

11

CAN ‘NUDGING’ CHANGE BEHAVIOUR? USING ‘BEHAVIOURAL INSIGHTS’ TO IMPROVE PROGRAM REDESIGN

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Observations from the UK’s No. 10 Cabinet Office Behavioural Insights Team

Behavioural insights is, in essence, quite a simple idea: if we adopt more sophisticated models of what it is that drives human behaviour—including judgements of risk and what people actually do—we might make better policy which is easier, more effective, and more cost effective too. It is important to note from the outset that we use *behavioural insights* (rather than behavioural economics) to refer to that range of literature about human behaviour from behavioural economics, social psychology, neuroscience and sociology. We prefer the term ‘behavioural insights’ mainly because it is less doctrinal, and I know that there are many psychologists out there who feel that

‘behavioural economics’ has been appropriated by economists to the exclusion of psychologists. The UK Cabinet Office team feel that ‘behavioural insights’ is a broader, more encompassing term.

The Conservative–Liberal Democrat coalition government in Britain, particularly in 2010, brought this idea forward—that we could support and help people make better choices for themselves. It has been our brief for almost four years now, and we have had some fantastic results.

Nuts and bolts changes

There are two kinds of projects we do. One is ‘nuts and bolts’ changes, some of which have been quite long in the design and making. An example is a 2012 change to the defaults on employer-funded pensions (superannuation). We moved from an opt-in system to an opt-out system for employer pensions, leading to about 90 per cent of people staying in the system. It is a remarkable result. For decades, people have struggled to get the savings rate up of workers, and simply by changing the default we have achieved this remarkable effect. We are by no means the only ones in the world to do this, but it is still powerful and gratifying to see it working.

There are other examples I can mention. We have run many randomised control trials to test the effects of small ‘nudges’ across a number of areas of domestic policy. One great success has been our initiative to change the letters issued by our tax office, Inland Revenue. Our tax authorities write millions of tax letters every year. We found that small changes in the wording—for example, telling people something that is true: ‘most people pay their tax on time’—can be a very effective way of encouraging people to pay their tax. Even a small variation on that—saying ‘most people in your area have paid their tax and you are one of the few that are yet to pay’—turns out to be a very effective way of increasing compliance and tax rates. Interestingly, it also reduces the number of complaints. The marginal cost of these changes is almost zero, and they are now bringing in hundreds of millions of pounds in forward payment on tax in the UK.

Figure 11.1 reports our findings graphically. We identified a control group of people who needed to pay their self-assessment tax, and 34 per cent responded to a standard control letter. When we included a statement about the UK norm (e.g. ‘9 out of 10 people pay their tax on time’), the response rate went up to 35 per cent. When we added the local norm (‘9 out of 10 people in Exeter pay their tax on time’), it went up yet again, to 36 per cent. When we included the debt norm (highlighting that the person receiving the letter is in the minority of those that have not paid), the response rate increased further still. When the local and debt norm were put together (e.g. ‘9 out of 10 people in Exeter pay

their tax on time; this puts you in a minority of 3,000 people'), this resulted in a more than 5 percentage points increase in payment compared to the control group. This was a huge result simply generated by changing a few lines on a letter.

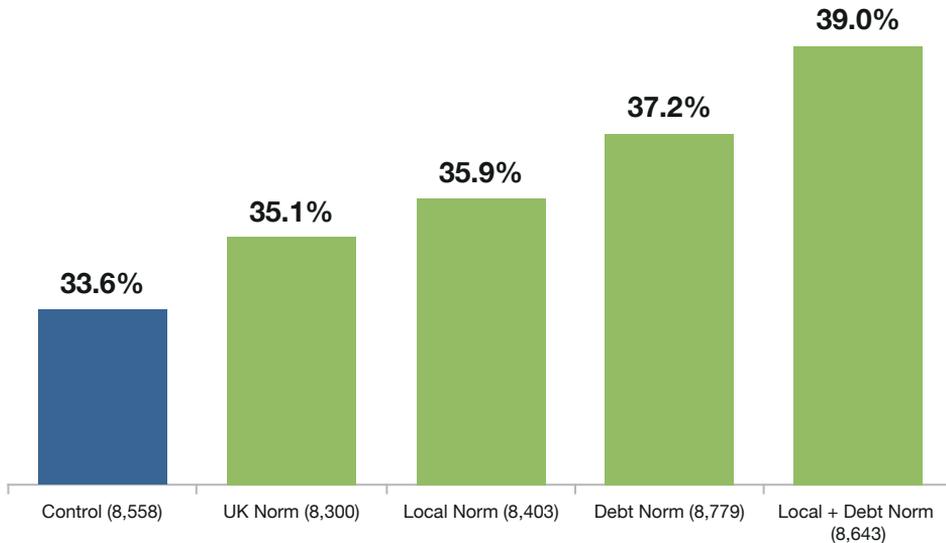


Figure 11.1. Percentage of taxpayers paying outstanding taxes after 23 days, by type of tax letter received

Source: UK Behavioural Insights Team Cabinet Office.

Another example relates to employment and changing what happens in job centres. We made substantial changes to the way the job-seeking contract operates. Instead of asking people to prove retrospectively that they have looked for at least three jobs in the previous two weeks, we asked them, 'What are you going to do in the next two weeks?' And prompted them as specifically as possible to tell us 'When? How?' and so on. An example a client might give could be: 'After I've taken my kid to school on Wednesday, I'm going to get on such and such a website and I'm going to look for retail jobs in Essex'. This small change was surprisingly effective, leading to a significant increase in the number of people who were off benefits at 13 weeks. After the success of this trial we are now seeking to replicate through a much larger trial across a wide chunk of the UK.

Many of these reforms though are 'nuts and bolts' changes; they are very practical and it is the kind of demonstrable results I have mentioned that have persuaded often quite sceptical public servants.

Structural and fundamental changes

Sometimes in relation to specific issues, we can use the same insights to change policy more fundamentally or structurally. In many areas, we find that markets do not work perfectly even if they are competitive in a formal sense. In such cases, there can be difficulties and friction in working out the right thing to do.

Mobile phones are a good example. In the UK there are millions of alternative phone network combinations. Customers want to know whether they are on the best phone plan. But in the marketplace that is hard to know. However, if consumers had access to their own transaction data, it would be a game changer. When we look at another area—energy markets—most people do not care all that much about where their energy comes from, but the basic question remains: Do they know what tariff they are on? Do people know whether they use more electricity at night compared to other people? Imagine if someone's electricity bill had a Quick Response code with their data and information, and they could hold their mobile phone up against it and it would tell them 'the best tariff for you is the following. Would you like to change?' and they could click and it would happen in a few moments. You can see straight away why that is also a game changer in the way markets operate.

These two structural examples change the way the system works. Rather than investing resources simply in tariff control, we might just be able to make things much easier so that people are able to be economically literate ('econs') when it comes to making decisions, as we read in the textbook models, rather than the normal human beings with other preoccupations that we are most of the time. In the UK we have found that these kinds of approaches have been incredibly promising across a wide range of domestic policy areas.

Rory Gallagher

Applying 'behavioural insights' in Australia

Behaviour change has a long history in public service around the world. However, the systematic application—and robust evaluation—of insights from the behavioural sciences is a more recent phenomenon. In 2009, the Australian Public Service Commission stated that 'behavioural insights can help us to better analyse problems and provide more effective and efficient ways of achieving particular goals'. This recognition was heavily influenced by the publication of *Nudge* (Thaler and Sunstein 2008), which significantly helped bring these ideas into the heart of the government in both the UK and the US, and now increasingly also in Australia.

Australia has some world-leading examples of behaviour change, perhaps most notably in cancer prevention. For example the pioneering 'Slip! Slop! Slap!' campaigns around the use of sunscreen were enormously effective in changing the behaviour of a wide population. More recently, plain packaging of cigarettes is another good example, while innovative new approaches to helping smokers quit have been developed here. For example, the *My QuitBuddy* app, funded by the Australian government, is an excellent example of the use of behavioural insights. It allows users to create their own commitment devices involving their family and friends. Consequently, when they start to feel a craving, they can email or call them, or they can play and record sounds to create a panic button alarm. For example, when a *My QuitBuddy* user feels the need for a cigarette, they can hear the voice of their kids saying 'Daddy, please don't smoke'. These seemingly minor prompts can have a profound effect on personal behaviour. Another strategy is the use of *mutual* pledges: for instance, if I give up smoking, what will my friend give up—they can try and give up something as well. These are innovative methods compared to the standard warning slogan of 'smoking kills'. Smokers already know that smoking kills, but there are other tools and techniques available to help people achieve behaviour change.

In service delivery, the federal Department of Human Services has a fantastic app to help students track their working hours. The problem in this case is that students were getting into trouble for not letting Centrelink know when they were working. If we look at the behavioural literature and try to understand the problem, two traditional hypotheses might be: 1) students are lazy; and 2) they will not want to tell us how much they work because they do not want to be taxed. But quite often it is simply because we do not make it easy for them to do what we want—because of the numerous forms they have to fill out, and the fact that it is difficult to find the relevant information. The department realised this and developed a hugely popular app, which has helped many more students log their working hours, simply by making it easier for them to do so.

The methodology used by the Behavioural Insights Team

There are four basic stages for most projects that we undertake (see Figure 11.2).



Figure 11.2. Four basic stages for most projects undertaken by the Behavioural Insights Team

Source: UK Behavioural Insights Team Cabinet Office.

The first is to *define the outcome*. Anyone involved in government will know that this is a crucial stage, but that it is also an iterative process. We begin by trying to work out what is sitting underneath the overarching concern—what is the actual problem we are trying to solve? When we run a trial, we try to quantify the outcomes we are trying to change, as well as the order of magnitude by which we are trying to change them. The second stage is to *understand the context of the problem*, which often involves doing qualitative, in-depth fieldwork. For example, the fieldwork we did in job centres in the UK involved spending weeks speaking with and observing frontline workers and services users. It's this combination of fieldwork with a deep understanding of the behavioural science literature that helps us *build the intervention*.

Wherever possible we co-design our interventions with frontline staff. The extent of this participation varies from issue to issue. When we were working with the tax office, for example, it was very difficult to engage users—we did not go out to find people who should be paying their tax, but we did talk to the call centre staff and to those writing the letters. We asked them, 'What do you think? How would you change the form? What are the sorts of complaints you get? What are people asking? What are they not understanding? What do you think about this?' Wherever possible, co-design is the best way to go, because if there is no ownership within the organisation of the eventual solution, it will never be scaled up. The staff themselves are usually far better messengers or champions of the intervention. They can spread it within their agency much more effectively than those of us at the central agency by saying, 'Well, that trial worked, so let's go to the head centre now and say everyone should do this'.

The final stage is to *test, learn and adapt*. We have made heavy use of randomised control trials, which until relatively recently were very rare in government. The basic idea is to randomly allocate people to either a control group or a treatment group, and then test the outcome. Because they are randomly allocated, we do not get the usual selection biases and we *can* identify causation. So we attempt to run randomised control trials wherever possible, and try to use that data to build our evidence base for what works. It is not always possible, but we are trying to increase this evidence base and embed a more empirical approach to government.

Those are the four stages. However, note that they are *not* linear—we will often move back and forth between those various stages.

The underpinning themes and principles

Context matters

These stages are underpinned by a set of themes and principles. The first is that context matters. If behavioural insights teach us anything, it is that government should be more humble in looking at what works, because often we actually do not know. There is around 40 years' worth of evidence in behavioural economics and related fields, but its application to government has only been investigated in recent years. When we first attempted changes in tax letters, we had some intuition from the evidence base that social norms would work, but we had no idea to what extent. Even now, when we are applying similar principles in NSW, we have to be open to the fact that just because it worked in the UK does not mean it will work in NSW. So we need to continually trial interventions.

Quite often techniques that have worked in the laboratory do not work as we expect in the field. That was one of our problems early on in the UK, when we visited various departments talking about the ideas in *Nudge*. Quite understandably—and correctly, I think—a lot of Permanent Secretaries thought, 'Sure, that's quite interesting but it doesn't relate to my justice system, or my education system'. It was only when we had put together an empirical base of randomised controlled trials that people started to take notice, because we were then able to say, 'This is the effect we had, and these are the savings'.

Details matter

A second thing to note is that details matter. Even if you create the most perfect policy and get all the conditions right, if the way that it is implemented on the ground or communicated to citizens is not right, it won't have the impact that you intend.

One of the most interesting and helpful things in *Nudge* is the concept of *choice architecture*. The argument is that in government we are all choice architects: when we design a process or a communication, we are influencing someone's behaviour. In government, we often strive to maintain a purely neutral tone and make sure everyone's got all the information they could possibly need. However, the truth is that people do not want to wade through five pages of information; if they really want more detail they will look into it themselves. What we must do instead is capture the most important information and use that information to persuade someone to achieve the outcome that you want. Often it is just a matter of making it easier and simpler. We have found that relatively small changes (for example, to tax letters) can have a profound impact.

Government often focuses too much on the big structural elements and does not give enough attention to the small micro changes that can create large savings and have significant implications.

People matter

The third one is that people matter. I have already mentioned the benefits of co-design—but none of this will work unless the people on the frontline want it to. We spend a lot of time and energy working with the people who are delivering the service, to make sure that they get the chance to provide feedback on anything that we design—that *they* have had a chance to design. The success we have had is largely due to those people then becoming champions within their own organisations; they take it and run with it.

Evidence matters

Too often we see policy-based evidence making as opposed to evidence-based policy making. Government can often commission research to tell us what we want to hear. But if we are spending taxpayers' money on an intervention, we really need to know whether it works or not. Evidence really matters.

Agile implementation

Agile implementation is the final principle. We ran a successful experiment about sending text messages including people's first names. The automatic reaction from the agency was: 'Fantastic, we'll just send personalised text messages to all our services and that's it—all of our problems solved'. But in fact, it worked in one trial, in that particular circumstance—that did not mean that we had found the universal answer. We should keep varying those text messages even with that group, rather than thinking that this will be the answer for all the other problems we want to solve. One of the questions I get asked most is about the sustainability of behavioural techniques, and I think that is something we genuinely need to consider. The effect of some of these techniques—changing the wording of communications, for example—may well wear off over time. But for me that does not undermine the overall principle; I think our approach should be to continue to change and adapt.

We often hear in government the words 'change management' and we think of that as a negative thing. In actual fact, change should be a great thing; we should embrace it. Most private sector companies are changing all the time. You want to keep your core values and your core services while changing things about how you engage consumers and the sorts of services you deliver. Change is often a good thing, and in government we should embrace it more readily.

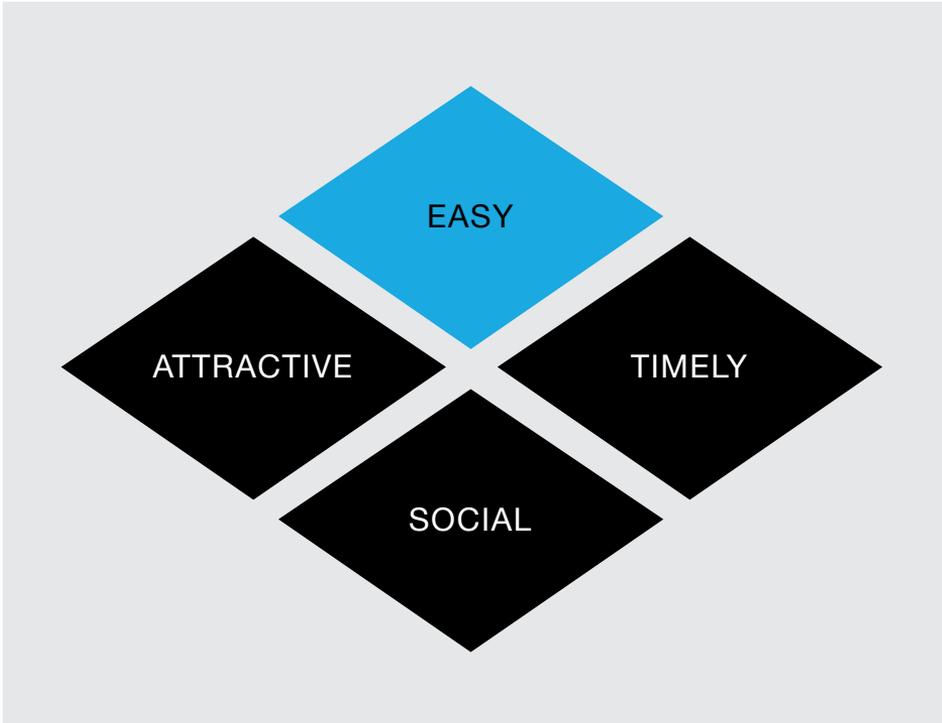


Figure 11.3. The four EAST principles for policy development

Source: UK Behavioural Insights Team Cabinet Office.

The four EAST principles for policy development

There is now a vast behavioural science literature out there—over 40 years' worth of studies—so we have attempted to make this more accessible to policymakers by simplifying it to a simple checklist: EAST. If you want to make your policy more grounded in human behaviour make it easy, make it attractive, make it social and make it timely.

Easy

There are always ways to make something easier, but we do not necessarily do that in government; we think about it quite coldly and rationally. So the first tenet is: make it easy. This is Richard Thaler's mantra, and in government we often do not make it easy for people to do the right thing. We send out very long, wordy letters written by policy teams and then pored over by the lawyers; or we create other little frictions that are enough to stop people undertaking the behaviour that we want to achieve.

We have mentioned earlier some ‘macro’ changes—changes to defaults on pensions, for example—opt-out rather than opt-in for pensions. A lot of what we have done has just been about simplification. A lot of our quick, early wins were in that space. How do you simplify processes and language, and how do you take out little frictions in the process?

Another experiment we ran with the tax office letters is illustrative. In one letter, we informed people in a control group about the generic webpage appropriate for the particular tax they had to pay; in the other, we sent the same letter, but this time we sent them to the exact webpage form that they had to fill out. So the only difference between the two letters was two clicks to one click. That is all people had to do extra from the control group to the treatment group. We found that for people who were sent to the general webpage details, 19.2 per cent responded; but when we sent them directly to the form page, 23 per cent did. That is roughly a 4 percentage point increase. This result does not sound world changing, but when it is scaled up across millions of people, that is a significant saving of administrative costs in following those people up. It is a saving achieved literally by sending them straight to a tax form.

That is what we mean about details. There are many little frictions in the way of people doing things like paying their tax, going to the gym, and so on—and because of these tiny barriers we can lose people. So it is worth thinking about ways in which we can reduce those barriers for citizens.

Attractive

The second rule is to make it attractive. How do we make it salient? How do we personalise it? How do we make it fun and appealing? Think about who the messenger is. Often in government we talk very abstractly—messages come from ‘the department’ rather than real individuals, and citizens generally want to know who they are dealing with and see who is the face of the government. Communications should come from a person that people can actually call and get in touch with, for example.

There was a trial run with an investment bank in London, encouraging investment bankers to pay a day of their salary (a decent amount of money, considering the average salary of a London investment banker). We had five treatment conditions. The control group received a general email from the chief executive officer (CEO) outlining the scheme and saying: ‘Please donate a day’s salary’. Five per cent of people responded. That is not a bad result; it is still a decent number of people and a significant amount of money that they are donating. But when we sent them the same email, but personalised at the beginning (for example, ‘Dear Rory’), the response rate rose to 12 per cent. The effect was doubled just by adding someone’s name. And when we gave

people a small box of sweets—worth around 50 pence—as they entered the building, the result was more than double that of the control group: it went up to 11 per cent. This technique draws on feelings of reciprocity—charities will often send you something and then you feel good about it and want to donate. That is the feeling of reciprocity.

When we combined the personalised email with the sweets, it became three times more effective—so for the cost of a small bag of sweets we were getting a tripling of donations. This led to about £600,000 worth of donations on this particular day. If everyone had been given the most effective treatment, it would have been well in excess of £1 million in donations. This is an example of how we can achieve very significant results by paying attention to relatively small details.

Social

Make it social. Some of our work with the tax office is a good example of our effective use of social norms. As we indicated in the example shown in Figure 11.1, when we used social pressure to get people to pay their taxes the response rates of timely compliance went up. Our baseline control group only managed a compliance rate of 34 per cent, but when we invoked social norms telling our treatment groups about who pays their tax on time in their local area and which minority are still in debt, the response rate jumped to 39 per cent. The message is: people might not volunteer readily to pay taxes to 'the government' but they do not want to let down their local community or stand out from the herd. And better compliance rates saves the government millions simply from how socially a letter is worded.

Timely

Finally, make it timely. How do we engage people when they are most likely to change their behaviour? If you want someone to install energy efficiency measures around the home, or to change their commuting habits, a good time to do this may be when they have just moved house. They have just moved in, but have not got all their belongings in yet, and importantly they have not established their new routines—so that is a great time to intervene. When people have been driving to work every day for 14 years and can do that route with their eyes closed, and then someone comes to introduce them to a great new scheme (e.g. a free bike or a bus pass), they are unlikely to listen to it because they have an ingrained behaviour. In contrast, when people have just moved and are not sure about their routine yet, and someone gives them bike and public transport options, they are much more likely to consider it.

The private sector is good at this. They know that we are all pretty brand loyal, but there are certain times when this is challenged—for example, when you move in with someone or when you have a baby, your life is turned upside down. At these points in your life you are more susceptible to change in your shopping choices, and many private sector firms are very good at targeting that. Similarly, there are many touch points that government should consider, involving the best time to give these messages. But also the messages do not even need to come directly from government—there is a great example from our paper *Applying Behavioural Insights to Charitable Giving* (BI Team 2013) of using lawyers to ask people about charitable giving when they are writing their wills. We achieved some very good results simply by asking people at the right moment. Government could spend millions on advertising campaigns encouraging people to donate, but it may not be *timely*: the most effective time is when people are sitting down with their lawyer drawing up their will. We can work with third parties to harness those key moments.

Behavioural insights in New South Wales

We are implementing three projects in New South Wales: one each in the areas of tax, private health insurance, and return to work for rehabilitated workers.

Tax enforcement letters

The first intervention we introduced was on a tax form that the Office of State Revenue (OSR) sends out concerning speeding offences or vehicle infringements. It is an enforcement order (that is they have gone into debt with OSR), which is the third letter issued when a person has not responded to either an initial reminder notice or a penalty notice. We worked with OSR staff to co-design a new, different looking enforcement letter as well as a new reminder notice. Using theory and evidence from the literature, and looking at techniques that were used successfully in the UK, we engaged with OSR staff to get their feedback on different options. As with anything, there are always practical barriers. For instance, initially we could not point people to a specific webpage, we had to send them a generic one. And there are some elements that we had to retain in the letter for legislative reasons.

The new letter has a clear call to action, includes much clearer consequences, and we spell out our preferred payment options on the front page. The layout and the language have been simplified. We personalised the letters on a sliding scale, beginning with the amount owed and gradually getting to the point of saying ‘You owe’, so we escalated the tone and the language throughout the

enforcement process. And where appropriate we used social norms (things like '9 out of 10 firms nominate a speeding driver') and highlighted factors like what the likelihood of success is if people decide to appeal.

The NSW Behavioural Insights Unit published the trial results to date in *Understanding People, Better Outcomes: Behavioural Insights in NSW* (June 2014). We were pleased to report that this trial led to 8,800 fewer vehicle registration cancellations and driving licence suspensions, as well as an estimated \$1.02 million in additional payments over the year. All told, our trials with OSR combined have been projected to result in 60,000 late fees being avoided each year—thus saving NSW people \$4 million a year in late fees. It also equates to an additional projected \$10 million in fines being paid by their due date, not to mention a saving of \$80,000 just in printing costs!

Private health insurance

The second case was about encouraging citizens to use their private health insurance in public hospitals. Our intervention here made it easier for patients to use their insurance and for staff to process this. We also explored the benefits for patients and staff. At present there is supposedly a focus on choice of doctor, but many people do not know what that means in practice. So we looked at introducing small but tangible rewards, such as overnight gift bags with toiletries for those selecting a doctor and using their insurance. But equally, it is not always clear what the benefits are for hospital staff for encouraging people to use their private health insurance, and there are no immediate rewards for individual wards or hospitals, because anything that comes in from health insurance funds is directed back into the overall health budget. We are looking at how we might feed some of the benefits of private healthcare back to a ward level. We could give them clear targets that they work to, and allow them to think about and choose what life-saving equipment to purchase if they hit those targets.

The results of this trial as of July 2014 have been overwhelmingly positive. One Emergency Department at Westmead Hospital generated a 2 percentage point increase in the use of private health insurance. This may not seem like much, but it equates to an additional \$1.7 million dollars in revenue and cost savings just during the trial period. Importantly, there was very positive feedback from both patients and staff about the changes we had introduced, and it saved staff time and effort. This money is now being reinvested into the hospital, with staff themselves having chosen to allocate a proportion to purchasing more life-saving equipment. Replicating the trial at Auburn Hospital

has seen even greater increases, jumping from an average of around 2 per cent of patients using private health insurance over the five-month period, to an average of 5.4 per cent.

Return to work

The final example is about helping injured workers return to work. We collaborated with an insurance company and a government department to improve and speed up their progress rates for injured or rehabilitated workers returning to work. As in the case of the hospital, the first step was streamlining the process. We found there were up to 20 pieces of paperwork for an injured worker to read through in the first 21 days after they reported their injury. As noted earlier, government tends to swamp people with large amounts of information, some of which is about complex legislation. By about the third letter, it is not difficult to imagine that people switch off and don't even bother opening the material, let alone engaging with it.

We also used commitments to elicit a return-to-work goal. The original process was very passive for the injured person—the government took the lead and the initiative, saying to the injured worker: 'This is when we think you should be back at work'. What we wanted to do is ask *them* to say when they thought they would be able to go back to work, and ask what they would do to help achieve that goal. And there would be reciprocal commitments from the support team as well, so it would be a much more active process for all parties.

The trial ran from September 2013 until July 2014, with encouraging results. Injured employees returned to full capacity 27 per cent faster in the first 90 days of the trial compared to the control group. Also, workers in the trial were nearly three times more likely to have completed their claims within 30 days. And again, we checked with staff and injured workers to get their qualitative feedback on what they thought about the new process. Both found the new approach more engaging, with one case manager saying: 'I'm noticing from my conversations with injured workers that they actually give us some great information that we can use as goals and actions without even asking for them, we just need to listen more. The new process has really opened my mind and ears up to what these workers say and how we can work with them.'

Conclusions

Behavioural insight is having a major impact in the UK, and increasingly now in Australia too. It provides new tools, frameworks and approaches for policy and process improvement. Most policy areas can be at least informed (if not driven) by the application of behavioural insight, but it is by no means a silver bullet.

In essence, we argue for a more experimental approach to government. When we roll out policies, how do we acknowledge that we need to vary it for the particular context rather than having a 'one-size-fits-all' model? The context, detail, people and evidence all matter—more so than we in government may have appreciated before.

There is a long way to go before these approaches become embedded. We have made a lot of 'nuts and bolts' changes such as changing letters, because they are easier to implement and measure, and we needed to prove the effectiveness of our unit. The challenge now is to move upstream to policy design.

There is also a question around sustainability: do those interventions continue to work year after year? What about segmentation? This chapter has looked at population or aggregate response levels, but drilling deeper, how do commitments, for instance, work with young people as opposed to older people? How do they work with young people who have already been through the system before? These are the specific data we still need to gather and analyse.

Finally, there are some enablers in the system that will help sustain this approach. Having more data will assist the process of segmentation, while the increasing move to digital services will allow us to do some of this testing in a new and more efficient way. The theme of this book is 'delivering under pressure' and under reduced budgets. And we believe that the application of behavioural insights can provide cost-effective new approaches for governments around the world.

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