

Supplementary material 1 WP3 Mapping of Behaviour Change Wheel, Theoretical Domains Framework and Behaviour Change Techniques in inform intervention development

COM-B component	Theoretical domain	Example of what might need to happen for implementation of AN PFME to occur at level of a) individual women, b) AN HCP (e.g. Midwife) or c) service/ organisation/policy	Potential intervention functions (Methods)	Suggested policy category (proposed vehicle)	Ideas for intervention content/ Application	Possible BCTs (methods)	Ideas for intervention resources/ support materials	Comments/issues arising from stakeholder event
Physical capability	Physical skills <i>(ability or proficiency acquired through practice)</i>	a Women learn and practice correct PFMC, in order to adopt and maintain regular PFME to prevent UI	Training	Service provision	<ul style="list-style-type: none"> Women are given initial resources at booking explaining how to perform correct PFMC followed by detailed verbal instruction at 16 weeks Women try out PFMC during antenatal appointment Women are encouraged to practice and progress PFME regularly throughout pregnancy 	1.1, 1.2, 1.4, 1.5, 2.2, 2.3, 2.4, 4.1, 8.1, 8.3, 8.7	<ul style="list-style-type: none"> Resource bag provided at booking to include leaflet with information about PFME and how to perform correct PFMC, stickers to use as prompts/reminders for PFME, app card with suggested mobile apps to reminder about PFME Detailed instruction at 16 weeks Reminder at each AN appointment to check PFME and 	<ul style="list-style-type: none"> Timeline for teaching PFME from booking is appropriate The issue of assessment of correct PFME technique needs to be considered – are women doing them correctly?

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							problem solve any issues with correct PFMC	
		b Midwives have the skills to teach a correct PFMC and to prescribe a progressive PFME programme. Midwives are aware of PFMC assessment techniques and when to refer for specialist input	Training	Service provision Guidelines?	<ul style="list-style-type: none"> Expert in PFME demonstrates detailed instruction in teaching and basic assessment of correct PFMC Midwives practice teaching PFMC and prescribing/ progressing PFME, including basic assessment of correct technique with feedback from training facilitator 	2.2, 4.1, 6.1, 6.2, 8.1, 9.1	<ul style="list-style-type: none"> Video demonstrating teaching and assessment of correct PFMC and prescribing PFME Future guidelines for teaching PFME to include stepped assessment of correct PFMC 	<ul style="list-style-type: none"> Training is required as part of a basic education for midwives, this needs to be easily/freely available, within the training curriculum, and mandatory Midwives may lack skills/confidence to a) perform an accurate visual check of PFMC b) negotiate a visual check with women.
		c -	-	-	-	-	-	-
Psychological capability	Knowledge	a Women develop knowledge and	Education	Service provision	<ul style="list-style-type: none"> Midwife to provide information and facts 	4.1, 5.1, 5.2, 5.3	<ul style="list-style-type: none"> Midwives to communicate 	<ul style="list-style-type: none"> Knowledge is power; both

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	<i>(awareness of the existence of something)</i>	understanding of PFM and its relationship with PFD/UI. Understand principles of PFME, and how it might help prevent UI		Communication / marketing	relating to what is the pelvic floor, role relating to UI, what happens in pregnancy, what is PFME, why is it important, how to do it, what are the benefits, including information on effectiveness for preventing UI, other benefits of PFME		information about pelvic floor anatomy and function, principles of PFME strength training and evidence for prevention <ul style="list-style-type: none"> • Information leaflet for women to summarise information on UI, benefits of PFME, how to do PFME • Include visual aids/ diagrams/ pictures to support teaching 	midwives and women, and wider within society will help raise the profile and thus a clearer understanding of why doing PFME is important
		b Midwives develop knowledge and understanding of rationale for AN PFME for promoting pelvic floor muscle health	Education	Service provision Guidelines	<ul style="list-style-type: none"> • Review of anatomy, physiology and function of pelvic floor muscles • Presentation of the evidence for prevalence of UI 	4.1, 5.1, 5.2, 5.3	<ul style="list-style-type: none"> • Midwife training presentation and manual to include overview of pelvic floor anatomy and function, principles of PFME strength 	<ul style="list-style-type: none"> • Knowledge is power; both midwives and women, and wider within society will help raise the profile and thus a

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		in pregnancy and childbirth Clarify guidelines for PFME during pregnancy			in/after pregnancy, effectiveness of AN PFME for preventing UI, impact of UI on physical and mental health, give examples of women's stories e.g. social isolation, shame, embarrassment etc. • Training to include other benefits of PFME, e.g. sex, second stage labour		training, teaching PFMC and prescribing PFME programme, checking/assessing correct PFMC • Diagrams/ pictures/ videos to support learning • Self—assessment quiz to check understanding	clearer understanding of why doing PFME is important
c		Raise organisations' awareness of recommendations for maternity service providers by professional bodies relating to knowledge, e.g. RCM/CSP joint statement on PFME	Education	Communication / marketing Guidelines	• Future media campaign • Present evidence overview to managers, include economic data, discuss how this links with other national priorities (e.g. Better Births, maternal	5.1, 5.2, 5.3, 6.2, 6.3, 9.1	• Evidence presentation for managers • Future guidelines to include summary of evidence, protocol for teaching and assessing PFME	• Knowledge is power; both midwives and women, and wider within society will help raise the profile

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					mental health, safety champions) <ul style="list-style-type: none"> • Include in national maternity curriculum for undergraduate training 			and thus a clearer understanding of why doing PFME is important
	Cognitive and interpersonal skills <i>(ability or proficiency acquired through practice)</i>	a Women develop skills and techniques to analyse, plan and implement PFME Women feel empowered to discuss the topic of pelvic health and PFD/UI with their midwife	Training Enablement	Service provision	<ul style="list-style-type: none"> • Midwives discuss ways to support women with adopting and maintaining PFME • Midwives teach women planning/ monitoring techniques, including action planning, goal setting, problem solving, self-monitoring of PFME • Midwives encourage women to report symptoms of UI 	1.1, 1.2, 1.4, 1.8, 1.9, 2.3, 2.4	<ul style="list-style-type: none"> • Training manual for midwives to include suggestions for supporting women to identify/problem solve plans to perform regular PFME • Resources for women to support planning and performing of PFME 	

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		b Midwives develop communication and teaching skills for discussing UI and teaching effective PFME	Training Enablement	Service provision	<ul style="list-style-type: none"> Discuss how to raise the topic of UI and routinely ask about symptoms. Encourage midwives to think of different ways of explaining UI/ PFME, tailored to individual women, and considering ethnic/cultural background 	2.2, 4.1, 6.1, 6.2, 7.1, 8.1, 9.1	<ul style="list-style-type: none"> Training presentation and manual to include suggested questions for asking women about UI/PFME Role play script for teaching PFMC and individualised PFME programme 	
		c -	-	-	-	-	-	-
	Memory, attention and decision processes <i>(ability to retain information, focus selectively on aspects of the environment and choose</i>	a Women are supported to make informed decisions about implementing PFME, and helped to prioritise PFME during pregnancy, within the context of daily life	Training Enablement	Service provision	<ul style="list-style-type: none"> Midwives learn to explore women's daily routine and support women to identify and select meaningful prompts/ cues for PFME Midwives make women aware of planning/ monitoring 	1.1, 1.2, 1.4, 1.5, 2.2, 2.3, 2.4, 7.1	<ul style="list-style-type: none"> Training presentation and manual to include suggestions for prompts and cues to help women implement PFME Resources for women include suggestions for 	

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	<i>between two or more alternatives)</i>	Support women to notice and remember to undertake, adopt and maintain regular PFME			techniques, including action planning, goal setting, problem solving, self-monitoring of PFME		mobile apps to support planning, performing and monitoring of PFME; leaflet with suggestions for prompts/cues; stickers to use as reminders	
		b Midwives learn/develop techniques to help notice and remember to teach routine PFME in AN care Develop techniques for improving planning and implementation of PFME within clinical practice	Training	Service provision Guidelines	<ul style="list-style-type: none"> Discuss ways to support implementation of PFME in practice Suggest timeline for implementing PFME throughout AN care pathway Give examples of prompts to remember to screen for UI/teach PFME within AN appointment 	1.1, 1.2, 1.4, 1.5, 2.3, 7.1, 8.1	<ul style="list-style-type: none"> Provide tools/ tips for prompts & cues to remember to teach PFME within AN care pathway, e.g. key fob, mandatory checklist item, learn to ask when testing urine 	

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		c National/ organisational/ service level support for implementing PFME, and prioritising PFME in clinical practice, as highlighted by RCM/CSP joint statement on PFME Organisational support for developing protocols/ techniques to help midwives notice and remember to teach routine PFME	Training Enablement	Communication / marketing Guidelines	<ul style="list-style-type: none"> Meet with maternity service leads/ clinical managers to highlight importance of implementing AN PFME Emphasise requirement for AN midwives to attend training for PFME Discuss proposed timeline for teaching of AN PFME with maternity service managers 	10.1? 5.1, 5.2, 5.3	<ul style="list-style-type: none"> Presentation for managers Guidelines for teaching and assessing PFME within AN care 	
	Behavioural regulation <i>(anything aimed at managing or changing</i>	a Women are supported to identify and develop strategies and techniques for	Training Enablement	Service provision	<ul style="list-style-type: none"> Midwives learn to discuss and ask women to agree ideas and strategies that will work for 	1.1, 1.2, 1.4, 2.3	<ul style="list-style-type: none"> List of example prompts/ reminder strategies, e.g. diaries, apps, 	

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	<i>objectively observed or measured actions)</i>	planning and self-monitoring PFME behaviour			them as an individual to prioritise and monitor PFME		stickers as reminders <ul style="list-style-type: none"> Details of suggested mobile apps 	
		b Midwives develop strategies and techniques for prioritising and monitoring teaching of PFME within AN care	Training Enablement	Service provision Guidelines	<ul style="list-style-type: none"> Midwives discuss and establish tools/ strategies for planning, prioritising and monitoring AN PFME Raise awareness of timeline for AN PFME teaching Use AN checklist item for PFME (must be beyond 'have you done them') 	1.1, 1.2, 1.4, 2.3, 7.1	<ul style="list-style-type: none"> Manual to include tips/ tools for monitoring AN PFME and timeline/ schedule for AN PFME teaching Checklist item for AN notes Guidelines to outline proposed AN PFME teaching protocol 	<ul style="list-style-type: none"> Mandatory check, needs to link with patient records, prompted at with every patient.
		c National/ organisational support for action planning and monitoring of PFME	Enablement	Environmental planning	<ul style="list-style-type: none"> Suggest audit of AN PFME by service managers Add PFME to AN checklist 	1.4, 2.1	<ul style="list-style-type: none"> Guidelines to include summary of evidence, protocol for teaching and assessing PFME 	

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		by adding to AN checklists may improve implementation in AN care					<ul style="list-style-type: none"> Audit toolkit to accompany guidelines 	
Physical opportunity	Environmental context and resources <i>(any circumstance of a person's situation or environment that discourages or encourages the development of skills and abilities, independence, social competence and adaptive behaviour)</i>	a Women are provided with the opportunity to practice PFME within AN appointment and check understanding/ trouble shoot any problems with technique Have access to appropriate resources to receive accurate, high quality PFME instruction	Training Environmental restructuring	Communication / marketing Service provision	<ul style="list-style-type: none"> Midwife to teach PFME within routine appointments Provide women with access to adequate information and resources to enable engagement in PFME, including referral to specialist services if appropriate Support women to identify and allocate sufficient time to undertake PFME Explore within AN appointment what physical or resource 	1.2, 1.4, 4.1, 5.1, 5.2, 5.3, 7.1, 12.1, 12.2, 12.5	<ul style="list-style-type: none"> Topic raised at booking and throughout AN appointments Information leaflet for women within resource bag Suggestions for mobile apps to support PFME Suggestions for resources such as websites, videos Referral criteria for specialist services 	<ul style="list-style-type: none"> Support resources are required; these could include apps, posters, videos in waiting rooms, linking to media, continence awareness, celebratory endorsement that all cater for language barriers and cultural differences. Integrate into existing apps, e.g. Baby Buddy, Ready Steady Baby

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					factors might facilitate or hinder uptake, adoption and maintenance of PFME for individual women			<ul style="list-style-type: none"> Midwives wearing lanyards might prime women to ask about pelvic floor
		<p>b Midwives are trained to communicate and teach effective AN PFME to prevent UI</p> <p>Have opportunity to teach PFME within AN appointment and check understanding/ trouble shoot any problems</p> <p>Improved access to and communication with specialist/champion Midwife/multidisci</p>	<p>Training Environmental restructuring</p>	<p>Communication / marketing Service provision</p>	<ul style="list-style-type: none"> Highlight available information and support resources for AN Midwife (e.g. i-learn on RCM website) Raise awareness of timeline for AN PFME teaching Discuss strategies for ensuring allocation of adequate time within AN appointment for PFME Identify opportunities for peer support with AN PFME in services, e.g. 	<p>4.1, 5.1, 5.2, 5.3, 6.1, 7.1, 12.1, 12.2, 12.5</p>	<ul style="list-style-type: none"> Script for teaching PFME Manual to include links to additional training resources e.g. RCM i-learn Manual to include/ suggest resources to support implementation, e.g. AN checklist item, script for teaching, key fob reminder card, posters 	<p>Stakeholder comments:</p> <ul style="list-style-type: none"> Access to training is required as part of a basic education for midwives, this needs to be easily/freely available, within the training curriculum, and mandatory Champions may be useful, but don't fully rely on this model - make sure training and competency for ALL

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		plinary team to support PFME within AN care			<p>from PFME champion, or other AN Midwife who have attended training, or access to women's health physiotherapist, to support ongoing practice and problem solve challenges</p> <ul style="list-style-type: none"> • Provide and discuss resources to support implementation in routine AN care, e.g. AN checklist item, script for teaching correct PFMC and prescribing PFME, key fob reminder card, posters? • Discuss criteria for onward referral to specialist services 			<p>is established first. AN PFME should be part of routine practice and everyone's responsibility.</p> <ul style="list-style-type: none"> • Support is required. This includes staffing support, e.g. maternity support workers • Include in health visitor AN appointment

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		c Service allows opportunity and TIME to teach PFME within AN appointment and check understanding/ trouble shoot any problems with technique Develop clear standards and referral pathways to improve access to specialist service providers, e.g. specialist physiotherapy or continence services Review availability, access and funding for training for PFME for midwives working in AN care	Environmental restructuring Enablement	Environmental/ social planning Guidelines Service provision	<ul style="list-style-type: none"> • Presentation to managers to raise awareness of proposed plan for implementation of PFME in AN appointments • Discussion with maternity service leads/ clinical managers regarding options for enabling AN Midwife to attend training • Recommendations for national guideline development • Meeting with maternity and continence/ women's health physio service managers to discuss options for and raise awareness of criteria 	5.1, 5.2, 5.3, 9.1, 10.1, 10.2, 10.4, 10.5, 12.1, 12.2,	<ul style="list-style-type: none"> • Presentation for managers • Service protocol for PFME to provide recommendations for access to training – consider inclusion in mandatory training • Guideline for standardised teaching of AN PFME • Guidelines to include criteria for onward referral for specialist services • Information for multi-disciplinary team regarding procedure for delivering PFME in AN care and 	<ul style="list-style-type: none"> • Intervention needs to be specialist and credible to compete with NICE guidelines • Pelvic floor health needs to be made a priority nationally • Historically, PMFE may have been considered low priority in terms of organisational perspective as it is different from national priority. Priority can be increased by changing the narrative and tying into public health agenda. • Needs to be on the commissioning

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		<p>to enhance PFME/UI communication and teaching skills and behaviour change techniques</p> <p>Review national/ organisational policies and directives for AN PFME for preventing UI</p>			<p>for onward referral to specialist services</p> <ul style="list-style-type: none"> Appointment of PFME champion within services to support ongoing learning and development 		<p>options for onward referral</p> <ul style="list-style-type: none"> Outline PFME champion role description 	<p>checklist. Only way to get it on there is for there to be money associated with it - currently no time given by trust as no money to give time. Make the economic case.</p> <ul style="list-style-type: none"> Work with structure of midwifery services: cascade down from Local Maternity Systems to Heads of Midwifery to Practice Development Teams to Community Midwife Teams. Need an integrated approach – public health (e.g. media

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								<p>campaigns, face book, gym and fitness promotion, linking with local maternity systems), external support e.g. collaboration with industry, celebrity endorsement, political and ‘whole woman’ approach, link with mental health agenda</p> <ul style="list-style-type: none"> • Consider scaling up training to work with other health professionals too • Needs to be seen as a long-term issue, not just related to pregnancy. Highlight

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								implications of long-term UI- e.g. knock on effects to postnatal depression, decrease in physical activity, increase falls
Social opportunity	Social influences <i>(those interpersonal processes that can cause individuals to change their thoughts, feelings, or behaviours)</i>	a Identify peer support for PFME: identify other women who have successfully engaged in PFME as potential role models, Challenging stigma and taboo, women feel confident	Modelling	Communication / marketing Service provision	<ul style="list-style-type: none"> • Share stories of other women who have engaged in PFME successfully • Encourage AN midwives to explore and challenge myths/ assumptions women have about UI and PFME in pregnancy/ childbirth (e.g. challenge normalisation) 	3.1, 3.2, 3.3, 6.2, 13.1	<ul style="list-style-type: none"> • Information about lifelong benefits of PFME • Case studies of other women's stores 	<ul style="list-style-type: none"> • Need to challenge normalisation; positive promotion, not 'fixing'. Women need to feel empowered to ask about PMFE and professional normalisation needs to target stigma and taboo. • Patient power can make things happen, e.g. vaginal mesh scandal

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								<ul style="list-style-type: none"> Needs to be seen as a long term issue – not something just related to pregnancy Start young – take it into schools
		<p>b Raise midwife awareness of PFD/UI during/ post-pregnancy and role of AN PFME for prevention/ treatment Provide consistent messaging that UI is common but not inevitable and encourage discussion and help-seeking for PFD/UI</p>	Modelling Enablement	Communication / marketing Service provision	<ul style="list-style-type: none"> Indicate importance of PMFE to prevent UI by raising the topic throughout AN care Discuss and challenge myths and assumptions about PFME/ UI Encourage midwives to role model good practice, and promote AN PFME amongst peers and multi-disciplinary colleagues Present PFME as part of AN HCP role (e.g. 	3.1, 5.1, 5.2, 5.3, 13.1	<ul style="list-style-type: none"> PFME champion role description Posters/ information leaflets for sharing with other AN HCPs to promote good practice, challenge myths and assumptions 	<ul style="list-style-type: none"> Need to challenge normalisation; positive promotion, not ‘fixing’. Women need to feel empowered to ask about PMFE and professional normalisation needs to target stigma and taboo. Needs to be seen as a long-term issue – not something just related to pregnancy

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		Challenge myths and assumptions about PFME/UI			public health role, role in supporting and enhancing wellbeing of women) <ul style="list-style-type: none"> • Appoint PFME champion within services to promote AN PFME 			
		c Raise public awareness regarding PFD/UI and role of PFME to promote pelvic floor muscle health and prevent PFD/UI Promote PFME during pregnancy to women via culturally appropriate talk-based popular media, e.g. radio or television, to encourage	Modelling Education Persuasion	Communication / marketing	<ul style="list-style-type: none"> • Future implementation to include national media campaign to promote AN PFME for preventing/ managing UI/ PFD 	5.1, 5.2, 5.3, 9.1	<ul style="list-style-type: none"> • Information resources to include video, web resources, diagrams and pictures, including other languages 	<ul style="list-style-type: none"> • Need to challenge normalisation; positive promotion, not 'fixing'. Women need to feel empowered to ask about PMFE and professional normalisation needs to target stigma and taboo. • Needs to be seen as a long-term issue – not something just related to pregnancy

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		motivation within different ethnic and cultural communities						
Reflective motivation	Professional/ social role and identity <i>(a coherent set of behaviours and displayed personal qualities of an individual in a social or work setting)</i>	a Women are able to relate to performance of PFME during pregnancy as integral to women's social role and identity	Education Modelling	Communication / marketing Service provision	<ul style="list-style-type: none"> Teaching of benefits of PFME and promotion of pelvic floor health as part of healthy pregnancy, motherhood and as a woman generally Emphasise PFME as positive action for lifelong good health Encourage women to promote self as role model for PFME amongst peers 	3.1, 5.1, 5.3, 6.2, 13.1, 13.3	<ul style="list-style-type: none"> Information about lifelong benefits of PFME Information resources to include video, web resources, diagrams and pictures, including other languages Case studies of other women's stores 	<ul style="list-style-type: none"> Midwives have seen problems relating to the pelvic floor as "not their problem" and may be short sighted in their approach to their care for women
		b Encourage pelvic floor health promotion and PFME instruction as part of professional	Education Persuasion Modelling	Communication / marketing Service provision Guidelines	<ul style="list-style-type: none"> Trained AN Midwife to encourage peers and others to learn about and teach PFME, and wear 	3.1, 6.2, 13.1, 13.2, 13.3	<ul style="list-style-type: none"> Badge to encourage people to ask about PFMEs 	<ul style="list-style-type: none">

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		role and identity within AN midwifery practice			<p>badge to encourage others to ask them about PFME</p> <ul style="list-style-type: none"> • Reframe PFME as part of AN HCP public health role (e.g. role in supporting and enhancing wellbeing of women). • Explore concept of promoting pelvic floor health within training, avoiding focus on negative consequences 			
		c Raise awareness of initiatives such as RCM/CSP statement to promote midwives' role in PFME instruction	Education Persuasion	Communication / marketing Guidelines	<ul style="list-style-type: none"> • Future implementation – national launch and campaign to promote role of AN Midwife (as credible source) in promoting pelvic floor health, 	5.1, 9.1, 13.1	<ul style="list-style-type: none"> • Outline PFME champion role description 	

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					preventing UI and teaching PFME <ul style="list-style-type: none"> • Appoint PFME champion within services to role model PFME as part of AN HCP professional identity • Identify national/ service PFME champion 			
	Beliefs about capabilities <i>(acceptance of the truth, reality or validity about an ability, talent, or facility that a person can put to constructive use)</i>	a Training for women aims to Increase self-efficacy for PFMC and PFME using appropriate behaviour change techniques Identify a tailored PFME programme that an individual woman feels capable of doing, that is achievable	Education Persuasion Enablement	Service provision	<ul style="list-style-type: none"> • AN Midwife learn to teach correct PFME and to offer assessment of PFMC, as appropriate • Provide women with feedback on performance and encourage self-efficacy • Allow sufficient time to talk through PFMC 	1.2, 2.2, 2.3, 4.1, 8.1, 8.3, 15.1, 15.3, 15.4	<ul style="list-style-type: none"> • Script for AN PFMC and PFME teaching, offering assessment of PFMC • Examples of prompt questions and behaviour change techniques to support behaviour change and self-efficacy 	

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		within daily life, and enable them to assess progress with PFME			<p>and how to progress PFME</p> <ul style="list-style-type: none"> • Check progress at each appointment and support and encourage ongoing practice • Problem solve how to ensure regular PFME practice and how to manage setbacks 			
		b Promote self-efficacy amongst midwives for teaching of PFMC and PFME	Education Enablement	Service provision Guidelines	<ul style="list-style-type: none"> • Practice raising the topic and PFMC/ PFME teaching within training session • Training facilitator may provide feedback on role play • Competency assessment as part of training? • Ongoing peer support from PFME champions 	2.2, 2.3, 4.1, 6.1, 8.1, 8.3, 15.1	<ul style="list-style-type: none"> • Script for raising the topic and teaching PFMC and PFME • Provide basic principles for communication about PFME (e.g. tailored to individual, open questions) 	

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		c Improve HCP self-efficacy for teaching and supporting AN PFME through provision and access to learning and training resources (<i>see 'physical opportunity'</i>)	Education Persuasion	Service provision	<ul style="list-style-type: none"> • Meeting with managers to encourage support for attending PFME training • Ensure opportunity and funding for ongoing PFME training for AN Midwife • Incorporate regular updates into mandatory training • Provide links to additional training resources 	5.1, 5.2, 5.3, 10.4, 10.5, 12.1, 12.2	<ul style="list-style-type: none"> • Training manual to include links to additional training resources 	
	Optimism <i>(the confidence that things will happen for the best or that desired goals will be attained)</i>	a Women feel optimistic about the value of PFME. Women are aware that it may take some time (up to 6 months) for	Education Persuasion Modelling	Communication / marketing Service provision	<ul style="list-style-type: none"> • Midwives persuade women of effectiveness and benefits of PFME, e.g. for preventing UI • Use case studies to illustrate successful 	1.5, 5.1, 5.2, 5.3, 5.6	<ul style="list-style-type: none"> • Tools to support optimism: e.g. use of confidence rating scales, e.g. on a scale of 0-10 how confident are you that you will engage in regular 	

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		positive effects to be felt			outcomes from PFME during pregnancy		PFME? If low confidence explore why not higher and what would help improve confidence <ul style="list-style-type: none"> Information for women could include example case studies for successful outcomes from PFME during pregnancy 	
		b Enhance optimism for implementing PFME during AN care Empower midwives to promote pelvic floor health and teach effective PFME during pregnancy	Education Persuasion Modelling Enablement	Communication /marketing Service provision Guidelines	<ul style="list-style-type: none"> Training to include review of evidence/ statistics for effectiveness of AN PFME for preventing UI Provide case studies for successful outcomes from PFME during pregnancy 	5.1, 5.2, 5.3, 6.2	<ul style="list-style-type: none"> Training manual to include example case studies for successful outcomes from PFME during pregnancy 	

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					<ul style="list-style-type: none"> Present PFME as part of AN HCP role 			
		c providing and supporting access to resources, e.g. develop clear standards and referral pathways to specialist service providers, such as specialist physiotherapy or continence services to enhance confidence for implementing effective PFME in AN care through	Education Persuasion Modelling Enablement	Communication / marketing Service provision Guidelines	<ul style="list-style-type: none"> Provide standardised protocol/ guidelines for teaching AN PFME Promote benefits of AN PFME to women through information provision and resources Ensure access to specialist services as required 	5.1, 5.2, 5.3, 6.2	<ul style="list-style-type: none"> Criteria for referral to specialist services Information resources for women and AN Midwife to promote AN PFME Guidelines for AN PFME 	
	Beliefs about consequences <i>(acceptance of the truth, reality or validity about</i>	a Address beliefs about the effects of PFME for preventing/treating PFD/UI	Education Persuasion Modelling	Service provision Communication / marketing	<ul style="list-style-type: none"> Provide information to women about evidence for PFME and UI in pregnancy 	5.1, 5.2, 5.3, 11.2	<ul style="list-style-type: none"> Information leaflet for women to summarise evidence on personal cost of UI, 	

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	<i>outcomes of a behaviour in a given situation)</i>	Offer evidence about positive benefits of PFME for pelvic floor health during AN period Address any negative beliefs about PFME			<ul style="list-style-type: none"> Explore beliefs and assumptions with women about UI/ PFME, challenge negative beliefs/ assumptions Provide case studies for successful outcomes from PFME during pregnancy 		<p>effectiveness of PFME for preventing UI, benefits of PFME (consider different literacy/ language options)</p> <ul style="list-style-type: none"> Information for women to include example case studies for successful outcomes from PFME during pregnancy 	
		b Understand effectiveness of AN PFME for preventing UI. Address any negative beliefs about AN PFME.	Education Persuasion	Service provision Communication / marketing Guidelines	<ul style="list-style-type: none"> Explore beliefs and assumptions with AN Midwife about UI/ PFME, challenge negative beliefs/ assumptions 	5.1, 5.2, 5.3, 11.2	<ul style="list-style-type: none"> Training manual to include effectiveness summary List common myths/ assumptions and present counter 	

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		c	Raise awareness of positive outcomes of AN PFME for preventing UI and promoting pelvic floor health during and after pregnancy and childbirth	Education Persuasion	Communication / marketing Guidelines	<ul style="list-style-type: none"> AN PFME promotion campaign within services National media campaign 	5.1, 5.2, 5.3	<ul style="list-style-type: none"> Posters/ information resources within organisations/ service/ online promoting key facts about AN PFME effectiveness for preventing UI 	<ul style="list-style-type: none"> Emphasis importance of PFME for preventing UI and implications of long-term UI – e.g. knock on effects to post-natal depression, decrease in physical activity, increase falls 		
			Intentions <i>(a conscious decision to perform a behaviour or a resolve to act in a certain way)</i>	a	Explore women’s negative attitudes and beliefs that affect intentions to engage in PFME (“I don’t have time”) Encourage formulation of	Education Persuasion	Service provision	<ul style="list-style-type: none"> AN Midwife to develop skills to support action planning, goal setting, problem solving any challenges/ concerns, identify 	1.1, 1.2, 1.4, 1.5, 1.8, 11.2	<ul style="list-style-type: none"> Training manual for midwives to include examples of potential challenges/ concerns and suggestions for exploring solutions/ 	evidence/ argument as appropriate

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		<p>plans to carry out PFME</p> <p>Address setbacks and potential challenges for implementing regular PFME</p> <p>Encourage empowerment</p>			<p>opportunities to engage in PFME</p> <ul style="list-style-type: none"> Consider use of behavioural contract to enhance commitment to PFME intentions 		<p>opportunities to implement intentions</p>	
		<p>b Emphasise midwife role in health promotion to encourage intention to teach AN PFME</p>	<p>Education Persuasion Modelling</p>	<p>Service provision Guidelines</p>	<ul style="list-style-type: none"> Present PFME as part of AN HCP role (e.g. public health role, role in supporting and enhancing wellbeing of women) Persuade AN HCP that they are a credible source of information regarding pelvic floor health, preventing UI and teaching PFME 	<p>9.1, 13.1</p>	<ul style="list-style-type: none"> Training manual to include case studies/ vignettes to illustrate successful teaching of PFME in AN care, including positive feedback from women 	

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		c Develop clear standards/ protocols to support and encourage intentions for implementing AN PFME as part of midwife role Offer incentives/ rewards to organisations/ services to implement AN PFME	Persuasion Incentivisation	Guidelines Communication / marketing	<ul style="list-style-type: none"> Provide standardised information as guideline for AN PFME Persuade/ incentivise managers/ commissioners/ organisations of importance of including PFME in AN care – present economic argument, role in preventing UI (associated costs etc, link with other national incentivised campaigns, e.g. safety champions 	10.1, 10.2	<ul style="list-style-type: none"> Guideline for AN PFME Presentation for managers 	
	Goals <i>(mental representations of outcomes or end states that an individual</i>	a Women learn and develop goal setting techniques to support action planning and improve	Education Persuasion	Service provision Communication / marketing	<ul style="list-style-type: none"> Training includes how to support women to set goals for graded PFME programme (explain how to identify start point 	1.1, 1.2, 1.3, 1.4, 1.5, 1.9	<ul style="list-style-type: none"> Script in training manual for teaching PFME goal setting for progression of 	

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	wants to achieve)	implementation and practice of AN PFME			and set goal between for progression. Check woman is happy with plan and encourage questions if uncertain, review goals each appointment, encourage use of apps or goal chart if appropriate)		strengthening programme <ul style="list-style-type: none"> • Goal setting activity set as homework task • Goal chart on PFME information sheet, or write out goal for app use 	
		b Midwives learn and develop goal setting techniques to support action planning and improve implementation and practice of AN PFME	Education Persuasion	Service provision Communication / marketing Guidelines	<ul style="list-style-type: none"> • Training includes how to set goals for implementing AN PFME teaching within routine AN care • Persuade AN Midwife of capability for teaching PFME routinely 	1.1, 1.2, 1.4,	<ul style="list-style-type: none"> • Manual to include chart for goal setting 	
		c Support access to training to learn and develop goal	Education Persuasion	Service provision Guidelines	<ul style="list-style-type: none"> • Presentation to maternity service leads/ organisation 	5.1, 5.2, 5.3	<ul style="list-style-type: none"> • Presentation for managers 	

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		setting techniques to support planning, implementation and prioritisation of AN PFME			training and development lead to encourage importance of training for AN PFME <ul style="list-style-type: none"> Link with national midwifery curriculum 			
Automatic motivation	Reinforcement <i>(increasing the probability of a response by arranging a dependent relationship, or contingency, between the response and a given stimulus)</i>	a Women are encouraged to form habit for performing PFME by linking to established habits and routines	Training	Service provision	<ul style="list-style-type: none"> Training discusses ways to support women to identify ways to link PFME practice to habits and routines 	7.1, 8.1, 8.3, 10.4, 10.5	<ul style="list-style-type: none"> Include examples of suggested open questions in training manual. Have ideas for linking PFME practice to established habits/ routines only if women unable to identify something themselves Encourage automatic use of 'the knack' for cough/sneeze? 	

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		b Encourage habit formation for midwives for teaching PFME. Link teaching of PFME to established habits and routines within AN clinical practice	Training Incentivisation	Service provision Guidelines	<ul style="list-style-type: none"> • Training explores ways to link AN PFME to current practice, e.g. ask when testing urine • Link to AN checklist and audit of notes 	7.1, 8.1, 8.3, 10.4, 10.5	<ul style="list-style-type: none"> • Training handbook includes suggested opportunities for linking PFME teaching to established habits/ routines, e.g. urine dip • Encourage midwives to practice PFME? • Add PFME and UI screen to AN checklist? 	•
		c Establish organisational culture for teaching AN PFME	Incentivisation	Service provision Regulation?	<ul style="list-style-type: none"> • Link to AN audit • Future financial incentives for including AN PFME to encourage organisational culture for preventing UI 	10.1, 10.2	<ul style="list-style-type: none"> • Audit toolkit for PFME • Link to CQUIN? • Link to Safety champion roles and incentives? 	<ul style="list-style-type: none"> • Linking with safety champion agenda may provide access to financial incentives • Needs to be on the commissioning checklist. Only way to get it on there is for there to be

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								money associated with it - currently no time given by trust as no money to give time. Make the economic case.
	Emotion <i>(a complex reaction pattern, involving experiential, behavioural, and physiological elements, by which the individual attempts to deal with a personally significant matter or event)</i>	a Women are supported to identify anxieties and fears relating to PFME in pregnancy Identify positive emotions, e.g. improved self-confidence Explore benefits of PFME for preventing PFD/UI	Persuasion Modelling Enablement	Service provision Communication / marketing	<ul style="list-style-type: none"> • Midwives to encourage women to raise concerns about UI and PFME through use of open questioning repeated throughout AN period • Midwives to emphasise benefits of PFME for preventing UI, and other benefits • Provide feedback and encouragement to women and highlight progress made with PFME 	5.4, 5.6, 6.2, 11.2, 15.1, 15.3,	<ul style="list-style-type: none"> • Badges for midwives encouraging women to ask about PFME and/or UI?? • Leaflet/ support materials (posters in waiting rooms, videos promoting AN PFME) to include benefits of PFME and case studies of women's stories to reduce anxiety/fears about PFME/UI/PFD 	

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					• Share stories of other women			
		b	-	-	-	-	-	-
		c	-	-	-	-	-	-

-=no data; AN=antenatal; COM-B=Capability, opportunity, motivation, behaviour; CSP=Chartered Society of Physiotherapy; HCP=healthcare professional; PFD=pelvic floor dysfunction; PFM=pelvic floor muscle; PFMC=pelvic floor muscle contraction; PFME=pelvic floor muscle exercise; PN=postnatal; RCM=Royal College of Midwives; UI=urinary incontinence