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Behaviour change – synopsis of evidence consultation

27 December 2006 to 26 January 2007

Stakeholder Organisation	Evidence submitted	Document name	Section	Page no.	Comments	Response
Amateur Swimming Association	NZ: http://www.sparc.org.nz/getting-active/push-play/push-play-research obstacles to action report includes behaviour change based on 8000 people				From a brief conversation with one of your colleagues, I hope the info below is useful. Unsurprisingly it covers physical activity reviews. I have a contact for the work they have undertaken in Canada if that is any use either for this consultation or similar projects in the future I presume you will have incorporated evidence from the DH LEAP (local exercise action pilots) projects?	Thank you for these references, and for pointing out the Department of Health LEAP projects. They contain useful information – primary research and narrative reviews – about the effectiveness of specific techniques for increasing physical activity. This evidence is of more relevance to NICE intervention and programme guidance in development on: physical activity and the environment; the workplace; and children. We will ensure that they are bought to the attention of the relevant teams.
	Canada: http://www.cflri.ca/eng/research_papers/index.php; http://cache.active2010.ca/index.cfm?fa=english_resources.search&keywords=behaviour					Please see previous comment.
British					The British Association for the Study of Community Dentistry	Thank you.

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Association for the Study of Community Dentistry					(BASCD) is pleased to have the opportunity to comment on this consultation document. BASCD is the main national organization representing Dental Public Health and Community Dentistry across the UK. One of the key aims of the organization is the promotion of oral health through effective public health policy. Reviews of the behaviour change literature are therefore of great interest to BASCD members who are actively engaged in developing interventions to promote oral health and reduce inequalities. The synopsis of evidence presented provides a very useful overview of this important, but often rather confusing area of public health research. A useful contextual introduction to the document provides a good background to this topic and places it in the wider public health agenda. Often health professionals focus too narrowly on behaviours and ignore the broader determinants of health. Your introduction, and indeed the entire document, acknowledges the parameters of behaviour change research and its limitations. The reviewers provide a very clear and helpful description of the main findings in each section. It is very useful that population interventions and those addressing inequalities are included. In appendix 2 the review of different models of behaviour change provides a very valuable summary of their limitations which should help practitioners decide on the appropriateness of these theories in the development of future interventions. Appendices 3-5 focus on a range of broader factors and their potential impact on behaviour change. Again adopting this more holistic approach is very helpful in assessing the public health significance of the issues reviewed. One minor criticism of the review is the sheer volume of material presented and concern over the accessibility of the findings. The work is very important and should be used and applied widely in the NHS. The difficulty however is how best to	

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					communicate these findings. BASCD would be very keen to assist in any way in future dissemination of these review findings to the dental community across the NHS.	
British Dental Association			General		**Effectiveness review** The BDA has considered the synopsis of evidence to be used for the guidance on Behaviour Change and has found this to be very comprehensive. We do not have any additions or amendments at this stage and look forward to the opportunity to comment on the draft guidance in due course.	Thank you. We look forward to receiving your comments on the draft recommendations.
British Psychological Society		**Appendix 1**	General	Pp 6-29	The question of why interventions did, or did not, work cannot be answered by reviews of reviews. It requires examination of the precise details of the interventions reported in the primary studies, and categorisation of intervention components and modes of delivery in such a way that allows analysis of mediation and moderation. This requires theoretically meaningful data syntheses, using meta-analysis and meta-regression. Without this work, characterisation of effective interventions will be to too vague to ensure that future applications will include the ingredients that made the initial intervention(s) effective. For example, in this review, interventions are described in terms too general to be replicable and, therefore, helpful e.g. "professional advice and guidance" in relation to physical activity and "nutritional counselling" in relation to healthy eating.	Thank you for raising this issue, and allowing us to clarify the scope and approach of work carried out within the behaviour change programme. The original referral asked NICE to develop guidance for primary care and other settings on: 'the most appropriate generic and specific interventions to support attitude and behaviour change at population and community level'. This referral was broad and the scope for this work (www.nice.org.uk/page.aspx?o=524171) sets out the boundaries of what would, and would not, be considered in developing the guidance. Given the breadth of the referral and the fact that other areas of NICE public health programme and intervention work would be developing topic-specific guidance on the effectiveness of interventions (and the characteristics of effective interventions), it was a deliberate intention that this guidance should focus on a level above micro-

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						intervention techniques. It will look at the commonalities and differences in effective (and ineffective) approaches across a wide range of public health topic areas, and at different 'levels' of intervention, across the life course. A methodological rationale is given within each individual review, and in each case this takes into account the scope for the guidance as a whole. NICE will also recommend that separate guidance is developed on appropriate psychological models for behaviour change. If you would like to submit suggestions for future guidance, visit: www.nice.org.uk/page.aspx?o=ts.home
			1	6	Why is the evaluation limited to only two determinants of behaviour, knowledge and attitudes, given these are weaker predictors than other constructs e.g. self-efficacy (general, and perceived control over the target behaviour), and intention. A leading group of behaviour change theorists (Fishbein et al, 2001) reached a consensus that three constructs were necessary and sufficient prerequisites for the performance of a specified behaviour – intention, lack of environmental constraints and relevant skills. This narrowing of the scope renders this review of limited use and underlines the importance of involving experts in behavioural science in the early stages of scope development.	The research questions for this review are based on the original referral from the Department of Health. The scope went out for national consultation – including research and university departments, and professional bodies – in August 2005 and was amended in response to stakeholder feedback. It is broader than behavioural science alone, and adopts a public health approach to behaviour change. The BPS is welcome to submit other suggestions for future guidance: http://www.nice.org.uk/page.aspx?o=ts.home

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			2.2	21	"the assumed nature of the relationship between knowledge and behaviours". What is the assumed relationship? It appears that the authors are assuming a stronger relationship than is warranted by a large body of psychological evidence. Knowledge may be pre-requisite to behaviour change but is very rarely a sufficient condition and almost never in changes that require ongoing or lifestyle change.	There is further discussion of this in the full review, which can be viewed at: www.nice.org.uk/page.aspx?o=395501
			2.5	25	The assessment of the effectiveness of particular predictors of behaviour in changing behaviour is limited to authors' statements about the claimed theoretical basis of interventions. This is overly simplistic: some papers state theoretical bases to interventions but, in practice, the intervention techniques are not based in the stated theoretical bases. Other interventions are guided by theory e.g. targeting theoretical determinants of behaviour, but this is not explicitly stated in the published paper. Again, this necessitates identification of discrete precisely-specified techniques within interventions, followed by matching these to theoretical approaches.	Noted.
		Appendix 2	General	30-49	This is an extremely disappointing review, narrowing the models/theories to (i) three social cognition models which are models of *predicting,* not changing, behaviour and (ii) the trans-theoretical model which has largely been discredited in terms of its empirical base (see systematic reviews e.g. Littell &Girvin, 2002; Riemsma et al, 2002; van Sluijs et al, 2004; and recent articles and letters from a wide range of experts e.g. West; Sutton in *Addiction*). This review is not only outdated but includes the limitations already mentioned above (i.e., precise identification of intervention techniques). A quick reading of the book "Predicting health behaviour" (Conner and Norman, 2005 - first edition published in 1996) would have provided more insights.	Noted. However, the models selected for inclusion in this review were chosen on the basis of representation in the published literature, and knowledge of/use by the public health field (where this guidance will ultimately be used). Examination of these models was an important starting point in considering public health approaches to behaviour change, from the perspective of the end users of the guidance. NICE will also be recommending that separate guidance is developed on appropriate psychological models for behaviour change. The BPS is

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						welcome to submit suggestions for future guidance: http://www.nice.org.uk/page.aspx?o=ts.home
					Finally, it is important to emphasise that the available evidence-based models of behaviour *change* e.g. self-regulation theories (e.g. Bandura, Carver and Scheier) and operant learning theory have been excluded – although many psychologists would regard this as the most relevant literature.	NICE will be recommending that separate guidance is developed on appropriate psychological models for behaviour change. The BPS is welcome to submit suggestions for future guidance: http://www.nice.org.uk/page.aspx?o=ts.home
				30	Question 4. As above, why just knowledge and attitudes rather than other more powerful determinants of behaviour? Why looking at effectiveness of "predicting" behaviour, when what we are interested in is effectiveness of changing behaviour, and the theoretical mechanisms by which this occurs?	Please refer to our previous response, above.
			Methodology		Experimental designs are the most useful in assessing behaviour change; cross-sectional and correlational designs have many problems including confounders. There was no recognition of this in study selection or synthesis. The dangers of drawing conclusions about behaviour change from cross-sectional designs have been well rehearsed (e.g. Webb and Sheeran, 2006 *Psychological Bulletin*; Weinstein, in press, *Annals of Behaviour Medicine*)	Noted, thank you. You will find more information on the methodology and findings of this review in the full report at: www.nice.org.uk/page.aspx?o=395489
				33	Call for "better disciplined and directed future approaches to component and model development". What does this mean? Statements should be formulated with sufficient detail and precision to be useful to researchers and funding agencies.	Noted, thank you. NICE will refer this comment to the review authors. You will also find more information in the full report at: www.nice.org.uk/page.aspx?o=395489 .
				34	Meta-analysis can be applied to heterogeneous studies if there is a sound method of identifying and synthesising component intervention techniques and theoretical constructs.	NICE will refer this comment to the review authors, for information.

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				34	Sentence beginning "Such failings ….." What is the evidence for this statement? On p.35, "indirect evidence" is cited, but this is from one review of predictors of one behaviour, blood donation. The review (Ferguson) is of only three studies of motivated individuals. This is not sufficient basis for this statement. And, indeed, this review showed intention, rather than organisational factors, to be the biggest predictor of behaviour change. It is not helpful to pit interventions aimed at changing individuals against organisational and environmental determinants. Both are necessary for effective behaviour change (e.g. unmotivated individuals with good access to facilitative environments are likely to show limited change, just as motivated individuals faced with environmental constraints). Ctd below	NICE will refer this comment to the review authors. You will also find more information in the full report at: www.nice.org.uk/page.aspx?o=395489.
					A research report submitted for this review by Professor Sheeran and colleagues reviewed interventions changing attitudes, social norm and self-efficacy and found moderate to large effects on behaviour change (0.45, 0.42 and 0.61 respectively)	NICE will refer this comment to the review authors, for information.
				36	"In which areas has each model been used?" What does "area" refer to? Models can be used to identify targets, processes/mediators, modifiers (e.g. settings, populations), techniques, and tailor interventions according to mode of delivery, type of behaviour (e.g. approach vs avoidance). However, it appears that the reviewers are not referring to any of these, but to a mixture of types of health behaviour, risk factors and diseases.	NICE will refer this comment to the review authors. Additionally, you will find more information in the full report, http://www.nice.org.uk/page.aspx?o=395489 .
				39	The predictive power of models is "only of academic interest". Predictive power is of relevance to practical health outcomes if combined with intervention mapping and causal modelling approaches to intervention design. If a model does not predict differences in behaviour it is unlikely to be useful in understanding change processes. However, prediction alone is	Agreed. We would ask you to submit any relevant research from the literature on how to use models of behaviour and behaviour change in developing effective interventions as soon as possible.

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					not enough to identify change processes. This review has not considered any of the literature about how to use models of behaviour and behaviour change in developing effective interventions.	The referral from the Department of Health specifically requested that we examine community and population levels of intervention (which include the organisational and environmental determinants that you mention). The guidance is broader than psychological models of behaviour change, and each review needs to be seen in the context of a public health approach to behaviour.
				39	The section on the TTM is overly favourable to the TTM given the evidence from several systematic reviews (see references mentioned earlier) which are not cited.	Noted. NICE will refer this comment to the review authors.
				40	West and Hardy missing from references	Noted. NICE will refer this comment to the review authors.
				41	The statement about the limitations of TPB based research indicates the review's failure to grasp the difference between predictive models that can indicate targets along the causal pathway of change, and change models that specify mechanisms of change. Identifying targets is only the first step; this needs to be followed up by drawing on theories and techniques of behaviour change. Examples of relevant theories, excluded by this review, are Social Cognitive Theory and Elaboration Likelihood Model of Persuasion, cognitive dissonance theory and goal setting theories. In SCT, self-efficacy is a key determinant of behaviour change and identifies interventions to change self-efficacy. ELM outlines mechanisms of changing attitudes, relevant to behaviour change in some contexts. There are several important post-intentional approaches shown to be effective in changing behaviour e.g. action planning, coping planning, implementation intentions. These are absent from the review.	Noted. NICE will refer this comment to the review authors. Please submit any additional research or evidence in these areas as soon as possible. NICE will recommend that separate guidance is developed on appropriate psychological models for behaviour change. The BPS is welcome to submit suggestions for future guidance: http://www.nice.org.uk/page.aspx?o=ts.home
				42 and	Several statements inappropriately generalise from a narrow	Noted. NICE will refer this comment

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				43 (Conclusion)	range of predictive models to the usefulness of models in general. Predictive models, in general, are nether useful or useless. Their utility depends on empirical tests of particular models. change.	to the review authors.
				42	'Social marketing' is introduced without defining it or characterising it accurately. It is described as being "based more on outcome feedbacks than theoretical analyses." There are other behaviour change models e.g. control theory that are specifically based on outcome feedback (unlike social marketing). Moreover, it is unclear just what the evidence base is for social marketing because this term may apply to many different techniques from branding to image-based health promotion. What is required here is a summary of evidence (ideally from controlled trials which shows which techniques inspired by social marketing ideas have been found to change which behaviours effectively. Is this evidence available?	NICE will refer this comment to the review authors. You will also find more information on this in the full report at: www.nice.org.uk/page.aspx?o=395489 , and in the review on social marketing carried out by the University of Stirling at: www.nice.org.uk/page.aspx?o=395521
				43, 2nd line; 45	"Instruments" should be "theories and models".	Noted. NICE will refer this model to the review authors.
				44, 1st para	The sentence "It bridges …." Doesn't make sense and should be omitted.	Noted. NICE will refer this comment to the review authors.
				44, 2nd para	The pitting of "desired outcomes" against the formation of "more theoretically relevant information" does not make sense, nor does the statement have an empirical base. The review does not present any analyses of type of outcome according to type of model.	The full report considers the impact of interventions delivered within each model on health outcomes, http://www.nice.org.uk/page.aspx?o=395489.
				44	The suggestion that all behaviour change interventions should be evaluated solely or even primarily in terms of health outcome (e.g. "volumes of disability avoided") could lead to poorer research designs. If an intervention is designed to change behaviour behaviour must be the outcome (evaluations would be prohibitively expensive if powered for outcomes more distal than the intervention target). For example, if an intervention increases physical activity this is important in itself. If the same intervention fails to impact on weight then this tells us something interesting about which behaviour or combination of	This review was carried out in the context of developing public health guidance. From this perspective, which considers individual, community and population-level intervention and change, evidence on the link between intervention, short-term change on 'proxy' indicators for health such as behaviours, and longer-term

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					behaviours we need to target but it does not follow that the appropriate outcome measure was weight. The Medical Research Council framework for developing and evaluating complex interventions explicitly states that the majority of evaluation research would NOT be definitive trials with health outcomes (summary in Campbell et al, 2000, *BMJ*). There are many intervening factors between behaviour and health outcome that could prevent the accumulation of knowledge about the effectiveness of theories and techniques of behaviour change.	changes in health outcomes is vital. Research in this area, and on the 'intervening factors' that impact on behaviour and outcomes, constitutes a major part of public health activity.
				44, last sentence	Pursuing tangible consumer benefit against academic excellence in evaluation research are not alternatives. Without rigorous science, we will not be able to establish consumer benefit, nor develop interventions to maximise consumer benefit.	Noted.
				45, 1st para	The second and third sentences should be deleted as they are not based on up to date evidence about the TTM. The same statements could be made about all models.	NICE will refer this comment to the review authors.
				45, 2nd and 3rd paras	Strongly agree with this. In addition, there should be a call for a synergistic relationship between application of theory to intervention design and the evaluation of interventions to inform theory development (see Rothman, 2004, *IntJBehNutPhysAct*). Of relevance here is the USA's National Institutes of Health funded behaviour change programmes. Co-ordinated by the Behaviour Change Consortium (http://www1.od.nih.gov/behaviorchange) and the Health Maintenance Consortium (http://hmcrc.srph.tamhsc.edu/default.aspx.), this stream of research directly addresses theory and behaviour change. It would help to fill the identified evidence gaps if NICE called for similar in the UK.	Noted.
		Appendix 4a: Review of the	general		The review of road safety interventions is disappointingly brief – just over one page. The decision to cover only reviews has restricted the usefulness of the findings considerably.	The appendix to the synopsis is only a summary of the full review. The full review(which was put out for

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		effectiveness of road safety and pro-environmental interventions			ALL THE FOLLOWING COMMENTS ALSO RELATE TO EFFECTIVENESS	consultation at the same time as the synopsis) can be found at: www.nice.org.uk/page.aspx?o=395495
			Review methods	P95	It is stated that 18 reviews met the inclusion criteria. However, neither the inclusion criteria nor the reviews included are listed. It is not clear whether the reviews considered were international or restricted to UK.	Please refer to the full review.
			general		No reference list is provided, and no specific reviews are mentioned in the text. Therefore, it is not possible to judge adequacy of coverage.	Please refer to the full review.
				P96	The claim that "Driver education at best is ineffective, but it is probable that by educating drivers, pre or post licence, increases accident rates" is startling and requires evidence to back it up	Please refer to the full review.
				P94	As it stands this review is a missed opportunity. A much more detailed piece of work must be done. This is not to criticise the review's authors – they state clearly that it is a very broad topic area.	Please refer to the full review.
		A review of the use of the health belief model (HBM), the theory of reasoned action (TRA), the theory of planned behaviour (TPB), and the trans-	3.1-3.3, 4.2	34, 40, 54, 66-67	Effectiveness. We would argue that social cognition models are well suited to incorporate social, economic and environmental factors both within and without their frameworks. For example, within the theory of planned behaviour there is a social component (subjective norm) that captures social pressure from referents, which may include relevant individuals and/or social institutions. Ongoing work is looking at other possible social influences on intentions/behaviour. Outwith the theory of planned behaviour, social influences are hypothesised to be mediated through theory of planned behaviour variables (e.g., the salience or evaluation of particular outcomes might be affected by culture).	We would be grateful if you could submit this evidence as soon as possible.

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		theoretical model (TTM) to study and predict health related behaviour change				
		A review of the use of the health belief model (HBM), the theory of reasoned action (TRA), the theory of planned behaviour (TPB), and the trans-theoretical model (TTM) to study and predict health related behaviour change	3.1-3.3, 4.2	34, 40, 54, 66-67	Effectiveness. In terms of economic factors, these might influence people's perceived control directly (e.g., perceived lack of disposable income might mitigate against gym membership) or more indirectly through attitudes (e.g., lack of disposable income might lead people to downplay the value of gym membership), or might explain why some people fail to translate their good intentions into action.	We would be grateful if you could submit this evidence as soon as possible.
		A review of the use of the health belief model (HBM), the theory of reasoned action (TRA), the theory of	3.1-3.3, 4.2	34, 40, 54, 66-67	Effectiveness. In terms of environmental factors, again, these might affect perceived control directly or affect people's attitudes or the extent to which they perceive social pressure, or explain why some people fail to translate their good intentions into action.	We would be grateful if you could submit this evidence as soon as possible.

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		planned behaviour (TPB), and the trans-theoretical model (TTM) to study and predict health related behaviour change				
Central Office of the YMCA			General		A thorough and comprehensive review of available scientific evidence. Well written and mostly accessible to non academics.	Thank you.
			General		In terms of the DOH request for NICE to develop guidance for "Primary Care and other settings on the most appropriate generic and specific interventions to support behaviour change at population and community levels" this document does not answer the task. Only appendix 1 and 5 really review the practical evidence of the extent to which interventions were successful. Much of the document concerns a review of methodology.	The information out for consultation here is only the evidence and research that has been to inform the developing guidance. The full reviews contain more information and detail about the evidence and findings, and these can be viewed at: www.nice.org.uk/page.aspx?o=395474 . The recommendations will be out for consultation in draft form in May 2007.
			General		The document lacks a proper conclusion. What are the most appropriate interventions? If it is impossible to say based on current evidence then what are the recommendations in terms of good practice for those working in the community to bring about improvements to public health? Furthermore, there is no indication as to a proposed action plan to develop such recommendations and hence address the DOH charge.	Please refer to our previous response.
			General		The burden of proof and the standard of study required to merit inclusion is (as is usual with NICE) extremely high and whilst this is understandable and even desirable, the general conclusion that there is little unequivocal evidence that attitude	Noted. Please submit any additional evidence that you think is relevant as soon as possible. We are developing methods for incorporating different

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					and behaviour change interventions work can be disheartening to those working in the field, particularly those who see empirical evidence and hear of anecdotal evidence of success. For example the YMCA Activate England project has been thoroughly evaluated but has not been the subject of an academic study. Evaluation has shown multiple interventions following training of community activators has led to short term increases in physical activity levels of so called "hard to reach" populations.	forms of evidence into our reviews and guidance, and will update our methods manual when these become available. In addition, we will conduct fieldwork to test the draft recommendations with commissioners and practitioners in April 2007, and the findings will be taken into account by the Programme Development Group when the guidance is completed.
				7	This could be due to being scared to smoke due to: • banning smoking in public places • not performing certain surgeries on smokers. Could this also work for non exercisers?	Noted, thank you. Physical activity is covered on p12 of the synopsis, and there is further detail in the full review which can be viewed at: www.nice.org.uk/page.aspx?o=395501
				12	I believe there were studies that looked at socioeconomic groups in relation to smoking, physical activity and diet. (Health Promotion papers 1990s?)	See the full review for further details about search strategies and included excluded papers. If reviews were identified that met the criteria for inclusion, then they will have been considered and described in the full review.
				13	To increase activity in childhood: • parental involvement is vital • good role models There are many research areas into increasing activity in children such as: Aznar et al. (1997). Familial influences on adolescents' physical activity In Children and Exercise, Armstrong et al. Brustad (1996). Attractive tom physical activity in urban schoolchildren. Parental socialisation and gender influences. Research Quarterly for Exercise and Sport. Cohen et al. (1990). Age and sex differences in health habits	Noted, thank you. Physical activity is covered in more detail in the full review which can be viewed at: www.nice.org.uk/page.aspx?o=395501 . This review focused on high-quality systematic reviews of the evidence, which would include many (if not all) of the papers you cite where they have met specific inclusion criteria for quality. You can submit any further evidence that you

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					and beliefs in school children. Health Psychology. Hagger et al. (1995). The importance of children's attitudes towards physical activity. There are many more if you need to have a list. To ensure this participation through to adulthood, attitude to childhood activities and experiences needs to be included	would like the Programme Development Group to consider, but please do so as soon as possible.
				13	A campaign/study was originally done on increasing walking to school in Scotland – can't remember name of study but showed positive results. However, if parents refused to drive children and no access to transport – students would have no choice but to get to school actively.	Noted, thank you. Physical activity is covered in more detail in the full review which may be viewed at http://www.nice.org.uk/page.aspx?o=395501 . This review focused on high-quality systematic reviews of the evidence, which would include many (if not all) of the papers you cite where they have met specific inclusion criteria for quality. You can also submit additional evidence that you would like the Programme Development Group to consider when the draft recommendations go out for consultation in May 2007.
				13	There is evidence of decreases in physical activity in adolescents overall especially with girls due to body image, etc. and parents are more likely to encourage boys rather than girls. Trudeau et al. (1999). Daily primary school physical education: effects of physical activity during adult life. Brustad. (1995). (as before) Fortier. (2000). Examining the time-lagged relationships between adolescents and parents motivation towards physical activity and physical activity behaviour. J. sp and ex psych	Please refer to our previous response.. The full review also cites gender as an influencing factor on the effectiveness of interventions.
				22	Knowledge does not mean changing attitude or increasing participation so how does this help increasing activity levels across the nation?	The full review considers the effectiveness of interventions to change knowledge, attitudes and

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						behaviours, and the relationships between these factors. This can be viewed at www.nice.org.uk/page.aspx?o=395501 Other reviews in the series consider the effectiveness of different techniques, such as social marketing, or making environmental changes, on effectiveness. These can be viewed at: www.nice.org.uk/page.aspx?o=395474
				25	In order for this model to be effective (even over the short term)- maintenance would need to be maintained for 6 months before termination could be considering – suggesting that the model is ineffective as it would never be completed.	Noted.
				27	Health promotion papers show that health inequalities are evident ie. Certain socioeconomic groups are more likely to smoke/not exercise etc. Some ethnic minority groups are less likely to exercise. Some ethnic minority groups are less likely to exercise due to strict religious/traditional values/dress. There are also plenty of papers on inequalities towards boys/girls in relation to school activities and sports. Evans, (1989). Swinging from the crossbar. Equality and opportunity in the physical education curriculum B J Phy Ed.	Thank you, we will consider this suggestion. More detail on the topics you raise is provided in the full review at: www.nice.org.uk/page.aspx?o=395501 . This review focused on high-quality systematic reviews of the evidence, which would include many (if not all) of the papers you cite where they have met specific inclusion criteria for quality.
				28	There are many studies relating to the attitude towards activity/exercise both in children and adults. Many studies by Godin and Shephard as well as many more. As these studies were written for health promotion specialists they should have evaluations of interventions used by these experts.	Please refer to our previous response..
				50	Models for behaviour change are obviously not educating and encouraging individuals to change negative behaviour to reduce this. However any reductions found in this area may be due to	Noted, thank you.

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					medical advances as opposed to changes in behaviour patterns.	
				53	Support may not be sufficient as time management plays a large part to a busy 'mum'.	Noted, thank you.
				56	There is some evidence that shows this especially when adults have a positive attitude towards childhood experiences. Corbin. (1986). Fitness is for children: developing lifetime fitness. J of Phys Ed Fortier (2000). As beforeGlenmark et al (1994). Predicition of physical activity level in adulthood by physical characteristics, physical performance and physical activity in adolescence. Green (1995). Physical education partnership and the challenge of lifelong participation. Harris (1970). Physical activity history and attitudes of middle aged men. Kuh et al (1992). Physical activity at 36 years: patterns and childhood predictors in a longitudinal study. There are many more studies in this area.	Noted, thank you.
Department of Health		General	General		The Department of Health welcomes NICE's synopsis of evidence as an accessible document that adds potential value to the literature on the effectiveness of health behaviour change and is consistent with the thrust of government policy in this area.	Thank you.
		General	General		We would find it helpful if at the outset the synopsis of evidence could clearly state the nature of evidence that is available on such public health programmes and interventions.	Could you please clarify this statement?
		General	General		We note that some of the evidence summaries and statements [cf. Appendix 4a] have potential implications for other government departments – such as the Departments for Transport, Environment, Food and the Regions, and	There is a clear protocol for managing this and we would welcome discussions with the clinical effectiveness branch of DH as to how to manage this particular

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					Communities and Local Government. We would welcome discussion with NICE about how this could best be managed.	linkage.
		Introduction to synopsis	1.4	4	We welcome broader inclusion criteria for public health evidence as consistent with the exhortation in the 2004 Wanless Report: *"The lack of conclusive evidence for action should not, where there is serious risk to the nation's health, block action proportionate to that risk …" [p.5]*	Thank you.
		Appendix 1 - 'A review of the effectiveness of interventions, approaches and models at individual, community and population level that are aimed at changing health outcomes through changing knowledge, attitudes and behaviours'	General		The following additional evidence is suggested: *Personal Responsibility and Changing Behaviour: the state of knowledge and its implications for public policy* Prime Minister's Strategy Unit David Halpern and Clive Bates, Geoff Mulgan and Stephen Aldridge with Greg Beales and Adam Heathfield *Behavioural economics: seven principles for policy-makers* 2005. Emma Dawnay and Hetan Shah. new economics foundation 3 Jonathan Street London SE11 5NH United Kingdom The reviews do not appear to have referenced the extensive evidence reviews already completed by the Centers for Disease Control and Prevention (CDC) in the US, together with the CDC review of cost effectiveness. Assurance that all the CDC community reviews have been used to inform the papers that make up these reviews would be helpful, and if there are any differences in conclusion from the CDC reviews then these	We are aware of this work and cited it in the scope for this programme. The methodology for this review was to look at Cochrane and DARE systematic reviews of the evidence for the effectiveness of interventions. None of the papers cited here are Cochrane type reviews, and the Halpern and and Dawnay papers are theoretical rather than reviews of effectiveness. We will consider this additional evidence. Thank you for drawing our attention to it. Thank you. We are aware of this and have a good relationship with the CDC.

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					should be fully explained. See: http://www.thecommunityguide.org/index.html	
		Appendix 1	Background	6	The listed health behaviours refer specifically to cigarette smoking, and not other forms of tobacco use. It would be helpful to clarify whether or not the evidence reviewed refers to tobacco use other than cigarette smoking, e.g. chewing tobacco, pipe or cigar smoking.	The listed behaviours and the evidence reviewed refers specifically to cigarette smoking.
		Appendix 1	Background	6	The health behaviours listed specifically exclude alcohol dependency and drug dependency. We would find it helpful if there was an explanation of the reasons for excluding these from the scope of the evidence review.	Alcohol and drug dependency were excluded because the aim of the reviews was to look at behaviour change in non-clinical settings. Forthcoming NICE guidance will examine drug and alcohol dependency, visit: www.nice.org.uk/page.aspx?o=SubstanceMisuseInt
		Appendix 1	Evidence statements for interventions at the population level	11	We are concerned about the conclusion that there is good evidence that mass media interventions have an effect on smoking uptake in young people. This conclusion may run counter to the main thrust of the current DH programme which is focused on helping smokers to stop. This is rated by NICE as only having evidence of variable quality. However, no evidence source is quoted in this synopsis.	The synopsis is intended only as a summary of the evidence. The review which considered this evidence can be downloaded from www.nice.org.uk/page.aspx?o=395501 The rating is given by the review authors and does not constitute NICE guidance.
		Appendix 1	2.1.3 Alcohol misuse	14	Reference is made to reviews relating to problem drinkers – which could be interpreted as alcohol dependence. However the background suggests that alcohol dependence is excluded. We suggest that it would be helpful to clarify whether the scope of the evidence review includes or excludes alcohol dependency as noted above.	The full review clarifies this, vist: www.nice.org.uk/page.aspx?o=BehaviourChangeMain

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		Appendix 1	2.1.3 Evidence summary for interventions aimed at individuals.	14 – 15	We think that the summary and statements could have greater consistency with the conclusions of the Evidence Review supporting Models of Care for Alcohol Misusers, which presents a much more up-beat appraisal of brief interventions: *"Including studies categorised as motivational enhancement in the Mesa Grande, there is a very large body of research evidence on alcohol brief interventions, including at least 56 controlled trials of effectiveness (Moyer et al., 2002).* *All these have reached conclusions, in one form or another, favouring the effectiveness of brief interventions in reducing alcohol consumption to low-risk levels among hazardous and harmful drinkers."*	The NICE methodology only allows evidence statements to be based on the evidence considered for this particular review – rather than from previous reviews.
		Appendix 1	2.1.3	14 - 16	We are aware of at least 14 meta-analyses or systematic reviews, using somewhat different aims and methods, of research on effectiveness of brief interventions: (Bien, Miller & Tonigan, 1993; Freemantle *et al.*, 1993; Kahan, Wilson & Becker, 1995; Wilk, Jensen & Havighurst, 1997; Poikolainen, 1999; Irvin, Wyer and Gerson, 2000; Moyer *et al.*, 2002; D'Onofrio & Degutis, 2002; Berglund, Thelander & Jonsson, 2003; Emmen *et al.,* 2004; Ballesteros *et al.*, 2004a; Whitlock *et al.* 2004; Cuijpers, Riper & Lemmens, 2004; Bertholet *et al. 2005.)*	Thank you. We will consider these.
		Appendix 1	2.1.3	14 - 16	We think the evidence review and synopsis of evidence would benefit from peer review by a leading academic in the alcohol studies field.	NICE does not peer review its reviews but rather relies on the expertise of a committee of well-known international experts in the field.
		Appendix 1	General – drug		We suggest that it may be useful to consider other evidence – from reviews undertaken by the National Collaborating Centre	The NICE methodology only allows evidence statements to be based on

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			misuse		for Drug Prevention (NCCDP) that focus on evidence of interventions.	the evidence considered for this particular review rather than from previous reviews. However, we will consider this suggestion.
		Appendix 1	Evidence statements for interventions aimed at populations	16	We suggest the following additional sources of evidence: http://www.cdc.gov/youthcampaign/	Thank you. We will consider this evidence.
		Appendix 1	2.1.4 Healthy Eating [and elsewhere]	16 – 17 [and elsewhere]	We consider NICE's synopsis of evidence to be very comprehensive and balanced in its consideration of the rather limited evidence on healthy eating promotion. In particular, the evidence statements are in keeping with the quality of the evidence available. There are statements such as *"interventions in children may not be effective*" which could be interpreted as being ineffective. It is important that the final statements are worded appropriately. From a policy perspective the government focus to tackle obesity is mainly in children.	Thank you. We will pass this comment to the review authors, for information.
		Appendix 1	Evidence for interventions aimed at populations	20	This conclusion may have implications for the government's Frank programme (drug misuse), if the final recommendation is that the current programme is not evidence based.	Noted. Please note that the reviews do not constitute NICE guidance. NICE is developing guidance on substance use which can be found at: www.nice.org.uk/page.aspx?o=SubstanceMisuseInt

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		Appendix 1	2.1.6 Sexual risk-taking in young people	20 - 21	We welcome the focus in this area. We are concerned that the reviews are not of the best quality and there is a relevance rating of C for all the sexual health and teenage pregnancy studies, i.e. they are largely non-UK studies and may have some application to UK settings but should be interpreted with caution. We suggest that NICE may want to add that there is good quality evidence supporting that community and school based STI (sexually transmitted infections) prevention interventions do not lead to an increase in sexual activity. We would question whether the sentence on counselling to prevent or reduce teenage pregnancies is necessary in the summary statement. We are concerned about the quality of available evidence and the review in question only comprises four studies. We would consider is helpful if the summary and statements could draw out specific interventions or elements of intervention programmes that are most effective/ ineffective in sexual risk reduction.	Thank you. Noted. Thank you. We will be considering sex education in future NICE guidance. We will refer this comment to the authors of the review. Noted.
		Appendix 1	2.1.6 Sexual risk-taking in young people - Evidence statements for	20	**Re Statement 1:** We note there is no difference in impact on sexual behaviour between the two programmes. We think it may be helpful to add that there is no evidence that teaching students about contraception encourages sexual activity. In the last sentence, we suggest that it would be helpful to clarify that abstinence plus programmes show an effect on knowledge and use of contraceptives.	Noted.

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			interventions aimed at communities			
		Appendix 1	2.1.6 Sexual risk-taking in young people	21	We are concerned that the quality of the review is rated as ++, very good quality but only 8 of the included studies scored more than two points on the quality assessment scale. We think it would be helpful to clarify the basis for the review rating given the potentially controversial nature of some of the statements in this section.. We do not think it is clear what comprises the 'pregnancy reduction interventions'. The description 'sex education classes' is not one that we feel is accurate. We would welcome if the quality or intensity of interventions, could be made clearer as these would obviously have an impact on the outcome. The review includes abstinence programmes, but it is not clear how many overall, although it is mentioned that in four of the five studies that had a negative impact were abstinence programmes.	In accordance with the NICE methodology the systematic review was scored, rather than the individual studies of which it was composed.
		Appendix 1	2.1.6 Sexual risk-taking in young people	21	**Re Statement 3:** We are not sure if statement 3 reflects the evidence tables. We are concerned about the quality of the evidence, but it does show a positive effect regarding contraceptive use and knowledge of STDs (sexually transmitted diseases) in some studies. However, we cannot arrive at a conclusion with respect to the effectiveness of counselling in clinical settings, as we feel there are methodological flaws in the four studies in question.	Please refer to our previous response.

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		Appendix 1	2.1.6 Sexual risk-taking in young people	22	**Re Statement 4:** We think it would be helpful if you could clarify whether the Pedlow 2003 review covered both HIV and STI risk reduction, as the multi-component interventions included providing pamphlets on STIs? Did any of the other components include STIs?	This information is given on p89 of the relevant review available at: www.nice.org.uk/page.aspx?o=395501
		Appendix 1	2.1.6 Sexual risk-taking in young people	22	**Re Statement 5:** We think this review is of oogd quality. In addition, the authors of the review found that both community and school based STI prevention interventions did not lead to an increase in the number of adolescents who chose to become sexually active, or in the frequency of sexual intercourse. We consider this to be an important point and perhaps this could also be included in statement 5, and even in the summary?	Noted. Thank you.
		Appendix 1	2.1.6 Sexual risk-taking in young people	22	**Re Statement 6:** This seems a balanced statement.	Thank you.
		Appendix 1	2.1.6 Sexual risk-taking in young people	22	**Re Statement 7:** We do not think this statement adds very much and it also appears to contradict Statement 5.	We will refer this to the review authors.
		Appendix 1	2.1.6 Sexual risk-taking	22	**Re Statement 8:** We note that the quality of evidence is not good, though the statement seems balanced.	Thank you.

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			in young people			
		Appendix 1	2.2 – evidence summary and evidence statements.	21 – 23	The summary and statements seem balanced. We note that all three reviews found increase in knowledge of sexual health and /or contraception in the intervention groups.	Thank you.
		Appendix 1	2.3	23	We note that there is no reference to evidence on sexual health.	Noted.
		Appendix 1	2.4	24 - 25	Aside from school based interventions, are there any other interventions used in sexual health that also work across other health behaviours?	The full extent of the evidence considered is presented in the full review available at: www.nice.org.uk/page.aspx?o=BehaviourChangeMain
		Appendix 1	2.5	25 - 26	We suggest that a careful approach is needed. Does NICE mean that 'knowledge only' based approaches may not be effective, as the 'skills' based approaches may involve imparting some level of knowledge? If there is inconclusive evidence that skills based approaches are effective, then how should the guidance be interpreted? We suggest that the evidence statement relating to sexual health is difficult to interpret, and would encourage NICE to clarify this.	Noted. The reviews do not constitute NICE guidance. NICE is developing guidance on substance use which can be found at: www.nice.org.uk/page.aspx?o=SubstanceMisuseInt
		Appendix 1	2.6	26 - 29	We note and concur that there is a general lack of evidence. Some review centres have been working on this issues (eg. a tobacco control review at the University of York; mapping of evidence re young people and inequalities) but the studies have	Noted.

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					not been published as yet. More generally the documents may wish to refer to the wider range of inequalities that might be of interest – i.e. not just socioeconomic factors. This is important in terms of equality legislation. For example this broader view of inequalities can be summed up in the mnemonic PROGRESS - Place of residence, Race/ethnicity, Occupation, Gender, Religion, Education, Socio-economic position and Social capital. Age, disability and sexual orientation could also be added.	
		Appendix 2 – 'A review of the use of the health belief model (HBM), the theory of reasoned action (TRA), the theory of planned behaviour (TPB), and the trans-theoretical model (TTM) to study and predict health related behaviour change'		30	We note that no explanation is given about why these particular models have been chosen as opposed to the many other behaviour change models that exist. Over 50 alternative and well used models are listed at: www.comminit.com/planningmodels.html We suggest that a more thorough mapping of the field would be useful.	These models were chosen as the most commonly used and the greatest number of published evaluations. The list is by no means exhaustive and the Programme Development Group has considered a number of other models.
		Appendix 2		30	We feel that this paper's research questions are largely descriptive. Only question five includes an analytical focus.	This is intentional. We were keen to explore contextual issues as part of

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						this broad programme guidance development.
		Appendix 2	Evidence statement	36	We consider the conclusion reached seems to go beyond the analysis presented.	Noted. We will bring this to the attention of the Programme Development Group.
		Appendix 2	Evidence statement	41	We think that this conclusion may affect Stop Smoking Services as many apply TTM (Trans-Theoretical Model) or SoC (Stages of Change) approaches. Will NICE be recommending that these models not be used?	It is not possible at this point to pre-empt the Programme Development Groups recommendations.
		Appendix 2	Evidence statement	43	We would find it useful to know why is this statement couched in negative terms (even if not)?	We will refer this to the review authors.
		Appendix 3	1.3.2	63	We think it would helpful to note that the key influences on breastfeeding are not only cultural but related to peer pressure and family pressures. We feel that the evidence is consistent with DH policy. Recommending individualised education and support may have an impact on delivery within the NHS - depending on the approach taken.	We will refer this to the review authors.
		Appendix 3 - A review of the influence of social and cultural context on the effectiveness of health behaviour change	8 - Conclusion	85 - 86	We consider these conclusions to support the DH policy direction of incorporating a more rigorous social marketing planning approach to support behaviour change.	Thank you.

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		interventions in relation to diet, exercise and smoking cessation'.				
		Appendix 3	8 - Conclusion	85 - 86	We note the conclusions, which are not new. The short list of research needs hides a massive agenda. What would be helpful is an assessment of where best returns might be received given finite research funds. We think it is unclear why the authors think there is no coherence in public health R&D funding. This is a massive area and there have been significant advances in the last 3 - 4 years – such as funder collaboration over the National Prevention Research Initiative, and the United Kingdom Clinical Research Collaboration (UKCRC) public health strategic planning group.	This is beyond the remit of the reviews and synopsis. The final NICE guidance will contain research recommendations made by the Programme Development Group. This reflects the opinion of the study authors and does not necessarily reflect the opinion of NICE. The reviews do not constitute NICE guidance.
		Appendix 4a		94 - 98	The Department for Transport is likely to have an interest in the road safety evidence. The Department for the Environment, Food and the Regions, the Department for Transport, and the Department for Communities and Local Government are likely to have an interest in the evidence on recycling and environmental aspects. The finding that people seem to respond more to reward and commitments than incentives and altering the environment may have implications for policy on Strategic Environmental Assessment (SEA) which is predicated on the fact that making planners aware of health impacts of the environment will	There is a clear protocol for managing this and we would welcome discussions with the clinical effectiveness branch of DH as to how to manage this particular linkage.

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					improve people's health, e.g. shifting from car use to walking/cycling.	
		Appendix 4a - 'A review of the effectiveness of interventions aimed at changing knowledge, attitudes and behaviour in road safety, environmental behaviour and marketing'	Pro-environmental review: Results	96	We suggest that the link between the review of theory and environmental behavior change could be strengthened. Additional useful resources for the review are: *Motivating Sustainable Consumption* *a review of evidence on consumer behavior and behavioural change* *a report to the Sustainable Development Research Network* January 2005 Professor Tim Jackson Centre for Environmental Strategy University of Surrey GUILDFORD Surrey GU2 7XH t.jackson@surrey.ac.uk and *the rules of the game: Recommendations to the Climate Change Communications Working Group:* Futerra and *AN EVIDENCE BASE REVIEW OF PUBLIC ATTITUDES TO CLIMATE CHANGE AND TRANSPORT BEHAVIOUR* by: Dr Jillian Anable UK Energy Research Centre Transport topic leader The Centre for Transport Policy The Robert Gordon University Dr Ben Lane Ecolane Transport Consultancy Ltd Dr Tanika Kelay Environmental Psychology Research Group University of Surrey	Thank you. We will consider these.

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					for THE DEPARTMENT FOR TRANSPORT July 2006	
		Appendix 4b - Marketing review	Learning points from the report	104	The conclusions from this review appear to be consistent with DH social marketing strategy findings and recommendations.	Thank you.
		Appendix 5 - Resilience, coping and salutogenic approaches		106 - 120	The substantive literature on "thriving" (referenced in key WHO publications), as well as resilience and coping, is also of relevance to health and well-being.	Thank you.
Diabetes UK	 Evidence 1 (DUK)	Synopsis of the Evidence on Behaviour Change Programme	Appendix 1 2.1.1	8	Coding for level of evidence, quality scores and applicability to the UK appear for the first time on this page but there is no explanation and criteria presented until page 35. It would be helpful if there was a paragraph stating that each evidence statement has been graded and the following criteria have been used….. Otherwise it may be extremely confusing to the reader.	We will pass this to the authors.
			Appendix 1 2.1.1	11	Under the sub-heading "Incentives" – the final two words "is small" should be removed.	We will pass this to the authors, for information.
			Appendix 1 2.4	24	Statements such as 'school based approaches' and workplace interventions' are too broad. Would it be possible to provide expand and provide a small amount of detail to inform the reader about the specific interventions that were evualated?	Since these statements are based on tertiary reviews we are only able to provide the level of detail given within the review.
			Appendix 1 General		When it is sated "x number of reviews evaluated……" – is it possible to reference the reviews so that the reader may refer to specific reviews if required?	The reviews are specified in the main documents. Only the executive summaries are included in the synopsis document.
			Appendix 1 2.7	29	Q.5 – it is stated that there are "no reviews that evaluate the effectiveness of particular theoretical models or approaches underpinning aiming to change knowledge, attitudes or behaviours in health". Have the researchers reviewed the	Details of the literature searched are contained in the full review document, including a list of databases searched and detailed

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					disease specific literature? A lot may be learnt from systematic reviews that have been done with specific conditions e.g. Deakin, T. A., McShane, C. T., Cade, J. E., & Williams, D. D. R. 2005b, *Group based self-management strategies in people with type 2 diabetes mellitus*, The Cochrane Database of Systematic Reviews.	search strategies – visit: www.nice.org.uk/page.aspx?o=BehaviourChangeMain. We will consider the additional references.
			General		The conclusions would be easier to read and understand if presented in table format. The conclusions would also be more meaningful if relevant effect sizes were reported.	Noted. Thank you.
			Appendix 2	30	1st paragraph, last sentence – the word 'it' needs to be removed.	Noted. Thank you.
				35	Table S1 should be placed at the beginning of the document.	Noted. Thank you.
			Appendix 3	70	B) …"dieticians were more effective than doctors in communicating about dietary change." Why is this stated in the smoking cessation section? Would this statement and evidence be better placed in the healthy eating section on page 65?	We will refer this comment to the review authors.
				74	1st paragraph "quitting smoking can reduce the risk of a myocardial infarction by 50% in two". There was no reference or quality criteria attached to this statement. There was also no reference attached to the statement regarding sale of wholegrain bread.	We will refer this comment to the review authors.
			Appendix 5	106	There are no evidence statements, effect sizes or quality criteria presented.	These can be found in the main review at: www.nice.org.uk/page.aspx?o=BehaviourChangeMain
			General		It is appreciated that all the reviewed have been prepared and written by different authors but it would help the reader if there was some consistency in the presentation of the reviews. Summary tables throughout would be helpful. Appendix 3 presents the evidence in the most comprehensive and informative manner.	We try not to interfere with the writing of different authors manuscripts but rather leave them intact. NICE suggests a style of presentation to authors, but there is considerable flexibility within that.
			General		Evidence could be presented in a clearer format to help the reader understand the current evidence base regarding behaviour change.	See above. We will in due course produce a full guidance document which will clarify the nature and extent of the evidence.

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Eppi-Centre	 Evidence (Eppi-Cen	Synopsis	General		We welcome the opportunity to comment on the draft synopsis of evidence. This is an important overview of the individual reviews of research evidence related to different aspects of health behaviour change. The reviews of review that inform this synopsis are a welcome contribution to knowledge in the field of health behaviour change.	Thank you.
		Synopsis	General		Whilst this may not be part of the standard searching methods in the public health programme of work. We recommend that any future reviews include searches of the Database of Public Health Effectiveness Reviews (DoPHER) freely available at http://eppi.ioe.ac.uk/webdatabases/Intro.aspx?ID=2 and, the Trials Register of Promoting Health Interventions (TRoPHI) – this is the official trials register of the Cochrane Health Promotion and Public Health field and contains controlled trilas which may not be indexed on the Cochrane Library. http://eppi.ioe.ac.uk/webdatabases/Intro.aspx?ID=5	Thank you. We will pass this comment on to our Information Specialists, although it is too late to rerun the searches for these reviews.
		Synopsis	General		Interventions targeted at behavioural change are complex interventions, often with more than one component to the intervention. As such it is important to collect process as well as outcome data. Process evaluations explore intervention implementation, the way in which interventions are received by recipients, and the influence of setting and context. This type of evaluation is able to explore the reasons for the success or failure of an intervention and can thus help in the interpretation of outcome data. Using the results of process evaluations in systematic reviews is likely to improve our understanding of why and how some interventions work. Some of the individual systematic reviews have contained process evaluation data and it would be useful for this aspect to be highlighted in future reports. It may have been beyond the scope of the rapid tertiary reviews that inform the synopsis. However, in future reviews PDGs may find this type of evidence useful in considering the applicability of interventions .	We agree. Thank you.
		Synopsis	Appendix 1 -		The lack of references for any of the 87 systematic reviews cited in the evidence summaries that are used to support the	The synopsis is not intended for the Programme Development Group but

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			general		evidence statements is problematic. It is difficult for the reader to know whether there are any gaps in the evidence, and whether the interpretation and subsequent grading of these studies is appropriate. The lack of detailed and fully referenced evidence statements will limit the usefulness of the synopsis to the PDG. I would suggest that more detailed and fully referenced evidence summaries are provided (perhaps similar to those in appendix 3 of the synopsis).	rather to present a brief overview to a wide range of stakeholders. The Programme Development Group consider each review in full as it is produced.
		Synopsis	Appendix 1 and general	Page 6 Page 4	It would have been useful to have a description of the methods used following the background, prior to the summary of findings. In particular I would have expected to see inclusion/exclusion criteria, sources searched to identify studies and a brief description of methods for data extraction and the interpretation of quality and level of evidence. As the six reviews on which this synopsis is based use the same or similar methods then perhaps these could be briefly outlined prior to section 1.4 Limits to the methodology. The reader who is particularly interested in methods can then follow the directions to the website for the full description of the methods for the development of public health guidance.	Full description of the methodology and inclusion/exclusion criteria for each review can be found in the full review documents at: www.nice.org.uk/page.aspx?o=BehaviourChangeMain The purpose of the synopsis is to provide an overview.
		Synopsis	Appendix 3	P52-54	Section 1.1.1 Diet I would like to query the interpretation of the systematic review by Shepherd et al 2001. This review is given an evidence grading of 3+A – however it contains a systematic narrative synthesis of 7 outcome evaluations 5 of which are RCT's. Does this not warrant a grading of 1+A? There may be some confusion as the report also contains a systematic review of 'qualitative' studies.	We will pass this comment on to the review authors.
		Synopsis	Appendix 3	P52-52	Section 1.1.1 Diet There appears to be a gap in the evidence here. Thomas et al have published a systematic review of the barriers and facilitators of healthy eating in young children. Available at http://eppi.ioe.ac.uk/cms/Default.aspx?tabid=246 and	Thank you. We will consider this evidence.

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					Thomas J, Harden A, Oakley A, Oliver S, Sutcliffe K, Rees R, Brunton G, Kavanagh J (2004) Integrating qualitative research with trials in systematic reviews: an example from public health. *British Medical Journal* **328**: 1010-1012. It is possible that an abstract for this SR may not have been available on DARE at the time searches were run.	
			Appendix 3	P58	See above re interpretation of Shepherd et al	Thank you, please refer to our previous response.
			Appendix 3	P59 And p75	A potentially relevant review by Rees et al on barriers and facilitators of physical activity in young people is not included here. http://eppi.ioe.ac.uk/cms/Default.aspx?tabid=261 . This review is also relevant to section 2 gender and health behaviour change.	Thank you. We will consider this evidence.
		Synopsis	Appendix 3		The style and formatting of this appendix was impressive in that, it was easy to navigate, and provided a clear link between evidence summaries and evidence statements. It was clearly referenced, and did not require the reader to refer back to the full report it was based on.	Thank you.
		Synopsis	4a General		The lack of references for any of the systematic reviews cited is problematic. It is difficult for the reader to know whether there are any gaps in the evidence, and whether the interpretation and subsequent grading of these studies is appropriate. Looking at the review of reviews which this synopsis is based there appear to be no systematic reviews conducted by Elizabeth Towner and colleagues included. A list of potentially relevant reviews is provided below. Many of these are about accidental injury prevention in general but may also include relevant data on road safety etc.	The synopsis is intended to provide a brief overview of the evidence. The fully referenced evidence is contained in the individual reviews.
					Towner E, Dowswell T, Jarvis S. Reducing Childhood Accidents. The Effectiveness of Health Promotion Interventions: A Literature Review. 1993. London, Health Education Authority.	Thank you. We will consider this evidence.

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					File (2) Towner E, Dowswell T, Jarvis S. Updating the Evidence. A Systematic Review of What Works in Preventing Childhood Unintentional Injuries: Part 1. Injury Prevention 2001; 7:161-164. (3) Towner E, Dowswell T, Burkes H, Dickinson J, Towner M, Hayes M. Bicycle Helmets-A review of their effectiveness: A critical review of the literature. 2002. Department of Transport. 2002. (4) Towner E. The prevention of childhood injury,background paper prepared for The Accidental Injury Task Force,September 2002. 2002. (5) Towner E, Dowswell T, Simpson G, et al. Health Promotion in Childhood and Young Adolescence for the Prevention of Unintentional Injuries. Health Promotion Effectiveness Reviews. 1996. London, Health Education Authority. (6) Towner E, Dowswell T, Mackereth C, Jarvis S. What works in preventing unintentional injuries in children and young adolescents? An updated systematic review. 2001. Health Development Agency. (7) Towner E, Dowswell T, Jarvis S. Updating the evidence. A systematic review of what works in preventing childhood unintentional injuries: part 2. Injury Prevention	

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					2001; 7(3):249-253. (8) Towner E, Dowswell G, Errington M, Burkes J, Towner J. Injuries in children aged 0-14 years and inequalities. 2005. Health Development Agency.	
Heart of Mersey			General – for whole document		We appreciate the acknowledgement (in the introduction) that health (and therefore behaviour change) is determined by broader issues than individual behaviour, and that policy/socio-economic environment have a major role to play in health determinants. We are surprised therefore that there is no mention of the successful CHD intervention programme in North Karelia. The North Karelia project focused much of its work with the community (as opposed to individuals), and utilised four key theoretical frameworks for behaviour change; namely, the behaviour change approach, the community-behaviour change approach, the innovation-diffusion approach and community organisation/social policy. In Merseyside, Heart of Mersey adopts the first three theoretical approaches at the local and regional level together with their local and regional partners. However, the main focus is upon "social policy" activity at both national and European level in order to effect behaviour change by encouraging a more health promoting environment.	Thank you. This programme would not have been picked up by our searches unless it was part of a systematic review or meta-analysis – as the reviews were focused at this level to limit the volume of data. If you wish to submit this evidence then we will consider it. The effectiveness of large-scale CHD programmes such as North Karelia may be the subject of specific NICE guidance in the future.
			General –ref. to support text above		Ref: Puska P, Tuomilheto J, Nissinen A, and Vartiainen E. *The North Karelia Project. 20 Year Results and Experiences.* 1995, Helsinki, National Public Health Institute.	Thank you. We will consider this evidence.
Office of the Chief Psychologist, National			General		Although the review does cover some interventions aimed at behavioural change, conducted by Health psychologists, there is a broader absence of other psychological therapy interventions focussed on behavioural change. This may negatively impact on the effectiveness of the document.	Psychological therapies were excluded from the reviews conducted for this programme as detailed in the scope document available from our website at:: www.nice.org.uk/page.aspx?o=Beha

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Offender Management Service						viourChangeMain These may be the subject of future NICE guidance.
			General		The structure of the review could potentially benefit from an executive summary and a review of the format in which the data is presented. This could improve it's effectiveness by increasing ease of access.	All of the reviews contain an executive summary, and the synopsis document is compiled from these summaries. Please refer to the original reviews at: www.nice.org.uk/page.aspx?o=BehaviourChangeMain
			General		The review is informative and helpful in terms of highlighted some of the evidence based effective interventions in the specific fields covered.	Thank you.
Royal College of Midwives		Behaviour change: Introduction to synopsis	General		It is hoped that in future work pregnant women will be addressed as a unique group when developing the behaviour change guidelines - it is apparent that some of the reviews have identified pregnant women and others have not.	Where literature was identified that pertained specifically to pregnant women, it was included in the reviews. We agree that this is potentially a key time for behaviour change interventions and will suggest it as a future topic for NICE guidance.
			Appendix 1. Summary of findings	7	The College welcomes this review that has noted pregnant women as a separate category.	Thank you.
			Appendix 2.	37	This review looks at the major behaviour change models yet does not address pregnant women or new mother's health related behaviour change and only mentions pregnancy prevention. The National Evaluation of Sure Start (www.ness.bbk.ac.uk) may be worth consulting to ascertain which models had the greatest impact on women and their families.	This review only considered information provided in systematic reviews or meta-analyses. We will consider this evidence. Thank you.
			Appendix 3. 1.3 Pregna	61 - 65	This section has valuable evidence for practice.	Thank you.

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			ncy and the beginning of parenthood.			
			Marketing review	99	It would be expected that pregnant women were a target audience for social marketing yet there is no reference to this consumer group or the effect on behaviour change.	No literature was identified in our searches which addressed this. If you are aware of any literature in this area then please submit it for consideration.