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DEPARTMENT OF
CARE

The role of behavioural and cultural insights in the uptake of innovative (digital) tools and solutions

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Public Health Wales

Uned Gwyddoniaeth Ymddygiadol
Behavioural Science Unit

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Behavioural science

Key principles (UNICEF)



Small changes
make BIG difference



Changing knowledge
Is NOT ENOUGH



People fail to predict
how they will behave



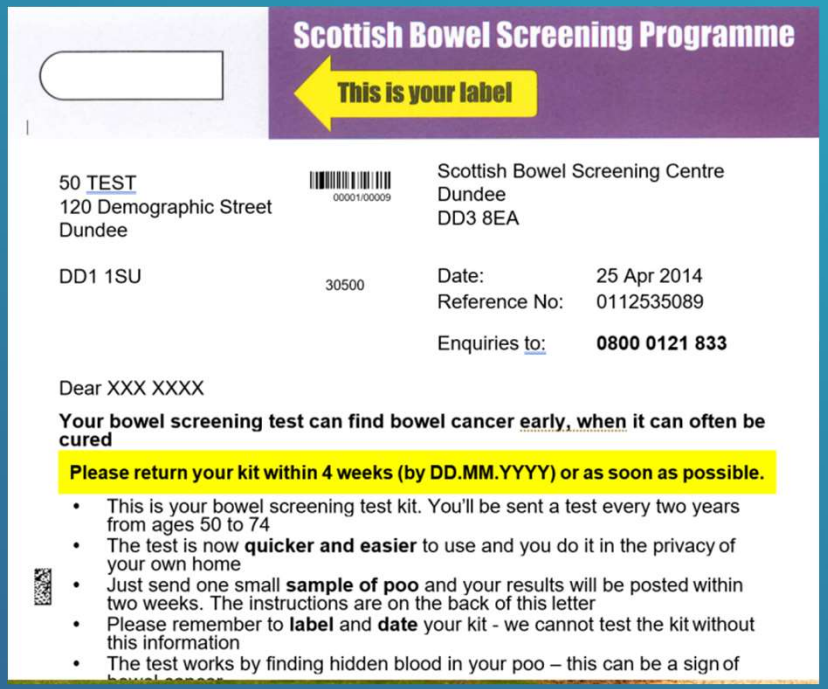
Context
matters

Increasing Uptake of Bowel Screening, Scottish Bowel Screening Programme

- 40,000 sample size
- 5,000 in each group (8 groups in total)
- 2-week deadline = 1.9% increase in uptake
- 34,000 additional people participating
- 20 lives saved

Messenger

Call to Action with Deadline



Scottish Bowel Screening Programme

This is your label

50 TEST
120 Demographic Street
Dundee

DD1 1SU

00001/00009

30500

Scottish Bowel Screening Centre
Dundee
DD3 8EA

Date: 25 Apr 2014
Reference No: 0112535089

Enquiries to: **0800 0121 833**

Dear XXX XXXX

Your bowel screening test can find bowel cancer early, when it can often be cured

Please return your kit within 4 weeks (by DD.MM.YYYY) or as soon as possible.

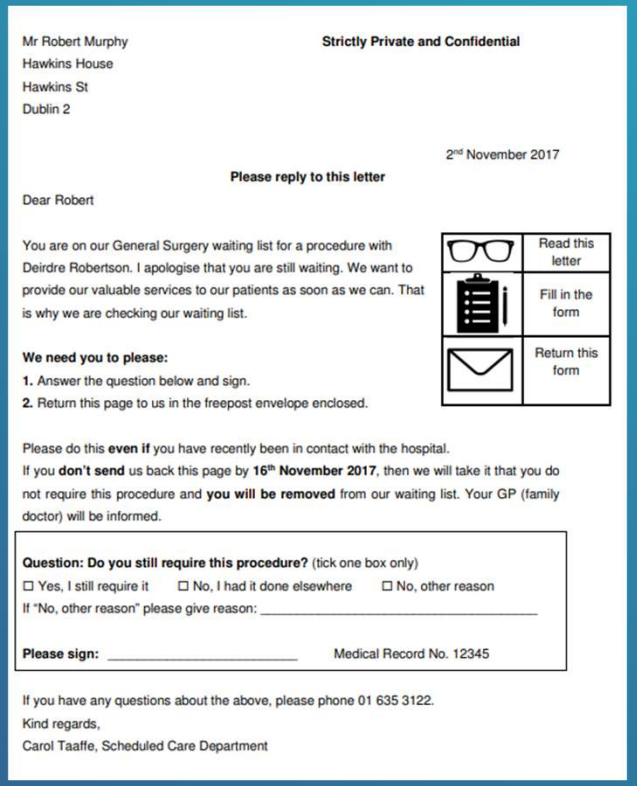
- This is your bowel screening test kit. You'll be sent a test every two years from ages 50 to 74
- The test is now **quicker and easier** to use and you do it in the privacy of your own home
- Just send one small **sample of poo** and your results will be posted within two weeks. The instructions are on the back of this letter
- Please remember to **label** and **date** your kit - we cannot test the kit without this information
- The test works by finding hidden blood in your poo – this can be a sign of

Increasing patient engagement with hospital waiting list management and appts

- Reduced DNR rate by 5%
- Increased confirmation rate by 9%
- Reduced DNA rate by 5.7%

Personalisation
Apology
Intention, Value, Resources

Consequences Salient



Mr Robert Murphy
Hawkins House
Hawkins St
Dublin 2

Strictly Private and Confidential

2nd November 2017

Please reply to this letter

Dear Robert

You are on our General Surgery waiting list for a procedure with Deirdre Robertson. I apologise that you are still waiting. We want to provide our valuable services to our patients as soon as we can. That is why we are checking our waiting list.

	Read this letter
	Fill in the form
	Return this form

We need you to please:
1. Answer the question below and sign.
2. Return this page to us in the freepost envelope enclosed.

Please do this **even if** you have recently been in contact with the hospital.
If you **don't send** us back this page by **16th November 2017**, then we will take it that you do not require this procedure and **you will be removed** from our waiting list. Your GP (family doctor) will be informed.

Question: Do you still require this procedure? (tick one box only)
☐ Yes, I still require it ☐ No, I had it done elsewhere ☐ No, other reason
If "No, other reason" please give reason: _____

Please sign: _____ Medical Record No. 12345

If you have any questions about the above, please phone 01 635 3122.
Kind regards,
Carol Taaffe, Scheduled Care Department

Call to Action

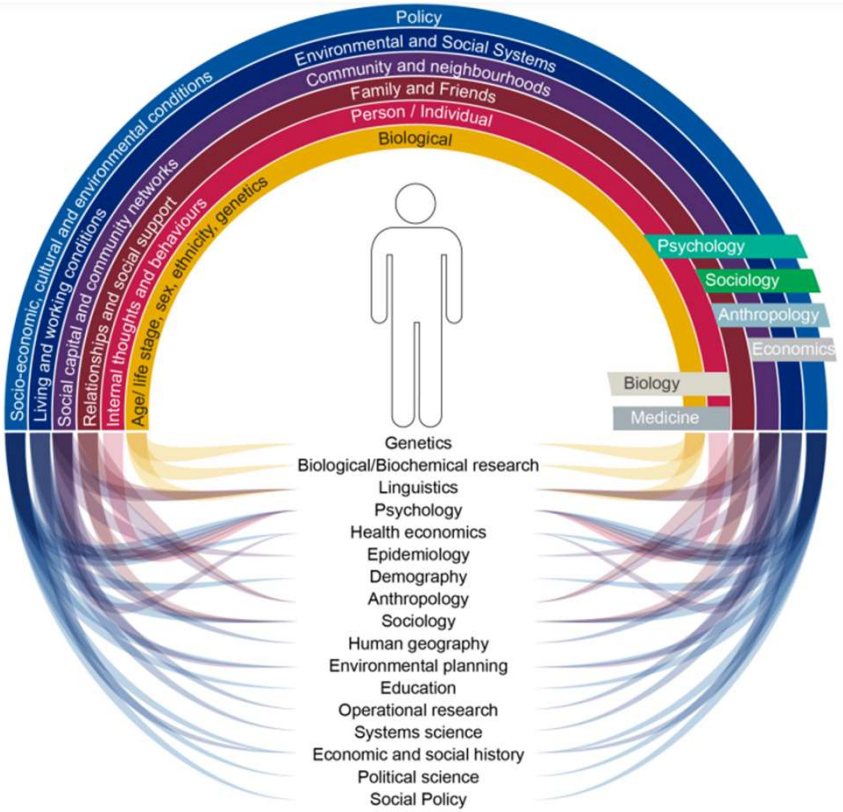
Salience of Questions

Messenger

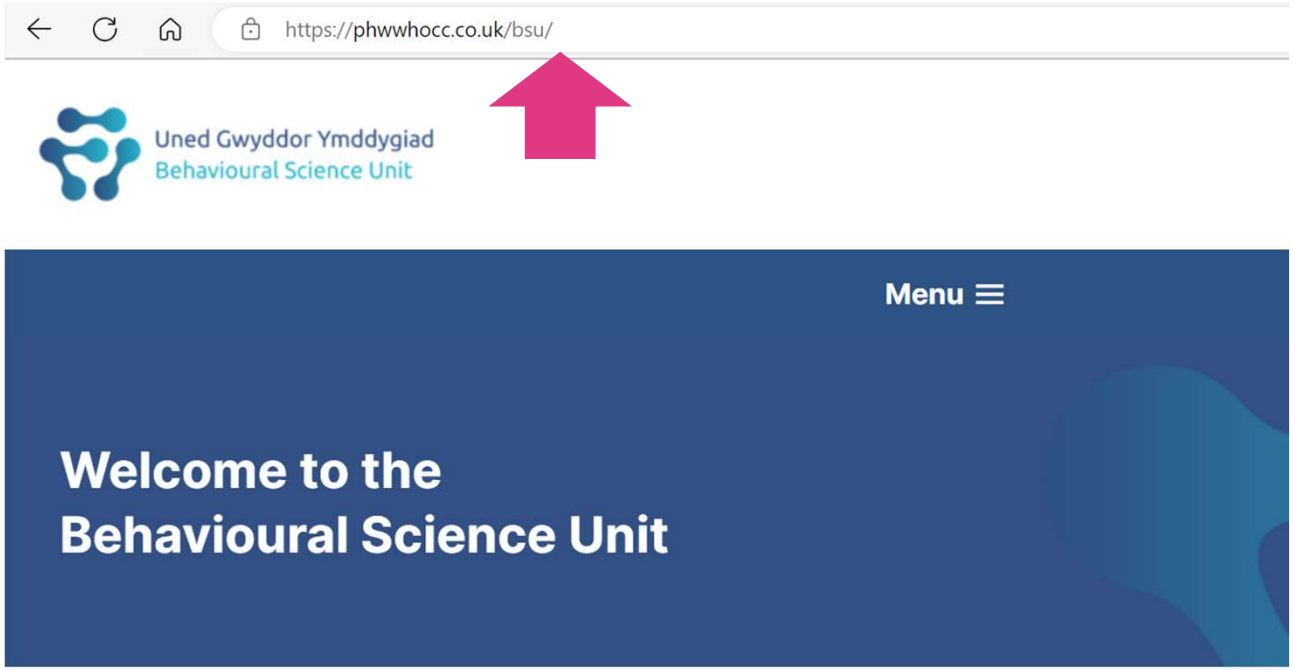
Our understanding

What is behavioural science?

- **Systematic** study of behaviour: what **enables** it, what **prevents** it, and how best to elicit it.
- If there's an **identifiable behaviour in an identifiable cohort** - an improved understanding of it (enablers, barriers, mechanisms) can sharpen our policies/services/communications
- **Research why & how people decide/react/behave** - rather than rely on assumptions, and the 'easy' bias that they lack knowledge/need advice.



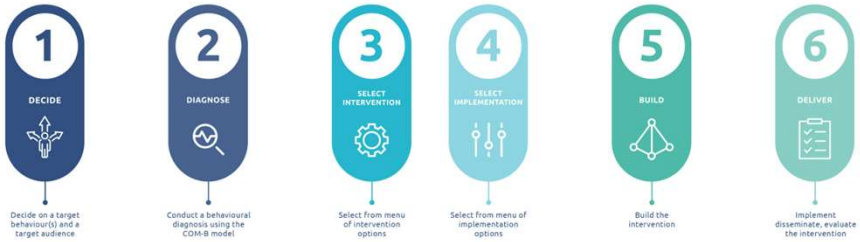
Source: [Improving people's health: applying behavioural and social sciences (Public Health England, 2018)]



- Building an understanding of the utility of behavioural science amongst stakeholders – to integrate its use to optimise impact
- Increasing the routine use of behavioural science through the responsive and proactive development of resources
- Developing sustainable capacity and capability including through upskilling, timely engagement of expertise and increasing opportunities for collaboration.







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Behavioural Science as an enabling function to the delivery of PHW Long Term Strategy 2023-2035



Executive Summary | Strategic Context | Our Vision | Strategic Priorities | **Enabling the delivery of our Strategy** | Conclusion | Annex

Behavioural Science

Overview

Our Behavioural Science Unit will provide specialist expertise and enable the increasingly routine application of behavioural science, to improve and protect population health and well-being. Support, guidance and capability building for stakeholders across the public health system, will help deliver a step change around achieving our strategic priorities.

Making it happen

The following three core areas will enable progress around our mission of providing specialist expertise and building systematic application of behavioural science:

- Being action and equity-focused, our output will be relevant and applicable to population health priorities in Wales and seek to reduce inequity through segment-specific intervention design
- Providing reactive advice, support and guidance alongside proactive development of tools, methods and capability building to integrate and sustain the use of behavioural science, and
- Bringing global learning into focus in Wales, through active engagement nationally and internationally, and enabling collaboration through a community of practice

[PHW Long Term Strategy 2023-2035]

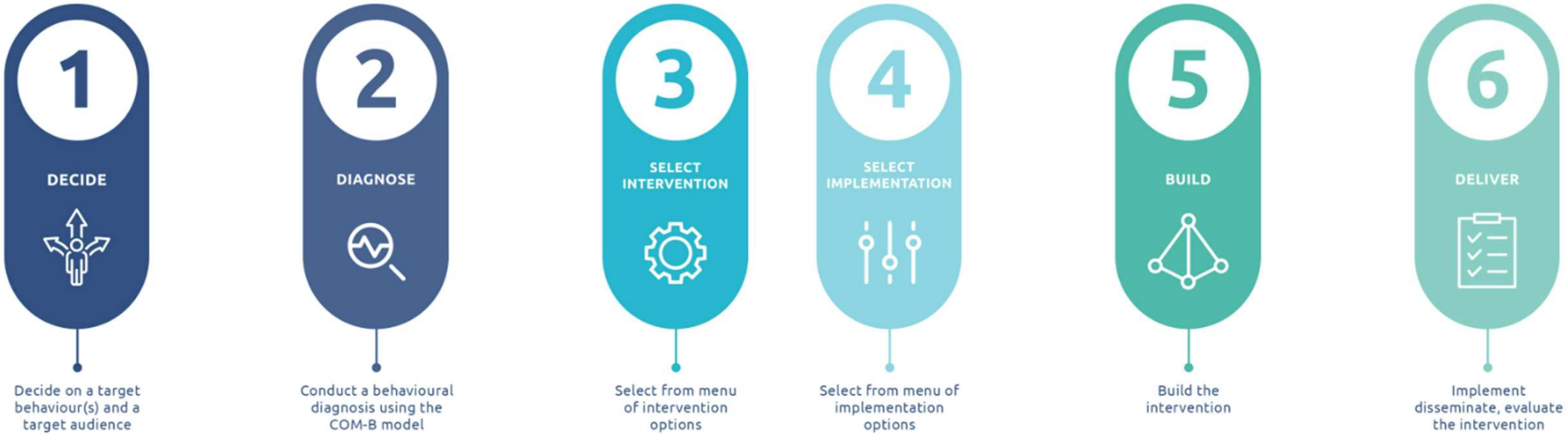
Wellbeing of Future Generations Act 'Way of Working'	Example of where behavioural science can contribute
Long term	• Identifying ways to combat the tendency for people to prioritise immediate perceived benefits over longer-term costs. • Identifying structural changes to social and physical environments that will sustain new behaviour patterns. • Supporting the development of new habits and routines
Prevention	• Identifying how to create a culture in all sectors of society that strongly values health and wellbeing. • Establishing optimum means of educating and empowering all sectors in society to behave in ways that maximise health and wellbeing. • Identifying key components of services that support the population in combating unhealthy behaviours.
Integration	• Supporting the development of 'systems maps' that show how the behaviours of different actors (organisations, individuals and groups) influence each other and important outcomes. • Identifying how behaviour change designed to achieved desired outcomes can have spill over effects, positive and negative, on to other outcomes. • Supporting decision making in complex interacting systems by providing tools and models that aid comprehension.
Collaboration	• Supporting identification and prioritisation of possible partnerships. • Identifying barriers and facilitators to effective collaboration. • Providing resources and evidence based principles to support effective collaboration within and across sectors.
Involvement	• Identifying and helping to engage key stakeholders. • Providing resources and insights to support effective co-production of policies, services and interventions. • Addressing concerns about, and possible counter movements to, beneficial policies and interventions.

Table 1: Examples of the contribution of behavioural science to the Wellbeing of Future Generations 'ways of working'

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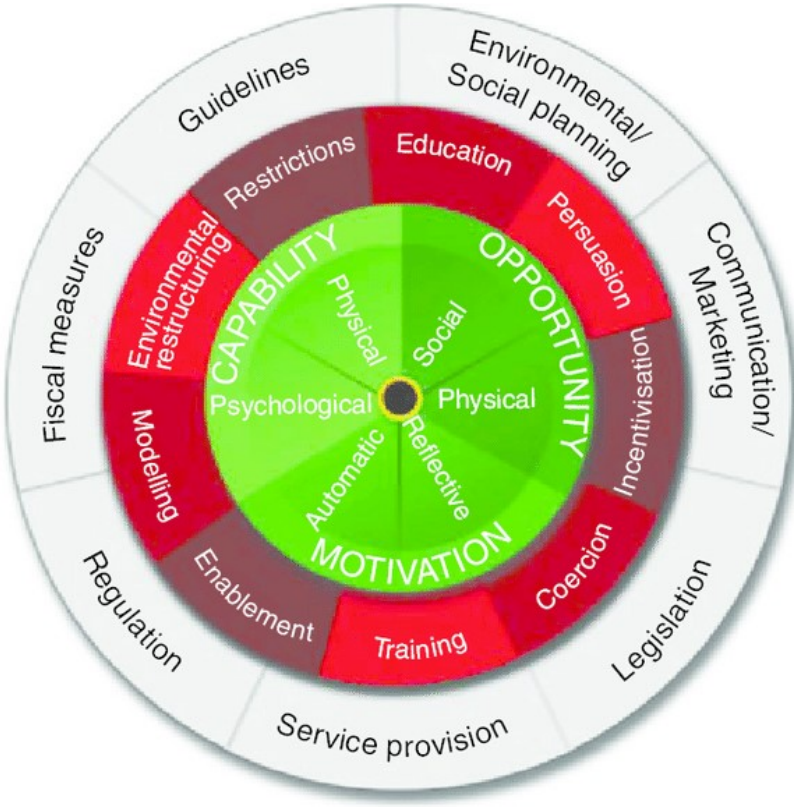
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The behavioural science method



Behavioural Science Unit resources to take you through each step: https://phwwhocc.co.uk/bsu/our-publications/

The Behaviour Change Wheel



The Behaviour Change Wheel, Michie, van Stralen, West, 2011

1. Decide on target behaviour(s) and target group
Who do you want to adopt a positive climate behaviour? What positive climate-behaviour do you want them to do? Be as specific as possible.

2. Conduct 'behavioural diagnosis' using COM-B model[1]
Why are they not doing the positive climate behaviour already? Can they do it (Capability)? Do they get chance to do it (Opportunity)? Do they want to do it enough (Motivation)?

3. Select from menu of intervention types
What is the best approach for changing the climate-impacting behaviour? Different interventions suit different target groups and behaviours better or worse.

4. Select from menu of implementation options
How will you implement the chosen interventions to achieve the greatest effectiveness? Multiple options may be needed, along with different approaches for different target groups and behaviours.

5. Build intervention
Once decided on your course of action, you can then build the intervention.

6. Implement, disseminate and evaluate intervention
Once built, you can then implement your intervention. Evaluation is a key part of the process to identify effectiveness and guide future improvements.

Models, Theories & Frameworks

Can help structure evidence review, form survey questions, design intervention (like staff training or patient digital self-management course)

- MINDSPACE,
- EAST
- NEAR/AFAR
- Behaviour Change Wheel,
- COM-B Model
- TDF (Theoretical Domains Framework)
- BCTT (Behaviour Change Technique Taxonomy)
- BASIC (Behavioural Insights Toolkit and Ethical Guidelines for Policy Makers)
- ISM (Individual, Social, Material)

Models, Theories & Frameworks

Normal: We are more likely to do things that we see being done by people with whom we identify	Target social opportunity through the intervention functions of modelling and environmental restructuring
Easy: We are more likely to do things if they are simple, within our capabilities and require little by way of resources, time or effort	Target capability and opportunity through the intervention functions of education, training, restriction, enablement and environmental restructuring
Attractive: We are more likely to do things if we think they will be enjoyable, serve a purpose or avoid something bad happening	Target motivation through the intervention functions of education, persuasion, incentivisation and coercion
Routine: We are more likely to do things if they are part of our routine so we don't have to think about them	Target automatic motivation through the intervention functions of training and environmental restructuring
Abnormal: We are less likely to do things if they are not seen as part of normal behaviour or no-one with whom we identify is doing them	Target social opportunity through environmental restructuring
Fraught: We are less likely to do things if we don't have the capability or confidence or if barriers are put in the way	Target capability and opportunity through the intervention functions of restriction and environmental restructuring
Aversive: We are less likely to do things that we expect to be unpleasant, or lead to outcomes that we don't like	Target motivation through the intervention functions of education, persuasion and coercion
Reflective: We are less likely to follow habitual behaviour patterns if we can be led to stop and think to disrupt the routine or automatic flow of behaviour	Target reflective motivation through the intervention functions of education and persuasion, and automatic motivation through training and environmental restructuring

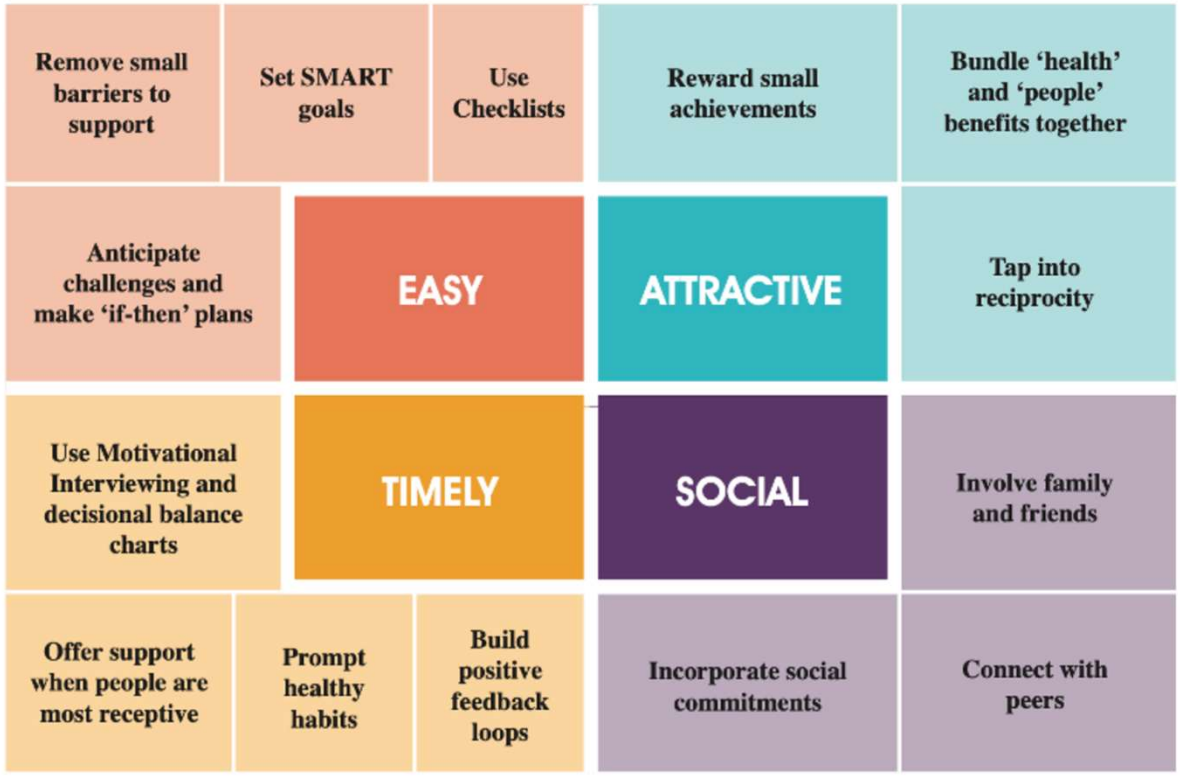
NEAR/AFAR

Models, Theories & Frameworks



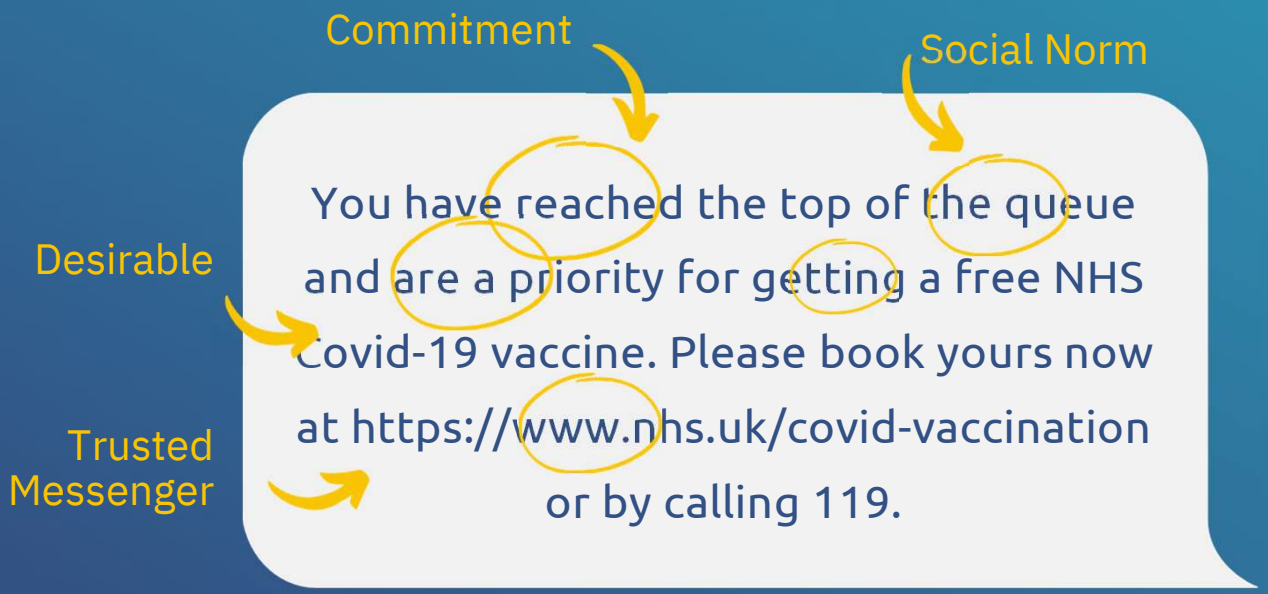
Source: Ogilvy

Models, Theories & Frameworks



Source: How behavioural science can help people self manage their health and wellbeing?

Developing Behaviourally Informed Communications



- ❑ Instructions
- ❑ Tone and personalisation
- ❑ Hierarchy
- ❑ Importance
- ❑ Timing

Behavioural science in integrated/digital healthcare

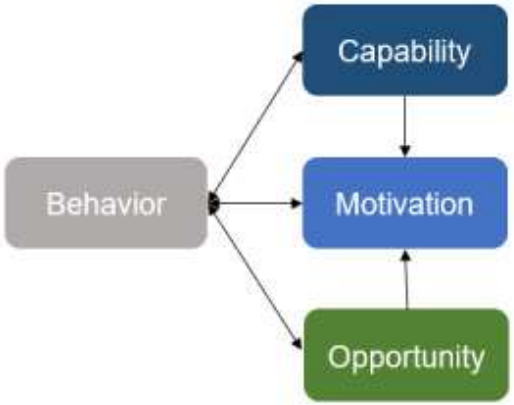
Examples of behaviours

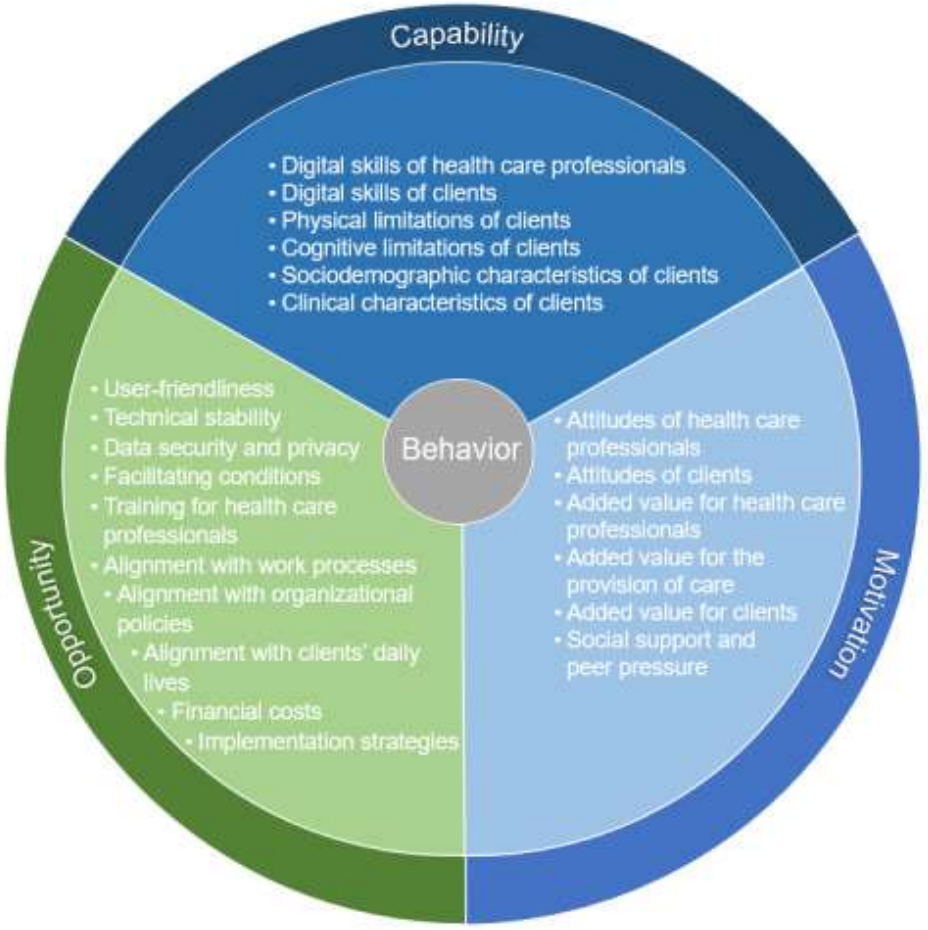
- Patients download and install the app and enable software updates
- Patients consent to privacy settings for data sharing
- Patients use the app to book medical appointments
- Patients view laboratory results via app
- Patients contact surgery via app instead of calling
- Staff attend training to learn how to use software
- Staff employ/nominate IT transformation lead to aid launch of app
- Doctors offer remote clinical consultations as an alternative to face to face
- Care coordinators coproduce recovery goals and plans with patients
- Social care staff record electronic notes after visiting patients
- Healthcare workers update clinical notes following specialist consultations in the app (and in the medical management software)

Behavioural science in integrated/digital healthcare

Example of behavioural analysis

Source: Factors That Influence the Use of eHealth in Home Care: Scoping Review and Cross-sectional Survey, Mathijssen et al, 2023





Example - So what?

Source: Perceptions of factors influencing engagement with health and wellbeing apps: a qualitative study using the COM-B model and Theoretical Domains Framework, Szinay et al, 2021

COM-B[a] component	Recommendations for policy makers, health app portal providers, app developers
1. Capability	1. Provide user guidance on how to use an app, visual and/or numerical summary of progress and evidence-based additional health information related to the behaviour targeted by the app 2. Minimise time required to use app where possible 3. Provide customisable reminders that users could opt out 4. Provide the option of self-monitoring features 5. Promote safety-netting and relapse prevention features such as the possibility to restart or reengage with the app later 6. Promote a routine for engagement with an app e.g. highlighting the role that routine may play in effectiveness of an app
1. Opportunity	1. Collaborate with interaction design experts and end-users to enhance the aesthetics of apps 2. Provide the possibility for community networking within the app and linking to social media as an optional feature to share progress where appropriate 3. Offer the possibility for social competition and challenges where appropriate 4. Consider the provision of embedded professional support, and if this is not feasible, providing offline one-to-one support with the uptake of and the engagement with health apps. This may improve motivational factors, such as commitment, self-confidence and perceived competence of engaging with a health app 5. We advise that exploration should be made for where engagement enhancement could be made with appropriate and proportionate machine learning and artificial intelligence or other forms of learning system.
1. Motivation	1. Develop a time-efficient app that would require as much engagement as is required to achieve the desired outcome. This might be different for different behaviours 2. Include reinforcement in forms of feedback, encouraging messages and rewards 3. Offer intangible rewards, such as certificates or badges 4. Offer tangible rewards that can be converted as discount in other places (e.g. health insurance providers or pharmacies, sports parks) 5. Include goal setting as well as action planning features on how to achieve set goals (when applicable) 6. Take into account user's emotions about certain features by involving users in the development and update of health apps as lack of some features could provoke strong negative emotions such as disappointment and might lead to rapid disengagement

When can behavioural science enhance our work?

Spheres of application:

public – healthcare utilisation, engaging in preventative behaviours, inequalities and digital exclusion, health literacy

professionals – partnership working, technology acceptance, record keeping, data sharing, patient centred care, coproduction, quality improv.

policy – advocacy, design, ethics

- **If we don't ask, we won't know**
- **If we don't engage , we don't get trust**
- **If we don't coproduce, we won't get buy-in**
- **If nothing changes…**

We will be offering solutions based on our assumptions and flawed methodology – such as defaulting to negative attitudes where in fact people's digital exclusion and poor health/digital literacy makes it hard to use e-health apps

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Case on behavioural design and inclusivity

Learn lessons from Microsoft



Source: [Inclusive design - Microsoft]

Learn from diversity

Human beings are the real experts in adapting to diversity.

Inclusive design puts people in the center from the very start of the process. You need fresh, diverse perspectives to make it work. Human beings have amazing capabilities to adapt to different situations, and understanding those adaptations is the key to real insight.

Thank you

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Resources

- Glove Awareness Week: make one change
- RCN, How to reduce glove use
- PHW BSU, Responding to the climate crisis: Applying behavioural science
- PHW BSU, Improving health and wellbeing: A guide to using behavioural science in policy and practice
- PHW, BSU Developing Behaviourally Informed Communications
- PHW, BSU Deciding on a target behaviour and target population tool
- PHW, BSU Behavioural Diagnosis: How to collect behavioural insights
- PHW, BSU Diagnosis – Mapping insights and selecting intervention functions
- PHW, BSU Behavioural Diagnosis – Selecting implementation types
- PHW, BSU Identifying and Applying Behaviour Change Techniques
- PHW, BSU Evaluating Behaviour Change Interventions