



Food Standards Agency in Scotland research report:

Exploring the sources of information which might influence health professionals' delivery of healthy eating advice:



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A discourse analysis

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The views expressed within this report are those of the authors and do not necessarily reflect the views of the Food Standards Agency in Scotland.

Summary

The aim of this research is to explore some of the sources of information which might influence health professionals' interpretation and delivery of healthy eating advice, particularly sources which relate to starchy foods and foods high in fat or sugar. A range of publications and websites were analysed using a discourse analysis approach. Such an approach helps to identify the political, social or economic context within which text is produced. Four key themes emerged from the analysis:

- There is often inconsistency within and between sources about guidance on starchy foods and foods high in fat or sugar
- Many sources routinely use value-laden terms when delivering healthy eating messages
- Sources do not tend to specify portions/portion size in relation to foods high in fat or sugar
- The social context within which eating takes place is, on the whole, ignored

The analysis highlights that there is considerable scope for improving the format and presentation of healthy eating advice aimed at health professionals and consumers. The extent of the influence of sources of healthy eating advice needs to be evaluated.

Introduction

The Food Standards Agency in Scotland (FSAS) and the Scottish Government are committed to improving the nation's health and tackling health inequalities. Increasing the proportion of people in Scotland who eat a healthy balanced diet is one of the main ways in which this can be achieved. A healthy balanced diet plays a key role in preventing diet-related disease and can help people maintain a healthy weight. The FSA in Scotland is working closely with the Scottish Government to ensure that the advice for consumers is consistent. Their strategic plan (Food Standards Agency 2011) includes the following outcome:

“We aim to provide consumers with reliable, up-to-date information about food to help them make informed choices” (page 4)

The Scottish Government has introduced a number of policies aimed at improving the nation's diet, most recently, Preventing Overweight and Obesity in Scotland: A Route Map Towards Healthy Weight (Scottish Government 2010) and the Obesity Route Map Action Plan (Scottish Government 2011).

Health professionals are perhaps ideally situated to advise consumers about eating healthily and about the resources available to help them do so. In this sense, health professionals can act as gatekeepers for changing knowledge, beliefs and behaviour. Within general practice, which is seen as an appropriate setting by patients for receiving nutritional advice (Hankey et al. 2003), GPs do not always see their role as encompassing the giving of general health promotion advice (Fuller et al. 2003) and view practice nurses as being better placed to do so (McClinchy, Dickinson et al. 2011).

Some patients express frustration if given general advice ('make sure she eats a balanced diet' (McClinchy, Dickinson et al. 2011:8) by primary care practitioners, preferring to receive more specific information about what should be eaten and in what amounts. Hankey et al (2003) found that a sizeable proportion of primary care health professionals had significant gaps in nutrition knowledge; such gaps were not evident amongst dietitians. There is a dearth of evidence, however, about the practices of community-based health professionals, like health visitors, community dietitians and nutritionists in relation to the delivery of advice about eating a healthy, balanced diet.

Informal discussion between the authors and a range of health professionals (including health visitors, nurses, dietitians and nutritionists) about the publications/resources they and their colleagues read or access, highlighted that perceptions about healthy eating are informed by a range of information sources, drawn on as and when they need information relating to nutrition/healthy eating within their professional practice. These include professional and popular/lay sources of information.

The aim of this research is, therefore, to explore some of the sources of information which might influence health professionals' interpretation and delivery of healthy eating advice, particularly sources which relate to starchy foods and foods high in fat or sugar. The objectives are to explore:

- 1) What materials and key messages about starchy foods and foods high in fat or sugar and their incorporation into a healthy, balanced diet are available to health professionals?
- 2) What ideologies and discourses are evident in this material?

Methods

We adopted a discourse analysis approach because this approach acknowledges that language is more than just words, it is illustrative of the political, social or economic context within which words are produced (Fairclough 2003; Shaw 2010). We are also interested in the ideologies being created or presented in the materials of interest. Ideologies are representations of particular kinds of knowledge. Nutrition information, for example, might represent scientific fact, but this can be corrupted, either by/at the source or in the way it is interpreted by different audiences, thereby creating a particular kind of discourse or social effect (Fairclough 2003).

An initial list of potential sources for the analysis was drawn up by the authors and the FSAS. This included websites and magazines aimed at nutritionists and dietitians, websites, journals and magazines aimed at other health professionals (namely GPs and nurses, including practice and community/public health nurses, such as health visitors) and websites and resources aimed at consumers but which were felt to be accessible to health professionals. The list was discussed with nutritionists at FSA (in Scotland and Northern Ireland, where FSA retains a remit for nutrition) and with academic colleagues and health professionals, including health visitors, nurses, nutritionists and dietitians. New sources were added to the list as a result of these discussions.

Two members of the team then conducted an initial trawl of each of the sources in order to ascertain:

- ***Whether there was any content relating to food, diet or nutrition and within that:***
- ***Whether there was any content relating to starchy foods/carbohydrates and their incorporation into a healthy, balanced diet***
- ***Whether there was any content relating to foods high in fat or sugar and their incorporation into a healthy balanced diet***

The initial searching of each source raised a number of issues which were discussed with FSAS and the decisions taken informed the main stage of the analysis. This included clarifying the inclusion and exclusion criteria, thus:

- Restrict the analysis to the same sections, when available, within each source, rather than sampling a wider range of sections across the sources. This was because it was felt that sources would use a similar 'style' across their publication/website.

- The sections which were analysed, if available, were: healthy eating; snacking; packed lunches; breakfast; weight loss; weaning; children; teenagers; older people
 - The topic specific sections were chosen because snacking, packed lunches and breakfast are times when advice about starchy foods and foods high in fat or sugar might be particularly relevant; the population groups were selected because, generally, there is more advice available aimed at them/those advising them than for 'adults'
 - Other sections were also analysed if they contained information relevant to the study's objectives
- Include sources published from October 2009 onwards
 - Include information aimed at consumers or health professionals
 - Include information aimed at a UK, Scotland or NI audience
 - Exclude information aimed at caterers
 - Exclude transient online items, like those contained on online news or website home pages as it is not possible to document these once they have been removed from the source.
 - Exclude websites/resources relating to specific, clinical conditions (e.g. diabetes, stroke), because the analysis relates to advice given by health professionals to healthy populations only.

Appendix 1 highlights which sources were included in the main stage of analysis, including details of the sub-sections examined in detail and the way that print sources were sampled. Appendix 2 shows the sources which were excluded from our analysis and the reasons for this exclusion.

Analysis

Material relating to a healthy, balanced diet and the consumption of starchy foods and foods high in fat or sugar were read and coded according to the discourses and ideologies that emerged. In particular we examined the texts for evidence of ideology or discourse that runs counter to current healthy eating advice such as that offered by the *eatwell plate*¹.

The validity of the overall analysis was improved through continually examining the data for rival explanations, and regular sharing of data and analytical notes between members of the research team. Some sources were analysed by more than one member of the team to check the consistency of the analytical approach.

We were guided by the steps for conducting discourse analysis outlined by Potter and Weatherall (Potter and Weatherall 1987). The three authors initially independently read a selection of the sources and recorded instances when starchy foods (and carbohydrates) and foods high in fat or sugar were mentioned. Each researcher also noted their observations about the dominant ideologies and discursive positions which emerged from the texts in relation to starchy foods/carbohydrates and foods high in fat or sugar and these

¹ <http://www.food.gov.uk/scotland/scotnut/eatwellplate/>

were discussed collectively. Each source/text was then re-examined to document the parameters of the major emergent themes (whether, when and in which contexts the themes were evident). The analysis was logged in an Excel spread sheet for each source.

Findings

Firstly, we present some general findings about the sources analysed, in terms of the overall ideologies which emerged and the way this relates to discourses about eating healthily. We then go on to describe the discourses which emerged specifically in relation to starchy foods and foods high in fat or sugar.

Some material was **evidence based** (in terms of presenting current nutritional advice) and **clearly written**; it contained well-defined guidance, explained the science behind the message, repeated it appropriately throughout the material to reinforce its message and used neutral (value-free) language. For example, *“children should be discouraged from having fizzy drinks and squashes as they erode teeth and provide no nutrients. Such drinks should be heavily diluted and served in cups not in bottles”*².

The delivery of healthy eating messages as described above was not, however, the norm across the sources analysed. Many sources contained **inconsistent** and **confused** messages, either across sites/publications and sometimes even within an article/webpage. For example, one website section described the *‘four food groups’* quickly followed by the *‘five food groups’* and another talked about obesity prevalence and eating habits amongst 11-16 year olds in the section focusing on children aged 1-5. Some sources jumped from delivering general healthy eating advice (e.g. eat together with your children; it is normal for children to reject some foods) to science-heavy language; and/or provided scant information (e.g. two sentences) in some sections and lengthy guidance on others (whole pages). This represented quite a leap in terms of both the language and approach presented.

Occasionally, value- and doom-laden messages about eating a healthy diet and about foods high in fat or sugar were described. This was particularly the case in guidance aimed at parents, teenagers or those wishing to lose weight. These materials often came across as taking a ‘top down’ approach; that the source ‘knows best’ but is not willing to clearly articulate all the details for the reader; such sources anticipate that the reader will have the same values as it does. For example:

“At Christmas we’re always surrounded by lots of lovely food and drink. Whilst there is no reason to feel guilty about enjoying yourself, it’s worth remembering that, on average, people gain about 5lbs (2kgs) over Christmas. Now you know why Santa is such a jolly fellow!”

The source assumes consumers will feel guilty about what they eat at Christmas and that putting on weight relates to being *‘a jolly fellow’*. These texts therefore sometimes appear desperate to get their message across but risk the opposite because of the way they are written; typically, the language aims to connect with the lay reader but the style lacks

² Please note that all references to sources have been removed; these are, however, available from FSAS

clarity. For example, “You’ll ... discover toddler unfriendly food with healthy alternatives”; it is not clear what is meant by ‘toddler unfriendly foods’ and why these seem to be deemed, automatically, as unhealthy.

In the following extract, ‘healthy snacks’ and ‘fatty foods’ are referred to but not defined; the source does not define how often a child needs to ‘keep asking’ for a parent to determine it is too often and it suggests that ‘high-calorie food’ is inappropriate for toddlers, rather than, more specifically, food or drinks high in fat or sugar:

“Does your tot keep asking for sweet and fatty foods? Have healthy snacks to hand to avoid denting their appetite with high-calorie food like sweets, biscuits and crisps”

Opinion pieces and columns in magazines, even when written by dietitians/health professionals, were, often, not clearly written; the language and tone used was often biased or provocative yet the fact that this represents the *opinion* of an individual is not made clear to the reader. This example is from a reflective piece written by a practice nurse:

‘Eh up, fat lad, who ate all the pies?’ would not go down too well. We would be accused of inflicting psychological damage. However, the Government has stated that we must address it, as with most things that have become medicalised. ‘But he’ll only eat chips and crisps,’ whine the parents. Surely he would soon tuck into meat and two veg if allowed to experience true hunger”

This type of article seems to represent a particularly confusing and misleading format regarding the delivery of clear, evidence based dietary messages.

The **eatwell plate** was referred to in some sources but this was often not well integrated with the other guidance provided. For example, the *eatwell plate* has five segments, as shown on one webpage, but ‘four food groups’ were referred to in the accompanying text. Another, aimed at nurses, provided a link to the *eatwell plate* but no further information in the text so this relies on the health professional being motivated to take further steps to access the information. One website providing advice for encouraging toddlers to eat healthily gave a link for further information that took the reader to a BBC website; this gave the impression that the BBC are as credible a source of nutritional information as the Scottish Government.

Sources mainly drew on **nutritional science** with little incorporation of social science evidence. This means that the evidence was not contextualised to include or take account of some of the factors which consumers’ eating habits are influenced by, like socio-economic status and ethnicity. Some sources contained sound nutritional science but in articles aimed at a non-nutrition audience, e.g. nurses, which might limit their impact. Conversely, some articles aimed at nurses contained very generic messages about diet with little specific guidance about advising patients in primary care settings. Few of the materials analysed provided references to scientific papers, links to further evidence or stated when the evidence was due to be reviewed, though there were a few notable exceptions.

There was a reliance on the term ‘healthy’, with references to ‘healthy food’ or ‘healthy snacks’ in some sources and with others describing ‘healthy diets’ and the foods which these could contain. Over-use of the term ‘healthy’ weakens the overall discourse about

‘what/how to eat’ because it can be interpreted in so many ways; its ubiquitous use risks it becoming quite meaningless,

Overall, there is limited focus within the sources on the diets and foods eaten by different ethnic groups and a preponderance of advice aimed at parents, children and teenagers. Sources aimed at health professionals without a nutrition/dietetics background contained very few articles that met our objectives (i.e. there were very few articles about eating a ‘healthy diet’).

Starchy foods

Overall, most sources advocated eating starchy foods daily and examples of such foods were usually given. For example, “[carbohydrates and starchy foods] include breads, cereals, rice, potatoes, pasta, noodles and couscous. They should form the main part of your diet”. However, not all sources used the term ‘starchy foods’ to differentiate between types of carbohydrate. Other words e.g. fibre, cereal foods, energy, energy dense were often used and these were not clearly defined or explained. Sources sometimes gave examples of foods that should be incorporated into the daily diet, e.g. bread, pasta, rice rather than classifying these as a ‘type’ of food.

The prevailing message was that starchy foods provide energy or fibre e.g. to prevent constipation. For example, in guidance aimed at teenagers one source said “*try to eat more wholegrain foods to keep your blood sugar levels steady throughout the day*”. Guidance about starchy foods and older people overwhelmingly concentrated on constipation.

Some sources contained no mention of, or rationale for, incorporating starchy foods into the diet.

Foods high in fat or sugar

When sources gave advice about foods high in salt³³, or about starchy foods, they tended to provide the rationale for that advice, but this was not the case with guidance relating to foods high in fat or sugar (particularly sugar). The following example, regarding weaning, is typical in this regard, in that it states why salt should not be added to food for babies, but not sugar:

“Remember not to add any sugar or salt to your baby’s food – salt can damage her kidneys”

“Read the label to check for added sugars, these may be in form of concentrated fruit puree or fruit juice”

³³ Whilst we did not carry out a detailed analysis of guidance on the consumption of salt, themes were noted if they were different to those for sugar or fat

There were some exceptions, particularly in relation to sources describing the links between sugar and dental caries.

How to incorporate foods high in fat or sugar in a healthy balanced diet was not clearly defined or described. Very often sources described not eating 'too much', or 'restricting' intake of foods high in fat or sugar rather than specifying an amount or a portion size, for example "*it's fine to have [food and drinks high in fat or sugar] but only in small amounts*". Most sources analysed used phrases like 'as a treat', 'use occasionally', 'limit the use' in relation to foods high in fat or sugar. This reflects current public health advice about foods high in fat or sugar, which is unable to specify amounts that *individuals* should consume, but it does not create a helpful discourse for health professionals trying to give their patients specific guidance (how much is 'occasionally?').

With regards to recommendations about when to eat/avoid snacks, many sources recommended that foods high in fat or sugar should be eaten with a meal. There was some confusion, however, as one source included a list of snacks which contain '*quite a lot of sugar*' but the list included low sugar rusks, plain biscuits like Rich Tea and fruit scones i.e. foods that are sometimes advocated by other sources as being *low* sugar snacks. Another source recommended that dietitians recommend "*[Using] fruit to add natural sweetness instead of sugar on your cereal*" which gives the impression that sugar is not a natural food and takes no account of the sugar added to cereal by the manufacturer.

In one source aimed at health professionals who want to give advice to '*children who are trying to manage their weight*' a low fat/sugar snack of '*one plain biscuit or one savoury biscuit with a scrape of spread*' is advocated without any rationale or evidence about whether and when this is acceptable advice for children.

Format and presentation of material

Whilst we were not specifically focusing on the *presentation* or *format* of advice in each source, it was noticeable that 'glossy' photos of 'healthy', white, 'slim' models with shiny teeth dominated and did little to support the text. Some materials used clip-art or 'stick figures' rather than photographs and it would be useful to explore how health professionals (and consumers) perceive these, in comparison to photographs like those described. Very few sources used photographs clearly linked to the associated text and one source contained a photograph of a toddler with a bottle of milk though the text stated babies over 1 year should be given drinks in cups. Some photographs, for example of exotic fruits, may alienate consumers who are unable to afford such items on a regular basis though they could, alternatively, be seen as aspirational.

Some sources used outdated formats, were patronising or were not suitable for those they were aimed at. The use of a larger font size and a layout suitable for printing off resources did, however, improve the presentation of some sources.

One source, aimed at dietitians, regularly includes a 'child nutrition Q&A column' towards the front of the magazine, which is, in fact, an advertisement from a formula milk company.

Whilst it is flagged as an advertisement in small type at the top of the page, this is easy to miss.

Generally, many websites were difficult to navigate and therefore frustrating to use.

Discussion

Four key themes emerged from the analysis and these will be used as the basis for discussion and recommendations for improving the sources of healthy eating advice which health professionals might draw on in their professional practice:

- There is often inconsistency within and between sources about guidance on starchy foods and foods high in fat or sugar
- Many sources routinely use value-laden terms when delivering healthy eating messages
- Sources do not tend to specify portions/portion size in relation to foods high in fat or sugar
- The social context within which eating takes place is, on the whole, ignored

Whilst the author or originator of each source analysed presumably has a message which they wish to convey to the reader, inconsistency within and between sources about starchy foods and foods high in fat or sugar creates a confused ideological position. Whilst some sources might intend to convey nutritional science or core health promotion messages, inconsistent text (and images) could be perceived by health professionals and consumers as flawed, confused or difficult to follow and, ultimately, dismissed.

As so few of the sources aimed at *nurses* and *general practitioners* contained well written articles about healthy eating on a regular basis (over the period analysed) this begs the question, what impact, if any, does a particular or 'skewed' discourse have on their professional practice? It also leads us to ask *where else* non-nutrition/dietetic professionals obtain information about healthy eating from (do they draw on popular, non-professional sources?). This warrants further investigation.

Whilst the sources aimed at *nutritionists* and *dietitians* did, not surprisingly, contain plenty of advice, we cannot be sure without further investigation whether these sources are *used* by their intended audience. The sources analysed which were aimed at consumers very often contained particular ideologies about eating a healthy diet. These were often laden with values about 'being healthy' (do not eat too much sugar; make sure you control your weight) with little consideration of the other contextual factors which underpin 'lifestyle'. We cannot be sure whether health professionals also access these sources or what their impact is on consumers, but there is a clear need for further evaluation of their influence with a view to making recommendations for improvements.

The overall discourse about limiting foods high in fat or sugar is open to interpretation based on health professional or consumer perceptions about what is 'too' much or 'about right'. This discourse is similar to that found in health promotion messages about

breastfeeding – i.e. that behaviours not deemed as compliant are not condoned therefore messages do not make specific recommendations for the ‘alternative’ behaviour. However, sources *are* drawing on current public health guidance about limiting foods high in fat or sugar as it is not possible to determine how much of these foods should be eaten by individual men, women or children. It would be useful to explore, however, how helpful health professionals find this approach in relation to delivering advice about incorporating foods high in fat or sugar into their diet, particularly given that other studies have found that some patients dislike such general advice (McClinchy, Dickinson et al. 2011). An alternative approach might be to consider advising consumers about the number of *portions* of foods high in fat or sugar that would be appropriate across a typical week. The *eatwell week* resource⁴, for example, suggests the number of portions of foods high in fat or sugar a woman with a 2000 kcal energy requirement could eat each week and this advice could be extended to other individuals.

Overall we were struck by how little healthy eating advice was contextualised in the sources analysed. For example, few materials analysed discussed choosing food that tastes good or acknowledged that health is just one aspect of choosing a varied diet. Many sources recommend that foods high in fat or sugar are eaten with a meal rather than as a snack which takes little account of the socio-cultural factors embedded in ‘snack choices’. Written texts ought to consider and draw on the available social science evidence about the socio-cultural factors which underpin eating habits. Integrating such evidence within sources would shift the discourse and support health professionals to give meaningful advice about consuming a healthy diet. It is important to consider how nutrition advice is perceived, received and used by the reader, without weakening the scientific argument. One way forward might be to contextualise the evidence provided by including more ‘real life’ examples or case studies to illustrate how consumers have taken healthy eating messages on board in ‘the real world’. This at least gives the reader, whether a health professional or consumer, the opportunity to consider the nutritional science/messages alongside the broader social context. This would represent a significant development in health promotion and science communication generally as there are few examples of ‘best practice’ from across the range of health-related behaviours (e.g. breastfeeding; drinking alcohol).

Limitations

As the study was conducted over a short, 5 month period the scope of the analysis was limited to exploring select sources of nutrition information. The analysis excluded other forms of healthy eating advice aimed at health professionals, like books and leaflets. It also excluded popular sources which might contain advice about healthy eating, like women’s magazines or popular web forums aimed at mothers, though we acknowledge that health professionals might access and draw on such resources. Indeed, some of the health professionals we discussed the study with at its outset indicated that they or their colleagues did use such sources therefore we would recommend that further research be

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<http://www.food.gov.uk/science/research/devolvedadmins/scotlandresearch/scotlandresearch/ScotlandProjectList/s14048fs4240117/>

conducted to assess the healthy eating discourses they contain and their influence on health professionals and consumers.

Conclusion

This study has highlighted that there is considerable scope for improving the format and presentation of healthy eating advice aimed at health professionals and consumers. Websites and publications which were unequivocal in their delivery of healthy eating advice were relatively rare. Most sources delivered discourses which were inconsistent, confusing and value-laden, setting up ideologies about healthy eating which are unlikely to be compatible with FSAS objectives. The extent of the influence of these sources on consumers and health professionals needs to be further evaluated. Advice provided by other sources of information, including popular magazines/websites, also need to be examined.

References

Fairclough, N. (2003). Analysing Discourse. London, Routledge.

Food Standards Agency (2011). Safer Food for the Nation. London, Food Standards Agency.

McClinchy, J., A. Dickinson, et al. (2011). "Practitioner and lay perspectives of the service provision of nutrition information leaflets in primary care." Journal of Human Nutrition & Dietetics **24**: 552-559.

Potter, J. and M. Weatherall (1987). Discourse and Social Psychology. London, Sage.

Scottish Government (2010). Preventing Overweight and Obesity in Scotland: A Route Map Towards Healthy Weight. Edinburgh, Scottish Government.

Scottish Government (2011). Obesity Route Map Action Plan. Edinburgh, Scottish Government.

Shaw, S. E. (2010). "Reaching the parts that other theories and methods can't reach: How and why a policy-as-discourse approach can inform health-related policy." Health **14**(2): 196-212.

Appendix 1: Sources and sections of each source included in the analysis

Source	Section	Sub-section
British Dietetic Association http://www.bda.uk.com/	Food facts	Healthy eating and lifestyle: Breakfast Christmas – eat, drink and be healthy. Weight loss, detox and health claims: Detox diets. Glycaemic index Babies, children and pregnancy: Children – diet, behaviour and learning. Children – healthy eating.
British Nutrition Foundation** http://www.nutrition.org.uk/	Healthy Living	Healthy eating: Healthy Eating: A healthy varied diet Healthy packed lunches Healthy snacking
NHS Inform (Scotland) http://www.nhsinform.co.uk	Common questions: Food and diet* Target groups*	Keeping your weight healthy: Why is gradual weight loss better than a crash diet? Salt and sugar, fibre and fats: Why is fibre important? Healthy meals and healthy snacking: What is a healthy balanced diet? Children and healthy eating: What can I do if my child is overweight? How many calories does a child of 7 – 10 need? Eating and energy and exercise: What is the glycaemic index? Parents
Network Health Dietitian (NHD) magazine	7 issues randomly selected from Oct 2009-current	All articles analysed which had relevance to the research questions
GP Pulse magazine (http://www.pulsetoday.co.uk)	Online articles searched for keywords relating to research questions***	All articles analysed which had relevance to the research questions
Community Practitioner Magazine (monthly)	50% of issues published since Oct 2009 randomly selected	All articles analysed which had relevance to the research questions
Nursing Standard (weekly)	90 issues searched from 2010-11 for articles with keywords	All articles analysed which had relevance to the research questions

	relating to research questions***	
Practice Nurse Journal (monthly)	41 issues from 2010-11 searched for articles with keywords relating to research questions***	All articles analysed which had relevance to the research questions
NDR-UK http://www.ndr-uk.org/	Target populations	Healthy lifestyle: Primary age children Healthy lifestyle: Teenagers/Fuel to Go Meal suggestions for children trying to lose weight Older people: do you have a small appetite? Older people: Staying healthy for the over 50s General: Knowing your carbohydrates Parents: Food Labels
Ready Steady Baby ** http://www.readysteadybaby.org.uk/	Your pregnancy*	Looking after yourself during pregnancy/Eating well Growing together/looking after your baby/weaning your baby
Ready Steady Toddler http://www.readysteadytoddler.org.uk	Everyday routines	Food and diet
Fun First Foods http://www.healthscotland.com/documents/303.aspx	Whole booklet	
Public Health Agency NI - site for healthy eating http://enjoyhealthyeating.info/home	Nutrition*	Children aged 1-5 ⁵ Adults Older people
Safe Food www.safefood.eu 'Consumer' Section	Healthy living* Life stages*	Eating well Healthy balanced diet Portion sizes Weaning Toddlers School children Teens Older adults

⁵ Sections on older children not analysed as they were very similar to the sections on young children

Caroline Walker Trust http://www.cwt.org.uk/	Eating well resources	Children under the age of 5 School aged children Older adults
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* Indicates the source is aimed at consumers rather than health professionals

** These sources were analysed by two members of the team as a check on consistency of the overall analytical approach

*** Search terms: 'healthy eating'; 'starchy foods'; 'fat'; 'sugar'

Appendix 2 Sources initially examined but which were excluded from the main stage of analysis.

Source	Reasons for exclusion
Food Standards Agency www.food.gov.uk	Currently being reviewed by FSA
NHS Choices / Livewell pages	Being monitored in-house during development of FSA website
Association for Nutrition http://www.associationfornutrition.org/	Does not contain any information relevant to the research questions
Nutrition Society http://www.nutritionociety.org/	Does not contain any information relevant to the research questions
Food Standards Agency <i>Eatwell</i> pages http://webarchive.nationalarchives.gov.uk/20080910110835/eatwell.gov.uk/	Archived (i.e. not readily available for Health professionals) and only provides snapshot from 2010 content
Food and Health Alliance http://www.fhascot.org.uk/Home/	Networking/resource website – no information relevant to the research questions
Royal College of Nursing (RCN) http://www.rcn.org.uk/	Does not contain any information relevant to the research questions
RCN Nutrition Now campaign and resources http://www.rcn.org.uk/newsevents/campaigns/nutritionnow	Focuses on principles of hydration/preventing malnutrition rather than eating a healthy diet
Royal College of General Practitioners http://www.rcgp.org.uk/	Does not contain any information relevant to the research questions
Mumsnet http://www.mumsnet.com/	There is not scope for including popular sources in the analysis
Dairy Council NI http://www.dairycouncil.co.uk/page/home	Does not contain information relevant to the research questions as focuses on dairy products only
NHS Direct http://www.nhsdirect.nhs.uk/	Does not contain any information relevant to the research questions
Institute of Public Health Ireland http://publichealth.ie/	Networking/resource website – no information relevant to the research questions
NI Direct http://www.nidirect.gov.uk/index.htm	Only contains brief/basic information about eating a healthy diet
NI Chest Heart and Stroke http://nichsa.com/	Does not contain any information relevant to the research questions <i>and</i> is not aimed at healthy populations
Belfast Health and Social Care Trust http://www.belfasttrust.hscni.net/	(examined as one example of NI Trust websites) Does contain information we could analyse but this would mean including all Trusts in NI which is outside scale and scope of the project.
Safe Food www.safefood.eu Professional section	The 'professional' 'nutrition' sections do not contain information relevant to the

	research questions
Public Health Agency NI main site http://www.publichealth.hscni.net/	Does not contain any information relevant to the research questions
Association of Community Health Partnerships (Scotland) https://www.achp.scot.nhs.uk/Default.aspx	Does not contain any information relevant to the research questions