Section A: CPHE to complete	
Name:	Diane Dixon
Job title:	Senior lecturer
Address:	School of Psychological Sciences and Health University of Strathclyde Glasgow
Guidance title:	Behaviour change
Committee:	Programme Development Group (PDG)
Subject of expert testimony:	Behaviour change – Behaviour Change Competencies
Evidence gaps or uncertainties:	

Provide the PDG with an overview of your work on the Health Behaviour Change Competency Framework, including:

- The evidence base that informs the framework
- What characteristics and competencies are required to deliver behaviour-change interventions and techniques effectively?
- Implementation and evaluation of the framework

Section B: Expert to complete	
Summary testimony:	

Evidence Base Informing the Framework

Competencies were identified by examining the published evidence base. Several sources of information were consulted.

- Relevant professional competency frameworks
- Systematic reviews of interventions for behaviour change
- Manuals for behaviour change interventions
- NHS and Health Scotland Skills for Health and competency frameworks for alcohol brief interventions

The competency framework for the delivery of cognitive behaviour therapy[1] was identified as the professional competency framework of most relevance for the delivery of health behaviour change (HBC) because; a) it describes competencies for delivery of personal change interventions and, b) it is a clear, well-developed framework. This framework was adapted to provide a framework for generic HBC. The content of interventions to change specific health behaviours was also analysed. These included a systematic review of interventions to promote healthy eating and physical activity in community populations that specifically examined the content of the interventions in relation to behaviour change techniques[2]. In addition, a systematic review of smoking cessation intervention manuals was analysed[3]. The competencies detailed in the *Skills for Health* documents *AH10* and *HT3*; the interim guidance on competencies and training for the delivery of alcohol brief interventions

2009 and *Delivery of Alcohol Brief Interventions: A Competency Framework* were also analysed.

Of particular importance was the need to identify specific behaviour change techniques (*BCTs*) to be included in the HBCC framework because the competency framework for cognitive behavioural therapy does not exclusively focus on behaviour. The most comprehensive review of *BCTs* was included in the analyses[4], from which 89 *BCTs* were identified as relevant to health behaviour change.

In addition, the HBCC was developed to take account of the latest work on models of behaviour and behaviour change. There is little evidence available to determine the use of one model in preference to any other[5]. Rather, NICE suggests that training programmes should be based on competencies and skills, rather than focussed on specific models. The HBCC, therefore, does not employ any one model of behaviour change; rather, it describes a route *MAP* to behaviour change, which includes many of the concepts identified by NICE to be used to structure and inform interventions. Each of the 89 techniques was mapped to one or more of three routes to behaviour change[6], namely, *Motivation* development, *Action* on motivation, *Prompted* or cued behaviour. Within the HBCC behaviour change is initiated and maintained through the development of strategies to increase and maintain *Motivation* and to improve and broaden skills that enable that motivation to be translated into *Action*. In addition, the HBCC includes a third route, the *Prompted* or cued route, and this route supports behaviour change without the need for the constant cognitive effort required by the other routes. The effectiveness of the prompted route is strongly supported by the evidence base. The current fashion for 'nudging' behaviour change would largely be accounted for by the prompted route. The *MAP* was also designed to be a useful mnemonic to make such a large number of techniques usable by and useful for policy makers, managers and frontline staff.

The HBCC is organised into three competency domains: *Foundation*, *Behaviour Change* and *Behaviour Change Techniques* (*BCTs*) and then into a three level hierarchy, as in the stepped model of care used in psychological therapies. This hierarchy describes the competences relevant to the delivery of low, medium and high intensity interventions.

The mapping work and content analyses used to develop the HBCC were carried out independently by the Framework's two authors. The competencies were assigned to the hierarchy independently by four practitioner health psychologists. In all cases κ scores for agreement were above 0.7, which indicates acceptable and substantial agreement between judges. This means the HBCC is not simply a consensus document.

What characteristics and competencies are required to deliver behaviour-change interventions and techniques effectively?

Foundation competencies include the professional and ethical guidelines required for practice. Communication skills required to develop an effective, collaborative intervention alliance are core to this competency domain. These communication skills can be supported by evidence based training programmes, which are now a core component of medical education[7].

Central to the *behaviour change* domain is the science of health behaviour and health behaviour change and the skills required to deliver that science in practice. This domain requires knowledge of models and theories of behaviour and how these have been used to develop behaviour change interventions. It describes the general assessment and core intervention skills required to implement theory based interventions for behaviour change in practice. It also includes the knowledge and skills that are specialist to particular health behaviours, for example, how to use a CO

monitor for smoking cessation interventions.

The HBCC currently describes *89 BCTs* organised into the route *MAP* to behaviour and behaviour change[6]: ***M**otivation* development (e.g. recording antecedents and consequences of behaviour); ***A**ction* on motivation (e.g. setting behavioural goals) and ***P**rompted* or cued behaviour (change the environment to facilitate the target behaviour). This *MAP* of behaviour change can be used to ensure that interventions and training programmes exploit each route to behaviour change.

NB: We are currently revisiting the BCT domain to ensure that all the BCTs in the MRC-BCT taxonomy project are contained in the HBCC and are *MAP*ed.

Implementation and evaluation of the framework

The HBCC was commissioned so that training in behaviour change skills could be delivered generically, to avoid the repetition experienced when topic specific training is delivered, e.g. training for smoking cessation and training for alcohol brief interventions.

The HBCC was implemented as a basis for training and also for assessing training needs. The HBCC is currently used as the template for the health behaviour change training programmes delivered by NHS-Health Scotland. A self-assessment tool for the HBCC competencies has been developed in NHS Grampian. Evaluation of training using this tool indicates increased self-reported competence in each domain for health psychologists[8].

However, the HBCC has not been evaluated to assess whether staff trained using the framework are more effective than either staff not trained on the framework or staff trained using other training programmes.

References (if applicable):

1. Roth AD, Pilling S. The competencies required to deliver effective cognitive behavioural therapy for people with depression and anxiety disorders. *Improving Access to Psychological Therapies (IAPT) Programme*. London: Department of Health, 2007.

2. Abraham C, Michie S. A taxonomy of behavior change techniques used in interventions. *Health Psychology* 2008;27(3):379-87.

3. Michie S, Churchill S, West R. Identifying evidence-based competences required to deliver behavioural support for smoking cessation. *Annals of Behavioral Medicine* 2011;41(1):59-70.

4. Michie S, Johnston M, Francis J, Hardeman W, Eccles M. From theory to intervention: mapping theoretically derived behavioural determinants to behaviour change techniques. *Applied Psychology: An International Review* 2008;57(4):660-80.

5. NICE. Behaviour change at population, community and individual levels. Public health programme guidance. London: NICE, 2007.

6. Strack F, Deutsch R. Reflective and impulsive determinants of social behavior. *Personality and Social Psychology Review* 2004;8(3):220-47.

7. BESST. Behavioural and social sciences teaching in medicine. 2009. http://www.heacademy.ac.uk/besst/index.asp

8. Bull E, Johnston M., Dixon D. Young dogs taught new tricks: using health psychology training level to validate the Health Behaviour Change Competency Self-Assessment. *British Psychological Society, Division of Health Psychology Annual Meeting*, Liverpool. 2012.