

Burdett Programme	Chronic Respiratory Disease
Organisation Name	Cwm Taf Morgannwg University Health Board
Project Title	Co-producing and refining a behaviourally-informed intervention to empower nurses to address smoking & promote smoking cessation with hospital patients in Wales (The 'Think Quit' Study)
Project Leads	Dr Megan Elliott (Principal Researcher) Dr Jessica Baillie (Principal Researcher) Lauren Jones (Senior Lecturer)
Study Team	Katy-May Price (Clinical Research Specialist Officer) Dr Rachael Hewitt (Senior Behaviour Change Specialist) Dr Nicky Knowles (Principal Behaviour Change Specialist) Sarah Jenkins (Senior Public Health Practitioner) Gemma Burrows (Principal Public Health Practitioner) Sienna-Mae Yates (PPI)
Report	Final Report

Table of Contents

Acknowledgements.....	3
1. Study Overview	4
2. Background	5
3. Study design, ethical considerations and public involvement.....	5
3.1 Aim and objectives.....	5
3.2 Study design and theoretical underpinnings	6
3.3 Ethical considerations	7
3.4 Public involvement.....	7
4. Data collection and results.....	8
4.1 Phase one: Nurses’ experiences (June-December 2024).....	8
4.1.1 Recruitment	8
4.1.2 Methods	8
4.1.3 Key findings	10
4.2 Phase two: Intervention co-production (November 2024-June 2025).....	15
4.2.1 Recruitment	15
4.2.2 Methods	15
4.2.3 Key findings	17
4.3 Phase three: intervention refinement (June-August 2025).....	22
4.3.1 Refinement: stage one	22
4.3.2 Refinement: stage two.....	23
4.4 Summary	29
5. Challenges	29
6. Impact	29
7. Dissemination	30
7.1 Publications.....	30
7.2 Conferences	30
7.3 Other outputs.....	31
8. References	31

List of tables

Table 1 Phase one survey content	9
Table 2 Focus group topic guide	10
Table 3 Table: Self-reported frequency of undertaking smoking cessation promotion behaviours	10
Table 4 Odds ratio for each domain in predicting self-reported frequency target behaviours (ask, refer)	11
Table 5 Focus group findings, mapped against the TDF	14
Table 6 The Behaviour Change Wheel stages and corresponding Think Quit study phases	16
Table 7 Barriers to nurses discussing smoking cessation and referring to Help Me Quit	18
Table 8 Intervention suggestions and rankings from workshop one participants	19
Table 9 Study team ranking of potential interventions	19
Table 10 Workshop two intervention feedback	20
Table 11 Feedback on version one of the intervention	22
Table 12 Team feedback on the refined intervention	24
Table 13 Intervention refinement topic guide.....	24
Table 14 Nurse feedback on the Think Quit intervention	26

List of Figures

Figure 1 Overview of study design and data collection	6
Figure 2 Theoretical Domains Framework and COM-B	7
Figure 3 Think Quit intervention - version 1	21
Figure 4 Think Quit intervention - version 2	23
Figure 5 Think Quit intervention – final version in English	27
Figure 6 Think Quit intervention – final version in Welsh	28

Acknowledgements

We would like to thank the following individuals and organisations who made this research possible:

- The Burdett Trust for Nursing
- Cwm Taf Morgannwg University Health Board Research and Development Department
- Cwm Taf Morgannwg University Health Board Public Health team, including Sarah Jenkins, Gemma Burrows, Stephanie Hill, and the Help Me Quit team
- Cwm Taf Morgannwg University Health Board's nurses
- Public Health Wales Behavioural Science Unit
- Dr Siva Ganesh, statistician
- Study advisory group: Professor Greg Padmore-Dix, Ceri Mealing, Sara Drew, Karen Montague, Tom Powell, Professor Carolyn Wallace, Dr Anna Lewis, Dr Rob Green, Liz Newbury, Claire Waters

1. Study Overview

Smoking is the leading cause of preventable death worldwide, contributes to hospital admissions and results in worse hospital outcomes for patients. Nurses play a critical role in reducing smoking prevalence and contributing to the Welsh Government's goal of a smoke-free Wales by 2030. Nurses are well placed to assess and refer patients to smoking cessation services, but further exploration of the barriers and facilitators is needed.

The Think Quit study therefore aimed to co-produce and refine a behaviourally-informed, evidence-based intervention to empower nurses to promote smoking cessation amongst patients in hospital settings and refer to the Welsh smoking cessation service, 'Help Me Quit'. The study was underpinned by the Behaviour Change Wheel (encompassing the Theoretical Domains Framework and COM-B model), and involved three phases:

Phase 1: secondary care nurses were recruited to undertake a survey (n=110), focus groups (n=19) and interviews (n=2), which identified barriers and facilitators to discussing smoking cessation in hospital settings and referring patients to smoking cessation services. Barriers identified in the survey included skills, social influences, environment context and resources. The focus groups and interviews identified lack of and inconsistent referral methods, competing priorities and patient resistance. Facilitators included seeing smoking cessation as part of their nursing role and utilising environmental prompts.

Phase 2: co-production workshops were held with stakeholders to firstly rank potential interventions (n=19), co-create the chosen intervention content, design and delivery (n=5), and to co-produce the intervention content (n=4). A graphic design company designed the intervention.

Phase 3: the wider study team, including health psychologists, public health practitioners, nurses, Help Me Quit and a patient and public involvement representative provided feedback. The revised version of the intervention was then discussed with nurses to explore the design, usability, acceptability and potential impact of the intervention, facilitating further refinement.

Overall, the study has co-produced a theoretically-informed intervention for secondary care nurses that can be further tested in subsequent research.

2. Background

Smoking causes eight million deaths per annum, making it the leading cause of preventable death worldwide (World Health Organisation 2025). Cigarette consumption increases the risk of smoking-related diseases and consequently leads to higher rates of hospitalisation, with worse outcomes including increased length of stay, complications and readmissions, wound healing and immune response (Office of the Surgeon General and Office on Smoking and Health 2004; West 2017).

A hospital admission is an opportunity for healthcare professionals to identify people who smoke, deliver brief intervention and for referral to a smoking cessation service, as mandated by the National Institute for Health and Care Excellence (2025). In Wales, Help Me Quit (HMQ) is an integrated all-Wales smoking cessation service, which offers individual or group structured behavioural support and nicotine replacement therapy (NRT) in hospital and community settings. Patients can self-refer to this service, or a healthcare professional can make the referral.

Nurses play a fundamental role in promoting health and preventing illness (Nursing and Midwifery Council 2018), and are well positioned to implement smoking cessation interventions (West et al. 2015). Evidence shows that nurse intervention can increase the likelihood of quit success (Rice et al. 2017), but factors influencing implementation and delivery of nurse-led smoking cessation interventions include socioeconomic, smoking-related and motivation.

Understanding the barriers and facilitators experienced by nurses delivering smoke cessation interventions will enable the development of an intervention to empower and support nurses to discuss smoking with patients and make referrals to the smoking cessation service.

3. Study design, ethical considerations and public involvement

3.1 Aim and objectives

The study aimed to co-produce and refine an evidence-based intervention, informed by the Behaviour Change Wheel, to empower nurses to promote smoking cessation amongst patients in hospital settings.

The objectives were:

- To explore the experiences of secondary care nurses, including barriers and facilitators, to discussing smoking and making referrals to smoking cessation services;
- To prioritise and co-produce an intervention to support nurses to discuss smoking and make patient referrals to Help Me Quit;
- To refine the intervention with key stakeholders.

3.2 Study design and theoretical underpinnings

The study adopted multiple methods over three interconnected phases (Figure 1). The design encompassed a convergent mixed methods study (Creswell and Plano-Clark 2018) with a parallel survey and focus groups/interviews to explore nurses' experiences of smoking cessation discussions and referrals (Phase one), workshops and consultation to co-produce the intervention (Phase two) and finally refinement of the co-produced intervention with nurses and stakeholders (Phase three).

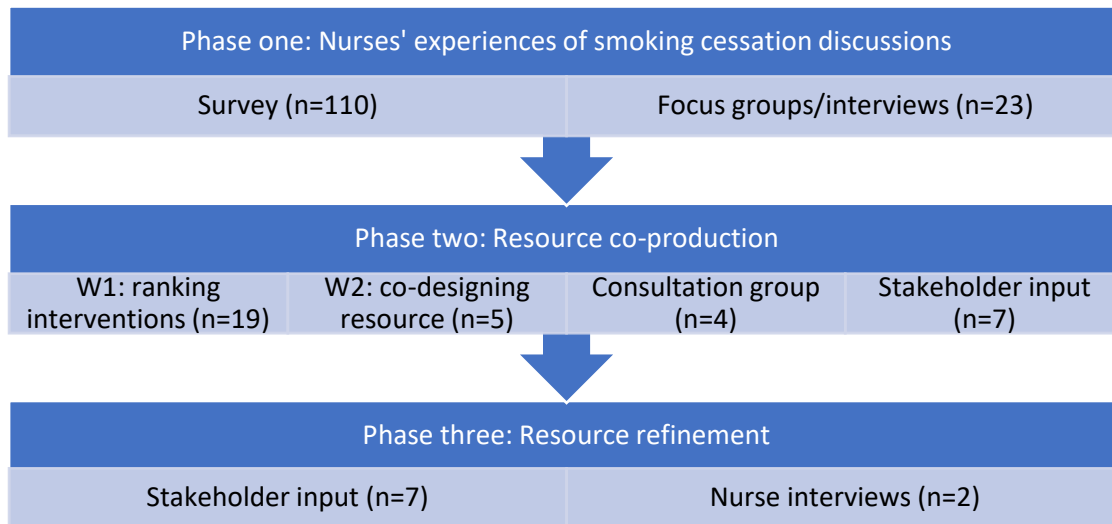


Figure 1 Overview of study design and data collection

The Theoretical Domains Framework (Atkins et al. 2017) and COM-B model (Michie et al. 2011) provided a comprehensive approach to understand the behavioural determinants of smoking cessation discussions and referral to specialist support, and informed co-production of an intervention to enhance these behaviours. The COM-B model provides a framework for identifying and addressing determinants of behaviours, which is conceptualised as a function of Capability, Opportunity, and Motivation. Application of the Theoretical Domains Framework facilitated a more nuanced exploration of the wide range of factors influencing healthcare professional practice categorised into 14 theoretical domains. The COM-B model (Michie et al. 2011) sits at the core of the Behaviour Change Wheel (BCW) (Michie et al. 2014), which identifies intervention and policy functions, and sets out steps for developing interventions. Using the COM-B model and Theoretical Domains Framework (TDF) enables a systematic understanding of the behavioural drivers—capability, opportunity, and motivation—while the Behaviour Change Wheel (BCW) links these insights to evidence-based intervention functions and policy categories, ensuring that selected actions are both targeted and effective in achieving sustainable behaviour change (Figure 2).

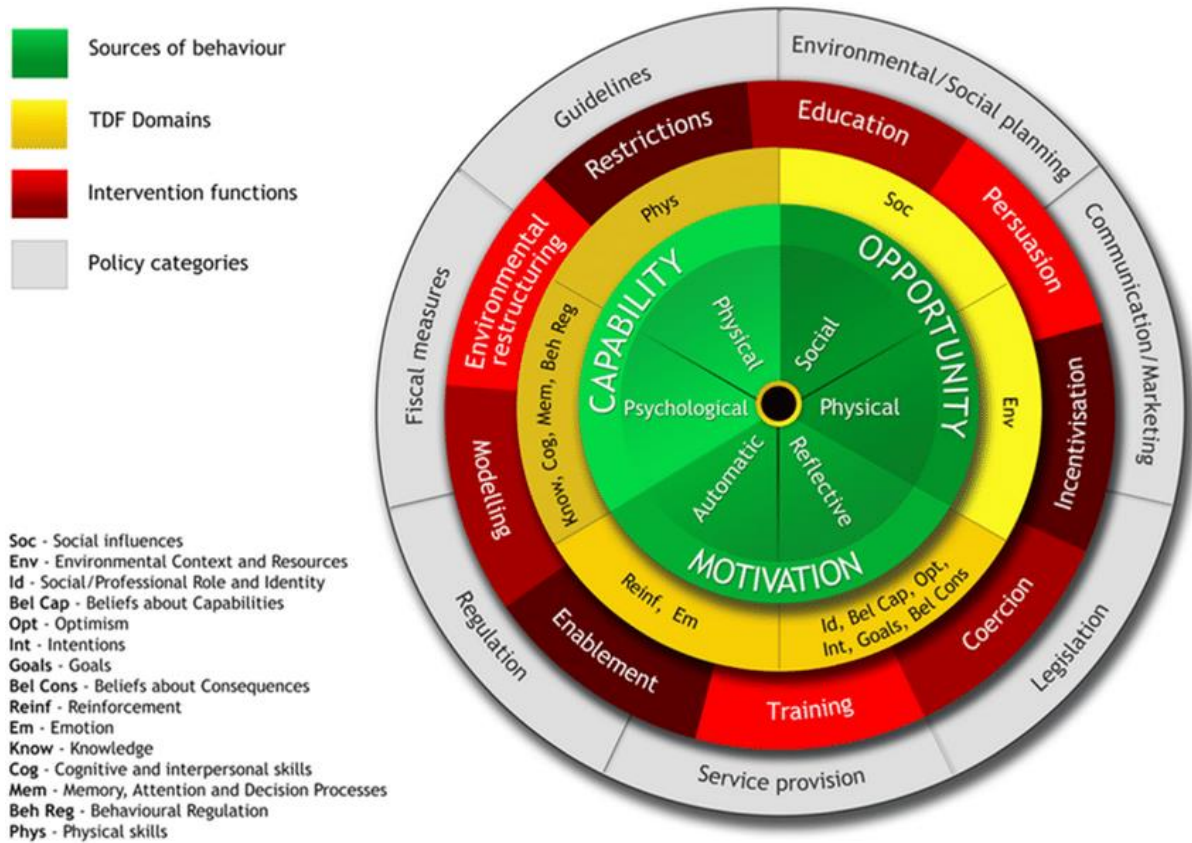


Figure 2 Theoretical Domains Framework and COM-B

3.3 Ethical considerations

The study was sponsored by Cwm Taf Morgannwg University Health Board (ref CTM/2025), received Research Ethics Committee approval (REF: 24/WA/0157), Health and Care Research Wales provided global governance approval and Cwm Taf Morgannwg University Health Board provided capacity and capability confirmation.

Informed written consent was taken from all participants in phase one, phase two and phase three. Participants in phase one were assigned a participant ID and research data were pseudo-anonymised at the point of processing. All personal data about participants in phases one, two and three were stored in line with the Data Protection Act (2018). Research and personal data were stored on secure NHS servers (if electronic) or in a locked cabinet in a secure clinical research centre (if paper). All data will be stored for a minimum of five years following study completion.

3.4 Public involvement

Two public involvement representatives were recruited via Health and Care Research Wales and attended monthly meetings with the study team to influence the delivery of the study, and intervention co-production. The study adopted the UK Standards for Public Involvement (2019), including remunerating representatives in line with National Institute for Health and Care Research (2025) guidance.

4. Data collection and results

4.1 Phase one: Nurses' experiences (June-December 2024)

Phase one aimed to explore barriers and facilitators to nurses discussing smoking with patients in hospital and referral to the HMQ Service. To meet the aim, a convergent mixed methods study design was undertaken (Creswell and Plano Clark 2018), which involved a mixed methods survey and semi-structured focus groups and interviews with nurses.

4.1.1 Recruitment

Registered nurses working in three hospitals in Cwm Taf Morgannwg University Health Board were eligible to participate. The opportunity to participate in the survey and focus groups was advertised electronically through adverts and posters, disseminated via Health Board wide channels and via senior nursing staff. Face-to-face study recruitment was undertaken by nurse gatekeepers during ward rounds and at promotional stands in the hospitals. The advertising materials included a link to the survey and a link to an MS Form to register interest in the focus groups.

4.1.2 Methods

4.1.2.1 Survey

The survey (Table 1 Table 1 Phase one survey content) was designed by the project team and pilot tested by the study advisory group, which included secondary care nurses, stakeholders and public representatives. SmartSurvey was used as the online platform for data collection, and copies of the survey completed via paper were manually inputted by the study team. Once recruitment was finished, an export of the results was retrieved from the database, the data were cleaned and analysed statistically using R software, including means, Cronbach's alpha (0.9) and ordinal logistic regression modelling. Sub-group comparisons were analysed using t-tests, Wilcoxon tests, Kruskal-Wallis test and/or ANOVA. The open statements were analysed using content analysis. The survey results were reported and interpreted using the Theoretical Domains Framework (Atkins et al. 2017).

Section	Questions
Consent form	Standard statements
Role and demographic questions	<ul style="list-style-type: none"> • Job title • Speciality area • Years since qualification • Agenda for Change band • Patient-facing/non-patient facing role <ul style="list-style-type: none"> • Hospital they work at • Ethnicity • Smoking status • Smoking cessation training
Self-reported behaviour	<ul style="list-style-type: none"> • Ask patients about smoking status • Record smoking cessation status on Welsh Nursing Care Record • Inform patients they cannot smoke/vape on hospital grounds • Provide brief messages on quitting smoking • Refer patients who smoke to HMQ • Offer NRT to patients who smoke

Theoretical domains framework	<ul style="list-style-type: none"> • Knowledge • Skills • Social/professional role and identity • Beliefs about capabilities • Optimism • Beliefs about consequences • Reinforcement 	<ul style="list-style-type: none"> • Intentions • Goals • Memory, attention and decision processes • Environmental context and resources • Social influences • Emotion • Behavioural regulation
Barriers	List five barriers to discussing smoking and referring to HMQ	
Facilitators	List five strategies to overcome these barriers	
Free text box	Other support for routinely discussing smoking cessation	
Free text box	Any other comments	

Table 1 Phase one survey content

4.1.2.1 Focus groups/interviews

Focus group data collection either took place in hospital sites or digitally via Microsoft Teams, utilising a Topic Guide (Table 2), and lasted between 32 and 69 minutes. Two planned focus groups were interviews due to participant drop-out, each lasting 52 minutes. All focus groups were recorded and transcribed verbatim either by the study team or a professional transcriber. Data were analysed using Framework analysis (Goldsmith 2021), which involves familiarisation with the data, developing a coding framework, coding, charting and mapping and interpretation, encompassing the Theoretical Domains Framework (Atkins et al. 2017).

Section	Questions
Exploratory questions	Nursing specialty and role
Discussions about smoking	<ul style="list-style-type: none"> • Can you tell us a bit about your experience of initiating conversations about smoking with hospital in-patients? • How do you raise the issue of smoking with patients? • What influences when/how you start a conversation about smoking? • Do you use CO monitors within your practice? If so, how, and what role does this play in your conversations?
Recording smoking status	<ul style="list-style-type: none"> • How do you record smoking status? Is this routinely done? • What influences whether, and how, you record smoking status for a patient?
Referring to HMQ in Hospital	<ul style="list-style-type: none"> • How do you introduce the topic of specialist support? • What do you tell patients about specialist support? • How do you explain the process of referring to specialist support? • What can prevent you from discussing referrals to specialist support with hospital patients? • What might support you in having conversations about referrals to specialist support?

Theoretical domains framework	<ul style="list-style-type: none"> Refer to the TDF framework prompt questions if specific areas have not been discussed or explored within the focus group to generate further specific insight.
Closing questions	<ul style="list-style-type: none"> What else might support you in having conversations about referrals to specialist stop smoking support? Do you think there are things that you could do/could be done to maximise uptake of service? Anything else you would like to add about your experiences?

Table 2 Focus group topic guide

4.1.3 Key findings

The findings from each phase are reported in turn below, before the integrated key findings are outlined.

4.1.3.1 Survey

110 survey responses were received from registered nurses working across 13 secondary care nursing speciality areas. Nurse respondents reported high patient turnover, seeing new patients either every day ($n=71$, 64.5%) or every week ($n=25$, 22.7%). Most respondents identified as 'White' ($n=97$, 88.1%) and reported never smoking ($n=78$, 70.9%). Most participants had over 10 years' experience as a nurse ($n=72$, 65.5%) and had received some form of training related to smoking cessation ($n=79$, 71.8%). Responses were distributed across NHS Agenda for Change Pay Bands 5 ($n=39$, 35.5%), 6 ($n=24$, 21.8%), 7 ($n=37$, 33.6%) and 8a-d ($n=10$, 9.1%).

Respondents self-reported their frequency of undertaking six behaviours relating to smoking cessation promotion within their role, with higher scores indicating that behaviours are performed more frequently (Table 3). An implementation decay was observed between frequencies of asking about smoking status, delivering brief advice and referring to smoking cessation services.

Behaviour	Mean (SD)
Ask patient about smoking status	4.02 (1.22)
Record smoking status on Wales Nursing Care Record (WNCR)	2.94 (1.74)
Inform patients of smoke-free policy	3.55 (1.39)
Provide brief advice regarding quitting smoking	3.56 (1.23)
Refer patient to HMQ	3.23 (1.33)
Issue NRT	3.32 (1.45)

Table 3 Table: Self-reported frequency of undertaking smoking cessation promotion behaviours

Nurses with over 10 years of experience were significantly less likely to:

- Report recording smoking status, $F(1,108) = 7.0316$, $p = 0.0092$;
- Inform patients of smoke-free policies, $F(1,108) = 10.2833$, $p = 0.0018$;
- Provide NRT to patients, $F(1,108) = 4.4086$, $p = 0.0381$.

Nurses who had received smoking-related training were significantly more likely to report providing patients with brief advice about smoking cessation than those with no training experience ($M = 3.194$, $SD = 0.218$), $F(1,108) = 4.0121$, $p = 0.0477$.

Among the 14 domains of the Theoretical Domains Framework (Table 4), significant predictors of both Ask and Refer ($p < 0.1$) included:

- Social/professional role and identity;
- Reinforcement;
- Behavioural regulation

Memory, attention and decision processes and social influences were only significantly predictive of Ask ($p < 0.1$) and beliefs about consequences was predictive of Refer ($p < 0.1$).

	Ask				Refer			
	Log odds co-efficient	Std error	P value	Odds Ratio	Log odds co-efficient	Std error	P value	Odds Ratio
Knowledge	0.076	0.515	0.883	1.079	0.470	0.466	0.313	1.601
Skills	0.895	0.683	0.190	2.447	-0.124	0.596	0.835	0.883
Social/professional role and identity	0.779	0.306	0.011*	2.179	0.552	0.295	0.061*	1.738
Beliefs about capabilities	-0.396	0.823	0.630	0.673	0.524	0.700	0.454	1.688
Optimism	-0.457	0.383	0.233	0.633	-0.311	0.358	0.386	0.733
Beliefs about consequences	0.026	0.550	0.963	1.026	-0.834	0.455	0.067*	0.434
Reinforcement	-0.611	0.299	0.041*	0.543	0.905	0.270	0.001*	2.471
Intentions	0.430	0.388	0.269	1.537	0.042	0.346	0.903	1.043
Goals	-0.025	0.437	0.955	0.975	-0.116	0.371	0.754	0.890
Memory, attention and decision processes	1.118	0.436	0.010*	3.060	0.585	0.367	0.111	1.796
Environmental context and resources	-0.140	0.396	0.723	0.869	0.011	0.371	0.977	1.011
Social influences	-1.724	0.831	0.038*	0.178	-0.113	0.658	0.863	0.893
Emotion	0.360	0.248	0.147	1.434	-0.293	0.221	0.185	0.746
Behavioural regulation	0.643	0.387	0.096*	1.902	0.631	0.359	0.079*	1.880

Note: * $p < 0.1$

Table 4 Odds ratio for each domain in predicting self-reported frequency target behaviours (ask, refer)

Skills, social influences, environmental context and resources and reinforcement domains had the lowest scores, indicating greater perceived barriers in these areas.

From the free-text comments, respondents listed 311 barriers to discussing smoking and referring patients to smoking cessation services, including:

- Lack of physical opportunity ($n = 123, 39.5\%$), encompassing time constraints, lack of resources, incompatible environment, competing priorities and staffing shortages;

- Reflective motivation barriers ($n = 70, 22.5\%$), which encompassed nurses' evaluations or beliefs about patients not being ready, willing or well enough to engage in conversations and referrals to smoking cessation;
- Psychological capability ($n = 40, 12.9\%$) regarding lack of knowledge around smoking cessation support and how to refer;
- Social opportunity ($n = 40, 12.9\%$) regarding interpersonal influences and reactions from patients;
- Automatic motivation ($n = 14, 4.5\%$) regarding emotional responses, particularly stress and anxiety;
- Physical skill ($n = 6, 1.9\%$).

Overall, 273 intervention ideas and strategies were suggested to facilitate smoking discussions and referral to smoking cessation services, which primarily aligned with:

- Environmental restructuring ($n = 116, 42.5\%$);
- Training ($n = 34, 12.5\%$)
- Education ($n = 26, 9.5\%$)

Respondents suggested: simplification of the referral system, new methods to refer to smoking cessation, education about the smoking cessation service and referral pathway, structured/mandatory training, increased physical presence of smoking cessation advisors, communication skills training and paper resources to give patients.

4.1.3.2 Focus groups/interviews

Twenty-one nurses participated in focus groups ($n=5$) and interviews ($n=2$). Nurses worked in secondary care, patient-facing roles, covering three local hospitals. Almost 50% of participants were nurses working within respiratory settings ($n = 10$), while the remaining nurses covered areas such as maternity care, medicine, trauma and rehabilitation, alcohol service, adult mental health, care of older people and emergency unit.

Factors that influenced nurses' discussions around smoking cessation and referral to services were identified across 10 of the 14 Theoretical Domains Framework domains (Table 5): Role identity; Knowledge; Environmental context and resources: setting, prompts and cues, patient conditions, HMQ presence and documentation; Memory, attention and decision-making: prioritisation, and time and staff capacity; Social influences; Belief about consequences; Reinforcement; Belief about capabilities; Emotion; and Skills.

TDF Domain	Key findings	Data extract
Role identity	All nurses identified discussing smoking and promoting cessation as an important part of their role.	<i>"it's part of our role to do that as well. I'm not saying that it's not part of everybody's role, because it is, but I think being in respiratory ..."</i> (FG2-Respiratory Nurse).
Knowledge	Nurses had good knowledge of the risks and impacts of smoking, but knowledge of the ask, advise and refer process varied.	<i>"Well, I guess it's knowing how to refer because myself, I don't actually know how to refer to the stop smoking, if it's simple, I don't know if it's on the intranet, I wouldn't know where to start..."</i> (FG3- Alcohol Nurse Practitioner)

Environmental, context and resources: setting	Some nurses felt that the busy hospital in-patient setting was not conducive to an in-depth smoking conversation.	<i>"I often work on the wards as a respiratory nurse, [it] is much more difficult if the patients on the ward. It's much busier, it's noisier, there's no place you can take the person to speak to privately" (FG7- Respiratory Nurse Specialist)</i>
Environmental, context and resources: prompts and cues	Environmental cues prompted nurses to raise the issue of smoking.	<i>"We've got a small packet on office, the same as the other nursing packs where you do discuss alcohol and smoking, but it's just literally a question. Do you smoke? Yes/no kind of thing" – (FG2 – Respiratory Nurse Specialist)</i>
Environmental, context and resources: patient conditions	The patient's health condition prompted nurses to discuss smoking.	<i>"We tend to only ask our respiratory patients when they it's a medical need for them to stop smoking" (FG1- Trauma and Rehabilitation Deputy Manager)</i>
Environmental, context and resources: HMQ presence	The physical presence and availability of HMQ advisors in hospital settings facilitated referrals.	<i>"They (HMQ advisors) kind of do a little bit of a trawl around the ward, our self-admission wards. So, the staff and the patients can speak, once there" (FG2- Respiratory Nurse Specialist)</i>
Environmental, context and resources: documentation	Nursing assessments include questions about smoking, but few nurses followed-up on the answers.	<i>"As part of our nursing pack, {smoking} is broached within EDS [Emergency Department] ...but it's just literally a question. Do you smoke? Yes/no kind of [...] but it doesn't go much further than that, let's be honest" (FG1- A&E Ward Manager)</i>
Memory, attention and decision making: prioritisation	Identifying an opportunity to discuss smoking with acutely unwell patients was challenging.	<i>"when they're coming into us, they're acutely unwell so perhaps their frame of mind isn't in the place at that time to sort of consider at that moment giving up smoking" (FG4- Senior Mental Health Nurse)</i>
Memory, attention and decision making: time and staff capacity	Lack of time was consistently reported as a barrier to smoking cessation conversations.	<i>"I think time management as well for us in ED is a big thing just because the level and the volume of patients that are coming through the door, it's maybe not a conversation that we can always have" (FG1- A&E Ward Manager)</i>
Social influences	Some nurses reported a lack of support from management when faced with hostile reactions from patients when discussing smoking cessation.	<i>"we do feel it's probably more challenging in mental health and we would just like that acknowledged that a job is very difficult when it comes to managing violence and aggression and verbal abuse" (FG4- Senior Mental Health Nurse)</i>
Belief about consequences	Some nurses were not confident that the smoking cessation service would support patients who they referred, due to limited, or no,	<i>"I would hope that it would be picked up but because there's no feedback to know that they've engaged, to know that there's been change" (FG3- Alcohol Nurse Practitioner)</i>

	feedback from the service about past referrals.	
Reinforcement	Nurses suggested that feedback on outcomes would encourage smoking cessation discussions and increase confidence that patients would be supported by HMQ following referral.	<i>“That would be good to see because then the staff can see then and the patients that it does actually work and they do get followed up” (FG5- Respiratory Ward Manager)</i>
Belief about capabilities	Nurses held limiting beliefs about their ability to influence a patient’s decision to engage with smoking cessation services.	<i>“But if she’s declined, she’s declined. You can’t do anything about it” (FG6-Maternity care)</i>
Emotion	Discussing smoking could evoke an emotional response from nurses, and could be frustrating.	<i>“You’ve achieved no progress for either presenting problem. It’s frustrating for the patient, it’s frustrating for the practitioner as well” (FG3- Alcohol Nurse Practitioner)</i>
Skills	Nurses felt that discussing a stigmatised subject required a trusting relationship, which took skill to develop.	<i>“We try and establish trust with the patient because obviously that’s key to open disclosure...” (FG3- Alcohol Nurse Practitioner)</i>

Table 5 Focus group findings, mapped against the TDF

Overall, facilitators included seeing these behaviours (discussing smoking and referring patients to the smoking cessation service) as consistent with their role, and utilising the presence of prompts in the environment. Barriers included lack of and inconsistent referral methods, competing priorities and perceived patient resistance.

4.1.3.3 Overall findings

The results from the survey and focus groups/interviews were integrated using a matrix and the overall findings from Phase One are reported below.

Role of the nurse in smoking cessation promotion

Nurses had good knowledge of the risks and impact of smoking and viewed smoking cessation intervention as part of their role. Nurses working in clinical settings such as respiratory reported routinely integrating smoking discussions into their care. However, pressured clinical environments, competing job demands, and patient acuity made these discussions challenging. Nurses also anticipated that the discussion may be lengthy and challenging, acting as a barrier. Participants were unsure about the best time, place or healthcare professional to have the discussion.

Discrepancies between ask and refer behaviours

While nurses recognised the importance of identifying patient smoking status, there was discrepancy between self-reported rates of asking and subsequently delivering brief advice and referring patients to the smoking cessation service. Nurses reported barriers to the latter, including limited time and knowledge about how to make a referral, perceived patient resistance and lack of belief that making a referral would result in patient smoking cessation.

Limited knowledge of smoking cessation service, referral pathways and outcomes

Nurses perceived that making referrals to the smoking cessation service would be difficult and struggled to explain available support to patients. Nurses who were more familiar with the smoking cessation service and individual advisors were more likely to make referrals. Furthermore, nurses received limited feedback on the outcomes of referrals, which undermined their belief that making a referral would be beneficial for patients.

Perceptions about patients and anticipated negative reactions

Nurses felt that they were unable to influence patients' decisions to engage with the smoking cessation service and make a quit attempt. Past experiences of aggression, hostility, patient denial and negative reactions also influenced nurses' willingness to discuss and promote smoking cessation. This was particularly challenging in certain specialities, e.g. mental health settings and the Accident and Emergency, where nurses reported patients with challenging behaviour.

4.2 Phase two: Intervention co-production (November 2024-June 2025)

Phase two aimed to co-produce an intervention with and for nurses to address smoking cessation with patients in hospital, addressing the barriers identified in Phase one. This phase of the study used a series of co-production workshops to prioritise, design and develop the intervention.

4.2.1 Recruitment

Eligible workshop participants included registered nurses from a range of speciality areas and other stakeholders working in tobacco control, including clinical (e.g., HMQ staff and other health professionals) and non-clinical (e.g., public health practitioners and advisory group members) staff. Only individuals aged 18+ years and working within Cwm Taf Morgannwg University Health Board could participate.

Snowball sampling was employed to recruit participants, utilising existing contacts of the study team and advisory group, including the Chief Executive of Nursing and the Heads of Nursing from the three District General Hospital sites. Information about the workshops were disseminated within their teams and departments via email, and individuals were asked to register their interest via an online form. All participants were then emailed a digital consent form to complete and return to the study team before each workshop, with verbal consent confirmed prior to each workshop.

4.2.2 Methods

Utilising the theoretical approach underpinning the study, the Behaviour Change Wheel (Michie et al. 2014) guide was used to develop the intervention, which includes eight steps over three main stages (Table 6). This approach includes the use of worksheets, which facilitates a systematic and transparent approach.

BCW stage	BCW step	Think Quit study phase
	Step 1: Define the problem in behavioural terms	Phase 1

Stage 1: Understanding the behaviour	Step 2: Select the target behaviour	Phase 1 & Phase 2 (Workshop 1)
	Step 3: Specify the target behaviour	
	Step 4: Identify what needs to change	
Stage 2: Identify intervention options	Step 5: Identify intervention functions	Phase 2
	Step 6: Identify policy categories	
Stage 3: Identify content and implementation options	Step 7: Identify behaviour change techniques	Phase 2 (Workshop 2)
	Step 8: Identify mode of delivery	

Table 6 The Behaviour Change Wheel stages and corresponding Think Quit study phases

4.2.2.1 Workshop 1

The first three-hour stakeholder workshop aimed to determine which barriers and facilitators the intervention would target, prioritise ideas for the intervention and enhance participants' understanding of behaviour change principles. The workshop was delivered face-to-face in a community venue, with one facilitator and four co-facilitators. A PowerPoint presentation was utilised to facilitate the workshop, and participants completed guided activities to evaluate intervention ideas using APEASE criteria: acceptability, practicability, effectiveness, affordability, spill over, equity (Michie et al. 2014).

Following workshop one, the research team met to evaluate each intervention idea using the APEASE criteria (Michie et al. 2014), and examining these in relation to the study aim, resources available and expertise within the team.

4.2.2.2 Workshop 2

The second workshop aimed to explore nurses' preferences for the content, design and delivery of the intervention. The workshop was delivered virtually by two facilitators and a topic guide was developed to facilitate discussions with participants. The guide covered *what* feedback on HMQ nurses wanted, *when* and *how* feedback should be delivered, *who* should deliver the feedback and *where* to host it. The workshop lasted one hour and was video and audio recorded.

4.2.2.3 Data analysis

Descriptive statistics (frequencies and percentages) were calculated to describe the characteristics of each workshop sample. The workshop feedback was interrogated and mapped against content, design and delivery as recognised within the BCW guide (Michie et al. 2014). The workshop insights were synthesised by a member of the team and these conclusions were subsequently reviewed, discussed and agreed by the other authors.

4.2.2.4 Intervention development

The results from the two workshops were explored in relation to stakeholder feedback from the Think Quit team, public health practitioners, nurses and health psychologists, and a graphic design

company was commissioned to develop the intervention. This was subsequently reviewed by the stakeholders and a second version of the intervention was generated.

4.2.3 Key findings

4.2.3.1 Workshop one

Nineteen individuals participated in workshop one, including ten nurses from respiratory (n=2), alcohol (n=2), mental health (n=2), cardiology (n=2), medicine (n=1) and lung cancer (n=1) specialities, four HMQ staff, two study advisory group members from public health, and one of each of the following: midwife, pharmacy technician and PPI representative.

A list of barriers to discussing smoking and referring patients was derived from Phase one data. The most common barriers were poor knowledge of HMQ service offerings and referral pathways, competing job demands and inconsistent approaches to address smoking cessations across nursing specialities. Workshop participants evaluated these barriers using the APEASE criteria (Michie et al. 2014) - Table 7.

Category	Barriers
Barriers to discussing smoking	Belief that patients will respond negatively or be resistant to discussion.
	Beliefs about patient characteristics and factors (e.g., age, chronic condition, family influences) prevent nurses from starting a conversation.
	Lacking the skills and confidence to have effective discussions with patients.
	Lack of appropriate space to have private discussions about smoking with patients.
Barriers to referral to HMQ	Lack of knowledge about the support that HMQ offers.
	Lack of knowledge about patient outcomes following referral to HMQ.
	Lack of understanding of the referral process for HMQ.
Barriers related to both target behaviours	Lack of support from colleagues and leaders to discuss smoking and refer patients to HMQ in Hospital.
	Nurses have limited time and competing demands that limit their ability to prioritise smoking with patients.
	Lack of consistency in approach to behaviours (ask, record, advise, act) across different speciality areas.
Other barriers reported during workshop	Smoking cessation not a priority in secondary care settings
	Time delay between referral and patient receiving support.
	Poor availability of NRT within services, costing patients money in pharmacy settings to avoid relapsing.
	Sometimes support from HMQ is not available.
	Nurses may be smokers themselves.
Other comments	Challenges don't just relate to smoking.
	Consider bank staff in any intervention.
	Stigma (smoking and alcohol).

	Smoking is a coping strategy for poor mental health. Nurses feel like they don't have the skills to manage poor mental health.
	Having a supportive system with HMQ available on wards
	HMQ being available in clinics across specialities.
	Information not filtering across specialities / gaps in communication due to different systems.
	Does it have to be a nurse? Is it nurse responsibility to refer? Spread responsibility.
	Culture shift needed

Table 7 Barriers to nurses discussing smoking cessation and referring to Help Me Quit

The interventions proposed in Phase one (n=7) were then shared with the workshop participants and they were asked to discuss each idea and rank the importance (Table 8). The results show that participants ranked a simplified referral pathway as the most important, and smoking champions as the least important areas for intervention.

Intervention	Participants' ideas for the interventions	Ranking	
		Rank	Mean score
Simplify referral pathway	Limited options for referral.	1	2.29
	Automate referral system.		
	E-referral system.		
	Accessible.		
	Training sessions could encourage referral.		
HMQ presence on wards	Having someone available and in clinics.	2	2.59
	Align with ward rounds.		
	Dedicated space on ward/outpatients.		
Additional prompts in nursing documentation for patient assessment	None.	3	3.24
Specialist training	Deliver in different formats/modes of delivery.	4	4.0
	Mandate training.		
	Include information on HMQ.		
	Annual refresher to keep up to date with official guidance and staff turnover.		
Resources on HMQ	Verbal info for HCPs.	5	4.35
	Space or room for HMQ team.		
	Screen savers.		
	Information on what support HMQ offers.		
	Information on how to refer.		
	Incorporate into admission pack.		
	Cover in staff induction.		
	Cover in staff meetings.		
	Student nurses to spend time with HMQ team.		
Patient feedback loop	Incentives (e.g., best referring ward for quarter, certificates, rewards).	6	4.94

	Personal stories and impact (individual level)		
	Case studies.		
	Keep it current and on the agenda.		
	Provide number of referrals by speciality area.		
	Quarterly email.		
	Spreadsheet of patients you have referred.		
	Disseminated by ward managers to Band 5s, at board meetings, handovers, team meetings, and via WhatsApp.		
	Reinstate patient referral form and post box (Swansea Bay)		
Smoking champions	Ward manager.	7	6.24
	Another member of staff on ward.		

Table 8 Intervention suggestions and rankings from workshop one participants

Following workshop one, the study team independently used the APEASE criteria (Michie et al. 2014) to evaluate the seven intervention ideas and ranked these considering which they viewed would address the main barriers and could be developed as part of this study (Table 9). Two potential intervention ideas were agreed:

1. Simplifying the HMQ referral pathway (ranked second by the study team and first by workshop participants);
2. Feedback on HMQ referral outcomes (ranked first by the study team and sixth by workshop participants).

Rank	Intervention Idea
1 (most important)	Feedback on HMQ referral outcomes
2	Simple referral pathway
3	Specialist training (communication skills)
4	Nurse smoking champion
5	Increase physical presence of HMQ in clinical settings
6	Additional prompts in patient assessment
7 (least important)	Provision of HMQ resources

Table 9 Study team ranking of potential interventions

Consultation with the HMQ team and public health consultants working in tobacco control concluded that adapting the HMQ referral pathway was beyond the scope of this study. Thus, the team agreed the intervention would provide nurses with feedback on HMQ referral outcomes.

4.2.3.2 Workshop 2

Overall, five nurses participated in workshop two, including four specialist respiratory nurses and one acute mental health ward manager. Participants provided feedback on their perspectives on receiving feedback on HMQ referrals, preferred feedback format, considerations for implementation, challenges in implementation, and impact on nursing practice (Table 10).

Topic	Feedback
Nurses' attitudes on receiving feedback on HMQ referral outcomes	Feedback is valuable and currently lacking; Facilitate nurse understanding of patient progress; Level of detail on feedback; Feedback would confirm referrals were followed up, building trust.
Preferred feedback format	Feedback should focus on engagement, quit attempts and outcomes; Concise, specific and benchmarked, and shared quarterly; Different mediums: ward-level summaries, newsletter on Welsh Clinical Portal, visual materials e.g. posters; health board summaries
Considerations for implementation	Easy to process and understand; Quarterly level updates on overall service feedback Patient-specific feedback at the end of their HMQ journey; Integration with new prescribing platforms.
Challenges in implementation	Workload and access: limited time/capacity of review information on smoking cessation; Consistency: feedback needs to be consistently delivered; Trust and motivation: nurses felt their work goes unrecognised and feedback would demonstrate their contribution.
Impact on nursing practice	Reinforce smoking cessation as routine care; Build trust in the service; Enhance nurse morale by recognising their contribution; Understanding actual levels of engagement with service.

Table 10 Workshop two intervention feedback

Overall participants were positive about the idea of an intervention offering feedback on HMQ referral outcomes, which they felt could reinforce and encourage the two target behaviours by enhancing nurses' morale and giving them insights they could use to tailor the care they provide to patients. However, there was variation in the level of feedback that nurses wanted on patient referrals, e.g. nurses working in speciality areas wanted detailed feedback on patient referrals, whereas more general feedback was preferable for ward-based nurses. Participants agreed feedback must be easy to understand.

Following workshop two, a meeting was held with HMQ stakeholders, including a smoking cessation advisor, HMQ service manager and a public health practitioner (tobacco control). This meeting explored:

- Whether the intervention is acceptable to those who would deliver it;
- The process for referral to the HMQ service;
- The process for collecting, analysing and sharing referral data;
- HMQ design/branding guidelines.

4.2.3.3 The intervention

A small group of stakeholders was convened to support the design process and decisions, covering members from the HMQ team (n= 3), PPI representation (n= 1) and nurses (n=4) recruited from the co-production workshops. The study team and HMQ team co-produced the intervention content, and HMQ provided statistics, guidelines, picture banks and facts. Additionally, the study team

reviewed and revised Mechanisms of Action and Behaviour Change Techniques appropriate to the target behaviours and computed a content intervention to share with the design company.

The design company reviewed this content and sent it back to the study team, who reviewed the content plan with the stakeholders. The review and changes focused on statistical impact (using percentages to limit nurse cognitive load), making case studies more humanised (experience quotes along with pseudonyms), including quick facts, health and financial impact to use as a pitch to patients and information on the HMQ team. The project team made the revisions and returned the content to the designers who created the first draft of the intervention (

HELP ME QUIT

MEET THE TEAM

HOSPITAL TEAM

SAMANTHA HUGHES 07901 115 390
DANIELLE LINEHAM 07901 115 323
JOANNE GRIMSTEAD 07867 500 984
KIRSTY EVANS 07977 381 785
SARAH HIBBERD 07867 500 984
TIM BUSHELL 07867 873 589

CTM.HELPMEQUIT.HOSPITAL@WALES.NHS.UK

COMMUNITY TEAM

GENNA HILL 07874 486 892
NIKE HILL 07879 486 825
CLARE HILL 07890 958 053
CARDINE HILL 07811 094 163

CTM.HELPMEQUIT.COMMUNITY@WALES.NHS.UK

MANAGEMENT AND ADMINISTRATION

SERVICE LEAD
STEPHANIE HILL
 STEPHANIE.HILL@WALES.NHS.UK

SENIOR ADMINISTRATOR
RACHEL JAYNE
 RACHEL.JAYNE@WALES.NHS.UK

HEALTH IMPROVEMENT SPECIALIST
LUCY MORGAN
 LUCY.MORGAN@WALES.NHS.UK

HEALTH IMPROVEMENT SUPPORT
FINLAY JONES
 FINLAY.JONES@WALES.NHS.UK

WHAT HELP ME QUIT OFFER

- TELEPHONE SUPPORT
- FREE NICOTINE REPLACEMENT THERAPY
- ACCESS TO PRESCRIPTION ONLY MEDICINES

HOW YOU CAN REFER PATIENTS

Help Me Quit Advisors are present at all three Cwm Taf Morgannwg Hospitals and are actively taking referrals.

HERE'S HOW TO REFER A PATIENT:

- Send an email to CTM.HelpMeQuit.Hospital@wales.nhs.uk with the patient's hospital number and location.
- Leave a **telephone message** for the on-site Help Me Quit Advisor with the patient's name and location (contact number is available via the switchboard).
- On Welsh **Nursing Care Record (WNCR)** tick 'Smoker' under current smoking status and 'Yes' for Help Me Quit referral in the Breathing Section. The Help Me Quit Team screen for referrals on WNCR from Monday – Friday.*

For more ways to refer patients, please visit: [Help Me Quit in Hospital \(HMQH\) - How to refer](#)

*Referral method currently unavailable for the Princess of Wales Hospital

With thanks to the Think Quit study. Funded by Burdett Trust for Nursing. In collaboration with Uned Gwyddor Ymddygiol Behavioral Science Unit. University of South Wales.

Figure 3).

YOUR REFERRALS MATTER

Your referrals to the Help Me Quit service are helping patients quit smoking for good.

HOSPITAL REFERRALS

Q3 HOSPITAL REFERRALS 01/10/2024 TO 31/12/2024

85% OF PATIENTS SUPPORTED

Hospital	Number of Referrals	Number Accessed Service
Prince Charles Hospital	308	286 (93%)
Princess Of Wales	164	128 (78%)
Royal Glamorgan Hospital	209	165 (79%)

Q4 HOSPITAL REFERRALS 01/01/2025 TO 31/3/2025

80% OF PATIENTS SUPPORTED*

Hospital	Number of Referrals	Number Accessed Service*
Prince Charles Hospital	225	195 (87%)
Princess Of Wales	131	92 (70%)
Royal Glamorgan Hospital	198	157 (79%)

*Figures include a loss to external health boards

REMEMBER THE 3 A'S

ASK: Do you smoke?
ADVISE: The best way to quit is via NHS support
ACT: Refer to Help Me Quit

QUICK FACTS

Smoking is the leading cause of preventable ill health and premature death in Wales.

3x Smokers are up to 3x more likely to successfully quit if supported by Help Me Quit (Help Me Quit, 2023).

Smoking-attributable hospital admissions in Cwm Taf Morgannwg are generally higher than other health board areas.

SAM'S STORY

Smoked for 60 years, quit date April 2024. Approx. 12-15 cigarettes daily.

Why they think it worked this time:
 "Couldn't have done it on their own, the NRT products were essential. [...] The telephone calls and the goals they needed to meet kept them on track."

What they'd say to others:
 "Give it a go, the products are really good together. I have attempted many times over the years but with the replacement products I have succeeded this time."

DENNIS' STORY

A heavy smoker for 60 years, quit date February 2024.

Admitted to hospital with chest pain and seen as an inpatient by HMQ advisor. Since quitting their sense of taste has improved and generally feeling better.

Why they think it worked this time:
 Weekly phone calls helped stay on track and using patches made a big difference. The HMQ advisor was "wonderful", very supportive and encouraging, gave helpful suggestions and tips. Using patches made a big difference.

What they'd say to others:
 "If you don't give it up - it'll catch you up! Be determined - just give it a try!"

MEET THE TEAM

HOSPITAL TEAM

SAMANTHA HUGHES 07901 115 290
DANIELLE LINENAM 07901 115 323
JOANNE GRIMSTEAD 07867 500 984
KIRSTY EVANS 07877 381 745
SARAH HIBBERD 07867 500 984
TIM BUSHELL 07967 873 589

CTM.HELPMQUIT.HOSPITAL@WALES.NHS.UK

WHAT HELP ME QUIT OFFER

- TELEPHONE SUPPORT
- FREE NICOTINE REPLACEMENT THERAPY
- ACCESS TO PRESCRIPTION ONLY MEDICINES

COMMUNITY TEAM

BERNIA HUGHES 07879 486 892
SIÂN BRIDGES 07879 486 825
CLARE PUGH 07890 938 053
CAROLINE BRIDGES 07811 094 143

CTM.HELPMQUIT.COMMUNITY@WALES.NHS.UK

MANAGEMENT AND ADMINISTRATION

SERVICE LEAD
STEPHANIE HILL
 STEPHANIE.HILL@WALES.NHS.UK

SENIOR ADMINISTRATOR
RACHEL JAYNE
 RACHEL.JAYNE@WALES.NHS.UK

HEALTH IMPROVEMENT SPECIALIST
LUCY MORGAN
 LUCY.MORGAN@WALES.NHS.UK

HEALTH IMPROVEMENT SUPPORT
FINLAY JONES
 FINLAY.JONES@WALES.NHS.UK

HOW YOU CAN REFER PATIENTS

Help Me Quit Advisors are present at all three Cwm Taf Morgannwg Hospitals and are actively taking referrals.

HERE'S HOW TO REFER A PATIENT:

- Send an email to CTM.HelpMeQuit.Hospital@wales.nhs.uk with the patient's hospital number and location.
- Leave a **telephone message** for the on-site Help Me Quit Advisor with the patient's name and location (contact number is available via the switchboard).
- On Welsh **Nursing Care Record (WNCR)** tick 'Smoker' under current smoking status and 'Yes' for Help Me Quit referral in the Breathing Section. The Help Me Quit Team screen for referrals on WNCR from Monday - Friday.*

*Referral method currently unavailable for the Princess of Wales Hospital

For more ways to refer patients, please visit: [Help Me Quit in Hospital \(HMQH\) - How to refer](#)

With thanks to the Think Quit study. Funded by **Burdett Trust** for Nursing. In collaboration with **Uned Cwyddor Ymddyddig** (Bridgend Science Hub) and **University of South Wales**.

Figure 3 Think Quit intervention - version 1

4.3 Phase three: intervention refinement (June-August 2025)

Phase three aimed to explore the design, usability, acceptability and potential impact of the intervention, enabling further refinement.

4.3.1 Refinement: stage one

The first version of the intervention was reviewed by the project team, HMQ team and a PPI representative, who independently provided feedback on various areas of the intervention. This information was collated (Table 11) and sent to the graphic designers, who produced a second version of the intervention (Figure 4).

Area	Feedback
Overall	What is the flow of the intervention? How to make the intervention specific to nurses?
Banner	Increase size of health board logo; Thank nurses for their contributions to the intervention
Referrals	Referrals need to be the focal point of the intervention: make this information larger and more engaging, e.g. use of icons; Replace quarters with dates; Focus on total referrals.
Quick facts	Key message needs to be impact for the patient.
Patient stories	Focus on one patient story, make it clear name is a pseudonym; Make story more engaging.
3 A's	Make this smaller so the focus is on referrals.
Meet the team	Correct typographical error; Font and colours need to be clearer to read.
How to refer	Simplify this information; Make it clear they only need to refer once.

Table 11 Feedback on version one of the intervention

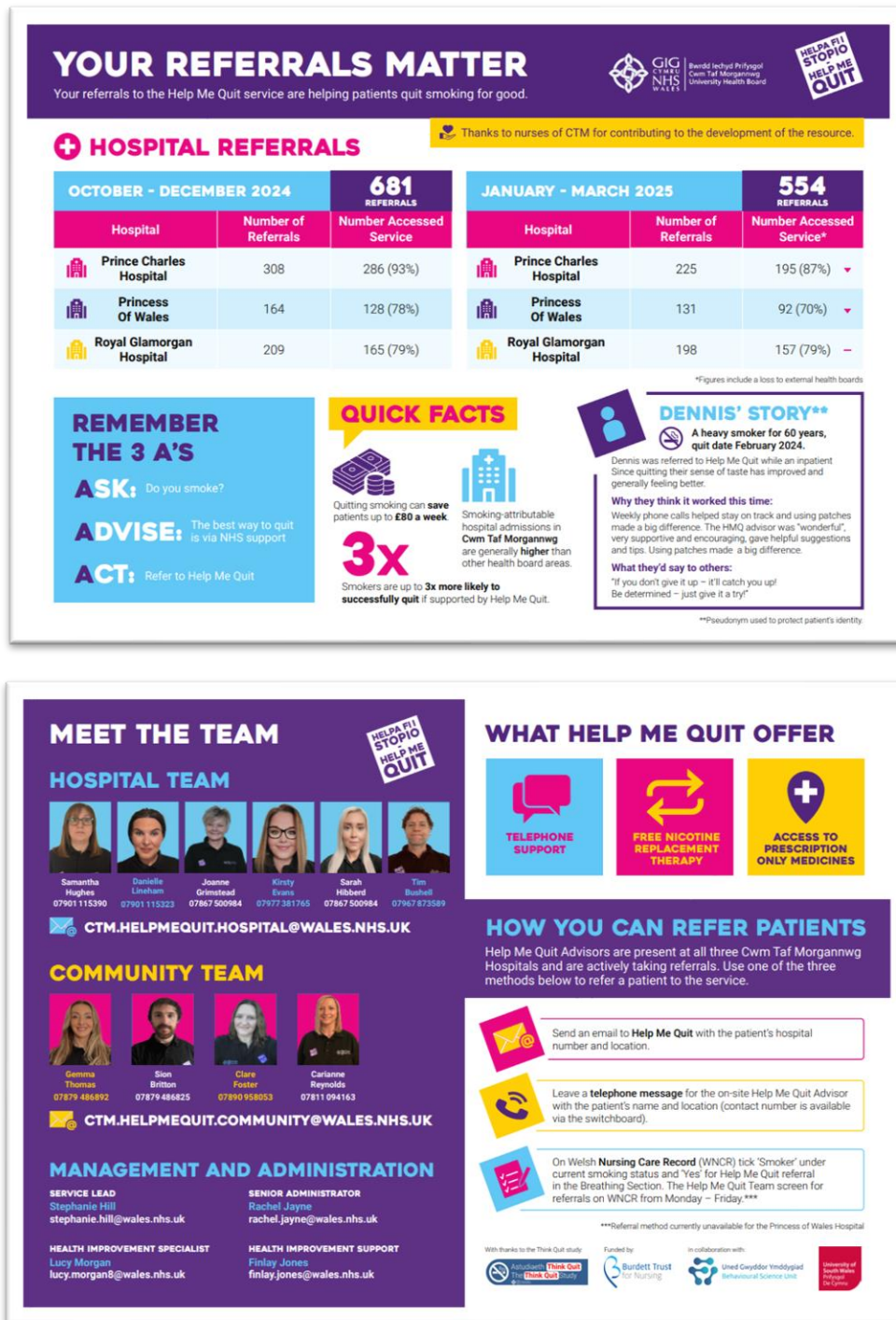


Figure 4 Think Quit intervention - version 2

4.3.2 Refinement: stage two

The intervention was shared again with the study team, HMQ team and PPI representative, who provided written feedback, summarised in Table 12.

Area	Changes
Banner at the top	Move the thank you message to the bottom of the resource
Referral data	Make the current quarter bigger, hospital names on one line
Quick facts	Potential of adding references
HMQ team	State when staff are available
HMQ offer	Change “telephone support” to “evidence-based behavioural support”
How to refer	Add OR between referral methods. Potential for QR code for referral
Accessibility	Possibility for east-read, large-print, screen reader friendly

Table 12 Team feedback on the refined intervention

The nurses who participated in the phase two workshops were invited by email to take part in a workshop on Teams to provide feedback on the resource. A topic guide was prepared for these workshops, to explore nurses’ views on the design, usability, acceptability and potential impact of the intervention (Table 13).

Overall questions	First impression; Take home message; How might the intervention influence beliefs about discussing smoking and referring to HMQ; Relevance of the intervention; Design of the resource: prompts, font, colours, images
Referral feedback	Feelings on the data; How might this influence smoking cessation discussions and referrals; How could it be enhanced; What is missing
The 3A’s	How they might use this information in practice; How could these be presented differently; Relevance of the information
Quick facts	Should these facts change quarterly and if so, what should they include; How would these facts be used; Could these be presented differently
Patient story	How the story makes them feel; How they would use the story when discussing smoking and referring patients to HMQ; Could this be presented differently; What information should the story included in the future
Meet the team	How they would use this information; Appropriateness of the information
HMQ offer	What this information means; How they would use this information when discussing smoking and referring to HMQ; What information is missing
How to refer to HMQ	What this information means; How they refer to HMQ; Whether any information is missing
Final questions	What they like about the intervention; What else could be added; Final impression of the intervention; How they would want to receive the intervention; How they would use the intervention

Table 13 Intervention refinement topic guide

Two nurses agreed to provide feedback, but due to availability they were interviewed individually. The interviews lasted a mean average of 00:58:42 and were recorded and transcribed on Teams. Key feedback and suggested changes to the intervention are summarised in Table 14. The nurses identified how they believed the intervention may influence their beliefs and behaviour when discussing smoking and referring to the smoking cessation service, and also considered how the intervention may influence the behaviour of their nursing colleagues.

Area	Feedback	Suggested changes
Overall	<ul style="list-style-type: none"> Well laid-out, eye-catching colours, good balance of information and blank space Relevant for ward-based staff when patients may consider quitting and higher patient flow – may break down barriers to referrals. Any feedback on referrals is relevant as currently receive none. 	
Referral feedback	<ul style="list-style-type: none"> Impressed by the numbers of referrals and accessed service – higher than anticipated. One individual felt the percentages and table were appropriate, another suggested bar charts to reduce competitiveness. Interesting to interrogate the differences in referral rates and numbers who accessed the service, and the reasons for this. Does not report patient outcomes – is it worth nurses referring patients. For one nurse, it would not motivate them to refer – the powerful patient story would. 	<ul style="list-style-type: none"> Reporting the outcomes of referral data would be motivating. Present the data in bar charts. Report outcomes of referrals, including long-term. Importance of considering vaping
The 3A's	<ul style="list-style-type: none"> Acts as a reminder/prompt to automatically ask patients if they smoke cigarettes. Recognise the messages from HMQ resources, but does not ask the individual if they want to stop smoking. The desire for change needs to come from the individual. Some patients do not want to be 'hassled' about smoking, but would discuss reasons for not wanting a referral and do they know what HMQ offers. 	
Quick facts	<ul style="list-style-type: none"> Good amount of information – easy to absorb. Would utilise the quick facts when discussing smoking with patients – having facts from a reliable source is beneficial. One individual was shocked by cost, another would use health-outcomes rather than financial; did not view cost as a good motivator. Challenging demographics within CTM in terms of deprivation and co-morbidities. Changing the facts every quarter will help to engage people. 	<ul style="list-style-type: none"> Need to update quarterly. Importance of focusing on health, rather than money.
Patient story	<ul style="list-style-type: none"> Patient story is powerful and would give people a positive mindset. One nurse was not sure whether they would use the story in practice, while another felt it would motivate them to refer patients and use opportunities to offer a referral. Would be helpful to know: why the quit attempt was successful this time, which treatment was used (an enabler as options available), whether the hospital admission was smoking-related, what the quit attempt means to the individual, e.g. can run for a bus, no longer need oxygen therapy. 	<ul style="list-style-type: none"> Need to update quarterly with a range of perspectives, including maternity and mental health. Further detail on the story, e.g. impact of quitting smoking,

	<ul style="list-style-type: none"> • Would a stock photo be beneficial for the patient story to draw the attention, without stereotyping. • Need to avoid this section becoming repetitive each quarter. 	how their life has improved, smoking-related morbidities
Meet the team	<ul style="list-style-type: none"> • Does the difference in colour mean anything. • Useful to include emails and phone numbers, and photos of the team – familiarity and ease. • Including details of management/administrative staff may be useful for a compliment or concern, but would ask an advisor for a contact. 	<ul style="list-style-type: none"> • Make colours the same for hospital team (blue) and community team (yellow) • Would be helpful to know who covers which area • Would be helpful to know when staff are in clinical areas in advanced
HMQ offer	<ul style="list-style-type: none"> • Would use this to help explain the service to patients. • Clarification on the prescription-only medications. • Service does not currently cover support for vaping. 	
How to refer to HMQ	<ul style="list-style-type: none"> • One nurse usually encouraged patients to self-refer, but may change practice and make referrals for patients. • Shows that the process is simple - people are more likely to make referrals if the process is easy. • Is the community team information relevant on a hospital-focused resource. 	<ul style="list-style-type: none"> • Make it clear referring is quick. • Could be more prominent in resource.
Final questions	<ul style="list-style-type: none"> • Would be beneficial to put in the body of an email, or as a screensaver, also intranet, newsletter, posters in outpatients or staff areas (need to keep updated), CTM social media. • Gives nurses the information they need to signpost people and would use it to influence own practice. • Contains key information, without being overwhelming. 	

Table 14 Nurse feedback on the Think Quit intervention

Collated feedback from the stakeholders and nurses was provided to the graphic design company, who produced the final version of the resource (Figure 5), which was also translated into Welsh (Figure 6).

YOUR REFERRALS MATTER

Your referrals to the Help Me Quit service are helping patients quit smoking for good.

Welsh Health Professions Council
Cwm Taf Morgannwg University Health Board

+ HOSPITAL REFERRALS

JANUARY - MARCH 2025		
Hospital	Number of Referrals	Number Accessed Service*
Prince Charles Hospital	225	195 (87%)
Princess Of Wales	131	92 (70%)
Royal Glamorgan Hospital	198	157 (79%)

APRIL - JUNE 2025		
Hospital	Number of Referrals	Number Accessed Service*
Prince Charles Hospital	121	112 (93%) ▲
Princess Of Wales	109	96 (88%) ▲
Royal Glamorgan Hospital	192	147 (77%) ▼

REMEMBER THE 3 A'S

ASK: Do you smoke?

ADVISE: The best way to quit is via NHS support.

ACT: Refer to Help Me Quit

QUICK FACTS

Quitting smoking can save patients up to **£80** a week.

3x

Smokers are up to **3x more likely to successfully quit** if supported by Help Me Quit.

DENNIS' STORY**

A heavy smoker for 60 years, quit date February 2024.

Dennis was referred to Help Me Quit while an inpatient. Since quitting their sense of taste has improved and generally feeling better.

Why they think it worked this time: Weekly phone calls helped stay on track and using patches made a big difference. The HMQ advisor was "wonderful", very supportive and encouraging, gave helpful suggestions and tips. Using patches made a big difference.

What they'd say to others: "If you don't give it up - it'll catch you up! Be determined - just give it a try!"

*Figures include a loss to external health boards

**Pseudonym used to protect patient's identity

MEET THE TEAM

HOSPITAL TEAM

Samantha Hughes
07901 115290

Danielle Llewellyn
07961 115323

Joanne Ormstead
07967 500984

Kirsty Evans
07977 381745

Sarah Hibbard
07867 500984

Tim Bushall
07967 873589

CTM.HELPMEQUIT.HOSPITAL@WALES.NHS.UK

COMMUNITY TEAM

Gemma Thomas
07879 486892

Dion Simmon
07979 486825

Clare Foster
07895 958053

Carlene Reynolds
07811 094163

CTM.HELPMEQUIT.COMMUNITY@WALES.NHS.UK

MANAGEMENT AND ADMINISTRATION

SERVICE LEAD
Stephanie Hill
stephanie.hill@wales.nhs.uk

HEALTH IMPROVEMENT SPECIALIST
Lucy Morgan
lucy.morgan8@wales.nhs.uk

SENIOR ADMINISTRATOR
Rachel Jayne
rachel.jayne@wales.nhs.uk

HEALTH IMPROVEMENT SUPPORT
Finlay Jones
finlay.jones@wales.nhs.uk

WHAT HELP ME QUIT OFFER

EVIDENCE BASED BEHAVIOURAL SUPPORT

FREE NICOTINE REPLACEMENT THERAPY

ACCESS TO PRESCRIPTION ONLY MEDICINES

HOW YOU CAN REFER PATIENTS

Help Me Quit Advisors are present at all three Cwm Taf Morgannwg Hospitals and are actively taking referrals. Use one of the three methods below to refer a patient to the service.

Send an email to **Help Me Quit** with the patient's hospital number and location.

or

Leave a **telephone message** for the on-site Help Me Quit Advisor with the patient's name and location (contact number is available via the switchboard).

or

On **Welsh Nursing Care Record (WNCR)** tick 'Smoker' under current smoking status and 'Yes' for Help Me Quit referral in the Breathing Section. The Help Me Quit Team screen for referrals on WNCR from Monday - Friday.***

***Referral method currently unavailable for the Princess of Wales Hospital

With thanks to the Think Quit study

Funded by **Burdett Trust** for Nursing


In collaboration with **Cardiff University** **Psychological Behavioural Science Unit**

University of South Wales **Psychology of Care**


Figure 5 Think Quit intervention – final version in English

MAE EICH ATGYFEIRIADAU YN BWYSIG

Mae eich atgyfeiriadau at y gwasanaeth Helpa Fi i Stopio yn helpu cleifion i roi'r gorau i ysmegu am byth.



Bwrdd Iechyd Prifysgol Cwm Taf Morgannwg University Health Board



+ ATGYFEIRIADAU YSBYTY

IONAWR - MAWRTH 2025		554 O ATGYFEIRIADAU	
Ysbyty	Nifer yr Atgyfeiriadau	Nifer a gafodd fynediad at y gwasanaeth*	%
Ysbyty'r Tywysog Siarl	225	225 (87%)	
Ysbyty Tywysoges Cymru	131	92 (70%)	
Ysbyty Brenhinol Morgannwg	198	157 (79%)	

EBRILL - MEHEFIN 2025

		554 O ATGYFEIRIADAU	
Ysbyty	Nifer yr Atgyfeiriadau	Nifer a gafodd fynediad at y gwasanaeth*	%
Ysbyty'r Tywysog Siarl	121	112 (93%)	▲
Ysbyty Tywysoges Cymru	109	96 (88%)	▲
Ysbyty Brenhinol Morgannwg	192	147 (77%)	▲

*Mae'r ffigurau'n cynnwys colled i fyrdau iechyd allanol

COFIWCH Y RHEOL 3

1. **GOFYNNWCH:**
Ydych chi'n smygu?
2. **CYNGHORWCH:**
Y ffordd orau i roi'r gorau iddi yw trwy gymorth y GIG
3. **GWEITHREDWCH:**
Atgyfeirwch at Helpa Fi i Stopio

FFETHIAU CYFLYM

Gall rhoi'r gorau i ysmegu arbed hyd at **£80 yr wythnos** i gleifion.

Mae derbyniadau i'r ysbyty sy'n gysylltiedig ag ysmegu yng **Nghwm Taf Morgannwg** yn gyffredinol yn **uwch** nag ardaloddi byrdau iechyd eraill.

3x

Mae ysmygwr hyd at **3 gwaith yn fwy tebygol o roi'r gorau iddi'n llwyddiannus** os ydych chi'n derbyn cefnogaeth gan Helpa Fi i Stopio.

STORI DENNIS**

Ysmygwr trwm ers 60 mlynedd, dyfodd rhoi'r gorau iddi **Chefcofwr 2024**.

Atgyfeirwyd Dennis at Helpa Fi i Stopio tra roedd yn glaf mewnol. Ers rhoi'r gorau iddi mae eu synmwr bilu wedi gwella ac yn gyffredinol mae'n rhwng tention well.

Pam mae'n rhwng meddwl mae hi wedi gwethio y tro hwn:
 Helpodd galwadau fflon wythnosol i aros ar y trwydded tan ac fe enwaeth defnyddio patsien wahanol mwy. Roedd cyngor yd Helpa Fi i Stopio yn "weyr", yn gefnogi ac yn galnogi iawn, a rhoeddod angrymadau a chefnogaeth defnyddol. Gwaeth defnyddio patsien wahanol mwy.

Beth y bydded nhw'n ei ddweud wrth eraill:
 "Os na wnech chi rhoi'r gorau iddi - bydd yn eich dal chi i fyny! Byddwch yn benderfynol - rhwng gyming ansi!"

**Fflugwen a dafrnydd i amddiffyn hunaniaeth y claf

Diolch i nyrsgys CTM am gyfrannu at ddatblygiad yr adrodd.

CWRDD Â'N TÎM

TÎM YR YSBYTY

07901 115390

07901 115323

07867 500984

07977 381765

07867 500984

07967 873589

CTM.HELPMEQUIT.HOSPITAL@WALES.NHS.UK

TÎM CYMUNEDOL

07879 486892

07879 486825

07899 938953

07811 094163

CTM.HELPMEQUIT.COMMUNITY@WALES.NHS.UK

RHEOLWYR A GWEINYDDWYR

ARWEINYDD @WASANAETH
Stephanie Hill
stephanie.hill@wales.nhs.uk

ARBEINGWR GWELLA ICHYD
Lucy Morgan
lucy.morgan8@wales.nhs.uk

UWCH-WEINYDDWR
Rachel Joyme
rachel.joyme@wales.nhs.uk

SWYDDOG CEFNOGI GWELLA ICHYD
Finlay Jones
finlay.jones@wales.nhs.uk

BETH MAE HELPA FI I STOPIO YN CYNNIG

CYMORTH YMDYGIADOL YN SEILIEDIG AR DYSTOLAETH

THERAPI DILSODI NICOYIN AM DDIW

MYNEDIAD AT FEDDYGINIAETHAU PRESGRIPSIWN YN UNIG

SUT GALLWCH CHI ATGYFEIRIO CLEIFION

Mae Cyngorwyr Helpa Fi i Stopio yn bresennol ym mhob un o'r tri Ysbyty Cwm Taf Morgannwg ac mae'n rhoi'r gorau iddi ym weithredol. Defnyddiwch un o'r tri dull isod i gyfeirio claf at y gwasanaeth.

Anfonwch e-bost at **Helpa Fi i Stopio** gyda rhif ysbyty a lleoliad y claf.

neu

Gadewch **neges ffôn** i'r Cyngorwyr Helpa Fi i Stopio ar y safle gydag enw a lleoliad y claf (mae rhif cywilt ar gael drwy'r switzwrdd).

neu

Ar **Gofnod Gofal Nyrsgol Cymru (WNCR)** trwy "Ysmygwr" o dan statws ysmegu cyffredol ac "Ydi" ar gyfer yr atgyfeirid Helpa Fi i Stopio yn yr Adran Anadlu. Mae Tîm Helpa Fi i Stopio yn sgrinio ar gyfer atgyfeiriadau ar WNCR o ddydd Lun i ddydd Gwener***

***Nid yw'r dull atgyfeirio ar gael ar hyn o bryd ar gyfer Ysbyty Tywysoges Cymru

Figure 6 Think Quit intervention – final version in Welsh

There are also longer-term plans for the resource, which will require collaboration with HMQ to collect and report different types of data:

- Presentation of referral data, e.g. chart/ infographic;
- Impact of referrals on patient outcomes, including quit rates;
- Change facts quarterly, with a focus on health;
- Present a range of perspectives as patient stories, focusing on the impact of stopping smoking;
- Displaying on the intervention when HMQ staff will be visiting different areas;

Think Quit End of Study Report
October 2025, Final Version
29

- Creation of separate community resource, with removal of community team from secondary care resource and vice versa;
- Use of a QR code to make referrals to HMQ;
- Consider accessibility of the resource, e.g. screen-reader version.

4.4 Summary

Overall, the study co-produced a theoretically-informed intervention for secondary care nurses to empower them to discuss smoking with patients and refer them to the smoking cessation service. This intervention can be further tested in subsequent research.

5. Challenges

The study faced multiple challenges. Firstly, nurse recruitment to the survey and focus groups in phase one was lower than anticipated. The team exhausted all recruitment methods, but were faced with low numbers due to the lack of time and capacity nurses had to participate. Furthermore, sharing information about the study with nurses was challenging due to different teams, wards, departments and hospital sites. The recruitment strategies and challenges experienced were explored in a poster at the RCN International Research Conference and have been accepted for publication in Nurse Researcher.

Additionally, due to the nature of the funding, members of the research team were employed on short, fixed term contracts, which resulted in some members of the team leaving posts early to move on to other roles. The Chief Investigator also changed between Phases 2 and 3, due to maternity leave.

However, the interdisciplinary team collaborated strongly throughout the study and will continue to collaborate beyond the end of this study.

6. Impact

This study has co-produced and refined a behaviourally-informed intervention to support nurses working within Cwm Taf Morgannwg University Health Board to discuss smoking cessation and refer patients to the smoking cessation service, Help Me Quit. The intervention represents the culmination of efforts to understand the barriers/facilitators to these discussions and referrals, and an in-depth co-production approach to create a resource with nurses, for nurses. Launching this intervention within the Health Board aims to empower nurses to support efforts to reduce smoking rates within Cwm Taf Morgannwg University Health Board.

This study was well advertised and disseminated within Cwm Taf Morgannwg University Health Board, bringing smoking cessation to the forefront of a range of clinical specialities. Working with colleagues from the communications team to advertise the study and report on progress has been beneficial to maximise reach across a diverse workforce.

The study has also developed researcher capacity and capability. Members of the team have developed expertise in undertaking mixed methods research, recruiting participants within the NHS, utilising behavioural change theory and working within the public health space. Some research participants also took part in all three phases of the study and explained in the final phase how the study had enhanced their understanding of research and co-production, which they will utilise towards their research pillar as advanced clinical practitioners.

7. Dissemination

We have disseminated the Think Quit study within Cwm Taf Morgannwg University Health Board, University of South Wales and Public Health Wales. The intervention will be launched within the Health Board in November, with simultaneous communications planned with the Communications Team. We will continue to work with the Help Me Quit team to update and implement the Think Quit resource within Cwm Taf Morgannwg University Health Board.

We have also disseminated the study at conferences and in peer-reviewed publications, which are listed below.

7.1 Publications

Elliott M, Price KM, Hewitt R, Knowles N, Ganesh S, Baillie J and Jones L (2025) A mixed methods study exploring barriers and facilitators to secondary-care nurses discussing smoking cessation with patients: Phase 1 of the Think Quit Study. *BMC Nursing* 24, Article number: 1020.

Jones L, Elliott M, Price KM, Baillie J and Hewitt R (in press) Recruiting nursing staff to the Think Quit research study – the challenges of research participation. Accepted in: *Nurse Researcher*.

Hewitt R, Price KM, Knowles N, Jones L and Elliott M (in development) Co-development of a behaviour change intervention to support secondary care nurses to address smoking cessation with patients: Phase 2 of the Think Quit Study. *Target journal: British Journal of Health Psychology*.

7.2 Conferences

Baillie J, Jones L, Price KM, Hewitt R, Knowles N and Elliott M (2025) Co-producing and refining a behaviourally-informed intervention to empower nurses to address smoking and promote smoking cessation with patients in hospital in Cwm Taf Morgannwg UHB: Results and reflections from the Think Quit Study. Accepted at: Cwm Taf Morgannwg University Health Board Research and Development Conference 2025, 26th November 2025, Hensol, UK.

Baillie J, Jones L, Price KM, Hewitt R, Knowles N and Elliott M (2025) The Think Quit Study: Co-producing and refining a behaviourally-informed intervention to empower nurses to address smoking and promote smoking cessation in Cwm Taf Morgannwg University Health Board. Accepted at: Public Health Wales Behavioural Science Conference, 12th November 2025, Cardiff, UK.

Jones L, Elliot M, Price KM, Ganesh S, Knowles N, Hewitt R and Baillie J (2025) Phase 1 of the Think Quit Study: A mixed methods approach to understanding barriers and facilitators to nurses

discussing smoking cessation with hospital patients in in Wales. Presented at: Royal College of Nursing International Research Conference, 8-10th September 2025, Exeter, UK.

Jones L, Elliott M, Price KM, Hewitt R and Baillie J (2025) Recruiting nurses to the Think Quit research study – the challenges of participation research. Presented at: Royal College of Nursing International Research Conference, 8-10th September 2025, Exeter, UK.

Hewitt R, Price KM, Knowles N, Jones L and Elliott M (2025) Phase 2 of the Think Quit Study: Co-development of an intervention to empower nurses to address smoking cessation in secondary care. Presented at: Division of Health Psychology Annual Conference 2025, 4-5th June, Cardiff, UK.

Hewitt R, Elliott M, Price KM, Ganesh S, Knowles N and Jones L (2025) Phase 1 of the Think Quit Study: A mixed methods approach to understanding barriers and facilitators to nurses discussing smoking cessation with hospital patients in in Wales. Presented at: Behaviour Science and Public Health Network Conference 2025, 4th March, Liverpool, UK.

Elliott M, Price KM, Hewitt R and Jones L (2024) The Think Quit Study: A mixed methods approach to understanding the barriers and facilitators to nurses discussing smoking cessation with patients in hospital settings. Presented at: Cwm Taf Morgannwg University Health Board Research and Development Conference 2024, 26th November 2024, Hensol, UK.

7.3 Other outputs

Elliott M, Price KM, Jones L and Hewitt R (2024) Using behavioural science to explore factors influencing nurses' conversations about smoking cessation with hospital nurses: Phase 1 of the Think Quit Study. In: Public Health Network e-bulletin, Behaviour Change, October 2024, p.28-29, <https://publichealthnetwork.cymru/e-bulletin/behaviour-change-2/>

8. References

Atkins L, Francis J, Islam R, O'Connor D, Patey A, Ivers N, Foy R, Duncan EM, Colquhoun H, Grimshaw JM and Lawton R (2017) A guide to using the Theoretical Domains Framework of behaviour change to investigate implementation problems. *Implementation Science*. 12(1), Article 77. [10.1186/s13012-017-0605-9](https://doi.org/10.1186/s13012-017-0605-9)

Creswell JW and Plano Clark VL (2018) *Designing and Conducting Mixed Methods Research* (3rd edn.) SAGE Publications.

Data Protection Act 2018, c. 12. Available at: <https://www.legislation.gov.uk/ukpga/2018/12/contents/enacted> (Accessed: 7.7.25)

Goldsmith L (2021) Using Framework Analysis in applied qualitative research. *The Qualitative Report*, 26.

Michie S, Van Stralen MM and West R (2011). The behaviour change wheel: a new method for characterising and designing behaviour change interventions. *Implementation Science*. 2011 6:42. doi: 10.1186/1748-5908-6-42

Michie S, Atkins L and West R (2014) *The Behaviour Change Wheel: A Guide to Designing Interventions*. London: Silverback Publishing. Available from: www.behaviourchangewheel.com. (Accessed: 30.4.25)

National Institute for Health and Care Excellence (2025). Benefits of stopping smoking. Available from: <https://cks.nice.org.uk/topics/smoking-cessation/background-information/benefits-of-stopping-smoking/>. (Accessed 17.3.25)

National Institute for Health and Care Research (2025) Payment guidance for researchers and professionals involving people in research. Available from: <https://www.nihr.ac.uk/payment-guidance-researchers-and-professionals> (Accessed: 7.7.25)

Nursing and Midwifery Council (2018) *The Code*. Available from: <https://www.nmc.org.uk/standards/code/read-the-code-online/>. (Accessed: 26.2.25)

Rice VH, Heath L, Livingstone-Banks J and Hartmann-Boyce J (2017) Nursing interventions for smoking cessation. *Cochrane Database of Systematic Reviews*. 212(12):CD001188. doi: 10.1002/14651858.CD001188.pub5

Office of the Surgeon General (US); Office on Smoking and Health (US) (2004) *The Health Consequences of Smoking: A Report of the Surgeon General*. Atlanta (GA): Centers for Disease Control and Prevention (US); PMID: 20669512.

West R (2017) Tobacco smoking: Health impact, prevalence, correlates and interventions. *Psychology and Health*. 32(8): 1018-36.

West R, Raw M, McNeill A, Stead L, Aveyard P, Bitton J, Stapleton J, McRobbie H, Pokhrel S, Lester-George A and Borland R (2015) Health-care interventions to promote and assist tobacco cessation: a review of efficacy, effectiveness and affordability for use in national guideline development. *Addiction*. 110(9): 1388-403.

UK Standards for Public Involvement (2019) *The Six UK Standards*. Available from: <https://sites.google.com/nihr.ac.uk/pi-standards/home> (Accessed: 7.7.25)

World Health Organization (2025) Tobacco. Available from: <https://www.who.int/news-room/fact-> (Accessed: 7.7.25).