

# Behavioural insights and health

# **Foreword**

Prevention, it is often said, is better than cure. If we didn't smoke, drank less, had better diets and exercised more, the burden of disease would be reduced. For many of these lifestyle behaviours, people know the risks and benefits and want to live more healthily – but find it difficult to initiate or maintain those healthier behaviours. So what is the role of the state in encouraging people to change their lifestyles?

The traditional approach dictates that in cases where something causes direct, immediate and serious harm, such as drug use, restricting choice or even an outright ban is appropriate. However, where it is less clear cut, the argument goes, the state should inform them of the risk of a behaviour and largely leave it to individual choice.

But that ignores the fact there is a variety of ways that people can be supported to make better choices. Councils are demonstrating this through the way they are making use of behavioural insights to improve health. From exploiting digital technologies to stressing social norms in a bid to encourage people to make lifestyle changes, local authorities have started using behavioural insights to make a difference to people's lives.



**Councillor Izzi Seccombe**Chair, Community Wellbeing Portfolio

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# What are behavioural insights?

Many people will perhaps know it better as nudge theory, which came to prominence in the UK five or six years ago.

Since then the techniques and scope of what constitutes behavioural insights have been developed and refined. It is based on the idea that interventions are likely to be more effective if informed by an understanding of human behaviour. It focuses on several fields of study including psychology and economics among others to establish ways of influencing behaviour.

An easy way to understand what is meant by behavioural insights is to consider the Nuffield Council on Bioethics's ladder of intervention.

**Eliminate choice**: regulate to eliminate choice entirely.

**Restrict choice**: regulate to restrict the options available to people.

Guide choice through disincentives:

use financial or other disincentives to guide people to pursue certain activities.

**Guide choice through incentives:** use financial and other incentives to guide people to pursue certain activities.

**Guide choice through changing the default**: make 'healthier' choices the default option for people.

**Enable choice**: enable people to change their behaviours.

**Provide information**: inform and educate people.

Do nothing or simply monitor the current situation.

**Nuffield Council on Bioethics' Intervention Ladder** 

This shows the range of interventions open to policy-makers in between simply informing people and banning something.

Behavioural insights focuses on making these interventions more effective. Evidence suggests the best way to do this is on a population level and to get people to change their behaviour automatically because so much of what we do and how we live our lives is habitual.

One example is highlighting social norms to encourage people to change behaviour because they want to be alike. Alternatively it can involve making an environment more conducive to someone making a healthy choice. This could be by making salad the default option as a side instead of chips or placing easy access and salient signs to steps rather than escalators.

But behavioural insights do not only apply to individual lifestyle choices. The choices we make as individuals can have a profound impact in a host of other areas from education to employment and crime.

In fact, we are all exposed to such interventions in ways we are probably unaware of. When shopping online, for example, commercial companies often use social norm messages, such as the number of people who have viewed or bought an item in the last hour, to encourage us to buy products.

Greater levels of intervention

# The story so far

Much of the interest in behavioural insights on a policy level stems from the 2008 book 'Nudge: Improving Decisions about Health, Wealth and Happiness,' which was written by US academics Richard Thaler and Cass Sunstein.

Their theory is that libertarianism and paternalism do not have to conflict and that the state can – and should – act as a guiding hand, 'nudging' citizens in the right direction. Hence, it became known as nudge theory in the early days.

Behavioural insights really came to the forefront of government policy though when the coalition was formed in 2010.

In fact, the coalition agreement itself made direct reference to the issue, stating that the government would be "harnessing the insights from behavioural economics and social psychology".

In July 2010, a Behavioural Insights Team was set up within the Cabinet Office. It was initially funded for two years, but the government was so impressed with the results it was funded for another two years.

Then in February 2014 the team evolved to become a social purpose company, partly owned by the Cabinet Office, Nesta and the team itself.

The move has allowed it to expand its staff from 14 to more than 60. It has now run over 150 randomised controlled trials across almost every area of domestic policy and also helped other countries run projects.

Many other areas of government have also invested in behavioural insights. There are teams in the Department of Health and Public

Health England and in other departments such as the Department for Business, Innovation and Skills, the Department for Work and Pensions and the Department for Energy and Climate Change.

The potential of behavioural science can be seen through the projects these teams have worked on over the years. These have included increasing the number of people who register as organ donors when they renew their car tax, increasing the number of people who register with the national Stoptober campaign and encouraging GPs with high antibiotic prescribing rates to reduce them.

Unsurprisingly, as evidence around the effectiveness of behavioural science has grown so has the interest of councils.

# What your council can do

An increasing number of local authorities have started exploring how they can make use of behavioural science. This has included appointing officers to lead on the issue and working with universities to help incorporate it into their everyday work.

The Behaviour Change Wheel (www.behaviourchangewheel.com/) has also been developed as a comprehensive guide by scientifically integrating 19 different behaviour change frameworks. But here are 10 practical tips for councils looking to put the science into practice:



Appoint an expert on behavioural insights to take a lead on behaviour change – and encourage members to champion it.



Get in touch with one of the national government behavioural insight teams. Public Health England is building a network of practitioners to encourage knowledge sharing. Contact: tim.chadborn@phe.gov.uk



Look to make use of any expertise locally, such as in universities and the third sector.



Train staff in behavioural insight techniques, particularly on those focused on population-level interventions.



Clearly define and focus on the behaviour which is to be changed and base interventions on an assessment of the target group and the context in which the behaviour occurs.



Utilise frameworks such as COM-B (at the centre of the Behaviour Change Wheel) to structure an understanding of the behaviour you are trying to achieve.



Think through all of your options for an intervention from enhancing existing systems and services to creating new interventions.



Ensure behaviour change interventions are targeted to initiate changes in behaviour but also to maintain behaviours that are not one-off.



Ensure time and funds are allocated for appropriate evaluation of the short, medium and long-term outcomes of any behavioural intervention.



Behavioural insights projects are typically low intensity interventions. Where possible try to work within existing systems and utilising existing data sources for affordability and sustainability.

## Hounslow: Making the most of life changes

A key part of the focus of the London Borough of Hounslow has been to use life change moments as a way of supporting people to live healthier lives.

Public health strategist for behaviour change Chris Norfield, who was appointed to the newly-created post two years ago, says: "Research shows that people are more likely to make a change when their usual habits are disrupted – for example when we move house, have a baby or a child starts school.

"So we've been looking at how we can use those opportunities because councils, perhaps more than any other organisation, have contact with people when these events happen."

An example of this approach can be seen through the west London council's SWITCH project, an EU-funded programme aimed at getting people to travel actively.

The campaign specifically targets families whose children are about to start primary school.

"We felt that if we could support parents to establish walking to school as a habit straight away it would be more likely to last," Mr Norfield says. "It's much harder to get someone to change once they've established a routine".

In the run up to school starting in 2015, the council made contact with parents, offering personalised travel advice and sent out maps about popular and safe routes to walk for all or some of their journey.

Then, once the term got under way, it ran a Beat the Street inter-school competition. Beat the Streets, an established project which has been used in several towns and cities around the world, involves giving children personal cards which they can tap into readers as they walk to earn points for their school. In total 21 schools signed up to the six-week project with more than 11,300 children and families taking part.

Rory McCormack, the head teacher of St Lawrence RC Primary School, which won the competition, says the project had a major impact. "It really brought the community together and caused a real buzz. We've noticed a lot more groups of children walking, cycling and scooting into school."

But this is just the start. Other schemes are now being considered to make the most of these life change moments. These include sending birthday cards on first birthdays inviting parents to take their children to a dentist and investigating how to encourage recycling at the point when someone moves house.

Mr Norfield has also overseen the use of behavioural change in other areas. A pilot has been run at the civic centre's on-site café where over 20 changes were made to encourage healthier eating. These included traffic light labelling and healthy foods being moved nearer the tills. After six weeks there had been a small shift towards healthier snacks, sandwiches and side dishes. The council is now looking at encouraging other outlets to adopt these measures.

Meanwhile, Mr Norfield has worked with children's services to see if behavioural insights could help increase the uptake of free childcare vouchers among low-income families. Recipients were split into three groups. One received the standard letter, one a letter with a wide clear window showing the voucher and a third where the wording of the letter was changed to stress social norms by stating how many local parents have already taken up the offer and a call to action by saying that the voucher should be used as soon as possible. Uptake was a third more than the control group. "While I sit in public health it is important to branch out and work across the council," Mr Norfield adds.

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# East Riding: Helping to improve stop smoking rates

Improving the way stop smoking services are delivered has been a key part of the initial work East Riding of Yorkshire Council has done on behavioural change.

Esther Hall was appointed behaviour change officer in January 2015 and soon started reviewing how the service could be altered. She assessed the training and guidance material that health trainers are provided with to help them deliver the service, reviewing the evidence-base on addiction and smoking cessation as well as sitting in on 15 sessions delivered by different practitioners.

"Using the behavioural change wheel and the theoretical domains framework (ref), it became clear that two important areas were under represented – emotion and identity," she says.

"The advice is that services should encourage clients to follow the 'not one puff rule', but if they do not meet this target it can have the effect of branding them failures and affecting their identity – it doesn't encourage them to keep trying.

"Stress, linked to the emotion element of behaviour change, was also a major issue that wasn't always being addressed through the service. Staff delivering the sessions had themselves seen this and so we started to think about what we could do."

A pilot is now being planned with pregnant smokers for later in 2016. During the trial, smokers will be allowed to take a 'treatment break' rather than having a 'failed quit attempt' and will be given more support to combat stress alongside smoking cessation. The hope is it will increase the success rate of East Riding's service. This group is renowned for being particularly difficult in terms of smoking cessation – nearly 14 per cent of pregnant women locally smoke, well above the national average.

Fiona Bennett, one of the smoking cessation practitioners, believes the change could make a big difference. "It's importance to use

positive language in order to build confidence in our clients, in both themselves and in the service. Using the term 'failed' makes clients less likely to want to try in the first place for fear of failing. By changing this one word it can have a less negative impact on our clients."

But this is just the start of how Ms Hall, who trained as an occupational psychologist, is aiming to use behaviour change across the council. She has also started working with the drugs and alcohol team and is on the project group for the re-commissioning of children's services provision, which aims to create an integrated system covering 0-25 year olds by 2017.

"These posts are pretty new so it has been left up to me. I have focussed on making sure I have input in commissioning and helping teams understand what behavioural change can achieve. It's a way of making sure behaviour change explicitly makes its way into the awareness of providers and into services."

Ms Hall is also looking to change the way the council communicates with the public on healthy lifestyle messages.

A cartoon strip – East Riding Street – has been launched and published in local papers. It follows a typical local family and covers healthy lifestyle topics in a fun and funky way – and Ms Hall is looking to build on this in the future by developing a virtual environment that will help people explore more about health and lifestyle.

East Riding Public Health Director Tim Allison is pleased with how behaviour change is being adopted. "It's not about telling people what to do, but is about helping people to choose a more healthy lifestyle and give them the information that they need to counteract other influences in their lives.

"Behaviour change is a vital element of public health and health improvement."

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## Various: How changing letters can make a difference

The National Child Measurement Programme is a voluntary scheme that weighs and measures children in the first and last year of primary school.

It is used to identify children who are underweight, overweight and obese so that they can be offered support as well as being used as a source of how trends are changing nationally.

Weight management schemes for overweight children are voluntary and only very few families take up the offer despite it being offered free of charge.

So three local authorities in the East Midlands – Leicester City Council, Leicestershire County Council and Rutland County Council – worked with their local NHS trust and Public Health England (PHE) to see if simple behavioural change techniques could improve take up.

Following the height and weight measurements being taken in 2014 some of the parents of children in year six who were obese or overweight received an 'enhanced' letter, while others got the standard letter which contained just the results. The enhanced letter included the message that the child was 'in the minority of local children who were overweight or very overweight' and that two in three children have a healthier weight than them. All letters contained age and gender specific images of healthy weight and unhealthy weight children. For parents of children who were very overweight the letter included a personalised booking form for that child to attend the local weight management services with a prepaid envelope.

In total 284 schools took part, involving more than 10,000 year six pupils. Those that received the enhanced letter and were overweight were twice as likely to enrol in a weight-management service than those that did not.

The potential of such measures has also been explored in another project PHE has been involved with. It involved working with more than 1,500 GP practices across the country to see if antibiotic prescribing could be reduced with behavioural insights.

The practices that were targeted were in the top 20 per cent of antibiotic prescribers in their area. In half of the practices each GP received a personalised letter from the Chief Medical Officer informing them that 80 per cent of practices in their local area prescribed fewer antibiotics per head and recommended simple actions to reduce unnecessary prescriptions. These included encouraging patients to use self-care and offering a back-up post-dated prescription.

The other half of practices formed a control group and did not receive any communication. The intervention cost around £5,000 to run in autumn 2014 and the final findings will be released in 2016 although an initial evaluation suggested it was effective.

PHE behavioural insights lead researcher Dr Tim Chadborn says: "We are delighted with how well these projects have worked. By stressing social norms, encouraging people to take simple steps and using credible sources, in the case of the Chief Medical Officer, the benefits have been significant.

"Behavioural change does not just have to be about changing letters, but at a time when money is tight the attraction of such simple steps is clear."

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## Hertfordshire: Training staff in behavioural change

Hertfordshire County Council has shown its commitment to behaviour change through a number of work streams, including training over 300 front-line staff.

In the past two years nurses, pharmacists, health care assistants, GPs and fire fighters have been trained in behavioural change concepts and techniques with an emphasis on how the principles can be applied in their day-to-day work.

Health psychologist Michelle Constable, who has been recently appointed to provide specialist input into the training programme and other projects, says: "We talk about what behaviour change is and how it works. The idea is to get frontline staff considering some of the factors that might be influencing a specific behaviour and whether they can modify their interventions to improve outcomes.

"The course includes reflecting on current practice, role-plays and how to communicate with people to have more of an impact.

"One approach involves encouraging people to rephrase questions. For example, instead of simply saying 'could you' or 'have you thought of', changing the question round to 'how might you best go about that' or 'looking forward one to two years, how would you like your life to be?' can make a difference."

But this is just one part of Ms Constable's work. Alongside the training, there are 15 different behaviour change work streams that the council has been developing. One of the most well-established is a set of schemes run under the Do Something Different brand.

The online programme, launched in 2014, has already helped over 1,000 residents. There are three programmes within the Do Something Different covering stress, happiness and health.

The programmes work by delivering text messages, emails and prompts to those who have signed up. It encourages participants to make small changes to their everyday lives from what they eat to how much they exercise.

Users will sign up for a period of six weeks and are then sent easy to complete actions.

For example, one Do Health in Herts scheme includes a message titled 'food adventure day', which asks the user to try something they have never eaten before such as kale, kumquat, blueberries or lychee.

Then on another day it will provide a link to sports clubs and classes near them.

Those using the free apps have reported significant benefits, including a 20 per cent drop in alcohol intake, 37 per cent increase in physical activity and 29 per cent rise in fruit and vegetable consumption.

The success has also been recognised by the Royal Society of Public Health, which awarded it a health and wellbeing award in 2015, praising its 'innovative and creative approach to behaviour change'.

To build on the success of the programme, the council is now launching another three projects covering smoking in pregnancy, supporting the self-management of diabetes and emotional wellbeing in school children.

Public Health Director Jim McManus says: "It is all about making small changes that together make a real difference. Our next step is to articulate a whole system prevention approach across all our services."

"We believe behaviour change is a key part of the work we do in public health and that is why we have invested in it the way we have."

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## Warwickshire: Working with University staff

Warwickshire County Council's public health team has invested in behavioural change by working closely with a local university.

For the past four years two health psychologists from the Centre for Technology Enabled Health Research at Coventry University – Dr Katherine Brown and Dr Emmie Fulton – have been employed to work part-time.

In 2015 they were joined by Kristina Curtis, who, in the process of finishing her PhD, was given a two-year contract to work full-time.

The support offered by the three of them includes advice on behavioural change, including training workshops for Council staff, evaluation of existing services and interventions and the development of new projects. In addition, two PhD students, supervised by Dr Brown and Dr Fulton are embedded in the public health team, conducting research that will directly affect service provision and the functioning of the department.

Dr Brown says: "The working arrangement we have set up is beneficial to both parties. Public health get rapid access to our expertise and we get to carry out excellent research that has rapid impact on policy, practice and health and wellbeing outcomes."

Ms Curtis agrees: "I think coming from a university environment, having the opportunity to work in public health teams is a wonderful opportunity. We can put what we know into practice and start having an impact on people's health in a very direct way."

A big part of the latter has involved exploiting digital technologies. "Apps and websites are very important mediums for public health," says Ms Curtis. "They are a way of reaching out to large populations of people very effectively, easily and cheaply.

"Smartphones have become so popular that if you can design evidence-based and engaging apps for them, you can have a significant impact in a way you would struggle to by putting on classes or trying to engage with people another way".

"That is something we have really tried to do and will continue working on."

One of the most successful examples of this is the work that has been done to redesign the council's sexual health website Respect Yourself.

The website – and linked app – was redeveloped with the help of teenagers. It allows users to search for services, access information about them, read reviews and watch videos of what to expect.

A recent evaluation of the changes – based on a survey of 148 13 to 19-year-olds – concluded it had had a 'significantly positive effect' on access.

A healthy eating app has also been developed. It works by encouraging families to take part in managing their portion sizes together.

Ms Curtis says: "Unlike many of the current healthy eating apps which require users to input information about brands and types of food, which is time consuming and only works for the highly-motivated individual, Health Heroes only requires users to select the colour of the food group and portion size using hand portions as a guide."

The app then tracks consumption and gives users feedback in the form of an infographic on the proportion of the food groups they are consuming throughout the day. After a week of tracking, the apps suggests food groups to set goals for the following week.

There is also a quiz, which allows families to build their knowledge and understanding of nutrition and portion sizes in a fun and engaging way. Users also receive daily tips on how to reduce portion sizes.

Public Health Director Dr John Linnane said: "Investing in input from health psychologists has been a significant step forward for Warwickshire. We have access to additional skillsets and expertise that are just not available otherwise."

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# Links

Judging nudging: Can nudging improving population health?

http://kie.vse.cz/wp-content/uploads/Marteau-et-al-2011.pdf

Nudge: Improving decisions about health, wealth and happiness http://www.amazon.co.uk/Nudge-Improving-Decisions-Health-Happiness/dp/0141040017

Thinking fast and slow http://www.amazon.co.uk/Thinking-Fast-Slow-Daniel-Kahneman-ebook/dp/B005MJFA2W/re

f=sr\_1\_1?s=books&ie=UTF8&qid=144067260 1&sr=1-1&keywords=thinking+fast+and+slow

Behaviour change techniques taxonomy (BCT)

http://link.springer.com/article/10.1007%2 Fs12160-013-9486-6

Theoretical domains framework (TDF) http://www.implementationscience.com/content/7/1/37

Free online training on coding BCTs http://www.bct-taxonomy.com/about

#### **MINDSPACE**

http://www.instituteforgovernment.org.uk/sites/default/files/publications/MINDSPACE.pdf

#### **EAST**

http://38r8om2xjhhl25mw24492dir. wpengine.netdna-cdn.com/wp-content/ uploads/2015/07/BIT-Publication-EAST\_FA\_ WEB.pdf

The 2015 Behavioural Economics Guide http://www.behavioraleconomics.com/BEGuide2015.pdf



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