

Appendix 2: Worksheets

Worksheet 1 – Define the problem in behavioural terms

This worksheet allows you to set out in behavioural terms the problem you are trying to solve and the individual, group or population involved.

What behaviour?	
Where does the behaviour occur?	
Who is involved in performing the behaviour?	

Worksheet 2 – Select the target behaviour

Task 1: Generate a long list of candidate target behaviours that could bring about the desired outcome

Intervention designer response

Task 2: Prioritise the behaviours by considering the following criteria:

1. How much of an impact changing the behaviour will have on desired outcome
2. How likely it is that the behaviour can be changed (when considering likelihood of change being achieved, think about the capability, opportunity and motivation to change of those performing the behaviour)
3. How likely it is that the behaviour (or group of behaviours) will have a positive or negative impact on other, related behaviours
4. How easy it will be to measure the behaviour

Different criteria will be more or less important in different situations. As a result of this prioritization exercise, you are likely to reach one of the following decisions:

1. The behaviour appears very promising as a target behaviour
2. The behaviour is quite promising as a target behaviour
3. The behaviour appears unpromising but is worth considering as a target behaviour
4. The behaviour is not acceptable as the target behaviour (it doesn't matter what it is like on the other criteria, this behaviour cannot be selected as the intervention target)

Potential target behaviours	Impact of behaviour change (unacceptable, unpromising but worth considering, promising, very promising)	Likelihood of changing behaviour (unacceptable, unpromising but worth considering, promising, very promising)	Spillover score (unacceptable, unpromising but worth considering, promising, very promising)	Measurement score (unacceptable, unpromising but worth considering, promising, very promising)
Record selected target behaviour here:				

Worksheet 3 – Specify the target behaviour

Task: Describe the target behaviour according to who, needs to do what, when, where, how often and with whom

Target behaviour	
<i>Who</i> needs to perform the behaviour?	
<i>What</i> do they need to do differently to achieve the desired change?	
<i>When</i> do they need to do it?	
<i>Where</i> do they need to do it?	
<i>How often</i> do they need to do it?	
<i>With whom</i> do they need to do it?	

Worksheet 4 – Identify what needs to change

Task: Use the COM-B model to identify what needs to change in order for the target behaviour to occur:

COM-B Components	What needs to happen for the target behaviour to occur?	Is there a need for change?
Physical capability		
Psychological capability		
Physical opportunity		
Social opportunity		
Reflective motivation		
Automatic motivation		
Behavioural diagnosis of the relevant COM-B components:		

Worksheet 4a – Identify what needs to changing using the TDF

Task: If a more detailed understanding of the behaviour is required, use the TDF to expand on COM-B components identified in the behavioural diagnosis.

COM-B	TDF	Relevance of domain
Physical capability	Physical skills	
Psychological capability	Knowledge	
	Cognitive and interpersonal skills	
	Memory, attention and decision processes	
	Behavioural regulation	
Physical opportunity	Environmental context and resources	
Social opportunity	Social influences	
Reflective motivation	Professional/social role and identity	
	Beliefs about capabilities	
	Optimism	
	Beliefs about consequences	
	Intentions	
	Goals	
Automatic motivation	Reinforcement	
	Emotion	

Worksheet 5 – Identify intervention functions

Task: Use the APEASE criteria to identify appropriate intervention functions based on the behavioural diagnosis arrived at in Step 4(4a):

- Affordability
- Practicability
- Effectiveness and cost-effectiveness
- Acceptability
- Side-effects/safety
- Equity

Candidate intervention functions	Does the intervention function meet the APEASE criteria (affordability, practicability, effectiveness/cost-effectiveness, acceptability, side-effects/safety, equity)?
Education	
Persuasion	
Incentivisation	
Coercion	
Training	
Restriction	
Environmental restructuring	
Modelling	
Enablement	
Selected intervention functions:	

Worksheet 6 – Identify policy categories

Task: Use the APEASE criteria to identify appropriate policy categories based on the intervention functions identified in Step 5:

- Affordability
- Practicability
- Effectiveness and cost-effectiveness
- Acceptability
- Side-effects/safety
- Equity

Intervention function	Policy categories	Does the policy category meet the APEASE criteria (affordability, practicability, effectiveness/cost-effectiveness, acceptability, side-effects/safety, equity)?
Education	Communication/marketing Guidelines Regulation Legislation Service provision	
Persuasion	Communication/marketing Guidelines Regulation Legislation Service provision	
Incentivisation	Communication/marketing Guidelines Fiscal measures Regulation Legislation Service provision	
Coercion	Communication/marketing Guidelines Fiscal measures Regulation Legislation	

Intervention function	Policy categories	Does the policy category meet the APEASE criteria (affordability, practicability, effectiveness/cost-effectiveness, acceptability, side-effects/safety, equity)?
	Service provision	
Training	Guidelines Fiscal measures Regulation Legislation Service provision	
Restriction	Guidelines Regulation Legislation	
Environmental restructuring	Guidelines Fiscal measures Regulation Legislation Environmental/social planning	
Modelling	Communication/marketing Service provision	
Enablement	Guidelines Fiscal measures Regulation Legislation Environmental/social planning Service provision	

Worksheet 7 – Identify BCTs

Task: Use the APEASE criteria to identify appropriate BCTs based on the intervention functions identified in Step 5:

- Affordability
- Practicability
- Effectiveness and cost-effectiveness
- Acceptability
- Side-effects/safety
- Equity

Intervention function	Individual BCTs	Does the BCT meet the APEASE criteria (affordability, practicability, effectiveness/cost-effectiveness, acceptability, side-effects/safety, equity)?
Education	Most frequently used BCTs: Information about social and environmental consequences Information about health consequences Feedback on behaviour Feedback on outcome(s) of the behaviour Prompts/cues Self-monitoring of behaviour Less frequently used BCTs: Biofeedback Self-monitoring of outcome(s) of behaviour Cue signalling reward Satiation Information about antecedents Re-attribution Behavioural experiments Information about emotional consequences Information about others' approval	
Persuasion	Most frequently used BCTs: Credible source	

Intervention function	Individual BCTs	Does the BCT meet the APEASE criteria (affordability, practicability, effectiveness/cost-effectiveness, acceptability, side-effects/safety, equity)?
	Information about social and environmental consequences Information about health consequences Feedback on behaviour Feedback on outcome(s) of the behaviour Less frequently used BCTs: - Biofeedback - Re-attribution - Focus on past success - Verbal persuasion about capability - Framing/reframing - Identity associated with changed behaviour - Identification of self as role model - Information about emotional consequences - Salience of consequences - Information about others' approval - Social comparison	
Incentivisation	Most frequently used BCTs: Feedback on behaviour Feedback on outcome(s) of behaviour Self-monitoring of behaviour Monitoring of behaviour by others without evidence of feedback Monitoring outcome of behaviour by others without evidence of feedback Self-monitoring of behaviour Less frequently used BCTs: - Paradoxical instructions - Biofeedback - Self-monitoring of outcome(s) of behaviour - Cue signalling reward - Remove aversive stimulus - Reward approximation - Rewarding completion - Situation-specify reward - Reward incompatible behaviour	

Intervention function	Individual BCTs	Does the BCT meet the APEASE criteria (affordability, practicability, effectiveness/cost-effectiveness, acceptability, side-effects/safety, equity)?
	Reduce reward frequency Reward alternate behaviour Remove punishment Social reward Material reward Material reward (outcome) Self-reward Non-specific reward Incentive Behavioural contract Commitment Discrepancy between current behaviour and goal Imaginary reward	
Coercion	Most frequently used BCTs: Feedback on behaviour Feedback on outcome(s) of behaviour Self-monitoring of behaviour Monitoring of behaviour by others without evidence of feedback Monitoring outcome of behaviour by others without evidence of feedback Self-monitoring of behaviour Less frequently used BCTs: Biofeedback Self-monitoring of outcome(s) of behaviour Remove access to the reward Punishment Behaviour cost Remove reward Future punishment Behavioural contract Commitment Discrepancy between current behaviour and goal Incompatible beliefs Anticipated regret	

Intervention function	Individual BCTs	Does the BCT meet the APEASE criteria (affordability, practicability, effectiveness/cost-effectiveness, acceptability, side-effects/safety, equity)?
	Imaginary punishment	
Training	Most frequently used BCTs: Demonstration of the behaviour Instruction on how to perform a behaviour Feedback on the behaviour Feedback on outcome(s) of behaviour Self-monitoring of behaviour Behavioural practice/rehearsal Less frequently used BCTs: Biofeedback Self-monitoring of outcome(s) of behaviour Habit formation Habit reversal Graded tasks Behavioural experiments Mental rehearsal of successful performance Self-talk Self-reward	
Restriction	<i>No BCTs in BCTTv1 are linked to this intervention function because they are focused on changing the way that people think, feel and react rather than the way the external environment limits their behaviour.</i>	
Environmental restructuring	Most frequently used BCTs: Adding objects to the environment Prompts/cues Restructuring the physical environment Less frequently used BCTs: Cue signalling reward Remove access to the reward Remove aversive stimulus Satiation	

Intervention function	Individual BCTs	Does the BCT meet the APEASE criteria (affordability, practicability, effectiveness/cost-effectiveness, acceptability, side-effects/safety, equity)?
	Exposure Associative learning Reduce prompt/cue Restructuring the social environment	
Modelling	Most frequently used BCTs: Demonstration of the behaviour	
Enablement	Most frequently used BCTs: Social support (unspecified) Social support (practical) Goal setting (behaviour) Goal setting (outcome) Adding objects to the environment Problem solving Action planning Self-monitoring of behaviour Restructuring the physical environment Review behaviour goal(s) Review outcome goal(s) Less frequently used BCTs: Social support (emotional) Reduce negative emotions Conserve mental resources Pharmacological support Self-monitoring of outcome(s) of behaviour Behaviour substitution Overcorrection Generalisation of a target behaviour Graded tasks Avoidance/reducing exposure to cues for the behaviour Restructuring the social environment Distraction Body changes Behavioural experiments Mental rehearsal of successful performance	

Intervention function	Individual BCTs	Does the BCT meet the APEASE criteria (affordability, practicability, effectiveness/cost-effectiveness, acceptability, side-effects/safety, equity)?
	Focus on past success Self-talk Verbal persuasion about capability Self-reward Behavioural contract Commitment Discrepancy between current behaviour and goal Pros and cons Comparative imagining of future outcomes Valued self-identity Framing/reframing Incompatible beliefs Identity associated with changed behaviour Identification of self as role model Salience of consequences Monitoring of emotional consequences Anticipated regret Imaginary punishment Imaginary reward Vicarious consequences	
Intervention function		

Task: Based on the identified intervention functions, policy categories and BCTs, draft an intervention strategy describing how BCTs will be delivered in your context.

Intervention functions	COM-B components served by intervention functions	BCTs to deliver intervention functions	Policy categories through which BCTs can be delivered	Intervention strategy

Worksheet 8 – Identify mode of delivery

Task: Use the APEASE criteria to identify an appropriate mode of delivery:

- Affordability
- Practicability
- Effectiveness and cost-effectiveness
- Acceptability
- Side-effects/safety
- Equity

Mode of delivery				Does the mode of delivery meet the APEASE criteria (affordability, practicability, effectiveness/cost-effectiveness, acceptability, side-effects/safety, equity)?
Face-to-face	Individual			Yes
	Group			Yes
Distance	Population-level	Broadcast media	TV	These modes of delivery are not relevant as ward staff are unlikely to have access to phones, computers or be exposed to other forms of media whilst working on hospital wards.
			Radio	
		Digital media	Internet	
			Mobile phone app	
		Print media	Newspaper	
			Leaflet	
		Outdoor media	Billboard	
			Poster	
	Individual-level	Phone	Phone helpline	
			Mobile phone text	
		Individually accessed computer programme		