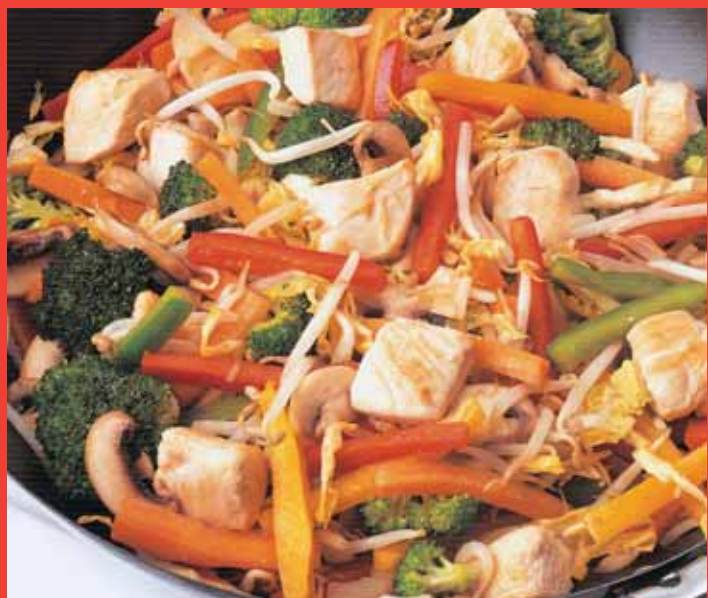


# Cook it!

An evaluation of a community nutrition education programme in Northern Ireland



**Health**  
Promotion  
Agency

# Cook it!

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nutrition education programme  
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# Summary

*Cook it!* is a community nutrition education programme that supports people who want to develop their cooking skills and who have an interest in healthier eating, particularly where cost is a consideration. The programme offers hands-on practical experience of preparing and cooking food and aims to enhance individuals' knowledge and awareness about the safe handling of food. *Cook it!* is delivered through a tiered approach in which dietitians provide training to tutors, who in turn deliver the programme to groups and individuals within the community setting. This evaluation report covers the Big Lottery funded phase of the programme, which ran from 2004 to 2007.

## Tutor outcomes

- The majority of tutors reported that *Cook it!* training helped them gain confidence in nutritional knowledge.
- Seventy one percent gained confidence in delivering nutritional courses.
- Tutors showed many improvements in knowledge. For example, after training fewer reported that they agreed with the incorrect statement 'Honey is better for you than sugar'.
- Nearly half of the tutors (46%) were consuming the recommended five portions of fruit and vegetables per day one year after training.

## Participants' shopping, cooking and eating habits

- Immediately after completing *Cook it!* more participants than at the start reported looking at food labels when choosing what to buy. Further significant improvements were noted six to nine months after the programme took place.
- After taking part in the programme significantly fewer participants reported buying the same foods every week.
- The frequency with which participants consumed convenience foods decreased following *Cook it!* Further decreases were observed after six to nine months.
- Many dietary changes were observed. Participants said that after taking part in the programme they consumed fried foods and high-fat snacks less frequently and consumed fruit and vegetables more frequently.
- Over half the participants (51%) consumed more fruit and vegetables after completing *Cook it!*

## Wider impact

- Sixty three percent of participants reported that the programme had helped them to be more confident generally.
- Participants shared the nutrition messages they learnt with friends and family. Many encouraged their children and partners to consume healthier foods through providing healthier recipes at home.

- Many individuals took up physical activity as a result of *Cook it!*
- Many participants welcomed the social inclusion the programme brought and reported 'meeting with friends every week' as one of its most enjoyable aspects.

## **Conclusion**

The *Cook it!* programme stands out as an excellent example of a tiered nutrition education programme that can improve individual nutritional knowledge, impact on eating behaviour and also influence other aspects of lifestyle including physical activity, social inclusion and self-esteem.

# Introduction

A healthy, balanced diet is vital to promoting and protecting health. Research has shown that poor eating patterns are a contributory factor in the development of a number of conditions including cancer, coronary heart disease, obesity, diabetes and dental decay.<sup>1</sup> In addition, it has been shown that health inequalities lead to a higher incidence of diet related diseases in lower socio-economic groups.<sup>2</sup>

Government nutritional recommendations focus on achieving a balance in the diet. They encourage the consumption of a wide variety of foods from the four main food groups (bread, rice, pasta and other starchy foods; fruit and vegetables; meat, fish, egg, beans and other non-dairy sources of protein; and milk and dairy foods), with a smaller proportion from the fifth food group (foods and drinks high in fat and/or sugar).<sup>1</sup>

The *Eating for health* report has shown that eating patterns in Northern Ireland are not in line with these recommendations. In 2001, for example, only 21% of the Northern Ireland population ate the recommended five portions of fruit and vegetables a day.<sup>3</sup> More recently the *Low Income Diet and Nutrition Survey* (LIDNS) indicated that the average consumption of fruit and vegetables is half of the recommended five portions per day.<sup>4</sup> Large disparities have also been shown between social classes, with only 12% of those from a manual background consuming the recommended five portions a day compared to 27% of those from a non-manual background.<sup>3</sup>

The *Eating for health* report found that those from a manual background were not as well informed as others about healthy eating messages.<sup>3</sup> Only 52% from the manual group studied were aware of the 'five a day' health message, compared to 64% from the non-manual group.<sup>3</sup> Over a third of adults in this study also reported eating out at least once a week and there is growing evidence of a lack of cooking skills across society as a whole.<sup>3, 5</sup> This may in turn be leading to increased dependence on ready-prepared meals and snacks, which are often higher in salt, fat and sugar.

The LIDNS study reported that more money or greater availability of cheaper healthier foods were the factors most cited in helping people to change their eating habits. However little is known about individuals' knowledge of what constitutes healthier foods.<sup>4</sup> Poor nutrition knowledge, eating habits and limited cooking skills may impact on the long-term health status of the population and are therefore important public health issues.<sup>5</sup>

In response much emphasis has recently been placed on community nutrition education programmes as a means of disseminating healthy eating messages and building basic cooking skills in a community setting.

*Cook it!* was developed as a nutrition education and skills programme specifically for use in Northern Ireland within the context of inequalities in health and social wellbeing. It can be used with a wide range of groups in the community setting.

## The background to *Cook it!*

*Cook it!* was first developed for use in Northern Ireland from an initiative in Huddersfield called 'Friends with food', which targeted mother-and-toddler groups with the aim of providing information and support to those interested in healthier eating.

*Cook it!* was originally introduced in 1995 by the Health Promotion Agency for Northern Ireland (HPA) in a collaborative project with the Eastern Health and Social Services Board (EHSSB), the Northern Health and Social Services Board (NHSSB) and North and West Belfast Health and Social Services Trust (N&WBHSST). This initial programme was evaluated in 2000 and found to be a valuable approach to community-based nutrition education. As part of the evaluation a number of recommendations were made as to how the programme could be improved. The HPA, in conjunction with a group of community dietitians, revised the *Cook it!* manual, which included updated session outlines, resources and recipes sheets to be used with the programme. The HPA also designed and managed the regional evaluation, with support from the local coordinators.

In 2004 Big Lottery funding was secured to deliver and support the revised *Cook it!* programme from 2004 to 2007 in four local areas: the Causeway Health and Social Services Trust (CHSST), N&WBHSST, the SHSSB and the Western Health Action Zone (HAZ). N&WBHSST provided the programme in the EHSSB area and the Western HAZ provided *Cook it!* in the Western HSSB area.

The programme was supported regionally by a *Cook it!* officer at the HPA, and locally by four *Cook it!* coordinators (dietitians) in the corresponding trust, board or Health Action Zone area. At local level each of the four coordinators and their team members were responsible for providing core training and follow-up support to tutors. The tutors (with the support of the local coordinators) were in turn responsible for organising, planning and delivering the six-week programme to groups within the community. In the SHSSB area tutors were referred to as facilitators, however, for ease of understanding they will be referred to as tutors throughout this report.

## The aim of *Cook it!*

The programme aims to support people who want to develop their cooking skills and who have an interest in healthier eating, particularly where cost is a consideration. It offers hands-on practical experience of cooking and preparing food as well as enhancing participants' knowledge and awareness of the safe handling of food.

## The *Cook it!* programme

*Cook it!* is intended to be practical and to encourage group participation. It includes group discussions and quizzes as well as the opportunity for hands-on cooking experience and the chance to sample the completed recipes.

The programme is intended to be completed over six sessions, although it is extendable for longer periods if desired. Each session examines a different topic, as follows:

- 'Health on a plate'
- 'Find out about fibre'

- 'Fabulous fruit and veg'
- 'Counting on calcium'
- 'Protein providers'
- 'A little bit of what you fancy'

### Session one

The first session introduces the idea of healthy eating through use of the Balance of good health plate, a practical tool that helps people understand and enjoy healthy eating. This session also includes essential information on good food hygiene and lays the foundation for the rest of the *Cook it!* programme.

### Sessions two to five

Each of these sessions focuses on one of the four main food groups.

### Session six

This last session examines the fifth food group: foods and drinks high in fat and/or sugar, and provides an opportunity to discuss issues such as nutritional labelling.

## The target audience

The *Cook it!* programme is suitable for use with a wide range of groups in the community including:

- women's groups;
- men's groups;
- older people in sheltered accommodation;
- older people in day care groups;
- residents in homeless hostels;
- mother-and-toddler groups;
- young/single parents;
- young people leaving residential care;
- youth clubs;
- offenders during rehabilitation programmes.

## Aims of this report

This report briefly outlines how the Big Lottery funded phase of the *Cook it!* programme was managed and delivered from 2004 to 2007 and presents findings from an evaluation which took place from March 2005 to March 2007. The evaluation examined tutors' views on the programme, and assessed the impact of *Cook it!* on participants' shopping, cooking and eating habits.

# ***Cook it!* in operation**

## **Management and administration**

Each of the four local areas in which the programme was delivered had a *Cook it!* team in place, usually composed of a dietitian in a coordinating role, a development or project worker, and, in some cases, administration staff. These teams facilitated day-to-day running of the programme, developed local area training, recruited tutors and provided ongoing support and nutritional updates.

The teams were advised by and reported progress to a multidisciplinary local area steering group. This was composed of management level representatives from the fields of health promotion, dietitians, environmental health, family support organisations and voluntary organisations. The SHSSB area included *Cook it!* tutors on its steering group.

At a regional level local issues were discussed in a coordinators' forum. This regional forum shared and discussed current nutrition issues – such as salt intake and food allergies – that affected the programme. In addition, a regional management group made up of representatives from all areas met to discuss and agree the overall strategic direction for the *Cook it!* programme.

## **Tutor recruitment**

All areas set criteria for selecting tutors. Those wishing to become trained as a tutor completed a registration form which was used to select individuals for training.

The criteria for selection included:

- employers' consent;
- time commitment to deliver the programme;
- ability to access a suitable group to deliver the programme to;
- commitment to deliver up to two programmes within the year;
- commitment to attend network meetings and annual updates.

At the beginning of *Cook it!* in Northern Ireland, local coordinators initiated tutor recruitment in all areas by the local area coordinator contacting organisations they felt would benefit from a tutor. As the success of the programme grew the recruitment process began to change. Increasingly, organisations and individuals began to initiate contact with the local area coordinator. Over the course of the programme coordinators became more strategic in their recruitment by targeting organisations working with groups that had no *Cook it!* tutors in place. These included homeless and men's groups and those with acquired brain injury.

As the programme grew and developed many participants who took part in the six practical *Cook it!* sessions had such positive experiences that they went on to be trained as tutors. This led to the further widening of the tutor network within communities. However, in many areas the success of the programme grew so steadily that the demand to be trained as a *Cook it!* tutor exceeded the capacity to provide the training and support. The names of those interested are now kept on a tutor training waiting list.

## Tutor training and support

*Cook it!* tutor training, covering basic nutrition, food hygiene, safety in the kitchen and working with groups, was delivered via core training programmes in each local area. Within the SHSSB area, tutors completed an additional one day foundation-level food hygiene certificate, a mandatory half day training course on first aid, and an induction programme. The induction provided the tutors with information on their commitment to delivering training, attending network meetings etc. It also tackled issues such as venue checklists, insurance and the challenges of running a *Cook it!* programme. As part of its support package N&WBHSST offered basic food hygiene training following the *Cook it!* training.

Initially, each team focused on tutor recruitment and training. As the programme progressed and the numbers of tutors increased, the emphasis shifted to a support role. This included delivering updates on a variety of topics such as fibre intake, salt intake, allergies, basic cooking skills, food labelling, food preparation and weaning workshops. Some updates were organised and delivered in partnership with other organisations. For example a budgeting update was delivered with the Consumer Council and an essential skills training update took place with EGSA (Educational Guidance Service for Adults). In addition the HPA developed, and provided, supplementary regional resources specifically designed to provide nutritional information on children and older people.

To help tutors deliver the programme, each of the local *Cook it!* teams had a small grants scheme or a reimbursement of costs procedure in place. These offered subsidies for food and cooking equipment for the *Cook it!* sessions, and in some areas the facility for claiming back money for travel and childcare etc.

All areas also had a number of resources that could be borrowed to supplement the individual programmes. These included cooking equipment, mats, DVD on food and hygiene, and the Balance of good health food mat and models (the precursor to the eatwell plate which was in use during the course of the *Cook it!* evaluation).

# Evaluation

## Overall aim

- To evaluate the process of running, organising and managing the *Cook it!* programme and assess if the provision of an interactive nutrition education programme, alongside the development of skills, made a difference to people's eating patterns.

To meet this aim the evaluation focused on two target groups crucial to the implementation of the *Cook it!* programme: tutors and participants.

## Objectives: tutors

- To assess tutors' views on the *Cook it!* tutor training provided.
- To evaluate tutors' views on organising and running *Cook it!* programmes.
- To determine the level of support tutors have received and its usefulness.
- To assess changes in nutrition knowledge.
- To ascertain any wider impacts of the course on tutors' confidence and self-esteem.

## Objectives: participants

- To determine the knowledge, attitudes and behaviour of participants in relation to dietary measures including shopping, cooking and eating habits.
- To assess the sustainability of the impact of the programme on dietary behaviour.
- To evaluate the wider aspects of the initiative, including changes implemented in the family setting.
- To ascertain any wider impacts of the course on participants' confidence and self-esteem.

## Methodology

### Tutors

Following acceptance onto a *Cook it!* tutor training course, each tutor completed two questionnaires. A pre-training questionnaire asked about knowledge, attitudes and behaviour in relation to personal eating habits. A post-training questionnaire, completed at the end of the second day of training, made enquires about tutors' confidence in completing the different tasks associated with *Cook it!* The evaluation also took account of information provided on the tutors' registration forms, including previous nutrition training.

Tutors who completed questionnaires on the first and last days of the training, were sent a follow-up postal questionnaire one year after training.

## Participants

The HPA developed three questionnaires to assess the impacts of the *Cook it!* programme on participants. The first was administered prior to participants starting *Cook it!* and provided the pre-test (baseline) data. A second questionnaire, administered at the end of the final day of the six week programme, provided post-participation data. Collectively the data from these questionnaires assessed the short term impact of *Cook it!* on participants knowledge, lifestyle, attitudes and behaviours towards healthy eating.

The HPA developed a third questionnaire to assess the longer-term and wider impacts of *Cook it!* This was administered postally between six and nine months after participation in *Cook it!* Consent for receiving the follow-up postal questionnaire was sought from all participants prior to the start of their programme. As an incentive all questionnaires were entered into a prize draw for £25 worth of vouchers to be spent in the winner's choice of local supermarket.

## Sample

### Tutors

Pre- and post-training questionnaires were available for 118 tutors. Of these, 66 completed the follow-up questionnaire one year later, a response rate of 56%.

### Participants

At the pre-test point 701 participants completed a valid questionnaire. This figure had decreased to 478 at the post-participation point. Thus, a matched sample of 478 was achieved for the comparison of participants' pre- and post-participation results. A demographic breakdown of the achieved sample is shown in Appendix 1.

Completed pre- and post-participation questionnaires revealed that a total of 350 (73%) participants consented to the follow-up postal questionnaire. Given the high volume of responses, the lengthy period to the questionnaire (six to nine months) and the time limits of the evaluation it was only feasible to follow-up a sample of participants. Therefore 175 follow-up postal questionnaires (a 50% sample) were sent out. In total, 65 individuals returned it, representing a response rate of 37%.

## Qualitative work

In addition to the quantitative assessments, a piece of qualitative research was also carried out with people who had taken part in *Cook it!* six months previously. In total, five focus groups were carried out: three with mothers; one with older people; and one with young men from a drop-in centre. Thirty eight participants took part in these focus groups, with participant numbers ranging from six to 11 per group. A further three 'mini focus groups' were carried out with more specialised groups: one with participants who suffered mental health problems; one with brain injury participants; and one with a group of participants from a homeless shelter. Ten participants took part in the mini focus groups, with numbers ranging from three to four per group. For these specialised groups, tutors (n=4) were also interviewed as part of the qualitative research.

## Presentation and analysis of results

All survey results are presented as frequency values for tutors and participants. Base numbers are provided on all tables and figures to illustrate the number of respondents on which percentages are

based. As a result of rounding, some column or row percentages may not equal 100%. Due to the self-report nature of the questionnaires base numbers will vary from question to question. Where tables or figures are not presented for topline results, percentages in text are shown with their associated n values. All results for tutors and participants are presented as a regional group.

Statistic analysis is conducted throughout using matched paired analysis. Due to the low participant response rate (at the six-nine month postal follow up) direct comparison of participants across all three points of measurement would have resulted in an insufficiently small sample for analysis. To maintain sufficient sample numbers analysis of participant's data was conducted in two stages. Firstly matched pre-test and post-participation data was compared, we refer to this data throughout as short term results. Secondly matched post-participation and follow-up postal questionnaire responses were compared. We refer to this data throughout as the participants' follow -up evaluation.

Participant's short term results are sub-analysed where appropriate by local area, gender, employment status, living arrangements and whether or not participants had children. However, these results are not shown in the tables. Due to the small numbers, participants' follow-up comparison results are presented only as regional data.

Matched samples for participants' and tutors were analysed by a variety of techniques depending on the type of data. Ordinal data (for example on a logical five-point scale; 1 = strongly agree, 2 = agree, 3 = no strong opinion, 4 = disagree, 5 = strongly disagree) were analysed using the Wilcoxon matched pairs signed ranks for dependent samples. Nominal data, for example, 1 = yes, 2 = no, were analysed by McNemar's test for dependent samples.

Statistically significant findings are shown on all tables where appropriate, and three levels of significance are presented (ie \*  $p < 0.05$ , \*\*  $p < 0.01$  and \*\*\*  $p < 0.001$ . The abbreviation NS shown in many of the tables denotes non-significant findings.

Qualitative data were studied for the emergence of themes or patterns including ideas, concepts or behaviours. Themes were related to quantitative data and incorporated into the report to add value to the quantitative data or explain findings where necessary.

# Key findings: tutors

## Tutors' past experiences

The majority of tutors (91%, n=84) who enrolled on the *Cook it!* training had some experience of working with community groups within the previous two years. Their experiences were diverse, and included having worked as a camp cook, support worker, volunteer or a group leader. However, only two fifths of tutors (41%, n=45) had ever led a course before they attended *Cook it!* training. The courses mainly centred on general health promotion (30%, n=20); cooking (19%, n=13); personal development (13%, n=9) and nutrition (12%, n=8) and were primarily aimed at parents (30%, n=18) or youth groups and/or school children (19%, n=13).

The evaluation found that over two thirds of tutors had previously attended training in the core skill areas *Cook it!* requires (68%, n=75). Of these 61% had attended 'working with groups' courses; 41% had attended community development courses, 37% had attended nutrition courses; and 35% had attended food hygiene courses.

## Tutors' views on training

At the one year evaluation tutors were asked their views on the core two day training they had received. All tutors considered the *Cook it!* training to be very or quite easily understood (n=65), relevant (n=63) and interesting (n=63). Tutors reported the most enjoyable features of the training to be the practical aspect (16%, n=16) the cooking (14%, n=14) and the networking opportunities (15%, n=15).

The one negative aspect that tutors reported on was the amount of information contained within the training. Over a fifth of tutors (21%) believed there was too much information covered in the two days of training.

SHSSB began training approximately six to eight months after the other areas. This gave the area the added advantage of incorporating an extra day's training dedicated to food hygiene, as this was an area that was new information for a large proportion of tutors.

The majority of tutors (60%, n=33) reported that there was nothing they did not like about the training. The tutors highlighted the main improvement that could have been made in the training was the need to go through the pack in more detail (n=13) and extend the training over a longer time period (n=6)

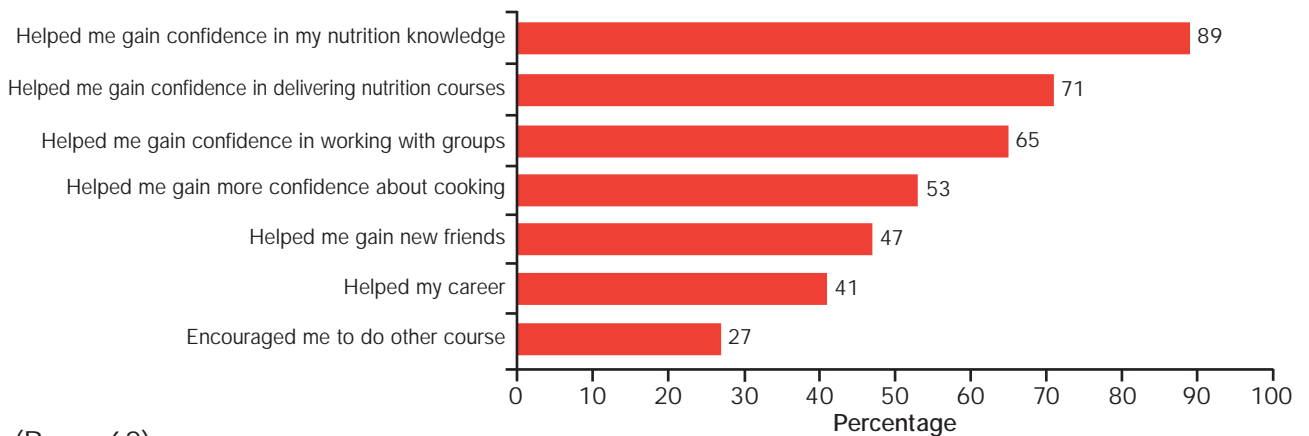
*"Very intense, very good. Although with the amount of information I would have been happier if it had been over three days."*

**Tutor**

## Tutors' self-development

Figure 1 illustrates the diverse range of benefits tutors gained from *Cook it!* training. The majority reported a gain in confidence in their own nutritional knowledge (89%), and 71% had gained confidence in delivering nutritional courses. Two fifths of tutors reported that *Cook it!* had helped them to gain new friends (47%) and had helped their own career development (41%), while just over a quarter reported that the programme encouraged them to do other courses (27%).

**Figure 1: What tutors gained from being trained as a *Cook it!* tutor**



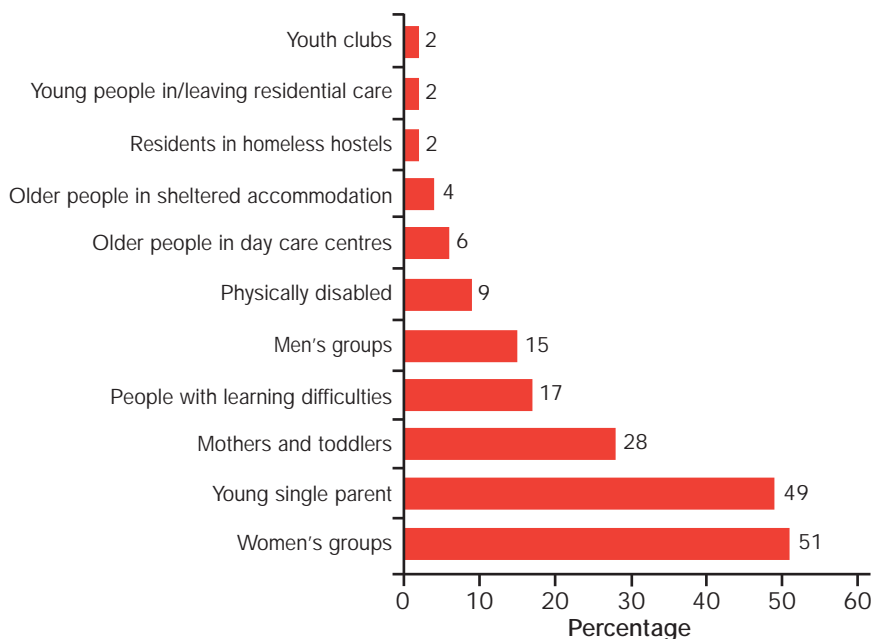
(Base=62)

### Tutors' involvement with *Cook it!* after their training

One year after training, four out of five tutors 80% (n=53) had delivered the *Cook it!* programme either alone or with another tutor. The remaining one in five cited lack of time (n=8), lack of money (n=4), change of job or role (n=2), or that they had established that *Cook it!* was not suitable for their group (n=2) as reasons why they had not been involved in delivering the programme since training. Despite this, ten of the 13 individuals who had not run *Cook it!* hoped to deliver it in the near future.

A majority of *Cook it!* tutors (n=53) had led one (53%) or two (27%) programmes since their *Cook it!* training. The remaining 20% said they had delivered three or more programmes since completion of their training. Programmes were delivered to women's groups (51%), young or single parents groups (49%), or mother-and-toddler groups (28%). Figure 2 shows that nearly a fifth of tutors (17%) delivered *Cook it!* to people with learning difficulties, who came outside the original target audience for the programme.

**Figure 2: Groups tutors reported using *Cook it!* with**



(Base=47)

## The *Cook it!* materials

Tutors who reported they had delivered *Cook it!* were asked their views on the *Cook it!* materials. The vast majority of tutors considered the resource sheets (89%, n=46) and session outlines (94%, n=48) provided within the *Cook it!* pack to be either very or quite helpful. Only two individuals reported the resource sheets and session outlines to be unhelpful.

Suggestions for improving the resource sheets included: more variety to suit different abilities (n=5) making them simpler, more visual or colourful to counteract literacy issues (n=5), and using larger print or audio tapes (n=2).

Suggestions for improvements to the session outlines included: more practical help to make the theory section easier (n=3), more visual aids (n=3), more information on specialised cooking (for example microwave cooking) (n=2), and being linked or combined with background information (n=2).

The majority of suggestions for improving the resource sheets and session outlines were made by tutors who ran *Cook it!* with specialised groups outside the main target audience.

The tutors provided positive feedback about the *Cook it!* recipes, with the greatest majority (91%, n=48) reporting that the recipes were all very or quite suitable for their groups. Improvements suggested were related to having more recipes (n=32), and more targeted recipes for, for example, cultural minorities (n=5) and single people (n=3).

When asked if there was anything that should be included in the *Cook it!* pack to make it easier to deliver, the majority of tutors (61% n=26) said nothing else was necessary. Many suggestions were in relation to the arrangement of the pack, with some tutors (n=4) proposing that the theory, handouts, resources sheets, session outlines and recipes for individual sessions should all be contained within one section. Other suggestions included having more visual resources, including a large poster displaying the Balance of good health (n=2).

## How tutors felt about organising a *Cook it!* programme

With regard to organising and delivering the *Cook it!* programme the overall majority of tutors reported that this was quite easy (48%) or very easy (25%), with 23% having no strong opinion and only 4% reporting it to be quite difficult.

The evaluation then looked in greater detail at the different factors involved in organising *Cook it!* to ascertain any issues tutors may have found difficult or needed further help with. Tutors were asked in the post-training questionnaire how confident they were about carrying out a range of activities associated with *Cook it!* In the one-year evaluation tutors were asked about how easy or difficult they had found these same tasks. No statistical analysis was carried out on these results due to the different question structure.

Responses are reported for all tutors regardless of whether they had run *Cook it!* or not. Little change was noted between post-training and the one year follow-up on how confident or how easy tutors found: working with groups (99%, n=116; 100%, n=50), cooking (95%, n=109; 93%, n=48), providing utensils (93%, n=107; 88%, n=45) and seeking environmental health support (97%, n=113; 100%, n=34).

However, tutors did not find recruiting groups as easy as they had envisaged: 97% (n=112) considered they were very confident about recruiting groups post-training, however only 77%

(n=37) described this as easy in the follow-up survey. Indeed a third of tutors delivered *Cook it!* solely to groups that were newly established (33%, n=16).

Other issues that tutors reported as not as easy as they anticipated were finding the time to deliver *Cook it!* (89%, n=103 to 39%, n=20) and finding the venues to deliver the programme (93%, n=111 to 78%, n=40). The theory section was also more difficult than tutors had at first envisaged. At the post-training 96% reported they were confident about delivering the theory of healthy eating, however at the one year follow-up, this was only reported as easy by 75% (n=39). Similarly 89% of tutors (n=99) reported that they considered themselves confident about delivering the food hygiene section compared to 81% (n=39) who reported this task as easy at the one year evaluation.

## Tutors views on delivering *Cook it!*

Overall, 84% of tutors who had delivered *Cook it!* considered that they had just the right amount of information to deliver, 14% thought they had too much, and only 2% believed they had too little. The majority of tutors (73%-89%) considered the individual sessions to have just the right amount of information, with very few reporting too little information to deliver for sessions three to six (2%–6%) (Table 1).

Interestingly, the two primarily theory based sessions had the highest discontentment over the amount of information to be delivered. Twenty seven percent of tutors reported that there was too much information to deliver for the 'Health on a plate' session and 16% of tutors thought 'A little bit of what you fancy' (the section dealing with fats and sugars) also contained too much information. Some tutors adapted these two theoretical sessions for their particular group, as they felt it was just too much for the group to take in without any cooking activities.

*"The course was laid out to be four sessions of cooking and two were information, I did six sessions of cooking and incorporated the information because basically I would have had very poor attendance on the first two days, so on those days I did something very simple and straightforward, the spaghetti Bolognese and the vegetable soup."*

**Tutor**

**Table 1: How tutors felt about the amount of information they had to deliver in each of the six *Cook it!* sessions**

	Too much info to deliver (%)	Just right (%)	Not enough info to deliver (%)	Base (n)
'Health on a plate'	26.9	73.1	0	52
'Find out about fibre'	11.5	88.5	0	52
'Fabulous fruit and veg'	9.4	88.7	1.9	53
'Counting on calcium'	7.8	88.2	3.9	51
'Protein providers'	10.2	87.8	2.0	49
'A little of what you fancy'	15.7	78.4	5.9	51

## Confidence

Tutors were asked how confident they felt about delivering the nutrition information in *Cook it!* (n=50). Overall, 98% considered they had just enough or more than enough information to feel confident. Only 2% reported they had too little information to feel confident. The largest lack of confidence in the tutors' abilities was seen in relation to the nutritional information on calcium, with 6% stating that they did not have enough information to feel confident about this section (results not shown).

## Knowledge

As part of the programme it was important to ensure that tutors developed a good knowledge base about nutrition. For this reason the evaluation looked at tutors' knowledge in some detail prior to training and again after one year. Before taking *Cook it!* training tutors had a high awareness of the recommended five portions of fruit and vegetables a day message (94%, n=50). At the one year point this was 96% (n=51). Nearly a third of tutors reported consuming the recommended daily amount of fruit and vegetables (32%, n=18) prior to *Cook it!* However, this significantly increased to nearly half of tutors one year after training (46%, n=26).

Tutors were asked what foods, from a given list, were not part of the fruit and vegetable group. The majority of tutors were able to identify the correct answers at baseline (Table 2). At the follow-up evaluation no significant change was noted in the results for tinned peaches, frozen peas and parsnips, however, significantly more tutors reported incorrectly that sultanas were not part of the fruit and vegetable group (11% at baseline compared to 30% at the follow-up point). Also, 91% of tutors correctly identified strawberry jam as not being part of the fruit and vegetable group at baseline, but this figure significantly decreased to 68% at follow-up.

**Table 2: The percentage of tutors stating what foods from a given list were not part of the fruit and vegetables group**

Food answer	Pre-training	Follow-up	Base (n)	Sig
Frozen peas	3.6	0	56	NS
Parsnips	5.4	1.8	56	NS
Tinned peaches	7.1	3.6	56	NS
Sultanas	10.7	30.4	56	***
Strawberry jam	91.1	67.9	56	***

Tutors were also asked about their knowledge of the effects of overcooking vegetables (n=54). Significantly more tutors correctly identified that overcooking vegetables led to a loss of Vitamin B at the one year follow-up (30% at baseline compared to 56% at follow-up).

Significant improvements were noted in tutors' knowledge on a variety of nutrition topics (Table 3). These changes included a significant reduction in the number of tutors who agreed with the statement 'Cream and butter are part of the dairy group'; 'Honey is better for you than sugar' and 'Adding raw bran to food is recommended to increase fibre in your diet.' Significantly more tutors correctly identified that 'Crinkle cut chips contain more fat than straight cut chips' at the one year follow-up.

**Table 3: Tutors' knowledge of some common food myths**

		True	False	Don't know	Base (n)	Sig
Cream and butter are part of the milk and dairy food group	Pre-training	75.9	24.1	0.0	54	***
	Follow-up	33.3	66.7	0.0		
Frozen vegetables are as good for you as fresh	Pre-training	60.0	32.7	7.3	55	***
	Follow-up	96.4	3.6	0.0		
Honey is better for you than sugar	Pre-training	68.5	25.9	5.6	54	***
	Follow-up	13.0	77.8	9.3		
Crinkle cut chips contain more fat than straight cut chips	Pre-training	57.1	25.0	17.9	56	***
	Follow-up	92.9	3.6	3.6		
Adding raw bran to food is recommended to increase fibre in your diet	Pre-training	70.4	13.0	16.7	54	*
	Follow-up	42.6	48.1	9.3		
Low fat milk, lower fat cheeses and low fat yogurts have as much calcium as the standard types	Pre-training	85.7	10.7	3.6	56	NS
	Follow-up	96.4	1.8	1.8		

### Contact and support

The local *Cook it!* teams' remit was not only to train tutors but to develop a mechanism to offer support. All tutors were asked about the contact and support they had received regardless of whether they had delivered a *Cook it!* programme. With 98%, (n=61) of tutors reporting having had contact with their local *Cook it!* team after training, this remit was well fulfilled. The contact was in a number of different formats (Table 4) and ranged from telephone calls (92%) to individual meetings with the *Cook it!* team (33%). Contact happened on average about six times per tutor, however this varied depending on the individual tutor's needs for support.

**Table 4: Tutors' means of contact with their local *Cook it!* team**

Contact mechanism	Percentage
Telephone	91.8
Postal	77.0
Email	54.1
Member of <i>Cook it!</i> team has visited my group	68.9
Individual meetings with <i>Cook it!</i> team	32.8
Network meetings/updates	77.0
Base (n)	61

As part of the tutor support mechanism each local *Cook it!* area arranged network or support meetings and overall four in five tutors (80%, n=49) had been able to attend at least some network meetings. Work commitments were the main obstacle to people not attending any of the meetings (n=13), followed by holidays (n=3) or ill health (n=3). These meetings were seen as beneficial by many of the tutors. Issues such as the ability to compare notes with other tutors/networking (n=26), getting extra information (n=18) specific updates on older people (n=3) and receiving sugar and salt updates (n=3) were highlighted as the major benefits.

### **Tutors' views on their *Cook it!* participants**

Tutors (n=49) reported that *Cook it!* was of great benefit to their participants and that the programme was pitched at an appropriate level for the groups. Nearly all tutors reported the programme to be easily understood (98%), relevant (98%) and interesting (98%) to their groups. One person had no strong opinion on this (2%).

The majority of tutors reported that they considered their groups as quite or very motivated to change their eating (92%, n=47) cooking (94%, n=47) and shopping habits (90%, n=44). This is further investigated within the participants' evaluation section of this report.

# Key findings: participants

## Participation in, and enjoyment of, *Cook it!*

All participants (n=478) were asked how many *Cook it!* sessions they had attended. Over half (55%) said they attended all six *Cook it!* sessions and a further 31% attended five of the sessions. One in ten attended only four sessions and around 4% attended half the *Cook it!* programme. Of the 45% of participants who did not attend all six sessions, 35% reported the reason as problems with childcare or children being unwell, while 23% reported illness and 10% had other commitments.

Everyone who took part in *Cook it!* enjoyed the programme and stated that they would recommend *Cook it!* to a friend. The majority of participants cited the most enjoyable components of the programme as the practical aspect and the social element (Table 5).

**Table 5: Top five reasons why participants reported enjoying *Cook it!***

Rating		%
1	Practical aspect	35.3
2	Social element	20.4
3	Following recipes	14.1
4	Healthy eating messages	13.6
5	Cooking/cooking methods	11.6
Base (n)		440

The social element was very important to individuals. Indeed over three quarters of participants in the follow-up evaluation reported that in taking part they made new friends (79%, n=44). The social aspect of the programme was often mentioned within the qualitative research.

*"To get out of the house. It was one of the Sure Start things, and I had a baby about four or five months and they had a crèche as well, but just to meet mothers in a similar situation giving ideas and that, it was great. It was a very social thing."*

**Sure Start group**

*"Whenever you live on your own you are glad of anything like that to come down to or take part in."*

**Older people's group**

## Self-perception of health

It is important to ascertain an individual's self-perception of their eating habits alongside any quantitative assessment of such measures, as it has been shown that dietary behaviour is strongly associated with self-perceived general and mental health status.<sup>5</sup>

When participants were asked how they viewed their eating habits prior to taking part in *Cook it!*, fewer than half (45%) classified them as quite healthy. However, this rose significantly to 58% following the *Cook it!* programme. Just over a third of participants (35%) had no strong opinion on their eating habits prior to attending *Cook it!* However, this fell to a quarter (25%) following the programme (Table 6).

There were significant positive changes for participants in all four *Cook it!* areas in relation to how healthy they considered their eating habits to be following the programme (results not shown). A significant improvement was reported for males, females, those with or without children and those who lived alone or with a partner (results not shown).

The follow-up results showed further significant improvements over the course of the six to nine months following *Cook it!* (Table 6). While no respondents in the follow-up evaluation group considered their eating habits to be very healthy immediately following *Cook it!*, six to nine months later this had risen by eight percentage points. Significant increases were also observed in the percentage of people reporting that they considered their eating habits quite healthy. This rose from 60% at the end of the six week programme to 67% at the six to nine months follow-up.

**Table 6: How participants described their eating habits before *Cook it!*, after *Cook it!* and at the follow-up point**

		Very healthy (%)	Quite healthy (%)	Neither/nor (%)	Quite unhealthy (%)	Very unhealthy (%)	Sig	Base (n)
Short-term results	Pre- <i>Cook it!</i>	5.6	45.4	34.7	10.3	4.0	***	478
	Post- <i>Cook it!</i>	6.3	57.9	24.9	8.6	2.3		478
Follow-up evaluation	Post- <i>Cook it!</i>	0.0	60.3	33.3	6.3	0.0	***	63
	6–9 months	7.9	66.7	20.6	3.2	1.6		63

Many of the participants agreed that they felt better after the programme and that the improvements in their health had left them with more energy and an overall healthier feeling.

*"I think you feel a bit better health wise; you seem to have a bit more energy."*

**Sure Start group**

*"I just try to watch my diet and eat the right things. That is the main thing and the confidence to cook it but this has helped."*

**Young men's group**

All participants were further asked how they would describe their eating habits over the previous three months. This was to help participants' consider their eating habits over a period of time rather than simply their current perception on the day they were asked.

Those reporting that their eating habits were a lot better rose from 15% prior to *Cook it!* to 34% following the programme (Table 7). In a similar vein a greater proportion of people reported that their eating habits were a little better following the programme (48%) compared to before *Cook it!* (26%). The majority (54%) had reported that their eating habits were about the same over the three months prior to *Cook it!* However, this decreased significantly to 17% following completion of the programme. Although a small number reported that their eating habits were a little or a lot worse prior to *Cook it!* (6%) this was reported by only 1% of participants following *Cook it!* Changes were found among all groups regardless of local area, gender, children, living status or employment status (results not shown).

*"I feel healthier for eating freshly prepared food instead of food out of a chippie."*  
**Brain injury group**

The follow-up evaluation showed participants' views on their eating habits were maintained six to nine months later (Table 7). Despite no significant differences between the post-*Cook it!* results and the six to nine month follow-up, an eight percentage point increase was observed in those who reported that their eating habits were a lot better, and fewer than 10% reported feeling their eating habits were about the same. No-one reported feeling their eating was a little or a lot worse.

**Table 7: How participants rated their current eating habits compared to three months previously**

		<b>A lot better (%)</b>	<b>A little better (%)</b>	<b>About the same (%)</b>	<b>A little worse (%)</b>	<b>A lot worse (%)</b>	<b>Sig</b>	<b>Base (n)</b>
Short-term results	Pre- <i>Cook it!</i>	14.6	26.1	53.6	4.0	1.7	***	472
	Post- <i>Cook it!</i>	33.5	48.3	17.2	0.8	0.2		472
Follow-up evaluation	Post- <i>Cook it!</i>	34.9	47.6	15.9	1.6	0.0	NS	63
	Nine months	42.9	47.6	9.5	0.0	0.0		63

**Barriers to healthy eating**

An important aspect of implementing and delivering a community nutrition education programme is the need to understand what people see as barriers to healthy eating. All participants were asked if they agreed or disagreed with a number of statements related to issues that may have been a barrier to their consumption of healthy foods (Table 8). The top two reasons that prevented people eating healthy foods prior to *Cook it!* were 'I don't have the will power' (63%) and 'I don't have healthy recipes' (61%). Significantly fewer people reported having these problems immediately following the *Cook it!* programme. Those stating 'I don't have healthy recipes' was a barrier decreased significantly from 61% before attending *Cook it!* to 25% after the programme. Those reporting 'I don't have the will power' decreased significantly from 63% to 53%; however lack of will power still remained the top reason preventing people eating more healthily after *Cook it!*

Significantly fewer participants agreed with the statement 'I don't know which foods are healthy' after taking part in *Cook it!* (11%) compared to before the programme (27%). Significant decreases were also seen in the number of people who reported 'I don't know what changes to make', 'healthy foods cost too much', 'I don't know which methods of cooking are healthy', 'healthy foods take too long to prepare', and 'I don't like the taste of healthy foods' (Table 8).

The *Cook it!* programme also gave participants the opportunity to have a practical hands-on approach to cooking and the confidence to try recipes they previously would not have tried at home. This element of putting theory into practice was seen by many as a major incentive of the programme, and allowed people to experiment with food in a familiar environment before trying it out in the potentially more critical family setting at home.

*"To have the hands-on know how to make a certain dinner or a certain stew which I wouldn't have tried at home."*

**Sure Start group**

*Cook it!* was able to challenge individuals' healthy eating barriers despite the diverse range of target groups. While the more mainstream groups such as mothers and toddlers learnt new recipes and gained extra will power, other groups gained insight into the more basic elements of cooking. For example one *Cook it!* programme which ran in a male drop-in centre was able to teach young men the basic elements of cooking eg length of time certain foods should be cooked for.

*"Cooking for a certain time – you know to keep something on for a certain time, like chicken."*

**Young men's group**

No significant changes were noted in the number of participants agreeing with statements that were not directly linked or related to *Cook it!* For example no significant change was noted in the percentage of people who agreed with the statements 'there is a poor choice of healthy foods in the canteens or cafés I go to' and 'my friends and family don't support me'. Interestingly, the *Cook it!* programme can have no direct impact on these barriers.

**Table 8: Barriers that prevented participants from eating healthy foods**

	Pre- <i>Cook it!</i> (%)	Post- <i>Cook it!</i> (%)	Sig	Base (n)
I don't have the willpower	62.7	52.5	***	415
I don't have healthy recipes	60.6	25.2	***	409
I don't know what changes to make	45.1	24.5	***	408
Healthy foods cost too much	43.9	37.6	*	415
There's a poor choice of healthy foods in the canteens or cafés I go to	40.7	38.4	NS	388
I'm not sure which methods of cooking are healthy	39.9	19.1	***	404
Healthy foods take too long to prepare	30.4	23.0	**	405
I don't know which foods are healthy	26.0	10.7	***	392
I don't like the taste of healthy foods	16.0	8.0	***	375
My friends and family don't support me	15.8	18.3	NS	398

The follow-up evaluation showed no further significant change in the barriers individuals experienced. (Appendix 2: Table 19).

## Participants' knowledge and skills

Although an individual's perception of their dietary habits and their understanding of the barriers to healthy eating may be an important factor as a motivator to change, it is also important to assess their knowledge of healthy eating messages. It is now well accepted that knowledge alone is not necessarily a precursor to attitude or behaviour change, however it is a necessary starting point for people to move forward from.

Participants were asked to identify the major learning outcomes they considered had gained from *Cook it!*. Their top five learning experiences are illustrated in Table 9. As the results show, one of the major learning outcomes centred on food hygiene as this provided new information to many individuals.

**Table 9: Participants' top five rated learning experiences from *Cook it!***

Rating		%
1	Food hygiene	29.3
2	Recipe/meal ideas	23.8
3	Healthy eating information	17.5
4	Better healthier cooking skills	7.3
5+	Using different foods in cooking/salt/healthy options	3.6
Base		422

Participants' reports in the qualitative research highlighted that after *Cook it!* they were aware of how to cook foods correctly and that they would now try different foods given their new knowledge of food and cooking.

*"You're taught how to use the cooker properly, instead of putting it up at six and boiling it or over boiling it you're taught how to simmer it to get the better flavour and taste."*

**Homeless group**

*"I wouldn't be afraid to cook any food now and I'd be willing to try different things."*

**Homeless group**

One of the key healthy eating messages in *Cook it!* focuses on the recommendation to include five portions of fruit and vegetables a day.

The pre-*Cook it!* results showed 87% of participants were aware of the recommended five portions of fruit and vegetables a day message. This rose significantly to 95% after *Cook it!* A significant rise was seen in women (88% to 95%), those with children (90% to 97%), those without children (81% to 91%) and those who lived with a partner (90% to 98%) (Appendix 2, Table 25)

All participants were asked if they agreed, disagreed or were unsure about a number of nutritional statements. A significant improvement in knowledge was noted after completing *Cook it!* for each of the statements shown (Table 10). Nearly twice as many people agreed with the statement 'Products that are 80% fat-free are high in fat' after taking part in the *Cook it!* programme (42% compared to 23%). Just over half the group were aware that 'Low-fat milk, lower fat cheese and low-fat yogurts contain as much calcium as the standard types' however this increased substantially from 56% to 77% following *Cook it!*

**Table 10: How much participants agreed or disagreed with food statements**

		Agree (%)	Disagree (%)	Don't know (%)	Sig	Base (n)
Low-fat milk, lower fat cheese and low-fat yogurts contain as much calcium as the standard types	Pre- <i>Cook it!</i>	55.6	11.6	32.7	***	455
	Post- <i>Cook it!</i>	76.5	7.7	15.8		
Frozen vegetables are as good for you as fresh	Pre- <i>Cook it!</i>	65.0	21.2	13.8	***	463
	Post- <i>Cook it!</i>	88.3	6.9	4.8		
Raw meat should be stored above cooked meat in the fridge	Pre- <i>Cook it!</i>	15.5	72.3	12.2	***	458
	Post- <i>Cook it!</i>	10.0	85.2	4.8		
Adding vegetables into stews or soups gives you additional fibre	Pre- <i>Cook it!</i>	73.3	5.6	21.1	***	465
	Post- <i>Cook it!</i>	86.9	3.4	9.7		
Foods from the bread, other cereals and potatoes groups are naturally high in fat	Pre- <i>Cook it!</i>	25.2	45.5	29.4	***	453
	Post- <i>Cook it!</i>	15.7	62.0	22.3		
Products that say they are 80% fat-free are high in fat	Pre- <i>Cook it!</i>	22.6	36.9	40.5	***	447
	Post- <i>Cook it!</i>	42.3	31.3	26.4		
Eating oily fish eg mackerel, herring or salmon can help protect against heart disease	Pre- <i>Cook it!</i>	75.3	3.9	20.8	***	466
	Post- <i>Cook it!</i>	86.3	3.4	10.3		

The follow-up evaluation results demonstrated that a high level of knowledge was retained at the six to nine month point (Appendix 2, Table 20). However, interestingly, significantly fewer participants agreed with the statement 'Frozen vegetables are as good for you as fresh' at the follow-up stage (92% compared to 80%). Given that this change occurs in the longer-term evaluation only, this may be an indication that participants are being exposed to inaccurate health information from other sources.

## Behaviour related changes

### Shopping

Beyond knowledge, the first stage to behaviour change in relation to healthier eating occurs with what people purchase while shopping. All participants who attended *Cook it!* were asked if they agreed or disagreed with a number of statements about their shopping habits. The results are shown in Table 11.

Significantly more participants reported buying foods that helped with their weight (63%) after the *Cook it!* programme compared to before (55%). Similarly, significantly more participants also reported looking at the amount of fat in foods (58% compared to 43%) and reading the labels before purchasing foods (57% compared to 45%). This suggests that after completing *Cook it!* participants were more likely to consider the health aspects of their purchases.

*"I mean they do this big advert you know, only 80 calories and you are automatically attracted to it but when you turn it round the fat content could be very high."*

**Sure Start group**

Another change noted was the participants' reports of having a wider range of recipes to incorporate various vegetables and meats into, resulting in less food wastage in the home. This created a change in purchasing habits, illustrated by the fact that significantly fewer participants reported buying the same foods every week (50% prior to *Cook it!* compared to 43% afterwards). Significantly more also reported buying foods made in Northern Ireland after *Cook it!* (41% rising to 47%).

**Table 11: How participants made choices when they went shopping**

	Pre- <i>Cook it!</i> (%)	Post- <i>Cook it!</i> (%)	Sig	Base (n)
I look at what it says on the label	45.3	57.2	***	402
I look at the amount of fat	43.0	57.5	***	405
I buy foods that help with my weight	55.0	62.7	**	413
I buy foods made in Northern Ireland	40.6	46.9	*	399
I buy the same foods every week	49.5	43.4	*	408
I buy what my partner likes	87.0	82.0	NS	212
I buy foods on special offer	83.2	80.9	NS	423
I look at the price	77.1	79.3	NS	420
I buy foods I see advertised	35.7	37.4	NS	401
I buy food that is easy to prepare	67.8	66.3	NS	407
I buy what I like	93.8	94.7	NS	437
I buy what my children like	92.0	92.0	NS	260

The follow-up evaluation results showed consistently that changes in shopping habits were maintained over the six to nine month period (Appendix 2: Table 21). However further improvements were noted in that significantly more participants reported that they checked the labels after nine months than after the six week programme (84% compared to 61%). This was highlighted in the qualitative research.

*"You think more about what you are buying, I look at labels now."*

**Older people's group**

It is possible that the 'check the label' message may have been reinforced by the media during the six to nine month period following each series of *Cook it!* sessions. Much media attention has been given to food labelling especially in the area of reducing salt in foods. However, despite this media interest the results show the initial change in looking at the salt content of food had come from *Cook it!* itself, as participants reported not just reducing salt in foods but replacing this salt with pepper or alternative spices.

*"Using less salt and using your pepper and spices more and including more fresh vegetables and fruit."*

**Sure Start group**

During the period of evaluation supermarkets introduced food labelling on the front of packaging. This may have provided further encouragement for participants to continue looking at labels. Advertising no doubt helps keep healthy eating and nutrition at the forefront of people's minds when purchasing foods and may in turn have helped *Cook it!* participants from reverting to old habits.

Participants reported being able to use the food they bought in more and more adaptable ways owing to the knowledge and skills they had learnt from *Cook it!*

*"Before it was just one thing and one thing only and you were sick of looking at it, but now even if you buy the same things you always bought, you can do wider variations because of the different recipes you have which has been good for me; and I'm even starting now to throw in onions and peppers and all that which I would have never done before. My food would've been basic and plain and that was it...now I enjoy making it and eating it."*

**Sure Start group**

## Preparation and cooking

Alongside the purchasing of foods an important aspect to be considered when looking at attitude and behaviour change are people's views on following recipes and cooking from raw ingredients.

It is important that people are happy with these skills, as using raw ingredients and following recipes allows control of the quantity of ingredients added into meals, including, for example, less salt, less fat and more vegetables.

There was a significant increase in the number of participants who felt very happy in following a recipe after *Cook it!* (54%) compared to before taking part in the programme (38%) (Table 12). These findings were maintained in the follow-up evaluation. Significant results were found regardless of local area, gender, living arrangements, working status and children (results not shown)

**Table 12: How participants felt about following a recipe**

		Very happy (%)	Quite happy (%)	Neither/ nor (%)	Quite unhappy (%)	Very unhappy (%)	Sig	Base (n)
Short-term results	Pre-Cook it!	38.4	38.0	16.2	4.1	3.4	***	469
	Post-Cook it!	53.5	36.2	7.9	0.9	1.5		469
Follow-up evaluation	Post-Cook it!	56.9	33.8	6.2	3.1	0.0	NS	65
	At 9 months	50.8	41.5	4.6	3.1	0.0		65

Only 47% of participants reported being very happy about cooking with raw ingredients before *Cook it!* This rose significantly to 55% after the programme finished (Table 13), with improvements seen in those who were employed or unemployed. Significant improvements were also observed regardless of living status or whether participants had children (results not shown).

**Table 13: How participants felt about cooking with raw ingredients**

		Very happy (%)	Quite happy (%)	Neither/ nor (%)	Quite unhappy (%)	Very unhappy (%)	Sig	Base (n)
Short-term results	Pre-Cook it!	46.7	30.2	16.7	4.0	2.3	***	473
	Post-Cook it!	55.0	30.9	10.8	1.5	1.9		473
Follow-up evaluation	Post-Cook it!	64.6	23.1	10.8	1.5	0.0	NS	65
	At 9 months	58.5	24.6	13.8	1.5	1.5		65

Participants also reported they now had better cooking skills after taking part in the *Cook it!* programme.

*"I used to boil the life out of them (vegetables) and then they're tasteless. They should be firm not over-cooked."*

**Sure Start group**

Participants also said they had learnt more about the different methods of cooking food. This allowed them to change some of their cooking methods from high-fat frying to healthier methods such as grilling.

*"I used to put sausages in the deep fat fryer, now I put them in the grill."*

**Sure Start group**

## Food consumption patterns

Participants were asked in detail about their frequency of consumption of various types of meals (Table 14). The frequency with which people cooked using a mixture of raw and ready-made ingredients significantly increased following the *Cook it!* programme. Sixteen percent of people reported using this style of recipe on most days of the week before *Cook it!* compared to 24% after the programme ended.

*"I eat non-processed foods, instead of buying a lasagne you are actually buying the meat and putting it together yourself or even things like pizzas, buying the base instead of buying a frozen pizza."*

**Sure Start group**

The frequency with which people cooked convenience foods significantly decreased. Ten percent of people reported using convenience foods on most days of the week before *Cook it!* compared to six percent after *Cook it!* There was a five percentage point rise in number of people who reported having fast food or carry-outs less often than once a week after *Cook it!*

**Table 14: Frequency of consumption of various types of meals**

		Every day (%)	Most days (%)	Two or three times a week (%)	Once a week (%)	Less often or never (%)	Sig	Base (n)
Cook using a mixture of raw and ready-made ingredients <sup>†</sup>	Pre- <i>Cook it!</i>	8.0	16.1	27.2	31.1	17.6	***	460
	Post- <i>Cook it!</i>	9.6	23.7	28.7	26.1	12.0		460
Cook convenience foods <sup>#</sup>	Pre- <i>Cook it!</i>	2.0	10.0	29.9	35.4	22.8	***	452
	Post- <i>Cook it!</i>	1.3	5.8	21.7	46.9	24.3		452
Eat fast food/carry-out meals	Pre- <i>Cook it!</i>	0.7	2.5	11.3	49.7	35.9	*	443
	Post- <i>Cook it!</i>	0.5	2.7	8.1	47.6	41.1		443

<sup>†</sup>Cook using a mixture of raw and ready made ingredients eg Bolognese made with raw mince and a pre-prepared sauce (sauce in jar)

<sup>#</sup>Cook convenience food, eg pizza, sausage rolls, pies or ready meals

The follow-up evaluation results (Appendix 2, Table 22) show that the increase in the frequency of cooking with raw and ready-made ingredients and the decrease in fast foods/carry-out meals consumption was maintained. The frequency of convenience or processed food consumption further significantly decreased at the six to nine month period, with 23% reportedly eating convenience foods less often than once a week before *Cook it!* compared to 32% after six to nine months.

*"People thought that to make something from scratch was a huge task and this course showed that it wasn't."*

**Sure Start group**

Indeed participants reported they enjoyed the process of cooking more, given the new skills they had learned from the programme.

*"It makes food more adventurous rather than cooking a ready-meal."*

**Mental health group**

*"I've found that since I've learned to cook the things I like, I do try to cook more myself and might only get a take-away or fast food maybe once a week, so I'm not ordering take-away as much as before."*

**Sure Start group**

The *Cook it!* programme gave many mothers a refresher course in nutrition and the chance to revive healthier eating practices in the household.

*"I started to not use fresh vegetables and then I just picked it up again and started to use them. I don't want to go back to the way I was before."*

**Sure Start group**

*"We are getting more modern in our cooking with stir-fries and pastas with sauce. It makes a nice change from the traditional meals we are so used to preparing."*

**Older people's group**

*"I've been eating a bit more pasta, I eat it more since that (the programme). I just like it too, it's easy to make and it's healthy too."*

**Young men's group**

## Fried and processed food consumption

The evaluation looked at participants' consumption of processed and fried foods (Table 15). There was a significant decrease in how often they ate chips, roast potatoes, waffles and wedges. There was also significant change in how often they ate fried foods such as fish, eggs, bacon, sausages after *Cook it!*. Furthermore, the frequency of participants eating processed meat or chicken products significantly decreased. Fifteen percent reported consuming these foods on most days before *Cook it!* compared to 8% afterwards.

**Table 15: Frequency of consumption of processed and fried foods**

In a normal week, how often would you eat the following?

		Every day (%)	Most days (%)	Two or three times a week (%)	Once a week (%)	Less often or never (%)	Sig	Base (n)
Chips, roast potatoes, waffles, wedges	Pre- <i>Cook it!</i>	4.4	10.2	31.3	41.1	13.0	***	453
	Post- <i>Cook it!</i>	3.1	7.5	26.5	46.4	16.6		453
Fried foods eg fish, eggs, bacon, sausages	Pre- <i>Cook it!</i>	2.2	8.5	24.8	36.2	28.3	***	459
	Post- <i>Cook it!</i>	1.3	5.9	18.1	41.6	33.1		459
Processed meat or chicken products†	Pre- <i>Cook it!</i>	3.5	14.5	33.6	30.8	17.6	***	461
	Post- <i>Cook it!</i>	2.4	7.6	30.4	34.7	24.9		461

†Processed meat or chicken products, including meat pies, sausage rolls, burgers, sausages, breaded chicken

The follow-up evaluation results concluded that further significant decreases were evident in how often participants consumed chips, roast potatoes, waffles and wedges. Ten percent of respondents had consumed these foods on most days, however this decreased to only 5% six to nine months after *Cook it!* (Appendix 2: Table 23). A further 10% of participants' reported consuming these foods less than once a week whereas this had doubled to 21% six to nine months after *Cook it!*

Similar changes were reported for processed meat or chicken products. Further significant changes were observed six to nine months after *Cook it!* when 32% reported eating these foodstuffs less than once a week compared to 22% at the six week point immediately following participation in the programme. Similarly, while 28% of participants reported consuming processed meat or chicken products most days immediately following *Cook it!* this had decreased significantly to only 11% at the six to nine month follow-up point.

The qualitative research illustrated certain food types including pasta, rice and stir-fries were consumed more frequently. This was especially true for the more specialised groups including the older people and young men's groups.

## Snack food consumption

Many changes were noted in relation to snack food consumption. For example 13% of people consumed crisps and savoury snacks every day before *Cook it!* This dropped to 8% immediately following the programme (Table 16). At six to nine months this figure decreased significantly, to only 2% (Appendix 2, Table 24).

The frequency of sweet and chocolate eating decreased over the short term. Fifteen percent of people consumed these foods every day before *Cook it!* compared to 11% afterwards. The trend was further maintained at the six to nine month stage although further significant reductions were not noted.

A significant decrease was also seen in the frequency with which participants consumed biscuits, cakes, buns and pastries. This reduced by almost 50% from 18% to 10%. No further significant reductions were noted at six to nine months, although changes were maintained.

A significant decrease in the frequency of high-sugar drink consumption was also observed after *Cook it!* Nineteen percent of participants consumed these foods every day before *Cook it!* compared to 13% after completing the programme.

**Table 16: Frequency of consumption of snack foods**

		Every day (%)	Most days (%)	Two or three times a week (%)	Once a week (%)	Less often or never (%)	Sig	Base (n)
Crisps, savoury snacks	Pre-Cook it!	12.6	14.5	20.6	21.9	30.5	***	462
	Post-Cook it!	8.4	11.5	21.4	27.1	31.6		462
Sweets, chocolate	Pre-Cook it!	15.4	14.3	27.7	25.5	17.1	***	455
	Post-Cook it!	11.0	13.2	25.5	27.9	22.4		455
Biscuits, cakes, buns, pastries	Pre-Cook it!	18.4	20.2	28.1	18.4	15.0	***	441
	Post-Cook it!	9.8	15.0	27.4	26.1	21.8		441
Fizzy drinks, Sunny D, Ribena, Fruit Burst	Pre-Cook it!	19.1	14.7	14.1	14.3	37.8	***	455
	Post-Cook it!	12.5	10.8	13.6	14.7	48.4		455

## Fruit and vegetables consumption

Table 17 shows that fruit, salad and vegetables were consumed on a more frequent basis after the *Cook it!* programme. Over a third of the group (36%) consumed fruit every day after *Cook it!* compared to 30% before the programme. Similar changes were observed for the consumption of vegetables. Twenty nine percent of the group consumed vegetables once a day before *Cook it!* compared to 35% after the programme. The frequency of fruit consumption increased regardless of whether participants had children, however, interestingly, the frequency with which vegetables and salads were consumed increased only in the group that had children (results not shown). Fruit and vegetables consumption was more likely to increase in frequency in those who were unemployed, homemakers, females, those who lived in the Western HAZ or SHSSB areas and those who lived alone or with a partner (results not shown).

*Cook it!* allowed people to try new fruits and vegetables (such as peppers, spinach and turnip) that they may not have been willing to spend money on or try before.

*"I learnt that I actually like things that I wouldn't have thought of eating such as spinach and a few other different vegetables."*

**Sure Start group**

*"I buy a lot more fruit; before I would have said what is that? But now that they've brought them in and we've sampled them, we know we can go and buy it because we know what it is like."*

**Sure Start group**

**Table 17: Frequency of consumption of fruit and vegetables**

		Every day (%)	Most days (%)	Two or three times a week (%)	Once a week (%)	Less often or never (%)	Sig	Base (n)
Fruit†	Pre-Cook it!	29.7	23.9	21.5	13.5	11.4	***	465
	Post-Cook it!	35.7	26.5	20.9	11.2	5.8		465
Vegetables#	Pre-Cook it!	28.7	28.5	26.3	9.3	7.2	**	471
	Post-Cook it!	34.2	28.5	24.2	9.1	4.0		471

†Fruit including fresh, frozen, dried and tinned fruit and pure fruit juice

#Salad or vegetables, including fresh, frozen, dried and tinned vegetables but excluding potatoes

In the follow-up further significant changes were not found in the frequency of fruit and vegetable consumption, however the higher levels of consumption noted in the six week follow-up were maintained at the six to nine month stage (Appendix 2: Table 25).

Further analysis showed that just over half (51%) of participants had increased the daily number of portions of fruit consumed after six weeks of *Cook it!*, 30% had not changed their consumption and 18% had decreased their consumption (Figure 3). No significant differences were noted in this variation by local area, gender, children, living arrangements or working status. The qualitative research provided many examples of people either beginning to cook with vegetables or adding them into foods they already regularly consumed.

*"I would never have made stir-fries before. That's how you can get your vegetables in."*

**Mental health group**

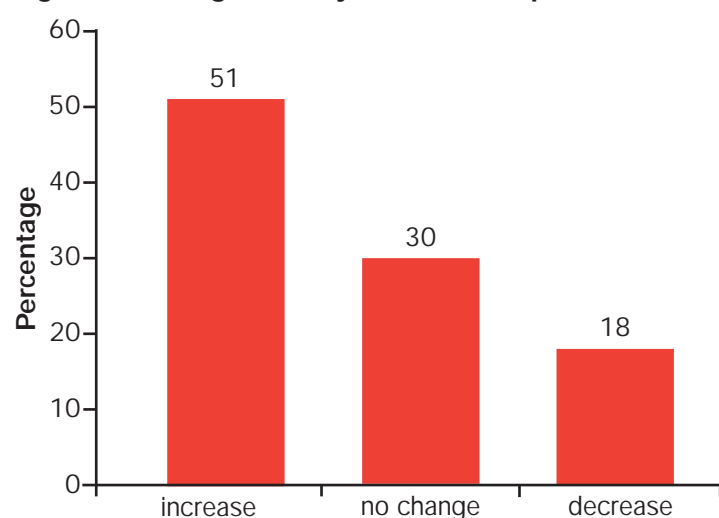
*"I now like chicken curry with vegetables in it like peppers etc."*

**Young men's group**

*"I now include peppers and sometimes mushrooms into my lasagne or curries."*

**Sure Start group**

**Figure 3: Change in daily fruit consumption at the end of the six week *Cook it!* programme**



Significantly more participants consumed the recommended five portions of fruit and vegetables after completing the six week programme (Table 18). This rose from 12% before participation to 22% following completion of the programme – an increase of 83% (Table 18). Significant increases in the number of people who consumed five portions of fruit and vegetables a day were seen in all groups, with the exception of those in the SHSSB area, those in employment, and those living with someone other than a partner.

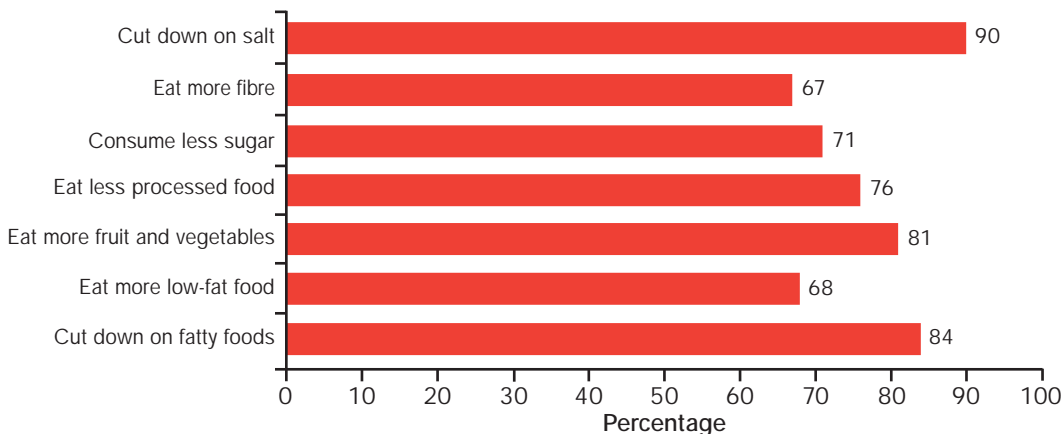
**Table 18: Consumption of five portions of fruit and vegetables a day by demographic and socio-economic circumstances**

	Pre-Cook it! (%)	Post-Cook it! (%)	Sig	Base (n)
<b>All</b>	12	22	***	451
<b>Cook it! area</b>				
CHSST	15	28	***	96
N&WHSST	8	17	*	109
SHSSB	13	22	NS	90
Western HAZ	11	22	***	156
<b>Gender</b>				
Male	3	13	**	47
Female	13	23	***	404
<b>Children</b>				
Have children	9	19	***	268
No children	15	26	***	161
<b>Employment</b>				
In employment (full or part time)	10	15	NS	89
Unemployed	7	22	***	69
Home maker	14	24	***	139
Retired/student/other	17	29	*	72
Sick or disabled	7	23	***	74
<b>Living arrangements</b>				
Alone	9	23	***	136
With partner	12	23	***	220
With other (not partner)	13	18	NS	76

## Behaviour changes in the family setting

The evaluation aimed to explore potential changes in eating behaviour in the family setting. Ninety seven percent of respondents reported in the follow-up evaluation that *Cook it!* had encouraged them to think more about their family's health. A high proportion of participants reported making changes to their family's eating habits. These are summarised in Figure 4.

**Figure 4: Changes participants reported making to their family's diet within previous six months**



(Base=49)

These changes were explored in more detail in the qualitative research. Mothers reported trying different methods to incorporate more fruit and vegetables into their children's diet.

*"Carrot and lentil soup for children that don't really eat carrots, if you pureed it, it was brilliant because they ate it and really enjoyed it."*

**Sure Start group**

*"At the start I got a few funny looks like 'what are you giving me?' They've just come round to it now. Normally it was just the packets, whatever was easiest to do but now I would do a lot more stews and soups."*

**Sure Start group**

Parents used tips they received from the *Cook it!* programme to try and get their children to eat healthier snacks instead of biscuits and chocolate.

*"I cut up pieces of fruit and leave it on the kitchen table and before they go to school it is all gone. I got this tip from the Cook it! tutor."*

**Sure Start group**

Participants were also trying to use what they learnt during the *Cook it!* programme to flavour foods rather than using the traditional means they were used to. This included replacing salt with spices and herbs to flavour foods.

*"Using less salt, using pepper and spices more and trying to use less and a bit more fresh vegetables and eat more fruit."*

**Sure Start group**

Participants tried to get their partner to put into action some of the healthy eating messages they learned during *Cook it!* While some partners supported the participants in trying to change the family's diet, many partners, particularly males, wanted to continue with the diet they were accustomed to.

*"Not too popular with my husband but he's getting to like it through time. More healthy things and he'd even eat more fruit than me."*

**Sure Start group**

*"The men just want to stick to their usual; it is just the typical Irish man."*

**Sure Start group**

Beyond the immediate household, participants reported that they had shared information with their mothers, sisters, and friends. Participants valued the information they gained from the *Cook it!* programme and were happy to share not only health information but were also sharing the recipes they had cooked. This therefore potentially allowed a greater flow of information and healthy eating practices throughout the community setting. This occurred for both the mainstream and more specialised groups.

*"My mum especially, she enjoys the stuff and so does my granny and they're starting to cook them as well."*

**Sure Start group**

*"I know I said to people about the salt, because it was a big thing and when reading the packets we were all shocked, it was an eye opener, you know that whatever is top of the list is the highest ingredient and a lot of the stuff like the salt and the sugar is really the second and third item on that list."*

**Sure Start group**

*"I have heard them advising other clients who haven't participated in Cook it! on eating and cooking. Then some of these people request to take part."*

**Brain injury tutor**

## The wider impact of *Cook it!*

In addition to the changes in nutrition knowledge and practice, other lifestyle changes were reported. Many individuals tried to reduce stress levels, took up regular physical activity and walked to work or walked for pleasure. Many tried to get their family involved in exercise and participants reported they had tried to reduce the amount of time the family watched TV (Figure 5).

*"We've (points to other participant in group) started to walk together after taking the class; it's easier if you can walk and talk."*

**Sure Start group**

*"I think when you are going (to Cook It!) it motivates you more to do exercise and you are feeling better."*

**Sure Start group**

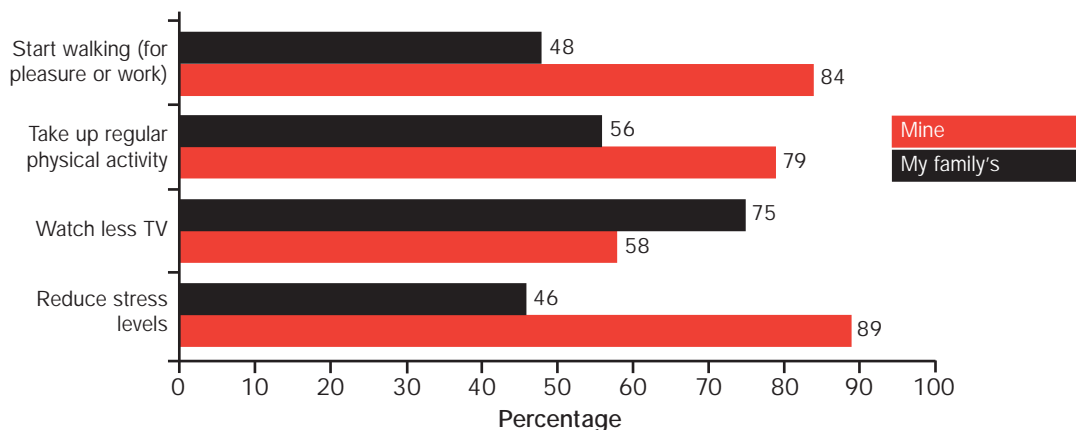
*"It just makes you more aware you know; because you've been there (Cook it! course) it plays on your head that you should walk and do stuff."*

**Sure Start group**

*"Above all it tastes better and I'm even sleeping better."*

**Brain injury group**

**Figure 5: Changes participants reported making to their own and their family's lifestyle within the previous six months**



(Base=49)

One of the major benefits of taking part in *Cook it!* was the confidence it gave participants. The follow-up evaluation found 84% percent of participants considered themselves to be more confident about cooking (n=52) and 63% reported that *Cook it!* had helped them be more confident generally (n=38).

*"If you can achieve one thing it gives you confidence in other areas to go out and achieve. I have now joined a gym. I am now more determined job hunting I have more confidence. It is all in steps but they all lead together. The Cook it! programme gave me the impetus to go and do something like that (join the gym)."*

**Homeless group**

*Cook it!* also encouraged participants to do other courses (78%, n=47); 51%,( n=31) had gone on to take further courses since completing *Cook it!* The most popular types of courses people enrolled on after *Cook it!* were computing 20% (n=10), cooking 8% (n=4) and fitness and health (n=4).

**Improvements to *Cook it!***

All participants reported that they enjoyed *Cook it!* and that they would recommend it to a friend. Although three quarters (73%, n=43) of participants agreed the course was the right length, many said they would like to have more than six *Cook it!* sessions so that the groups could try more recipes.

*"It wasn't long enough and I wish we could do it again. That was (Cook it! programme) one of things that you could only do once and we wish we could do it again."*

**Sure Start group**

Another strong opinion among participants was the need to include a refresher course or receive recipes by post. This was considered by many to boost willpower and help maintain healthy eating practices.

*"I think a refresher course would be a great idea and it would encourage us to improve our diet again."*

**Older people's group**

*"I think the recipes in the post would be a good idea, just one every couple of months that would encourage me to continue or restart again!"*

**Sure Start group**

Refresher courses had been conducted with the more specialised groups in which the tutor had regular contact with the group. Tutors felt this was important to maintain this contact and continually support their group members.

*"We don't stop it there either we have regular updates with clients that have taken part to see how they're getting on."*

**Brain injury tutor**

# Discussion

## The *Cook it!* training

Overall, tutors were very positive about the *Cook it!* training they received. They reported the training as easily understood, relevant and interesting. Tutors particularly enjoyed the practical aspect of the course (16%), the cooking (14%) and networking opportunities (15%).

The evaluation found that the number of tutors who had attended courses in nutrition (37%) or food hygiene (35%) prior to taking part in the *Cook it!* training was limited. Tutors' lack of formal knowledge influenced how they perceived the information obtained in training. Just over a fifth (21%) reported that there was too much information included in the training. This indicates that tutors would have benefited from an extension to the core two day training, a factor which may allow key nutrition messages to be reinforced. During the evaluation period the SHSSB provided additional training in food hygiene. This kind of extension to the core training may have acted not only break up the volume of training delivered over two days but also to help strengthen the key messages.

Seventy one percent of tutors reported that the training 'Helped me gain increased confidence in delivering nutrition courses' and almost 90% of tutors reported the *Cook it!* training had 'Improved my own nutrition knowledge', a fact reinforced by the significant improvements observed in tutors' knowledge. For example, after training significantly fewer tutors reported that 'Honey is better for you than sugar' and 'Cream and butter are part of the dairy food group' than before. These results indicate tutors were more informed in many areas of nutrition after the training.

However, the evaluation found other elements of tutors' knowledge to be less developed. Interestingly, these findings relate to tutors' knowledge of key messages around fruit and vegetable intake. The current nutritional message around fruit and vegetables is the recommendation to eat five or more portions per day. Tutors were well versed on this recommendation. However, the results from the evaluation indicate that their knowledge about what foods are a part of the fruit or vegetable group may be limited.

One year after *Cook it!*, significantly fewer tutors than before training incorrectly believed that strawberry jam was not a member of the fruit and vegetable group. More tutors also incorrectly believed sultanas were not a member of the fruit and vegetable group. The evaluation therefore suggests that tutors do not appear to be sufficiently aware of the differences between fresh, frozen, tinned and dried fruit and vegetables.

This therefore highlights a need for additional support and development to inform tutors about the detailed messages on fruit and vegetables. One recommendation for the *Cook it!* training would be to include a workshop on fruit and vegetables within the initial training programme. This information could be further elaborated upon by the development of additional resource sheets that tutors could use with participants during the six weekly sessions.

## Tutors' experiences of delivering the programme

Four fifths of tutors had delivered at least one *Cook it!* programme since training and the results indicate that nearly all tutors (98%) considered the programme relevant, easily understood and interesting for their groups. Tutors reported delivering *Cook it!* to a diverse range of groups within the mainstream target audience (18–64 years). The majority of tutors considered the resource sheets, session outlines and recipes to be helpful or useful with the mainstream *Cook it!* groups.

Many tutors also delivered the programme to a range of specialised groups outside the main target audience, which included those with mental health problems, learning disability groups and brain

injury groups. Specialised tutor expertise is required to lead these groups, but it is evident that *Cook it!* in its current format was able to be partially adapted for these groups.

Those who delivered the programme to the specialised groups reported the need for more visual aids and simplified resource and recipe sheets. It would therefore be valuable to extend the range of *Cook it!* resources to allow the programme to be used more effectively with a diverse target audience.

Tutors reported being confident about delivering the overall *Cook it!* programme, although there was concern about the amount of information contained in the first and last sessions. These two sessions were largely theoretical with no planned practical cooking involved. Many tutors reported that they felt their group would lose interest in such intensive sessions and for this reason they adapted the format to include some cooking element.

It is not possible from the evaluation to determine if tutors omitted nutritional information from the two theoretical sessions to allow for the introduction of cooking time. It is feasible that some tutors lacked the confidence to deliver these theoretical sessions. Any adaptation to future programmes would need to be carefully regulated to ensure participants do not lose out on obtaining valuable theoretical nutrition information. To ensure that this theory is absorbed one suggestion would be to extend the current six week programme and split the two theoretical sessions into smaller sessions. This would facilitate a well-balanced programme covering the full scope of nutrition and food hygiene theory, yet introduce more cooking into the programme. It may also be necessary to assist new tutors with planning and delivering the first and last sessions.

### Sustaining the tutors' role in *Cook it!*

Tutors were keen to continue delivering *Cook it!* and the learning their participants gained from the sessions helped fuel tutors' interest and commitment to delivering the programme. The tutors' enthusiasm was and continues to be an invaluable component of the programme which allows groups to benefit from a wholehearted delivery approach.

To help ensure maximum dissemination of the programme local coordinators need to ensure that tutors maintain their enthusiasm to deliver *Cook it!* programmes. They should also recruit tutors who either have an active turnover of participants or a common group with whom they can work and follow in the long term.

Given that during the 2004–2007 period some tutors were trained for over two years, it is important that coordinators maintain good contact with these individuals. It is possible that some who deliver the programme regularly could become complacent and not feel the need to keep updated with nutritional knowledge. In this context it would be important that tutors are required to attend regular updates on training. These updates or events should be incorporated into the tutor support mechanism.

### How *Cook it!* impacted on the participants

Participants overcame a variety of healthy eating barriers through *Cook it!*, including physical barriers such as 'I don't have healthy recipes' and perception barriers such as 'Healthy foods costs too much' and 'healthy foods take too long to prepare'. The numbers of participants experiencing knowledge barriers, including 'I don't know what changes to make', 'I'm unsure which methods of cooking are healthy' or 'I don't know which foods are healthy', also decreased significantly after taking part in the programme. The main barrier to healthy eating remained as 'I don't have the willpower', although this significantly decreased after taking part in *Cook it!*

There was no significant change in those who reported 'There's a poor choice of healthy foods in the canteens or cafés I go to' and 'My friends and family don't support me'. Interestingly, these are

the only two barriers mentioned that the *Cook it!* programme can have no direct impact on and reinforces the validity of the survey data.

### How *Cook it!* improved participants' nutritional knowledge

Reassuringly, given that it is now commonly advertised on packaged fruit and vegetables, the evaluation found that 87% of participants were aware of the 'five a day' message prior to *Cook it!* This finding in itself is significant in terms of population nutrition knowledge, as only 53% of individuals reported being aware of the 'five a day' message in the 2001 *Eating for health* report.<sup>3</sup> However, after *Cook it!*, 95% of those who completed the evaluation were aware of the 'five a day' message, a significant improvement to participants' nutritional knowledge (Appendix 2, Table 19).

Many other improvements in knowledge were made over the six week programme and maintained in the long term. However, it is of concern that there was a significant decrease in those who correctly reported 'frozen vegetables are as good for you as fresh' in the follow-up evaluation. Given that this was only observed in the follow-up evaluation the indication is that individuals' attitudes have been altered by influences outside *Cook it!* This would reinforce the idea that follow-up sessions should be offered to individuals after the course.

### The impact of *Cook it!* on participants' shopping, cooking and eating habits

It is of great encouragement that following the *Cook it!* programme significant changes were observed in participants' shopping habits. The results of the evaluation show that participants moved away from buying the same food every week, or purchasing foods that were preferred by their partner or children, to selecting foods based on the nutritional information on labels.

It is possible, however, that shopping habits may have been influenced after the start of *Cook it!* by the introduction of increased 'front of package' labelling on foods. This may have acted as an additional mechanism to help those who took part in *Cook it!* maintain healthy eating. Advertising on food labels and through the media may work alongside a number of strategies that support community nutrition programmes and keep healthy eating and nutrition at the forefront of concern when purchasing foods. During the evaluation period much media attention was also given to focusing the public's attention on the amount of salt in foods. This may have provided further encouragement for participants to continue looking at labels.

Further positive outcomes of *Cook it!* were reflected by the dietary changes introduced by participants. These included a reduction in the frequency of consumption of processed meat or chicken products, as well as a reduction in the frequency of consumption of high-fat and high-sugar snacks and drinks. A significant increase in the frequency of fruit and vegetable consumption was also observed over the six week period of the programme delivery and in addition significantly more participants consumed the recommended five portions of fruit and vegetables a day.

### How *Cook it!* impacts on the home setting

Key skills learned from *Cook it!* included basic cooking and food hygiene. These skills appeared to be 'new information' to many, especially to those in the specialised and young men's groups. The evaluation found *Cook it!* was able to help these individuals to learn and develop skills they had previously not been taught, including basic food preparation, food hygiene and knowledge about the amount of time required to cook foods. With these skills individuals in the specialised and young men's groups were able to move from processed microwaveable meals to preparing and cooking healthier meals. These are very important key skills which aid in the transition to independent lifestyles.

The *Cook it!* programme also gave participants increased strength and self-confidence to promote healthier eating within their family setting. Indeed the evaluation was able to illustrate many examples of mothers who introduced healthier foods into their children's diets. Healthier foods were

introduced to children in a number of ways, including being disguised within foods such as pureed soups or as an alternative snack. The most influential aspect of a young child's immediate environment is the family, with parents being a major influence on their children's eating and physical activity patterns.<sup>6</sup> The fact that *Cook it!* encouraged and motivated participants to make family changes is therefore an added and important bonus of the programme.

The evaluation found that participants' partners were less likely to welcome dietary changes in the home setting and that it would be valuable to try and encourage more men to take part in *Cook it!* Encouraging men to take part in nutrition or cookery-based classes is often a challenge in health promotion. These groups may need to be more specifically targeted through men's health and wellbeing clinics. An alternative approach may be through trying to encourage family groups to participate in *Cook it!*

### The wider impact of *Cook it!*

One measure of the success of nutrition education programmes in the community setting is how enjoyable participants perceive the programme to be. All participants enjoyed the *Cook it!* programme and stated that they would recommend it to a friend. There were also high levels of satisfaction and positive attitudes towards *Cook it!*

One interesting impact on participants was the social networking the programme provided. Many welcomed the social inclusion the programme brought and reported that meeting with friends every week was one of the most enjoyable aspects of the programme. This suggests that *Cook it!* was acceptable and welcomed within the community setting.

Over half of participants attended further courses after *Cook it!* These results illustrate the power of community programmes to act as key motivators that can encourage people to make further commitments to their own self-development.

One of the more unexpected outcomes of the evaluation was in relation to the changes noted beyond nutrition. These included changes to participant's physical activity regimes. Although physical activity was not directly touched upon within *Cook it!*, participants reported that being part of a social group and gaining self-confidence through the programme allowed them to look at improving other elements of their lifestyle.

### Sustaining the effects of *Cook it!*

It is important that people retain the knowledge that they have gained and feel supported to continue making positive dietary changes after taking part in nutrition education programmes. It is especially important to ensure that participants do not revert to old shopping, cooking and eating habits after making initial positive lifestyle changes. The *Cook it!* participants themselves were aware that they found difficulties maintaining dietary changes and they often suffered lapses in will power.

However the programme made participants consciously think about the choices they made. Participants offered many suggestions on how they felt they could be motivated after the programme ended. The suggestions included refresher courses or recipes delivered through the post. Participants believed their suggestions would provide enough of an incentive to reinforce the healthy eating message. People who live alone or who have limited social networking links could benefit from the recipe by post resource, while those who meet regularly as part of a group (for example older people's groups or Sure Start groups) could benefit from having refresher programmes timetabled throughout the year.

# Conclusion

*Cook it!* has proven itself over three years to be a well-developed programme teaching nutrition knowledge and skills in a fun and interactive way within the community setting. The programme stands out as an excellent example of a tiered nutrition education programme that improves nutritional knowledge, impacts on eating behaviour and also influences other aspects of lifestyle including physical activity, social inclusion and self-esteem.

The local area management and coordination of the programme is a key element in its success, allowing financial and practical support and advice to be offered to all tutors of the programme. It is evident that this support needs to continue as programmes like *Cook it!* cannot be effective without such efficient support mechanisms. This is especially important in nutrition education programmes where tutors need to be kept up to date and informed of new nutritional recommendations. The coordinators have therefore been a vital link in providing nutritional updates to tutors and ensuring that the information relayed to participants is as current and accurate as possible.

Another element in the success of the programme is the dedication and commitment the tutors have shown. The tutors are an integral part of the programme, as they provide a vital link between health professionals and the local community. This allows the programme to reach a wider target audience than could ever be reached by more formal courses.

Overall, *Cook it!* is shown to have made a positive impact on the nutritional knowledge and behaviour of the participants. The evaluation shows that these changes are not merely short term, but have been maintained in the long term. The programme evaluation also reveals the unexpected results that more people are taking up physical activity, reporting increased self-confidence and making changes in their families nutritional and lifestyle regime.

The current *Cook it!* programme offers an excellent basis on which to modify further programmes and resources, which may in the future be developed for specialised groups. However, these will need to be accompanied by the same level of local support in relation to training and further regional resources suitable for specialised groups' needs.

## Recommendations

- Incorporate compulsory attendance at *Cook it!* tutor updates
- Send out refresher recipes to *Cook it!* participants
- Extend the *Cook it!* training for tutors
- Insert a fruit and vegetable workshop as part of the core programme
- Extend and development the programme for other potential user groups

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# Appendices

## Appendix 1: Profile of respondents who took part in the *Cook it!* evaluation

	Week 1 and week 6 completed (%)	Base (n)	Week 6 and follow-up evaluation (%)	Base (n)
<b>Base</b>	100	478	100	65
<b>Cook it! area (% of total sample)</b>				
Causeway	21	101	26	17
N & W	25	120	26	17
Southern	20	93	5	3 <sup>#</sup>
Western	34	164	43	28
<b>Gender</b>				
Male	12	56	8	5
Female	88	422	92	60
<b>Children<sup>†</sup></b>				
Have children	62	175	68	42
No children	38	281	32	20
<b>Employment<sup>†</sup></b>				
In employment (full or part time)	19	91	24	15
Unemployed	16	77	13	19
Home maker	31	143	30	8
Retired/student/other	16	77	14	9
Sick or disabled	17	81	19	12
<b>Living arrangements<sup>†</sup></b>				
Alone	33	149	29	18
With partner	50	231	57	36
With other (not partner)	17	78	14	9

<sup>†</sup> Not all individuals reported on their employment status, no of children or living arrangements

<sup>#</sup>Limited numbers in SHSSB took part in the follow-up evaluation as this area began *Cook it!* six months after other areas.

## Appendix 2: Participants' follow-up evaluation results tables

Table 19: What prevents you from eating healthy foods?

	Post-Cook it! (%)	9 months (%)	Sig (%)	Base (n) (%)
I don't have the willpower	52.5	45.8	NS	59
I don't have healthy recipes	30.6	29.0	NS	62
I don't know what changes to make	20.0	20.0	NS	60
Healthy foods cost too much	43.5	45.2	NS	62
There's a poor choice of healthy foods in the canteens or cafés I go to	35.1	43.9	NS	57
I'm not sure which methods of cooking are healthy	16.4	19.7	NS	61
Healthy foods take too long to prepare	24.6	23.0	NS	61
I don't know which foods are healthy	14.8	11.5	NS	61
I don't like the taste of healthy foods	10.0	13.3	NS	60
My friends and family don't support me	15.9	12.7	NS	63

**Table 20: How much do you agree or disagree with the following statements?**

		Agree (%)	Disagree (%)	Don't know (%)	Sig	Base (n)
Low-fat milk, lower fat cheese and low-fat yogurts contain as much calcium as the standard types	Post- <i>Cook it!</i>	75.0	14.1	10.9	NS	64
	9 months	75.0	14.1	10.9		
Frozen vegetables are as good for you as fresh	Post- <i>Cook it!</i>	92.2	4.7	3.1	*	64
	9 months	79.7	14.1	6.3		
Raw meat should be stored above cooked meat in the fridge	Post- <i>Cook it!</i>	12.3	86.2	1.5	NS	65
	9 months	10.8	86.2	3.1		
Adding vegetables into stews or soups gives you additional fibre	Post- <i>Cook it!</i>	83.1	6.2	10.8	NS	65
	9 months	84.6	3.1	12.3		
Foods from the bread, other cereals and potatoes group are naturally high in fat	Post- <i>Cook it!</i>	26.2	56.9	16.9	NS	65
	9 months	13.8	66.2	20.0		
Products that say they are 80% fat-free are high in fat	Post- <i>Cook it!</i>	46.9	25.0	28.1	NS	64
	9 months	46.9	26.6	26.6		
Eating oily fish eg mackerel, herring or salmon can help protect against heart disease	Post- <i>Cook it!</i>	90.8	3.1	6.2	NS	65
	9 months	83.1	3.1	13.8		

**Table 21: When you go shopping how do you choose what to buy?**

	<b>Post-Cook it! (%)</b>	<b>9 months (%)</b>	<b>Sig</b>	<b>Base (n)</b>
I buy what I like	93.2	94.9	NS	59
I buy foods on special offer	77.6	77.6	NS	58
I look at the price	82.1	78.6	NS	56
I buy food that is easy to prepare	61.7	51.7	NS	60
I buy foods that help with my weight	67.8	64.4	NS	59
I buy foods I see advertised	37.5	30.4	NS	56
I buy foods made in Northern Ireland	46.2	53.8	NS	52
I buy what my children like	93.0	90.0	NS	40
I buy what my partner likes	88.0	91.0	NS	34
I buy the same foods every week	36.7	36.7	NS	60
I look at what it says on the label	61.4	84.2	**	57
I look at the amount of fat	71.9	84.2	NS	57

**Table 22: Frequency of consumption of various types of meals**

		<b>Every day (%)</b>	<b>Most days (%)</b>	<b>Two or three times a week (%)</b>	<b>Once a week (%)</b>	<b>Less often or never (%)</b>	<b>Sig</b>	<b>Base (n)</b>
Cook using a mixture of raw and ready made ingredients†	<i>Post-Cook it!</i>	7.7	33.8	18.5	29.2	10.8	NS	65
	9 months	12.3	23.1	15.4	30.8	18.5		65
Cook convenience foods#	<i>Post-Cook it!</i>	0.0	1.6	27.4	48.4	22.6	*	62
	9 months	1.6	3.2	9.7	53.2	32.3		62
Eat fast food/carry-out meals	<i>Post-Cook it!</i>	0.0	0.0	4.6	44.6	50.8	NS	65
	9 months	0.0	0.0	4.6	53.8	41.5		65

†Cook using a mixture of raw and ready made ingredients eg Bolognese made with raw mince and a pre-prepared sauce (sauce in jar)

#Cook convenience food, eg pizza, sausage rolls, pies or ready meals

**Table 23: Frequency of consumption of processed and fried foods**

		Every day (%)	Most days (%)	Two or three times a week (%)	Once a week (%)	Less often or never (%)	Sig	Base (n)
Chips, roast potatoes, waffles, wedges	<i>Post-Cook it!</i>	3.3	9.8	27.9	49.2	9.8	*	61
	9 months	1.6	4.9	23.0	49.2	21.3		61
Fried foods eg fish, eggs, bacon, sausages	<i>Post-Cook it!</i>	3.2	9.5	15.9	39.7	31.7	NS	63
	9 months	1.6	3.2	19.0	38.1	38.1		63
Processed meat or chicken products <sup>†</sup>	<i>Post-Cook it!</i>	3.1	9.4	28.1	37.5	21.9	*	64
	9 months	1.6	10.9	10.9	45.3	31.3		64

<sup>†</sup>Processed meat or chicken products, including meat pies, sausage rolls, burgers, sausages, breaded chicken

**Table 24: Frequency of consumption of snack foods**

		Every day (%)	Most days (%)	Two or three times a week (%)	Once a week (%)	Less often or never (%)	Sig	Base (n)
Crisps, savoury snacks	<i>Post-Cook it!</i>	8.1	12.9	19.4	37.1	22.6	**	62
	9 months	1.6	9.7	21.0	32.3	35.5		62
Sweets, chocolate	<i>Post-Cook it!</i>	6.3	9.5	34.9	20.6	28.6	NS	63
	9 months	0.0	11.1	28.6	36.5	23.8		63
Biscuits, cakes, buns, pastries,	<i>Post-Cook it!</i>	6.6	11.5	32.8	24.6	24.6	NS	61
	9 months	3.3	11.5	26.2	27.9	31.1		61
Fizzy drinks, Sunny D, Ribena, Fruit Burst	<i>Post-Cook it!</i>	6.3	12.5	17.2	14.1	50.0	NS	64
	9 months	10.9	4.7	12.5	9.4	62.5		64

**Table 25: Frequency of consumption of snack foods**

		Every day (%)	Most days (%)	Two or three times a week (%)	Once a week (%)	Less often or never (%)	Sig	Base (n)
Fruit†	<i>Pre-Cook it!</i>	45.3	26.6	12.5	10.9	4.7	NS	64
	<i>Post-Cook it!</i>	56.3	21.9	14.1	4.7	3.1		64
Vegetables#	<i>Pre-Cook it!</i>	32.8	25.3	10.7	7.8	3.1	NS	64
	<i>Post-Cook it!</i>	54.7	18.8	18.8	4.7	3.1		64

†Fruit including fresh, frozen, dried and tinned fruit and pure fruit juice

#Salad or vegetables, including fresh, frozen, dried and tinned vegetables but excluding potatoes

**Table 26: Percentage of participants who were aware of the 'five a day' message before and after *Cook it!***

	Pre- <i>Cook it!</i> (%)	Post- <i>Cook it!</i> (%)	Sig	Base (n)
<b>All</b>	87	95	***	401
<b><i>Cook it!</i> area</b>				
Causeway	94	96	NS	92
N & W	80	89	NS	91
Southern	90	95	NS	86
Western	85	97	NS	138
<b>Gender</b>				
Male	78	92	NS	37
Female	88	95	***	364
<b>Children</b>				
Have children	90	97	***	242
No children	81	91	*	139
<b>Employment</b>				
In employment (full or part time)	89	95	NS	81
Unemployed	88	97	NS	60
Home maker	91	97	NS	132
Retired/student/other	77	88	NS	64
Sick or disabled	90	97	NS	57
<b>Living arrangements</b>				
Alone	87	91	NS	119
With partner	90	98	*	197
With other (not partner)	88	96	NS	67



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- North and West Belfast Health and Social Services Trust, covering the Eastern Health and Social Services Board area;
- Southern Health and Social Services Board;
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