SOCIAL CHANGE

Vaccine Animations: Research and Audience Testing Report

Prepared for: Public Health Wales (PHW)

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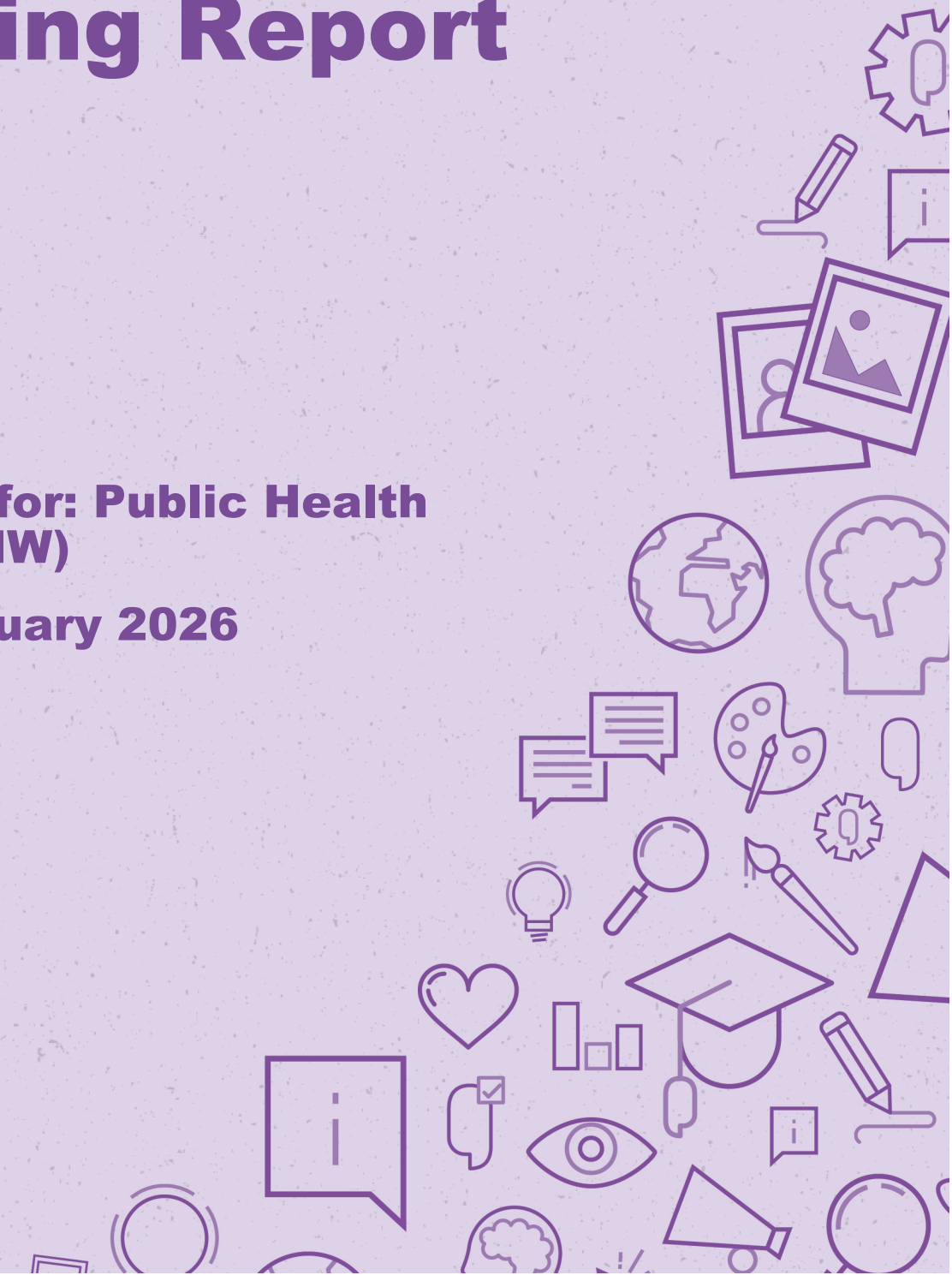

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Introduction

Background

Public Health Wales' (PHW) Vaccine Preventable Disease Programme (VPDP) have previously commissioned research work towards the development of vaccination information resources on the HPV and secondary-school age flu vaccines. As a result of this work, insights regarding the type of format, style, and content preferred by young people were collected, and animations were developed for each of these vaccines. Previous work has highlighted that young people have a preference for audio-visual information resources (animations), mainly to be shown in educational settings like school assemblies and classrooms, with supporting assets that include leaflets that they can then share with their parents or guardians.

To further build on these insights, PHW commissioned Social Change to carry out focus groups with secondary school children in Year 9 and 10 to inform the co-production of two more animations with supporting assets targeting young people in this age group. One animation and one focus group are on the 3-in-1 Booster vaccination (also known as the Td/IPV vaccine), while the other animation and focus group are on the MenACWY vaccine. The project began prior to the summer break to engage with Year 9 students immediately after their vaccinations took place, however, following a delay over the summer period, we followed this cohort into early Year 10 to capture their experiences.

Protection against tetanus diphtheria and polio is offered to young people at people at several different ages including as a baby, during pre-school, and in year 9 in order to reinforce and prolong protection. Tetanus is a disease which affects the nervous system, causing muscle contractions and complications that can be life-threatening. Diphtheria is a rare but highly contagious disease which can be fatal if treatment is not provided quickly. It generally affects the nose, throat and skin. Polio is a viral disease that can infect the spinal cord and cause permanent paralysis, mainly affecting young children to whom it can be fatal if it infects the brain or chest muscles. Uptake information for the 3-in-1 Booster from November 2024 showed uptake of 71.5% for year 9, and 71.5% in year 10 (COVER 152: Wales November 2024). This is lower than uptake in previous years (COVER 152: Wales November 2024) and is therefore a key area to focus on to improve uptake and reduce the spread of these diseases.

The MenACWY vaccine protects against 4 strains of meningococcal bacteria, types A,C W and Y. It does not offer complete protection against all meningococcal disease, which can cause meningitis (inflammation of the lining of the brain) and sepsis (a whole-body response to infection causing widespread inflammation and organ damage). Complications of meningococcal infection can lead to amputations, brain damage, scarring, and even death. Older teenagers are more likely to carry the bacteria and be at risk of infection, so maintaining uptake of this vaccine is key.

Similarly to the 3-in-1 Booster, uptake of MenACWY vaccine has decreased over the last several years (COVER 152: Wales November 2024), with current figures showing 71.4% uptake in year 9 and 71.2% in year 10.

The brief

PHW commissioned Social Change to undertake insight research exploring the types of questions, barriers, and concerns young people have about two vaccines; the 3-in-1 Booster and the MenACWY vaccine.

This piece of research therefore consisted of two focus groups to gain a better understanding of how vaccine communications could be better tailored to increase young people's engagement in and awareness of the vaccinations and vaccination process, and do so independently for each of the investigated vaccines. The insights derived from this research will then inform the initial design of the animations. This includes providing recommendations on the design and formatting, tone and language, imagery, message content, and length of the animations. After this, the animations will be shown to young people during our audience testing stage using a survey, where they are able to provide further feedback on the animation drafts. The audience consists of young people who live in Wales and are in secondary school in years 9 and 10, aged 13-15 years old.

Consequently, research questions included:

Research question 1 – What are the current levels of understanding and awareness of vaccinations, and the 3-in-1 Booster and MenACWY specifically, amongst young adults in Wales.

Research question 2 – What are the main facilitators and motivators to young adults in Wales getting vaccinated?

Research question 3 – What are the main barriers to getting vaccinated in the target population?

Research question 4 - Which design elements and approaches for campaign animation resonate with the target population?

Research question 5 - Which messengers and methods of animation dissemination are preferred by the target population?

A behavioural science approach

Behavioural science means to utilise expertise from across a range of disciplines to capture an enhanced understanding of human behaviour and action. It seeks to explore why humans engage in particular behaviours, and help researchers understand the attitudes, behaviours and experiences of different audience groups. Such disciplines it pulls upon include (but isn't necessarily limited to) psychology, sociology, cultural anthropology, behavioural aspects of biology, economics, geography, law, psychiatry and political science.

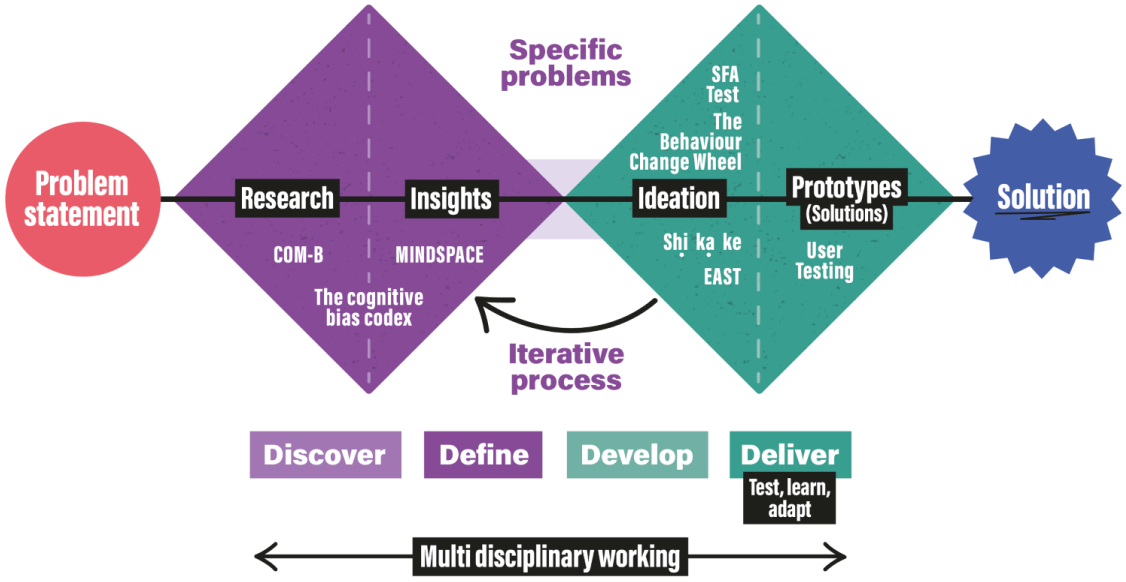
As experts in the behavioural science space, we embed behavioural science frameworks and principles throughout our work to uncover in-depth insights about our target audience and

understand the best ways to enact positive change. Such frameworks include the COM-B model of behaviour, Behaviour Change Wheel (BCW), MINDSPACE and EAST – an overview of those embedded in this work is included within the appendices.

These principles and frameworks were used to inform our research approach and questioning, ensuring we were able to not only capture the current picture around young people's health positions on, attitudes to, and awareness of the two vaccinations, but also **why** this is the case and barriers and motivators to change – these are called 'behavioural insights'. Using these, we are able to develop, design and deliver recommendations for interventions to achieve positive change.

Methodology

The methodology selected for this brief followed the double diamond approach, which is an established approach to defining and exploring your topic area in-depth, identifying methods through which to enact change, and taking a test-learn-adapt approach to intervention delivery.



Initial scoping was employed to further DISCOVER the scope of the research and current knowledge around vaccinations. Key themes identified then informed the focus of the primary research, for which co-design focus groups were employed to further explore key themes highlighted from the survey and DEFINE attitudes, behaviours, experiences and challenges in relation to the 3-in-1 Booster and MenACWY vaccine.

Following the research, an overarching thematic analysis was undertaken with the key findings to provide a holistic understanding of young people's behaviours, attitudes, understanding, motivators, challenges, and potential solutions in relation to vaccinations, and specifically the 3-in1 Booster and MenACWY vaccinations. Using our behavioural science expertise, we then sought to go one step further to identify behavioural insights that go beyond **what** the current picture is to communicate **why**. In essence, they demonstrate the cognitive biases, facilitators, and challenges maintaining current behaviour and preventing positive change. This in-depth understanding and further use of established frameworks then supported the development of recommendations for the future, detailing not only what needs to happen to support positive change but also how (DEVELOP and DELIVER). These recommendations will be used to support and inform the animation development.

Scoping

Beginning with secondary research, we reviewed existing knowledge, data and information around the barriers, experiences, and concerns that young people have on the topic of vaccines in general, and the 3-in-1 Booster and MenACWY specifically. This included information that is available in the public domain and that which was provided to us by PHW. This was in relation to attitudes, behaviours, experiences, service provision, previous interventions and any previous related research and/or evaluations. This scoping is an essential part of all projects in order to establish what is currently known about the area, and identify gaps in this knowledge that the primary research can address. Without this scoping, there is risk of duplicating insight and not adding new knowledge to the area. The secondary research supports and informs the focus of the primary research to ensure that it builds on and adds value to our knowledge, offering new or enhanced insights that were not available previously.

From this scoping activity, we identified:

- School-based vaccination programmes and NHS websites are the main sources of vaccine-related information for young people and their parents (BMG, 2022)
- The large majority of parents are involved in the decision-process of whether to get a vaccine, and often make the final decision for their children (BMG, 2022; Oostdijk, Van Zoonen, Ruijs, & Mollema, 2021)
- Social media is a key source of disinformation for parents and young people (NHS, 2023)
- Key barriers for young people include a fear of needles and side-effects, as well as low perceived risk of acquiring the diseases the vaccines protect against, and low perceived disease severity (Berg, 2019; Widdershoven, Reijs, Verhaegh-Haasnoot, Ruiter, & Hoebe, 2022)
- Attitudes and trust in the specific vaccines were more important than vaccination beliefs on whether people decided to get vaccinated (Oostdijk, Van Zoonen, Ruijs, & Mollema, 2021)
- Young people reported having more trust in personal experience stories both online and in person compared to parents (Oostdijk, Van Zoonen, Ruijs, & Mollema, 2021)

These findings were valuable in not only supporting our understanding of the attitudes, understanding, and awareness, young people have of vaccines, but also in allowing us to target the subsequent primary research by highlighting gaps in knowledge. From these findings, we identified a need to explore the types of disinformation witnessed by young people, the specific doubts young people have regarding vaccines, and the channels through which dissemination would be most effective for them.

Focus groups

We held two virtual qualitative focus groups with 11 and seven young people respectively, all of which were from Years 9 and 10. Schools were chosen based on their membership of two health boards; the Cwm Taf Morgannwg University Health Board, and the Swansea Bay University Health Board. This mixture of ages allowed perspectives from both before and after receiving invitations.

The aim of these focus groups was to explore the barriers and motivators to getting vaccinated, as well as awareness and understanding of vaccines, specifically for the 3-in-1 Booster and MenACWY vaccines, in the target population. The focus groups were structured to address each vaccine separately, allowing for a more detailed exploration of attitudes, knowledge, and behaviours related to each. Additional aims included gaining a better understanding of what dissemination pathways, animation design features and styles, as well as messengers would resonate most with the target group. A breakdown of participants is shown below:

Table 1: Participant breakdown by school and school year

School	Vaccine group	Year 9	Year 10	Percentage
School A: CTMUHB	MenACWY	5	2	38.89%
School B: SBHUHB	3-in-1 Booster	0	11	61.11%

Table 2: Participant breakdown by gender

Gender	Percentage
Boy	27.78%
Girl	61.11%
Non-Binary	5.56%
Prefer not to say	5.56%

Table 3: Participant breakdown by age

Age	Percentage
13	22.22%
14	77.78%

Table 4: Participant breakdown by primary language

Primary Language	Percentage
Welsh	5.56%
English	88.89%
English and Welsh	5.56%

Table 5: Participant breakdown by vaccines received

Vaccines Received*	Percentage
Both MenACWY and 3-in-1 Booster	50%
Only 3-in-1 Booster	16.67%
Only MenACWY vaccine	0%
Neither vaccine	5.56%
I'm not sure	27.78%

*Please note that as some students were in Year 9, they would not have been invited for a vaccination yet, which may skew figures slightly.

Behavioural insights analysis

An overarching thematic analysis was undertaken with the key findings and insights gathered from the focus groups to provide a holistic understanding of young people in Wales' behaviours, attitudes, understanding, motivators, challenges, and potential solutions in relation to raising vaccine uptake and awareness. This informed identification of the overall findings, detailed on pages 9 – 14. While these groups focused on the 3in1 and MenACWY separately, thematic analysis was used to identify key themes across both, with findings specific to each vaccine highlighted separately.

Following this overall analysis, we used our behavioural science expertise to go one step further to identify behavioural insights that go beyond **what** the current picture is to communicate **why**. In essence, they demonstrate the cognitive biases, facilitators, and challenges maintaining current behaviour and preventing positive change. This in-depth understanding and further use of established frameworks then supported the development of recommendations for the future, detailing not only what needs to happen to support positive change but also how.

From this analysis, we identified six behavioural insights (shown on pages 14 – 15) and developed 11 recommendations (shown on pages 16 – 19) for change.

Key findings

As mentioned, thematic analysis was conducted across groups to identify overarching themes and highlight any differences. Whilst findings were largely consistent across the two groups, there were some differences relating to group and/or vaccine specific feedback, namely:

- There seemed to be more awareness around the 3-in-1 vaccine
- Medical professionals as messengers was well received by the MenACWY group
- The 3-in-1 group liked the idea of parents or guardians being messengers
- The 3-in-1 group were more likely to have followed a parent/guardian's advice to get a vaccine

RQ1 - What are the levels of understanding and awareness of vaccinations amongst the target population?

This research question aims to investigate the level of current understanding and awareness young people in Wales have of vaccines in general, and the 3-in-1 Booster and MenACWY vaccines specifically. Through gaining a deeper understanding of how involved and aware young people are in vaccine-related conversations, we can better inform the creation of materials that will further resonate and attract young people.

"[The vaccine] gave us some of the disease, and it helps the body know how to prevent the disease."
– 3-in-1 vaccination focus group

Generally young people showed a good understanding of what vaccines do and how they can protect people from getting diseases. However, there were a few explanations that they provided which suggest a presence of misconceptions regarding how vaccines work in a small sub-group of participants. For example, one pupil mentioned that vaccines are for 'curing' diseases, which is incorrect as vaccines are preventative in nature. Consequently, it may be important to shift explanations to account for this gap in understanding.

Even though pupils from both focus groups generally showed a good understanding of what vaccines are, this did not extend to different types of vaccines. More specifically, all pupils from the 3-in-1 Booster focus group were familiar with the vaccine, however none had previously heard of the MenACWY vaccine in the corresponding focus group. That said, those familiar with the 3-in-1 Booster were only familiar with the name of the vaccine, but were unable to provide more detailed information regarding what the vaccine protects them from and how it differed from other vaccines, suggesting low overall understanding of specific vaccines and low engagement with vaccination-based information.

"I think they [vaccines] help our body's immune system to get used to the virus."
– Men ACWY vaccination focus group

When prompted for the kinds of information young people would like to receive regarding different types of vaccines, they suggested that they would like to know the age groups who need the vaccine, any side-effects, a description of the diseases the vaccine protects from, with specific bacteria or virus names clarified, as well as whether the process of vaccination involves an injection, pill, or nasal spray. Indeed, the main questions participants wanted confirmed by PHW were related to allergic reactions to vaccine ingredients, how these side effects manifested, if there were hypo-allergenic versions of vaccines for those allergic, and whether people who are allergic to some vaccines are also allergic to others. This suggests that while young people have a low understanding of specific vaccines and more nuanced information, they have a desire to learn more and understand on a deeper, more detailed level.

When asked about hearing contradictory opinions, whether online or in-person, young people mainly reported misconceptions regarding vaccine ingredients and side-effects, including pain levels. More specifically, young people reported hearing differing information regarding the extent, severity, and likelihood of experiencing different side effects, including beliefs that have been disproved by science, such as there being no connection between vaccines and autism. However, misinformation regarding such side-effects was seen as non-credible, with pupils making it clear to the group that they did not share these views. Nevertheless, from the way certain misinformation situations were described, their use of language like “I don't know, it's chemicals or what” also suggested a lack of awareness of what was included in the ingredients, and a potential belief that suspicion of these substances is reasonable.

RQ2 - What are the main facilitators and motivators to the target population getting vaccinated?

This research question explored the different motivators for young people choosing to receive a vaccination, which can then inform possible avenues for emphasis in animation campaigns encouraging vaccine uptake.

Understanding the consequences of getting or not getting a vaccine was identified as a key motivator for getting vaccinated, however the majority of weight was given to negative consequences of not receiving a vaccine.

A significant facilitator for young people is the information available to them regarding a vaccine, with them specifically prioritising information from others’ experiences with the vaccine, on how beneficial the vaccine is for health, any side effects, as well as general information and the process of receiving the vaccine. Some pupils put an emphasis on understanding what the success rate of the vaccine in question is, as well as the total amount of people who had already received it as being particularly influential on their comfort levels.

“The thing that probably encouraged me the most is what I'm getting the vaccination for. So, if it's for something that's really serious and threatening, then it would be more likely for me to have it.”
– MenACWY vaccination focus group

Young people generally agreed on a need for reassurance on the safety and importance of receiving the vaccine, specifying that this would be best in-person rather than online or over the phone, attributing to information received in-person being more trustworthy to that online.

In the absence of supportive encouragement, young people rarely engaged with the topic of vaccinations further (Oostdijk, Van Zoonen, Ruijs, & Mollema, 2021), which is in line with current results reflected in the awareness pupils had of the vaccines they had received. Namely, the majority of young people from the MenACWY focus group were unsure of the vaccines they received, whereas those from the 3-in-1 Booster group who reported taking their parents' advice all received at least one vaccine. Findings from these focus groups would be consistent with prior research that found that parents of adolescents who did not engage with the topic of vaccinations told their children that they did not need to get vaccinated if they did not want to (Oostdijk, Van Zoonen, Ruijs, & Mollema, 2021).

Consequently, parents influence the behaviour of their children, which can occur both directly and indirectly, and can be key sources of motivation for engaging with vaccine information.

Finally, young people explained the impact of the process being adapted to them on their comfort levels. For example, adapting the location of getting vaccinated from a school to a hospital or clinic to increase their feelings of comfort. A willingness on the side of professional adults in charge of the procedure to adapt to the needs of young people is therefore key in ensuring their comfort.

RQ3 - What are the main barriers to getting vaccinated in the target population?

This research question aims to investigate the main barriers and sources of friction in the vaccine decision-making process for young people. Through understanding what these barriers are, they can be better addressed through animation campaigns to reassure young people and help overcome these sources of friction.

Key findings included a lack of sufficient information, doubt of the vaccine's reliability, and wariness of side effects as the main barriers young people in Wales have to receiving a vaccine. While participants specifically referred to having a fear of needles, they also specified that this by itself would not cause them to not get the vaccine.

> *"Fear of needles, people's bad experiences and anything that could go wrong."*
> – 3-in-1 vaccination focus group

Instead, young people felt that having concerns regarding the side effects and their body's reaction to the vaccine would cause them to decide against receiving the vaccine. This was related to their need for information, where if they felt they did not have a good enough understanding of the vaccine, they would be less willing to get it. This understanding is sourced by young people mainly through people they know having experienced the vaccine, rather than information available online, which they explained is due to conflicting opinions and not being able to know what to trust online.

"If I didn't have an understanding about it [the vaccine], I probably wouldn't take it because if I didn't know anyone that had taken it and with different opinions online, I wouldn't know what to trust, so I probably just wouldn't take it"
– MenACWY vaccination focus group

While young people want to know the kinds of side-effects they may experience from a vaccine, their main focus seemed to be on side-effects that may feel painful. Pain was specifically associated with the 'aftermath' of receiving a vaccination; even though there was some acknowledgement that individuals can react differently to vaccinations, anticipated pain posed a barrier for young people to getting vaccinated. This suggests how anticipated pain can affect motivation by either discouraging students or making them anxious to receive a vaccine.

In the same vein, some pupils mentioned that they would be more willing to take a vaccine that was older compared to a new vaccine which they believed is 'not as reliable'. They provided the COVID vaccine as an example of a new vaccine that they would not wish to experiment with. This suggests young people are suspicious of shorter safety records and may lack awareness of the vaccine development process which includes numerous rounds of testing before it can reach the market, as well as being a sign that young people may not be aware of the oversimplifications that they are exposed to which can lead to dangerous misconceptions.

"The COVID vaccination was too early to experiment on. That's why I didn't go for the COVID vaccination."
– MenACWY vaccination focus group

RQ4 - Which design elements and approaches for campaign animation resonate with the target population?

This research question specifically looks at the kinds of design styles, elements, colour schemes and approaches that resonate most with young people in Wales for a vaccination animation, and is informed partially through the target audience's feedback on a previous vaccine-related animation shown to them as an example. These findings will then inform the development of the two animations and relevant materials.

Overall, participants felt positively about the example animation video, particularly praising the information provided, the video-based format, mix of animated and real narrators, and use of colour which they said succeeded in keeping their attention. Participants also appreciated being shown the process of receiving a vaccination, and commented on how the lack of reaction the young girl in the animation had to receiving the nasal spray was comforting and reassuring. When asked if this animation would encourage them to get vaccinated, only two people said no.

"It is easier to understand than reading a pamphlet, because you can hear it and see what it is."
– MenACWY vaccination focus group

That said, participants felt that while the imagery was catchy, there was no visual hook at the beginning of the video, so only a minority (22.22%) said that they would stay to watch the video if they found it while scrolling on social media. Participants also explained that engagement with this animation video could have been improved through the addition of energetic and upbeat background music, as well as a more expressive narrator with more emotion.

Participants emphasised that the video could have been improved if it contained information addressing the potential problems that could occur as a result of being vaccinated, with some saying that providing as full a picture possible of the vaccine is best to empower young people to 'make up their own minds' about the vaccine.

Finally, while participants felt that the length of the animation was appropriate based on the information provided in the video, they suggested the creation of one shorter, and one longer video to cater to a broader range of young people. This is because even though the animation length was appropriate in the context of a classroom, they would be unlikely to provide as much attention to it in a different environment. They would prefer a shorter, summary animation with links to the longer animation available in the description for those who want more information. An ideal length for a shorter video was described to be between 40 and 80 seconds, while the longer video length would be between two to five minutes. However, if one video is to be produced, participants agreed on an ideal length of 2 minutes and 30 seconds.

RQ5 - Which messengers and methods of dissemination are preferred by the target population?

This research question aimed to identify the best dissemination channels for distributing the animation video to young people in Wales, as well as the stakeholders who are best positioned to act as messengers in animation videos on vaccines. This information can provide guidance on how to disseminate the animation after development.

In terms of messengers in vaccination animations, all participants preferred a mix of messengers, including nurses, family, and medical professionals, but especially wished to hear from the person getting the vaccine – their peers. However, there was also a difference between the primary messengers the two focus groups preferred.

Young people in the 3-in-1 Booster focus group included their parents or guardians as one of the first few options. This indicates that pupils look to familiar, reassuring, sources like parents, to influence their vaccine attitudes and decisions, a way to acquire information through social opportunity.

> *"I'd like to talk to my auntie about it…I'd probably like to speak to my mum as well"*
> – 3-in-1 vaccination focus group

The second referenced group of messengers that young people would like to hear from included medical professionals, which were popular across both focus groups, but particularly the MenACWY focus group sample. Reasons provided for this included medical professionals being more

experienced and knowledgeable of the topic compared to others. Young people in this group seemed to have a heightened awareness that their parents are not infallible, and may have gaps in their own knowledge. They also referenced the NHS website as a good source of information in conjunction with medical professionals.

Participants expressed that they would be willing to watch a similar animation video on YouTube as an advertisement, on TikTok, and the NHS website. That said, participants' previous remarks regarding engagement with such animations in a non-school environment also suggests that school assemblies may be a good avenue for disseminating such animations.

"I'd rather speak to the nurse because they obviously have a lot more experience than my parents [about the vaccination]"
– MenACWY vaccination focus group

Behavioural insights

Behavioural insights go beyond the **what** of behaviours to understand the **why**, and subsequently how positive change can best be achieved. Established behavioural science frameworks used to identified these include MINDSPACE and EAST. An overview of these is provided in the appendices across pages 24 – 26.

For this brief, the following behavioural insights were identified.

I need more information

An absence of sufficient information (**Psychological Capability – COM-B**) can hold young people back from taking actions that can satisfy the physiological, cognitive, and affective needs that we all have as humans (**Information Seeking – Wilson's Model**). The more knowledge people have, the more able they feel to make informed decisions to satisfy these three primary needs. In an absence of information however, young people can experience a decrease in confidence that reflects their diminished ability to meet their primary needs.

I trust sources close to me

People trust those close to them, whether in terms of proximity (i.e., being in-person) or relationships (peers and family), regardless of their credentials or how informed they are (**Trust Bias, Distance Bias**). This can be explained by personal narratives generally being easier to process compared to more factual or statistical information (**Psychological Capability – COM-B**), partially due to the important and prevalent role narratives have throughout our lives as well as these types of information being more emotionally charged and engaging. This may be a good avenue for exploration for dissemination, however can also pose a risk if those close to the young person hold anti-vax views or are misinformed themselves.

I overestimate my ability to spot misinformation

Young people are very aware of the threat of misinformation and false information however they may be overestimating their ability to identify it (**Dunning-Kreuger Effect**). This is because those who are unaware of what they do not know may think there is less to a topic than there actually is, evidenced by young people largely connecting misinformation to online sources and the internet while missing how those around them could also be sources of misinformation.

I don't want to lose out on anything

A particularly effective angle of encouraging young people to get a vaccination revolves around emphasising the possible losses they may face if they do not get the vaccine (**Loss Aversion, Prospect Theory**). This is evidenced by young people finding the consequences of not getting a vaccine as particularly persuasive, including fear of losing out on sports or physical activities if they do not get a vaccine and contract the disease.

I can make my own decisions

Young people inherently strive for autonomy and personal choice, so they appreciate the trust that is given to them by adults to make their own decisions about their health, and have a desire to be an active participant in the vaccination process (**Autonomy, Competence – Self-Determination Theory, Automative Motivation – COM-B**). This is because as humans we have innate psychological needs to be the determinants of our own lives and experience capability and mastery over a particular task or domain for essential functioning. Appealing to this need for autonomy and competence can therefore permit influence on motivation.

I want to fit in with my friends

Young people tend to look to others before deciding on their own behaviour (**Herd Effect, Social Opportunity – COM-B**), whether this be their parents, peers, or simply those around them. This may be due to our general desire to fit in, which has evolutionary roots in providing safety. Consequently, if a young person's friends have received a vaccine, they are also more likely to then decide to get the vaccine.

Insight to action

Following identification of the seven behavioural insights detailed in the previous section, we consulted frameworks such as the Behaviour Change Wheel to determine what interventions would be best suited to promote positive change and how these can inform not just the animations, but wider activity to encourage increased uptake of vaccinations.

These recommendations take into account key findings and behavioural insights from across the research, in addition to learnings around what other initiatives have been effective or less so. Frameworks such as MINDSPACE and EAST have been further employed to help shape not only what the intervention should be, but also what this could look like and how it could be delivered. We have divided these into short-, medium-, and long-term goals to support in wider planning and strategy development.

These recommendations have been made based on available knowledge gained through the secondary and primary research, and would in some cases benefit from further research to refine these more. In particular, a Suitability, Feasibility, Acceptability (SFA) test of the recommendations would help inform your implementation strategy by highlighting those which are ready to be implemented now, and those which may require further work prior to this (e.g., to gain sufficient resource or interest). This is something Social Change always advocate, and can be achieved through various methods (e.g., internal review or external consultation), including through the audience testing to be undertaken following the development of the animations.

Overall, 11 recommendations were developed to support you in your mission for change. These are detailed below.

Short-term recommendations

Education

Include more information on possible side effects

Campaigns featuring animated videos for young people should include information on side effects while being careful to avoid fear-mongering. These can be contrasted with the negative consequences of not getting vaccinated to emphasise the disparity and reduce the possibility of including information on effects backfiring (**Priming, Affect – MINDSPACE, Attractive - EAST**). The best ways to educate and inform young people on the side effects of vaccinations without discouraging them from being vaccinated should be explored in further research.

Include more statistics

Animations encouraging young people to get vaccinated can be improved on by including information that conveys how popular and widespread uptake of the vaccine is to appeal to young peoples' social referencing tendency (**Attractive, Social – EAST, Incentivisation, Norms, Salience – MINDSPACE)**. This can be done by including statistics of how many people have taken the vaccine globally and locally in the target audience's peer group, as well as how many people have taken the vaccine over all time.

Modelling

Emphasise personal stories

Appeal to young people's bias towards personal stories and anecdotal evidence by including them in animation campaigns (**Easy, Attractive – EAST, Messenger - MINDSPACE**). This can be done by having a young person actor recount their experience verbally (as opposed to via text as was done on the example animation for the flu vaccine), emphasising the positivity of the experience. By including several personal accounts of people's experience getting a vaccine in one animation this effect can be amplified.

Persuasion

Don't miss out on the auditory experience

It is important to also focus on the auditory experience of watching a campaign animation, as well as the visual elements (**Attractive – EAST, Affect – MINDSPACE**). This can be done by including bright and energetic music in the background to help maintain the audience's attention, as well as having the animation narrators adopt a more engaging and animated tone that communicates more emotion. This could also be achieved through including sound effects at relevant moments during the animation to refocus any sliding attention back to the animation.

Include a visual hook

It is key for the animation to engage the target audience within the first two seconds to increase the likelihood of the animation being watched until the end (**Attractive – EAST, Easy – EAST, Salience - MINDSPACE**). This can be achieved through including a relatable question as the animation starting point, or visually manufacturing the hook by playing with angles and positioning to draw the audience's eye in. The best way to find a visually appealing hook to engage the target population in a vaccinate-related animation video would be to experiment and test multiple options and then identify the best strategy.

Coercion

Emphasise possible impact of not vaccinating

Vaccine animations should emphasise the negative consequences of not receiving a vaccination, including those related to personal and others' health, for example through highlighting the effects of the disease the vaccine protects from, and emphasising the danger of this disease to vulnerable groups (**Affect – MINDSPACE**).

Incentivisation

Give young people more responsibility

Encourage more engagement with vaccine related information and animations by emphasising the personal responsibility of each young person to be responsible for their own health, as well as how this has knock on effects on others' health (**Attractive – EAST, Incentivisation, Norms, Priming, Affect – MINDSPACE**). Emphasise the need for young people to understand how different vaccines work and that this is under their control to connect with their desire for autonomy.

Medium-term recommendations

Modelling

Involve local communities in vaccine awareness

It is important that young people understand the importance of being educated on vaccines and have a desire to do so, so it is recommended that vaccine awareness campaigns begin involving more aspects of local communities to take part to model the desired behaviour and facilitate familiarity with the topic (**Social – EAST, Messenger, Incentive – MINDSPACE**). This would also appeal to young peoples' preference for personal stories and human connection, and can be accomplished by setting up after work classes, pop-up stalls, or community events targeting young people and their families.

Enablement

Create multiple versions of animations

Young people differ by how curious they may be about health topics and in relation to how much time they are willing to spend learning about such topics; consequently, it is advisable that multiple versions of the same campaign be created, for example one which is one minute long, and another which is four minutes long. This will facilitate the use of more dissemination streams, and will resonate with a wider audience of young people, who many not all wish to spend just one minute learning about vaccines or more than four minutes on one video (**Easy, Attractive – EAST**).

Long-term recommendations

Education

Introduce vaccine awareness packs for schools

Providing vaccine awareness packs where young people are used to paying attention, and are surrounded by peers, can be especially useful in fostering discussion and engagement with the topic (**Social, Attractive – EAST, Messenger, Norms, Salience – MINDSPACE)**. Vaccination packs can contain general information on the vaccines being administered, including information on side effects and what disease it protects from, as well as a FAQ and myth-busting facts leaflet, and practical information of when and where the vaccines are being provided and how many doses are required (**Easy, Social – EAST, Norms, Salience – MINDSPACE**). This way, parents/guardians can also make use of the information provided to children at school, using the materials to supplement their discussions with young people. Furthermore, this can be timed to the period prior to the relevant vaccination to ensure key information is retained and feels relevant to the young people and their parents or guardians (**Timely – EAST**).

Create resources on misinformation for schools

Young people may be aware of misinformation, but may not have all of the necessary knowledge, skills, and experience to be able to identify this and source check. Consequently, we recommend creating health-based misinformation awareness resources to be distributed via schools to increase young peoples' awareness that misinformation can happen in-person and unintentionally, which could then also be included alongside the vaccine awareness pack (**Social, Timely – EAST, Messenger, Salience – MINDSPACE**).

Conclusion

Overall, young people show a willingness to engage in vaccination related information, and are open to vaccine-related animations as a method of educating themselves on the topic. Perhaps the most significant finding identified was the reliance of young people on information and stories they have either seen online or heard from their peers – they particularly value hearing from those who have had the vaccination. This is in addition to the importance of appealing to multiple senses including auditory in the creation of engaging and appealing animation videos.

As a result, we think that the most important recommendation is to include a more personal element to vaccine animations by including personal stories from the target audience's peer group. These could be delivered via 'vaccine champions', whose role would be to speak to their peers about vaccinations, sharing their experiences and answering any questions they may have to support uptake. This is in addition to emphasising the popularity of the vaccines via statistics related to uptake. Another key recommendation would be to introduce more visual and auditory hooks to the beginnings of such animations in order to engage with young people within the first few seconds before the animation is scrolled away from.

PHW should continue conducting empirical research into the preferred and most effective pathways of resonating with the target audience by testing different approaches and evaluating their impact, for example what type of visual hook would work best.

Audience testing

Following development of the animation, we undertook audience testing for the two animations to capture feedback to inform its final development. This section of the report summarises the findings from an audience testing survey and two focus groups with 18 students from a CVUHB school, discussing two vaccine information animations, the 3-in-1 Td/IPV and MenACWY. Some year 8 students were included in this testing as an exception, as the sessions took place just before school holidays and they were about to transition into year 9, however, only 2% of participants were 12 years old. The research explored the clarity, engagement, and effectiveness of these animations, as well as preferences for communication channels, voiceovers and vaccination names.

Key findings included:

- Students found the 3-in-1 booster animation more clear, engaging and easy to understand
- The MenACWY animation was perceived as longer and less engaging
- Students strongly preferred upbeat, clear voiceovers and visually varied content
- Words like 'booster' and 'teenage' were more appealing
- Both survey and focus group participants recommended providing separate information for each vaccine to avoid confusion.

Respondent demographics

The survey had a total of 59 responses, mainly from two different schools in the CVUHB and students aged 12-14.

Table 6: Survey respondents' breakdown by age

Age	Percentage
12	2%
13	34%
14	63%
Prefer not to say	2%

Table 7: Survey respondents' breakdown by sex

Sex	Percentage
Female	56%
Male	37%
Prefer not to say	7%

Table 8: Survey respondents' breakdown by language

Language	Percentage
English	96%
Welsh	2%
Irish	2%

Focus group participants included 18 students, divided into two groups (6 and 12 participants each), representing a year 8 and 9 students.

Table 10: Focus group participants' breakdown by school year

School year	Percentage
Year 8	22%
Year 9	78%

Table 11: Focus group participants' breakdown by sex

Sex	Percentage
Female	56%
Male	44%

Preferred communication channels for vaccine animations

Respondents were asked to select the best way to share vaccine information animations. The most popular answers can be found below. Please note that this was a multiple answer question, which is why percentages might not add up to 100%.

- TikTok: 47%
- School assemblies: 37%
- Snapchat: 32%
- Science lessons: 19%
- Tutor groups: 15%
- Health education days: 15%

3-in-1 Td/IPV Vaccine Animation

Voiceover preference

The most preferred voiceover among survey respondents was voiceover 1 (62%), a preference supported in the focus groups (53%) due to its clarity and speed.

Comprehension, language and impact

All focus group participants found the animation easy to understand and said the vocabulary was appropriate and easy to digest. The majority of participant stated they would share the animation with friends and family. Three students noted this was their first awareness of the 3-in-1 booster vaccine.

Survey results showed that 57% found the animation easy to understand, 19% found some parts easy and some not, while 24% did not find it easy. Additionally, 62% reported learning more about the 3-in-1 Td/IPV vaccination from the animation, and 57% said animations like this would encourage them to get the vaccine. Reasons included: ‘because it’s needed’, ‘it makes it look safe’, ‘it makes it look like it’s important’, ‘it was easy to understand’, ‘it shows what it prevents clearly, and I would rather be prevented from that’.

However, 57% of survey respondents said they would not share this animation with friends. In contrast, 52% believed their parents or guardians would be encouraged to get them vaccinated after watching the animation, while 33% were unsure.

Vaccine naming preference

Focus group participants noted that the word ‘booster’ sounded exciting and positive, and ‘teenage’ made the vaccine feel relatable. In general, they did not have a strong preference but felt these two terms were positive.

Among survey respondents, 43% don't mind the name, 24% preferred 'teenage booster', 14% preferred '3 in 1 booster', and 10% preferred '3 in 1 vaccine'. Which goes in line with focus group participants responses.

Imagery and animation

Focus group participants appreciated the flowing narrative of the animation, visuals of the vaccination process, and the clear representation of the consequences of not vaccinating. Survey respondents, however, were less keen: 48% said the imagery did not catch their eye, only 3% said it did, and 57% said they would not watch the animation (33% said they would). Reasons included a lack of interest in this type of video and uncertainty about how to improve it.

Suggestions

Focus group participants valued the animation but suggested a shorter version for platforms like TikTok and the addition of upbeat background music.

MenACWY Vaccine Animation

Voiceover preference

Survey respondents preferred voiceover 1 (61%), while focus group participants favoured voiceover 2 (53%) for its familiar and upbeat tone.

Comprehension, language, and impact

Focus group participants found the animation easy to understand, with appropriate vocabulary and a good level of information, though some found it repetitive.

Survey results reflected this: 63% found it easy to understand, 21% found some parts easy and some not, and 16% did not find it easy. Most respondents found the language clear. 79% said they learned more about MenACWY from the animation, and 66% said it encouraged them to get the vaccine, citing reasons such as the animation being encouraging, making the topic simple, and explaining the risks of not vaccinating.

Despite this, 61% of survey respondents said they would not share the animation with friends. However, 63% believed their parents or guardians would be encouraged by the animation, while 34% were unsure.

Strain B Explanation

Focus group participants felt it was unnecessary to include an explanation about strain B, as the video already contained a lot of information and provided links for further details. However, 66% of survey respondents wanted an explanation for why strain B was not included. Of these, 37% preferred the speaker to address it, 29% wanted an onscreen message, and 29% did not answer.

Imagery and animation

Survey respondents had mixed views: 50% said the imagery caught their eye, 37% said maybe, and 13% said no. When asked if they would watch the animation, 45% said yes, 26% said no, and 24% said maybe. Those who would not watch it cited a preference for other content, the animation being too long, or a general disinterest in this type of video: 'because in my free time I watch things I have interest in', 'the animation seems too long', 'because I don't really watch these types of animations much, however if it were to show up on my screen then I probably would watch it', etc.

Suggestions

Focus group participants found the MenACWY animation longer and more repetitive than the 3-in-1 Td/IPV animation. They preferred the variety of visuals in the 3-in-1 animation, while the MenACWY animation was seen as static and less engaging. However, the conversational style was appreciated. Focus group participants recommended making the animation shorter and more dynamic, with more varied scenery and a faster pace, particularly for use on platforms like TikTok.

Preferences for information delivery

Focus group participants recommended providing separate information materials for each vaccine to avoid confusion but have them both administered at the same time. Among survey respondents, 41% had no preference, 36% preferred separate information, and 20% preferred combined materials.

Final animation development

The above findings have been used to inform the final development of two animations, one per vaccine. Creative from these will also support the creation of related assets and materials.

Appendices

Appendix A: COM-B Model of Behaviour and Behaviour Change Wheel (Michie, et al., 2011)

The COM-B model of behaviour proposes there are three components to behaviour that are essential for its delivery and maintenance: Capability (psychological skills and knowledge), Opportunity (created by both the physical and social environment), and Motivation (both gut reaction and reasoning). As detailed below, each component has a sub-component.

Fig. 1: The COM-B Model of Behaviour.

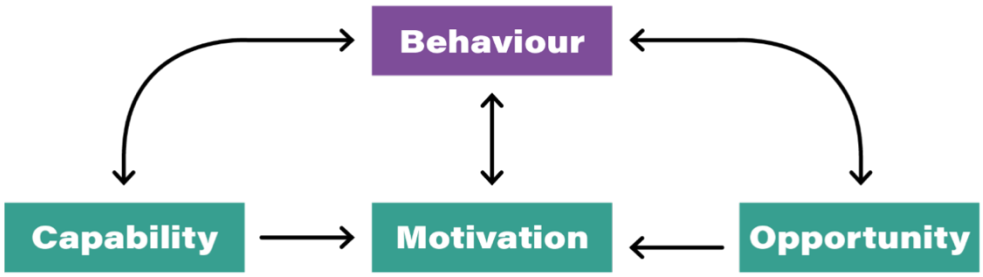
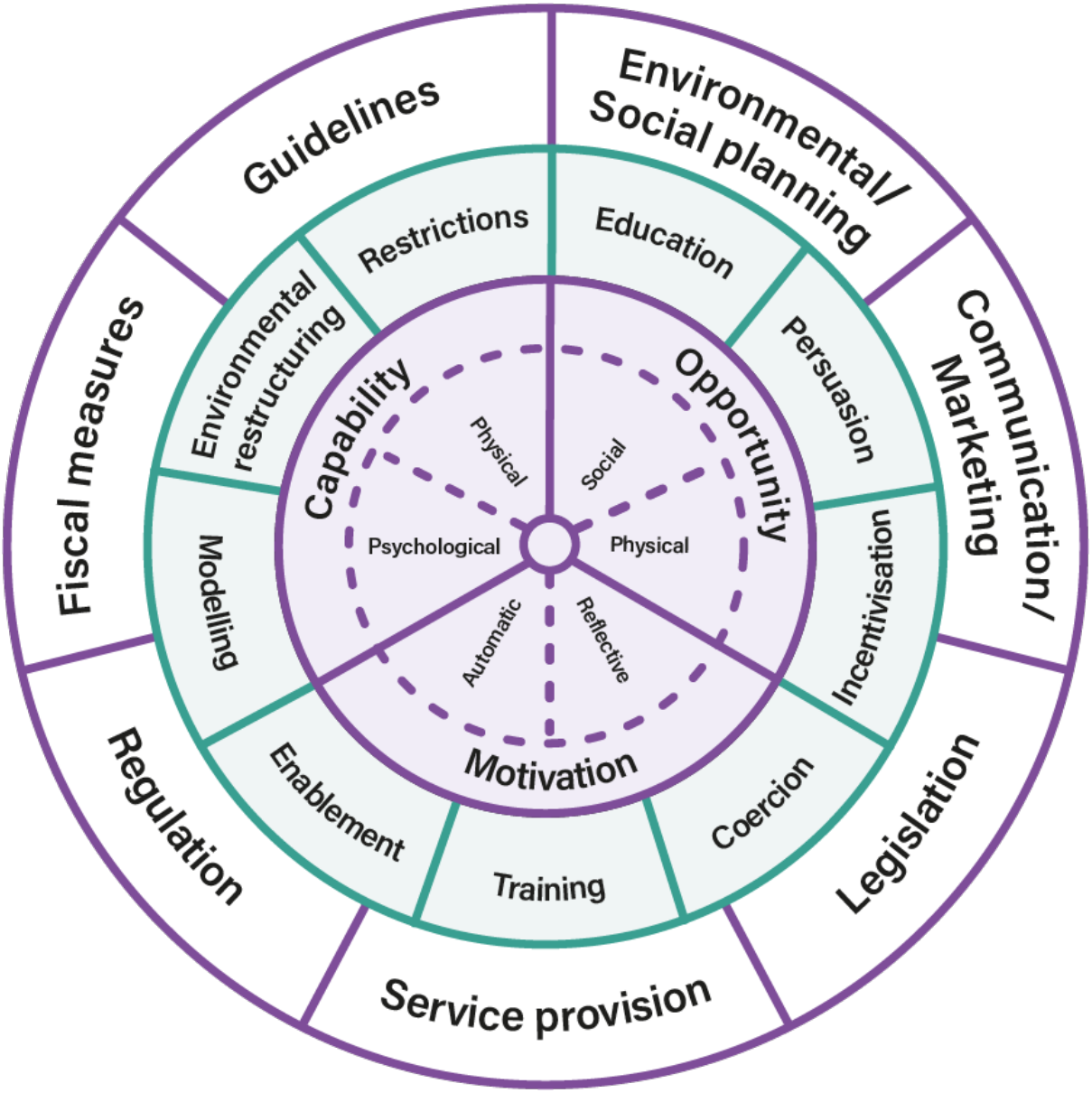


Table 13. The components and sub-components of COM-B

Component	Description	Application to Vaccinations
Psychological Capability	Knowledge or psychological strength, skills or stamina	Confidence to engage with vaccine and health-related information. Knowledge of vaccine processes.
Physical Capability	Physical strength, skills and stamina	Physical ability, health.
Social Opportunity	Opportunities as a result of social factors, e.g., norms and cues	Whether others are getting vaccines. Influence of others.
Physical Opportunity	Opportunities provided by the physical environment, e.g., time, location, resources	Having time to engage with vaccine information. Being able to get to vaccination centres. Access to vaccine-related information.
Automatic Motivation	Desires, impulses and inhibitions	Effort level – being engaged.
Reflective Motivation	Making plans, evaluating things that have already happened	Benefits of getting vaccinated outweighing the fear of side-effects.

The COM-B model is invaluable for understanding behaviour, and forms the centre of the Behaviour Change Wheel (BCW), which aims to further show how such behaviour can be changed.

Fig. 2: The Behaviour Change Wheel.



Once barriers relating to COM-B have been identified, the middle and outer circles of the BCW aim to inform and support the development of interventions which work, through a number of different delivery methods. For example, if a lack of information (psychological capability) is identified as a key issue, this can be solved through education via communications and marketing.

Appendix B: MINDSPACE (Dolan, et al., 2010)

A mnemonic for nine influences on behaviour, the MINDSPACE framework aims to communicate the ways in which behaviour can be influenced and changed. Using it alongside the development of interventions for change will help to consider how it could best be framed and its opportunity for success maximised.

Table 14. Principles of MINDSPACE.

Messenger	We are strongly influenced by who communicates information to us
Incentive	Our responses to incentives are shaped by predictable mental shortcuts such as strongly avoiding losses
Norms	We are strongly influenced by what others do
Default	We 'go with the flow' or pre-set options
Salience	Our attention is drawn to what is novel and seems relevant to us
Priming	Our acts are often influenced by sub-conscious cues
Affect	Our emotional associations can powerfully shape our actions
Commitment	We seek to be consistent with our public promises, and we reciprocate acts
Ego	We act in ways that make us feel better about ourselves

Appendix C: The EAST Principle

This framework is a shorter alternative to MINDSPACE, equally communicating how behaviour should be presented in order to encourage and enable people to engage in it. Considering how behaviour can be framed as easy, attractive, social and timely should be embedded in intervention development so that people are not only being enabled to engage in the behaviour, but also receive motivation to do so.

Table 15. Components of the EAST Principle.

E	**Easy**	Make the desired behaviour easy to implement
A	**Attractive**	Grab people's attention to the behaviour and make it desirable to engage in
S	**Social**	People are influenced by others and are more likely to engage in a behaviour if many others are too or if they've made a public commitment
T	**Timely**	People are influenced by the timing of prompts and are more likely to change their habits if costs and benefits are felt immediately rather than later

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