Report on the role of the dietitian in effective health promotion to reduce health inequalities.

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Summary

Dietitians, as part of an integrated interdisciplinary team, play a key role in effective health promotion to reduce health inequalities.

Dietitians are the only degree-qualified health professionals that assess, diagnose and treat nutrition related problems based on current scientific evidence. They are uniquely placed to translate nutrition science into understandable, safe, practical information about food, enabling people to make appropriate lifestyle and food choices.

Dietitians are also in a unique position to be able to use their core competences strategically to influence and shape policies at local and national level. With expert knowledge of nutrition, dietetics, nutrition epidemiology, education techniques and social marketing, they are the ideal partner for research and development of healthy eating interventions and food policy e.g. project management, consultant, communication and teaching, design of health promotion activities, strategies and interventions.

It’s their challenge to make the healthier choice the easier choice, since this is the best way to reduce health inequalities.
Introduction
Health promotion is translating theoretical recommendations to prevent disease and improve health into practical, easy to follow guidelines.

Effective health promotion
Health promotion has been defined by the World Health Organisation as ‘the process of enabling people to increase control over, and to improve, their health’. Health is seen as a resource for everyday living, not the objective of living.

Investment and action in health promotion has a significant impact on the determinants of health, so as to create the greatest health gain for individuals, to contribute significantly to the reduction of inequalities in health and to build social capital.

Effective health promotion should be based on the five principles of the World Health Organisation’s Ottawa Charter for Health Promotion:

1. Build healthy public policy.
2. Create supportive environments.
4. Develop personal skills.
5. Reorient health services.

There is now clear evidence that approaches that use a combination of the 5 strategies are most effective.

Effective health promotion should be sustainable and on schedule. It should start with research to the establish need, have defined outcomes and conclude with an in-depth evaluation. All steps of planned promotion of population health, from the epidemiological analyses, to behavior determinant analysis, to intervention mapping, intervention dissemination and evaluation are important.

Model for planned health education and behavioral change

The theory of planned behavior suggests that those who make conscious choices have a better chance to succeed in behavior change (Ajzen (1991)).

Empowerment is a contemporary concept that is characterized by choice and control of the individual. It expresses the power of people to bring real influence to bear on (restrictive) conditions of life. It’s about shifting the balance of determined direction by yourself. Interventions can be used to stimulate the process of empowerment, but what kind of interventions actually work on empowering depends on the individual, his/her goals, possibilities and limitations of the circumstances. Interventions should be connected with the person and the situation. What might be empowering for one may be disempowering for another. What in one context leads to success may have no effect in another one. Empowerment can’t be enforced with predetermined interventions, but interventions may contribute to processes of empowerment. Interventions should be selected gradually and in consultation with stakeholders, specific to the person’s needs and expectations. Patient empowerment can be used in chronic conditions management (e.g. diabetes, cancer, ageing, etc.) and the important role of dietitians in this is to empower the person to choose consciously for a better quality of life and the importance of food in it, taking into account that the proposed selection of food must be available and feasible.

Scientific data consistently provide evidence that diet plays an important role in health promotion and disease prevention. Eight risk factors: alcohol use, tobacco use, hypertension, high body mass index, high blood cholesterol, high blood glucose, low fruit and vegetable intake and physical inactivity collectively account for 61% of cardiovascular deaths worldwide. And, of these, seven are related to diet and physical activity.


Healthy eating habits - associated with a healthy lifestyle - have the potential to reduce the risk of chronic disease. Health care typically assumes a curative or disease management role. However, dietetic professionals are working towards a holistic approach to health care, which includes developing public policies related to nutrition and health, creating safe, healthy and supportive environments, building communities and coalitions, and reorienting health and social services to include health promotion as a primary approach to delivering health care. Individual-level approaches, such as counselling and group education, have been employed most often in modifying health promoting behavior. A priority area to manage obesity and nutrition related diseases, is the inclusion of nutritional education in the school curriculum, but there is still much work to be done in Europe to make this a reality. However, population-level approaches that affect availability of, or access to, affordable, nutritious foods and other healthy lifestyle determinants and limiting access to unhealthy foods, as well as opportunities for physical activity are also important. Dietetic professionals play a pivotal role in both individual- and population-level approaches. The dietitian has an important role not only in primary, but also in secondary and tertiary prevention at every stage of the process.

Behavioural change is a challenge for many people. Social determinants of health, such as early childhood development, education, employment, income, environmental quality and safety, as well

as biological factors, account for the major proportion of population health outcomes. Individuals who are marginalized or vulnerable are at greater risk of chronic disease. This may be linked to inability to reduce their risk factors and their high exposure and access to unhealthy foods. Health, education, agricultural and social programmes must include/provide support systems that promote healthy eating, increase food security (i.e., equitable access to safe, nutritious, culturally and personally acceptable foods), support sustainable food production systems and promote skill development in the selection (e.g. food labeling, marketing and advertising, feasible reformulation, control of portion size, nutritional and health claims and profiles understanding), and preparation and storage/conservation of food (so-called food literacy), as well as supportive social, physical environments (local and regional food systems, transport infrastructure) and economical aspects (e.g. the price of fresh fruit and vegetables).

Ecological models of health behaviours have gained importance in health research. These models propose that behaviours are influenced by an interaction between interpersonal, socio-cultural, policy and physical environmental factors (Salis ea.(2008)).

Using a population-based health approach, making improvements to the social safety to achieve nationwide reduction/elimination of poverty, will effectively address this root cause of individual and household food insecurity. It is therefore critical that equitable access to safe and healthy food should be supported through an effective nationwide strategy for poverty reduction (Poverty is the greatest cause of health inequalities worldwide).

Improving nutritional literacy (built independently from any economic interests) in all target groups should be a first step to decrease health inequalities.

A model that is used for health promotion in communities is the Precede-Proceed framework for planning, which was founded on the principles of epidemiology, social, behavioral, and educational sciences and health administration. Throughout the work with Precede and Proceed, two fundamental propositions are emphasized: (1) health and health risks are caused by multiple factors and (2) because health and health risks are determined by multiple factors, efforts to effect behavioral, environmental, and social change must be multidimensional or multisectoral, and participatory.

The goals of the model are to explain health-related behaviors and environments, and to design and evaluate the interventions needed to influence both the behaviors and the living conditions that influence them and their consequences.
More models exist:

- The Health Belief Model assumes that people will only consider their behavior to adapt as they see their health threatened. With the prospect of illness they make a cost-benefit analysis. According to this model, people are willing to change their behavior when:
  - they believe that they are susceptible to the disease (‘perceived susceptibility’),
  - they believe that the disease has serious consequences (‘perceived severity’),
  - they believe that behavioral change would reduce their susceptibility to the disease or its severity (‘perceived benefits’),
  - they believe that the benefits of behavior outweigh the disadvantages (‘perceived barriers’),
  - they are exposed to stimuli that encourage behavioral changes such as commercials on TV, information by a doctor, own physical complaints (‘cue to action’),
  - they are confident that they can successfully perform the behavior (self-efficacy).

- The Stages of Change model, developed by Prochaska and DiClemente, argues that changing health behaviors on different stages expires: preview (pre-contemplative), contemplation, preparation, action and consolidation. In the pre-contemplative phase, they have little or no questions at the current behavior and contemplate no change in behaviour. In the contemplative phase one begins to weigh pros and cons in terms of behavior, there is not much change. During the preparation phase one takes the decision to change behavior - however small - and there are plans made. In the phase of action there will be visible efforts to change through 'trial and error'. If there are enough successful experiences consolidation follows. The new habits are 'homemade', it is becoming more 'self to go’. During all phases, there is a
possibility of relapse, which may (partly) relapse into old habits. One can fall back to each stage in the change circle. The model assumes that depending on the stage, other information and interventions are needed.

- Partly similar to the previous model is the Precaution Adoption Process Model. In this model, the awareness of risk behavior is specified as a first essential step in the process of behavioral change. A distinction is made between three stages of 'aware':
  - In the first stage, people are not aware of the health problem. Here, media campaigns play an important role and expertise in promoting the crucial goal.
  - In the second stage, one is aware of the risk behavior as such, but it involves knowledge that is not in itself.
  - In the third stage, an awareness of their own risk behavior then they have not (Stage 4) or indeed (Stage 5) the behavior will change. Afterwards follows action (Stage 6) and consolidation (Stage 7) as in the Stages of Change model.

- The Self-Determination Theory of Ryan and Deci emphasizes the quality of motivation, frustration and satisfaction of three basic psychological needs: autonomy, relatedness and competence. It is considered important that people determine their own goals and targets (autonomy). It is also respected and accepted an important need (connectedness). Finally, people want to feel competent, which means that they must have the necessary skills to set realistic goals. The quality of the motivation is expressed on a scale ranging from controlled (external, introjected) into autonomous motivation (identified, integrated, intrinsically). The effect of controlled motives is usually of shorter duration, as soon as the pressure drops, the likelihood that the behavior persists reduces. In autonomous motives, there is a voluntary choice. This effect lasts longer working and endures without external pressure or control. Autonomous motivation can be enhanced by responding to the three basic psychological needs.

- The Theory of Reasoned Action suggests there is a greater intention to perform a certain behavior when one has a positive attitude regarding the behavior and when one thinks that significant others want one to execute the behavior (subjective norm). The Theory of Planned Behavior builds on this and further comprises an additional aspect, namely the control one thinks about one's own behavior. It is postulated that people try harder to achieve a behavior when they feel they are largely in control.

Health promotion campaigns in the late 1980s began applying social marketing in practice in order to reach the target group more effectively. Notable early developments took place in Australia. Over the past few decades, a growing number of organizations have adopted this approach. Social marketing is defined as: ‘the application of marketing techniques to the analysis, planning, execution, and evaluation of programs designed to influence the voluntary behaviour of target audiences in order to improve their personal welfare and that of their society’.

In addition to its contribution to effective behavioural change, social marketing has a specific place in overall health promotion programmes. It also includes other program approaches, such as advocacy and community development. In the social marketing approach, it is extremely important
to identify the target audiences and to identify the desired changes in order to achieve the health promotion goals. Audience analyses are essential to the success of all social marketing plans. Furthermore, decisions relating to objectives, message positioning and delivery are all based on the audience analysis. Organizational and environmental considerations also play an important role in the overall context of the health promotion plan, with an obligatory strong influence on the partnerships formed. Social marketing activities should include more than promotional activities. Adjustment products, services or the desired behavior facilitate audiences to change. As far as promotional activities are concerned, events and interpersonal communication must be considered in addition to media activities and promotional material. When developing a social marketing campaign it is good to remember to ‘go where the traffic is’ because it’s easier to directly approach ‘your audience’ than the reverse. The more realistic and measurable the objectives, the more successful the campaign will be. SMART³ objectives provide a focus and simplify the evaluation stage of the social marketing plan.

³ Specific, Measurable, Acceptable, Realistic, Time bound
Effective health promotion and the EU

The EU is concerned about the health and lifestyle of its citizens. The EU supports health promoting projects throughout Europe and has adopted an arrangement of white books/papers which align different health issues and urge the EU member states to work on specific preventive topics. The EU health strategy 2008-13 aims to deliver concrete health improvements in Europe. As previously mentioned poverty is the greatest cause of health inequalities. One of the 5 targets for the EU in 2020 is poverty/social exclusion. Europe targets at least 20 million fewer people in or at risk of poverty and social exclusion.

Social economic determinants of health in Europe

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Nutritional health promotion in Europe

To have an overview about how dietitians are involved in health promotion, EFAD asked its members (national dietetic associations) how health promotion is organized in their country. We received information from 13 countries. Their answers are in the following tables.

Table 1: Who is promoting healthy food choices in Europe?

<table>
<thead>
<tr>
<th>Country</th>
<th>Institution promoting healthy nutrition</th>
</tr>
</thead>
<tbody>
<tr>
<td>Denmark</td>
<td>Danish veterinary and food administration</td>
</tr>
<tr>
<td>France</td>
<td>French Health and Agricultural Ministries, National Institute for Prevention and Health Education (INPES), Regional Agency for Health, French Nutritionist and Dietitians Association</td>
</tr>
<tr>
<td>Hungary</td>
<td>Hungarian Dietetic Association, Hungarian National Institute for Food and Nutrition, Hungarian National Institute for Health Development</td>
</tr>
<tr>
<td>Iceland</td>
<td>The Icelandic Directorate of Health, Landlaeknir</td>
</tr>
<tr>
<td>Ireland</td>
<td>Safefood, Irish Department of Health and Children, Food Safety Authority of Ireland, Health Services Executive, Irish Nutrition and Dietetic Institute</td>
</tr>
<tr>
<td>Israel</td>
<td>JDC-Israel in cooperation with Haifa University and Ben-Gurion University</td>
</tr>
<tr>
<td>Italy</td>
<td>National (Italian Ministry of health, Italian Ministry of Agricultural, Food and Forestry Policies, Italian Ministry of Education, University and Research, National Centre for Disease Prevention and Control), regional (Regional Health Department, Regional Agriculture Department, Regional Education Department), local (Food Hygiene and Nutrition Unit, Health promotion and health education Unit, other Local entities (municipalities, sport promotion organizations, private companies and trade unions, associations, …))</td>
</tr>
<tr>
<td>Portugal</td>
<td>Portuguese Ministry of Health, Portuguese Ministry of Education and Science, Faculty of Nutrition and Food Sciences Oporto University, General Directorate of Consumers</td>
</tr>
<tr>
<td>Spain</td>
<td>Spanish Dietitians-Nutritionists Association, Spanish Agency for Food Safety and Nutrition (AESAN), Ministry of Health, Social Policy and Equality, Spanish Society of Community Nutrition (SENC), Regional Government of Balearic Islands (CODNIB), Vitoria-Gasteiz City Council, University of Basque Country (UPV/EHU), 5 a day Association</td>
</tr>
<tr>
<td>Sweden</td>
<td>Swedish National Food Agency, Health Promoting Hospitals in cooperation with the Swedish Association of Clinical Dietitians</td>
</tr>
<tr>
<td>Switzerland</td>
<td>Swiss Society for Nutrition, Swiss Federal Office of Public Health, Suisse Balance, Health Promotion Switzerland, Radix 5-a-day, consumer associations, regional NGO’s, cantonal and regional governmental officers</td>
</tr>
<tr>
<td>The Netherlands</td>
<td>Nutrition Center, RIVM, Health Council</td>
</tr>
<tr>
<td>UK</td>
<td>UK Governmental Health Department, British Heart Foundation, National Health Service</td>
</tr>
</tbody>
</table>
Table 2: Overview of validated methods available for specific target groups.

<table>
<thead>
<tr>
<th>Country</th>
<th>valid methods healthy Nutrition</th>
<th>Which</th>
<th>validated by whom</th>
<th>where available</th>
</tr>
</thead>
<tbody>
<tr>
<td>Italy</td>
<td>Precede-Proceed model</td>
<td>Different authors</td>
<td>Articles</td>
<td></td>
</tr>
<tr>
<td>Portugal</td>
<td>Healthy Eating at school, Nutritional Friendly School Initiatives, School Fruit Scheme, Food Wheel, IT for school meal evaluation and planning</td>
<td>DGS/DGE OMS/DGE/DGS EC/DGE/DGS/Agriculture Ministry/GFP DGS/DGE/FCNAUP/IC DGS/DGE/FCNAUP</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Spain</td>
<td>Food registration programme to improve the fruit &amp; vegetable consumption</td>
<td>University of Basque Country</td>
<td>University of Basque Country</td>
<td></td>
</tr>
<tr>
<td>Sweden</td>
<td>Guidelines (at 3 levels) disease prevention due to lifestyle change</td>
<td>Swedish National Board for Health and Welfare</td>
<td><a href="http://www.socialstyrelsen.se">www.socialstyrelsen.se</a></td>
<td></td>
</tr>
<tr>
<td>Switzerland</td>
<td>Quint-essenz provides quality criteria health promotion and prevention projects</td>
<td>Health promotion Switzerland</td>
<td><a href="http://www.Quint-essenz.ch">www.Quint-essenz.ch</a></td>
<td>Swiss Nutrition Report will publish end 2012</td>
</tr>
<tr>
<td>The Netherlands</td>
<td>Food consumption survey</td>
<td>RIVM &amp; Wageningen University</td>
<td><a href="http://www.RIVM.nl">www.RIVM.nl</a>, <a href="http://www.wageningenuniversity.nl/UK">www.wageningenuniversity.nl/UK</a>, Dutch journals</td>
<td></td>
</tr>
</tbody>
</table>
Table 3: Nutritional health promotion supported by government.

<table>
<thead>
<tr>
<th>Country</th>
<th>Governmental Support</th>
<th>Support Type</th>
<th>Support Conditions</th>
</tr>
</thead>
<tbody>
<tr>
<td>Denmark</td>
<td>1 Financial and administrative support</td>
<td>detailed project proposal aligned with governmental policy on public health and health promotion</td>
<td></td>
</tr>
<tr>
<td>Finland</td>
<td>Ministry of Social Affairs and Health</td>
<td></td>
<td></td>
</tr>
<tr>
<td>France</td>
<td>Ministries of Health, Agriculture and Education</td>
<td>Financial, administrative and communicational (website, advertising) support</td>
<td>detailed project proposal aligned with governmental policy on public health and health promotion</td>
</tr>
<tr>
<td>Hungary</td>
<td>1 project tender grant application + partial self-funding</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Iceland</td>
<td>Directorate of Health</td>
<td>Financial</td>
<td>detailed project proposal aligned with governmental policy on public health and health promotion</td>
</tr>
<tr>
<td>Ireland</td>
<td>Department of Agriculture</td>
<td>Financial support</td>
<td>detailed project proposal aligned with governmental policy on public health and health promotion</td>
</tr>
<tr>
<td>Israel</td>
<td>1 Financial support, leadership, teaching support, installation steering committee</td>
<td></td>
<td>detailed project proposal (goals, purpose, target group, method, predicted budget and/or other support needed)</td>
</tr>
<tr>
<td>Italy</td>
<td>1 Methodological, technical and communication support</td>
<td></td>
<td>detailed project proposal aligned with policy on public health and health promotion</td>
</tr>
<tr>
<td>Portugal</td>
<td>1 Financial support (human resources)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Spain</td>
<td>Spanish Agency for Food Safety and Nutrition (AESAN) Ministry of Health, Social Policy and Equality, Regional governments and Ministry of Agriculture</td>
<td>Financial and institutional support to disseminate the campaigns</td>
<td>detailed project proposal matching with the federal policy</td>
</tr>
<tr>
<td>Sweden</td>
<td>1 Financial support and communication tools (educational materials, website)</td>
<td></td>
<td>detailed project proposal matching with the policy</td>
</tr>
<tr>
<td>Switzerland</td>
<td>Federal office of public health</td>
<td>Financial support for projects and communication tools (educational materials, website, etc)</td>
<td>projects needs to fit into the National Programme Nutrition and Physical Activity</td>
</tr>
<tr>
<td>The Netherlands</td>
<td>1 Financial support &amp; adaptation legislation</td>
<td></td>
<td>detailed project proposal (+ predicted budget and expected outcome) fitting to the policy</td>
</tr>
<tr>
<td>UK</td>
<td>1 Communication tools (advertising, leaflets, posters, websites, roadshows, social networking)</td>
<td></td>
<td>projects fitting to the governmental strategy</td>
</tr>
<tr>
<td>Switzerland</td>
<td>1 Financial support</td>
<td></td>
<td>projects needs to fit into the National Programme Nutrition and Physical Activity</td>
</tr>
</tbody>
</table>
Role of the dietitian

Health promotion is the process of enabling people to exert control over the determinants of health and thus improve their own health. Thus health promotion is not something that is done on or to a group of people; it is done by, with and for people either as individuals or groups.

Health is a dynamic condition that changes with life circumstances. Since health is multidimensional due to the role of the physical and - nowadays highly important - social environment in which we live, Michael O'Donnell made a new definition of health promotion. ‘Health promotion 2.0: means embracing passion, enhancing motivation, recognizing dynamic balance and creating opportunities.’

Dietitians understand the many influences on food behaviour - far beyond advertising and availability - and are skilled in tackling these.

A dietitian involved in empowerment and community participation stimulation needs different skills than those needed to assess the nutritional risks of individuals or communities in relation to their stage in life cycle.

Dietitians are trained to understand the relationship between food and health throughout the life cycle and are able to communicate this relationship to healthcare providers, policy makers and the community.

A community is a specific group of people, often living in a defined geographical area, who share a common culture, values and norms, and are arranged in a social structure according to relationships which the community has developed over a period of time. Members of a community gain their personal and social identity by sharing common beliefs, values and norms which have been developed by the community in the past and may be modified in the future. They exhibit some awareness of their identity as a group, and share common needs and a commitment to meeting them (WHO Health Promotion Glossary (1998)).

In 1978, the World Health Organization's Alma Ata Declaration first articulated the goals of community participation and equity, with subsequent extension to empowerment in the Ottawa Charter and Jakarta health promotion declaration.

Population based health improvement initiatives need to be more than just giving information to the public - they need to be practical, enabling people to build up their own skills so they can make the changes necessary to buy, cook and eat more healthily. Knowledge is not enough - the 5-a-day message is the proof of that. People know fruit and vegetables are good for them, but they still don’t eat sufficient, for a variety of different reasons.

Changing the food habits of the population requires working on several levels. Dietitians who develop interventions are also skilled to carry them out - through building partnerships and working collaboratively with other organizations who can often reach the groups that health professionals can’t.

There are different approaches possible in health promotion planning (for example The Staged Approach to Health Promotion, The five stage community organization Model, A planning framework for community empowerment goals within health promotion, The ABC planning Model, The Proceed Planning framework for Health Promotion of Green and Kreuter). It is imperative to choose the most appropriate approach to reach the objectives.

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Dietitians, who are in provider services, are in a key position to influence the promotion of a healthy lifestyle. They are educated in nutrition and dietetics, which spans public health/health promotion to the clinical treatment and management of disease, and have the skills to interpret and communicate the theoretical/knowledge to enable individuals to make appropriate choices about nutrition in order to prevent disease.

To promote health community dietitians apply and impart knowledge about food and nutrition to individuals and for population groups with special nutritional needs (e.g. pregnant or breastfeeding women) or groups whose background, culture or circumstances may profoundly affect nutritional intake (e.g. single older men living alone in rural settings) or other individuals with special needs or limited access to healthy food and lifestyles in order to promote health (e.g. migrant populations, students, ...). Community dietitians use different methodologies from small workshops to large events. In many countries community dietitians conduct home visits for patients who are too sick to attend consultations in health facilities. These visits are made to provide care, as well as information on grocery shopping and food preparation.

Given that many of the programs to promote healthy eating are created locally and that most of them are not evaluated or validated by objective indicators (usually through attendance or participant satisfaction), the community dietitian is the right professional for scientific advice in such programs, both in terms of design and objective evaluation of results.

In addition a significant proportion of health promotion is delivered by dietitians through primary care settings. Dietitians have a key role in educating health professionals working in primary care settings about the prevention of nutrition related illnesses and the promotion of healthy eating.

Others work closely with staff that are involved with health policies and develop health promotion programmes and campaigns.

Public health policies are involved in developing national policies focused on the pricing, taxation of specific nutrients that may impact health in a negative way. In some countries dietitians are involved in the advisory board where they can make an important contribution with regard to the practical implications of healthy eating e.g. food reformulation on salt and sugar.

Dietitians may also be involved in public health screening programmes focused on chronic illnesses e.g. diabetes, obesity.

A small number of dietitians are involved on a research, developing evidence based health promotion programmes with other health professionals that are focused on delivering key health promotion messages for groups that have identified physical illnesses e.g. Diabetes X-pert programme.

Dietitians who are in a commissioning role are able to use their nutritional expertise and public health skills to develop policy, undertake needs assessment, identify gaps and undertake service redesign to commission targeted services for those who are the most vulnerable. They also try to work in collaboration with other organisations.

All of these elements make dietitians a key stakeholder whose expertise needs to be part of political developments and advocacy.
Table 4: The position of dietitian working in health promotion projects across Europe

<table>
<thead>
<tr>
<th>Country</th>
<th>Position dietitian</th>
</tr>
</thead>
<tbody>
<tr>
<td>Denmark</td>
<td>project manager, coordinator, project worker</td>
</tr>
<tr>
<td>Finland</td>
<td>different: depending on project: from basic work till manager</td>
</tr>
<tr>
<td>France</td>
<td>Consultant and nutritional advisor for projects, project manager, coordinator, ...</td>
</tr>
<tr>
<td>Hungary</td>
<td>nutritional advisors</td>
</tr>
<tr>
<td>Iceland</td>
<td>nutritional advisor (school &amp; community level), project leader</td>
</tr>
<tr>
<td>Ireland</td>
<td>mainly on local level (community) consultant, policy development, project spokesperson, trainer train the trainer programmes, evaluator social marketing campaigns</td>
</tr>
<tr>
<td>Israel</td>
<td>JDC &amp; ministry: dietitian part of project staff and takes part in decision-making - small NGO's: freelancer in a multidisciplinary team involved in the project process</td>
</tr>
<tr>
<td>Italy</td>
<td>advisory, pro-active and decision making</td>
</tr>
<tr>
<td>Portugal</td>
<td>concept development, implementation, evaluation, coordination</td>
</tr>
<tr>
<td>Spain</td>
<td>scientific assessor, investigator, researcher, teacher, consultant</td>
</tr>
<tr>
<td>Sweden</td>
<td>nutritional advisors or project leader</td>
</tr>
<tr>
<td>Switzerland</td>
<td>varying within different organizations: project manager, project leader, coordinator, nutritional advisor, consultant, teacher, researcher</td>
</tr>
<tr>
<td>The Netherlands</td>
<td>responsible for the nutrition information, analyzing diaries, (evaluate interventions)</td>
</tr>
<tr>
<td>UK</td>
<td>varying within different organisations: strategic role or service provision</td>
</tr>
</tbody>
</table>

Effective promotion of healthy eating requires investment in consistent funding as a crucial part of the ‘supportive environment’. Where funding is directed is also crucial. The most costly aspect of an initiative is the staff. You cannot maintain a practical, hands-on nutrition programme that relies on close partnership working, without local staff to support it. It is the very practical design of the programme along with the availability of local training and support from qualified professionals i.e. dietitians, that has made ‘Cook it!’ so successful in the UK or ‘Healthy Food Made Easy’ in Ireland. If there is to be a consistent approach towards changing food choice and behaviour in order to improve the health of the population, then the role of dietitians at both the planning and implementation stages should be recognized as an essential investment that reaps rewards because dietitians are the profession with the scientific knowledge of nutrition, sociology and psychology which enables them to enable change in the national diet.

Where resources are limited, projects must be cost effective. Projects should also be research-based and evaluated. Also, the results of such projects should be available to the general public so that public money benefits the public and not the private companies and research institutes.
Dietitian-involved health promotion projects
Dietitians working in health promotion regularly start projects, mainly focusing on healthy food choice. EFAD asked its members (national dietetic associations) how their dietitians are involved in health promotion. We received information from 8 countries.

Target groups defined
Based upon the input we can distinguish 4 target groups that are mainly used for health promotion:
- adults,
- people with low Social Economical Status (SES),
- children/youngsters/students,
- older adults.

Figure 1: Target groups of the dietitian-involved health promotion projects across Europe

Projects by methodology
Dietitians are mainly involved in smaller projects. We received only 6 examples of multichannel campaigns, the rest was medium to small sized.

The projects used a variety of methodologies including:
- multichannel campaign,
- information (food label, shopping advice, guidelines (+ course), interactive lessons, lectures & sessions, practical examples),
- infotainment (website, animated series, commercials, trade fair + booths, cooking & practical class),
- sensitization (free consultancy/measurement/screening to create awareness + advice, workshop + homework, involve all stakeholders to participate on theirs level),
- test/survey,
- support (to implement policy, to implement personal adaptations),
- training (train the trainer &/or stakeholders).
Table 5: Methodologies used in dietitian-involved health promotion projects across Europe

<table>
<thead>
<tr>
<th>Initiative</th>
<th>Multichannel campaign</th>
<th>Information</th>
<th>Infotainment</th>
<th>Sensitisation</th>
<th>Test/survey</th>
<th>Support</th>
<th>Training</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Country</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Denmark</td>
<td>1</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>France</td>
<td>1</td>
<td>1</td>
<td>0</td>
<td>1</td>
<td>0</td>
<td>1</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>Hungary</td>
<td>0</td>
<td>1</td>
<td>4</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>5</td>
<td>5</td>
</tr>
<tr>
<td>Ireland</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>1</td>
<td>0</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>Italy</td>
<td>1</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>Portugal</td>
<td>1</td>
<td>2</td>
<td>4</td>
<td>0</td>
<td>0</td>
<td>1</td>
<td>8</td>
<td>10</td>
</tr>
<tr>
<td>Spain</td>
<td>2</td>
<td>0</td>
<td>1</td>
<td>1</td>
<td>2</td>
<td>0</td>
<td>6</td>
<td>10</td>
</tr>
<tr>
<td>Sweden</td>
<td>0</td>
<td>0</td>
<td>1</td>
<td>1</td>
<td>0</td>
<td>0</td>
<td>2</td>
<td>3</td>
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<tr>
<td>UK</td>
<td>1</td>
<td>1</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>1</td>
<td>3</td>
<td>5</td>
</tr>
</tbody>
</table>

Five countries (Denmark, Ireland, Portugal, Spain and Sweden) explicitly mentioned that their projects are evidence-based.

Table 6: Evidence-based dietitian-involved health promotion projects across Europe

<table>
<thead>
<tr>
<th>Evidence-based initiative</th>
<th>Local project</th>
<th>National project</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Country</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Denmark</td>
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<td>1</td>
<td>1</td>
</tr>
<tr>
<td>France</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Ireland</td>
<td>1</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>Portugal</td>
<td>0</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>Spain</td>
<td>3</td>
<td>1</td>
<td>4</td>
</tr>
<tr>
<td>Sweden</td>
<td>2</td>
<td>0</td>
<td>2</td>
</tr>
</tbody>
</table>

International projects happen, but are very limited in cooperating with dietitians. Spain reported about the European Project ‘FOOD PRO-FIT’, which targeted the reformulation of product in SME’s food sector and HORECA channel through a free on-line tool. The Official Body of Dietitians & Nutritionists of Balearic Islands was a collaborative partner in this EU project. There were also dietitians involved from Germany, Austria, Greece and Cyprus (http://www.foodprofit.org/leader-partner.php?country=leaderpartner, http://hancptool.org/HANCP.swf).

In response to the EFAD survey we received mainly (72 %) local level initiatives, where a lot of dietitians participate voluntarily since budgets for health promotion are limited.

While national projects are limited, dietitians can and do become involved. Portugal and France reported the highest contribution to national level projects (3), followed by Spain (2) and Denmark (1).

An exception was the dietitians of the Balearic Islands, as their Official Body has the support of the department of Health and Consumer Affairs of the government of Balearics Island. Due to this 4 important projects were developed by 2011:
- the European Project FOOD PRO-FIT,  
- the Food Guide of Healthy Eating for the Balearic Islands population [http://e-alvac.caib.es/guia.html],  
- the HEALTH COUNSELING POINT PAS [http://www.codnib.es/pas/pas/inicio.html],  

Also the workgroup ‘Food and nutritional education for school’ of the Spanish Association of Dietitians and Nutritionists developed educational tools for health promotion in school, social and cultural areas, health environment and leisure locations of public institutions. The tools are modular and per school level and available in interactive digital media. They count 29 activities, 17 worksheets and 29 Power Point presentations with notes providing educational resources and group management. You can find them at [www.aedn.es].

**Projects by topic**

Mainly we see the same topic ‘healthy food choice’, but there are also others (e.g.: screening + advice, support to implement health policy, development of a food registration tool and train the trainer).

<table>
<thead>
<tr>
<th>Initiative</th>
<th>Healthy food choice</th>
<th>Screening + advice</th>
<th>Support to implement health policy</th>
<th>Development food registration tool</th>
<th>Train the trainer</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Country</td>
<td></td>
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<td></td>
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<tr>
<td>Denmark</td>
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<td>0</td>
<td>1</td>
</tr>
<tr>
<td>Hungary</td>
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<tr>
<td>Ireland</td>
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<tr>
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</tr>
<tr>
<td>Portugal</td>
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<td>8</td>
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<tr>
<td>Spain</td>
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<td>0</td>
<td>0</td>
<td>1</td>
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<td>6</td>
</tr>
<tr>
<td>Sweden</td>
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<td>1</td>
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<td>0</td>
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<td>2</td>
</tr>
<tr>
<td>UK</td>
<td>1</td>
<td>0</td>
<td>1</td>
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<td>1</td>
<td>3</td>
</tr>
</tbody>
</table>

- healthy food choice

Eye-catching projects to promote healthy food choice are available across Europe. In Denmark canteens and restaurants can ask accreditation (if they meet the criteria) to use the Keyhole. This food label guarantees customers that there is a balanced food choice available.

The European project ‘FOOD PRO-FIT’ labels products (industry) and recipes (HORECA) that have a reduced amount (-50%) of saturated fatty acids, salt or free sugars.

The Hungarian Dietetic Association invites the public at their annual conference for free consultancy and workshops.
In France, dietitians are involved in the implementation of 3 national campaigns: the 3rd National Nutrition and Health Program, the National food program and the Obesity plan (focused on disadvantaged people).
Dietitians launched training sessions for social workers to help to educate people in precarious situations about how to make healthy food choice. Tools were created.
Guidelines for healthy school meals became compulsory by law in 2011 (GEMRCN).
To encourage children to eat fruit and vegetables, the ‘School of taste’ project was created.
Awareness of balanced diet is included in the national curriculum (primary, secondary schools).

In Italy they undertook a large project involving all stakeholders in a creative way to install vending machines with healthy snacks in 23 secondary schools.

In Portugal people living in poor conditions can learn in interactive practical sessions how to make healthy food choices when living on a low income. Also pregnant women can follow practical sessions to learn how to make healthy food choices. The impact of intervention at this crucial stage can confer benefits, current and future, for the expectant mother, the unborn child, the (breastfeeding) mother, the baby in early life, immediate family and society in general.
The Portuguese Association of Nutritionists worked together with a few other organisations on a big multi-channel campaign to prove that nutritious food isn’t expensive. They show that you can have a well balanced meal for 1,- €, which has a much better price/quality ratio than the common fast food snacks (www.apn.org.pt/scid/webapn/defaultCategoryViewOne.asp?categoryId=885).

This ambitious association also collaborated to invent an animated series with 4 heroes (full of adventure, comedy and action) for youngster to introduce healthy eating.
In Continente hypermarkets a dietitian organizes guided in-store tours about reading food labels and healthy food choice, while village people learn via cooking classes how they can counter obesity.

Spanish dietitians were also creative. The youngsters of Vitoria-Gasteiz were influenced by an amazing project to change their acceptance for fruits and vegetables. Students at the public schools of Calvia visited a nutrition fair on the International Nutrition Day with 12 different booths (workshops about different aspects of healthy food choice).

On the Balearic Islands adolescents have a tailored website (PAS to eat well) of their own about all aspects of nutrition (www.codnib.es/pas/pas/inicio.html). The tool is translated into English and freely accessible. It’s a good tool to use in peer to peer education.

A basic ‘Healthy eating guide for people at risk for social exclusion’ was developed to help social services to provide a basic nutritious ‘food bag’ to those people (http://e-alvac.caib.es/es/personas-riesgo-exclusion.html). They were six ‘train the trainer’ sessions, at the social services of Mallorca Island, about healthy eating, diseases related to nutrition associated with social exclusion and how to prepare a nutritious bag for different family types.

The Spanish 5 a day Association uses different tools to promote the consumption of fruits and vegetables. They developed a lot for children. All of the activities are conducted by dietitians or nutritionists. Dietitians and nutritionists are also involved in the scientific committee of the Spanish 5 a day Association. They developed a guide to explain ‘what can count as fruit and vegetable’. The main objective of this association is empowering people to choose a portion of fruit or vegetable.

In Sweden they try with individual advice and group sessions to inform people with low Socio Economic Status to increase their knowledge and facilitate healthy food choice.

The youngsters of North Lancashire (UK) learn via a multidisciplinary, multichannel infotainment programme ‘Healthy heroes’ about healthy food choice (www.lhsp.org.uk/index.php?category_id=150).

In Switzerland the dietitians work is evidence-based and target group-specific e.g. migrants, employees, employers, poverty-stricken and within age-groups and different settings (school, workplace, canteen etc.) http://www.sge-ssn.ch/media/medialibrary/2012/05/gesunde-lebensmittelwahl_bericht_29mai2012.pdf

- screening + advice
The Hungarian Dietetic Association cooperates with companies to provide brief health check-ups + advice on company Health Days.

The Swedish University hospital of Uppsala screens not only for malnutrition but also for unhealthy eating habits among its patients. Once detected a dietitian tries to motivate patients to make healthier food choices. 5 counselling sessions are foreseen for each inpatient with problems.

- support to implement health policy
In Ireland the Midland schools can have the support of a dietitian for one year to change their policies on health and become an ACE school.
Schools nationwide in Ireland can also sign up to the ‘Food Dude Programme’ which encourages consumption of fruit and vegetables. The IHF also runs ‘Fit Factor’ in association with Lidl in primary schools and they have a programme on physical activity called Action for Life.

The Irish Heart Foundation evaluated their Happy Heart at Work Award in 2001. This was independently evaluated by the National University of Ireland, Galway and the programme was shown to be effective and had resources of the highest quality.

The dietitian of the Portuguese Ministry of Education and Science developed practical guidelines for schools to meet easily the requirement of supplying nutritious food in school canteens and buffets and the school fruit distribution.

The Spanish Vitoria-Gasteiz City Council is permanently advised by dietitians involved in the design, implementation and evaluation of its programs. They published a free practical guide for healthy eating that includes a tool to control the number of portions of food eaten every day (http://www.vitoria-gasteiz.org/wb021/http/contenidosEstaticos/adjuntos/es/4664.pdf).

Staff members of Warwickshire Care Homes in the UK can follow a course, given by a dietitian, that explains how to use the guidelines for malnutrition prevention in daily practice.
- development of a food registration tool
In Spain at the University of Basque Country they developed and validated an easy to use precode food registration tool (bittor.rodriguez@ehu.es). The patent is pending and it is being transformed into an app for smart phones.

- train the trainer
The children of ARS North (Portugal) hear only one message in relation to healthy food choice since not only their teachers but also their parents received training (www.passe.com.pt). In Hertfordshire (UK) they hope to achieve the same, since health workers of Children’s Centers with direct access to families with young children received a 2 day training about all relevant topics in relation to nutrition and children under 5.

Evaluation
The evaluation part of health promotion is often forgotten. Effective health promotion ends with an in-depth evaluation to measure if the goals were met and the methodology was appropriate. All steps of planned promotion of population health are important, including evaluation.

Effective health promotion means achieving the planned objectives (in the area of health education it includes achieving people’s expectations of the training or achieving the life priorities as fixed by the patient or patient to be). This can be validated by evaluation. The question is ‘how to evaluate the actions and strategies of health promotion?’ Currently the focus is on proving the effectiveness of health promotion methodologies. This can be done by effective evaluation. Since the effect can be influenced by the process also a process evaluation is important.

The main question is ‘what is the impact on people’s health’ (Health Impact Assessment) as well as how to combine scientific rigour with the specificity of health promotion. This should be approached in terms of efficacy (size of the effect, participation degree, reason for participation, equity, gender, ethnic and cultural approach, adverse effects of interventions, used channels, intervention price, multidisciplinary, empowerment, appropriateness, sustainability) and effectiveness (transferability, adaptation).

One thing is certain, effective health promotion by dietitians needs supportive environments for healthy eating, which means:

- support and coordination for limiting advertising and access to unhealthy foods, while improving access to healthy foods, snacks and beverages by children and supporting reformulation policies and portions size control
- consistent, evidence-based school nutrition policies and supports for policy implementation,
- provision of information on health eating and healthy lifestyle choices through traditional media channels and newer online and social media outlets
- opportunities and regulations for food skill, nutrition education and life skill development in school curriculum also in families and communities empowering people to choice with responsibility,
- development and implementation of policies for supportive environments for healthy eating at school, home, day-care centres, workplace, HORECA and in the community making the healthy choice the easy choice,
- support and coordination to provide to consumers the best evidence-based information about foods and diet,
- Opportunities for individuals to be able to access dietetic services at different levels: primary care, hospitals, social services, schools, etc.

Only 8 of the 25 projects in which dietitians were involved (32%) reported that they had evaluated the project.

<table>
<thead>
<tr>
<th>Local/national</th>
<th>Project</th>
<th>Organisation/Project</th>
<th>Workplace</th>
<th>Outcome</th>
<th>Evaluation</th>
</tr>
</thead>
<tbody>
<tr>
<td>L E B</td>
<td>ACE school programme</td>
<td>Health Service Executive</td>
<td>primary schools</td>
<td>make the healthier choice the easier choice</td>
<td>the support is key to the success</td>
</tr>
<tr>
<td>L E B</td>
<td>development and validation new precoded food record tool</td>
<td>University of the Basque Country</td>
<td>University of the Basque Country</td>
<td>good correlation with golden standard for reliability &amp; validity</td>
<td>twice tested tool (reliability) &amp; twice tested 24 h recall (validity) with 330 volunteers</td>
</tr>
<tr>
<td>L E B</td>
<td>change fruit &amp; vegetables acceptance</td>
<td>University of the Basque Country</td>
<td>municipal market &amp; greengrocer's</td>
<td>dietetic &amp; culinary message had more impact than nutritional one</td>
<td>the programme is effectively improving children's acceptance for fruit and vegetables</td>
</tr>
<tr>
<td>N</td>
<td>PAS to eat well</td>
<td>Balearic Government (Health Counseling Point (PAS)) and the official body of Dietitians-Nutritionists of the Balearic Islands</td>
<td>Health Counseling Point Balearic Islands</td>
<td>163 people trained - 825 students participated in workshops - website received 776 visits &amp; 189 self-assessment surveys (51% need to improve their diets &amp; 23% have very low quality diets) - 120 students trained in peer to peer education - Facebook profile has 1870 friends &amp; 1359 entries of health information (25% about nutrition) - blog has received 3728 visits &amp; got 682 entries - 80 kg fruit sampled on World Youth Journey</td>
<td>Spaces where youngsters can attend anonymously are effective in promoting healthy lifestyles. The PAS is becoming more known and visited. Online applications are proving to be an ideal way to gain knowledge, answer questions and share experiences on food.</td>
</tr>
<tr>
<td>L E B</td>
<td>improved eating habits in school population</td>
<td>Municipality of Llucmajor + Nutrició Balears S.A + registered dietitians and nutritionists</td>
<td>schools of Llucmajor</td>
<td>. consumption of nuts, fruits &amp; vegetables increased . students having daily breakfast and use of bread or cereals in breakfast increased . girls improved more than boys (especially 12-15 y) . 29.6% of students reported they had changed their habits due to the interventions . KIDMED index increased</td>
<td>The program influenced positively the food pattern, although it is important to continue the interventions.</td>
</tr>
<tr>
<td>L E B</td>
<td>Health Equilibrium Initiative</td>
<td>University of Gothenburg</td>
<td>primary health care Gothenburg</td>
<td>?</td>
<td>. did we do anything harmful . have we met everybody’s needs . implications of activity for developing methods</td>
</tr>
<tr>
<td>L E B</td>
<td>systematic screening &amp; health prevention</td>
<td>Upsala University Hospital</td>
<td>wards with high prevalence of people with unhealthy eating habits</td>
<td>. 133 patients screened (25% unhealthy eating habits - 67% accepted counseling by dietitian) . positive feedback from managers &amp; staff: guidelines seen as structured tool, not a burden</td>
<td>. number of respondents . % unhealthy eating habits . number received advanced counseling . number with improved eating habits</td>
</tr>
<tr>
<td>L</td>
<td>Guidelines malnutrition prevention</td>
<td>Warwickshire Care Homes</td>
<td>50 Warwickshire Care Homes</td>
<td>less malnutrition - improved nutritional status</td>
<td>very useful</td>
</tr>
</tbody>
</table>
When looking at the evaluation of the projects it can be seen that 6 of the 8 were evidence-based (EB). It is recommended that projects must always be evaluated. The key to achieving this is to build evaluation into the project outline from the beginning.
Key elements for effective health promotion to reduce health inequalities; lessons from dietitians and others

Health inequalities (especially diet-related), are a big burden for dietitians since they are often not in the position to make large differences but want to provide their patients/customers with the best tailored advice possible.

The role of the dietitian in health promotion is to introduce concrete and practical to implement recommendations that are feasible solution for health problems and that are adapted to the situation of the advised people.

To be sure that a project has met its objectives, every project needs a proper evaluation. This means:
- Effect evaluation (can be measured via baseline, interim and final evaluation)
  - Size of effect (knowledge, behavior, project objectives,...)
  - participation degree
  - reason for participation
  - adverse effects of interventions
  - approach of gender, ethnic and cultural
  - which channels were reached at what price?
- Process evaluation

Best practices in counseling methodologies by European dietitians
- Techniques to help improving motivation and behavioural change
  - Social marketing
  - Motivational interviewing
  - Brief Intervention during health interviews with health professionals
  - Problem Based therapy
  - Cognitive behavioural therapy
  - Effective coaching (self-determination theory)
  - Situational coaching
  - Discount rates (http://painconsortium.nih.gov/symptomresearch/chapter_4)
  - Mindful eating
  - Group education for children and families
  - Peer to peer education for young people
  - Food based education
  - Free fruit and vegetables school programs
  - Free access to water in school, work, entertainment places...
- Workshops
  - Healthy nutrition (with poor budget)
  - Menu planning (with poor budget)
  - How to read food labels?
  - Healthy shopping (with poor budget)
  - Taste development
  - Gastronomy, traditional foods and recipes, healthy eating and culture.
  - Daily breakfast
  - Fruit and vegetables: at least 5 portions a day!
  - how to prepared a nutritious food bag? (addressed to social services that provide food to people without income)
- Family nutrition
  - Infant Nutrition and its impact on long term health
- Cooking classes
- Urban agriculture and school gardens to promote taste development and consume of fruit and vegetables.
- Visualization tools used in education
  - Food guide models
  - Pictures of food portions
  - Food composition tables
  - Foods in natural shape
  - Food labels
  - Adapted fairy tales
  - PowerPoint animations
- Infotainment games
  - Quartet
  - Quiz
  - Role games
- Apps promotion healthy eating and drinking
- Use of social media to promote key health promotion messages e.g. through Facebook, Twitter
The role of stakeholders within effective health promotion to reduce health inequalities

Stakeholders play a key role in the success of a project; they can make or break it. Stakeholders have the power to make the healthier choice the easier choice (the way to reduce health inequalities).

Scientific based-models for project development pay attention to this aspect, as does social marketing (needed for large and multichannel projects).

Only a few of the projects reported in the EFAD survey paid attention to stakeholders.
Implications for effective health promotion to reduce health inequalities

Effective health promotion makes people have
- an improved health status,
- an improved mental health,
- an improved self-esteem,
- an improved nutrition knowledge or awareness,
- an improved attitude towards nutrition and an improved perception of health status,
- an improved nutrition behaviour,
- improved skills/confidence around making and preparing healthier food choice,
- reduced absenteeism,
- increased productivity,
- a increase in vitality and general well-being,
- reduced short- and long-term disability rates.
Conclusions

Dietitians can play different key roles in effective health promotion to reduce health inequalities. The situation in Europe isn’t equal, there are still large differences. This report helps to highlight best practices and to inspire colleagues to be aware of what can and should be improved.

Cooperating with other European colleagues on mutual pan-European goals is possible with European support. Dietitians need to be aware of this and to try to integrate into large projects. They need to regularly monitor opportunities, know what their colleagues are doing and have some potential projects in mind. Cooperating with researchers is advantageous and will improve the quality of interventions, especially the availability of validated tools.

When dietitians can prove their results through involvement in scientifically based projects, they will build credibility. The evaluation of a project is key in proving its effectiveness.

When dietitians can succeed in making the healthier choice the easier choice, they are on their way to reducing health inequalities.

In many European countries the public health system doesn’t recognize dietitians as professionals in its framework for health promotion, even though the role of the dietitian in effective health promotion is essential. E.g. the lack of the participation of dietitians in the Spanish PERSEO project (Spanish validated set of health promotion interventions for schools). Universities are the institutions who can add a dietitian in their teams/projects to cooperate in research and educational innovation.
Recommendations

The quality of health promotion projects can be improved through an increase in pan-European projects. Many countries are facing similar public health threats in the area of food and nutrition-related diseases so the more cooperation and coordination the better. Health promotion projects must be developed with the highest efficacy since resources for health promotion are limited.

EFAD will help dietitians to share best practices by enabling networking opportunities by supporting the establishment of a European Specialist Dietetic Network for Public Health Dietitians. This network will take forward the work of developing EU recommendations for effective health promotion to reduce health inequalities.
References

- BDA, Dietitians: working to improve public health through nutrition.
- Dietitians of Canada, Health Promotion and Disease Prevention: A Call to Action from Dietitians, 2012.

- Stewart-Brown S (2006). What is the evidence on school health promotion in improving health or preventing disease and, specifically, what is the effectiveness of the health promoting schools approach? Copenhagen, WHO Regional Office for Europe (Health Evidence Network report; http://www.euro.who.int/document/e88185.pdf

Further reading
- www.bda.uk.com/publications/dietitianspublichealthweb.pdf
- International Society for Behavioral Nutrition and Physical Activity. www.isbnpa.org
- www.loketgezondleven.nl
- Nutrition, Physical Activity and Obesity Inventory of Qualitative Research http://www.cdc.gov/nccdphp/dnpa/qualitative_research/
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Attachments
- Increasing fruit and vegetable consumption among youngsters (Iceland)
- Food labeling in employees canteen (Iceland)
- Healthy eating is cheaper (Portugal)
**Organisation:** University of Iceland and Landspitali University Hospital, Reykjavik, Iceland

**Work place:** Unit for Nutrition Research

**Target group:** Young school children 7 to 9 years old

**Short summary (methodology - strategy - concept - marketing & communication - process - outcome - budget - evaluation)**

An intervention focusing on increasing consumption of fruit and vegetables

Dietary intake of children in second and fourth grades was assessed with 3d weighed dietary records in autumn 2006 and autumn 2008, before and after a school-based intervention that started in the middle of second grade, and compared with control schools with no intervention.

The diet was evaluated by comparison with food-based dietary guidelines (FBDG) and reference values for nutrient intake. The intervention aimed at several determinants of intake: knowledge, awareness, preferences/taste, self-efficacy and parental influence. Nutrition education material was developed for the intervention and implemented in collaboration with teachers. The main focus of the intervention was on fruit and vegetable intake as the children's intake was far from meeting the FBDG on fruit and vegetables at baseline.

**SETTING:** Elementary schools in Reykjavik, Iceland.

**SUBJECTS:** Complete dietary records were available for 106 children both at baseline and follow-up.

**RESULTS:** Total fruit and vegetable intake increased by 47% in the intervention schools (mean: 61.3 (sd 126.4) g/d) and decreased by 27% in the control schools (mean: 46.5 (sd 105.3) g/d; P < 0.001). The majority of the children in the intervention schools did still not meet the FBDG on fruits and vegetables at follow-up. Fibre intake increased significantly in the intervention schools, as well as that of potassium, magnesium, beta-carotene and vitamin C (borderline).

**CONCLUSIONS:** The school-based intervention in 7-9-year-olds was effective in increasing fruit and vegetable intake, by 47% increase from baseline, which was mirrored in nutrient intake.

Another studies on 11 year old children's and parents' investigated the perceptions of the determinants of children's fruit and vegetable intake in a low-intake population. It concluded that interventions aiming to increase fruit and vegetable intake among children must target the parents as children reported determinants in the physical and social environment, of which the parents are a part, as an important determinant for their intake. Furthermore, interventions to increase fruit and vegetable intake among children should aim at both environmental factors such as greater availability of fruit and vegetables, and personal factors as self-efficacy and knowledge levels concerning nutrition.

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Introduction
The food and nutrition services at the National University Hospital of Iceland, not only services the hospital patients but also the hospital employees in ten different locations. In the two largest canteens, the patients family members are also welcome. The meals offered to the employees are at large the same healthy meals and meal components as the food services offer the patients that are not critically ill and diabetics. The recommendations for the proportion of energy from protein, carbohydrates and fat and amount of sodium are based on the ‘National recommendations for the public’ published by the Directorate of Health and the 500 kcal limit +/- 10% is regarded as a guideline for the lunch- and the dinner meal.

The projects
In most of our canteens the employees can choose a hot meal based on fish or meat, hot or cold sauce, steamed and fresh vegetables along with potatoes, mashed potatoes or rice and occasionally pasta or bread. Two types of a warm soup are served at most meals. Like in many other canteens in Icelandic workplaces, health concerned individuals tend to choose the fish when served, in an attempt to fulfill the national recommendation of at least 2-3 fish meals per week.

Along with this the employees at the three largest sites can choose from a ‘salad bar’ with a selection of fresh cut vegetables and fruit, cold pasta, rice, and bean dishes, with a variety of cold dressings, nuts, olives, cottage cheese, seeds, dried berries and dark bread. This option is popular among the employees and gives them a choice of eating light a lunch time and easily getting their servings of vegetables for the day.

In an attempt to help our customers to choose the most appropriate proportion of each item they place on their plate at the hot meals, a ‘plate model’ is put on display at the serving line. For the ‘salad bar’ a similar concept in under way where a plate model for an appropriate plate is put on display, showing how to select food sources rich in protein and carbohydrates and in what proportion, how much vegetables and how much of the dressing or the oil to get certain number of calories and macronutrients.

For the hot meals, information on the amount of energy, protein, carbohydrates, fat, sodium and fiber content along with the proportion of energy from the three different energy sources is displayed on the inner-net. There is also information on the most common food allergy components; gluten, milk, eggs, soy, sesame, fish and shellfish. Information on the type of fish and if the meal contains pork is also available, along with information regarding garlic, onion and celery. No ingredient used contains MSG.

The keyhole symbol has currently been accepted by the Icelandic government to use on products meeting certain health standards. The keyhole for restaurants has not yet been implemented, but in the future it will and then it would be ideal for the hospital kitchen food services to use it as a guideline and label the dishes accordingly.

The long-term health of the hospital employees is of great concern and the hospital kitchen is an important link in that chain.

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**Target group:** All community

**Short summary (methodology - strategy - concept - marketing & communication - process - outcome - budget - evaluation)**

‘Comer bem é mais barato’ (Eat well is cheaper)

In the context of crisis in Portugal, the action of civil society organizations is very important. With the aim of helping Portuguese families to eat a more balanced and healthy meals for less money, the Portuguese Association of Nutritionists joined to the Fundação Calouste Gulbenkian (Calouste Gulbenkian Foundation), to Deco (Consumers defense) and Sic (TV channel) to streamline the project ‘Comer bem é mais barato (Eating Well is cheaper)’.

This project included the creation of seven nutritionally balanced menus at a reduced price (1€ each) that were compiled in a recipes book and available for download on the campaign website and initiative promoters website. By using a simple and accessible language was possible to reach to all social and age groups. The launch of the campaign was based on written material in public transport, health centers, the campaign website and the website of the promoters. There was also a campaign on the road, with the people. This road show consisted on the presentation of 7 recipes prepared in time for a Chef de Cuisine to the population. On the TV, there was also a set of videos of the campaign about the recipes that was proposed on the recipes book.

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