowledge and skills can be made more effective, in two main ways:

#### **1. Experiential learning applied at the 'right' time;**

*"Financial literature/education-types of intervention are based on the assumption that we learn mostly by description, rather than from experience. And actually, where people do learn from experience, the actual outcomes tend to be better."*

**Alex Chesterfield (Technical Specialist / Behavioural Economics & Design Unit (BDU) / Strategy & Competition Division of the FCA at the time of this research. Now Head of Behavioural Risk at Royal Bank of Scotland)**

Learning by description can be a useful way of providing consumers with new information. However, evidence suggests that experiential learning can provide better outcomes. This is because people

place greater weight on what they learn through experience<sup>23</sup> and this can lead to better calibration of expectations about the future<sup>24</sup>.

Evidence of experiential learning is seen across different financial products. For example, individuals with credit cards are less likely to incur fees the longer they hold a credit card<sup>25</sup>, as the regular credit card statements offers experiential opportunities for individuals to learn the needed financial behaviour. Similarly, the evidence from the Money Advice Service's What Works Fund illustrates that experiential learning among children and young people (school savings clubs) is effective for motivating financial behaviour<sup>26</sup>. A further example is provided in case study two.

#### Case study two: Financial Health Check

Ideas42 introduced a one-time, 30-60 minute phone appointment, where consultants worked one-on-one with participants to review monthly budgets and create financial goals. These focussed on building liquid savings and reducing high-interest credit card debt.

Participants who accessed the service saved 34% more than a control group of peers who did not access appointments. The test found that targeted assistance helped a broad range of families overcome barriers like limited attention, procrastination, and present bias that derail intentions to work toward financial goals.

Timing is also important. The work of Daniel Fernandes, John Lynch and Richard Netemeyer<sup>27</sup> suggests that the effects of financial education interventions decay over time, and therefore that 'just-in-time' financial education, tied to a particular decision, is better for increasing perceived relevance and minimising forgetting.

## 2. Making education applicable to context of daily lives:

Education needs to be delivered in a way that is relevant to the lives of the recipients, and the use of 'Rules of Thumb' appears to be a beneficial approach – as demonstrated by economist Antoinette Schoar et al. in a study of financial literacy with small enterprises in the Dominican Republic<sup>28</sup>. Schoar collected 'rules of thumb' from successful businesses that seemed useful and relevant to the everyday needs of the group – resulting in shorter, easier to grasp and above all, more relevant information. Training sessions were designed and run for local businesses using the 'rules of thumb' information as well as traditional financial literacy approaches. Business sales for participants who received the rules-of-thumb training went up by as much as 25%, whereas traditional training had

<sup>23</sup> Incorporating conflicting descriptions into decisions from experience (Weiss-Cohen, L. et al, 2016)

<sup>24</sup> Better calibration when predicting from experience (rather than description) (Camilleri, A.R. & Newell B.R., 2019)

<sup>25</sup> Learning in the Credit Card Market (Agarwal, S. et al, 2013)

<sup>26</sup> Findings in your hands: Evidence from our What Works Fund (Money Advice Service, 2018)

<sup>27</sup> Financial Literacy, Financial Education, and Downstream Financial Behaviors (Fernandes, D. et al, 2014)

<sup>28</sup> Keeping It Simple: Financial Literacy and Rules of Thumb (Drexler, A. et al, 2010)

little impact<sup>29</sup>. Using 'rules of thumb' has been explored in a range of contexts and they appear to be effective cues for specific financial behaviours<sup>30 31</sup>.

Although interventions to improve people's awareness, knowledge and skills can be made more effective by making learning experiential, 'just in time' and more relevant, results will only ever be limited until people think that financial wellbeing is a priority, and are motivated to engage with it. Even when interventions are tailored to people's individual circumstances, they can become demotivating if they strive towards multiple and confusing outcomes.

*"There are just so many valid decisions people could make. Do I pay off my mortgage? Do I pay off a credit card? I had a personal loan, do I reduce it? Do I put it in a savings account? If I put in a savings account, which savings account? Is it a lifetime ISA where I get a government benefit, is it a straight cash ISA, or a stocks and shares ISA? I don't know what stocks and shares are...I could just avoid doing something that's in my interest because I don't know about it and don't find it very comfortable."*

**Dr Peter Brooks (Head of Behavioural Science at Barclays)**

The complexities of behaviour that influence the way that people seek information are highlighted and discussed further in a recent article by Tali Sharot and Cass Sunstein<sup>32</sup>. They propose three factors that influence people's decisions to seek or avoid information, which are:

- The impact of that information on action (i.e. will this information help to understand the situation, gain rewards and avoid losses? And acknowledging that, sometimes, knowledge can make people 'select actions that lead to worse outcomes', while 'deliberate ignorance can lead to better outcomes');
- The effect of the information on feelings (i.e. might this information create positive or negative feelings – such as fear, and acknowledging that people are usually motivated to 'seek information that evokes positive effect' and 'avoid information that induces negative effect'); and
- The impact of the information on cognition (i.e. will this information 'enhance or reduce people's sense that they understand the world around them', and add or detract from people's own, internal, mental model of the world).

The rest of this chapter explores some of the biases and other factors that influence people's behaviour. First, by looking beyond knowledge, skills and awareness to the role of mindset and attitudes: to understand how people can become motivated to engage in, and prioritise, financial wellbeing behaviours.

<sup>29</sup> Keeping It Simple: Financial Literacy and Rules of Thumb (Drexler, A. et al, 2010)

<sup>30</sup> Developing a Rule of Thumb to help those going through a negative life event adjust to a sudden income drop (Money Advice Service, 2018)

<sup>31</sup> Developing a Financial Rule of Thumb to support young people using credit (Money Advice Service, 2018)

<sup>32</sup> How people decide what they want to know (Sharot, T., and Sunstein, C., Nature Human Behaviour Vol. 4, 2020)

## 2.2 Mindset and attitudes

As described in section 2.1, improving awareness, knowledge and skills is necessary, but not sufficient on its own for improving financial wellbeing. People also need to have a mindset to engage with this information, and to consider financial wellbeing a priority, in order to change their behaviour. Research from the Money Advice Service's What Works Fund confirms that lack of engagement with money guidance interventions is a major barrier to improving people's financial wellbeing.

Using a theory of motivation gives a broader view on why individuals might not hold a mindset to engage with their financial wellbeing. Specifically, the Self-Determination Theory<sup>33</sup> – a framework of motivation developed by Edward Deci and Richard Ryan – suggests that self-motivation is needed to encourage change in people's behaviour. This framework specifies that when the psychological needs of autonomy, competence and relatedness are met, an individual will become self-motivated to engage in that behaviour. In this section we apply this perspective to understand motivation with respect to financial behaviours: how scarcity, self-control, self-efficacy, confidence and shame (which can be linked with autonomy, competence, and relatedness) help to explain how motivation to engage in financial behaviours is built or thwarted.

### 2.2.1 Scarcity / bandwidth

Scarcity, whether of time, money or other resources, means we have less attention to process information and are therefore prone to making erroneous decisions. The impact of scarcity can be particularly detrimental for those with limited financial resources, as it has a negative impact on a range of wellbeing outcomes, including personal health, relations, and social mobility<sup>34</sup>.

Anuj Shah, Eldar Shafir and Sendhil Mullainathan<sup>35</sup> coined the term 'bandwidth' to describe the cognitive resource that humans have to reason, focus, make decisions, and resist immediate impulses. The authors show how bandwidth scarcity can effectively draw us in to a 'cognitive tunnel'. It pushes us to focus on near-term goals (for example how to pay the next bill) and, as such, takes away our freedom to consider our wider financial wellbeing and long-term goals. In the context of financial behaviours, this presents a challenge for engaging people in more responsible financial behaviours, because long-term financial wellbeing is not closely aligned with more immediate needs.

Bandwidth also has an impact on day-to-day spending, as many of the routine financial decisions that people make day-to-day are repeated and often distracted<sup>36</sup>. This makes them particularly difficult to continually monitor and adjust in an active and alert manner. Moreover, if bandwidth is compromised, people are unable to exert self-control, and are more likely to give in to impulses and temptations<sup>37</sup>, which is discussed next.

<sup>33</sup> Self-determination theory and the facilitation of intrinsic motivation, social development, and well-being (Ryan, R. M. & Deci, E. L, 2000)

<sup>34</sup> Social Dominance Theory: Explorations in the Psychology of Oppression (Sidanius et al, 2016)

<sup>35</sup> Some consequences of having too little (Shah, A.K. et al, 2012)

<sup>36</sup> Some consequences of having too little (Shah, A.K. et al, 2012)

<sup>37</sup> Some consequences of having too little (Shah, A.K. et al, 2012)

### 2.2.2 Self-control

Given the many demands, temptations, and uncertainties in our environment, it is perhaps expected that people can find it difficult to consistently exert self-control to manage their finances.

A common way to see self-control is through a person's ability to exert 'executive control'. A classic example comes from work done in the late 1960s by Walter Mischel et al. In this study, a number of young children sat in a room with a marshmallow in front of them. Before they could eat it, they were told that the researcher would leave the room and if their marshmallow was not eaten before the researcher returned, the child would get a second marshmallow. The children that waited were said to have used their executive control to resist the immediate reward for a later, less salient reward, showing self-control. More recent research<sup>38</sup> shows that exerting self-control is particularly difficult in unpredictable environments, so being able to exert self-control reflects both individual and environmental influences.

In the context of financial wellbeing, this suggests that humans tend to want to enjoy life now<sup>39</sup> (reflecting a bias for the present) which undermines our self-control to engage in behaviours which support financial wellbeing in the long-term. Considering the marshmallow example, it is one thing to resist an immediate reward in lieu of a greater reward that appears 15 minutes later and something else when the greater reward is for an event that may or may not happen (saving for a rainy day), or a time that is years or decades in the future (planning for retirement).

Shah et al<sup>40</sup> consider that it can be possible to improve self-control by disrupting the 'cognitive tunnel'. One way could be to send reminders to force a distant problem to become salient. Another way is to administer deadlines that are smaller but more frequent, for example by setting weekly savings goals that build towards a larger savings pot. The repercussions for not meeting these deadlines can be made smaller, but immediate, and easy to detect and manage.

### 2.2.3 Confidence

People's confidence is linked to self-control. If we lack confidence, we are less likely to take action to control our behaviours. However, this is a complex area. Some amount of confidence can on occasion result in unwarranted self-reliance, which is evidenced by the fact that confidence is a major reason why individuals who do not have the provisions to cope with financial shocks or who struggle to keep up with bills and payments or to build a savings buffer, don't seek advice: 37% feel that they could manage on their own<sup>41</sup>.

<sup>38</sup> Rational snacking: Young children's decision-making on the marshmallow task is moderated by beliefs about environmental reliability (Kidd, C. et al, 2013)

<sup>39</sup> Individuals' attitudes and behaviours around planning and saving for later life (Department for Work and Pensions, 2009)

<sup>40</sup> Some consequences of having too little (Shah, A.K. et al, 2012)

<sup>41</sup> Right Place, Right Time (Money Advice Service, 2017)

As such, confidence has multiple meanings and while it is clear that financial confidence is highly correlated with financial capability and wellbeing, the direction of causality is less clear: does being confidence make you more financially capable, or vice versa<sup>42</sup>?

### 2.2.4 Self-efficacy

Having a sense of self-efficacy (i.e. belief in our ability to succeed) is an important aspect of engagement with financial wellbeing. People with high financial self-efficacy have a strong faith in their abilities and see financial challenges as things to be mastered rather than avoided<sup>43</sup>. For example, higher self-efficacy has been found to be related to higher engagement with financial products among women<sup>44</sup>.

People with more self-efficacy feel more in control of the outcome of life events. The ability to control a situation's outcome is known specifically as our 'locus of control'. Households with an individual that has an internal locus of control (i.e. the belief that they are in control of life outcomes) have been found to save more<sup>45</sup>. This is consistent with a perspective that individuals' belief in their own competency is important in determining financial behaviour:

*"They simply don't feel competent enough to harvest the gain. So, they don't. They stick with what they know as they just don't feel competent to make the decision."*

**Pete Lunn (Head of the Economic & Social Research Institute's Behavioural Research Unit)**

In other words, it is a part of many individuals' perception of themselves that they are not competent enough to manage their finances effectively. In a negative cycle, this limits their motivation to do so, reinforcing this perception further. Therefore, working with people's perceptions of themselves, their identities and social norms, presents an opportunity for attitude and behaviour change – an idea which is explored in the next chapter.

Self-efficacy also has an influence on people's perceptions of risk. A series of papers known as the Competence Hypothesis<sup>46</sup>, posit the idea is that if an individual is considering making a risky decision, they are more likely to take action if they feel knowledgeable in the domain, compared to not. For example, sports fans are more willing to bet on sports events compared to a chance event with similar odds. Psychologist Amos Tversky (long term collaborator with Daniel Kahneman) established that the primary reason for this is because knowledge affects perceived competence to make a decision. Hence, when individuals feel that the decision is in a domain where they are more familiar, they feel more able to assess the risk, and are more likely to engage with making a decision.

<sup>42</sup> Building the Financial Capability of UK adults: Initial findings from the 2018 Adult Financial Capability Survey (Money Advice Service, 2018)

<sup>43</sup> Encyclopedia of human behavior (Bandura, A., 1994)

<sup>44</sup> The significance of financial self-efficacy in explaining women's personal finance behaviour (Farrell, L. et al, 2015)

<sup>45</sup> Locus of Control and Savings (Cobb-Clark, D.A., 2013)

<sup>46</sup> Preference and belief: Ambiguity and competence in choice under uncertainty (Heath & Tversky, 1991)



This shows that perceived competence in assessing a risk can be more important for motivation and engagement than the risk itself. For example, when trying to decide whether to switch mortgage, take out a pension, or invest in a savings product, there is a risk involved: the risk for the consumer is that they could get a poor deal or perhaps lose money. Pete Lunn says:

*“There’s a chance they make a mistake. And what they’re doing is they’re estimating the chance that they make a mistake to some degree. I think that’s one of the reasons why switching financial products is so low, because consumers are absolutely right. These are the products where there is the biggest asymmetry between what they know and what the people who are making money out of them know. That I think is a very, very important thing.”*

**Pete Lunn (Head of the Economic & Social Research Institute’s Behavioural Research Unit)**

When making decisions about financial products, the risks can never be completely clear as they are often in the future. As such, individuals need a relatively higher degree of self-efficacy to act in spite of this – and there is certainly a complex relationship between self-efficacy and confidence, and in turn with financial behaviours.

### 2.2.5 Shame

As humans, we typically want to connect with and seek acceptance from those around us. Given its social and motivational underpinnings, shame is a powerful emotion.

Shame comes from feelings of inadequacy relative to others; it is an intensely socially-derived emotion that results in a high degree of self-blame<sup>47</sup>. Further, the experience of shame can result in lowered confidence in negotiation<sup>48</sup>, and in individuals engaging in avoidance behaviours<sup>49</sup>.

A study by Gerd Gigerenzer et al. found that 85% to 90% of people would not want to know about upcoming negative events<sup>50</sup>. This suggests that willingness to be ignorant in order to avoid experiencing negative emotions means that shame, or the desire to avoid it, can negatively influence people’s motivation to engage with financial matters. Indeed, this might be particularly pronounced for less frequent financial decisions (which are often related to the more significant events), as noted by Will Brambley:

*“We tend to make mistakes in things we do rarely, and they [the things people do rarely] are the things that people are ashamed about. People who don’t have a pension or such is much harder to admit to than when it is just [a mistake with] everyday spending.”*

**Will Brambley (Research Associate and Behavioural Economist, True Potential Centre for the Public Understanding of Finance at the Open University)**

<sup>47</sup> Patterns of cognitive appraisal in emotion (Smith, C. A., & Ellsworth, P. C., 1985)

<sup>48</sup> Emotion-based model of negotiation process: The role of emotion in dyadic negotiation (Butt, A., & Choi, J. N., 2006)

<sup>49</sup> A Situational Analysis on How Salespeople Experience and Cope with Shame and Embarrassment (Verbeke, W. & Bagozzi, R.P., 2002)

<sup>50</sup> Cassandra’s Regret: The Psychology of Not Wanting to Know (Gigerenzer, G. & Garcia-Retamero, R., 2017)

Money may be a particularly shameful topic for those who are vulnerable and in need of help which can mean that they are less likely to seek help. The Lloyds Bank 'M-Word' campaign recognises this problem, and aims to move the discussion of money away from one of shame and self-blame, and to make it a more socially-acceptable subject, to support better financial capability and wellbeing<sup>51</sup>.

### 2.2.6 Heuristics, Nudges and Defaults

Scarcity, self-control, confidence, self-efficacy and shame help to explain why motivation to engage in behaviours associated with good financial wellbeing is low. They provide an explanation for how the many demands on our mental resources and attention can lead to erroneous or sub-optimal decisions that focus only on reaching immediate or short-term goals. Given these barriers, there is a case for focusing on simplifying the decision-making environment as a way to encourage and support good behaviours, without relying on changing motivation (which can be more difficult). The understanding and use of heuristics, nudges and defaults is key.

#### Heuristics

As well as being resource-bound, humans are influenced by their past experiences. Our past experiences, if repeated enough, become routine, and develop into automatic responses, and without much conscious deliberation can inform our present decisions. This idea has been explored in detail, for example by Daniel Kahneman<sup>52</sup>, who advocates 'system 1' automatic processes that operate through learned (past) experience and offer people with mental shortcuts to facilitate everyday life.

These mental shortcuts, or rules of thumb, are known as heuristics. People use heuristics to simplify decisions, especially when the topic is unfamiliar, by turning a difficult, complex question into an easier one. These can give 'good enough' answers (especially where some information is incomplete or unknown) and can help people to make a decision where otherwise they might have avoided doing so. Examples of heuristics might be 'using common sense' (buying items when they are in the sales) or using a 'rule of thumb' (I only buy this item when it is on special offer).

However, heuristics do not always lead to the right answer. They can be affected by people's biases and can lead to irrational decisions. The two processes most prevalent to financial behaviour in the literature are:

- Temporal discounting<sup>53</sup>: the tendency to discount rewards as they approach a point in the future or the past; that is, they become so far in the past or future that they are no longer considered to be valuable. This means that present rewards are considered more valuable than future ones.
- Mental accounting<sup>54</sup>: the process where people categorise economic outcomes. People budget money into mental accounts for expenses (e.g. saving for a car) or expense categories (e.g.

<sup>51</sup> Lloyds Bank: the M-word [www.lloydsbank.com/help-guidance/mword.asp](http://www.lloydsbank.com/help-guidance/mword.asp)

<sup>52</sup> Thinking Fast and Slow (Kahneman, D., 2011)

<sup>53</sup> Time Discounting and Time Preference: A Critical Review (Frederick, S. et al, 2002)

<sup>54</sup> Mental Accounting Matters (Thaler, R.H., 1999)

cosmetics, utilities, food), based on their own, subjective, criteria. This can lead to irrational or counterproductive financial decisions.

A recent review by the global Behavioural Science and Policy Association Working Group on Financial Decision Making also discussed how automatic decision-making processes can lead people into making poor financial decisions<sup>55</sup>. For example, people tend to give more weight to losses than to gains (so losing £10 is perceived to be worse than the benefit of gaining £10); and prioritise the present over the future (so £10 today is better than £20 tomorrow). This helps explain why some people are more susceptible to their impulses and will address immediate needs at the expense of longer-term financial wellbeing.

Equipped with an understanding of the heuristics that shape decision-making, numerous policy makers and academics have tried to change choice architecture to make it easier for people to overcome inertia and perform the target behaviour through nudges and defaults.

### **Nudges and defaults**

Nudges are a commonly used behaviour change intervention that aim to change the choice architecture. They make it easier for people to gravitate towards the option that offers more optimal outcomes, rather than relying on people to reflect analytically (and use up valuable mental 'bandwidth') on the merits of various choices. Nudges are defined in a paper, and book, by Thaler and Sunstein<sup>56</sup> as:

*"...any aspect of the choice architecture that alters people's behaviour in a predictable way, without forbidding any options or significantly changing their economic incentives. To count as a mere nudge, the intervention must be easy and cheap to avoid. Nudges are not mandates. Putting the fruit at eye level counts as a nudge. Banning junk food does not."*

Defaults are a type of nudge, described by Thaler and Sunstein as "pre-set courses of actions that take effect if nothing is specified by the decision-maker". Defaults do not require any effort on the part of the individual, and their use is particularly effective when there is inaction or uncertainty in decision-making.

Having said that, it is widely contested whether defaults are, strictly speaking, a nudge. Mols et al.<sup>57</sup> argue that, in the case of defaults, behaviour change is less the result of nudges than of well-understood persuasion techniques<sup>58</sup>. Certainly it is worth considering the two techniques separately, as each brings important but different benefits, as well as notable limitations.

Nudges are important. When applied in an appropriate setting, nudge techniques help to facilitate better decision-making and can show a significant and positive affect on some outcomes. For example, working with the Behavioural Insights Team, Her Majesty's Revenue and Customs were able to increase the number of people paying their income tax on time by sending a letter to the target population, letting

<sup>55</sup> Behaviorally informed policies for household financial decision making (Madrian et al, 2017)

<sup>56</sup> Nudge: Improving decisions about health, wealth, and happiness (Thaler & Sunstein, 2008)

<sup>57</sup> Why a Nudge is Not Enough: A Social Identity Critique of Governance by Stealth (Mols et al, 2014)

<sup>58</sup> Social Influence (Turner, J.C., 1991)

them know that most people in their local area had paid on time, and/or that most people with a debt like theirs had paid on time. The use of these and similar messages was estimated to have brought forward £210m of tax revenue in 2012/13<sup>59</sup>.

Defaults are also important. While nudges are choice-structure interventions designed to increase the chances of an individual choosing the preferred option, defaults, by contrast, enable passive participation in decision-making. This effectively motivates participants to offload their decision-making opportunity. Defaults can work at scale and have had demonstrable success in changing behaviours – most notably in pensions Automatic Enrolment which has increased the proportion of UK staff in a workplace pension scheme from 55% to 87% from 2012 to 2018<sup>60</sup>. A further example is provided in case study three.

#### **Case study three: Sending out an SMS: The impact of automatically enrolling consumers into overdraft alerts**

Cafilisch et al. conducted analysis on a large and detailed dataset covering the transactions of 1.5 million consumers across six banks. By looking at large-scale automatic enrolment exercises carried out by two major retail banks, they were able to estimate the effect of automatically enrolling consumers into these alerts.

Their analysis found that automatic enrolment into unpaid item alerts reduced bank charges by 21-24%, and automatic enrolment into unarranged overdraft alerts reduced bank charges by 25%.

Nudges and defaults help to tackle the inertia common in financial decision-making which leads people to stay with their current situation regardless of its outcome. A 2018 study used robo-advisors to test the effectiveness of a default and a warning nudge on inertia around investment decisions. The study found that the interventions made a significant difference, reducing inertia from 42.1% in the control group to 29.8% for the default and 27.4% for the warning message<sup>61</sup>.

Although nudges and defaults can have significant and positive impacts, there are limits to what they can achieve and it is important to understand these.

Research suggests that nudges tend to change behaviour in very specific circumstances - where there are already motivated individuals willing to undertake a well-defined outcome. There is evidence that they are useful tools for dialling up motivations to a degree, but the evidence also shows that they do not often lead to dramatic changes and, without altering underlying motivations, any changes in behaviour do not tend to be sustained. As Will Sandbrook mentions:

<sup>59</sup> The behaviouralist as tax collector (Hallsworth, M., et al. 2014)

<sup>60</sup> Automatic enrolment commentary and analysis: April 2018-March 2019 (The Pensions Regulator, 2019)

<sup>61</sup> Robo-Advisors and Financial Decision Inertia: How Choice Architecture Helps to Reduce Inertia in Financial Planning Tools (Jung, D. & Weinhardt, C., 2018)

*"It's a bit too easy to focus on upstream behaviours like engagement, because you get people to read something, look at something, or search for information somewhere. If you can find ways of getting them to do that, you feel like you've succeeded because you've increased engagement. But it's not at all clear whether you've actually altered any of your downstream behaviours."*

**Will Sandbrook (Executive Director, NEST Insight)**

To give an example, the FCA conducted a study to explore how to encourage individuals to move their savings to accounts with higher interest rates<sup>62</sup>. The FCA tested the impact of sending a basic reminder letter, compared with the use of different behaviourally-informed messages in the reminder letter, and compared with different timings of the reminder – and how each of these affected individuals' behaviour. Their trial involved 20,000 customers at a large UK financial institution, and concluded that 'reminders make a notable difference to switching behaviour in savings accounts', and that 'the very fact of getting a reminder is more important than the precise phrasing of the reminder'.

The FCA made a similar conclusion in a study to encourage mutual societies to submit their annual returns on time<sup>63</sup>, which found that the use of behaviourally-informed content (bullets and warnings) in reminders 'failed to change the behaviour of societies compared to the control' (where the control was a simple reminder without bullets and warnings). Similarly, despite many advertisers framing their messages in terms of loss (for example, "you will lose out by not buying our product"), a meta-analysis of 93 studies<sup>64</sup> found no statistically significant differences in the persuasive power of public health messages framed in terms of loss as opposed to gain.

In another FCA study<sup>65</sup>, the use of nudges was employed as a way to increase people's credit card payments. In a study of over 40,000 newly-issued credit cards, the 'automatic minimum payment' option was removed during credit card activation – because consumers would often only pay the contractual minimum and therefore barely pay down their credit card debt. Doing this had a significant effect, as one in five credit card holders went on to choose a higher automatic fixed payment instead of an automatic minimum payment. However, the study found that this had no effect on broader economic outcomes: 'we observe no effects, on average, on spending, payments, outstanding debt or borrowing costs'. As the FCA paper states:

*"Our findings fit into a broader literature – beyond financial products – on evaluating the effect of nudges (and other) interventions... While early studies found these to be effective – often using short-term, easily observed, direct changes in consumer choices — this paper demonstrates the importance of assessing real economic outcomes observable in field or natural experiments over time."*

<sup>62</sup> Stimulating interest: Reminding savers to act when rates decrease (Adams, P., et al, 2015)

<sup>63</sup> Full disclosure: a round-up of FCA experimental research into giving information (Smart, L., 2016)

<sup>64</sup> The relative persuasiveness of gain-framed and loss-framed messages for encouraging disease prevention behaviors: a meta-analytic review (O'Keefe & Jensen, 2007)

<sup>65</sup> The semblance of success in nudging consumers to pay down credit card debt (Adams, P. et al, 2018)

In summary, while nudges play an important role in supporting financial wellbeing, we should also be clear that, at present, there is limited evidence to conclude that they have a significant or sustained impact on people's financial behaviour. As Pete Lunn reported, for this review:

*"I'd say any effect sizes I've seen are quite small. And certainly, in some circumstances it doesn't appear really to have worked at all and can even backfire."*

**Pete Lunn (Head of the Economic & Social Research Institute's Behavioural Research Unit)**

Defaults, on the other hand, may have surprising and unexpected consequences, such as lowered engagement leading to detrimental financial decisions, or the appearance of less desirable behaviour in other parts of people's financial lives.

A 2018 study, using data from a large number of accounts drawn from five credit card companies, looked at the impact of automatic payments. It found that automatic minimum payments have the desired effect of making consumers' payments more reliable by setting a strong default option. However, the study also found that this default, combined with consumer inattention, created a large and negative side-effect: that consumers effectively forget about their credit card balance, and as a result tend to make fewer or no manual payments. Manual payments otherwise have the greatest impact on reducing credit card balances and therefore interest charged. As the authors state, the impact of this is that 'automatic minimum payment card holders pay 2-3 times more in extra interest than the late payment fees that they save', and, overall, that 'the interest caused because of consumer inattention as people self-select into a strong default is about 12% of all the interest ever paid in the credit card market'<sup>66</sup>.

A study in 2017, by researchers from Harvard and Yale Universities and the National Bureau of Economic Research (in collaboration with the United States Military Academy), looked at the impact of a US Army programme to automatically enrol newly hired civilians into their 'Thrift Savings Plan' (at a default rate of 3% of income). The study found that, four years after hire, people automatically enrolled in the Thrift Savings Plan were borrowing more money for car loans (increased by 2% of income) and first mortgage balances (increased by 7.4% of income)<sup>67</sup>. It is important to acknowledge that these effects are not negative and could even be positive: they are associated with assets that have a positive value, especially in the case of property that may also increase in worth. All the same, the scheme had wider and significant consequences for people's finances.

Alex Chesterfield made a similar point for this review:

<sup>66</sup> When Setting a Default Payment Harms Credit Card Holders (Sakaguchi, H. et al, 2018)

<sup>67</sup> Borrowing to Save? The Impact of Automatic Enrollment on Debt (Beshears, J. et al, 2017)

*“People who have been auto-enrolled are borrowing to save, so from a household financial spreadsheet, you know, what goes in and what goes out, people are saving more through a pension, but they are borrowing to do that. So it is having an adverse effect on the household financial balance sheet.”*

**Alex Chesterfield (Technical Specialist / Behavioural Economics & Design Unit (BDU) / Strategy & Competition Division of the FCA at the time of this research. Now Head of Behavioural Risk at Royal Bank of Scotland)**

A key explanation for these results is that nudges and defaults do not alter people’s mindsets, and therefore long-term behaviours. These case studies show that people are active agents in their decision-making and, as such, automatic mental processing may well be only a small part of the overall landscape of decision-making.

With this in mind, there is a need to consider alternative explanations for the apparent successes of nudges and defaults, and care needs to be taken not to overstate their impact. In the case of the nudges used in HMRC’s tax letters, described above, one explanation for this success is that the letters made customers more aware of how others are behaving, and what the socially acceptable behaviour (i.e. the norm) was. Specifically, the letters highlighted that other people in the local area paid their tax bills on time, as did other people with a debt like theirs. The letters also indicated that the recipient was under the surveillance of an authority, and this may also have had an impact.

We consider that nudges tend to be more effective when the target behaviour is aligned with a mindset related to an individuals’ identity. However, most nudges adopt a ‘one-size-fits-all’ approach, and so do not reflect the way in which individuals see themselves nor the wider context and environment within which they operate and make decisions. This explains why nudges and defaults have a limited effect on building self-motivation, meaning that we need to look beyond these interventions to change mindsets. This perspective is echoed by Professor Helene Joffe, an expert on behaviour change intervention development:

*“As a psychologist I think I’m increasingly realising that you’ve got to actually look at both environmental nudges and people’s internal states.”*

**Helene Joffe (Professor of Psychology at University College London)**

As the examples above illustrate, nudges and defaults can be useful for helping people overcome initial inertia and make it easier to engage people in their financial wellbeing. However they are unlikely to change underlying motivation and, certainly in the case of nudges, behaviour in the long-term. In order to sustain behaviour change over longer periods of time, financial wellbeing needs to align with individuals’ identity and sense of self. This is important for building self-motivation, which will in turn eventually encourage people to engage with and prioritise financial wellbeing. There is, therefore, a need to offer solutions that reflect the social context in which individuals live and the meanings they ascribe to them; this is explored in the next section.

## 2.3 Social identity and connection

In order to achieve significant and sustained behaviour change - in the right direction, without unintended consequences – financial wellbeing needs to be a part of people’s self-identity. Social identities are therefore an important consideration for changing the way that people think about and engage with their finances, and potential solutions should reflect the social context in which people live and make decisions.

This builds on a large body of sociological study, such as work by Christian Poppe at the University of Oslo, who explores the behaviour of default-debtors and why it does not always align with the expectations of the market or regulators. This study describes how people’s behaviour or ‘economic action’ is embedded in social contexts, reflecting ‘life world’ and ‘system world’ factors. It also describes how economic action is ‘tied to a class- and status-specific codex’ and ‘rooted in value systems and... based on skills that are acquired during socialisation processes and adjusted throughout life’<sup>68</sup>.

This section explores how our social identity and connections play a critical role in how we engage with the financial system and, therefore, how influencing these will be essential to informing any behaviour change programme.

### 2.3.1 Humans as meaning-makers

Humans do not just react to the world around them; we also attempt to create order and make sense of it. We live in a world surrounded and shaped by other humans, and so how we see ourselves is in part a function of the way others see us. This shapes our views, our decision-making, and therefore also our behaviours and motivations<sup>69</sup>. It is a key component of the way in which we reflect on ourselves and our relationship with money. As Magda Osman - reader in Experimental Psychology at Queen Mary, University of London – writes:

*“Humans aren’t simply automata carrying out plans of action in response to external stimuli, based on biological and neurological mechanisms. Humans are pro-active, not just reactive to the world around them.”*

Importantly, our relationship and connection with money captures one aspect of our identities, but it does not recognise the range of identities that individuals have. People tend to feel motivated to engage in financial behaviours that line up (rather than conflict with) with our sense of self. Therefore, in order to achieve sustained behaviour change, there is a need for solutions that reflect the wider social context in which people live and make decisions.

As described in section 2.2, people are often motivated to engage in behaviours that reflect their own sense of self. The literature suggests there are two mechanisms that are important for how we view our identity: **prospecting the future**, and **social norms**.

<sup>68</sup> Into the Debt Quagmire: How Defaulters cope with Severe Debt Problems (Poppe, C., 2007)

<sup>69</sup> Pragmatic Prospection: How and Why People Think About the Future (Baumeister, R.F. et al, 2016)



### 2.3.1 Prospecting the future

Humans have a desire to control and shape our future outcomes. We are motivated not just by what *could* happen, but also by what we *want* to happen. Recent work by Martin Seligman, Peter Railton, Roy F. Baumeister, and Chandra Sripada<sup>70</sup> as well as Magda Osman<sup>71</sup>, and others<sup>72 73 74</sup> suggests that we thrive by considering our future prospects. The power of this prospection and vision motivates us and enables us to flourish. According to one of these studies, future prospection is a two-stage process: first, we draw on our experience to identify future opportunities, and second, we decide whether and how to pursue them<sup>75</sup>. This paves the way for taking action now, based on our future needs and goals.

Prospection is not aimed at controlling events themselves, but, instead, is aimed at helping individuals to prepare a more adaptive response to an event. For example, an individual might not be able to control a shock to the financial system, but they can work towards building up savings to fall back on, should that shock occur. Prospection can be useful to help humans prepare cognitively and emotionally for bad news – for example by preparing for the worst of outcomes. This provides a mechanism that could change current behaviour (such as putting £100 into a savings account) if that aligns with personal values (such as viewing being a saver as part of our self-identity).

The evidence suggests that interventions that involve prospecting the future can be effective at achieving sustained behaviour change. For example, Oyserman and Lewis conducted an RCT using a school-to-jobs intervention<sup>76</sup>. The study aimed to: (i) change pupils' identities by enabling them to understand the actions they need to take *now* to attain what they want in the *future*; (ii) harmonise these actions with important identity characteristics, including gender, race, ethnicity and class; and (iii) provide an interpretation that performance in school is important and not impossible for school-focussed future identity. The intervention itself was brief, only lasting seven weeks. However, the effects of it were long-lasting, and continued to last through a two-year follow up.

There are some challenges with prospecting the future. The way an individual identifies themselves may have negative implications for their financial wellbeing as, for many people, identity is associated with the objects they own and the lifestyle they have. These are very tangible and potent and could also lead people to spend beyond their means or prioritise the immediate gratification of belongings over long term activities such as saving. On the other hand, a future-self associated with financial wellbeing and resilience is abstract and simply does not hold significant appeal for many people in the UK. If associated with money at all, our identities tend to line up with a culture of spending and living for today, rather than saving money for tomorrow. Therefore, one of the most significant challenges (and therefore

<sup>70</sup> Navigating Into the Future or Driven by the Past (Seligman, M. et al, 2013)

<sup>71</sup> Future-Minded: The Psychology of Agency & Control (Osman, M., 2014)

<sup>72</sup> Desire and desire regulation (Baumeister, R.F. et al, 2015)

<sup>73</sup> Implementation intentions: Strong effects of simple plans (Gollwitzer, P.M., 1999)

<sup>74</sup> Effective self-regulation of goal attainment (Oettingen, G., 2000)

<sup>75</sup> Pragmatic Prospection (Baumeister, R.F. et al, 2016)

<sup>76</sup> Seeing the Destination AND the Path (Oyserman, D. & Lewis, N.A., 2017)

opportunities) will be finding ways to develop attractive social identities around financial wellbeing, that people then use to help navigate the future.

### 2.3.2 Social norms and peers

As described earlier, nudges aimed at changing the choice architecture have limited scope for long-term behaviour change. This is because the new behaviours often do not align with our self-identity and how we see ourselves. Once the nudge is removed, old habits may reappear.

The literature suggests that this is in part because humans are social beings and our behaviour is influenced by the presence of others<sup>77 78</sup>. We try to make sense of the world around us, and look to others who we perceive as similar to us, for meaningful guidance. Our social identities, therefore, can be a potentially valuable resource that can be used to help internalise new norms. From this perspective, there is a need to engage people as members of groups whose norms they enact.

Much of the literature in this space focusses on using social norms and peers to change behaviour. Typically, the behaviour change interventions used are based on the premise that individuals tend to conform to the majority that is behaving responsibly. The HMRC tax letter example used earlier in this report is a well-known example. In another study, Goldstein, Cialdini, and Griskevicius<sup>79</sup> used norms around towel reuse in hotels to reference how the majority of guests behave, to inform others about appropriate behaviour. Descriptive norm messages (such as “75% of hotel guests have reused their towels”) were shown to be more effective than typical environmental appeals. A further example is provided in case study six.

#### Case study four: Queensland Water Commission and the Target 140 campaign

Responding to severe drought in Queensland, Australia in 2006, the eight-month Target 140 campaign targeted household users, aiming to change the water use habits of SEQ residents and reduce overall water consumption.

The campaign focussed on redefining people’s identities, and what it meant to be a ‘good Queenslander’, i.e. one that saves water. It successfully reduced consumption, and also contributed to long-term behavioural and attitudinal change: levels also stayed below the desired level, even after the draught ended in 2009.

Peer education is another approach for achieving identity-based behaviour change. This works on the basis that a message is more persuasive when it comes from ‘someone like you’ – something that was also identified in the What Works Fund research on the effectiveness of peer-led interventions<sup>80</sup>. Peer

<sup>77</sup> Social Norms: Do We Love Norms Too Much? (Bell, D. & Cox, M., 2010)

<sup>78</sup> Social Influence (Turner, J.C., 1991)

<sup>79</sup> A room with a viewpoint: Using social norms to motivate environmental conservation in hotels (Goldstein, N.J. et al, 2008)

<sup>80</sup> Findings in your hands: Evidence from our What Works Fund (Money Advice Service, 2018)

education has been successfully used to reduce unhealthy behaviours<sup>81 82 83</sup> as well as to reduce racial verbal abuse in football, through campaigns such as 'Let's kick racism out of football' and, in Scotland, 'Show racism the red card', by working with well-known white football players<sup>84</sup>. Peer education has even been shown to increase tax compliance<sup>85</sup>.

Like prospecting the future, there are some challenges with the way social norms are interpreted, that need to be taken into consideration. People will not necessarily react to social norms in the way we expect. This is particularly true when the majority (i.e. the norm) is not displaying the desired behaviours<sup>86</sup>. Unfortunately, as Mols et al point out, individuals tend to misjudge the attitudes and behaviours of their peers<sup>87,88</sup>. People who engage in behaviour which deviates from the norm will overestimate how many others do the same – showing a false consensus. At the same time, people who conform to the norm will often underestimate it<sup>89,90</sup>. This creates 'a spiral of silence' as those doing the 'right thing' feel marginalised whilst the 'deviant minority' do not feel a need to defend their behaviour<sup>91</sup>.

As noted in the literature, a challenge to using social norms with respect to people's social identities is that people have a large number of social identities, that can change in different settings or at different times. Consequently, it can be hard to know precisely which norms people might relate to. The effectiveness of this approach therefore depends on the degree to which an intervention engages with the identity that is most salient<sup>92</sup>. Considering the example of the towels in the hotel room, if you do not identify yourself as similar to other people that use the hotel room, then you are unlikely to be influenced by an intervention that is based on the premise that you *are* like those other people.

There is also the risk of using 'the wrong norms' and 'deviant minorities'. These describe how people will adjust their behaviour to a 'worse' level, if they think they are 'better' than the norm or do not wish to be like the norm. In these cases, drawing attention to prevailing norms would merely serve as an excuse for others to follow suit. In other words, drawing attention to, for example, the low levels of advice-seeking is unlikely to motivate individuals to start seeking financial advice.

Mols et al challenge the notion of social norm interventions operating on the basis that people change their behaviour because they have a desire to fit in, rather than because they are motivated by a new identity<sup>93</sup>. In fact, someone acting in a minority may well reject the consensus view and identify

<sup>81</sup> The power of peer health education (Sloane, B.C. & Zimmer, C.G., 1993)

<sup>82</sup> Understanding peer education: insights from a process evaluation (Milburn, K. & Wilson, S. 2000)

<sup>83</sup> Peer education for people who inject drugs in New South Wales (Newland, J. & Treloar, C., 2013)

<sup>84</sup> Examining Prejudice-Reduction Theories in Anti-Racism Initiatives (Jensen, G. et al, 2010)

<sup>85</sup> The impact of outcome orientation and justice concerns on tax compliance: The role of taxpayers' identity (Wenzel, M., 2002)

<sup>86</sup> Public Health England Social Marketing Strategy 2017 to 2020 (2017)

<sup>87</sup> Changing the Perception of the Norm (Haines, M.P. & Shear, S., 1996)

<sup>88</sup> An Overview of the Social Norms Approach (Berkowitz, A., 2003)

<sup>89</sup> Social Roles, Social Control, and Biases in Social-Perception Processes (Ross, L.D. et al, 1977)

<sup>90</sup> When social comparison goes awry: The case of pluralistic ignorance (Miller, D.T. & McFarland, C., 1991)

<sup>91</sup> Pluralistic ignorance and the perpetuation of social norms (Prentice, D.A. & Miller, D.T. 1996)

<sup>92</sup> Descriptive and Injunctive Norms in College Drinking (Borsari, B. & Carey, K.B., 2003)

<sup>93</sup> Nutritious Or Delicious? The Effect Of Descriptive Norm Information On Food Choice (Burger, J.M. et al, 2010)

themselves with groups that actively resist the majority (a situation seen today in the anti-vaccination movement, and in climate change sceptics).

Social context is therefore a key component of the way in which we reflect on ourselves and our relationship with money. Research by Dr Heather Barry Kappes at the London School of Economics shows how our relationship with money is set at an early age and focuses on spending:

*“Research with children about perceived wealth suggests this is highly related to spending money. Children tend to think that the only reason not to buy something you like is if you cannot afford it.”*

**Dr Heather Barry Kappes (Assistant Professor of Marketing at London School of Economics and Political Science)**

If behaviours associated with financial wellbeing (such as saving) are felt to conflict with our sense of self, then some people will not be self-motivated to engage in those behaviours or give them sufficient priority in their lives.

Therefore, the task in changing behaviour is to do more than provide accurate normative information to encourage compliance. Instead, for lasting, large-scale behaviour change, norm internalisation and therefore motivation, is necessary. There is a need to develop attractive social identities around financial wellbeing, by identifying or accessing social identities that matter to people. By building on the normative behaviour associated with these, it is possible to build on these conceptions and persuade people to behave in ways that are consistent with both their identity and the norm.

There remain questions on how this can be achieved. Current evidence on alternative ways to use norms and peers can provide some useful considerations for designing policy to achieve this. This is explored in section 2.3.3.

### 2.3.3 Reframing the ideal behaviour as consistent with existing identities

As discussed, there appears to be merit in reframing or aligning ideal behaviours so that they fit with people's existing values, and in developing a programme of interventions that clearly communicates what good financial management and engagement looks like. This will enable people to recognise a personal benefit, making it easier to internalise behaviours and become self-motivated.

Changing or influencing social identities can be difficult, but it is not impossible. In a recent study aimed at reducing unhealthy eating among teenagers, Christopher J. Bryan et al. hypothesised that aligning healthy eating with important and widely-shared adolescent values could produce the needed motivation to reduce unhealthy eating. In a controlled experiment<sup>94</sup>, the authors framed healthy eating as consistent with adolescent values, such as autonomy from adult control and the pursuit of social justice. Specifically, healthy eating was suggested as a way to take a stand against manipulative and

<sup>94</sup> Harnessing adolescent values to motivate healthier eating (Bryan, C.J. et al, 2016)

unfair practices of the food industry. The experiments saw participants forgo sugary snacks and drinks in favour of healthier options.

There are other success stories of where policy makers have tapped into, and influenced, people's identity. In 2015, Sport England launched their seven-year 'This Girl Can' nationwide strategy and campaign, aimed at getting women and girls moving, regardless of their shape, size and ability. The campaign sought to challenge the conventional idea of what exercise looks like, in order to inspire more women to take action. The campaign has sustained changes in attitudes and behaviour. Within one year of its launch, 2.8 million 14-40-year-old women said they had done some form of activity as a result of seeing the campaign<sup>95</sup> and it has successfully encouraged many women who previously failed to see exercise as part of their identity.

Similarly, WRAP (a not-for-profit social enterprise) launched a behaviourally-led communications campaign called 'Recycle Now'. The campaign drew on social norms to design normative messaging to make people feel like everyone else recycles, and therefore they should too, as socially responsible citizens. Initial testing has shown that it has had positive effects so far. Further, over three in five people in the UK describe themselves as committed recyclers, compared to less than half when the campaign began in 2004<sup>96</sup>.

Such examples demonstrate the potential of interventions aimed at changing people's identities, rather than directly changing the behaviour itself. There are other examples of where this concept has worked on a large scale, for example the recent impact of the #MeToo movement on women speaking out about sexual harassment, and the rise in prominence of veganism and climate change, owing to a shift in perceptions that these are important topics for people who identify as socially responsible and healthy citizens. To take veganism as a particular example, increased interest has come in the context of a broader social trend towards people wanting to become fitter, healthier, and more environmentally sustainable. In this case, personal health (i.e. physical wellbeing) has acted as a catalyst for encouraging motivation, whereas in the past, non-personal motivations (i.e. protecting the welfare of animals) failed to have the same effect on such a large scale.

This evidence suggests that, rather than getting people to change their identity or adopt a different identity, it may in fact be easier and more effective to reframe or align the ideal behaviour as consistent with people's existing identities and strongly held values.

Linked to this, it also suggests that for an individual to feel motivated to change their behaviour, they may need to recognise a personal benefit. Without this, it can be harder to internalise behaviours and become self-motivated. Therefore, there is merit in choosing a financial wellbeing behaviour that is consistent with the identity of the target population, and in then developing a programme of interventions that drives home the message of what good behaviour looks like.

<sup>95</sup> This Girl Can campaign summary (Sport England, 2016)

<sup>96</sup> Recycle Now case study (Behaviour Change: <https://behaviourchange.org.uk/case-studies/recycle-now>)

This mechanism is currently being applied to some financial advertising campaigns. For example, Starling Bank are promoting their challenger mobile app banking tools through a message of: 'You're not bad with money. You're just with the wrong bank'. Similarly, First Direct's money wellness campaign attempts to rebrand the bank as the go-to for people's financial wellbeing, challenging misconceptions that hold people back from banking with confidence with messages such as: 'There's no right way to money'. This campaign promotes the idea that individuals engage with money in different ways, and their focus should be on being better with their money, rather than focussing on – and potentially being demotivated by – a 'gold standard' of money management.

## 3. Attributes of a successful behaviour change programme

### Chapter Summary:

This chapter summarises the attributes of a successful behaviour change programme and reflects on points for consideration for MaPS.

The evidence reviewed as part of this research discusses the need to change how people think about and engage with their finances, and some of the behavioural mechanisms and solutions for doing so. A successful behaviour change programme is likely to be one that:

- is long-term, enabling interventions to address both specific behaviours in the short-term as well as building financial resilience;
- is holistic, to ensure that a gain in one area of financial wellbeing does not come at the expense of another;
- is multifaceted, employing a range of intervention types to target both the individual and the wider environment or system; and
- involves collaboration with a range of other parties.

The evidence reviewed as part of this research discusses the need to change how people think about and engage with their finances, and some of the behavioural mechanisms and solutions for doing so.

### 3.1 Attributes of a successful programme

To help assess the degree to which there is scope for changing the way the UK population engages with, and thinks about, their financial wellbeing, Ipsos MORI also reviewed a number of behaviour change studies and programmes to understand some of the common success factors in behaviour change interventions. These included evaluations of interventions designed to address individuals' money and pensions behaviours, as well as financial interventions on both the Behavioural Evidence Hub<sup>97</sup> (B-Hub) and Ideas42<sup>98</sup>, a US-based non-profit that uses insights from behavioural science to drive social change, and health interventions. Smaller-scale studies lacking in statistical evidence were not included in the review.

Based on this review of interventions, and the evidence gathered through the literature review and expert interviews, we set out the attributes a behaviour change programme would need to be successful.

#### 3.1.2 Long term

Chapter two described how social context and identity is a key component of the way in which we reflect on ourselves and our relationship with money. If behaviours associated with financial wellbeing (e.g.

<sup>97</sup> <http://www.bhub.org/>

<sup>98</sup> <https://www.ideas42.org/>

saving) are felt to conflict with our sense of self, then some people will not feel self-motivated to engage in those behaviours and give them sufficient priority in their lives.

The evidence suggests that while some tactical approaches (such as defaults) could be used to address specific behaviours in the short-term (although acknowledging that these can also have longer-term outcomes, as in with Pensions Auto-Enrolment in the UK), building long-term resilience will require tapping into social norms, meaning and motivation that individuals ascribe to financial behaviours. This is undoubtedly a more challenging task which will require a long-term approach and solutions.

Time also needs to be set aside for the careful design, piloting and roll-out of any programme (including its constituent campaigns and interventions).

### 3.1.3 Holistic

Changing people's behaviour in one area may have unintended and negative consequences for their behaviour in another area. For example, we have highlighted the way that nudges or defaults can make positive improvements in one area of financial wellbeing, but can have unintended and negative consequences for another.

A financial wellbeing behaviour change programme should therefore build a holistic view of the individual from the start: understanding how different aspects of financial wellbeing relate to each other, and guarding against the possibility that a gain in one area of financial wellbeing does not come at the expense of another (or, that the delivery of a temporary positive response undermines sustained change).

### 3.1.4 Multifaceted

We have explained how awareness, knowledge and skills are important and necessary prerequisites for making effective financial decisions but are not sufficient to change behaviour on their own. Similarly, improving mindset, attitudes and motivation is important for helping people to engage with and prioritise financial wellbeing, but if it conflicts with their social identity then their behaviour change will not be sustained over time.

It is also important to recognise and address the decision-making environment and wider financial wellbeing system with which people interact, which plays a major role in either enabling or inhibiting people's financial behaviour.

We therefore recommend a multifaceted approach that employs a range of intervention types. A successful financial wellbeing behaviour change programme needs to consider interventions that act on the individual and acknowledges the role of, and interplay between, people's knowledge, skills and awareness, mindset and attitudes, and social identity. It should also consider interventions that act on the decision-making environment and the wider system.

We broadly classify a range of types of interventions according to varying degrees of involvement placed on the individuals. These include (moving from less to more reliant on the individual):



- **Products**, for example those which allocate payments to different types of savings: interventions focused on changing the product, with no involvement of the individual beyond their use of the product itself.
- **Habits**, for example an application that guides individuals through setting up a weekly contribution to a savings account: interventions focused on involving the individual in setting up a routine that allow them to offload continual effort onto a product.
- **Motivation**, for example a campaign that shows different people engaging in different forms of debt repayment: interventions that aim to involve the individual in shaping their views and expectations about engaging in financial behaviours.
- **Education**, for example providing a session that outlines how different levels of pension contributions impact funds available at retirement: interventions that change understanding of how financial products work.

While the evidence reviewed in the financial behaviour space tends to focus on the intervention types that are less reliant on the individual (Products and Habits), given the ambition of MaPS there is certainly value to draw upon the use of intervention types that are more reliant on the individual – taking inspiration from interventions outside of financial behaviour.

### 3.1.5 Involving partners

Delivering an effective holistic, multi-faceted behaviour change programme across the financial wellbeing system will require MaPS to engage a range of partners with clearly defined roles.

## 3.2 What else needs to be considered?

While outside of the scope of this research, the insights from the interventions, along with insights from practitioners, suggest a number of considerations for designing a behaviour change programme:

### 3.2.1 Specific versus holistic targeting of behaviours

As described above, there is a need for a multifaceted approach that employs a range of intervention types. A successful financial wellbeing behaviour change programme both needs to consider interventions that rely on the individual, as well as interventions that rely on the decision-making environment. While it is important to target specific behaviours, the evidence suggests that successful interventions are more effective if these all operate within a wider umbrella to work towards a wider holistic set of goals.

### 3.2.2 Guiding behaviour versus changing motivations to facilitate behaviour:

A successful behaviour change programme will need to involve long-term solutions that tap into social norms, meanings, and motivations that individuals ascribe to financial behaviours. The evidence suggests that interventions to facilitate behaviour change by influencing motivation are most useful for influencing

longer term *activities* (e.g. pension provision, large scale debt repayment), whereas driving motivation to take a long-term *perspective* (and sustaining that motivation) can be elusive.

### 3.2.3 Long term versus short term programmes

Similarly, changing motivational aspects of financial wellbeing is not something that can be achieved in the short-term. However, there is clearly an opportunity for targeted interventions on specific behaviours in short-term that can build up to offer long-term resilience. This requires co-ordinated planning.

### 3.2.4 Intended versus unintended outcomes

Any intervention can have unintended consequences and unexpected effects – as noted earlier in the discussion of nudges and defaults. Sometimes these effects can be predicted and mitigated for during programme development (and noting the point above, about the importance of taking a holistic view), and sometimes they will only be uncovered through testing and research (which should therefore be built into any programme).

### 3.2.5 Style of delivery

If there is not a proper understanding of the social context in which people think about money, then it is easy for them to assume that the message simply does not apply to them. It is important therefore to consider aspects such as whether the right language is being used, or if it is coming from someone like the intended recipient, talking about things that matter to them. As shown in section 2.3.2, we are receptive to those who we consider to be similar to us.

### 3.2.6 Delivery channel

Whilst behaviour change is often aligned with the use of above-the-line campaigns, we are of the view that these are one possible ingredient of a wider programme. It is critically important to consider the purpose of the programme and its constituent parts, and then to determine the most effective (and feasible) delivery mechanisms. Different delivery mechanisms need to be co-ordinated across all the interventions that make up a programme and should be reviewed across a multi-year period to mirror societal changes.

### 3.2.7 Cumulative effects

These undoubtedly have a role to play. The literature suggests that there may be a 'virtuous spiral' of improved behaviours, as simple behaviour changes in one area start laddering into something greater and more holistic. For example, if someone is supported to budget more effectively, they may realise some savings as a result. This may boost self-confidence and self-efficacy and motivate people to look at other aspects of their financial wellbeing. This is a very difficult area to make any firm conclusions about, as measurement is notoriously difficult, but is an important concept to consider in programme development.

## 4. Conclusions

Ipsos MORI conducted research to help the Money and Pensions Service (MaPS) decide whether there is scope to develop a major financial wellbeing behaviour change programme in the UK.

This report summarises evidence from a review of behaviour change literature on what influences financial wellbeing, alongside a review of interventions aimed at changing people's behaviour. The review considered evidence from over 40 government sources and academic literature. The study also involved interviews with seven behaviour change and financial wellbeing experts, which focussed on behavioural science theory.

The research findings indicate that there is scope to develop a major UK behaviour change programme that focuses on the way people think about and engage with their money and pensions. For the UK Strategy for Financial Wellbeing to achieve its ambitious goals (and change people's behaviour in a significant and sustained way), it needs to change the way that people think about and engage with their finances.

Our evidence suggests that it is possible to change people's motivation and social connection with money and financial management by developing a multi-faceted and long-term behaviour change programme that:

1. Equips people with the awareness, knowledge and skills they need to make better decisions around their financial wellbeing;
2. Considers mindset and the extent to which people can be motivated to engage in, and prioritise, financial wellbeing behaviours;
3. Is part of people's self-identity and daily lives; and
4. Aligns the ideal behaviour as consistent with individuals' existing and strongly held values. This will enable people to see the personal benefits of greater financial wellbeing.

### Key findings

#### Addressing skills and knowledge

People have limits in how much time we are willing and able to devote to engaging in some issues:

- People may be aware of what action they should take to improve their financial situation, but this does not mean they will act accordingly;
- People often know they should give their finances more attention, but do not always do so as they would rather prioritise something else.

The implications of this for a behaviour change programme, are that greater awareness and knowledge will not change people's behaviour on their own. They are nevertheless important preconditions for financial wellbeing and should be considered the foundation of a behaviour change programme, even if they are not the biggest or most high-profile part of it.

When it comes to designing interventions, interventions to improve awareness and knowledge should reflect the wider context of people's daily lives, so people can see the personal benefits of greater financial wellbeing. Hence, such interventions must be delivered in a way that is sensitive, engaging, relevant, timely and experiential.

### Addressing Mindset

People have demands on their mental resources ('bandwidth') and burdens on their attention, which can lead to some people making decisions that are sufficient for reaching immediate, short-term goals but which undermine their ability to reach long-term goals:

- Nudges and other interventions that aim to change the choice architecture can facilitate better decisions and positively affect some outcomes. However, they are not likely to alter underlying motivation or, therefore, sustained and long-term behaviour.
- In terms of self-control, with limited time and mental resources, people will address immediate needs at the expense of longer-term financial wellbeing ('scarcity'), and can make mistakes and be more prone to impulses (because of a lack of 'bandwidth');
- In terms of self-confidence and self-efficacy: people need to believe in their ability to control their finances, to be motivated to engage in financial decisions and assess risks;
- Shame is also key factor, particularly for vulnerable groups. It can prevent people from engaging in their finances, and from engaging in decisions about future events.

When it comes to designing interventions, a focus on day-to-day spending, planning and resilience is likely to be important. Day-to-Day spending means helping individuals to manage, without constantly needing to monitor and adjust, for example by developing rules of thumb. This may involve, for example, embedding tactical rules and habits that have a longer-term outlook. Planning may involve creating automatic payments to commit people into performing the target behaviour. On the other hand, resilience may focus on building an internal sense of control over financial wellbeing.

### Addressing social identity and connections

This looks at how people are motivated through their sense of identity: their definition of who they are, the type of people they identify with, and how this affects their behaviour:

- People do not just react to the world around them: they make sense of the world through the lens of their own identity, which also shapes their decisions and their behaviour;

- People will not necessarily react to social norms in the 'right' way – especially when the majority (i.e. the norm) is not displaying the desired behaviours;
- People prospect the future by drawing on past experiences, bearing in mind goals and expectations, and aim to adapt to – rather than necessarily control – future events. This is one key way by which people view their social identity;
- People's social identity is key. It is the overarching lens through which people make decisions, and the nature of their identity may have positive or negative implications for financial wellbeing. A key challenge is that people's social identities are often based around spending money rather than saving it and living for today rather than the future.

This evidence suggests that rather than getting people to adopt a certain identity, it may be easier – and more effective – to reframe or align the ideal behaviour as consistent with those individuals' existing and strongly held values. It also suggests that for an individual to feel motivated to change their behaviour, they may need to recognise a personal benefit. Without this, it can be harder to internalise behaviours and become self-motivated. Therefore, there is merit in choosing a financial wellbeing behaviour that is consistent with the identity of the target population, and in developing a programme of interventions that drives home the message of what good behaviour looks like.

The implications of this for a behaviour change programme are that, in order to influence people's motivation in this area, we need to develop attractive social identities around financial wellbeing. This will enable people to, for example, see that 'being a saver' is part of 'who I am'.

When it comes to designing interventions, a focus on planning and resilience is likely to be important. Planning will involve creating an identity around financial wellbeing, to help individuals to see savings and planning behaviours as something that reflects their sense of self and who they are. Resilience will involve providing digital tools, for example, that help people to prioritise wellbeing behaviours.

### Considerations for a successful behaviour change programme

To be effective/positively affect motivation and social connection, a behaviour change programme will need to:

- Be long-term: careful design and testing will be key, and change will not happen overnight. The programme will need to adopt long term solutions to which tap into social norms and the meaning and motivation individuals attach to financial behaviours to help build long term resilience. The ten-year timeframe of the UK Strategy for Financial Wellbeing will support this.
- Be holistic: influencing people's behaviour in one area may adversely affect their behaviour in another area. A behaviour change programme should operate with an eye not only across all five National Goals in the UK Strategy, but also across non-financial aspects of people's lives, to ensure that change is sustained.

- Be multi-faceted: incorporating a combination of intervention areas, which range from those more reliant on the individual, to those that are more reliant on the environment. We broadly classify a range of types of interventions according to varying degrees of involvement placed on the individuals. These include:
  - Products, for example that allocate payments to different types of savings: interventions focused on changing the product, with no involvement of the individual beyond their use of the product itself.
  - Habits, for example applications that guide individuals through setting up a weekly contribution to a savings account: interventions focused on involving the individual in setting up a routine that allows them to offload continual effort onto a product.
  - Motivation Building, for example a campaign that shows different people engaging in different forms of debt repayment: interventions that aim to involve the individual in shaping their views and expectations about engaging in financial behaviours.
  - Education, for example providing a session that outlines how different levels of pension contributions impact funds available at retirement: interventions that change understanding of how financial products work.
- Involve a range of partners: in order to deliver the strategic activation of a holistic, multi-faceted behaviour change programme. Again, the UK Strategy offers the route to connect with potential partners for a collective impact.

Our review of programmes and interventions suggests that the following design features should also be considered during the development of a new behaviour change programme:

- Specific versus holistic targeting of behaviours: it is necessary to target specific behaviours, but it is likely that interventions will be most effective if the target behaviours are addressed within a wider, holistic set of goals;
- Guiding of behaviour versus changing motivations to facilitate behaviour: the latter are probably most useful for longer term activities (e.g. pension provision, large scale debt repayment) where motivation for a long-term perspective (and sustaining that motivation) can be difficult to attain;
- Long term versus short term programmes: the motivational aspects of financial wellbeing cannot be changed in the short-term. However, there may be opportunities for targeted interventions on specific behaviours in the short-term, as part of a co-ordinated and longer-term programme;
- Intended versus unintended outcomes: any intervention can have wider consequences, and unexpected negative effects. For example, setting defaults has direct benefits, but without accompanying motivational activity it can have indirect downsides. These wider consequences need to be considered in programme development;

- Style of delivery: the social context in which people think about money must be reflected in the channels, the messengers and the language used;
- Delivery channel: above-the-line campaigns must be only one possible ingredient of a wider behaviour change programme. It is also important to consider the purpose of the intervention and then determine the most effective (and feasible) delivery mechanism;
- Cumulative effects: there may be a 'virtuous spiral' of improved behaviours as simple changes in particular areas start building into something greater and more holistic. This is a difficult area to make firm conclusions about, as measurement is notoriously difficult, but is a concept worth bearing in mind.

The next steps that develop from this report will determine how these decisions will be made, but the evidence summarised here provides a strong foundation to meet the ambitious objective of MaPS, to help people be more confident and empowered with their money, enabling the development of financial wellbeing across the UK population.

## Appendix – Intervention Details

This Appendix lists a selection of the key studies and interventions that informed this study, with brief details about each.

### 1 Encouraging consumers to claim redress: evidence from a field trial (Adams, P., & Hunt, S., 2013)

#### Overview:

People receive a lot of mail in the post and have to sift through it in a limited amount of time. Much of this is marketing, which they may have little interest in. People have to decide which letters to open, which letters to look at and which letters to read in more detail. Even if a consumer reads a letter and is minded to act on it, there may be further barriers to responding, e.g. concern that calling a helpline may be time-consuming. People may intend to respond, but in fact procrastinate or forget. Much of this decision-making is quick and automatic, rather than slow and deliberative.

A real case with a firm that was voluntarily writing to almost 200,000 customers about a failing in its sales process; changes were made to seven features of the communication (the 'treatments' – see below) to form the basis of a randomised control trial. Over a 5-week period, different groups of consumers were contacted with various letters - original letter and different combinations of the treatments. For each of the seven features listed, it was randomly varied whether a particular customer received the treatment or control version. As the seven features were varied, each with two versions, there were 128 possible combinations in total, and accordingly 128 groups of customers.

#### Treatments

1. Envelope ▼	Adds a message to 'act quickly' to a plain envelope
2. FSA logo ▼	Uses the FSA logo in the letter head
3. Salient bullets ▼	Replaces the two bullet points at the top of the letter with more salient bullet points
4. Simplified ▼	Makes the body of the letter simpler and more concise, by reducing the text by 40%
5. Claims process ▼	Includes a sentence in bold explaining that the claims process would only take five minutes
6. CEO signature ▼	Uses the firm CEO's signature to sign the letter, instead of a generic 'Customer Team'
7. Reminder	Sends a second letter three to six weeks after the first

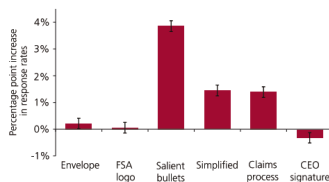
#### Outcomes/findings:



Control had 1.5% response rate, several treatments had significant impact. Treatments improve response rates to almost 12%. This is equivalent to an additional 20,000 people responding to claim redress; best letter increases the response rate by over seven times compared to the control.

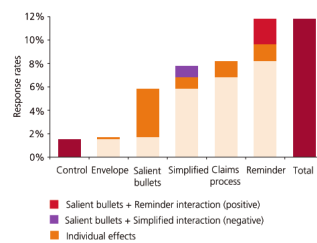
Reminder letters were sent out between three and six weeks after the original letter – significantly higher responses when sent at the three week point; no huge role for gender in response rates, but age does have an effect – the best letter response increases with age and treatments have the greatest effect for middle age overall. Amount of redress had only a minor effect.

Chart 1: Effect of treatments relative to control, no interaction effects



Notes: Includes 5% confidence intervals

Chart 2: Effect sizes including interactions



## 2 Stimulating interest: Reminding savers to act when rates decrease (Adams, P., Hunt, S.,

Vale, L., & Zaliauskas, R., 2015)

### Overview:

A large UK financial institution was writing to customers with an easy access savings account to inform them that their interest rate was about to decrease substantially. The firm sent letters to customers informing them of the old and new interest rates and some general contact details for further information. This randomised control trial took 20,508 customers from the total number of the firm's customers who held this account and divided them into four random groups.

### Outcomes/findings:

Reminders make a considerable difference to switching behaviour: a substantial share of customers in the control group (50% to 70%) took action such as internal or other switching in the first 20 weeks after their rate decrease and the interventions increased this by between 5.6 and 7.9 percentage points simply by sending a reminder.

Getting a reminder is more important than the precise phrasing of the reminder, and this effect is repeated consistently over time. The reminder both increased the number of people switching, and sped up how quickly the same people took action.

### 3 Encouraging consumers to act at renewal: Evidence from field trials in the home and insurance markets (Adams, P., Baker, R., Hunt, S., Kelly, D., & Nava, A., 2015)

#### Overview:

Randomised control trial with one home insurer & two motor insurers testing the potential for improved renewal notices to encourage consumers to switch or negotiate their policy at renewal; also using bespoke survey data linked to administrative data from a home and motor insurance provider as well as aggregated data on price levels from several other insurance providers.

Four treatments:

1. Including last year's premium next to this year's premium in renewal notices
2. Sending a leaflet with renewal notices
3. Simplifying renewal notices by using bullet points and simpler language
4. Sending reminders two weeks after renewal notices

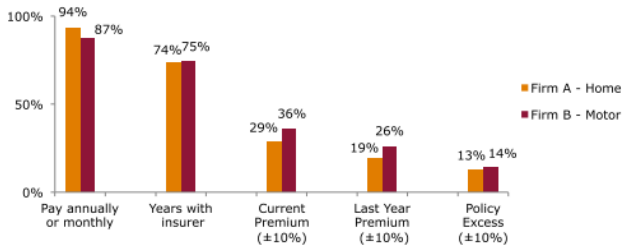
#### Outcomes/findings:

Putting last year's premium on renewal notices causes between 11% and 18% more consumers to switch or negotiate their home insurance policy – with a larger effect for consumers who were offered higher price increases at renewal. There was little evidence of price increases at renewal for motor insurers; including that last year's premium has no effect. Little or no impact from other changes to renewal notices (including simplifying renewal notices, sending information leaflets, and sending reminders).

Points to note (from study survey data):

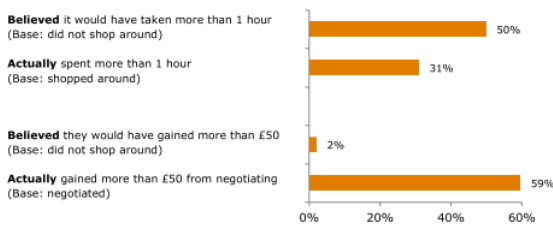
- Over a quarter of motor and home insurance customers either do not recall receiving their renewal notice or do not read them.
- Home insurance: customers who don't shop around underestimate the benefits from shopping around and overestimate the amount of time it takes.
- Motor insurance: customers have higher levels of switching and shopping around, and do not appear to underestimate the benefits or overestimate the costs of doing so.
- People don't remember much about their insurance products (Fig. 3), overestimate how much effort it would take to shop around and underestimate how much they would gain (Fig. 4-5).

**Figure 3 – What consumers correctly recall about their insurance product**



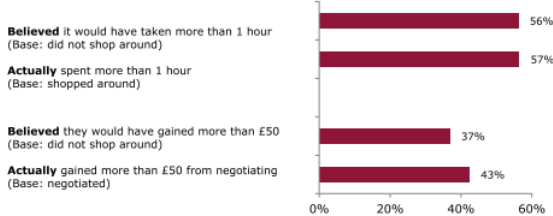
Base: customers who renewed in the control group at Firm A (459) and Firm B (295)

**Figure 4 – Home insurance costs and benefits to shopping around**



Base: customers who renewed in the control group at Firm A (459)

**Figure 5 – Motor insurance costs and benefits to shopping around**



Base: customers who renewed in the control group at Firm B (295)

**4 Attention, search and switching: Evidence on mandated disclosure from the savings market (Adams, P., Hunt, S., Palmer, C., & Zaliauskas, R., 2016)**

**Overview:**

Easy access savings accounts are the most popular and simplest way to save in the UK, with the main product feature being the interest rate. The majority of consumers rarely switch and so miss out on interest earnings.

Randomised control trial with five regulated firms and 130,000 consumers; testing new disclosure proposals to help consumers identify better products and stimulate competition between firms. With

three treatments: information about comparable higher-rate-paying products, a pre-filled return form that enabled simplified switching, and a reminder about the rate decrease.

### Outcomes/findings:

Around 50% of those switching in the trials chose to switch to a comparable higher-paying account with their current provider, while the remainder chose different accounts or different providers.

All interventions increased switching within providers, but not to higher-paying products available from other firms.

Front-page information about higher available rates led to an increase in switching from a baseline of 3% to 6% of consumers, while non-front-page disclosures had no effect.

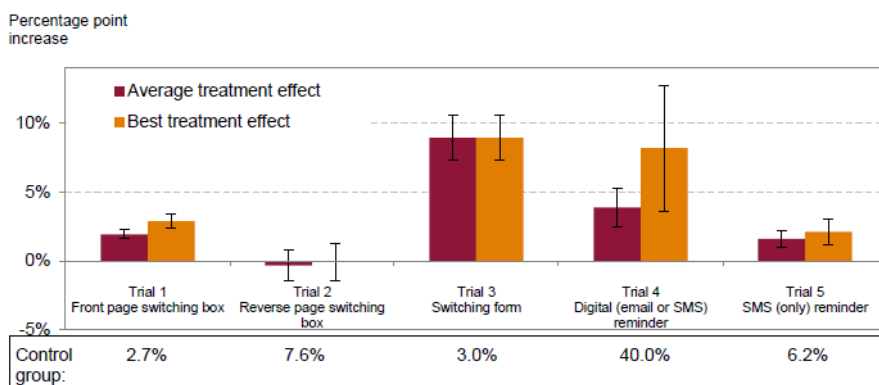
A pre-filled return form increased switching from a similar baseline of 3% to 12%.

Reminders prompted an 8-9 percentage point increase in switching - comparable to the effects of the return form.

Despite switching within providers in the trials taking 15 minutes on average, according to a survey, and switching gains being non-trivial - £127 in the first year on average – the study finds that attention to disclosure is limited.

For many savers the interest rates on other accounts were too low to justify switching: for half of the consumers across all trials the amount of additional annual interest income from switching is less than £32.

**Figure 2: Average and best treatment effects on account switching across the five trials**



## 5 Full Disclosure: A round up of FCA experimental research into giving information

(Smart, L., 2016)

### Overview:

This review looked at eight studies exploring the consumer effects of different approaches to giving information on financial matters. Two are particularly relevant for this behaviour change evidence review: 'Building a letter' and 'Invest or consume', highlighted in blue in the summary table below.

Experiment	Context	Treatments	Result
1. <b>Encouraging compliance:</b> improving submissions to the FCA by mutual societies	Field trial on letters to help firms return their accounts data on time	Salience (bullet points)	–
		Envelope warning	–
		Different timings	√
2. <b>Help is here:</b> helping firms apply for authorisation	A/B testing of email subject lines to help firms with authorisation	Personalisation	√
		Salience (mentions FCA)	√
		Novelty	X
3. <b>Building a letter:</b> engaging customers about their interest-only mortgages	Field trial testing letters to engage customers about their interest-only mortgages	Risk warning	X
		Personalisation	–
		Salience (bullet points)	–
		Friendly style	√
4. <b>Please take your cash:</b> encouraging consumers to get redress from incomplete ATM transactions	Field trial testing letters to encourage customers to claim redress	Salience (bullet points)	–(X)
		Salience (ease of process)	–
5. <b>Just for you:</b> using personalisation to attract attention	Field trial on the effect of handwritten envelopes on customers' likelihood to vote and claim redress	Personalisation	–
6. <b>Invest or consume:</b> testing the framing of retirement decisions	Laboratory experiment testing the framing of retirement decisions	Framing	√
7. <b>How much?</b> Designing optimal price comparison websites in the payday lending market	Laboratory experiment testing potential regulatory standards for payday lending price comparison market	Decreasing effort	√
		Interactivity	–
		Distraction: advertising	–
8. <b>Shop and save:</b> designing an annuity comparison tool	Laboratory experiment into the effects of information prompts on shopping around for annuities	Personalisation	√
		Numerical examples	√
		Loss aversion	√

## **Building a letter: Engaging customers about their interest-only mortgages**

### **Overview:**

The objective was to encourage consumers to consider how best to repay their interest-only mortgage.

The FCA worked with an interest-only mortgage provider to run a randomised control trial with 8,004 of their customers. Five different letters were used: 1. Control: Standard letter written by the firm; 2. Riskless: Removing the standard repossession risk warning ("Your home may be repossessed if you do not keep up repayments on your mortgage"); 3. Non-personal: Removing a table of personal data which included balance and time left on mortgage; 4. Bullets: Summarising the key information in bolded bullet points at the top of the letter; and 5. Friendly: Removing the risk warning and re-writing the letter to be friendlier and more informal in tone.

### **Outcomes/findings:**

Removing the repossession risk warning and making the letter more informal (Letter 5) performed best, and led to a 2% increase in responses. Adding bullets (Letter 4) reduced the response rate by 1.8% and removing personal information made no difference from the control.

Less is more in this context and simplicity is likely to improve response rates. Removing the risk warning on this letter actually increased the response rate, particularly when combined with a more informal tone. It is possible that this is because the risk warning might scare customers and lead them to put their head in the sand rather than engage with the firm.

Response rate was low (5.5% in control), suggesting there was not much engagement.

## **Invest or consume: Testing the framing of retirement decisions**

### **Overview:**

The objective was to understand how the framing of annuities can affect the decisions made by consumers.

A representative sample of 907 UK consumers aged between 55 and 75 were given hypothetical choices between retirement income strategies, such as buying an annuity (a guaranteed income for life), or alternatives like self-annuitising (putting the money in a bank account which paid a set amount of interest for life) and self-amortising (consuming the money until it runs out).

Participants made choices between different pairs of options five times during the experiment.

Participants were split into three random groups:

- Consumption group: information framed in terms of the amount of money they could spend in retirement and strategies were unlabelled,

- Annuity consumption group: information the same as the consumption group but the annuity option was named as an annuity,
- Investment group: information about the total size of the pot, the options were framed in terms of investment and returns and strategies were unlabelled.

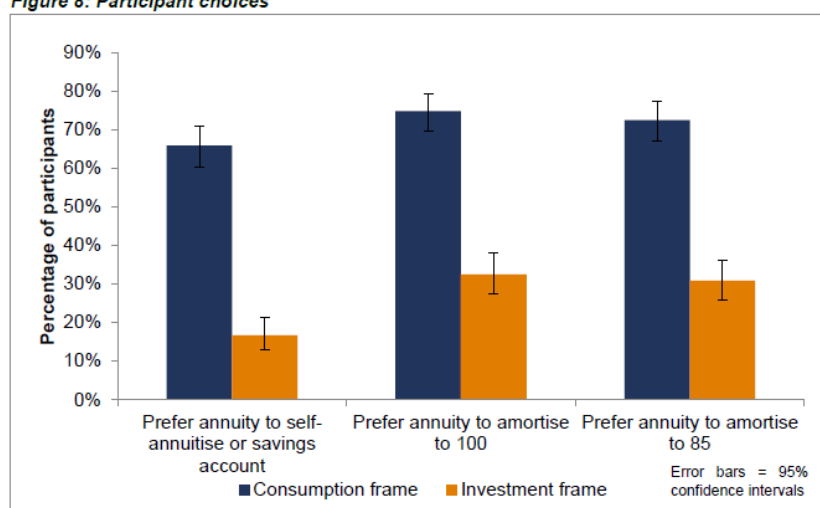
#### Outcomes/findings:

Consumers' retirement choices appear to be materially affected by the way the relevant information is presented to them.

Framing annuity choice as an investment appears to bias consumers against annuities.

Consumers seem to associate the term 'annuity' with poor value products. The use of the term 'annuity' reduces the number of consumers who choose the annuity, even though consumers appear to value the underlying characteristics of the annuity. See figure 8.

**Figure 8: Participant choices**



## 6 Testing retirement communications: Waking up to get wise (Adams, P., & Erntstone, E.,

2018)

#### Overview:

Two field trials with two pension providers to test whether variations to wake-up packs would have any effect on consumers' awareness and use of Pension Wise, their engagement with their pension provider, and whether they switched provider to access their pension savings.

**Outcomes/findings:**

Trial 1 showed no significant effects of the treatments on most of the outcomes of interest; Trial 2, which highlighted the availability of an appointment, had a positive and statistically significant effect on people calling Pension Wise, increasing it by 4 percentage points from the simple reminder (caveat: the reminders may have given rise to activity which would have happened anyway).

Information sent to those approaching retirement prompts more action if it is short, simple and succinct; disclosure tends to have a relatively modest impact, if any, on consumer switching behaviour.

**7 Time to act: A field experiment on overdraft alerts (Adams, P., Grubb, M., Kelly, D., Nieboer, J., & Osborne, M., 2018)****Overview:**

A large field experiment in collaboration with two UK retail banks on automatically enrolling PCA customers into additional alerts (just-in-time for arranged overdraft, early warnings for arranged/unarranged overdraft, early warnings for unpaid items); Four trials were employed.

**Outcomes/findings:**

Consumers benefit from just-in-time alerts on arranged overdraft usage, but evidence for early warning alerts for overdraft usage is weak, and no evidence found for early warning alerts for unpaid items.

**8 The conflict between consumer intentions, beliefs and actions to pay down credit card debt (Adams, P., Guttman Kenney, B., Hayes, L., Hunt, S., Laibson, D., & Stewart, N., 2018)****Overview:**

Attempt to increase credit card payments through behaviourally-informed disclosures was tested in experiments across three UK lenders.

**Outcomes/findings:**

No effect of adding disclosures to credit card statements or of using an automatic minimum payment nudge; effects are primarily driven by the subgroup of consumers with 0% balance transfer debts.



## 9 The semblance of success in nudging consumers to pay down credit card debt (Adams, P., Guttman Kenney, B., Hayes, L., Hunt, S., Laibson, D., & Stewart, N., 2018)

### Overview:

A randomised control trial on 40,708 credit cards newly issued in 2017 by a large UK lender; testing the impact of nudging credit card holders to adopt automatic fixed payments instead of automatic minimum payments at card activation.

### Outcomes/findings:

"The proximal treatment effect was large. Automatic fixed payment use was an absolute 17% higher in the treatment group and automatic minimum payment use was an absolute 22% lower in the treatment group. But the more distal treatment effect was a precise null. Although automatic payments rose for those responding to the treatment, the additional manual payments in each month were reduced so the overall effect on cumulative payments was a precise zero"

## 9 Financial Health Check (ideas42)

### Overview:

Testing the impact of a one-time, 30-60 minute phone appointment, in which specially trained consultants work one-on-one with participants to review monthly budgets and create financial goals, focused on building liquid savings and reducing high-interest credit card debt.

### Outcome/findings:

Participants who had access to the service posted net savings transactions 34% higher than a control group of peers who did not have access to appointments. Targeted assistance can help a broad range of families overcome barriers like limited attention, procrastination, and present bias that derail their intentions to work toward financial goals.

Note: only around 17% of those who were included in the trial AND had access to the FHC *actually* completed it.

## 10 How does selling insurance as an add on affect consumer decisions? (Ischenko, Z., Duke, C., Huck, S., Wallace, B., 2014)

### Overview:

The FCA's first behavioural experiment and run online, which was jointly developed by the FCA, London Economics and academics from UCL as part of the FCA's General Insurance Add-ons competition study.

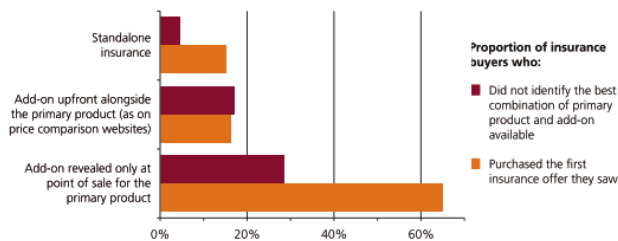
A simplified online experience (1,514 UK-based members of the YouGov survey panel) of shopping around for and 'purchasing' a primary product and an associated optional insurance product (the five add-on products were: travel, home emergency, guaranteed asset protection (GAP), personal accident and gadget insurance).

The study investigated whether the inherent structure of transactions where insurance is offered as an add-on to another (primary) product has effects on consumer behaviour across different insurance markets, and whether those effects impede effective competition.

### Outcomes/findings:

The structure of the transaction has a very big effect on consumers (figure 1): stand-alone/transparently advertised alongside the primary product/drip-fed during the purchase of the primary product makes a major difference to consumers' willingness to shop around.

**Figure 1: The effects of the common insurance sales formats on consumer behaviour**



Some of the elements also made consumers more willing to accept higher prices (figure 2):

Figure 2: Selected effects of the elements of the add-on mechanism on behaviour and outcomes

	Complexity of multiple prices	Lower transparency from delaying add-on offer until POS	Access to stand-alone alternatives at POS	Small barrier to accessing stand-alone offers	Monthly pricing for an annual policy
<b>Change compared to:</b>	Insurance only	Add-on prices up-front with the primary product	Only add-on revealed at POS	Immediate access to alternatives at POS	Annual pricing
<b>Shopping around</b>					
Number of insurance offers seen	↑	↓	↑	↓	↓
Frequency of buying the first insurance product seen without looking further	=	↑	↓	↑	↑
Number of primary product offers seen		↑	=	=	↓
<b>Purchasing behaviour</b>					
Likelihood of buying insurance	↑	↓	↑	↓	=
Average price paid for insurance	↑	↑	↓	↑	↑
Proportion of very expensive insurance offers accepted (price over 4.5x expected payout)	↑	↑	↓	↑	↑
<b>Quality of decisions</b>					
Likelihood of not choosing the best deal available	↑	↑	↓	=	=
Average amount of money lost per consumer because of not identifying best deals	↑	↑	↓	↑	↑

**Legend:**  
 ↑/↓ A material adverse effect on consumers (the element increases/decreases the metric in the direction that is likely to be associated with worse outcomes by 25% or more).  
 ↑/↓ A small adverse effect on consumers (the change in the metric is towards worse outcomes for consumers, but by less than 25%).  
 ↑/↓ A material positive effect on consumers (the element increases/decreases the metric in the direction that is likely to be associated with better outcomes by 25% or more).  
 ↑/↓ A small positive effect on consumers (leading to change in the metric of less than 25%).  
 = No statistically significant effect identified.  
 ↑/↓ Indicate effects where consumer outcomes are uncertain. Larger arrows show stronger effects of 25% or more.  
 Empty cell: Metric is not applicable or comparable for the given element (e.g. number of primary offers seen relative to stand-alone insurance).

## 11 Payday loans Price Comparison Websites (YouGov and London Economics)

### Overview:

An online behavioural experiment combined with an online questionnaire (by YouGov & London Economics) designed to test the impact of imposing a series of potential standards for Price Comparison Websites (PCWs) for High-Cost Short-Term Credit (HCSTC) products.

The experiment worked with 791 UK adults who have taken out a payday loan in the past 12 months and/or intend to take out a payday loan in the coming 12 months.

Among the standards tested were:

- display of all loans on a single page
- using Total Amount Payable (TAP) as the measure of price for the purposes of comparison
- ranking loans in ascending order of price by TAP

- banning advertisements
- ability for consumers to filter loans by loan amount and term

**Outcomes/findings:**

The largest single effect was observed when requiring all loans to be displayed on a single page, compared to displaying offers on two pages with the need to click through to the second page to see all loans (with the cheapest loan appearing on the second page).

3% of respondents seeing PCWs with loan offers on two pages chose the cheapest deal, compared to 63% of respondents seeing PCWs with all loan offers displayed on a single page.

The second largest single effect was observed when imposing the standard of using TAP as the measure of price for comparison - respondents who were not explicitly shown the TAP chose the cheapest deal 13.5% of the time, compared to 63% of respondents who were shown the TAP.

## 12 Increasing consumer engagement in the annuities market: can prompts raise shopping around? (Oxera and Nuffield Centre for Experimental Sciences)

**Overview:**

Many consumers are missing out by not shopping around for an annuity and switching providers, and some do not purchase the best annuity for their circumstances.

FCA commissioned Oxera and the Nuffield Centre for Experimental Social Sciences (CESS) to conduct an experiment to test ways to prompt consumers to shop around, including whether the size of the gains matters. 1,996 participants from the UK population of people at or nearing retirement age (aged 55–65) were randomly divided into six groups. The treatments – in addition to the control – were as follows (figure 1):

Figure 1 Treatment conditions in addition to control

- **Call to action**—the participants were told that ‘80% of people who fail to switch from their pension provider lose out by not doing so.’ This text was accompanied by a visual representation of the 80% figure.
- **Personalised quote comparison**—the participants were provided with the highest quote they could obtain by shopping around. The difference between that quote and the pension provider quote was highlighted. The text information was then complemented by a bar chart comparison of the two quotes.
- **Personalised quote comparison with lifetime gains**—the same information was provided as in the ‘personalised quote comparison’, but also with an estimate of the *forgone gains* from not shopping around over a *typical person’s lifetime*.
- **Non-personalised quote comparison**—the participants were provided with an estimate of how much they could obtain by shopping around. However, the information emphasised that the quote provided was based on an estimate and that the participants might obtain a higher or lower quote were they to shop around.
- **Non-personalised quote comparison with lifetime gains**—the same information was provided as in the ‘non-personalised quote comparison’, but also with an estimate of the *forgone gains* from not shopping around over a *typical person’s lifetime*.

All five treatments emphasised that consumers were likely to *lose out* on prospective gains by not shopping around. They sought to reduce customer inertia in different ways. For example, the call to action treatment was more generic. It focused on simplicity, and a prominent visual image that invoked social comparisons. By contrast, the personalised treatment was more bespoke to an individual, with a visual comparison of the best external quote available and the internal provider’s offering.

### Outcomes/findings:

The key outcome of interest was the proportion of consumers who shopped around, and the impact of prompts to do so.

The important metric is therefore whether the consumer clicked to shop around after they were exposed to the information treatment. Shopping-around behaviour was also captured using additional metrics (the degree of intensity with which consumers shopped around, whether they switched or not, and how much they gained (or lost) by switching).

The key outcome of the experimental results is *the ranking of the treatments*, not necessarily the magnitudes of the difference between them.

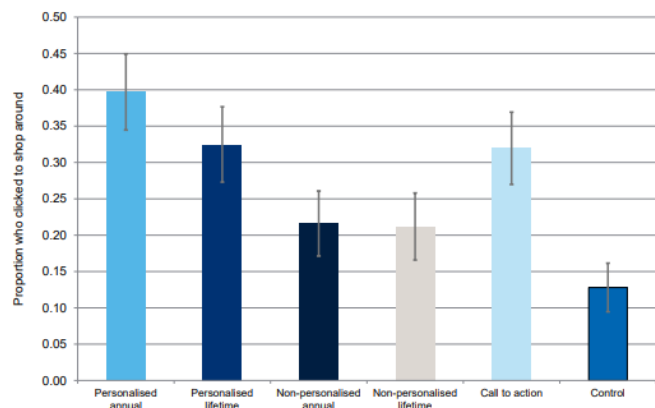
#### Best Performers:

The personalised annual treatment achieving the highest impact on shopping around, followed by the call to action treatment—at 8 percentage points, the difference between these two is statistically significant.

The two treatments prompt consumers in different ways: the personalised treatments offer information that is reliable and customised to the consumer; the call to action treatment offers simple, easily digestible information accompanied by a strong social-comparison visual.

Including information about lifetime gains in the text does not improve shopping around – this was expected to increase shopping around, as a higher figure might make it seem more worthwhile.

**Figure 1.2** Proportion who clicked to shop around



### 13 Weighing anchor on credit card debt (Guttman Kenney, B., Leary, J., & Stewart, N.,

2018)

#### Overview:

A large, bespoke survey of credit card users (in partnership with a credit card issuer, and with people who had recently taken out a credit card), using a hypothetical payment experiment matched to their actual credit card payments to test an intervention to de-anchor payment choices.

#### Outcomes/findings:

The intervention stops consumers selecting payments at the contractual minimum and increases their average payments, as well as shifting the distribution of payments. The intervention most affects less financially-distressed participants, these consumers may have more capacity to increase payments than more distressed consumers. Specifically, an over 40% average increase (vs. the control) of full payments for those not in financial distress, and some effects on the “some financial distress” group – insignificant results for those in financial distress. 90% reduction in consumers making minimum payments observed in each of the three financial distress segments (which were: no distress, some distress or distressed).

## 14 Message received? The impact of annual summaries, text alerts and mobile apps on consumer banking behaviour (Hunt, S., Kelly, D., and Garavito, F., 2015)

### Overview:

This study aimed to understand the impact of annual summaries, text alerts and mobile banking apps on consumers, uncovering the causal effects of these initiatives by applying econometric techniques to granular data, with over 300 million observations from one bank plus aggregated data from another bank.

### Outcomes/findings:

Annual summaries, as designed by the banks involved in the study, have no effect on consumer behaviour in terms of incurring overdraft charges, altering balance levels or switching to other current account providers.

Signing up to text alerts or mobile banking apps reduces the amount of unarranged overdraft charges incurred by 5% to 8%, and signing up to both services has an additional effect, resulting in a total reduction of 24%.

The additional impact of the combination of both services shows the benefit of receiving information upon automatic triggers, without having to actively acquire it, as well as the facility to act quickly upon receiving information.

Text alerts and mobile banking apps also decrease average current account balances by 17% to 24%, which is beneficial for consumers as they reduce the cost of holding balances in accounts with no (or low) credit interest.

Consumers who sign up to these services are also more likely to become inactive at their bank, which we measure using the number and value of consumers' credits and debits per month. This suggests that these services facilitate banking with multiple providers.

## 15 Sending out an SMS: The impact of automatically enrolling consumers into overdraft alerts (Caflich, A., Grubb, M., Kelly, D., Nieboer, J., & Osborne, M., 2018)

### Overview:

Analysis of a unique, large and detailed dataset covering the transactions of 1.5 million consumers across six banks, and large-scale automatic enrolment exercises carried out by two major retail banks, to estimate the effect of automatically enrolling consumers into these alerts

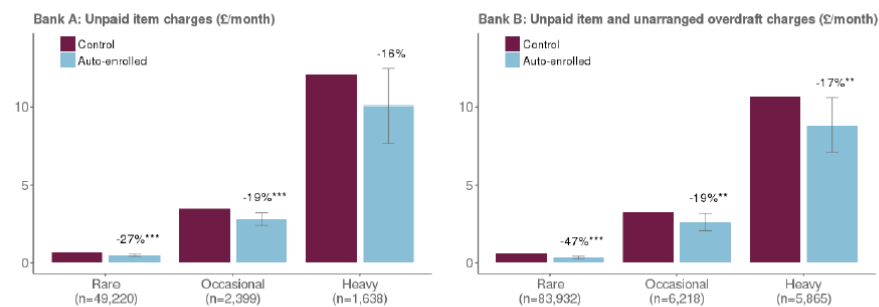
### Outcomes/findings:

Automatic enrolment into unpaid item alerts reduces charges by 21-24%.

Automatic enrolment into unarranged overdraft alerts reduces charges by 25%.

Those who rarely incur charges can avoid as much as half of charges thanks to alerts, whereas heavy users still incur the majority of their charges after automatic enrolment.

**Figure 1: Effect of automatic enrolment on charges, by usage type**



Notes: Charges shown are monthly totals, effect sizes are in percentages, sample sizes (n) represent number of consumers. Stars indicate the significance level of the treatment effect: \*\*\* =  $p < .01$ , \*\* =  $p < .05$ , \* =  $p < .1$ . Bank A rolled out unpaid item alerts; Bank B rolled out unpaid item and unarranged overdraft alerts.

## 16 Managing My Money for the Just About Managing (Open University, Coventry)

### University)

#### Overview:

To design and test a simple, practical, scalable financial education tool ('Managing my Money') that focuses on budgeting, drawing on findings from behavioural research to promote small changes to everyday spending decisions, that build resilience and help participants make the most of their money.

The study was a mixed methods impact assessment.

#### Outcomes/findings:

The tool can improve budgeting, spending and saving behaviour for the 'Squeezed' segment. However, specific impacts and their magnitudes are not consistent across all trials and the impacts on savings seem primarily driven by those with pre-existing savings – also there is little evidence of impact on broader financial variables, such as missed payments or confidence, or that specific forms of intervention were distinctly more effective than others.

The study also shows implications for the design of financial education tools, especially the need to move towards timely provision of relevant information, delivered to those who need it where they are rather than requiring them to find it.



## 17 Public Health England: Social Marketing Strategy 2017 to 2020

Some of the main campaign goals:

- To alert and inform the public, to ensure people know what they need to do in order to live healthy lives and are motivated to do so;
- To support the creation of an environment that is conducive to change, helping to drive cultural acceptance of healthy behaviours and supporting other government levers such as legislation;
- To offer tools, when needed, to help people to start or sustain a behaviour change journey.

Recent successes:

- Nudging over two million families into healthier choices through the Sugar Smart and Be Food Smart apps;
- Creating a new social norm around smoking cessation in October each year with over a million smokers making a Stoptober quit attempt (at time of writing);
- Engaging over two million adults on the first step of a behaviour change journey via One You's 'How are You?' health engagement quiz;
- Nine papers published in peer-reviewed journals and 57 industry and public sector excellence awards;
- Digital innovations such as the One You Active 10 app;

Key insights that guide PHE's work with relevance:

- 1. The social norm has shifted to unhealthy
  - "We inhabit a world in which a truly healthy lifestyle is enjoyed by a minority and it is unhealthy, not healthy, that is normal. Accordingly, we need to ensure that we avoid 'talking to ourselves' with programmes that mistakenly assume a level of engagement and expertise, and instead develop programmes that are grounded in the reality of people's day-to-day lives, reflecting back their language and anchoring to their reference points."
- 2. Our audiences value life, but can't always prioritise health
  - "For us to get permission to talk to people about health, we need to show that we understand their priorities and can help them achieve their goals, not our own. Accordingly we never hector or nanny people; rather we attempt to support, aid and inspire."

- 3. Motivation can come from many places (and so people can be nudged into changing their behaviour by many factors)
  - “Rather than seeking to persuade people to change their behaviour at points that fit in with our campaigns, we increasingly mould our programmes around the rhythm of their lives”
- 4. Our target audiences may trust or engage with others more than us:
  - “while we are proud of the evidence base behind all the guidance we provide, we also recognise that many in our audiences trust others, whether that’s friends and family, social media, faith leaders, charities or commercial brands, more than they trust government”
- 5. There is a rhythm to health-seeking behaviours:
  - “campaigns work best when they create calendar moments, which coincide with the seasons in which our audiences are most receptive.”
- 6. Sometimes attitudes change after behaviours, not before:
  - “rather than telling people they will feel better if they change their behaviour, we create tools that nudge people into the desired behaviour, and then help them notice how much better they feel as a result.”
- 8. Sometimes a broadcast approach is more effective than the most efficient targeting:
  - “Some media, though broad brush, are cheap enough to justify some wasted opportunities to see (for example, daytime television is a cost-effective way to reach older audiences, although, of course, it is also seen by many other people)”
  - “sometimes people need to feel that they are taking part in something bigger than themselves in order to change, and this can be best achieved through a broadcast approach. However much we innovate, nothing creates scale like a television advertising campaign or the national news”
- 10. People’s perception of risk conditions the tone of voice they will find acceptable:
  - “because people now recognise the risks of smoking, we can be much harder hitting with smoking cessation content; however, we cannot apply this same approach to other behaviours”

Common characteristics for campaigns:

- Each of PHE's campaigns has its own tone of voice, which is designed to be congruent with the expectations of the target audience – how people anticipate being spoken to about a particular topic (stroke – urgency, early diagnosis of cancer – optimistic)
- Specific commonalities:
  - Helping people understand how modern life makes it hard to do something & providing solutions, rather than blaming them;
  - Use plain language;
  - Accessibility – e.g. low cost ingredients or free activities;
  - Helping people see what's possible – not nannying or threatening them;
  - Extensively researched communications.
- Readdressing inequality: where the market targets high-value customers, we focus our resources on socio-economic group C2DE that the market doesn't serve.

#### **PHE brand architecture:**

- "In the language of behavioural economics, our brands can act as heuristics, meaning they provide mental shortcuts that allow people to make healthy choices quickly, acting as guarantors of quality, truth and efficacy. For example, since 97% of mothers in our target audience associate Change4Life with healthy eating, seeing the Change4Life logo alongside products helps people make a healthy choice in an otherwise crowded environment"

#### **Starting well: Change4Life, Start4Life, Talk to FRANK**

- *Types of behaviour change tools: TV campaigns, social media and use of technology to offer semi-personalised advice.*
- Start4Life a breastfeeding chatbot which had 4500 users in the first month (22% of target audience).
- Change4Life: Be Food Smart/Sugar Smart apps have had over 3m downloads to date; the goal for Sugar Smart was to get people to recognise hidden sugar in everyday food – the campaign consisted of TV ads & PR and social media films on how a child can eat their bodyweight in sugar in a year; packs also distributed to schools, and app developed.
- (The other two mentioned campaigns had only claimed data as their evidence.)

#### **Living well: One You, Stoptober**

- *Types of behaviour change tools: leveraging seasonal fluctuation in behaviours, raising awareness of consequences, but also technology via the One You app and email programme.*
- The norm is unhealthy: "Among this group (40-60yrs), unhealthy behaviours are so common as to be considered normal, making change even harder to achieve".
- Aim is to improve health by encouraging adults to change their lifestyles and adopt healthier behaviours - typically involving reappraisal of current, unhealthy habits, and the provision of tools and support to promote change:
  - Dry January, Stoptober – taking advantage of seasonality of behaviour;
  - Raising awareness – harms of tobacco, heart health, One You.

#### **Ageing well: Be clear on cancer, Stroke – Act F.A.S.T.**

- *Types of behaviour change tools: awareness raising, mainly through mass media and partners.*
- Aim is to ensure that people know the signs and symptoms of common conditions and are motivated to access the right services promptly:
  - Be Clear on Cancer: raising awareness, done through partners;
  - Act F.A.S.T.: one of PHE's longest-running and best-evidenced campaigns, since launch c. 5,400 fewer people have become disabled as a result of a stroke (return on investment of £28 for every £1 spent).

#### **Cross-cutting:**

- Stay Well This Winter: promoting effective use of health resources over the winter period; "this year's campaign drove an additional 1.85 million visitors to pharmacies for advice at the first sign of a winter illness and suggests that we have begun to shift the cultural norm around this behaviour";
- Sepsis campaign: social media videos of families affected by sepsis; reached over 11 million people in total and driven over 400,000 visits to nhs.uk/sepsis for more information;
- Keep Antibiotics Working: antibiotic resistance campaign, "The regional pilot in the north-west engaged 1.2 million people through social media and was well supported by 6,400 local partners including GPs, pharmacies, local authorities and children's centres".

#### **Other points to note:**

- PHE works with local public health partners; programmes are co-created and made to reflect local features (e.g. landmarks) and there is also a Campaign Resource Centre that has been used by

27k people in local authorities and NHS organisations to download free campaign resources, and access consumer insight and localised data to help them with their planning via the specially created Local Authority Reporting Dashboard;

- PHE also uses partnership marketing (commercial partnerships) with e.g. Disney, Amazon, grocery retailers, pharmacies, Slimming World, and MySupermarket.com;
- Innovation focus is heavily on digital insight – taking into account demographic differences, changes in people’s digital behaviour;
- PHE has a suite of digital products that cover smoking, alcohol, physical activity and other behaviours:
  - A notable example is that PHE learned that most searches for breastfeeding-related questions are between 2am and 6am, which led to the creation of a digital Breastfeeding Friend (a Facebook bot);
  - Stoptober used Facebook to target smokers.
- PHE state that behavioural science was used to develop the One You campaign, such as:
  - Incentives: partner retailers provide a free healthy lunch if people can walk from the poster site to the store in under ten minutes;
  - Chunking: activity is broken down into manageable time periods;
  - Loss aversion: a counting-down timer encourages people to walk briskly so that they don’t miss out on the offer;
  - One You also has a database of 6m people thanks to the quiz, which they used to create profiles and increase targeting effectiveness.

#### **Evaluating campaign/intervention success:**

- “All PHE evaluations report response (including digital actions) and intermediate outcomes (behaviour change). Where there is health system data available, we can use this to measure impact on longer-term behaviours. For example, for Be Clear on Cancer, we report two-week wait referrals from general practice and cancer survival statistics, and, for the forthcoming antimicrobial resistance campaign, we will report on antibiotic prescribing. In other areas, we have designed innovative methodologies to demonstrate effectiveness; for example:
  - Change4Life app diary study, 10 Minute Shake Up (10MSU), 2015: a test and control study of children’s physical activity levels over the summer, using an app diary. This study

estimated that the programme drove over 100 million minutes of 10MSU-inspired activity over the summer;

- Change4Life supermarket media study, Sugar Smart, 2016: an analysis of digital Sugar Swaps posters placed outside Tesco stores demonstrated 3–4% declines in purchases of sugary cereals and fizzy drinks and saw similar increases in sugar-free variants in test stores (where advertising was shown) compared with control stores;
- Smokefree Tobacco Simulation Model (TSM): a ground-breaking agent-based behavioural simulation that combined data from multiple sources, including creating a dynamic predictive model of the smoking population in England. It provides an understanding of the impact of campaigns (past and future), delivering a robust quitting impact assessment from which we calculate our ROMI;
- One You Active 10 physical activity study, 2017: we are currently testing the impact of our first campaign and digital support tool designed to encourage inactive adults to meet the Chief Medical Officer's physical activity guidelines. Partnering with the Centre for Exercise, Nutrition and Health Sciences, University of Bristol plus other academic partners, we aim to produce a robust impact and cost benefit analysis."

#### PHE's Marketing Evaluation Framework



**Regarding specific groups:**

- “People who are worse off are also less likely to have the financial and social resources to improve things for themselves. By contrast, wealthier (and, often healthier) people are more likely to actively seek out and engage with health information. We therefore need to focus our marketing programmes, and target tightly, to ensure they reach where they are most needed.”
- National campaigns are focused on C2, D, and E sociodemographic groups.
- **Social media is proving an effective way to reach these groups:**
  - “For Stoptober 2015, almost half a million people engaged with our social media content; of these, 80% were C2DE;
  - “For Change4Life’s 10 Minute Shake Up, 180,000 families engaged with our social media content; 92% of these were C2Des”

**18 SunSmart campaign (Slip Slop Slap), Australia**

The Slip Slop Slap Campaign was introduced in 1980 and continued as part of the wider SunSmart Program from 1988. The overall aim was to change personal and institutional attitudes and behaviours, through environmental (that is systemic) and organisational change, and thereby to reduce the incidence and mortality of skin cancer.

Key programme elements: mass media work (the ‘Slip-Slop-Slap’ campaign), sponsorship (e.g. of sporting organisations), resource development and dissemination, professional education (e.g. working with trade unions representing outdoor workers to develop occupational health and safety guideline; or SunSmart accreditations for schools), advocacy of policy development, and a research and evaluation component.

**Outcomes/findings:**

- A long-term study of teenagers and young adults has revealed the cases of melanoma in young people (in Queensland) fell 5 per cent each year from the mid-1990s to 2010;
- According to the study published online in the International Journal of Cancer, the rate of melanoma cases (across Australia) has fallen from 25 per 100,000 in 1996 to 14 per 100,000 in 2010 among people aged 20 to 24;
- Skin cancer incidence rates have been gradually plateauing after decades of increase, and from approximately the mid-1990s, melanoma incidence rates have been decreasing in the youngest cohorts of 15–24-year olds;
- Survey evidence: a change in attitudes toward tanning, with the proportion of adolescents and adults preferring a tan decreasing from 60% and 39% in 2003–2004 to 45% and 27% in 2010–2011;

- It has been estimated that SunSmart has been responsible for preventing 103,000 skin cancers (9000 melanomas and 94,000 keratinocyte cancers) and 1000 deaths due to skin cancer in Victoria from 1988 to 2003. There has been estimated financial gain of AUD\$2.60 for every dollar that historically has been invested in the SunSmart program.
- *CAVEAT: there have been other campaigns in that time period too to address the same issue – so the causal impact of slip-slop-slap is not completely clear. It also was notable not just a mass communication campaign: SunSmart also worked with trade unions representing outdoor workers, to develop occupational health and safety guidelines for sun protection and there were SunSmart accreditations for schools.*
- **Factors contributing to SunSmart’s success (from the SunSmart retrospective report):**
  - ‘Positive’ factors relating to the specific health issue - there are no obvious moral or commercial opponents of protective messages;
  - The social, political and economic environment – “Central to its success has been the capacity to be seen on the agenda of the whole community, helping to stimulate change in social values.” AND: during the 80s general environmental concerns were emerging;
  - The Anti-Cancer Council (already experienced in running a skin cancer program) took the lead, had a research capacity, prior credibility, high public profile and lots of experienced staff as well as an established infrastructure for supporting campaigns.
- **Key elements for a successful health promotion program (from the SunSmart retrospective report, with other details):**
  - Maximising the favourable aspects of the broader environment (the relationship of a program with the social, political and economic environment can play a key role in its development);
  - Growing out of a strong home base (operating out of an established, effective, well-resourced organisation that had compatible aims and values);
  - Having access to adequate and consistent resources (continuity and adequacy of resources over time are crucial – evaluation and funding are done on a longer time frame and funding is provided so that there is stability);
  - Congruency of aims of funding and implementation organisations;
  - Ensuring clarity of vision and planning (clear articulation of aims, objectives and strategies and the adoption of regular program review and planning processes);



- Integrating research and evaluation into program planning and implementation (a strong research and evaluation base is essential to measure progress, assess the value of particular approaches and justify funding and effort);
- Appreciating the complexity of system change (the processes that result in attitude and behaviour change are not linear. They are complex and made up of many elements and it is not always easy to predict where emphasis should be nor the relative impact of separate elements);
- Adopting a wide range of strategies (a broad focus on working simultaneously across the whole system needs to be complemented by the adoption of a range of strategies or interventions);
- Tailoring the media message to the environment (media messages need to be carefully tailored to work best with the prevailing culture and community awareness at that time);
- Potential negative effect of strategies (some strategies have the potential to 'backfire' or to 'cut both ways'—they may appear to provide an incentive to action or support for change, but in fact inhibit change);
- Motivating the more difficult, 'hard to reach', groups (certain settings or target groups seem more difficult to reach with health promotion messages and may require particularly intensive efforts or specific strategies).

**Sources:**

1. <https://melanomaresearchvic.com.au/slip-slop-slap-success-skin-cancer-rates-plummet-thanks-long-running-nationwide-sun-safety-campaign>
2. Towards skin cancer prevention and early detection: evolution of skin cancer awareness campaigns in Australia. (2014) *Melanoma Management*, 1(1). <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC6094686/>
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5. Additional references here: <https://www.oatext.com/Characteristics-of-the-SunSmart-program-with-reference-to-health-education-and-health-promotion-concepts.php>

## 19 Queensland Water Commission and the Target 140 campaign (Australia)

The eight-month Target 140 campaign targeted household users, aiming to change the water use habits of SEQ residents. The campaign achieved not only immediate reductions in water use but also contributed to long term behavioural and attitudinal change.

*Note: Influencing social norms through a communication campaign was only a part of the initiative.*

### Key points from the campaign:

- The target aimed to personalise the issue by making it an individual target calculated to each person's water use within a household. The intervention team envisaged individuals, inside the privacy of their own homes, self-regulating their own water consuming behaviours. The campaign aimed to 'personalise the problem; individualise the solution'.
- On the basis of the outcome of market research, which identified the three key beliefs residents held about the pressing water shortage, the intervention team used attitudinal marketing strategies to convince residents of three issues: first, that water supply levels were critical; second, that 70% of overall water use was residential; and finally, that small individual behavioural changes can make a difference. TV commercials focused on these three goals.
- Commercials focused around water-saving strategies within the home provided viewers with information on how, as individuals, they could implement changes that would make a difference. The three messages, always in combination with the Target 140 goal, were incorporated into all forms of advertising
- The intervention team identified **one key consumer behaviour to address** and campaigned heavily around this change strategy. The chosen behaviour was the 'four minute shower'. The QWC market research identified the typical predrought shower at seven minutes and that it represented 33% of household consumption. The four minute shower became the centrepiece behaviour for change and approximately 1.1 million households were issued with a free four minute timer to use when showering
- Residents were sent an information booklet along with the shower timer. Brochures were readily available and the QWC website provided virtual houses outlining, room by room, all possible water saving tips
- Feedback to the community became an important feature of the campaign. The feedback served two purposes. First, it provided information to households on how they were performing against the 140 target. Second, it provided an opportunity to congratulate residents on their efforts or alternatively to encourage residents to try even harder.
- There were a number of influences used to create new social norms of water consumption behaviour:

- Stories of naming and shaming individuals, spotted to be using water outside the regulations, were reported in local news stories.
- Community leaders and local celebrities were also involved in supporting the Target 140 campaign
- In tandem with the Target 140 campaign, structural changes that would affect household water consumption practices long term were underway.
  - The most significant of these included retro-fitting low-flow shower heads, installation of low-flow water metres to all new households and installation of water tanks for outdoor garden use.
  - Government policy facilitated these structural changes by offering various schemes including financial support, home service audits and the introduction of new building codes of practice

**“The goal of achieving behavioural change is common to a diversity of disciplines.”**

- Although practitioners use different strategies incorporated in slightly different ways, in general the strategies can be broadly categorised into three main groups. These three groups of strategies are evident in this case study.
- The first group of strategies encompass those that take a benefits–costs approach. By addressing the benefits to the individual of the desired behaviour and the costs to the individual of the undesired behaviour, the practitioner aims to create a favourable attitude towards the target behaviours (Andreasen, 2006; Kotler and Lee, 2008).
- A second group of strategies focuses on the social influences of other people deemed important or relevant to the individual. In this situation practitioners try to use social influences in ways that promote the desired behaviour and address situations where others may be influencing individuals to undertake (or maintain) the undesired behaviour (Andreasen, 2006; McKenzie-Mohr and Smith, 1999).

- Finally, the third group of strategies looks at an individual's skills and abilities to take on changes to their behaviour and to address any environmental constraints that make the new behaviour difficult. This final group of strategies aims to enable behavioural change by increasing an individual's knowledge, skills and efficacy for undertaking the new behaviour and reducing any environmental barriers for change. In the case of habitual type behaviours these strategies need to facilitate old habit disruption and support new habit formation. Marketing and social marketing approaches draw on many of these strategies to achieve behavioural change (Kotler and Lee, 2008; Andreasen, 2006; McKenzie-Mohr, 2000).

**Table 1.** Summary of strategies commonly used in marketing and social marketing interventions

	Group 1	Group 2	Group 3
	Strategies based on benefits and costs	Strategies based on social factors	Strategies based on enabling factors
Aim of behavioural change strategy  (Andreasen 2006; Kotler and Lee 2008; McKenzie-Mohr and Smith 2000)	<ul style="list-style-type: none"> <li>Increase the perceived benefits and decrease the perceived costs of undertaking the desired behaviour</li> <li>Decrease the perceived benefits and increase the perceived costs of undertaking the competing behaviour</li> </ul>	<ul style="list-style-type: none"> <li>Utilise (create) social influences in a way that encourages the desired behaviour and or</li> <li>Address social influences that are discouraging the desired behaviour</li> </ul>	<ul style="list-style-type: none"> <li>Increase a persons skills and abilities to undertake the desired behaviour</li> <li>Reduce or remove environmental constraints</li> <li>Facilitate old habit disruption and support new habit formation</li> </ul>
Examples of interventions	Attitudinal marketing Incentives / Subsidies Rewards / Penalties	Social norming Commitment	Information programs Education Targets / Feedback / Prompts

### Relevant theory

- Protection Motivation Theory* (Rogers, 1975): the PMT proposes that people will take action if they perceive the threat as sufficiently serious and likely, and if they know of actions that will not only make a difference but also that they feel capable of undertaking (Gardner and Stern, 2002; Milne et al., 2000). PMT indicates that providing scare campaigns alone without an accompanying set of actions will likely be unsuccessful in producing the desired outcome behaviour.
- The theory features a two-part appraisal process that the individual undertakes in determining their response to an environmental hazard: a threat appraisal process and a coping appraisal process.
- The dual appraisal results in a choice of action varying from taking no action through to choosing behaviours that are either problem focussed and adaptive or emotion-focussed and maladaptive (Floyd et al., 2000; Milne et al., 2000). Maladaptive behaviours include avoidance, denial, wishful and fatalistic thinking and religious faith (Rippetoe and Rogers, 1987).
- The threat appraisal process entails a person's evaluations of the perceived severity of the hazard combined with their assessment of the probability of the hazard occurring (perceived vulnerability).

- These two perceptions together provide the individual with an assessment of perceived threat. Perceptions of threat associate positively with protective behaviour and result in a greater probability of the individual to select the protective behaviour (Floyd et al., 2000).
- The second appraisal process, coping appraisal, involves the individual's perceptions of the effectiveness of the protective behaviour (response efficacy), combined with perceived self-efficacy and response costs (Floyd et al., 2000). Perceived self-efficacy relates to a person's perceptions of their ability to perform what is required and perceived response costs to an assessment of any costs that act as a barrier to undertaking the protective behaviour (Floyd et al., 2000)
- Two large research review studies indicate that the coping appraisal variables of the PMT have a greater explanatory power for protective motivation and subsequent behaviour than the threat appraisal variables (Floyd et al., 2000; Milne et al., 2000). The coping appraisal variables demonstrated effect sizes in the medium to large range and the threat appraisal variables in the small to medium range, indicating modest support for the two constructs to predict protective behavioural intentions.

#### **Achieving long term change:**

- Although a number of factors likely contributed to the long-term reduction in water use, two possible psychosocial rationales are discussed. First, because the threat to supply was long-lasting, it provided the opportunity to embed these behavioural changes into new habits and routines reflecting long-term lifestyle changes, even after the removal of the threat. Habits are slow to change and new habit formation requires an opportunity for practice, relevant feedback and other mechanisms to maintain motivation throughout the new habit-forming process (Verplanken and Wood, 2006).
- Goal-setting and feedback, prompts, incentives and rewards are possible reinforcement strategies that facilitate new habit formation. The QWC case demonstrates that many of these mechanisms were undertaken, potentially fostering long-term behavioural change.
- A second explanation for the long-term changes is that by providing each household with a target behaviour of 140 l/person/day, the QWC allowed people to self-regulate their own behaviour. Each household was able to individualise and customise a solution for achieving the necessary reductions, modifying their household behaviour as it best suited their situation and circumstance. This type of solution for long-term change has been discussed in the literature. The Diffusion of Innovation (DOI) theory, suggests long-term change can be enhanced when the 'innovation' can be modified or customised to the consumer (Rogers, 2003).

#### **Source:**

Creating positive habits in water conservation: the case of the Queensland Water Commission and the Target 140 campaign (2011) *International Journal of Non-profit and Voluntary Sector Marketing*, 16(3)  
[https://www.researchgate.net/publication/264339047\\_Creating\\_positive\\_habits\\_in\\_water\\_conservation\\_the\\_case\\_of\\_the\\_Queensland\\_Water\\_Commission\\_and\\_the\\_Target\\_140\\_campaign](https://www.researchgate.net/publication/264339047_Creating_positive_habits_in_water_conservation_the_case_of_the_Queensland_Water_Commission_and_the_Target_140_campaign)

## 20 Systematic review of reviews of intervention components associated with increased effectiveness in dietary and physical activity interventions (Greaves et al., 2011)

### Overview:

The aim of this systematic review of reviews was to identify intervention components associated with increased change in diet and/or physical activity in individuals at risk of type 2 diabetes. To develop more efficient programmes for promoting dietary and/or physical activity change (in order to prevent type 2 diabetes) it is critical to ensure that the intervention components and characteristics most strongly associated with effectiveness are included.

### Headline findings:

- Based on causal analyses, intervention effectiveness was increased by engaging social support, targeting both diet and physical activity, and using well-defined/established behaviour change techniques. Increased effectiveness was also associated with increased contact frequency and using a specific cluster of “self-regulatory” behaviour change techniques (e.g. goal-setting, self-monitoring).
- No clear relationships were found between effectiveness and intervention setting, delivery mode, study population or delivery provider. Evidence on long-term effectiveness suggested the need for greater consideration of behaviour maintenance strategies.

### Findings – more detail:

- High quality causal evidence was found that **adding social support to interventions** (usually from family members) provided an additional weight loss of 3.0 kg at up to 12 months (compared with the same intervention with no social support element)
- Medium to low quality associative evidence suggested that effectiveness for initial behaviour change (i.e. change in weight, diet or physical activity) was associated with using the following techniques:
  - For dietary change: providing instruction, establishing self-monitoring of behaviour, use of relapse prevention techniques ;
  - For physical activity change: prompting practice, establishing self-monitoring of behaviour, individual tailoring (e.g. of information or counselling content);
  - One review also provided medium quality causal evidence (a descriptive summary of individual RCT findings) that brief advice, which usually included goal-setting, led to an increase in walking activity (27 mins/week walking at 12 months of follow up). Goalsetting alongside the use of pedometers was also associated with increased walking (see below);

- Medium quality associative evidence suggested that increased maintenance of behaviour change was associated with the use of time management techniques (for physical activity) and encouraging self-talk (for both dietary change and physical activity).
- Greater effectiveness of interventions was causally linked (in meta-analyses and randomised trials which experimentally manipulated the use of these elements) with targeting both diet and physical activity, mobilising social support and the use of well described/established behaviour change techniques.
- Greater effectiveness was also associated (in correlational analyses and non-randomised comparisons) with using a cluster of self-regulatory techniques (goal-setting, prompting self-monitoring, providing feedback on performance, goal review and providing a higher contact time or frequency of contacts).
- There were no clear associations between provider, setting, delivery mode, ethnicity and age of the target group and effectiveness. This (and evidence from a range of individual RCTs cited in the reviews examined) suggests that interventions can be delivered successfully by a wide range of providers in a wide range of settings, in group or individual or combined modes, and can be effective for a wide range of ethnic and age groups.
- While the use of “established, well-defined behaviour change techniques” was associated with increased effectiveness, it is worth emphasising that individual techniques are rarely applied in isolation and should form part of a coherent intervention model. Therefore, a planned approach to intervention design is recommended, such as “intervention mapping”, or other systematic intervention development processes which select intervention techniques to address targeted behaviour change processes (and that are tailored for the target population and setting).

**Table 2 Recommendations for practice**

<b>A</b> <sup>1</sup>	Interventions should aim to promote changes in both diet and physical activity
<b>A</b>	Interventions should use established, well defined behaviour change techniques (e.g. Specific goal-setting, relapse prevention, self-monitoring, see Table 1)
<b>A</b>	Interventions should encourage participants to engage social support in planned behaviour change (i.e. engage others who are important such as family, friends, and colleagues)
<b>A</b>	Interventions may be delivered by a wide range of people/ professions, subject to appropriate training. There are examples of successful physical activity and/or dietary interventions delivered by doctors, nurses, dietitians/nutritionists, exercise specialists and lay people, often working within a multi-disciplinary team
<b>A</b>	Interventions may be delivered in a wide range of settings. There are examples of successful physical activity and/or dietary interventions delivered in healthcare settings, the workplace, the home, and in the community
<b>A</b>	Interventions may be delivered using group, individual or mixed modes (individual and group). There are examples of successful physical activity and/or dietary interventions using each of these delivery modes
<b>A</b>	Interventions should include a strong focus on maintenance. It is not clear how best to achieve behaviour maintenance but behaviour change techniques designed to address maintenance include: self-monitoring of progress, providing feedback, reviewing of goals, engaging social support, use of relapse management techniques and providing follow-up prompts
<b>B</b>	Interventions should maximise the frequency or number of contacts with participants
<b>C</b>	Interventions may consider building on a coherent set of "self-regulation" techniques, which have been associated with increased effectiveness (Specific goal setting; Prompting self-monitoring; Providing feedback on performance; Review of behavioural goals) as a starting point for intervention design. However, this is not the only approach available
<b>C</b>	No specific intervention adaptations are recommended for men or women, although it may be important to take steps to increase engagement and recruitment of men
<b>D</b>	If using established behaviour change techniques, a clear plan of intervention should be developed, based on a systematic analysis of factors preceding, enabling and supporting behaviour change in the social/organisational context in which the intervention is to be delivered. The plan should identify the processes of change and the specific techniques and method of delivery designed to achieve these processes. Such planning should ensure that the behaviour change techniques and strategies used are mutually compatible and well-adapted to the local delivery context. Following the procedures of the PRECEDE-PROCEED model [62], Intervention Mapping [61], or a similar intervention-design procedure is recommended
<b>D</b>	People planning and delivering interventions should consider whether adaptations are needed for different ethnic groups (particularly with regard to culturally-specific dietary advice), people with physical limitations and people with mental health problems

**Source:** Greaves, C. J., Sheppard, K. E., Abraham, C., Hardeman, W., Roden, M., Evans, P. H., & Schwarz, P. (2011). Systematic review of reviews of intervention components associated with increased effectiveness in dietary and physical activity interventions. *BMC public health*, 11(1), 119.



## 21 Effective behaviour change techniques for physical activity and healthy eating in overweight and obese adults; systematic review and meta regression analyses (Samdal et al. 2017)

### Overview:

This systematic review explored the differential effects of behaviour change techniques (BCTs) and other intervention characteristics in the promotion of physical activity and healthy eating to overweight and obese adults.

### Findings:

- Behaviour change interventions for diet and physical activity are modestly effective both at short and long term, and that the heterogeneity between studies is high, especially at short term.
- There are study characteristics that explain most of the variance between studies. In particular, several BCTs that facilitate self-regulation of behaviour explain intervention effects, e.g. the BCTs goalsetting of behaviour and self-monitoring of behaviour. Interventions that emphasize a person-centred and autonomy supportive communication style, as MI, SDT and other autonomous based interventions, are associated with effects at long term. Facilitating self-regulation and sustained positive motivation are previously identified as two important themes in theoretical explanations for maintenance of behaviour change.
- Meta-regression analyses revealed that person-centred methods as in Motivational Interviewing, SDT and other autonomous supporting interventions were associated with maintenance of change at  $\geq 12$  months. Previously, only a few physical activity interventions have reported positive intervention effect at more than 12 months.
- These findings suggest that setting a goal for behaviour change and to monitor the new behaviour are effective in helping people to both initiate change and to maintain the change. In line with theoretical explanation of maintenance, the focus will change from expectations of future outcomes to experiences with results over time; the cost and limitation of self-regulation, setbacks, and relapses.
- BCTs like goalsetting of outcome, setting graded tasks, and getting feedback on outcome, highlights the results achieved and the possible satisfaction with the new behaviour. If counselling is performed in a person centred and autonomous supporting manner, the participants' self-regulatory strength may be renewed by developing a genuine appreciation of healthy food, and development of autonomy (sense of choice, feeling volitionally), and internalization of the new behaviour into the person's perceived values, aspirations, and autonomous self-regulations.
- The results from the review supports two theoretical themes important in maintenance of change; BCTs facilitating behaviour self-regulation, e.g. skills and functional aspects of behaviours ("how to"),

combined with a communication style that addresses the underlying nature of motivation (“the why”) in order to maintain the new behaviour over time. These perspectives are not opposites, but complement each other. Without the first, there would be lack of competence. Without the second, there is lack of meaning, value, and satisfaction of psychological needs.

**Table 2** Results from meta-regression analysis of 50 short term outcome reports of PA and diet interventions

Study characteristics	Simple meta-regression <sup>a</sup>				Multiple meta-regression <sup>b</sup>		
	b	95% CI	P value	Adj. R <sup>2</sup> %	b	95% CI	P value
BCT 1.1 Goal setting behaviour <sup>f</sup>	0.480	(0.257, 0.705)	<0.001	49.2	0.440	(0.225, 0.655)	<0.001
BCT 2.2 Feedback on behaviour <sup>f</sup>	0.219	(-0.040, 0.479)	0.096	4.4			
BCT 2.3 Self-monitoring of behaviour <sup>f</sup>	0.398	(0.164, 0.632)	0.001	35.3			
BCT 2.7 Feedback on outcome of behaviour <sup>f</sup>	0.243	(-0.040, 0.527)	0.091	12.0			
BCT 6.1 Demonstration of the behaviour <sup>f</sup>	0.244	(-0.035, 0.523)	0.085	11.9			
BCT 9.2 Pros and cons <sup>c</sup>	-0.252	(-0.542, 0.038)	0.087	4.8			
High and unclear risk of reporting bias <sup>g</sup>	0.670	(0.100, 1.240)	0.022	18.5	0.530	(0.257, 1.034)	0.001
Number of BCTs unique in intervention group <sup>e</sup>	0.033	(0.008, 0.059)	0.012	23.8			
Source of delivery <sup>f</sup>							
No health professionals/unclear	0.000	reference					
Other health professionals	-0.201	(-0.550, 0.148)	0.252				
Health professionals trained in behaviour change	-0.283	(-0.607, 0.040)	0.085	6.5			
Adj. R <sup>2</sup> %							58.8

Abbreviations and symbols: BCT behaviour change technique, PA physical activity, b estimated meta-regression coefficient, CI confidence interval Adj. R<sup>2</sup> adjusted proportion of between study variance explained by predictors

<sup>a</sup>Simple linear meta-regression of pooled estimates of 30 physical activity and 20 diet intervention's outcome reports. Only predictors with significant or borderline significant effects are reported; <sup>b</sup>Multiple linear meta-regression: results after stepwise backwards elimination from model with all significant predictors included.

**Table 3** Results from meta-regression analysis of 32 long term outcome reports of PA and diet interventions

Study characteristics	Simple meta-regression <sup>a</sup>				Multiple meta-regression <sup>b</sup>		
	b	95% CI	P value	Adj. R <sup>2</sup> %	b	95% CI	P value
BCT 1.1 Goal setting behaviour <sup>f</sup>	0.228	(0.056, 0.400)	0.011	38.5	0.175	0.043, 0.307	0.011
BCT 1.2 Problem solving <sup>f</sup>	0.161	(-0.005, 0.327)	0.057	25.1			
BCT 1.3 Goal setting outcome <sup>f</sup>	0.256	(0.095, 0.416)	0.003	53.2			
BCT 1.5 Review behaviour goals <sup>f</sup>	-0.319	(-0.678, 0.040)	0.078	19.8			
BCT 2.3 Self-monitoring of behaviour <sup>f</sup>	0.184	(0.009, 0.360)	0.040	30.8			
BCT 2.7 Feedback on outcome of behaviour <sup>f</sup>	0.249	(0.085, 0.412)	0.004	43.8	0.145	0.021, 0.269	0.024
BCT 3.1 Social support (unspecified) <sup>f</sup>	0.192	(-0.011, 0.394)	0.063	21.6			
BCT 8.7 Graded tasks <sup>f</sup>	0.203	(0.043, 0.363)	0.014	37.1			
BCT 12.5 Adding objects to the environment <sup>c</sup>	0.182	(0.010, 0.354)	0.039	12.7			
Method based <sup>d</sup>							
MI/SDT	0.000	reference					
ACT/CT/HAES/Mindful/other	-0.303	(-0.500, -0.105)	0.004				
Unclear	-0.199	(-0.372, -0.026)	0.026	57.5	-0.170	-0.294, -0.045 <sup>g</sup>	0.009
Number of BCTs unique to the intervention group <sup>e</sup>	0.028	(0.012, 0.044)	0.001	54.3			
Total number of BCTs in intervention + control group <sup>f</sup>	0.030	(0.014, 0.046)	0.001	61.3			
Adj. R <sup>2</sup> %							100.0

**Source:** Samdal, G. B., Eide, G. E., Barth, T., Williams, G., & Meland, E. (2017). Effective behaviour change techniques for physical activity and healthy eating in overweight and obese adults; systematic review and meta-regression analyses. *International Journal of Behavioral Nutrition and Physical Activity*, 14(1), 42.

## 22 Identity Based Motivation: implications for intervention (Oyserman, D. & Destin, M., |

2011)

### Overview:

Children want to do well in school and attend college, but their actual attainment often lags behind their aspirations. This aspiration-attainment gap is a problem for the children and for society at large, and affects some groups more than others. At a macro-level, this gap is a function of social structural differences that are very difficult to change without large-scale, long term and financially intensive interventions. However, a number of studies suggest another approach is possible because social structural factors influence the gap, in part, through their influence on children's perceptions of what is possible for them and people like them in the future. Interventions that focus on this macro-micro interface, and emphasise the meaning children make of their possibilities, can help children overcome the constraints imposed by social structural variables.

The authors outline and test this possibility using an integrative culturally sensitive framework entitled identity-based motivation (IBM).

### Findings:

- People interpret situations and difficulties in ways that are congruent with currently active identities and prefer identity-congruent to identity-incongruent actions. When action feels identity congruent, experienced difficulty highlights that the behaviour is important and meaningful. When action feels identity incongruent, the same difficulty suggests that the behaviour is pointless and "not for people like me."
- IBM has three core postulates that can be termed action readiness, dynamic construction, and interpretation of difficulty. Action readiness is the prediction that identities cue readiness to act and to make sense of the world in terms of the norms, values, and behaviours relevant to the identity. However, which actions are relevant and what sense to make of situations depends on identity content, which itself is dynamically constructed. Dynamic construction is the prediction that which identities come to mind, what these identities are taken to mean, and therefore, which behaviours are congruent with them are dynamically constructed in context (even though identities feel stable and separate from contexts). The third postulate, interpretation of difficulty, is the prediction that when a behaviour feels identity congruent difficulties in engaging in the behaviour will be interpreted as meaning that the behaviour is important not impossible and, therefore, that effort is meaningful not pointless. Thus, interpretation of difficulty matters because it influences judgment, choice, and behaviour.
- Together these three postulates explain both how it is that identities feel stable but are instead malleable and dynamically created in context
- The study demonstrates how the IBM model provides an explanation for the gap between desired and attained outcomes, an explication of why high-risk contexts may enhance this gap, and a set of

mechanisms through which children in high-risk contexts can succeed. The authors base their demonstration on evidence from lab and field experiments and randomized clinical trials. Taken together, these studies demonstrate that the IBM model provides the basis for what are termed small interventions with big effects.

- The identity-based motivation (IBM) model rests on the assumption that identities matter because they provide a basis for meaning-making and for action (Oyserman & Markus, 1998). This implies first that people are motivated to act in identity-congruent ways and, second, that when a behaviour feels identity congruent in context, it feels natural, and difficulty in engaging in the behaviour is likely to be interpreted as meaning that it is important (e.g., “no pain, no gain”; Oyserman, 2007). Moreover, it also implies that the reverse is the case for behaviours that do not feel identity congruent in context. These behaviours don’t feel natural, and difficulty in engaging in them is likely to be interpreted as meaning that the behaviour is not identity syntonic (e.g. “taking notes is for nerds, not for normal kids like me”) or lead to questioning the identity itself (e.g. “maybe I am not a math person”).

#### **IBM and Action Readiness: Evidence From a Randomized Clinical Trial**

- School-to-Jobs intervention (STJ) to change children’s possible identities with three primary goals: (a) making the future self feel connected to the current self so that current action to attain the future self is needed; (b) making actions needed to attain the future self feel congruent with important gender, race-ethnicity, and social class–relevant social identities; and finally (c) providing an interpretation of the experience of difficulty in working on school tasks as meaning that school-focused future identities were important, not impossible, and that failures along the way are normative, not diagnostic
- Intervention was brief, lasting only 7 weeks, but effects were long lasting, continuing through the two-year follow-up

**Source:** Oyserman, D., & Destin, M. (2010). Identity-based motivation: Implications for intervention. *The Counseling Psychologist*, 38(7), 1001-1043.