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An Evaluation of the All-Wales Dietetic Capacity Grant Scheme: Final Report

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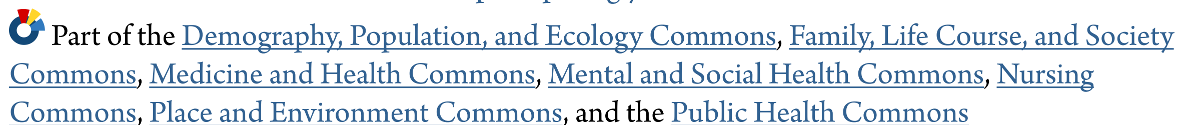

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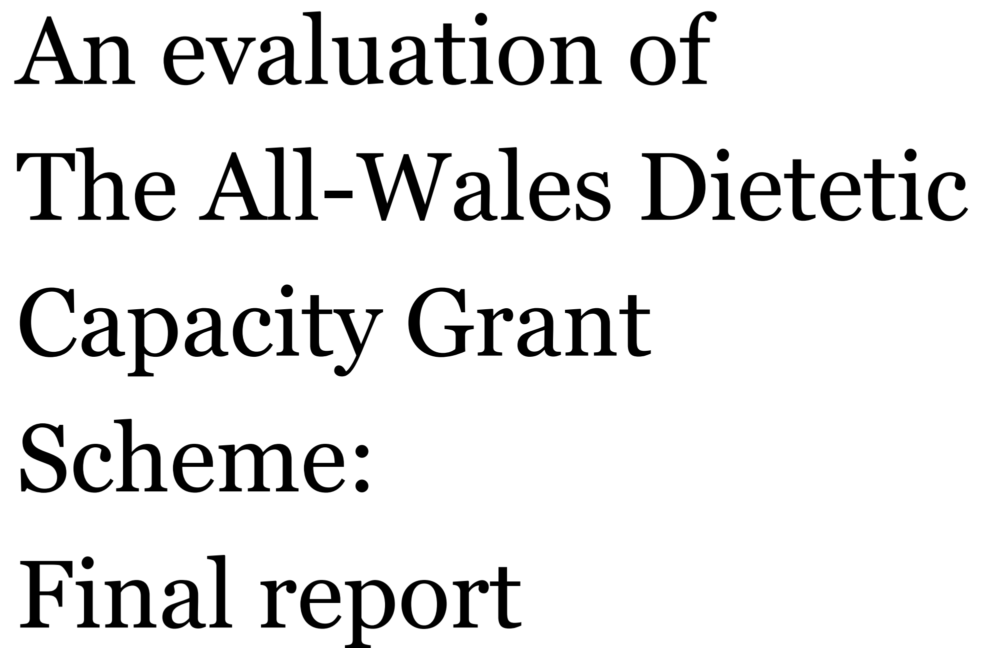

An evaluation of The All-Wales Dietetic Capacity Grant Scheme: Final report

Report Prepared for the Welsh Assembly Government

March 2009

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Executive Summary: An evaluation of the All-Wales Dietetic Capacity Grant Scheme

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1) Introduction and background

The Welsh Assembly Government launched its Food and Fitness – Promoting Healthy Eating and Physical Activity for Children and Young People 5 Year Plan in 2006. As part of the implementation of this plan a grant scheme was launched to increase dietetic capacity to inform and support communities in healthy eating. The scheme will run until 2011 and targets the 0 to 25 age groups.

The aims and objectives of the grant programme are to:

Increase the capacity of dietitians in Wales to inform and support communities in healthy eating through:

Facilitating with appropriate training (on local or regional basis) the incorporation of nutrition into the work of other people working with groups of children, young people and or families in the community e.g. youth workers, Sure Start, Flying Start workers, care workers.

and/or

Increasing the number of local people appointed to work with groups of children and young people in the community on food and nutrition issues, through employment as community food workers, with appropriate professional supervision.

Support local action in response to the Food and Fitness Action Plan for Children and Young People.

The main key performance indicators of the scheme are:

a) The effective delivery of accredited OCN[1] level 1 and 2 community food and nutrition courses

b) Developing partnerships with other agencies and influencing established partnerships

c) Supporting other community food and health initiatives that contribute to the food and fitness action plan

This document reports the scheme's evaluation and covers the period of reporting data from 31st November 2006 to October 1st 2008. A community based formative evaluation and an impact evaluation was conducted during this time.

2) Aims of the evaluation

The aim of the evaluation was to assess the impact of the grant scheme in increasing the capacity of dietitians in Wales to inform and support communities in healthy living.
The objectives were to:

i) Assess the feasibility of enhancing the current provision of food and nutrition services to address health determinants, to include the introduction of community food workers[2] and training key professionals working with communities

ii) Assess the effectiveness of the grant scheme at the organisational level (i.e. dietitians, other professionals and community workers involved in service delivery), including building knowledge, developing skills, engaging with the

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[1] The OCN is part of the National Open College Network (NOCN), one of the main national awarding bodies in the U.K. The OCN accredits nationally recognized learning programmes. In Wales, OCN Food and Nutrition Skills courses are studied at 3 Levels. Level 1 OCN is comparable to NVQ Level 1, GCSEs D-G and Foundation Diploma. Level 2 OCN is comparable to NVQ Level 2, GCSEs A-C and Higher Diploma. Level 3 OCN is comparable to NVQ Level 3, A and AS Levels, Advanced Diploma.

[2]

community, developing networks and delivering interventions addressing health determinants

iii) To assess the effectiveness of the grant scheme at community level, including increasing access to food and nutrition services, building knowledge and changing behaviour (e.g. food purchasing patterns, cooking skills and food consumed).

3) Project characteristics

As at the end of September 2008 there were 10 programmes across Wales. To date 12 out of 13 potential programmes are running of which 10 were able to be included in the evaluation phase.

Recruitment difficulties impacted upon the project start dates and although 5 projects started as planned in October/November 2006, 6 were unable to start until 2007. Three projects were being run by a single dietitian, although most projects employed 2 or more staff. Data collection and sample

All programmes collected a minimum data set. In addition, a case study approach involved visits to four case study areas, conducting a total of 31 interviews with 87 individuals, project staff and course participants. The latter came from a wide range of workplaces including: community food workers, schools, early years and child care settings, youth and community services and public health. Most course participants had completed or were currently studying Level 2 Open College Network (OCN) courses. Some participants wished to go on to use their expertise to deliver Level 1 OCN courses.

4) Findings

The findings are organised around the key performance indicators of the grant scheme (delivery of OCN community food and nutrition courses; development of partnerships; and supporting other community food and health initiatives) as well as the objectives of the evaluation – assessment of the impact of the scheme at the individual, organisational and community level.

a) Organisation and delivery of initiatives and courses

One of the key roles of the Community Dietitians was the delivery of OCN courses. By September 2008, 135 accredited courses had been provided, 124 at OCN level 2 and 11 at OCN level 1. Since commencement, 1280 participants had enrolled on an OCN course with a 92% completion rate, and of these 84% achieved an OCN Level 1 or 2 pass.

b) What course participants valued

Participants valued several features of the OCN course including: the qualification and its value to future job prospects; the structure of the sessions, adaptation, course materials and homework; and networking opportunities arising from the mix of professions present. Participants learned an immense amount of information, and were confident in disseminating this in their work.

c) Key messages learned

Key messages from the course included what constitutes a balanced diet and its importance, the need to reduce sat and sugar intake, food labels, oral health and nutrition, nutritional needs through the life course, vitamins and minerals, hydrogenated fats, 5 a day, and portion sizes.

d) Evaluation of courses

Dietitians used a number of strategies to evaluate the courses they delivered, including attendance records, course evaluations and questionnaires. These revealed that most successful parts of the OCN course included its flexibility and responsiveness and application to participants themselves. Once the course was completed, following participants up in their work settings was also a great success. The main difficulties identified by dietitians related to a lack of resources (mainly staffing), which affected their capacity to deliver OCN courses and to follow up participants; and resistance from staff in schools and nurseries, sometimes due to personal preferences and sometimes due to budgetary constraints.

e) Partnerships and benefits

Ninety-three separate partnerships existed at the end of phase 1 (2006 to 2007); most of these were maintained throughout the duration of the project and by September 2008, 184 separate partnerships were recorded. Most were local multidisciplinary partnerships with public sector and voluntary organisations. The benefits of partnership work included implementation and delivery of strategies and action plans in relation to promotion of nutrition.

Partnership work enabled dietitians to develop a strategic role and to inform policies on nutrition, as well as to become involved in many different initiatives run by other projects/organisations, often in an advisory capacity. Their expertise was invaluable in advising on menus, oral health, and other initiatives requiring nutritional input. Dietitians also participated in community-based and school and college health events to promote healthy eating messages. Involvement with other initiatives provided dietitians with networking opportunities to further promote the availability of the OCN Food and Community Nutrition and other courses, thus enhancing recruitment.

f) Impact of programmes

The impact of the grant scheme was evident at three different levels – the organisational level, the course participant level and the community level.

i) The organisational level

Much of the organisational impact resulted from partnership working, with partnership alliances increasing throughout the duration of projects. Nutritional expertise of project dietitians was drawn upon widely across partnerships at a strategic level, and dietitians were enabled to access target groups within their organisations and networks. Partnerships also enabled understanding of local needs and specific services, which in turn led to sharing of information and good practice across multidisciplinary networks. Sharing of information also led to a more strategic approach to the delivery of training in order to avoid duplication across boundaries and to ensure effective support of course participants and delivery of nutrition messages in the community.

ii) The course participant level

Responses to questionnaires distributed by dietitians revealed that 94 percent of course participants had acquired new learning from the course, including information about a balanced diet, and salt and sugar intake. Eighty-five percent intended to or already had changed their behaviour, including healthier, more balanced, diets with fewer snacks, eating

more regularly or having breakfast, and purchasing and cooking of fresh food. Course participants also shared information with family members, resulting in changes in family eating behaviours, as well as changing their behaviour in their workplace as a result of their increasing knowledge and confidence. As a consequence, they influenced changes in menus and eating behaviours in early years' settings, schools and after-school clubs, youth clubs, and other community settings.

iii) The community level

At the community level, partnerships enabled the actions of strategies to be delivered. This resulted in enhanced nutritional awareness and improved cookery skills in communities, early years settings, schools and colleges as well as better access to nutritional information in the community and a greater range of nutritional resources being available for community events. All this impacted on the eating behaviours of parents and families through cascading of information and development of skills.

Course participants were also influencing the communities they worked with, such as pre-school providers, schools, hospitals and the community. Changes in these settings included changes in children's snacks and drinks, cooking regimes and recipes to facilitate healthy eating. Teachers were including nutrition in schemes of work and children were becoming increasingly involved in School Nutrition Action Groups (SNAGs) and were taking responsibility for influencing school menus. There was, however, some resistance on the part of nursery and school staff, some of whom did not want change, and dietitians increasingly worked to combat this throughout the life of the project with increasing success.

Course participants also influenced the eating habits of relatives and provided explanations about food to young people. As a result, shopping habits had changed, food labels were read, and some had changed their approach to food with meals being planned and healthier cooking methods adopted.

g) Key success and challenges

The overall evaluation of the grant scheme programme revealed a number of successes and challenges.

i. Evaluation of projects – successes

The OCN course was very successful. Good progress was made in reaching target groups, whose knowledge and confidence increased, resulting in changes in eating behaviour and

information being passed on to the communities with whom they work. Dietitians were proactive in sharing resources with course participants, enabling them to disseminate information further. There was increasing emphasis on work in community settings and the success of SNAGs, 'Get Cooking'and some similar initiatives. Innovative ways of growing vegetables were also reported.

ii. Evaluation of projects – difficulties/challenges

Lack of resources was the main challenge for project dietitians. Dietitians lacked capacity to deliver OCN courses and follow up course participants in the community following completion. The workload involved in moderation of courses was also demanding and moderation was often slow. Difficulties were also reported due to the lack capacity to deliver Level 1 OCN courses and lack of availability of Level 3[3] courses. Level 1 courses had been developed and Level 3 courses were being piloted during September 2008. The delay in the development of these courses was due to them not being part of the Dietetics Capacity Grant Scheme. Course participants also had difficulties arising from resource capacity due to demands of other roles, such as curriculum demands or budgetary constraints. These demands led to resistance in some staff.

Course participants, having completed the course, also faced the challenge of influencing parents within a culture of heavily marketed processed foods, so that lifestyle barriers were a major influence.

[3] Level 3 OCN Community Food and Nutrition Skills is designed for those who have completed the Level 2 course, who wish to deliver Level 2 under supervision, but do not have the appropriate teaching experience. It covers topics from community mapping to facilitation and teaching skills to enable learners to further their knowledge of community nutrition to support their delivery of Level 1 OCN courses.

i) Future plans

Dietitians and course participants alike had many plans for the future, which would extend beyond the life of the grant scheme. Dietitians' plans involved teaching Level 3 OCN and supporting and monitoring course participants once they had completed. They also intended to strengthen existing partnerships and to work with various initiatives, including SNAGs and the Snack Award Scheme, Flying Start, allotments and Fun with Food. Course participants were also developing new roles as they developed confidence. Their future plans included supporting a range of community food initiatives incorporating food growing, food co-ops, mentoring, training volunteers, and expansion of OCN Level 1 to develop practical skills.

5) Recommendations for future sustainability

From the evaluation and reflective comments of participants interviewed a number of recommendations can be put forward to ensure sustainability of the programmes and continued impact long term. These are as follows:

a) Strategic

- Recognise and utilise the public health role of dietetics on a permanent basis.
- Develop a network of trainers to deliver training.
- Consider making the OCN in food and nutrition a required qualification, particularly in early years' settings and schools.
- Consider appointing more school nurses - if one school nurse was attached to each school this would make a considerable impact.
- Ensure nutritional education is included in the school curriculum.
- Provide training for teachers in food and nutrition.
- Provide long term monitoring and support to ensure consistency of nutritional messages in the future.

b) Early years, schools and community settings

- Develop the role of Community Food Workers further to include delivery of OCN Level 1 courses, provision of cooking skills classes, and work with community initiatives, such as allotments and food co-ops.
- Educate children from an early age, and ensure an environment that promotes uptake of healthy food and drinks.
- Embed healthy eating into the school curriculum, and include children in this process through involvement in SNAGs.

- Recruit support workers as core staff as an ongoing process and with appropriate supervision.
- Provide ongoing support to community staff on changes to nutrition policy and promote further development and monitoring of such work.
- Integrate food and nutrition across different services, thereby facilitating a change of culture around food.
- Continue development of OCN courses through Levels 1 to 3 to enable cascading of delivery throughout the community.
- Increase partnership to ensure consistency of nutrition messages from people in different fields and to integrate initiatives. This would include closer links between health and education, and between nurseries and schools in relation to nutrition.

An evaluation of the All-Wales Dietetic Capacity Grant Scheme

1 Introduction and background

It is widely accepted that diet-related ill health creates a considerable burden on individuals and society (Department of Health (DH), 2004; SACN, 2003; WHO, 2003). Concerns over rising levels of obesity in the population, and the social and economic burden associated with overweight and obesity is also a major public health issue (DOH, 2007). In the UK, as in other Western industrialised societies, policy makers agree that public health can be improved through dietary changes at the individual and population level.

The two major causes of premature mortality in Wales are currently heart disease and cancer. A link between heart disease, Type 2 diabetes, certain cancers and poor diet is widely acknowledged; according to the Welsh Health Survey (2005/6) only 42 percent of adults in Wales eat the recommended five portions of fruit and vegetables a day (Welsh Assembly Government, 2007). As poor dietary habits among adults are passed onto children, the impact of diet-related ill health is passed from generation to generation (Robinson and Elliot, 2000; Neumark-Sztainer *et al .,* 2003). Lifestyle behaviours developed in childhood are also more likely to develop into adult lifestyle behaviour (Kelder *et al .,* 1994); children's lifestyle behaviour is formed early in life (Dennison *et al.*, 1998) and is more malleable than adults' behaviour (Singer *et al.,* 1995). There is clearly a need for public health interventions aimed at improving both the type and amount of foods people in Wales eat on a regular basis (Food Standards Agency and Welsh Assembly Government, 2003).

It is known that widening inequalities in health correlate with socio-economic status, leading to unequal opportunities to take-up and sustain healthy eating practices (O'Neill *et al.*, 2004). Indeed, as a group low income households in the UK are less likely to consume a healthy diet (Department of the Environment Food and Rural Affairs DEFRA, 2001; FSA, 2002) and experience the greatest burden of diet-related ill health and disease (DH, 2003a; Office of National Statistics ONS, 2001). Hence there is a clear mandate within all UK public health policies, including Wales, for action to ameliorate social inequalities in health including improvements to diet (DH, 2004; WAG, 2007).

Historically, the main strategy for effecting dietary change in the UK has focused largely on persuading consumers to change dietary behaviour through nutrition education; whereby the emphasis is clearly placed on individual lifestyle and responsibility, relying on the successful dissemination of healthy eating advice, usually from a professional, as the main vehicle for influencing behaviour change. Although as recent dietary trends suggest, improvements have been made, this is far from universal, with increasing health and nutritional inequalities between socio-economic groups (DH, 2003b). Research consistently demonstrates that low income households find it difficult to adopt healthy eating guidelines. Contrary to popular belief, this is to do with economic and circumstantial barriers, such as lack of income, poor access to food and shops, inadequate storage and cooking facilities, not ignorance of healthy eating messages (DH, 1996; Dowler & Calvert, 1995; Kennedy & Ling, 1996; NFA, 1997).

Despite this recognition, attempts to influence dietary behaviour have not changed much over the years. More recent approaches involve the use of social marketing to tailor nutrition education to the socio-cultural needs of lower socio-economic groups (DH, 2008) and the development of local food initiatives such as 'cook and taste' or 'Food Co-ops (Caraher & Cowburn, 2004; Dowler, 2000; Dowler & Caraher, 2003) .

As a more client-centred approach to behaviour change, participants are shown how to implement guidelines under difficult financial circumstances. As some critics argue however, this approach fails to address the structural causes of food poverty: lack of money and access to food. Moreover, as previous work demonstrates this kind of approach is labour intensive and therefore costly to implement, reaching only limited numbers (Kennedy *et al .,* 1998). This is echoed in the findings of Rowntree's national study into Community Food Projects (McGlone *et al.,* 1999), which concluded that although worthy, most local community food projects only reach a small proportion of the target population and are rarely sustained beyond initial funding.

Dietary behaviour, like any other health-related behaviour, is complex and in order to change people's eating patterns an inter-disciplinary, multi-factorial approach is needed. The WHO framework for a health promotion approach (WHO, 1986), recognises that health is related to social, cultural and structural factors in addition to biological and psychological factors. This approach recommends changing the physical and social environment to facilitate lifestyle change. Despite this framework, there is only limited evidence that a wider

understanding of health promotion and the necessary practical experience has been achieved. This could weaken the potential impact of community initiatives.

Within public health it is widely recognised that policy and organisational support are important prerequisites for successful health promotion; policy developments aimed at removing or reducing the broader economic and structural barriers to dietary change, although instrumental to success, are however only a relatively new concept in the UK (DH, 2004). Thus, practitioners working in the field must continue to find ways of developing, and evaluating, innovative and effective alternatives to reach communities in need of their support. The task of identifying and improving ways to influence and improve dietary habits, particularly amongst the so-called 'hard to reach' is therefore a challenge for dietitians and other professionals working in this area.

Evidence suggests the most effective interventions to improve dietary practices have been settings-based (Roe, 1997). Many intervention programmes based in community settings, which tackle specific health-related behaviours (including diet), have been part of wider initiatives tackling cardio-vascular disease or cancer (O'Loughlin *et al .,* 1999; Brownson *et al.,* 1998; Tudor-Smith *et al .,* 1998, COMMIT Research Group, 1996; Carleton *et al .,* 1995; Goodman *et al .,* 1995; Luepker *et al .,* 1994; Rossouw *et al .,* 1993; Farquhar *et al .,* 1990; Puska *et al .,* 1976). Most of these programmes have utilised some form of community organisation to form partnerships with their communities. While there has been extensive research on the effectiveness of partnership working (El Ansari, 1998; Gillies, 1998), few studies have explored obstacles to and facilitators of the successful implementation of specific programmes in communities from the perspective of both service deliverers and participants.

As Kennedy (2001) notes from a 10 year community nutrition initiative based in Liverpool, as part of the European multi-city Food and Shopping Research Project (Vaandrager *et al .,* 1993; 1995), despite the laudable efforts of policy makers and practitioners in public health to advocate approaches based on intersectoral collaboration and community participation, success in translating these into practice is still limited and relatively costly (Kennedy, 2001). Furthermore, where implemented, the true meaning of these principles and the effort involved in securing genuine community involvement and partnership working is considerable. Both the benefits and costs involved in undertaking genuine community partnership working tend to be underestimated.

Moreover, this is rarely acknowledged by key policy makers or those who control funding. Frontline staff therefore constantly challenge traditionally narrow interpretations of health promotion in the community setting and the dominant paradigms of health and disease (ibid, 2001). As a result many community-based initiatives designed to address dietary issues and promote healthy eating are in danger of being assessed against traditional values and criteria.

Although community development approaches to implementing health-related initiatives are increasingly advocated, there is a paucity of data available to inform the process of successfully engaging communities in health promotion initiatives directed at behaviour change (Robertson & Minkler 1994). Indeed, factors affecting the use and usefulness of community development approaches remain poorly understood despite an identified need to develop and disseminate knowledge of community development approaches for health practitioners (Ritchie *et al .,* 2004; Laverack, 2001; Laverack & Wallerstein 2001; Robinson & Elliott 2000; Labonte, 1998; Labonte, 1994; Israel *et al .,* 1994; Bernstein *et al .,* 1994; Bracht & Tsouros 1990). Initiatives based upon community participation and partnership working, although clearly advocated within public health, is complex, time consuming and therefore costly to implement (Kennedy, 2001).

In the UK, Community Dietitians have increasingly turned to what are now referred to as *Community Food Initiatives (CFI),* as a broader response to diet-related problems of communities and in particular of lower socio-economic groups or the so-called 'hard-to-reach (BDA, 2005; Caraher & Cowburn, 2004; Dowler, 2000; Dowler & Caraher, 2003). Evidence, albeit limited, suggests certain types of CFIs provide more socially and culturally relevant alternatives that successfully engage with communities and may also facilitate dietary change with the so called 'hard to reach' (e.g. DoH, 1996; Anderson *et al .*, 1996; Anderson, 2007; Moynihan & Hyland 2004). Professional-led community food initiatives (CFI), however, are time-consuming and costly to deliver (Kennedy *et al .,* 1998; 1999). Policy makers, service managers and practitioners, therefore, continue to seek cost-effective alternatives.

One such option involves the recruitment of *lay health workers* to assist professionals in undertaking the more semi or un-skilled aspects of their work. Lay health workers are indigenous to the communities they serve and perform functions relating to disease prevention or health promotion and wellbeing, 'with specific focus on food and public health; trained in some way in the context of the intervention; but having no formal

professional or paraprofessional qualifications' (Kennedy., 2008). Their primary role is to encourage dietary change by translating complex messages into credible and culturally appropriate advice (Kennedy & Milton, 2008).

Whilst the value of lay health workers is acknowledged (indeed some community dietetic assistants within the current programme may be lay people), the current initiative has focused on the training in food and nutrition of professionals who are employed to work in the community with children and young people and the scheme is intended to incorporate more nutrition and health into their work. Funding was made available through the scheme to employ Community Dietitians in each of the NHS Trusts in Wales to promote a consistent nutritional message across Wales.[4]

2 The all Wales dietetics capacity grant scheme

The current initiative, which provides support to NHS Trusts in Wales, aims to:

- Increase the capacity of dietitians in Wales to inform and support communities in healthy eating by:
    - Facilitating, with appropriate training (on local or regional basis) the incorporation of nutrition into the work of other people working with groups of children, young people and or families in the community e.g. youth workers, sure start workers, care workers.

    and/or

    - Increasing the number of local people appointed to work with groups of children and young people in the community on food and nutrition issues, through employment as community food workers, with appropriate professional supervision.
- Support local action in response to the Food and Fitness Action Plan for Children and Young People (See Appendix 1).

[4] In the current study the term Community Food worker is used to denote those who work in the community, and deliver food and nutrition as part of their role (Youth Workers, Communities First, fitness instructors etc…)

Community Dietetics Assistant is be used to describe community food workers who are employed to support the dietitians

The main key performance indicators the scheme are:

- The effective delivery of accredited OCN[5] level 1 and 2[6] community food and nutrition courses
- Developing partnerships with other agencies and influencing established partnerships
- Supporting other community food and health initiatives that contribute to the food and fitness action plan

This is a flexible approach which, while recognising the importance of community involvement/development, also acknowledges that interventions will require sufficient input from those trained in nutritional issues (Press and Mwatsama, 2004). Because the programme design incorporates a service delivery oriented and a community-based approach, it requires a reflexive and sensitive evaluation strategy. For this reason a community-based **formative** evaluation was conducted, whereby themed findings from an initial data collection round were fed back to service providers prior to a final data collection phase which also captured the perceptions/experiences of service recipients at the community level.

The current document reports the evaluation of the first 2 years of the scheme, reporting data from 31st November 2006 to September 30th 2008.

2.1 Ethics

Advice was taken from the Wales OREC Manager. As an evaluation project NRES (National Research Ethics Service) MREC (Multi-site Research Ethics Committee) approval was not required and ethical approval was gained from the Glyndwr University Research Ethics Committee (GREC).

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[5] Open College Network

[6] *Level One; comparable to NVQ Level 1, GCSEs D-G and Foundation Diploma. Level Two; comparable to NVQ Level 2, GCSE's A* to C and Higher Diploma. Level Three; comparable to NVQ Level 3, A and AS Levels, Advanced Diploma*

Source: National Open College Network http://www.nocn.org.uk/learners/qualification-levels-and-equivalences : accessed 2/4/09

2.2 Aims of the Evaluation

The aim of the evaluation was to assess the impact of the grant scheme in increasing the capacity of dietitians in Wales to inform and support communities in healthy living.

The objectives were to:

- Assess the feasibility of enhancing the current provision of food and nutrition services to address health determinants, including the introduction of community food workers and training key professionals working with communities
- Assess the effectiveness of the grant scheme at the organisational level (i.e. dietitians, other professionals and community workers involved in service delivery), including building knowledge, developing skills, engaging with the community, developing networks and delivering interventions addressing health determinants
- To assess the effectiveness of the grant scheme at community level, including increasing access to food and nutrition services, building knowledge and changing behaviour (e.g. food purchasing patterns, cooking skills and food consumed)

2.3 Evaluation design

The study used a combination of impact and formative process evaluation methods.

2.3.1 Impact evaluation

As the study was concerned with identifying the impact of the grant scheme at different levels, an instrument to collect minimum data was designed by the evaluation team and project dietitians. Dietitians used this tool to record activities and outcomes from their programmes. The 'minimum data sets' arising from this were collated and analysed by the evaluation team.

2.3.2 Formative process evaluation

The study was informed by formative process evaluation, incorporating a case study approach. As formative evaluators the research team worked interactively with stakeholders, and the process was action-orientated, rather than conclusion-orientated (Patton, 1986). The **process evaluation** involved looking at how programmes were produced. This required more than a description of the programme and their intended effects; rather it explored how programmes changed over time so that the context was provided within which to interpret outcome measures (Patton, 1986).

It was expected that given the community-based thrust of the intervention there would be substantial scope for the emergence of unanticipated programme benefits, or other

outcomes. Some programme outcomes may be indirect and as such not obviously attributable to the programme. In addition, some outcomes may develop in the longer term and therefore not emerge until several years later. It was important therefore for the evaluation to be reflexive in its interpretation of the findings, in order that any future and unintended outcomes of the programme could be captured.

2.4 Training and networking events

Each programme project was trained in methods of routine data collection to enable them to collect data on project performance. To this end two events focusing on project evaluation were held, to which representatives from each project were invited.

3 Data collection methods

Qualitative and quantitative data were collected over 2 phases, phase 1 covered the period 2006-2007, and phase 2, 2007-2008. Methods employed included the compilation of minimum data sets and case study interviews/group discussions conducted in four case study areas (Table 3.1). The latter were purposively selected to represent the geography and demography of Wales. North and South Wales were represented as well as areas of different population density (urban/rural) and industrial heritage (e.g. mining, coastal). Variations in levels of deprivation were also reflected.

Table 3.1 – Data sets

	Phase One: November 2006 –October 2007	**Phase Two: November 2007 to September 2008**
Minimum data set	11	12
Case Study Interviews		
Dietetics professionals	4 interviews (n=13)	4 interviews (n=11)
Course participants (inc community members in phase 2)	9 interviews (n=35)	14 interviews (n=28)

3.1 Minimum data sets

Minimum data set proformas (MDS) (Appendix 2) were developed in conjunction with project dietitians. The ‘minimum data set’ was split into 4 sections and collected

information about the delivery and organisation of the project, the impact and perceptions of training, impact on the community and personal reflections.

To feed into the MDS, a set of evaluation questionnaires were developed with and for the dietitians to aid data collection from training participants and community members (Appendix 3).

3.2 Data collection within case studies

Data were collected by in-depth interviewing of community food workers, key professionals trained in food and nutrition as part of the scheme, dietitians, dietetic assistants and community members. Interview questions focused on: nutrition knowledge acquired by trainee and dietary information transmitted by dietitians; number of workers trained; number and nature of partnerships developed with other programmes; how community workers addressed determinants of health; action taken to engage hard to reach groups; efficiency and effectiveness of the delivery of community food and nutrition services; changes in access to food and nutrition services; examples and evidence of changes in food purchasing patterns, cooking skills and food consumed.

4 Findings

The findings reflect the views and experiences of dietetics professionals, course participants and community members and are organised around 6 themes – organisation and delivery, working in partnership, involvement with other initiatives, impact of projects, evaluation of projects and successes and challenges, and long term sustainability.

4.1 Organisation and delivery

4.1.1 Project characteristics

Projects were set up October 2006 – mid 2007 depending on the recruitment of project dietitians. As at the end of September 2008 there were eleven projects funded through this grant scheme across Wales in the following areas: Neath Port Talbot, Swansea (Abertawe Bro Morgannwg University NHS Trust), Merthyr Tydfil, Pontypridd and Rhondda (Cwm Taf NHS Trust), Gwent (Gwent Healthcare NHS Trust), Pembrokeshire and Derwen, Carmarthenshire (Hywel Dda NHS Trust), Conwy and Denbighshire, Wrexham and Flintshire

(North Wales NHS Trust), Cardiff and Vale (Cardiff and Vale NHS Trust). [7] Projects are based within NHS trusts, NPHS or within LHBs

4.1.2 **Project staffing**

At the time of reporting, three projects were being run by a single dietitian but most projects employed two or more staff and eight were supported by dietetic assistants. Over the course of the evaluation there were a number of changes in staffing. Between 2007/2008 two dietitians left - one vacancy had been successfully filled, whilst the other was in the recruitment process. Changes to support staff also occurred in a few projects.

4.2 Delivery of training

An important element of the grant scheme is the delivery of consistent food and nutrition messages in the community with an emphasis on the delivery of the OCN (Open College Network) Level 2 Community Food and Nutrition Skills to food and community workers who will cascade the information in their own organisations. More recently cookery skills courses have been added to the portfolio. According to dietitians' reflective comments this has been an important development:

> *The rolling out of OCN Level 1 practical Cookery course by our Project Support Worker has completed a streamlined and seamless stable of training packages designed to equip learners to cascade information into a wide range of Health and Social Care settings.*

In response to an identified need a Level 3 course is currently being piloted to run alongside, to enable successful participants deliver OCN level 1 Food and Community Nutrition in the community. Attendance at Level 3 courses will therefore be the natural next step for many of those who had completed Level 2 in Community Food and Nutrition.

Between November 2006 and September 2008, 220 separate training events/courses were recorded. Around 7,000 individuals received training (accredited and non-accredited) or attended an event delivered by the dietitians (for some community events no figures were provided due to the difficulty in obtaining such data and the figure is likely to be substantially higher).

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[7] Three areas have struggled to recruit a dietitian since the start of the scheme, however two of these have since managed to recruit and these projects are now operational

As the projects became embedded in the community the number of participants increased, and during 2006/2007 around 2012 individuals were trained or had contact with the projects. This increased to over 4,947 in 2007/2008. Training delivered was categorised as ‘accredited’ and ‘non-accredited’ and this activity is described in the following sub sections.

4.2.1 **Non-accredited training**

Eighty-five non-accredited training events were recorded; these comprised a wide range of activities from school health days, smoothie and healthy lunch box sessions, to growing schemes, cook and eat, nutrition seminars and training for sports centre staff, school cooks and governors etc, one-off sessions on topics such as food labeling, and the eatwell plate, and additional top up sessions in for example, child nutrition at the request of OCN participants.

Many of these activities were run as part of other initiatives, and were more likely to involve community members, such as school children, and parents. For example in one *case study* area they delivered basic nutrition sessions in private gyms, often focused on correcting erroneous information given to people in the gym or one-off sessions such as with learning support assistants.

4.2.2 **Accredited training**

The delivery of OCN accredited food and nutrition courses has been one of the priorities of the grant scheme in increasing nutrition capacity across Wales and further details of the delivery of these courses is outlined below.

4.2.2.1 Courses delivered

By September 2008, 135 accredited courses had been run, 124 at OCN level 2 and 11 at OCN level 1 (Table 4.1.). Whilst the majority of courses delivered were Community Food and Nutrition Skills, other variants were also delivered. In the first 2 years of the scheme 1280 had enrolled on an OCN course and (at the time of reporting) 1180 had completed[8] . Drop out from courses was low (n=40, 3.1 %), with non-completion mostly being due to illness or employment commitments.

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[8] 60 had not finished as their course was still running

Table 4.1. - Number of Accredited courses delivered by course title

Type of course	No.
OCN Community food and nutrition skills	95
OCN Community food and nutrition skills for early years Level 2	16
OCN level 1 practical cooking skills	10
OCN Nutrition and Healthy Catering in Schools	11
OCN Confidence to Cook Level 2	1
OCN Community food and nutrition skills for early years Level 1	1
OCN Promoting health to young people Level 2	1

4.2.2.2 Pass rates and progression

Pass rates were good and 993 achieved an OCN Level 1 or 2 pass, this figure does not include participants from 28 courses whose files are yet to be moderated (an issue which will be discussed at a later point in the report). A small number of community members however who attended a course elected not to submit portfolios, having undertaken the course for their own interest.

4.2.2.3 Delivery models employed

Most participants had to find time in their working lives to attend a course. To accommodate this and facilitate recruitment, dietitians developed a range of delivery models. OCN food and nutrition Level 2 courses were either 10, 12, 20 or 30 hours in length and delivery of the courses varied widely from delivering modules over 3 consecutive days, to one day or session per week (Appendix 4). Similar variance in delivery was noted for Level 1 courses; these were between 10 and 12 hours in duration and were delivered over a number of weeks, either in two-hour, half day, or full day sessions.

4.2.2.4 Course participants

The main target groups for OCN training were people working in the community with the under 25s (particularly with children) and schools, with 'after-schools' work increasing. As can be seen from Table 4.2, a wide range of different groups attended the OCN courses, and a range of professions and organisations were represented including volunteers and community members. There was a continuing demand for courses for '*community workers and health professionals working with families and young children'.* This was considered to

be partly due to the increased awareness of the benefits of the OCN training within partner organisations.

The OCN in Community Food and Nutrition Skills (Level 2) is a '*popular course among community food workers'* and is '*becoming the recognised course to attend in order to progress any nutritional projects in their work* (dietitians reflections*)*. In at least one area, the course was embedded in the Nutrition Action Plan; almost all health visitors and school nurses had attended and there was a waiting list. In another project area, family services required all health visitors, school nurses and midwives to be OCN trained by 2010-2011: whilst in another locality, nursery nurses who support health visitors (e.g. with homeless people and in deprived areas) were required to do the course.

In another area there was a drive towards local generational work and nutrition was recognised as one of the key areas. As it was evident that staff needed to do the OCN course, they were targeted through the health and wellbeing network. Some *case studies* targeted parents, people working with children (e.g. school and play workers), other groups (e.g. a church group), and food technology teachers. Food technology teachers were considered to be '*the ideal people to do the Level 2 because they could then deliver the Level 1 as part of the curriculum'* within schools.

Table 4.2 - Range of groups attending accredited training

Groups attending accredited training courses
• Carers and looked after children professionals • Child minders, early years, play professionals and advisors • Community project workers • Dietetics assistants and community food project Workers • Housing and return to work professionals • Local authority employees • Out of schools hours clubs and youth organisations • Parents, community members and volunteers • School health, health promotion, health and public health professionals • School pupils and peer mentors • School, leisure, hospital and community caterers • Sports development, PE, leisure and fitness professionals • Teachers and community education tutors

4.2.2.5 Course recruitment

A number of recruitment methods were used to enlist appropriate people onto courses. These included distributing posters and phoning local contacts in schools, colleges and other people working with children. One dietitian was '*also trying to get into the college to do child care training and catering training'.* Dietitians regularly recruited by visiting local groups or attending meetings with local organisations and 'flagging up' the OCN course during meetings. This was considered most effective because '*there is a lot going on in the area and there can be some confusion regarding what we're offering - it may be confused with something else'*. A dietitian in one *case study* also planned to do a presentation to local headmasters' meetings and discuss initiatives with them.

In another *case study* the food safety officer took responsibility for recruiting nursery staff because she inspected the food safety of all nurseries – 16 nurseries were thus recruited. Typically, throughout the *case studies*, people heard about how valuable the course was from colleagues and then made contact themselves, so word of mouth was an important recruitment method. One dietitian had 10 ready for the next course purely through word of mouth, and did not have a venue yet. Dietitians' reflective comments also reiterated that word of mouth had led to an increase in demand for the OCN course:

> *All the organisations are starting to realise the OCN course provides the basis for ensuring that accurate, consistent food and health messages are promoted to schoo- aged children. At a recent nutrition sub group meeting of the healthy schools network a visiting health professional commented that there were noticeable benefits of having a qualified dietitian on board.*

Circulating flyers and emailing schools and clubs also resulted in recruitment of 10-15 on each course in one case. One dietitian also recruited through dietetics contacts:

> *We're in touch with the main dietetic department so if there are initiatives they want us to take part in locally we channel that through our contacts. Sometimes they're interested in the course itself and others they're interested in delivering certain topics or to a specific client group, so I say I can either meet up with you and we can discuss ways that you can approach it or I can develop lessons for you and just assist. Once they've got the bare bones it's up to them to deliver it. Sometimes they've come along to chat about delivering stuff, then they've realised how little they know about nutrition, then all of sudden they decide they should come on the course, so I reel them in that way.*

In this same *case study*, dietitians discussed their target groups at monthly meetings, including how to tap into other local initiatives or what is going on politically in the area.

'*That's how we got involved in leisure services. We found out it was a hot topic for WAG and so discussed how we could tap into it'.* This dietitian had phone calls from local people who had seen the posters advertising the OCN course and wanted to attend and bring their relatives. She explained that the course was for health and other professionals who then deliver the messages to the public.

It was evident that recruitment needed to target specific groups, which respondents sometimes found difficult. One dietitian, for example, had queries from nurses regarding how to encourage older people to eat and had to explain that their target group was under 25s. They did, however, offer some resources and a place on the course if there was one free.

Overall, dietitians were successful in reaching their target groups for courses and attendance was generally good. Only one person had dropped out in each of three case studies for valid reasons. Two case studies reported having waiting lists.

4.2.3 **Practical cookery skills**

An important development was the delivery of practical cookery skills courses and there was the recognition that nutritional information could be cascaded through the community if supported with practical food preparation skills. One *case study* reported that these had been delivered in schools and were to commence in the community in September 08, with the help of three support workers and two peer leaders. The dietitians in this *case study* also enthused about the imminent development of the OCN Level 1 course, which will focus on community food and nutrition skills:

> *The Level 1 theory based courses will be really useful. A lot of those resources are similar, but there's not so much required - games and activities and participatory, so it will work well with practical skills.*

In another *case study*, a Level 1, one-day practical cookery skills course was offered to anyone who had done the 30 hour OCN course:

> *Two people from every school signed up and this was co-ordinated by education. I just had to be there on the day to tie the nutrition activities to health messages around the food we've chosen to cook. Health visitors also attended this course and then introduced basic cookery within their local community centres. Between the Level 1 OCN and the food hygiene and the day when they do cookery, they do 12 different dishes and we sit down and eat and then off they go with 12 recipes and that 's the recipes they follow.*

4.3 Working in partnership

Partnership working was seen as key to the success of the grant scheme, in raising its profile and the role of Community Dietitians and in conveying consistent nutritional message across Wales. Alliances could be with individuals, other initiatives, and organisations as well as with other departments within the project organisation. The findings reveal that dietitians were proactive in developing partnerships, with either those already in existence or were developing new relationships in the first year of the scheme, with 93 separate partnerships being recorded. Most of these partnerships were maintained and further partnerships developed, with 184 separate partnerships being recorded by September 2008.

Nineteen partnerships were considered useful to the project, in providing direction, or working with a project operating on either an all-Wales or regional basis. The latter included the OCN Wales, Community Dietitians in Wales Group, Welsh Assembly Government Appetite for Life, Cardiac Dietitians group, Corporate Health Standards Schemes, Healthy Schools Scheme, National Pharmaceutical Association and partnerships formed with the other dietetics projects.

The majority of partnerships, however, were local partnerships, within the projects' operating areas, with 97 such partnerships existing. These include multi-agency/multidisciplinary partnerships and those with individual organisations, departments or initiatives (see Table 4.3). Typically, dietitians worked closely with a number of different organisations. In one *case study*, for example, there were links with nurseries, as well as with food safety and public protection services. The fire service had also contacted them with a view to integrating them into their practical cookery initiatives. The local Healthy Living Partnership was also strong in this area and was planning generation work locally. As one case study respondent indicated:

> *I was in a meeting where they championed nutrition and the OCN course as one of the top 3 priorities that they want to do, so that's going to take place within the next 2 years.*

In another *case study*, partnership working was enabled by their office location within a public health team, which facilitated discussion:

> *We're always shouting across the room, 'oh that would be good for my project, or you might want to feed into this'. It might be something small like they need information for the Healthy Schools scheme, or advising them on different leaflets they can take in, or Get Cooking. ... We don't know about all the policies and things that are out in the community, things like Health and*

> *Wellbeing Strategy,…I've picked up so much about policies and strategies and how to write them …and how to link in… and the politics, and I wouldn't have been aware of all that if I hadn't been in the office within public health.*

Respondents in another *case study* were based in Local Health Board offices which also enabled partnership work. This had facilitated delivery of training to the extent '*that training by the Project team is being mainstreamed into the strategic plans of a number of Health and Social Care settings against needs analysis'.*

Table 4.3 Examples of local multidisciplinary/multi-agency partnerships

Health Alliances	• Acute and community • LHBs • Local Public Health Teams • Oral Health • School Nursing
Education	• Early Years • Primary • Secondary • Adult education • CPD teams • Sure Start • Flying Start
County Council/ Local Authorities	• Leisure services • Sports development • Healthy School • Environmental Health • Social Services School Meals Service • Libraries • Youth and out of Schools services • IT departments, Human Resources
Regeneration, nurseries, play schemes, community/voluntary organisations	• Communities First, Food Co-ops

Such partnerships enabled dietitians to contribute to a number of strategic groups, 42 partnerships having a strategic function (Table 4.4). In some of these, dietitians had a key role in developing local strategy, policies and standards. In addition, 93 partnerships existed for the purpose of *implementing and delivering* strategies, and action plans and development of further initiatives and training. A number of the new partnerships identified had a quality assurance function, and partnerships with OCN bodies had been formed for the

purpose of ensuring that there was a *'standardised, consistent approach ...taken in the design, delivery and monitoring of OCN Courses'.*

Table 4.4 Functions of different partnerships

Function of partnership	Example
Strategic	• Nutrition Strategy and Action Groups • Physical Activity and Nutrition group • Appetite for Life Group • Cymru Cooks • Health and Wellbeing Implementation Group • Peer Training Programme • Schools Menu and Marketing Group • Gold Standard Snack Award • Way of Life Lottery Bids • Early Years Food and Health Strategy • National Public Health Service.
Implementation of strategy or action plan	• Local secondary school and alliances to drive forward various initiatives • 'Gold Snack Award' Scheme • Development of healthier menus in early years' settings • Delivery of nutrition awareness sessions • Development of training packages, 'toolkits' and other resources

Respondents in a *case study* area described a strategic partnership in which they worked with the local public health department, which was tasked with putting the Nutrition Strategy together, based on a health promotion approach:

> *There's an action plan… and 3 forums, 0-7, 8-25 and adults [representing] a wide range of organisations… and it does give a link there. We're building links now with leisure services with the local authority. We're looking at healthy vending and we're having a new leisure complex locally.*

It was evident that the partnerships formed through CDiW (Community Dietitians in Wales) and with other professionals and projects had a supportive function. They enabled projects to keep up to date with developments, provided opportunity for peer review and opportunities to share and develop good practice. *Case study* data revealed that contact with other dietitians was important for those new in post. One explained how, when first appointed, she visited other areas to see what they were doing and then subsequently maintained contact with them. They gave ideas on progressing Level 1 OCN and one offered

to contribute to the pilot of the Level 3 OCN course. Although not directly part of the grant scheme, the development of the OCN Level 3 course was being shared across the dietitians in Wales depending on their expertise and was an important means of maintaining contact across Wales. The pilot was being planned for September 2008 with a view to rolling it out across Wales. *'In South Wales we've already got quite a few people lined up and groups that they're ready to work with and deliver Level 1 with'.*

Many partnerships (138) were used by dietitians to promote the food and nutrition project, OCN training and to provide a forum to facilitate information exchange and gain access to target groups. For example, many of these partners actively marketed and recruited for OCN courses whilst others provided facilities and networks required for course delivery. Most projects linked with other members of dietetics teams to draw on their specialist expertise or to keep them informed of developments and initiatives in the community. An important link was with paediatric services, due to dietitians' main remit being with 0-25s and particularly with early years:

> *We're not specialised enough to be able to say that what we advise isn't going to contradict anything in the Trust, so I would then liaise with the paediatric dietitian, either to run things past her to make sure they're correct.*

One dietitian was planning to work with one of the paediatric dietitians if the MEND[9] programme goes ahead and when 'Happy Healthy Futures' commences. Paediatric training was also being planned:

> *Project dietitians are to do recommended paediatric training… so that she can give appropriate advice to health professionals… The health visitors have been on our courses as well and instead of going back to paediatric dietitians, we link in with them.*

Award and launch events similarly were organised by partners to ensure the widest dissemination of activities, and partnerships with past course participants were formed. Ensuring partner organisations were well informed about the project enabled partners to be proactive in promoting the course and the recruitment of course participants, but also

[9] Mind, Exercise, Nutrition... Do It: a structured education programme for young children and their families to support weight loss

resulted in the dietitians gaining greater knowledge and strengthening working relationships.

4.4 Involvement with other initiatives

In addition to the courses, training and partnerships already described, project dietitians reported involvement with a wide range of projects and organisations. These include Healthy Schools Schemes, Cymru Cooks, Gold Standard Snack Scheme, MEND, Big Lottery funded projects, Oral Health, Youth Services, nutritional standards groups, workplace health groups, County Council and Local Authority departments, Local Health Boards, National Public Health Scheme, health inequalities and other community projects, schools, colleges, universities and after-school clubs. Levels of involvement included advice and input to aid the development of other initiatives and resources, participation in health events, promotion and recruitment to OCN courses, the delivery and planning of nutrition education (and cooking skills), impact assessment, implementation of local policy and networking.

The availability of Community Dietitians provided initiatives/organisations with a ready resource for specialist nutritional knowledge, thus ensuring their involvement in a range of initiatives (Table 4.5).

Table 4.5 Range of dietitians' involvement in initiatives

Advice:

- analysis of nursery menus
- content of oral health leaflets, healthy lunch boxes, nutrition information leaflets and menus
- nutritional standards in secondary schools and early years' settings

Input to:

- training of school governors
- development of school, after-school and community cookery packages
- children's fitness initiatives
- nutrition information website
- weaning DVD

Development of further initiatives:

- School Nutrition Action Groups
- Gold Standard Snack Award
- Cymru Cooks
- healthy tuck shop resource pack
- peer education package for after-school clubs
- healthy lifestyles scheme for 8-11 year olds
- visual resources and teaching aids for primary schools
- resources for school nurses
- cookery schemes

Participation in community and work-based events:

- events to promote healthy eating
- school and college health events, e.g. practical cooking skills, healthy packed lunches at parents evenings, practical weaning skills sessions.

Nutritional input to training:

- INSET for secondary and primary school teachers
- Cymru cooks
- oral health training
- early years' professionals
- Youth Workers.

Projects were very active in early years' settings. Some were involved in the 'Gold Standard Snack Award', which was originally developed in Caerphilly, but is now being run or developed in 6 project areas in conjunction with other organisations and alliances. Training and guidance is given to early years' settings to increase awareness of the need to consider the provision of healthier catering to pre-school children and receive consistent nutritional messages. Successful schemes are awarded the 'Gold Standard Snack Award' for providing healthier foods and promoting healthy food messages to staff, children and parents.

Dietitians' reflective comments highlighted the importance of the award event for the Early Years Nutrition Project:

> *Everyone was there from the partners, the links with education at the foundation phase. The celebratory event brought it all together… and people could see how what they could do would fit into other areas of the curriculum – creative development, gross motor skills, digging in the garden. There were great examples of children painting with a spring onion spontaneously….It's already reaching 1,000 children through 43 groups, so we've got some quite big nurseries on board.*

This success was commented on further in the dietitians' reflective comments, in which they reported continuing support from partner organisations represented at the Early Years Childcare and Development Partnership (EYDCP):

> *Other organisations are including the scheme in their future plans demonstrating greater commitment at all levels to ensure childcare settings provide an environment for infants and young children which promotes optimum physical health through good nutrition practices. The EYDCP has already agreed to fund award packs for groups achieving the award by July 2009 demonstrating their continued support for the scheme.*

Contact with early years' settings was also apparent within case study data, with 16 nurseries being involved to date in one case study. One *case study* was developing a cook book with a nursery which included '*all the recipes we tested and then the next stage will be rolling that out and offering it to child care services'*. Another *case study* had links with Wales Play Groups Association, National Child Minders Association and National Day nurseries Association, as well as CSIW:

> *The CSIW visit the settings and know about the scheme and if they're aware that the setting has the gold standard they know that they've met the standards and that it contributes to the quality within that setting.*

Case study respondents were also delivering healthy eating advice sessions to Flying Start health visitors and were working with projects such as Happy Healthy Future (targeting nutrition and physical activity to under 5s), and Appetite for Life. The latter included training some teachers in OCN Level 2 so that they could meet the Appetite for Life targets within the curriculum:

> *We have people from health promotion, schools, the voluntary sector, nursery staff, play workers… Oral health in the nurseries, health promotion, and*

> *environmental health, as well as a few technology teachers based in education.*

The impetus then continued with school-aged children and projects were proactive in developing School Nutrition Action Groups (SNAGs) in Secondary Schools across 7 project areas. The SNAG toolkit developed in the first phase of the scheme was adopted by the Welsh Assembly Government to cascade through Wales. Involvement with SNAGs, although time consuming, had a number of benefits including: strengthened links with catering and schools, enhanced interagency working, and fostering of good relationships within educational settings and parents. School staff are nominated to run SNAGs within their locality, which also ensures sustainability. Within these settings young people are encouraged to contribute their ideas, and changes within schools have been identified as a result of the initiative, such as the availability of healthier options and pupil led taster sessions.

Work with other initiatives then extended beyond school age. One *case study,* for example, linked with an after-school organisation, which enabled dietitians to access school children both in and out of the school*:*

> *Throughout the summer I'm doing weekly cookery sessions in summer school clubs and one of those is going to be a high school musical. Because I haven't got a support worker I have to do a lot more of the practical stuff, but I've been invited in to do some cookery sessions as well, to boost the confidence of play workers who are already doing it…, each summer club will have a healthy day and… I'll do healthy snacks and healthy lunch.*

Links with Cymru Cooks (a Welsh Assembly Government initiative designed to encourage young people to develop cookery skills) were also prominent. Dietitians have been involved with 8 projects funded through this scheme at a range of levels from their launch, the development of a cookery toolkit, and actively supporting the projects through the provision of OCN level 2 training for the trainers and nutrition events in schools and local communities.

Typically, projects would be involved in a wide range of initiatives. Initiatives changed rapidly though and it was necessary to target people working on whatever initiatives were taking place, which was often difficult to predict:

> *Things change all the time so it's difficult to write a project plan for what we'll be doing for 2010, because other things will be going on. We have to link in with things as they happen.*

Multi-disciplinary meetings (including local authority members) also took place as part of the links with different initiatives, which enhanced opportunities for training:

> *We've discovered lots of roles within the Local Authority that we didn't know existed before … A lot of them came on the training…We've trained leisure centre staff and …development officers for the rugby team, who go round schools and promote physical, but they now do nutrition as well.*

Association with these and other initiatives has increased awareness of the dietetics projects, strengthened the networks of the dietitians, forged links at a strategic level and led to improved partnership working with the organisations involved. This then enabled the cascading of training and the delivery of consistent nutritional messages and approaches to a range of recipients.

Commenting on the value of working in this way, one *case study* respondent indicated that:

> *In the past we've always had to say everything is ring-fenced and everyone's stretched to the limit. But now if someone wants support for a health promotion event we can liaise with them so that they get the right message. Previously people with no nutritional knowledge may be giving advice and we've not been able to check what's been said, whereas now people come to us for support.*

4.5 Impact of projects

Impact of the projects was assessed at three levels, the organisational, participants and community. Figure 4.1 models the cascading of Food and Nutritional knowledge and its resultant impact on course trainees and community members.

4.5.1 Impact at the organisational level

Much of the organisational impact resulted from partnership working and as discussed in section 4.3 these had a number of functions (Table 4.6). Partnerships were enabling the actions of national strategies to be delivered, such as those stipulated in the Nutrition Strategy for Wales Document 'Food & Wellbeing' and 'Appetite for Life', Food and Fitness, as well those defined in local nutrition strategies and policies. Project dietitians were better able to respond to local need and target training appropriately and get feedback on the quality of training delivered, and how the knowledge was being used within organisations and the community.

Sharing knowledge, skills, ideas, resources and best practice were frequently cited as a benefit, for example, dietitians were able to draw on the specialist knowledge of other professionals. This sharing of information, however, was a ‘two way street’, and the contributions made led to a raised awareness of diet and nutrition projects and the role and expertise of Community Dietitians. This enabled projects ‘to get on the agenda’, to be included in local plans, inform strategy and policy (such as Local Nutrition Strategies and Appetite for Life) and promote a consistent nutritional message.

Partnerships led to enhanced understanding of local needs and also of specific services, such as school meal services, health promotion and other initiatives, in addition to the needs of specific groups. This formation of partnerships appeared to benefit projects in a number of ways; they provided support and guidance, improved links with other initiatives and facilitated further access to target groups and settings. In addition, partnerships aided recruitment, the delivery of nutrition training and the dissemination of consistent nutritional information at a local level.

Knowing what was available locally and being aware of what other dietetics projects were doing impacted positively on projects. This *‘prevented the reinvention of the wheel’* and enabled the sharing of resources and good practice with other initiatives and projects, such as the ‘Gold Standard Healthy Snack Award Scheme’, peer education projects in schools and ‘Fun with Food’. Moreover, sharing of information and partnership working also resulted in the joint development of training courses (such as the development of an OCN Level 3 Community Food and Nutrition Skills qualification), packages, toolkits, leaflets and other initiatives.

Table 4 6 - Impact of partnership working on the community (Rank Order)

Delivery and availability of nutrition information in schools and the wider community	110
Enhanced Nutritional awareness	29
Access to training/ More people trained in community	24
Improved dietary provision in schools and pre- schools, Hospital, Youth clubs	22
Confidence to deliver nutritional information	12
Shared/ availability of resources	11
Delivering Actions of Nutrition Strategy	11
Developed nutrition group, policy or other initiative	10
Planned provision/Potential for Level 1 course to be delivered	9
Tackling chronic disease and obesity	5
Needs analysis	2
Potential to access hard to reach	1
Support	2
Improved awareness re: equality issues	1
Joined up approach	1

4.5.2 Impact on course participants

Dietitians assessed the impact of the OCN courses on participants through post course questionnaires (see appendix 3). By September 2008, 1281 post training questionnaires were distributed, 1207 were returned (a 94% response rate). A total of 381 follow-up questionnaires were distributed, yielding a 52% (198) response rate.

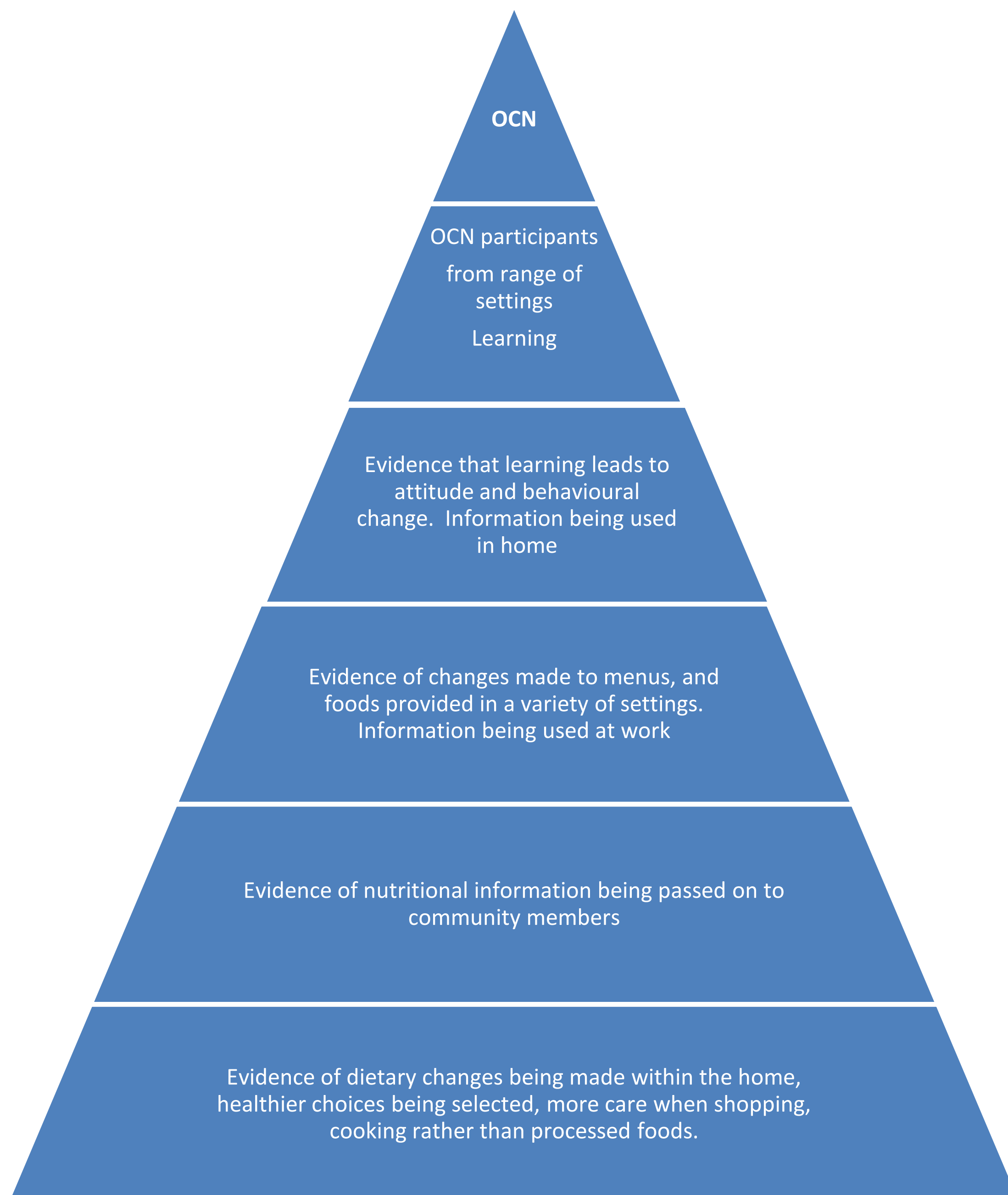

Figure 4.1 Evidence of information cascade and attitudinal and behavioural change

4.5.2.1 Learning acquired

The findings revealed that 94% (1209) of course participants had acquired new learning as a result of attending the course. Respondents were asked what they believed to have been the most important lessons learnt. As can be seen from Table 4.7, learning about a balanced diet and its importance were the most frequent responses. Other responses included the need to reduce salt and sugar intake and making sense of nutritional information on food labels. Further (less frequent) responses indicated an increased awareness of oral health and

nutrition, the different nutritional needs through the life course and the importance of vitamins and minerals.

Table 4.7 Most important lessons learnt from the course from the participants' perspective (Frequency of response in rank order)

Lesson	Frequency
Importance of balanced diet	302
Understanding reducing salt sugar, fats	140
Food labeling	133
Effects of diet on health	53
Stages of weaning and early years nutrition	36
To eat more fruit and vegetables	30
Nutrition in across the lifespan	29
Importance of vitamins and minerals	24
Effects of media and advertising	20
Everything	17
Oral health	13
Promotion of healthy eating messages	10
Portion sizes	10
Resources and sources of information	8
Understanding fats and the need to eat unsaturated	6
Ease of healthy eating	3
Eating on a budget	3

Often participants in *case study* interviews (including school nurses and nursery staff) reported being amazed at how much they did not know about food and how much they had learned about the content of food and food labeling.

One of the key messages mentioned by participants was the use of the Eatwell[10] plate. Some were surprised at their lack of knowledge about where to place foods on the plate:

> *There were quite a few items that we put in the wrong section – I was quite surprised at that…. The other thing we got totally wrong was the order in which the number of calories in different foods. Not one of us got it right.*

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[10] The Eatwell plate provides a consistent message and demonstrates how much of each food group should be incorporated in to the diet, it is promoted by the Food Standards Agency http://www.food.gov.uk/healthiereating/eatwellplate/

Participants in another *case study* were also concerned about portion sizes given to children. Some thought afterwards *'my child is eating… too much – forcing two Weetabix down them, when one would be enough'.* Other important messages related to specific foods and again, participants were surprised at their previous lack of knowledge:

> *Hydrogenated fat has just scared the living daylights out of me and has helped both in the workplace [a nursery] and in my home life. I just can't believe how many things targeted at children that it's in, how many sweets… and the salt content of things really surprised me as well.*

> *We tended to think we should give them half fat milk, which was wrong…I didn't know as much as I thought.*

4.5.2.2 Behavioral and attitudinal change

Respondents to dietitians' questionnaires were asked whether they intended to make changes or had made changes to their eating behaviour as a result of the course; 85% (963) intended to, or had already changed their eating patterns. Fifteen percent (175) however, did not intend to change their diet, some already had healthy eating habits, others may have not have been ready to change at that particular time. Some viewed the course as something to be applied in a vocational rather than personal setting; this was reported as being particularly pertinent to the training specific to early years' settings which targeted infants and toddlers.

Overall, attitudinal and behavioural change could occur quite rapidly. However, where courses were run over a number of weeks, changes in behaviour were observed before the end of course, whereas for those run over 2 or 3 days, intention to change, rather than actual behavioural change, was recorded.

As can be seen from Table 4.8, increased consumption of fruit and vegetables, fluids and fibre were reported, as were decreases in fats, salt and sugar, snacks and fizzy drinks. Healthier, more balanced diets were reported, with some respondents reducing snacks, or starting to have breakfast. Comments from a range of participants illustrate the personal impact of attending the OCN course:

> *We eat more fruit and vegetables, especially things like soups because you can chuck things in and you know they're in there but they [family] don't so they'll eat them.*

In addition, the courses had impacted, not on just the individual, but were also extending to other family members. There was evidence, from both interview transcripts and dietitians' reflective comments, of participants making changes to their own diet and that of their families and friends and of losing weight:

> *The last course…with youth workers, a lot had children and they said 'do you want to see how much better my child's diet is now. I only give them milk and water to drink between meals and I don't let them have things'.*

Moreover, there appeared to be a more thoughtful approach to food. Shopping habits had changed and labels were being read, with a number indicating that their whole approach to food had changed; meals were being planned and healthier cooking methods were being adopted with less reliance on processed foods as the following quotes from *case study* interviews illustrate:

> *Started to use a steamer because the veg taste different and crunchier.*

> *Converted to organic meat and spend hours in the kitchen, cooking and washing up. And if I eat junk I feel different (quite ill, quite ugh, unpleasant), so it's had a massive impact on me. It's also cheaper.*

> *Even though it was only OCN Level 2 it was really in depth. So interesting… and things really do stick. … And it's amazing how it affects you when you go home. You think maybe I should use the brown bread not the white bread. …I have started shopping differently, reading the labels more. Before if I'd seen 15 grams of sugar I wouldn't have had a clue whether that was high or low. … Things like drinking water and having 5 a day. I'm also much more aware of how much salt I add in cooking and casseroles and soups, I add lentils and throw a couple of peppers in to get the 5 a day.*

> *I go for the cheap prices but for a couple of pence more you can buy something much more healthy. The more expensive stuff that you think will be healthier is not and often you can make your own much cheaper.*

Table 4.8 - Changes made to course participants' diet (Rank order)

Changes made: reduce sugar and fat intake	216
Changes made: eat more fruit and vegetables	213
Balanced diet	142
Read labels	75
Cook more, use less processed foods	75
Salts	41
Plan meals	34
Increased fluid intake	33
Increased fibre	15
Healthier cooking methods	12
Portion sizes	11
Reduced portion sizes	11
Weaning	10
Changed family diets	8
Oral health	5
Increased fish intake	3
Exercise	3
Eat breakfast	3
Reduced snacking	3
Eat Breakfast	2
Increased calcium intake	1
Less fizzy drinks	1
Less coffee and tea with meals	1
Less carbohydrate	1
Less red meat	1

4.5.2.3. Increased confidence

A recurrent theme in the evaluation was confidence to deliver nutritional knowledge. All respondents reported having increased confidence in disseminating information to clients and gained reassurance from having OCN notes to refer to if necessary. Community Cafe staff reported increased confidence in menu planning, whilst in nurseries, schools and other early years' settings staff had more confidence in advising parents, colleagues and others

Two case *studies* commented on the increased confidence in, and changes in, school cooks' behaviour, such as encouraging children whilst serving them at the kiosk by telling them that certain foods are healthy, and removing salt from tables. In area, the head of catering was keen to make changes after attending the course and course participants would frequently contact the dietitian to ask for advice:

> *I get a phone call asking for advice on nutrition in school. One rang to ask how much MSG should be allowed in school gravy. It's nice that they would give us a ring to ask if we had an opinion on it.*

In another *case study*, school nurse health care support workers, who previously did administrative tasks, were now attending the OCN course to enable them to provide one-to-one advice. This *'massively increased their morale and confidence…they go and deliver a lesson on their own and they're having one-to-one with kids'.*

Across a number of *case studies* school nurses, health visitors and food technology teachers reported increased confidence in giving dietary advice. They used information from the OCN course in their work with families and children and cascaded nutrition messages through many different means:

In addition to giving the confidence to disseminate and use their nutrition knowledge, it appeared that respondents were also more confident in their ability to learn, with the manager of school cooks reporting that there was:

> *Increased confidence following attendance in uptake of offered education sessions including mandatory and statutory sessions 'and' further continuous professional development activities e.g. attending other accredited courses has been subsequently eagerly undertaken.*

Furthermore, another reported that attending the course had helped them gain an NVQ in childcare.

4.5.3 Impact at the community level

The impact of courses on the wider community can be seen in how course participants used and cascaded the learning from the course (see Figure 4.2) and in responses to questionnaires from community members.

It was reported in the interim report that, although participants planned to use the learning in the work place, due to the recency of the training few course participants had had the opportunity to use the nutrition information learnt, although this was intended. Plans in 2006-2007 were to cascade nutritional information and healthy eating messages, including the development and delivery of nutrition packages, to specific groups. Such groups included breast feeding women, weaning groups, parents, school children, Cook and Eat, colleagues etc. In addition, it was planned to disseminate the information across the community, for example, by using the learning in the training of key workers, and offering courses for school caterers and community workers. Others planned to change the foods on

offer in schools, early years' settings, and youth clubs, and to provide healthier options; for example, to have healthier snacks on offer; encourage the consumption of fruit and vegetables, and reduce the amount of salt and sugar in meals or plan healthier menus.

By 2007-2008, the findings reported in the Minimum Data Set revealed that much of what had been intended was being delivered. Course participants in all areas reported having used the information in the work place, covering schools, pre-schools, after-school clubs, hospitals, children's homes and community settings, such as youth clubs, mentoring schemes, food co-ops and other community based settings, as well as passing this information on to colleagues. According to dietitians' reflective comments, the impact of the scheme could also be seen in youth and leisure services, who demonstrated a greater awareness of the value of nutrition in their role. Participants had changed their working practices and were encouraging others to have healthy diets, through a range of activities and also making changes to menus and foods offered. This was occurring on the ground but also at a strategic level.

Figure 4.2 - How OCN course participants used course information

Across all settings the portfolios built up through the course appear to have been put to good use, with course participants reporting that they used information, activities, quizzes and games in their own settings to cascade information and also to refer to when faced with a query. A number had developed files, recipe booklets and other information which was available to or distributed to their client group

Across the *case study* areas, work in schools, nurseries and youth and leisure settings were some of the most important settings for changes in eating habits to be fostered. Fundamental to the impact of projects on communities was the way in which information was being cascaded to community groups. One *case study* contacted senior staff within organisations, who then cascaded information to other areas:

> *We have a development officer, pre-school play groups association… then someone else from WCMA, who also covers other areas. So they're able to go to other areas and say this is how it's working here and then influence the way it's set up in other areas.*

The food co-ops were also important, as they were growing in number and more people were using them, with healthy start vouchers often being used to purchase produce. One *case study* promoted food co-ops by providing flyers advertising food co-ops in their weaning packs and in Snack Award settings:

> *I had a call from the development officer to say that they'd heard about the £2 bag of fruit and veg from the OCN course and people were ringing up and asked where they could get it from. So it's linking up with other initiatives as well.*

The impact of the scheme could also be seen in youth and leisure services, who demonstrated a greater awareness of the value of nutrition in their role. In one case study, for example, youth workers had organised food co-ops and had placed healthy food recipes in with the food:

> *The youth inclusion programme has started 'Get Cooking'as a result of the course, through the Communities First area….now they're getting the confidence to go a few steps further, whether that's a full blown project or adding on extra bits to the food co-op.*

The way in which messages were conveyed to people in the community was also important for respondents and this meant being responsive to their needs. One respondent, for example, taught a group of mothers who wanted to lose weight:

> *I gave them healthy eating information… what a portion size is… and how we go over the top….Everyone participated … We did… the formal stuff and they did sit there and listen and responded so I think if it was to go a stage further I would do sessions on nutrition.*

This respondent was concerned, however, that the public may have difficulty understanding complex nutritional information and that *a 'lot of people were interested in practical advice - cooking demonstrations – so this is the next step'.*

The projects were also impacting on communities by changing behaviours of key workers and by conveying healthy eating messages which also impacted on communities. For nursery staff, the CSIW had set certain standards and had recommended a day's training on food labeling. According to dietitians' reflective comments:

> *The inspector for the CSIW reported the course has increased the confidence of learners to pass on information about nutrition to parents and change the food provision for children in their care.*

The standards also supported the knowledge they had acquired. For example, they are required to check ingredients and not to use hydrogenated fat:

> *They know they have to use products that are low in sodium and we've given them a list of the popular foods from which to choose. They're not allowed to use sausage rolls or Angel Delight (it has to be a proper fruit whip) and to reduce processed food as much as possible.*

As in the nurseries, the changes in schools and the wider community were evident within the data. Some of this was evident in youth clubs, in which in one example, Community Food Workers were planning to cook soup, jacket potatoes and wraps and salads and pizzas:

> *Even if they get the healthy options here and go home and tell their mum and dad that they've had a great pizza that they've made themselves and so can they do it at home. They come in now on Thursday and say what are we doing this week, what are we making…. they're not running away from me now. They ask if they can have a go.*

In this same *case study*, women in a healthy eating group, some of whom had never cooked before, were taught cooking skills, and went on to prepare something and bring it into the sessions. '*They enjoyed it and had their certificates, but went on to prepare the meals themselves'.*

4.5.4 Impact on early years' settings

Significant changes were apparent in early years' setting with the information gained from courses and the dietitians being used to overhaul menus, and develop a healthy eating ethos within these settings influencing the behavior and attitudes of children, staff, and parents (Box 4.1)

In nurseries, child minders, pre-school groups, mother and toddler groups or the home, nutrition information was being used to inform parents about a range of topics such as dental health, nutrition and weaning. One respondent wrote, *'We've ordered WAG weaning magnets and given them out to parents weaning their babies'*. Child minders and nursery staff were advising on the use of appropriate drinking cups and snacks for dental health. Another respondent had *'Given out leaflets advising healthier party food ideas, finger food ideas and healthier snack ideas (from training pack) to parents'.* Others reported giving out recipes and another reported that they had changed the *'printed format of their menus with the aim of greater transparency in informing parents of quality and choices available'.*

In addition to the provision of information to parents, the increased awareness of child nutrition had resulted in these settings making changes and improving the quality of food provided, or allowed. A typical nursery menu prior to the course would include unlimited sandwiches, followed by crisps, cake and biscuits. Parents might bring in sweets, crisps, fizzy drinks and cakes for their children for snacks during the day, or as a snack when picking them up, and children would often go home and not eat their tea.

As indicated in dietitians' reflective comments, there were significant changes to the menus in all nurseries concerned, including reduction in salt, sugar and trans fats. Changes such as the removal of processed foods such as meat products from menus and the avoidance of dried fruit as a snack were reported.

> *Everything is casseroles and roast dinners and pasta and everything is made on the premises.*
>
> *A nursery lunch consists of new potatoes, ham, cauliflower cheese, green beans, roast dinner, cottage pie, pasta Bolognese with courgettes, peppers in it. They have more than the five a day. We hardly give any milk, just in the morning, then just water throughout the day.*

As one dietitian observed:

> *There was an improved balance of food provided in nurseries – limited hydrogenated fats and salt, reading labels, less processed foods, increased fruit and vegetables, less use of sugar.*

Additionally there was evidence that the learning gained from the course was being used in educational activities to teach pre-schoolers about food and linking with the foundation stage curriculum. Young children were involved in activities such as growing and preparing vegetables and others reported that they had ordered resources, such as posters and foods model, for the children to play with.

> *Our pre-schoolers will eat anything, the younger group are choosy and we have these fruit and veg activities that we had from the dietitians and we downloaded it. We've used it … for things like kebabs and they've seen older children doing stuff and thought our kids can do that…*

One project reported that there was an enhanced awareness by nursery staff of the need to model appropriate behaviours and also to encourage staff to eat healthily

> *They* [staff and children] *all sit around the table to eat and never do at home and we don't fuss them if they won't eat, but give them a clap if they do eat. If you make a fuss when they don't eat they think 'ah got ammunition here'.*

> *They often coax children to eat by putting food on their own plate and then allowing children to taste it, thus introducing foods which previously they would not eat.*

In other nurseries staff had changed their own attitudes towards food, which was reflected in how they encouraged children and advice they gave to parents:

> *Children will say 'I don't like that' and we say 'but you haven't tried it' but we don't force them. If it's not acceptable after 10 attempts we change it for something else.*

> *My attitude has changed. I didn't like veg and so wouldn't push children if they didn't like it. Now they don't have a choice because I don't allow unhealthy food in the building.*

> *I used to advise parents not to worry if they don't want their tea, they've had a huge snack. Now I think that's awful.*

Box 4.1 Impact in early years' setting

Changes in what is provided

- Less salt and sugar
- Buy Birds Eye fish fingers rather than cheap brand, no more chicken nuggets
- Removed breadsticks and cream crackers due to salt content
- Replaced milky puddings with yoghurt and fruit pudding
- White bread replaced with brown
- Raisins now given with meal rather than as snack whenever they wanted them
- No biscuits or crisps unless for special party and even then very little
- No sweets before 11 am and no sweet foods at breakfast break
- Fruit juice at lunch time (because of corrosion of teeth), then water in morning and afternoon
- Children need some fat, so the right type of fat is used
- Do not disguise vegetables and children do eat them

Changes in staff and children's behaviour

- Encourage children by all sitting together and eating without thinking about it
- Children now sit and eat meal with parents
- Give children very small amounts and then increase slowly as they get used to it
- Children do not ask parents for sweets anymore – stickers used as rewards at the nursery
- Provide 'taste in' to encourage children to taste lemon, then sugar, then honey
- Reducing water used in cooking and reducing cooking time
- Fewer complaints from staff (following attendance on course) about children not having much of a snack
- Staff replaced their McDonalds lunch with wholemeal sandwich
- Staff keep up-to-date by reading about food on the 'net' and in papers

These attitude changes even occurred within a context of financial burden, as indicated by one nursery owner, who spent about £500 a month more on food, *'which is a lot of money for private, when it's your business, but if needs be, then that's what we do'.* Changes in attitude also occurred in parents and children. As one participant recalled, *'parents brought in loads of fruit and wholemeal sandwiches' to* the pre-school party. *'Before they'd have brought in loads of sweets, now there's none'.* One of the most illuminative examples of attitude change can be seen in reports of different children:

> *One child has sweets in her bag that have gone rotten because she's lost interest. When she sees other children eating them she'll look and then put hers in her bag, but not eat them.*

> *We're having a birthday party and one has brought in a cake, but the cake will be left because they're not used to eating it. And sometimes they have potato wedges for tea, but they don't like them. They're learning what to eat, they'll say I'll taste that and that. They like roast dinner with cabbage and parsnips.*

4.5.5 **Impact on schools**

Within school settings, healthy eating was high on the agenda; catering trainers and managers were delivering training and information to ensure that school catering staff were aware of nutritional issues, such as the balanced diet. As reported in one area, they '*were making sure all staff are briefed on healthy options and avoiding using salt in all cooking'.* As a result of such increased awareness healthier cooking methods were adopted in schools, recipes were being adapted to incorporate more fruit, vegetables and fibre into dishes, and efforts were made to increase the availability of fruits and vegetables to pupils by 'p*utting more vegetables on menu'*.

Moreover, school caterers (in seven areas) were reported as being proactive in encouraging children and young people to choose healthier options and were actively trying to educate children by '*telling them about foods',* '*encouraging children to eat more fruit'* and organising tasting sessions for example. In one setting, caterers had taken this a step further and changed their style of delivery to '*a self-service approach to encourage children to appreciate the importance of making healthy choices for themselves. This has proved very successful*.'

In addition to the changes in school catering practices as reported above, other professionals such as school nurses, school nursing assistants, and community food workers, were delivering sessions in schools on healthy eating. In some cases this was part of a '*health promotion rolling programme which includes healthy eating sessions in primary schools*'. Other examples included the development of food and nutrition workshops and the delivery of OCNs in secondary schools, and after-school cooking clubs.

In addition to the changes in school catering practices, dietitians' reflective comments described the success of SNAGs in secondary schools, with commitment from pupils, staff and caterers, '*through attending regular meetings and contributing to discussions and activities on ways to improve school food'.*

One *case study* described how, at the behest of children, they replaced burgers as a snack with whole meal toast

> *Kids went wild about it and they had a choice of marmite on it and other things, then we introduced jacket potatoes with a salad bar. The uptake was phenomenal. The cooks said they wouldn't like it. The next minute they said it was fantastic and the cooks don't feel threatened because we've always involved them and asked how feasible things are.*

Furthermore, a Nutrition Focused Peer Education Programme was also working particularly well:

> *Young people are so enthusiastic and eager to learn. By investing time to help increase their knowledge on food and nutrition we are beginning to see positive changes in attitudes … we are looking at the positive impact that peers can have by encouraging others to choose healthier food and drink options*.

Children were also being taught about food by course participants who showed them fresh fruit and cut it up so that they could taste it. In one *case study* vegetables were grown in recycling bins. Subsequently, parents developed their own allotments, having been encouraged by what their children had done. Community Food Workers were also influential in discussing necessary changes with head-teachers. In some schools, for example, attempts were made to introduce fruit juices*:*

> *But if I go out to school I say it's a recommendation in Appetite for Life, so I tend to have a chat with the head and the co-ordinator to try and get rid of the fruit juices, because they can't have fruit juices in between meal times – at meal times is fine.*

Children were also active themselves in finding out about and informing others about food, via their involvement in SNAGs and many children joined the SNAG committee. In one secondary school there was a waiting list of 15-20 to get on the committee and get involved in 'Get Cooking'. They were allowed to run three groups and children had created their own rules for membership so that those who failed to attend three sessions were withdrawn so that someone else could join. In this school, children had '*also requested to go into primary schools and discuss what they're doing'.* In another school the SNAG committee was concerned about children's fruit and vegetable intake:

> *Children were not eating many fruit and veg at lunchtime, so we came in and did the activity and they were very interested and we put together a questionnaire for the school of what fruit and veg everyone would like to try. So last week we had salad tasters and the committee did evaluations and this week they have a salad bar, so that's impacted the whole school.*

4.5.6 **Impact on catering for 'looked after' children**

Within 'cared for' settings there was also evidence of the knowledge being used. One individual, working on a children's ward wrote:

> *I have put together a file containing the relevant nutritional information for parents which they can access, as well as erecting a wall display containing healthy eating messages. We have also worked with the hospital kitchen to ensure that the way in which meals are cooked are healthy - they have now changed from frying to baking, and the children on the ward have access to fruit every day which is sent up from the kitchen.*

Carers of 'looked after' children were more aware of the need for good nutrition and were passing this information on to the children. They were making changes to the food served and bought, and as one respondent wrote:

> *We've definitely changed what's in the cupboards now since doing the labeling session.*

4.5.7 Impact on snack provision

Snacking is an issue which has been addressed in a range of settings and through initiatives such as the Gold Snack Award Scheme within early years' settings (developed by Caerphilly dietitians). Six dietetics projects reported that trainees had targeted this and were now providing healthier snacks in a variety of locations including early years, schools, after-school events and youth clubs. Moreover, they were actively educating children, workers in after-school clubs, parents and carers (of looked after children) about healthy snack options. In two areas course participants had advised schools on 'healthy tuck shops' with one of these individuals assisting in the setting up of 'healthy' tuck shops in 3 schools.

4.5.8 Impact on community members

The impact on the wider community can also be seen in community members' responses to questionnaires distributed by OCN course participants. Community members completed questionnaires when they had received nutritional advice and information through an event or activity they had attended. Questionnaire items were designed to elicit any impact that this might have had on them personally. Further impact evidence was also gleaned from comments made by OCN course participants and dietitians' observations. Not all project dietitians had had the opportunity to follow up impacts in the community or to distribute questionnaires. However, 141 questionnaires were handed out, and a 90% (127) response rate was achieved. Most respondents were female (118, 93%) and classed themselves as white (99%). Whilst ages ranged from 16 and under to up to 70, the greatest proportion

(74%) of respondents were between 26 and 49 years of age. Ninety-one percent were working either full (66%) or part time (25%).

Similar to OCN course participants, the questionnaire responses indicated new learning and almost all (99%) had learnt something new. Portion sizes, healthy eating for children, food labeling, fruit and vegetables, increased knowledge about fats and sugar in food, healthy eating, eating on a budget, weight management and foods for a healthy heart being the most common examples cited. Course participants were asked whether, as a result of the information provided, they may alter their diet. A high proportion responded positively to this question and indicated that they intended to change their own (85%) and their families' (72%) diet. As can be seen from Figure 4.3, respondents intended to increase their consumption of fruits, vegetables, fish and lean meat, and to eat fewer fatty and sugary foods.

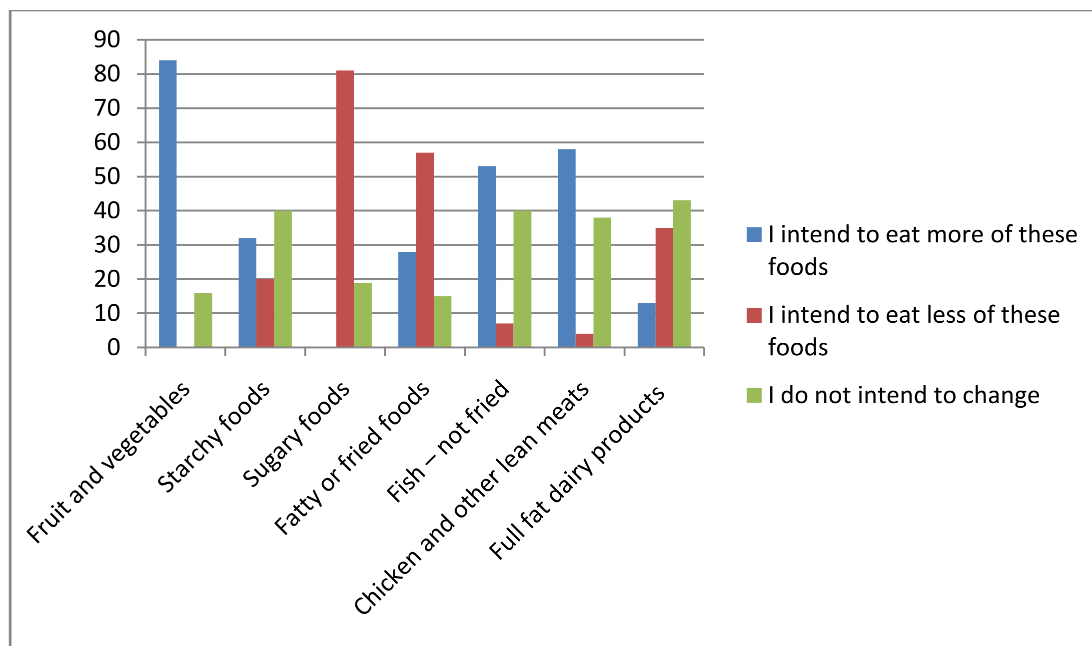

Figure 4.3 Dietary changes intended by community members (% response)

A smaller number of respondents completed follow up questionnaires (35), however all reported that they had made changes to their diets. As detailed in Figure 4.4 there was evidence of increased consumption of fruit and vegetables, fish, lean meats and starchy foods and lower consumption of fatty, sugary and full fat dairy products. Community members reported that they read food labels and made changes such as reducing salt, caffeine consumption, and portions sizes as well as increasing fluid consumption.

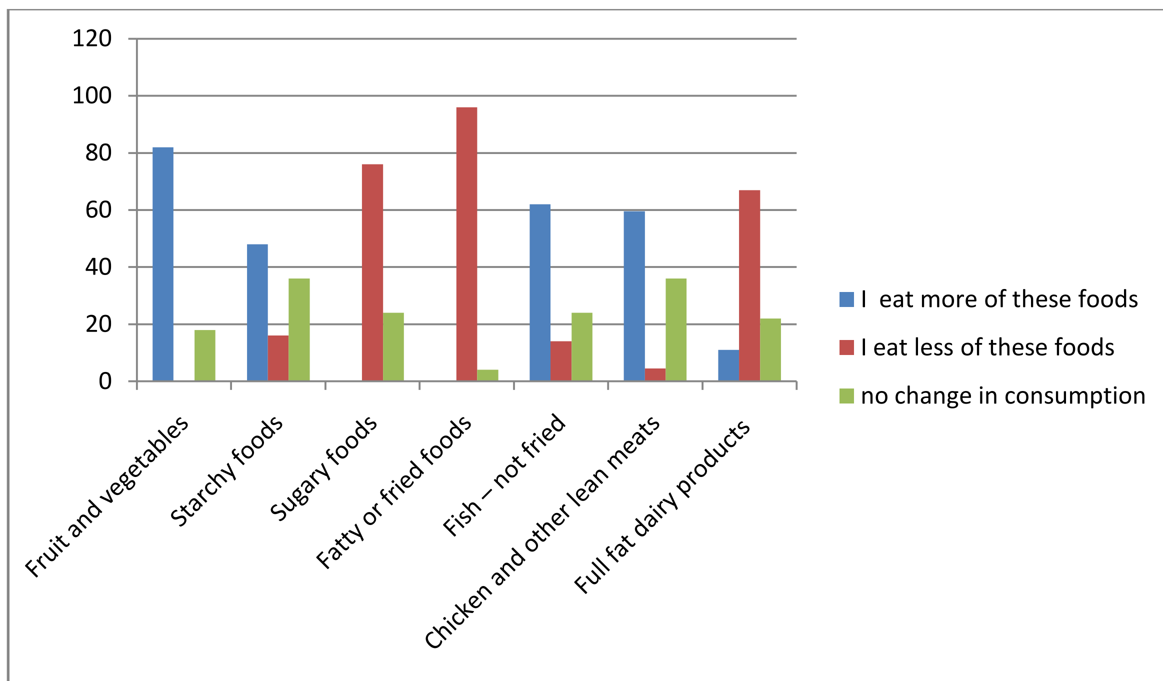

Figure 4.4 Dietary changes made by community members (% response)

Although not all OCN course participants or dietitians were able to assess the impact of their input on community members, others noted a willingness to take up nutritional advice, a greater interest in food, and trying new foods. Workers in a range of settings were seeing a greater acceptance of the healthier foods and snacks being provided in community, youth schools and early years' settings, and adults, older children and young people were observed making healthier choices. Greater thought was being observed around food as individuals realised the impact it could have on their lives (as illustrated in Box 4.2).

Some groups however were more resistant to change. One youth worker specifically noted some resistance in the 'rebellious' 11-16 year age group, with boys being less willing to make changes than girls. These comments however were few, and from the information provided children were reported to be eating more fruit and vegetables as evidenced by comments made by parents and those working with children and families.

In one area, feedback from young people in schools trained as peer leaders revealed how they were using this information to influence others:

> *There's more fruit in the house which encourages the rest of the family to eat it too.*

I have put people off eating take-always now they know about all the bad things! I help people know all this information…telling people how fruit and vegetables affect our daily routine'.

Box 4.2 Impact from the perspective of community members

I have changed from sweet cake bars to natural fruit bars and cereal. I feel better about what I eat and have actually seen the results. I have less spots and feel less sluggish.

I became more aware of ….food's impact on health. It does have an impact on my exercise. Every Saturday I play football and on Sunday rugby and after I'm knackered but food does have an impact on your life. Since eating healthier I've had better endurance and that's quite important. It's quite pleasing to know that food does actually have an impact on your life. Basically, if you can eat healthy, I think you should. It doesn't just have an effect on playing sport, it does have an impact on your life.

I lost a lot of weight through eating healthier and not snacking as much. I also ended up a lot fitter than I was. I play rugby.

Stopped drinking pop just cut it out cos I think it was wrecking my teeth.

I now use food and activity diaries to look at people's intakes. Clients learn quickly how to identify problem areas One of my clients was delighted as she has reduced her mass by ¾ of a stone in 6 week, her activity levels have increased dramatically'.

Everyone is willing to try….I've done garlic bread from scratch and they [the family] liked that and it was so easy to make ….I bought banana and sliced it and they all demolished it. And it wasn't really time consuming. My children have much more energy now. It's not the type of energy that you get from a can of coke, when you're scraping them of the ceiling. It's slower but they can keep on going – and he used to snack in between meals on crisps but since I've been giving him the meals he doesn't snack any more.

Some, especially younger children, seemed more adventurous and more confident about food, and trying new foods and the efforts of the early years' settings were appreciated by parents. As one parent noted '*You got X to eat peppers!! And cherry tomatoes! Keep up the good work!'* Moreover parents reported that children were actively requesting fruits as a snack:

I have noticed that Y likes to eat apples a lot more, even requesting them as a snack. She never 'disliked' them before, but she definitely enjoys many more types of fruit much more than she did before.

> *I have noticed Z start to ask for fruits, the things he never did before, especially orange. Something very cool for me.*

The learning and exposure to different foods was making it easier at home as children were more accepting of the healthy options, as one parent wrote:

> *S does not eat anything extra as a result of the change, but we have found that she accepts healthy snacks without a battle between meals. It makes healthy eating at home easier for parents!*

This was considered quite a breakthrough as it is often more difficult influencing parents than children. In attempting to influence parents, one OCN participant, following completion of the course, started doing healthy eating for children's parties and had started advertising this. One of the community members was also planning to set up a group and had become an EXTEND leader for over 50s, whilst another planned to deliver Level 1 practical cooking skills with a women's workshop.

Moreover, parents appeared to be taking notice of the foods offered to their children and were said to be attempting to make efforts in the home to provide healthier foods for their children. There were also accounts of parents replicating the nursery diet, paying attention to the provision of healthier weaning, finger foods, snacks and party foods. Young people who had undertaken the OCN were reported to be influencing the diet at home. There was evidence of a shift in parents' and young people's knowledge, attitudes and behaviours towards food. As a result of the information, healthier packed lunches and snacks were being provided for children in early years and school settings, and in a number of cases these changes were dramatic. For example, one child minder reported:

> *One of my mums used to bring instant pasta in a sauce and super noodles with crisps and a bag of sweets or chocolate (not given, child minder provided own food instead). With this she used to bring a bottle of sugary drink. I gave her a healthy snack leaflet and talked about what sort of food C should be eating every day. I told her that I gave C red and white grapes and he loved them. Over a period of a few weeks things started to greatly improve. This is a sample of the food [mum] brings now (photograph of homemade chicken, vegetables and potatoes) with fresh fruit and yoghurt as dessert.*

Another observed '*parents have stopped bringing in bottles of coke and tea and bring more fruit since we started the award'.* In some cases the provision of healthy foods in the day

care setting meant that parents perhaps felt less guilty of providing not so healthy options at home, as one parent was cited:

> *[He] enjoys his snacks – especially fruit and crackers. I am glad [he] has a healthy diet with you as it makes up for the hash browns and sausages he has with me!!!*

4.6 Evaluation of projects and successes and challenges

Dietitians had continued to evaluate their work using questionnaires developed for the projects. They also relied on feedback from sessions delivered, distribution of questionnaires 1 and 2, monthly staff meetings, and use of questionnaires by nurseries.

4.6.1 Successes

The successful parts of the courses tended to relate to its flexibility, including providing supportive information on websites for those who wanted to know more (Box 4.3). Being responsive to questions was considered very important, even if it meant finding out and feeding back later. As one dietitian commented, '*they ask some complex questions, one was asking about the vitamin C content of orange juice and how long it takes to biodegrade once opened'.*

Some specific parts of the course regarded as successful included food labeling, visual examples, and quizzes, and weight management:

> *They like quick bullety 'does butter contain more fat than margarine'? And they'll say of course it does, and I'll say, no it's different fats'. And the following week they'll tell me that they told the same to other people at work.*

For one *case study*, the food labeling session resulted in people cooking from scratch rather than buying processed food, and the life stage nutrition approach enabled them to apply the knowledge to themselves and their families.

Guest speakers being used for some sessions, including the Rural Regeneration Unit, an agrifood specialist and leisure services. A number of dietitians had also completed a Post Graduate Certificate in Education, and their experiences teaching OCN courses had enabled them to improve their lesson planning and project management skills and to consolidate their teaching experience.

Box 4.3 Successes from perspective of dietitians and course participants

Successful parts of the OCN course

- Flexibility and responsiveness
- Food labeling – resulted in people cooking from scratch
- Eatwell plate, quizzes and weight management
- Application of information to the participants themselves
- Weight loss
- Personal development of dietitians

Successes post-course

- Following participants up in Get Cooking
- Work with school catering
- Nutrition Focused Peer Education Programme
- SNAGs in secondary schools – commitment from pupils, staff and caterers
- Impetus for SNAGs in primary schools following school governor training
- School logo prize for healthy eating helped change culture in a school

Successes reported by course participants

- Healthy foods and cooking methods used by school cooks.
- Children requesting healthy options
- OCN L2 delivered to 6th form students, who have used the opportunities of SNAG and OCN in the selection of 6th form prefects.
- A COMMUNITY FOOD WORKER grew vegetables with parents, who now also grow things at home.
- Play group staff grew vegetables in tyres and parents are becoming interested.
- Food co-op established in an area where there was no outlet for fresh produce.
- Involvement in SNAGs develops children's social skills. They communicate with governors when they visit.
- Support from dietitians

Other successes related to following course participants up in the community, such as with 'Get Cooking' and work with schools. In one *case study*, a SNAG set up following a training session with school governors, resulted in nutrition policies being made in both primary and secondary schools. In this *case study*, healthy eating had worked particularly well in a school because it was part of an after-school club and an entity in itself:

> *We had a competition for a logo and motto which we ran throughout the school and we had a local surf shop donate a prize, so it was high profile and it was on all the school address systems…, and was mentioned at the new parents evening.*

Many successes were also reported by the course participants themselves. In schools, cooks were using more fruit and vegetables and not overcooking them, reducing salt and not purchasing bicarbonate of soda. In fact once particpants explained the reasons to school cooks, '*they're more understanding and they then try and get a bit of fruit in the sponge'*. Relationships with dietitians were important in supporting these changes in school cooks as they provided guidelines on types of food, and checked nutritional content of menus.

Children's involvement in SNAGs was a major success and children increasingly wanted to join. Examples of their work included a *'presentation on what they do as a SNAG group to the year 7s',* and organisation of an induction into the canteen:

> *Often they arrive and it's quite overwhelming and they just buy what the person in front of them has bought. It's just the menu and the prices, so that parents can see how much money they need to purchase a good meal.*

In this school SNAGs had enhanced the relationship with school cooks because children, rather than adults, had requested healthy options. Catering staff then reported to SNAG meetings indicating the high demand for healthy options and reduced sales of unhealthy foods from vending machines. Cooks were also considering obtaining certain ingredients in the kitchen before taster session were organised. Plans were made to offer children merits for choosing healthy options, which would contribute to points towards school trips. As one participant reported, children attended school council meetings where nutrition was explained and they could see for themselves the sugar content of cereal bars. As a result they stopped selling cereal bars in the tuck shop.

One of the important successes for course participants was the support they gained from dietitians for them to develop their role. Dietitians were readily available to provide advice, such as on menu changes or special diets, and were happy to deliver sessions in the community. Resources provided by dietitians such as food models were welcomed by participants, as were the CD, DVD and the Cymru Cooks Kit:

> *The resources I've had made available to me from dietitians has been fantastic. They're all on the end of the phone and they provided the food models for me to use with the kids.*

Course participants also found the course file useful and were using it in their teaching, for example, to compare food labels:

> *The file is superb, sometimes I go back to it now…, because I do assemblies and sometimes they have done nutrition action and I use a lot of what I've learnt on that course.*

Teachers had also found dietitians supportive in helping them to fight for extra time for personal and social education. Such comments testify to the importance of the dietitians' role in providing continuing support to course participants in the community.

At a more strategic level, course participants appreciated the support from the Welsh Assembly Government. This included the translation of the government website into Welsh which teachers referred to in their teaching, as well as various policies, such as the Food and Fitness policy, and Appetite for Life, which underpinned health initiatives.

Much of the success of the initiatives, however, relied on those involved cascading information, and participants described successful strategies they used to pass information on, as a result of their attendance on the OCN course (Box 4.4).

Box 4.4 Strategies introduced to pass information on

- Training of nursery staff by nursery manager
- Displays of nursery menus for parents
- Educating parents of nursery children
- Use information from file and food mats and models in teaching
- Taster sessions advertised and reported on at school assemblies
- Breakdown on Eatwell plate on school planner
- SNAGs produced a leaflet for the years 6s to take home
- Young people representing Food Matters have been in primary schools doing healthy eating - made fruit kebabs for charity and sold them
- Healthy schools section on school website which SNAG contributes to
- PSE lessons and peer mentoring
- Attend school council meeting and talk to children about basic nutrition and ask what they are selling at their fruit shop (e.g. cereal bars), then compare sugar content of different cereal bars.

Strategies to pass information on began as early as nursery, in which children were involved in making pizzas, pitta bread and flap jacks as part of their experiential learning. Nursery managers and cooks also conveyed information to nursery staff and parents and nursery staff, in turn, informed parents about updated menus. One nursery, displayed daily menus for parents to see:

> *They know we're trying to do our best for the children…, because they're influenced for when they get older …telling them what we're giving them – the fruit, and we try and tell them about the salts and the sugars'.*

One nursery manager had secured five places for the next OCN course. '*I didn't know that raisins were bad for them. I want my staff educated in that way. There's only 1-2 now who I can't wait to get on the course'.* Equally, information was conveyed *to* a nursery manager by a participant of the OCN course, as her manager was doing NVQ Level 4 and wanted to know what she had learned on the course.

In schools, the OCN course had also been an important source of information for participants and was impacting on how nutritional information was conveyed to children. Some participants used the OCN resources, as part of healthy schools days and festivals:

> *The children from primary schools come up to the high school and they do a couple of food activities and physical activities using the food mat and models.*

School nurses also contributed to these initiatives, and had '*pushed so much and given so much information to the children'* that they now needed to work with parents as well. They described how children approached them and '*say I had this in my packed lunch today, or when I went home yesterday I had this'.*

Another success reported by a COMMUNITY FOOD WORKER was a healthy eating club, which, although focusing on weight loss, involved healthy eating rather than fad diets and required one member to bring in a different recipe each week. The COMMUNITY FOOD WORKER involved was hoping that the group would become 'stand alone' after the project finished as numbers had increased over the past 7-8 months and they had '*completely changed their eating habits*'.

4.6.2 Challenges

Despite the success of the course, a number of challenges were also reported, most of which related to capacity issues (Box 4.5). The OCN course was demanding in terms of commitment, both for course participants and deliverers. For course participants, 10 sessions was quite a commitment if they had to take time from work. There was also a lot of information to absorb when handouts of additional 'optional' sessions were provided and discussed because they were relevant to all participants.

Box 4.5 Challenges reported by dietitians and course participants

OCN course delivery

- OCN course demanding in time for both deliverers and participants
- Pressure to deliver OCN courses within a tight timeframe
- Prioritising between course delivery and following up course participants in the community
- Lack of Level 1 and Level 3 OCN courses
- Workload involved in moderation and slow return of portfolios when moderated externally
- Monitoring of those who had completed Level 2, whether they need a refresher course or on-line forum

Early years

- Resistance from nursery staff due to personal preferences and budgetary constraints
- Lack of contact with parents by nursery staff
- Weaning children off processed foods due to inclusion of addictive additives
- Influencing parents, as many do not know how to cook
- The need providing healthy food within budgetary constraints

Schools

- Resistance from school staff due to excessive workload or lack of support from senior management
- Unsuitable catering and canteen facilities in schools
- Lack of teachers trained in home economics
- School staff are poor role modules due to unhealthy eating habits
- Diverse role for school nurses limits the amount of time they can spend on nutrition education.

Resources

- Lack of resource capacity to provide sufficient support to food workers
- Lack of support to help professionals working with families to set up healthy eating clubs
- Access to fresh food and culture of fast food industry

For dietitians, there was pressure to achieve results in a short time frame to correspond with the end of the Project funding period[11]. Core funding of dietitians to deliver OCN courses was therefore suggested:

[11] Projects were initially funded until March 2009, however the Welsh Assembly Government have since extended funding until 2011

> *Without Dietetic Grant Scheme funding it will prove difficult to maintain continued delivery [of OCN courses] as it will place pressure on other Community Dietitians, who are not employed by the Dietetic Grant Scheme, to carry on this good work. This raises the issue of whether there is an opportunity for Dietetic Grant Scheme dietitians to become core-funded.*

Pressure to achieve results also caused difficulty when prioritising between delivering OCN courses, following up those who had completed courses, and managing other aspects of projects. In one *case study*, 70 people had completed the course and needed to be followed up, but the next group was a priority, so '*we need a team as it's getting bigger so more funding needs to go into it so we can see health promotion becoming more integrated'.*

Once the courses were completed, the dietitians' role then involved supporting those who had completed the course so that they could set up their own projects including delivery of OCN courses. One dietitian was planning a networking day for those who had done OCN courses to ensure they, '*haven't interpreted anything incorrectly and also offer support and supervision'.* Another dietitian had visited all the after-school clubs*:*

> *You just see all these kids and they've eaten foods they've never seen before and one little girl told me she'd never tried a potato; she'd only eaten instant potato at home.*

For other dietitians, staffing issues caused difficulties with capacity. In one case, two food workers had started and left within the two year period:

> *Funds need to be available to recruit a food worker to establish and support the practical cookery clubs, and to support the work that has grown over the 2 years. Currently, supply within the dietetic services is being outweighed by the demands in the catchment area.*

One project had been *'unable to offer the Level 2 since the middle of September 2008 due to the departure of the Community Dietitian'*. These changes caused a number of disruptions. In one case, for example, the food worker was expected to collect and collate information pertaining to measuring the impact of the project in the wider community. This is because there is currently a '*lack of support to help health visitors, and other professionals who come into contact with young people and young families, to set up their clubs'.*

For other dietitians funding was needed for facilities, such as venues and ingredients for cookery clubs and facilities to enable people to deliver Cook and Eat sessions, '*as people want the practical work to complement the theory of the OCN'.*

Moderation and certification also presented difficulties. Significant delays in the development and moderation of courses resulted in some projects renegotiating contracts with other providers. Moderation was also demanding for some dietitians due to the high workload involved and it was hoped that they would soon become an accredited centre so they could moderate themselves. To ensure quality and a consistent approach, in some areas projects became involved with OCN Wales and developed local OCN working groups to share good practice.

The main problem, however, across all case studies was the availability of Level 1 and Level 3 'Community Food and Nutrition' training. Suitable organisations and individuals had been identified to deliver Level 1 OCN courses direct to the community, which will enable further cascading of information and development of skills whilst giving the opportunity to gain a qualification. However, at the time of reporting, no courses had been run. Similarly, the Level 3 course developed which would support others to deliver Level 1 OCN and increase the availability of training was due to be piloted. It must be noted, however, that teaching Level 1 OCN is not dependent on the acquisition of Level 3 if staff are already skilled (e.g. youth worker). Delays in the roll out of these initiatives were perceived to have hindered the plans of projects and partnerships, and this has put a strain on dietetic resources.

Another difficulty faced by projects was resistance, mainly from nurseries and schools. Dietitians deemed it important therefore that someone from each setting attended the course:

> *Staff will say 'where's the squash gone' …. They'll say it's a bit mean not to give crisps and chocolate. We've had real success with the staff who've come on the training and now understand why it's important for children's teeth etc. Traditional snacks of chocolate and crisps have all gone now and we've suggested alternatives they can give.*

Course participants confirmed that some nursery staff failed to encourage children to eat things like natural yogurt because of their own dislike for it; '*yet if you offer a child a sticker as a reward they will try anything*'. In one nursery, the dietitian was called in to persuade them to remove Angel Delight:

> *The dietitian came to discuss it with us and my employer and I was told that unless we gave up Angel Delight I couldn't carry on with the course, because of the hydrogenated fat in it.*

In some nurseries, cooks were particularly resistant and PARTICPANTSs worked hard to influence them, which was proving successful:

> *Waste was a problem at first from a business point of view. But I explained that children had to get used to it. When you're stuck in your ways and are used to giving children what they like, it's hard work and it can be a bit more expensive sometimes.*

Resistance of parents of nursery children was also a concern to course participants and it was thought that busy parents will find it hard to give fresh foods to children because it is difficult to wean them off processed foods due to their addictive additives. Participants from nurseries recounted how parents regularly bring in crisps and strong juice for children even though it is not allowed and often show little interest in their children's nutrition:

> *I said she'd had a nice meal today, and her mother said 'oh it doesn't matter we've got a McDonalds in the car.*

> *They come in a 9 am on the bus and go home at 5 pm on the bus and it's a job to even get basic information over to them about their child's day. I've tried with parents' afternoons and things, but they just don't take off.*

> *Parents say they're glad it's Monday because 'at least they'll eat for you; all we've had at home is McDonalds and pizza. They don't eat at home'. The mothers often say, what do you feed them in nursery and we say have a look in the book and they say they can't believe they eat that.*

Some nursery staff too were limited by cost and could only be convinced to introduce something new and unusual if there was no waste; they were working to a tight budget as businesses and staffing is expensive, *'so you do have to be sensible about it... I use frozen veg. It's a matter of keeping the cost down whilst also being healthy'.*

Parental attitudes were also problematic in school children, and there had been a complaint in one school about a burger van selling directly to children, although it was believed that this had now been stopped. As discussed by community members (cooking club parents), it can be hard when shopping on a budget because a bar of chocolate is only 30p. Added to this was the problem of encouragement by fast food outlets to purchase unhealthy food options:

> *When you go to McDonalds and buy a happy meal for £1.99 and you want water with it, they charge you 98p on top. But if you want a carton of milk with it or a Fruit Shoot with it, it's fine, or a milk shake or a coke, but for water they charge extra, which is wrong.*

The culture of fast food in fact was thought to be compounded by poor access to fresh produce due to lack of money or transport to obtain fresh food, as well as a poor knowledge base. The combination of these factors resulted in people buying what was advertised in the media and displayed on supermarket shelves:

> *Local prices are higher than in town, so people will find it easier to go to the fish and chip shop than to go and spend £4-5 on fruit/veg for the week, because some food would be wasted, particularly if working late and coming in at 9 pm when it's too late to eat….So lifestyles are another barrier.*

Overall, course participants believed primary schools were more successful in conveying healthy eating messages than secondary schools. Some participants believed this was due to the lack of choice given to primary school children over what they ate, only healthy food being available.

Dietitians and course participants alike also reported problems in schools, often due to teachers' excessive workloads and lack of support from senior management. Children are no longer taught home economics; teachers are no longer trained in food and nutrition and recruitment of suitably qualified teachers is difficult:

> *There are qualifications around to train teachers which are starting now with the curriculum change..., but unless you have someone from county education for your faculty telling your senior management team what they should be doing it won't happen.*

In one school, whilst the head teacher was on sick leave the deputy head teacher re-introduced '*corn snacks and biscuits because she thought children were hungry'.* The dietitian therefore offered a free place on the OCN course to the Learning Support Assistants, which resulted in new supplier for the tuck shop with all fruit-based snacks. Course participants also provided examples of teachers being poor role models, with salt always being present on the staff table:

> *The head teacher comes and collects two plates of chips and takes them back to her office and that's what the children see. The same school ensures that drinking water is available for children all the time, but won't let them have cups.*

> *They had a healthy eating week and children still observed teachers eating biscuits with their tea. They will say they need a treat. They should have enough intelligence. Whenever I go into a school the biscuit tin disappears.*

One participant believed such difficulties arose through lack of direction from education policy and that a link with the Local Education Authority was vital. In this particular case, the OCN course had been vital:

> *The OCN course has given food the best status in our school this year, but if I'm not able to get that support from education it's going to be difficult. … I've given my own time after-school but can't continue this. They'll say they haven't got the staff and they won't get any because there aren't any out there trained in food.*

In another school, the senior management team had not formally approved healthy eating changes and wanted to integrate the SNAG into the school council. This had been unsuccessful due to competing issues on the school council agenda:

> *Big organisational challenges need to be addressed before the SNAG stands a chance - for example catering and canteen facilities - the way the tills are set up creates a bottle neck so they can't get the children through in time; there's no staggered lunchtimes so they're trying to serve 1200 pupils in one hour.*

Other challenges in schools included practical and financial considerations, such as physical restrictions, demands of profit targets, and resources for Welsh translation. In one school, physical restrictions occurred at the point to sale, where all the food in one place caused congestion. Another school relied on vending because of the size of the canteen, whilst in a third the kitchen was not based on the premises. Financial targets also limited creativity of cooks:

> *They have about 40 seconds to serve each pupil, so children don't have a chance to see what's available – they're rushed through, and if you go into the canteen you see the person in charge counting money. …she's fed up… she wants to cook. One of the dinner ladies did do the OCN course and she benefited a lot from it.*

For school nurses, an additional limitation arose from their statutory responsibilities relating to smoking, sexual health, screening, and child protection. As most school nurses were responsible for between four and seven schools, group work would be necessary to deliver healthy food messages to parents. They considered that one session with a year group was insufficient as continuity is needed, which requires additional school nurses. *'If we had one school nurse for every school the impact would be significant'.*

4.7 Long term sustainability

Sustainability in the long term is important to the future development of dietetics projects and this requires the consideration of long-term funding of Community Dietitians' and community food workers, and provision of adequate training and physical resources to support these roles (Box 4.6).

4.7.1 Meeting the needs of nutrition education in nurseries and schools

A key role of many course participants was education of children in nurseries and schools and they emphasized the importance of educating children from an early age so that they will demand freshly cooked food at home and try different foods when they start school. One participant described how a parent asked her '*for the recipe for my fish pie because her children really like it'.* Nursery staff had therefore confiscated unhealthy snacks brought in by parents, as it was necessary to '*keep chipping away at it':*

> *You'll get them bringing a bottle of Coke for the child… We leave it in the child's box and let them take it back home again.*

In schools, children were already influencing what food was supplied and SNAGs had created the opportunity for them to try different foods and to be given a voice through surveys indicating their preferences. Some children, for example, had expressed a preference for '*tuna and sweetcorn baguettes rather than chocolate*'. It was therefore considered essential for catering staff in both nurseries and schools to attend OCN training to respond the changing preferences of children and to ensure consistency of healthy food messages. One nursery participant stated that this should be a Care Standards Inspectorate Wales requirement. Having sent 5 staff on the course, this participant had made many changes:

> *To have contact with the dietitians is great… We're working with dentists now and we've changed the beakers over to free-flow cups and we've told parents about this as well.*

4.7.2 Resource implications

OCN courses, however, have long-term physical and human resource implications in a number of respects. Most dietitians had resolved printing and administration problems identified in phase 1, although two were still doing their own photocopying, teaching preparation, and preparing files, as well as delivering training and attending meetings. '*It's a massive thing to do for one person'.* Overall, the consistent message was that centrally produced resources are needed to support projects as these would free up time for dietitians to support the *'cascade of learning from those trained and enable delivery of confidence to cook programme'.*

Box 4.6 Key messages for sustainability

- Educate children from early age (confiscate unhealthy snacks brought into nurseries by parents)
- Attendance of nursery staff on OCN course (make OCN course a CSIW requirement)
- Attendance of catering staff on OCN course
- Embed healthy eating into the curriculum
- Remove unhealthy foods from vending machines in schools
- Ensure children are given a voice through SNAGs
- Improve links between nurseries and schools in relation to nutrition
- More longer term funding needed to support some ongoing projects
- Influence people at a strategic level
- Partnership work to ensure consistency of nutrition messages from people in different fields (e.g. health and education) and to integrate initiatives.
- Rolling out of nutrition messages through community groups.
- Ensure adequate resources to support OCN provision (food models, centrally produced resources, allocated budget for production of resources).

Physical resource implications also arose for course participants once they had completed the OCN course as they had been introduced to initiatives that would later require resources. However, dietitians have limited resources to offer the amount of support required:

> *You show people something on the OCN and they say, that's a great idea, but then they haven't actually got a box of resources…. I had some really good youth workers who are just chomping at the bit to get out there and a CD to them isn't much good when they haven't got a printer and also have funding issues.*

Whilst dietitians were innovative in sharing existing resources for course delivery (such as food models and flip charts) the food models varied so much that they did not match the games. A standard set of food models would therefore be useful '*that we could buy at a reduced rate, which all schools and nurseries and school nurses could have so that they're using the same thing'.* One suggestion proposed was for resources to be the same for all OCN courses, with standard variations according to age groups, *'because there's differences in sizes of pieces of bread and fruit and what a portion is – so just trying to keep that education consistent'.*

Human resource issues were also raised by both dietitians' and course participants and are important considerations for long term sustainability. Dietitians' views regarding the

operation of their support role and the need to monitor and update course participants, was consistently found throughout the data. Indeed, reflective comments highlighted the need to support and monitor OCN participants *'to ensure that they utilise their new knowledge in their everyday roles'* and to provide ongoing refresher courses and training *'to ensure up-to-date consistent messages continue to be spread'.* However, some dietitians needed additional resources to help them to support other professionals in delivering healthy nutrition messages. The appointment of dietetics' assistants was seen as a positive move and whilst one *case study* respondent was still awaiting such an appointment, two expressed satisfaction that a dietetic assistant was now in post to assist the dietitian and provide Level 1 skills courses to the wider community:

> *Inclusion within the team of a project support officer has been very useful in terms of meeting the project aims and objectives. The skill mix encourages a responsive team able to drive forward training at multiple levels.*

Similar lack of human resource capacity beset course participants, some in schools being unable to deliver both nutrition and cookery skills in the time allocated because they '*have to deliver other things as well'.* School nurse participants explained that their role is wide ranging and includes nutrition education in addition to sexual health, child protection and first aid. In one case study, hand washing has been requested in primary schools from reception through to year 6, and this was considered unrealistic. Working with one primary school (rather than 7) was suggested as the way forward to meet the requirements of schools:

> *In comprehensive schools you can't deliver every single thing in depth to every single year group, and even if you …said two school nurses just do healthy eating, you'd then go from having seven primaries to cover to having 30 + primaries to cover and if a school nurse was based in a school you're just going to get fed up with first aid …we will be swallowed up by first aid.*

Some argued that the only way to meet the need for nutritional education was for a directive from government to ensure the embedding of healthy eating within the curriculum:

> *In schools, it's doubtful if they'll do it unless it's part of the curriculum… if they're aged 11-14 they should have some sort of cooking.*

Integrating nutrition into a new course on healthy life was proposed as one solution, particularly as a lot of children do not attend Guides and Brownies (where nutrition is commonly taught).

Such major changes in policy would require '*joined up thinking between Welsh Assembly Government, county catering, school staff, children and the catering staff'.* Links between nurseries and schools could be one way of transferring healthy food messages from nursery to school, as in one case, in which the nursery manager had told the local head teacher about the initiative and the head teacher had agreed to co-operate.

4.7.3 Long term roles

Future sustainability also relies on the long term roles of the participants, which some suggested should be strategic in nature; and one participant was planning to use her role with the '*Food and Health Strategy to get people from higher up in the council involved':*

> *We need to build up relationships with people first in order to change their minds with evidence, so they can see children using this experience in order to get somewhere in life... there is work that isn't necessarily being shared across the city, so projects in some schools need to be presented at one of the head teachers' conferences.*

Working strategically also involves partnership, which some participants believed could be used to improve the consistency of messages from people in different fields, such as health and education. Partnership work could also be translated to integrating existing initiatives, including food workshops (developed through Lottery funding) Cymru Cooks, OCN Food and Nutrition, Clued up on Food (for primary school age group) and Eating Healthily 1-2-3 (recipes and healthy food messages for teenagers).

Working with community groups was also cited as a way of rolling out healthy food messages and some of those involved had completed OCN training. Some community groups suggested included: food co-ops, cooking clubs, cooking with parents, allotment groups, and cooking with Brownies, Scouts and Guides. Produce from the cooking clubs could then either be consumed on site or at home and produce from gardening sessions could be used in after-schools clubs:

> *I am confident that with the food co-op, café and healthy eating club, healthy options with children at the crèche, there's enough there to roll out.*

> *Students want to know about nutritional content of food and want labels on food they can purchase on campus. Healthy outlets are becoming attractive to teenagers.*

School nurse and community based participants also stressed the need to provide sessions on healthy eating on a budget for parents:

> *Work together with families, children and parents… cooking workshops. Engaging the parents, the kids would love it and peer pressure would bring others along too…. I have parents who can't read and write and I'd love to do cooking groups with them – picture menus and engage parents.*

Community Food Workers were perhaps the group with the widest remit of future roles in nutrition (Box 4.7). One, for example, was liaising with the dietitian and setting up an expert panel:

> *We will be picking up things from the OCN course, so that we can make sure that all staff have the appropriate OCN training. We'll also be looking at how we can link in with Cymru Cooks work as well and producing our own materials.*

Box 4.7 Examples of future roles of Community Food Workers

- Recruit cooks to Cymru Cooks
- Food co-ops, plus target those who do not know how to cook the vegetables with cookery classes
- Instigate a community allotment group… put together a local farmers or allotment market to supply the food co-op and café with home grown produce- Plant it, Grow it, Eat it
- Mentoring scheme in the community to mentor volunteers to enable them to work with young people in relation to healthy eating
- Cooking classes after-school
- Deliver Level 1 OCN and cooking skills to parents
- Work around 'healthy friends' – a buddying model – 10-11 year olds are teaching 7-8 yr olds in after-school clubs
- Training to volunteers to develop their skills in nutrition and the values of it
- Work with college/university students to teach them about different food groups and cooking skills

Lack of long term funding, however, was already limiting the amount of support that participants could provide within their community settings. One illustrated this with the termination of the subsidy to a local café when the funding period came to an end. They had

been subsidising the café for 2 years, offering a free food initiative – a piece of fruit with each meal, or free range eggs. According to this participant, as a consequence of the withdrawal of funding, some initiatives ceased due to the cost:

> *It is important for people to become independent and to roll initiatives forward themselves, once they had been set up….The allotment will have an effect on the whole village by providing food for the co-op and café and farmer's market.*

5 Discussion of key findings

This section of the report reflects on the key findings from the evaluation. The findings reflect the views of dietetics professionals and those who attended the courses provided by dietetics professionals with a view to enhancing their knowledge of nutrition so that they could cascade this information within the communities in which they worked and members of the communities in which they work.

5.1 Delivery of initiatives and courses

A vast number of courses and events were delivered - 220 by September 2008 –most being over-subscribed. During 2007/8 at least 5,000 individuals attended courses and events delivered by dietitians. OCN courses in particular generated over a thousand enrollments of which 97% completed successfully. Course participants included health and community professionals, volunteer groups and community members, thus increasing the food and nutrition knowledge amongst community workers. This was an important outcome as it was specified as a medium-term goal of the grant scheme (WAG, 2006; Appendix 1). This multi-disciplinary mix created networking opportunities, which enabled participants to access different facilities. Participants valued the recognition of the OCN qualification, which for some enhanced their future job prospects.

Courses were delivered flexibly to accommodate participants' work, educational and personal commitments, and this was appreciated by trainees. Course participants also valued the demonstrations and course materials (e.g. package, websites), which promoted their skills to enable them to cascade information using similar teaching methods. Collection of data on key messages learnt from the course revealed that participants now felt equipped with appropriate knowledge, confidence and techniques to deliver healthy food messages within their own settings.

5.2 Partnership work

One of the short-term goals of the grant scheme (WAG, 2006; Appendix 1) was for dietitians to develop links with other programmes and partnerships and by September 2008, 184 separate partnerships were recorded. Most were local and included NHS, public health, and Local Authority departments. Some partnerships were within dietitians' own service and enabled them to share good practice. Nearly half of the recorded local partnerships were strategic in nature, concerned with development of local strategy, policy and standards. Others were concerned with developing initiatives, providing training, or promoting the food and nutrition project, and providing a forum to facilitate information exchange. Whilst it must be acknowledged that many of these partnerships were not developed by the programmes themselves, dietitians were proactive in accessing and influencing these partnerships, as well as encouraging the development of other types of partnership, such as SNAGs.

Partnership work enabled dietitians to become involved in many different initiatives run by other projects/organisations, often in an advisory capacity where initiatives required nutritional input. Involvement with such initiatives provided dietitians with opportunities to promote OCN and other courses, thus enhancing recruitment.

5.3 Supporting and developing other initiatives

Dietitians developed, delivered and managed initiatives, such as non-accredited training, roll-out of the Gold Standard Snack Award Scheme (developed in Camarthen) in childcare settings, a peer-led nutrition project in schools and School Nutrition Action Groups. They also advised on the development of other initiatives and resources, as well as on impact assessment, and implementation of local policy. Dietitians thus became an important resource of specialist knowledge, both strategically, and practically when advising on content of menus and cookery packages. They also participated in community and work-based events, such as in schools and colleges, and were involved in SNAGs, Snack Award Schemes and Cymru Cooks.

5.4 Impact of programmes

The programmes had an impact at different levels – the organisational (strategic) level, the individual course participant level and the wider community level.

5.5 Organisational (strategic) impact

At the organisational level, partnership working was beneficial to long-term sustainability and this was consistent from all the data sets and interviews. Much of the organisational impact resulted from partnership working, with alliances increasing throughout the duration of programmes. Nutritional expertise of programme dietitians was drawn upon widely across partnerships at a strategic level, and dietitians were enabled to access target groups within their organisations and networks. Through their association with different initiatives dietitians strengthened their networks, which improved partnership work. This in turn led to sharing of information, opportunities to cascade training and nutritional information, and for programmes to inform strategy and policy. Crucially, there was evidence of dietitians' work being embedded into the strategic plans in various health and social care settings and there is potential for this to continue further.

5.6 Impact on course participants

Responses to questionnaires distributed by dietitians revealed that 94 percent of course participants had acquired new learning from the course and 85 percent intended to or had already changed their behaviour. Changes made included more balanced diets with fewer snacks, more fruit and vegetables, fluids and fibre, and less fat, salt and sugar, snacks and fizzy drinks. They had also learned many new recipes and how to adapt them.

There was therefore an increase in the number of community workers delivering food and nutrition training to 0-25 year olds, as required by the grant scheme (WAG 2006; Appendix 1). They used information from the OCN course to encourage others to have healthy diets through a range of activities and also making changes to menus and foods offered. In this way they transformed dietary provision in schools, pre-schools, after-school clubs, hospitals, children's homes and community settings (discussed further below). Youth and leisure services also became more aware of the value of nutrition in their role, with youth workers organising food co-ops and working with Communities First on 'Get Cooking' initiatives. In this respect the scheme has been successful in meeting the requirements of the five-year Food and Fitness implementation plan (WAG, 2006), which emphasises the need for changes in schools, including healthy eating vending machines and innovative ways of teaching nutrition/cookery skills to children and parents.

5.7 Community impact

At the community level, partnerships enabled programmes to respond to local need and to improve access to quality, targeted, nutritional training and education in communities. Partnership working also resulted in enhanced nutritional awareness and improved cookery skills in communities, schools and colleges as well as a greater range of nutritional resources being available for community events. All this impacted on the eating behaviours of families through cascading of information.

Course participants influenced the communities they worked with, such as pre-school providers, schools, hospitals and the community. They also disseminated information to older people participating in a walking scheme and through their work with community groups, such as Communities First and a young people's football club. Having attended the OCN course and been involved in Snack Award schemes, child minders and play workers changed the eating habits of young children and gave advice to parents. Many participants delivered healthy eating messages in schools using experiments and games. Others impacted on schools through their work in school catering. Course participants also influenced the eating habits of relatives and young people. As in similar programmes reported in the literature (Kennedy *et al* ., 1998) such an approach reached a much larger number of the public than the dietetics service would have been able to do alone, and the feedback from those affected testified to its effectiveness.

The impact on the community was illustrated in various changes, including provision of children's snacks and drinks, cooking regimes and recipes to facilitate healthy eating. Teachers were including nutrition in schemes of work and children were becoming increasingly involved in SNAGs and were taking responsibility for influencing school menus. Whilst it is not possible at this early stage to assess the impact on cost to the health service - specified as a long term goal of the scheme (WAG 2006; Appendix 1) – there is every possibility that changes taking place at the various levels of food provision, together with changes in eating behaviour of children and young people, if maintained will ultimately reduce the burden of nutrition related illness in the long term.

5.8 Successes and challenges

Many successes as well as challenges were reported from the programmes. The most salient success was the OCN course, due to its cost effectiveness, its flexibility, its contribution to the knowledge and confidence of course participants and the effectiveness of the course resources. Good progress was made in reaching target

groups, with changes in eating behaviour already evident in course participants and information being passed on to the communities with whom they work. This had already resulted in changes in food provision and pre-school, school and after-school settings, with resultant changes in eating behavior. The medium-term goal of the grant scheme relating to increasing the number of 0-25 year olds receiving information on healthy eating was therefore achieved, as was the long term goal of changing the dietary behaviour of 0-25 year olds (Appendix 1).

As course participants were often indigenous to, or had professional roles within the communities they served, they were familiar with the local culture and the organisational elements of their community, which, as reported in the literature would have enabled them to reach and mobilise members of the community (Brownstein *et al.*, 1992; Earp *et al .,* 1997; Eng & Young, 1992). Dietitians were proactive in sharing resources with course participants, enabling them to disseminate information further. There was increasing emphasis on work in community settings and the success of SNAGs, 'Get Cooking'and some similar initiatives. Innovative ways of growing vegetables were also reported.

The main challenges to arise seem to relate to resources, which affected a wide range of staff from different disciplines. Dietitians experienced the challenges of meeting the increasing demands for OCN course delivery, whilst also providing the much needed support for course participants in their community settings. The workload involved in moderation of courses was also demanding and moderation was often slow. Dietitians also reported frustration at the lack of Level 1 and Level 3 [12]OCN courses, which delayed future progress. Whilst it was unrealistic for Level 3 provision to be available, the vociferous nature of their views on this subject testifies to their enthusiasm in seeking opportunities to further advance the education of course participants, with a view to future sustainability of programmes.

[12] Level 3 OCN provision was not part of the Dietetics Capacity Grant Scheme and had been instigated later as a pilot. It was not possible therefore to implement this as quickly as dietitians would have liked.

Resource challenges also arose in community settings. Course participants, who were often community workers, had to meet the demands of their existing role, which sometimes did not allow for the inclusion of delivery of nutritional information to their client groups. The need for delivery of nutritional education in schools, for example, is high and yet the various professionals who work with school children already have demanding roles. There is often too little time within the school curriculum for nutritional education to be taught and children are no longer taught home economics – indeed few teachers are trained to teach food and nutrition anyway. School nurses are often considered to be ideally placed to fill this much needed gap. However, they were unable to deliver the level of nutritional information required within their existing wide-ranging health promotion role. Although school mealtimes would be an ideal time to influence children's food preferences, school cooks often did not have time to speak to children.

The cost of the course and of purchasing equipment was also an issue for NHS Trust staff. Budgetary constraints within nurseries and schools often resulted in resistance on the part of staff to make necessary changes in menus.

Delivery of Level 1 and Level 3 OCN was an issue of contention as it was reported consistently that both Level 1 and Level 3 courses were desperately needed but were under development and not available at the time of reporting. The Level 1 OCN course is a food and nutrition skills for community workers. The Level 3 OCN course is a 'training the trainers' course, which, at the time of reporting was still being piloted as it was not officially part of the Dietetics Capacity Grant Scheme. Whilst professionals with appropriate community education experience can deliver Level 1 without completing Level 3, those without such experience are required to complete the Level 3 OCN course before they can teach Level 1. The current lack of availability of a Level 3 course for this group was a source of frustration for some of these participants.

Although dietitians are still required to deliver some components of the Level 1 Community Food and Nutrition course, the availability of this course was deemed to be essential to free up dietitians' time to enable them to develop future initiatives, to provide support to past participants, and other local developments. This imperative to devolve responsibility for some of the dietitians' roles to appropriately trained community staff, is consistent with other research, and has been shown to be very effective when trying to engage communities and partners in activities, so that dietitians

can focus on managerial and strategic responsibilities (Lowe & Barg, 1998; Kim *et al.*, 2004).

Having completed the course, the main challenges faced by course participants included the cost and marketing of processed food, which promoted a culture of not cooking using fresh foods, and of not introducing healthy foods to children at an early age. This challenge combined with the difficulties in influencing parenting skills and lifestyle factors, as some people do not have the facilities or the wherewithal to have a healthy diet (Anderson *et al .,* 1996; McGlone *et al* ., 1999). Expectations were also prevalent, such as obesity being a barrier to attending a gym and age being an excuse not to eat healthily. As reported elsewhere (Kennedy *et al .,* 1998; Kennedy *et al* ., 1999), provision of cookery classes was becoming increasingly effective in addressing these issues.

6 Conclusion and recommendations

The evaluation of the Dietetics Capacity Grant Scheme has drawn on a wide range of data from dietetic professionals, food workers, course participants, and statutory and voluntary groups. The findings reveal how the scheme has been very effective in improving the nutritional health of communities, which has been achieved through partnership activities and cascading of information learned from OCN courses and other events. There is evidence of dramatic changes in eating habits of course participants and their families and in the culture of food provision in nurseries, schools and after school provision.

Dietitians and course participants alike had many plans for the future to ensure sustainability in the long term. As might be expected, dietitians' plans involved teaching Level 3 OCN and supporting and monitoring course participants once they had completed the course. They also intended to strengthen existing partnerships and to work with various initiatives, including SNAGs and the Snack Award Scheme, Flying Start, allotments and Fun with Food. Course participants were also developing new roles as they developed confidence. Their future plans included development of food co-ops, contribution to food growing initiatives, delivery of Level 1 OCN, mentorship roles and training of volunteers.

A strategic approach was suggested to ensure future sustainability of public health nutrition services. Primarily, adequate resources were considered necessary, in the form of longer term funding to support some ongoing programmes in order to enable them to

develop into core services. In particular, the need for a permanent dietitian role as part of public health team was emphasized. Part of the role of this dietitian could be to bring partners together and facilitate other projects to take on food and nutrition. This in turn would ensure integration of food and nutrition across different services, thereby facilitating a change of culture around food. As an ongoing process, dietitians would also need time to organise annual network events to update community food staff on changes to nutrition policy and to promote further development and monitoring of programmes.

Resources were an important issue to arise throughout the project. The main human resource problem arose from a lack of dietetics capacity to respond to the high demand for provision of OCN courses and to support course participants in their professional roles once they had completed the course. The Community Food Worker role is crucial for future sustainability of initiatives and their role could include delivery of OCN Level 1 courses, provision of cooking skills classes, and work with community initiatives, such as allotments and food co-ops. However, there would still need to be sufficient Community Dietitians to run OCN Level 2 and 3 courses and to supervise support workers. The provision of OCN Level 1 and Level 3 courses was considered to be one of the most important considerations to be addressed as the programmes moved forward. For programmes to be sustained in the future, the findings suggest that course participants who have completed Level 2 OCN courses (and who do not possess the appropriate professional experience) should be able to progress to Level 3 and then to teach Level 1. This would free up dietitians' time to teach Level 3 courses and support and monitor staff in the community.

Strategically, it was also proposed to increase partnership work to ensure consistency of nutrition messages from people in different fields and to integrate initiatives. This would include closer links between health and education, and between nurseries and schools in relation to nutrition. Such partnership work and integration, would, in the long term, ensure the rolling out of nutrition messages through community groups.

At a more local level, changing the culture around food requires changes within early years and school settings. To this end there was a consistency across the various data sets that children need to be educated from an early age, and that unhealthy snacks need to be removed from all nurseries and schools, including vending machines. It was

also considered essential to embed healthy eating into the curriculum, and part of this process would include involving more children in SNAGs.

Delivery of OCN courses was also seen as key to future sustainability, and for long term success, a network of trainers is needed to deliver training as people leave. Selection of appropriate course participants is also crucial and should include all nursery staff and school catering staff. Furthermore, having completed the course, OCN participants require long term monitoring and support to ensure consistency of nutritional messages in the future.

6.1 Recommendations for future sustainability

From the evaluation and reflective comments of participants interviewed a number of recommendations can be put forward to ensure sustainability of the programmes and continued impact long term. These are as follows:

6.1.1 Strategic

- Recognise and utilise the public health role of dietetics on a permanent basis.
- Develop a network of trainers to deliver training.
- Consider making the OCN in food and nutrition a required qualification, particularly in early years' settings and schools.
- Consider appointing more school nurses - if one school nurse was attached to each school this would make a considerable impact.
- Ensure nutritional education is included in the school curriculum.
- Provide training for teachers in food and nutrition.
- Provide long term monitoring and support to ensure consistency of nutritional messages in the future.

6.1.2 Early Years, schools and community settings

- Develop the role of Community Food Workers further to include delivery of OCN Level 1 courses, provision of cooking skills classes, and work with community initiatives, such as allotments and food co-ops.
- Educate children from an early age, and ensure an environment that promotes uptake of healthy food and drinks.
- Embed healthy eating into the curriculum, and include children in this process through involvement in SNAGs.
- Recruit support workers as core staff as an ongoing process and with appropriate supervision.

- Provide ongoing support to community staff on changes to nutrition policy and promote further development and monitoring of such work.
- Integrate food and nutrition across different services, thereby facilitating a change of culture around food.
- Continue development of OCN courses through Levels 1 to 3 to enable cascading of delivery through the community.
- Increase partnership to ensure consistency of nutrition messages from people in different fields and to integrate initiatives. This would include closer links between health and education, and between nurseries and schools in relation to nutrition.

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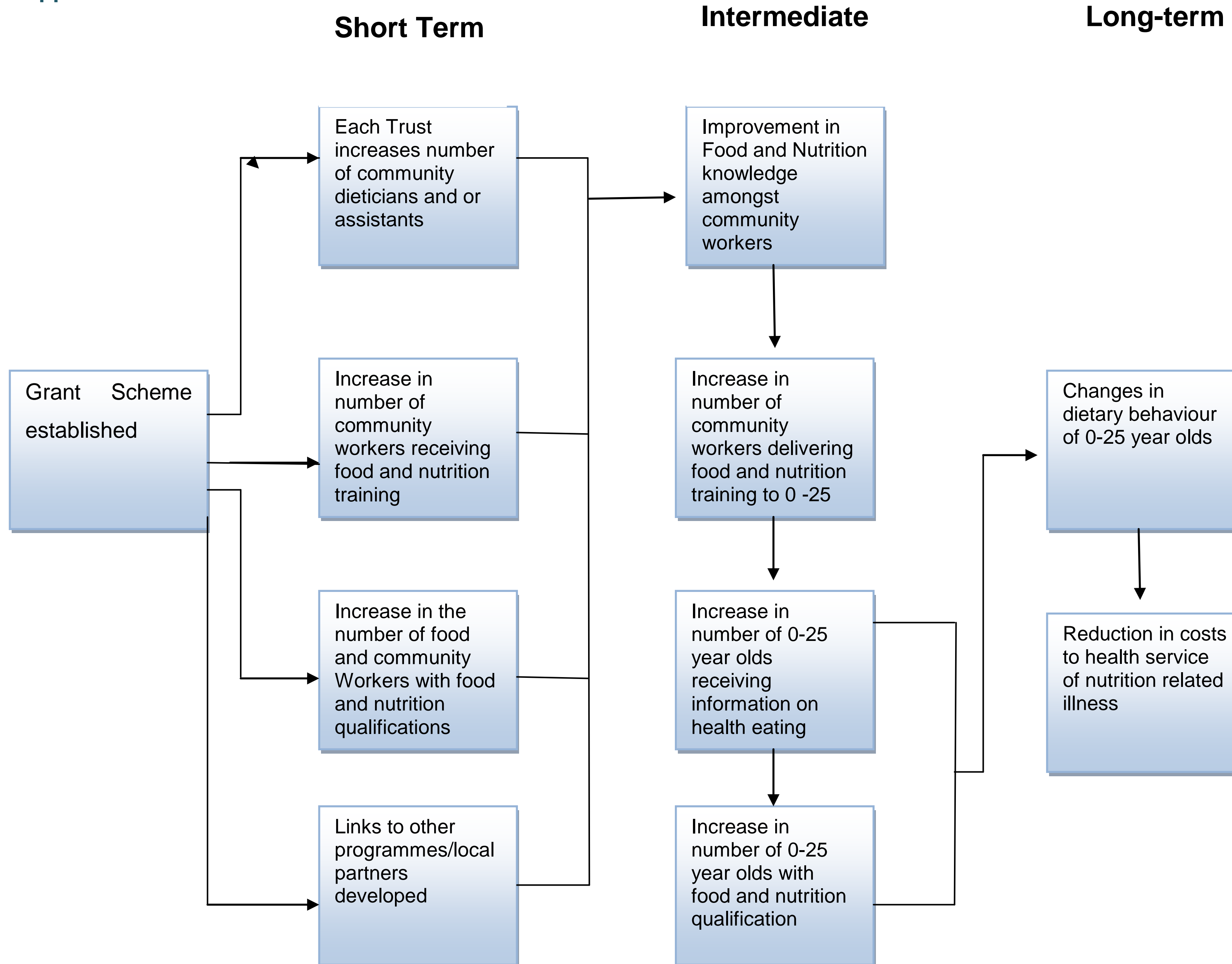
Appendix 1: FlowChart



Appendix 2 - Minimum data set proforma

Diet and Nutrition Grant Scheme. Evaluation Template: Reporting period 3: 1st July 2008 – 30th September 2008. Reports due 1st November 2008 (electronic submission is requested)

This document provides guidance and a template to enable you to produce a summary of your projects progress. The information you give will feed in to the overall evaluation we are undertaking for the Welsh Assembly Government, and also will be useful for your own reports.

The content of the template is based upon the information you gave us at the Networking event and is split into three sections which relate to the overall aims of the scheme.

Section 1: Delivery and organisation,

Section 2: Impact and perceptions of training

Section 3: Impact on the community.

This is a summary of evaluation you have collected therefore we do not expect reports to overly detailed, the form may seem long, however it in landscape view and contains a number of tables into which information are to be inserted.

At the networking event you requested common questionnaires which could be used to support your evaluations, these comprise training evaluation questionnaire (1) and follow up questionnaire (2). A further two questionnaire were developed to gather feedback from community members (questionnaires 3&4).

Section 1: Delivery and organisation

Project title:

When did your project start?

Delivery of training

Description of training delivered in reporting period 3 (1st July 2008 – 30th September 2008). Please provide details below, using a separate row for each separate piece of training and any follow-up sessions you might have held

Title and short description	Duration of training course	Frequency of sessions (e.g. once per week, one-off etc)	Length of sessions	Is the training Accredited?	Training model used e.g. Level 1, 2, 3	Target group (e.g. Food Workers, community workers, health professionals etc)	Which groups attended this training?	Number of men & women?		Number who started the training course	Number who completed course
								M	F		

Delivery of training

In addition to actual delivery of OCN accredited courses, the project dietitian provides support and one-to-one tutorials for those that require additional help.

The project have also developed a database of learners to keep track of all learners that come through the scheme to assist with evaluation, follow up and ongoing support.

Recruitment issues

What, if any difficulties have you had in recruiting course participants? What action have you taken to address these difficulties? . If course delegates have dropped out, what are the main reasons which have been given? .

What other initiatives have you been involved with?

In this section we are interested in other initiatives (such as Breast feeding, Inequalities in Health projects, attending a health fair etc) that you may have been be involved in reporting period 3 (1st July to 30th September) and the impact (if any) this has on your own project, these might be positive or negative. Please do not include partnerships in this section *(Please provide brief details below, using a separate row for each)*

Name of individual/initiative/ organisation	Description of the initiative	What impact has this on your project?	What impact has this on the community?

Working in Partnership with other organisations/initiatives

We are interested the partnership you may have formed (or are developing) during reporting period 3 (1st July 2008 – 30th September 2008). Partnerships could be with individuals, other initiatives, organisations as well as with other departments within your own organisation the impact this has had on your project. Impacts, if any, might be positive or negative.

Name of individual/initiative/ organisation	What is the nature of partnership?	What impact has this on your project?	What impact has this on the community?

Please add more rows as required

Section 2: Impact and perceptions of training

We have developed two questionnaires for participants of training, which you can use. These are: the course evaluation questionnaire (questionnaire 1) and course follow up questionnaire (questionnaire 2).

You might want to collect information from every participant or decide to take a sample. However we don't want to be too prescriptive here as you will know what is feasible in terms of your own project. For example, it might not be practical to follow up delegates who have had a half day of training, but if you plan follow-up training or networking events these would be an ideal opportunity for you to collect data.

We do not want to see the completed questionnaires. Rather, we would like you to provide us with a summary of the information you collect, using the matrix below. Should you need any help and advice, about setting up a data base, analysis etc please contact us.

Total number of questionnaires distributed and returned up to 30th June 2008	Number of Course evaluation questionnaires distributed__)___ Number of Follow up questionnaires distributed__	Number of Course evaluation questionnaires returned__ ____ Number of Follow up questionnaires returned
Number of participants who believed that they had learnt something about food and nutrition that they had not known before?		
What were the **3** most frequently reported things that people rated as being the most important thing learnt from the course? *Identify main themes and summarise by using the number of occurrences e.g. effect of too much salt n=67*		
Following training did participants intend to change their own diet? *This information would be available from questionnaire 1*	Number Yes __ No____	

Nature of changes made by participants of training *Identify main themes and summarise by using the number of occurrences e.g. effect of too much salt n=67*	▪	
Which groups have participants of training disseminated this knowledge to? *This information can be obtained from the follow up questionnaire and diaries*	▪	▪
How have participants of training used the knowledge learnt from the course in their work? *This information can be obtained from the follow up questionnaire and diaries*		▪
Observed impact of the training on community members	▪	

This information can be obtained from the follow up questionnaire and diaries		
Overall, how did participants rate the training? *This information is available from questionnaire 1*	**Number** Very Good __ ___ Good _______)_________ Poor ________________ Very poor ____________ Can't say _____________ ▪	

What improvements if any were suggested? *(info obtained from questionnaires no.1 and follow-up interviews)*		

Section 3: Impact on the community

This is probably the most difficult aspect of the project to evaluate, as not all of you have direct community contact; however some of this information could be gathered at networking events which you might hold with recipients of training, contact with parents, schools, partner agencies etc. As well as your own observations (this is where a diary comes in useful) you could use information obtained from the training follow up questionnaire (questionnaire 2), if used, and also service users' questionnaire (questionnaires 3 & 4). f the project does not have any direct community contact these could be distributed by some of your training recipients or partner organisations. Obviously you need to keep the evaluation in perspective, and it would be wise to identify a sample as this will prevent you being overwhelmed with questionnaires etc.

What activities have been delivered in the community, by training participants? e.g. Healthy snack scheme etc ? *It would be useful to also include number of activities and participants if known. However, we acknowledge this information may not be easily available for some projects*

Total number of questionnaires distributed and returned up to 31st October 2007 *Response rates are likely to be lower, especially as you may be reliant on others to collect the data on your behalf*	Number questionnaire (3&4) distributed______________	Number of questionnaire (3&4)returned ______________
Sex of respondents (*Information to be obtained from Questionnaires 3&4)*	Male ____________________ Female __________________	
Employment status (*Information to be obtained from Questionnaires 3&4)*	Full time _______________ Part time _________________ I don't go out to work______	
Age of respondents (*Information to be obtained from Questionnaires 3&4)*	16 years or under __________ 17 – 25 _____________ 26 – 49 _____________ 50 – 70_____________ 71 or over _____________	
Ethnicity (*Information to be obtained from*	White _____________ Black Caribbean ______________	

Questionnaires 3&4)	Black African_______________ Black other _______________ Indian ________________ Pakistani _______________ Bangladeshi _______________ Chinese _______________ Other group _______________
Number of participants who believed that they had learnt something that they had not known before? *This information will be from questionnaires 3&4*	Number Yes _______________ No________________
What were the 3 most important things that people learnt about diet and nutrition? *Identify main themes and summarise by using the number of occurrences e.g. effect of too much salt n=67*	

<table>
<tr><td>Following training did participants intend to change their own diet?</td><td>Number
Yes ______________
No_______________</td></tr>
<tr><td>Following training did participants intend to change their families diets Information available from questionnaire 3</td><td>Number
Yes ______________
No_______________
Not applicable______</td></tr>
<tr><td>What changes did they intend to make to their diet? This information is available from questionnaire 3.</td><td>
<table>
<tr><td>Number of responses to each question and option</td><td>I intend to eat more of these foods</td><td>I intend to eat less of these foods</td><td>I do not intend to change</td></tr>
<tr><td>Fruit, Salad and vegetables (not potatoes)</td><td></td><td></td><td></td></tr>
<tr><td>Starchy foods such as bread, potatoes, rice and pasta</td><td></td><td></td><td></td></tr>
</table>
</td></tr>
</table>

	Sugar and sweet foods, such as cakes, biscuits, sweets and soft drinks of diet			
	Fatty or fried foods such as crisps, chips or pies			
	Fish – not fried			
	Chicken and other lean meats			
	Full fat dairy products such as cheese, milk, butter, cream			
Did participants change their own diet? *This information can be obtained from questionnaire 4*	Number Yes _______________ No________________			

What changes did they make to their diet? *This information is available from questionnaire 4.*	*Number of responses to each question and option*	**I now eat more of these foods**	**I now eat less of these foods**	**I have not changed consumption**
	Fruit, Salad and vegetables (not potatoes)			
	Starchy foods such as bread, potatoes, rice and pasta			
	Sugar and sweet foods, such as cakes, biscuits, sweets and soft drinks of diet			
	Fatty or fried foods such as crisps, chips or pies			
	Fish – not fried			
	Chicken and other lean meats			

	Full fat dairy products such as cheese, milk			

What other behavioural change has been observed? *This information could be from your own observations and discussions, or extracted from the training follow up questionnaire (questionnaire 2)*	
What support has been offered to community members to help them make this change? *This could be by you, or by community food and other workers. This information could be obtained from your diaries and questionnaire 2*	

Overall, how did community members rate the training? (*Information to be obtained from Questionnaires 3&4)*	**Number of responses** Very Good ___________ Good ________________ Poor ________________ Very poor ____________ Can’t say _____________
What improvements if any were suggested? (*Information to be obtained from Questionnaires 3&4)*	

Section 4:Dietitians Reflections

Appendix 3 - Evaluation questionnaires used by Dietitians

Dietetics and Nutrition Grant Scheme: Post Course evaluation questionnaire 1

This scheme is funded by the Welsh Assembly Government. The aim of the scheme is to enable Community Food Workers and Community Workers to deliver accurate information about food and nutrition.

EACH PROJECT CAN PERSONALISE HERE

To help us find out what you think about the course you attended we would be grateful if you could take a few minutes to complete the questionnaire and return it in the box/ envelope provided **(customise this according to your project)**. Questionnaires are anonymous. However, the information you provide will be summarised in our interim and annual reports to the Evaluation Team, commissioned by the Welsh Assembly Government, based at Glyndwr University Wrexham

Course title

Length of course

Date

First a few questions about the course

1. Did you learn anything about food and nutrition that you had not known before? (Please tick one)

Yes ❒

No ❒

2. Was there anything, which was not included in the course, which should have been?

Yes ❒

No ❒

Don't know ❒

3. If yes, what was this? (Please use the space below)

4. As a result of what you learnt on the course are you going to make any changes to your own diet?

Yes ❒

No ❒

5. If yes, what changes do you intend to make? *(Please use the space below)*

6. Please tell us below how you will use the information learnt in your own work? *(Please use the space below)*

7. In your opinion what was the most important thing you learnt from the course? *(Please use the space below)*

8. Overall, how would you rate the course? (Please tick one only)

Very Good ❒

Good❒

Poor ❒

Very poor ❒

Can't say ❒

9. Could the course be improved in any way?

Yes ❒

No ❒

Don't know ❒

10. If yes, what would you suggest?

11. What is your role?

A community food worker ❒

A Community worker ❒

Nursery/ Early years professional ❒

School catering professional ❒

Health visitor/ midwife ❒

Something else ❒

Please specify

____

If you have any other comments, please use the space below?

Thank you for your help

Dietetics and Nutrition Grant Scheme: Course evaluation questionnaire 2 (Follow up)

This scheme is funded by the Welsh Assembly Government. The aim of the scheme is enable Community Food Workers and Community Workers to deliver accurate information about food and nutrition.

EACH PROJECT CAN PERSONALISE HERE

To help us find out what you think about the course you attended we would be grateful if you could take a few minutes to complete the questionnaire and return it in the box/ envelope provided **(customise this according to your project)**. Questionnaires are anonymous. However, the information you provide will be summarised in our interim and annual reports to the Evaluation Team, commissioned by the Welsh Assembly Government, based at NEWI (North East Wales Institute of Higher Education).

Course title

Length of course

Date

First a few questions about the training

1. As a result of attending the course have you made any changes to the way you eat?

Yes ❒

No ❒

If no, go to Q3

2. If yes, what changes have you made?

3. Please give examples of how you use the information learnt in your own work?

4. Using the space below please list the groups to whom you have given food and nutrition information? E.g. Mother and babies etc

5. What, if any, problems have you had when passing on food and nutritional information?

6. How was this resolved?

7. Has the food and nutrition skills/information had any impact on the groups you work with?

Yes ❒

No ❒

Don't know ❒

8. Please provide an example of any changes in behaviour, attitude, skills etc in the groups you work with, that you have noticed, as a result of giving information about food and nutrition.

9. What is your role?

A community food worker ❒

A community worker ❒

Health visitor, Midwife or other health professional ❒

Nursery or Early years professional ❒

School catering professional ❒

Some thing else ❒

Please specify

____

10. If you have any other comments please use the space below

Thank you for your help

Dietetics and Nutrition Grant Scheme: Evaluation questionnaire 3

The scheme is funded by the Welsh Assembly Government. The aim of this is to help increase community knowledge about diet and nutrition.

EACH PROJECT CAN PERSONALISE HERE

To help us find out what you think about the session(s) you attended we would be grateful if you could take a few minutes to complete the questionnaire and return it in the box/ envelope provided **(customise this according to your project)**. Questionnaires are anonymous. However, the information you provide will be summarised in our interim and annual reports to the Evaluation Team commissioned by the Welsh Assembly Government and based at NEWI (North East Wales Institute of Higher Education).

This questionnaire is developed for one-off sessions and very short courses when follow up would be difficult

This questionnaire is for community members

Name of Course/Session

Date

Length of Course/session

First a few questions about the course/training session you attended

1. Did you learn anything about food and nutrition that you had not known before? (Please tick one)

Yes ❒

No ❒

2. In your opinion, what was the most important thing you learnt about food and nutrition?

3. Overall, how would you rate the session/course? (Please tick one only)

Very Good ❒

Good❒

Poor ❒

Very poor ❒

Can't say ❒

4. Could the course be improved in any way?

Yes ❒

No ❒

Don't know ❒

5. If yes, please tell us how?

6. Would you say that you currently eat a healthy diet?

Yes ❒

No ❒

Don't know ❒

7. As a result of the course/training session are you going to make any changes to:-

What you eat	What your family eats
Yes ❒	Yes ❒
No ❒	No ❒
(*if no please go to Q 9*)	Does not apply ❒

8. Please look at the list of foods below and indicate for each, by ticking the box, where you intend to make changes

	I intend to eat more of these foods	**I intend to eat less of these foods**	**I do not intend to change**
Fruit, Salad and vegetables (not potatoes)	❒	❒	❒
Starchy foods such as bread, potatoes, rice and pasta	❒	❒	❒
Sugar and sweet foods, such as cakes, biscuits, sweets and soft drinks	❒	❒	❒
Fatty or fried foods such as crisps, chips or pies	❒	❒	❒
Fish – not fried	❒	❒	❒
Chicken and other lean meats	❒	❒	❒
Full fat dairy products such as cheese, milk	❒	❒	❒
Any other changes not listed above			

Finally a few questions about your self

9. Are you?

Male ❒

Female ❒

10. Do you work?

Full time ❒

Part time ❒

I don’t go out to work ❒

11. In which age group are you?

16 years or under ❒

17 – 25 ❒

26 – 49 ❒

50 - 70❒

71 or over ❒

13 Which best describes you?

White ❒

Black Caribbean ❒

Black African ❒

Black other ❒

Indian ❒

Pakistani ❒

Bangladeshi ❒

Chinese ❒

Other group ❒

Please specify______________

Thank you for your help, now please return the questionnaire using the box/ envelope provided

Dietetics and Nutrition Grant Scheme: Evaluation questionnaire 4

The scheme is funded by the Welsh Assembly Government, the aim of which is to help increase community knowledge about food and nutrition.

EACH PROJECT CAN PERSONALISE HERE

To help us find out what you think about the course you attended we would be grateful if you could take a few minutes to complete the questionnaire and return it in the box/ envelope provided **(customise this according to your project)**. Questionnaires are anonymous. However, the information you provide will be summarised in our interim and annual reports to the Evaluation Team commissioned by the Welsh Assembly Government and based at NEWI (North East Wales Institute of Higher Education).

This questionnaire has been developed for courses of a few weeks in duration, such as Cook and Eat etc when some behavioural change may have occurred. It is suggested that this is given out at the last session

This questionnaire is for community members

Name of Course/Session

Date

Length of Course/session

First a few questions about the course/training session you attended

1. Did you learn anything about food and nutrition that you had not known before? *(Please tick one)*

Yes ❐

No ❐

2. In your opinion, what was the most important thing you learnt?

3. Overall, how would you rate the course? *(Please tick one only)*

Very Good ❐

Good❐

Poor ❐

Very poor ❐

Can't say ❐

4. Could the course be improved in any way? *(Please tick one only)*

Yes ❒

No ❒

Don't know ❒

5. If yes, please tell us how?

6. As a result of the course/training session have you made any changes to:-

What you eat	**What your family eats**
Yes ❒	Yes ❒
No ❒	No ❒
	Does not apply ❒

7. Please look at the list of foods below and indicate for each, by ticking the box, where you have made changes to the way to eat since attending the course

	I now eat more of these foods	I now eat less of these foods	I have not made any changes
Fruit, Salad and vegetables (not potatoes)	❒	❒	❒
Starchy foods such as bread, potatoes, rice and pasta	❒	❒	❒
Sugar and sweet foods, such as cakes, biscuits, sweets and soft drinks	❒	❒	❒
Fatty or fried foods such as crisps, chips or pies	❒	❒	❒
Fish – not fried	❒	❒	❒
Chicken and other lean meats	❒	❒	❒
Full fat dairy products such as cheese, milk	❒	❒	❒

Any other changes not listed above

8. Do you eat more healthily now than before starting the course?

Yes ❒

No ❒

Don't know ❒

Finally a few questions about your self

Are you?

Male ❒

Female ❒

Do you work?

Full time ❒

Part time ❒

I don't go out to work ❒

In which age group are you?

16 years or under ❒

17 – 25 ❒

26 – 49 ❒

50 - 70❒

71 or over ❒

Which best describes you?

White ❒

Black Caribbean ❒

Black African ❒

Black other ❒

Indian ❒

Pakistani ❒

Bangladeshi ❒

Chinese ❒

Other group ❒

Please specify_____________

Thank you for your help, now please return the questionnaire using the box/ envelope provided

Appendix 4 - Different models of course delivery

Duration of training course	Frequency of sessions (e.g. once per week, one-off etc)	Duration of training course	Frequency of sessions (e.g. once per week, one-off etc)
3 full days	Approx one per fortnight 3 consecutive days 1 day per month	6 weeks	1 x 4hr session per week 5 half days over 6 weeks
Over a 10 week period	1 day every other week 1x 2 hour session weekly	12 weeks	10 session x 2 hrs over the period
2 days	Over 4 weeks 2 consecutive days	4 weeks	Days and 2x2 hr sessions 1 day per week 1 evenings per week 4 half days
5 Weeks	Half day per week 2 x 2 hour session per week 1x 2 hour session per week 1 day per week	3 weeks	2 half days per week 1 full day per week 2 days and one half day
2 weeks	Five session per week 2 days	1 week	5 Consecutive days
2.5 weeks	2 hr session every other day	8 weeks	1x 2.5 hour session
		7 weeks	1 day per week