Non-Communicable Diseases
The Response to Health 2020 by Dietitians

Proceedings of the 7th DIETS/EFAD Conference
Lake Garda, Italy, 8/9 November 2013

This project has been funded with support from the European Commission. This publication reflects the views only of the author, and the Commission cannot be held responsible for any use that may be made of the information contained therein.
What are the perspectives and predictions about Non-Communicable Diseases (NCDs) in Europe? What can the profession do and how can research and education contribute?

This conference will explore the role of the dietitian in preventing and treating NCDs using evidence-based practice and will facilitate meetings of European Specialist Dietetic Networks for diabetes, obesity, oncology, ageing, public health and food service. The products of DIETS2 work packages will also be presented.

Anne

Anne de Looy
Honorary President, EFAD
## Conference Programme

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<td>8:30</td>
<td>Student Briefing: Introduction to conferences and networking</td>
<td>Koen Vanherle, Artesis Plantijn Hogeschool Antwerpen, Belgium Ursula Lukas German Dietitians Association, Lucy Frost</td>
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<tr>
<td>9:00</td>
<td>Welcome</td>
<td>Anne de Looy, EFAD President, DIETS Coordinator Giovanna Cecchetto Italian Association of Dietitians</td>
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<tr>
<td>9:30</td>
<td><strong>Keynote Address:</strong> The Challenge of Non-Communicable Diseases (NCDs) for Health in Europe: Implications for Dietitians</td>
<td>Trudy Wijnhoven, Technical Officer Nutrition Surveillance, Nutrition, Physical Activity and Obesity Programme, WHO European Region</td>
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<td>10:00</td>
<td>Nutrition, Cancer and outcomes in Europe and in particular focusing on colon, breast, prostate and lung cancer</td>
<td>Inger Thune, Professor and Senior Consultant in Oncology Oslo University Hospital, Norway</td>
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<td>10:30</td>
<td>Health 2020 - The Dietetic Contribution</td>
<td>Anne de Looy, Professor of Dietetics Plymouth University, England</td>
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<td>10:45</td>
<td>Break</td>
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<tr>
<td>11:30</td>
<td>Diabetes - the pandemic waiting to happen</td>
<td>Cathy Breen Irish Nutrition and Dietetic Institute</td>
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<td>12:00</td>
<td>Poster Presentations</td>
<td>Maria Hassapidou University of Thessaloniki, Greece</td>
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<td>12:45</td>
<td>Lunch</td>
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<td>14:00</td>
<td>Food security for households and individuals - are dietitians the balance key?</td>
<td>Helena M Avila Association of Portuguese Nutritionists</td>
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<td>14:30</td>
<td>Foodservice for vulnerable groups – in practice and research</td>
<td>Ylva Mattsson Sydner Uppsala University, Sweden</td>
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<td>15:00</td>
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<td>15:30</td>
<td>Meeting of the European Specialist Dietetic Networks (ESDN); theme “NCDs and the Role of the Dietitian”</td>
<td>All welcome to attend with a special interest in these areas; lead by the ESDN leads</td>
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<tr>
<td>1.</td>
<td>Administrative Dietetics</td>
<td>Ylva Mattsson Sydner</td>
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<td>2.</td>
<td>Obesity</td>
<td>Maria Hassapidou &amp; Ellen Govers</td>
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<td>3.</td>
<td>Diabetes</td>
<td>Cathy Breen</td>
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<td>4.</td>
<td>Cancer</td>
<td>Pedro José Robledo Saenz</td>
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<td>5.</td>
<td>Ageing</td>
<td>Elisabet Rothenberg</td>
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<td>6.</td>
<td>Public Health Dietetics</td>
<td>Stojan Kostanjevec</td>
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<td>17:15</td>
<td>Presidents Meeting</td>
<td>Maria Hassapidou</td>
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<td>18:15</td>
<td>Students meeting: Networking &amp; exploring collaborative research projects</td>
<td>Koen Vanherle, Ursula Lukas, Lucy Frost</td>
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<td>18:15</td>
<td>Delegates/ Key Contacts meeting: Sustaining the EFAD &amp; DIETS Networks</td>
<td>Judith Liddell Bernadett Toth Ana Catarina Moreira</td>
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<td>20:00</td>
<td>Conference Dinner</td>
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<td>Can e-health be the way for dietitians to engage with their obese clients?</td>
<td>Avril Collinson&lt;br&gt; &lt;em&gt;Plymouth University, England&lt;/em&gt;</td>
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<td>9:30</td>
<td>Micronutrients in the prevention of non-communicable diseases</td>
<td>Hans K Biesalski&lt;br&gt; &lt;em&gt;University of Hohenheim, Germany&lt;/em&gt;</td>
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<td>10:00</td>
<td>The Effects of Flavonoids in Diabetes</td>
<td>Duane Mellor&lt;br&gt; &lt;em&gt;University of Nottingham, England&lt;/em&gt;</td>
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<td>10:30</td>
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<td>11:00</td>
<td>Dietetic Intervention - Identifying and Promoting the Health and Cost Benefits</td>
<td>Annemieke van Ginkel&lt;br&gt; &lt;em&gt;Dutch Dietetic Association&lt;/em&gt;</td>
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<td><strong>Workshops</strong></td>
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<td>1 Applications of Standardised Language on Malnutrition</td>
<td>Constantina Papoutsakis, Naomi Trostler&lt;br&gt; &lt;em&gt;(EFAD PPC), Wineke Remijnse (Dutch Dietetic Association)&lt;/em&gt;</td>
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<td>2 European Advanced Dietetic Competences and Specialist Dietitians</td>
<td>Agneta Hörnell&lt;br&gt; &lt;em&gt;(EFAD Education Committee)&lt;/em&gt;</td>
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<td>3 Dietetic Intervention - how can we identify the benefits?</td>
<td>Carole Middleton&lt;br&gt; &lt;em&gt;(EFAD Executive Committee)&lt;/em&gt;</td>
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<td>4 Models of Dietetic Practice</td>
<td>Sue Kellie&lt;br&gt; &lt;em&gt;(British Dietetic Association)&lt;/em&gt;</td>
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<td>5 Dietetic Research – which topics should be explored at EU level?</td>
<td>Elke Naumann&lt;br&gt; &lt;em&gt;(EFAD Research Committee)&lt;/em&gt;</td>
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<td>6 Reflection on Lifelong Learning Outside the Classroom</td>
<td>Ursula Lukas (WP9), Koen Vanherle (WP4), Lucy Frost</td>
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<td>13:00</td>
<td>Lunch</td>
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<td>16:30</td>
<td>Preparing students for the new roles of dietitians in Europe</td>
<td>Sofie Joossens&lt;br&gt; &lt;em&gt;University College Leuven, Belgium&lt;br&gt; Ana Catarina Moreira&lt;br&gt; Lisbon Higher School of Health Technology, Portugal&lt;/em&gt;</td>
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<td>17:00</td>
<td>Lifelong Learning: Developing Your Portfolio</td>
<td>Uta Köpcke&lt;br&gt; &lt;em&gt;German Dietitian Association&lt;/em&gt;</td>
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<td>17:30</td>
<td>Student Award for Best Poster &amp; Close</td>
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<td>18:00</td>
<td>Cocktail event to discuss Standardised Language (cost €15)</td>
<td>EFAD Professional Practice Committee</td>
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# Student Programme

## Friday 8 November 2013

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<td>8:00 - 9:00</td>
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| 8:30 – 9:00 | **Student briefing**  
Introduction to conferences and networking                                          |
| 12:00 – 12:45 | **Poster presentations**  
Students also have the opportunity to present their research results                  |
| 17:15 – 18:00 | **Poster presentations**                                                          |
| 18:15 – 19:15 | **Networking in practice: Students Social Event**  
Theme: International students’ research opportunities  
Brainstorming on practical issues, ideas for research and benefits                     |

## Saturday 9 November 2013

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| 11:30 – 13:00 | **Workshop**  
Reflection on Lifelong Learning Outside the Classroom starts from Year 1 in the Dietetics Programme  
Topics:  
1. Lifelong Learning activities during the courses – professional development activities outside the classroom  
2. Reflection about these activities: what makes a good and valuable reflection – aids to reflection – student experiences and examples (the conference is such an example)  
3. Writing a reflection about the conference  
4. Recording/monitoring the acquired competences – portfolio |
| 17:30 | **Student Award for Best Poster**                                                  |
| 20:00 | Social activities (including informal dinner)  
**Looking back - Establishing long term professional connections and friendship**      |
Meeting of EFAD National Association Presidents and Chairmen
Friday 8 November 2013 at 18:15

(Attendance of this meeting is by invitation only)

This meeting is informal and allows for full and frank discussion about dietetics nationally and in Europe. It is for the EFAD Honorary President to listen and respond to common (or not so common) concerns. As key stakeholders, our Presidents and Chairmen face everyday challenges and successes and EFAD needs to constantly listen to offer support and check that investment of resources is meeting the needs of our professional leaders.

Agenda

1 Welcome
   As presidents/chairmen of the dietetic profession across Europe, this opportunity is specifically provided for the Hon President of EFAD to meet with the leaders of our key stakeholders.

2 The purpose of this meeting is to:
   • discuss the issues facing National Dietetic Associations and the profession in Europe
   • identify how the Strategic and Business Planning of EFAD can address these issues
   • build a Network of collaboration and support and agree the frequency of meetings

3 To hear from the Associations any particular areas of concern (please also refer to the notes/minutes gathered at the last meeting; attached).

4 To continue the discussion about the potential of a ‘roadmap’ for dietitians in Europe.
   Question: what is our agenda for European dietitians? And why we might need a Roadmap?
   Attached:
   α) EU Agenda items for EFAD first presented in 2012
   β) Draft proposed ROADMAP for dietetics – only partially completed
   χ) Workforce capacity for public health nutritionists (paper and PPT)

5 Other items?

6 Date of next meeting
Meeting of DIETS Key Contacts and EFAD Delegates  
Friday 8 November 2013 at 18:15

“Sustaining the EFAD & DIETS Networks”

Facilitators:  
Judith Liddell, EFAD Secretary General/ DIETS Network Manager  
Bernadett Toth, DIETS Dissemination Lead  
Ana Catarina Moreira, DIETS Exploitation Lead

Agenda

Background and Achievements  
DIETS project 2006-2013  
EFAD since 1978

Future  
EFAD Strategic Plan and Communication Plan  
Changed EFAD membership to include Education Associates (to be confirmed)  
EFAD committees (Education, Research, Professional Practice)  
European Specialist Dietetic Networks  
Social media, newsletters, conferences

Get to know you / brainstorm  
Roles of Key Contacts and Delegates  
Working together to ensure national and EU-level dissemination and advocacy

Moving Forward  
Identifying what key contacts/delegates need from EFAD to carry out their roles  
Developing national and EU-level dissemination and advocacy strategies
Speaker Abstracts

8/9 November 2013
**Keynote Address**

The Challenge of Non-Communicable Diseases (NCDs) for Health in Europe

Trudy Wijnhoven, Technical Officer Nutrition Surveillance, WHO Regional Office for Europe, Copenhagen

**Biography**

Trudy has been in her current post since August 2005. Her main responsibilities are the international coordination of the WHO European Childhood Obesity Surveillance Initiative (COSI) since its start in 2006; development and maintenance of the WHO European Database on Nutrition, Obesity and Physical Activity (NOPA); and provision of technical support to member states on the conduct of nutritional surveys and other issues. Trudy was Technical Officer at the Department of Nutrition for Health & Development at WHO HQ (Geneva) from 1998, where she was responsible for the implementation and coordination of the Motor Development Study in five sites (a component of the WHO Multicentre Growth Reference Study) as well as for the maintenance of the WHO Global Database on Anaemia. She gained experience in the field of breastfeeding and complementary feeding during her fieldwork in Benin from 1996 to 1998. She has an MSc in Human Nutrition, an MSc in Epidemiology and a BSc in Dietetics.

**Abstract**

A relatively small group of health conditions is responsible for a large part of the disease burden in Europe. Of the six WHO Regions, Europe (53 member states) is the most affected by NCDs such as diabetes mellitus type 2, cardiovascular diseases, cancer, chronic respiratory diseases and mental disorders. These five conditions in total account for an estimated 86% of the deaths and 77% of the disease burden in the Region. 15 out of 20 risk factors for NCDs are related to nutrition and physical activity.

At the WHO European Ministerial Conference on Nutrition and Non-communicable Diseases in the Context of Health 2020 (Vienna, Austria, July 2013) ministers of health renewed their commitment to reducing the alarming high overweight prevalence figures in the Region: over 50% of adults are overweight or obese. The first round of the WHO European Childhood Obesity Surveillance Initiative looked at 6-9 year olds and showed the prevalence of overweight ranged from 19% to 49% in boys and 18% to 43% in girls. A healthy diet can contribute to achieving the global targets on NCDs adopted by the 66th World Health Assembly, including achieving a 25% relative reduction in premature mortality from NCDs by 2025. Essential components of action by member states will be the promotion of physical activity and a healthy diet throughout life, the establishment of healthy food and drink environments, reinforcement of health systems to promote health and to provide services for those with NCDs and the monitoring of the population’s nutritional status and behaviours.

**Key References**

Inger Thune
Professor/Senior Oncologist, Oslo University Hospital, Division of Surgery and Cancer Medicine Department of Oncology, Norway

Biography
Professor in Epidemiology, Specialist in clinical oncology, Member of the Expert panel: Weight Control and Physical Activity, IARC publication 2002, Member of the Expert Panel WCRF/AICR; Diet, Physical Activity Cancer

Abstract
There is a growing concern among scientists and recently also oncologists around the observation that the epidemic increases in unfavourable energy balance (excess body weight, high-energy intake and physical inactivity) are associated with biological mechanisms that may favour certain types of cancer development. Interestingly, there has been a lot of interest in whether eating certain foods might reduce the risk of certain types of cancer. Determining the biological mechanisms by which diet influences certain types of cancer will inform us not only about biological plausibility for the observed association, but also provide evidence for causality, and be important for practical guidelines both in prevention and importantly also for patients. There is some evidence that eating plenty of fruit and vegetables can protect against cancer. The evidence is strongest for cancers of the upper digestive system, such as the mouth, oesophagus and stomach. Bowel cancer is less common in people who eat lots of fibre. Results from recent observational studies and cancer prevention intervention trials will be focused. Finally, some results will be presented from those few randomised controlled trials including diet among breast and colon cancer patients.

Key References
1. www.WCRF/AICR
Health 2020: The Dietetic Contribution

Anne de Looy
Professor of Dietetics, Plymouth University, England

Biography
In addition to her post at Plymouth University, Anne is also Network Coordinator for DIETS, Honorary President of EFAD, Honorary Secretary of the UK Association for Nutrition and a partner for dietetics at the UK Health & Care Professions Council. In 2005 the British Dietetic Association (BDA) honoured Anne with the Rose Simmonds Award for her work in research, and in 2006 she was made a Fellow of the BDA for services to the profession. Her research interests include the role of carbohydrate in controlling appetite (especially in energy-reduced diets) and the professionalisation of dietetics.

Abstract
Health 2020 is an action plan for Europe aimed at reducing risk and preventing diseases and deficiencies, which are a barrier to socioeconomic development (EU, 2011). The plan lists four common policy priorities for health:

1. investing in health through a life-course approach and empowering people
2. tackling the region’s major health challenges of non-communicable and communicable diseases
3. strengthening people-centred health systems, public health capacity and emergency preparedness, surveillance and response
4. creating resilient communities and supportive environments

In July 2013, European Ministers of Health met to agree a declaration that would commit member states to face the challenges ‘posed by the burden and threat of non-communicable diseases (NCDs)’ and ‘to address the important NCD risk factors, notably unhealthy diet and physical inactivity’ (WHO, 2013). An important mandate was given at this meeting: to prepare a Food and Nutrition Action Plan for the WHO European Region 2014-2020 (FNAP). The draft FNAP provides dietitians with opportunities in four areas in which they are already engaged, led by the work of their National Associations and EFAD:

- Surveillance, monitoring, evaluation and research of nutritional health, nutritional status and influencing determinants and trends (eg nutritional care planning and standardised language)
- Reducing exposure to inequality-related and modifiable diet-related risk (eg dietary counselling)
- Public health initiatives to prevent and control diet-related, non-communicable diseases (eg food service and health in the workplace)
- Building intersect alliances and networks (eg education and policy)

Through the integrated action, education and commitment that dietitians already take within their profession, they are prime movers in ensuring improvement of nutrition-related quality of life, healthy life expectancy and making both these more equitable within and between member states.

Key References

# Diabetes: the pandemic waiting to happen

**Cathy Breen**  
Irish Nutrition and Dietetic Institute

## Biography
*Cathy is the current chair of EFAD’s Diabetes European Specialist Dietetic Network. She has worked as a clinical and research dietitian in diabetes and obesity management in Dublin, Ireland for over 10 years and is an active member of the diabetes and weight management specialist interest groups of the Irish Nutrition and Dietetic Institute. Her research interests include the role of carbohydrate in diabetes management and approaches to patient education. She has a BSc in Human Nutrition and Dietetics.*

## Abstract
Type 2 diabetes has reached epidemic proportions worldwide. It affects an estimated 55 million adults in Europe alone. Contributing factors are: increasing urbanisation, ageing populations, reduced physical activity levels, genetic susceptibility and obesity. Obesity in particular is a significant driver, leading to the term ‘diabesity’ being used as a more apt term that reflects both aetiology and clinical presentation in up to 80% of cases. Given the integral role of over-eating and diet in the aetiology and progression of the condition, dietitians have a key role to play in both the prevention and management of type 2 diabetes. Many dietitians work in clinical settings, involving diabetes management and educating individuals to make dietary choices that support effective self-management of weight, glycaemic control and cardiovascular risk factors. There is much evidence to support the expert role of dietitians in this setting (as lifestyle coaches and educators) and in translating the science of nutrition to food-based dietary guidance for optimal diabetes management. However, we know that our patients face complex challenges when trying to manage their diabetes within an increasingly obesogenic environment and overburdened health care systems.

Health 2020 is the new European health policy framework. It makes the case for investment in health and aims to support action across government and society to improve the health and well-being of populations and strengthen public health. Tackling Europe’s major disease burdens, including diabetes, is a priority area within the policy. This will require coordinated public health action and health care system interventions, which must be underpinned by supportive environments. Innovation and leadership for health are at the core of Health 2020 and it encourages all stakeholders to take on new responsibility and accountability for population health. This provides an opportunity for dietitians, as specialists with a unique insight and professional expertise in the area, to take leadership roles in developing local and national public health policies that support the aims of Health 2020 for a healthier society that will reduce the burden of type 2 diabetes.

## Key References
1. European Federation of the Associations of Dietitians (2012) *Briefing paper on the role of the dietitian in the prevention and management of gestational and type 2 diabetes mellitus*
Food security for households and individuals – are dietitians the balance key?

Helena M Ávila
President of the Association of Portuguese Nutritionists (APN)

Biography
Helena has been Director of Quality at the Portuguese catering company Uniself since 2000. Since 2009 she has been visiting Professor in Nutritional Sciences at the Institute of Health Sciences North, Porto and the Fernando Pessoa University, Porto. She has professional experience in the area of food service, quality management, food safety, environment, safety and health at work since 1992. She has published in various journals and participated in several research projects and scientific meetings, nationally and internationally. She has a BSc in Nutrition and an MSc in Food Service Management.

Abstract
The Codex Alimentarius (www.codexalimentarius.org/) is a collection of internationally recognized standards, codes of practice, guidelines and other recommendations relating to foods, food production and food safety. On 29 April 2004 the European Parliament and Council introduced Regulation (EC) No 852/2004 on the hygiene of foodstuffs, which ensures that the principal objective of the new general and specific hygiene rules is to ensure a high level of consumer protection with regard to food safety. So, in relation to food safety, everything is clear and explicit.

The question of food security now arises. The Action Plan for Food and Nutrition Policy says: “Support countries in addressing inequalities and socioeconomic gaps in relation to food safety, food security and nutrition”. In other words it specifies that food safety and food security are complementary terms. On the other hand, the World Food Summit of 1996, states that food security exists “when all people at all times have access to sufficient, safe, nutritious food to maintain a healthy and active life”. Here, food safety is a part of food security. This is an important point because it means that both food safety and food security need to be considered when planning healthy nutrition for individuals and households. Any advice therefore needs to take account of this complexity at both personal and public health levels.

Food security requires a balance to be made between different elements of food provision. Not only is there the matter of nutritious food to consider, but also food availability, food access and appropriate use of foods together with food safety. Issues such as whether households get enough food, how it is distributed within the household and whether that food fulfils the nutritional needs of each member of the household shows that food security is clearly linked to health. This presentation will emphasise the role of both dietitians and nutritionists in supporting people and families with the capability and capacity of making good healthy choices. Therefore in the case of food security, dietitians and nutritionists can, we suggest, be a balance key.

Key References
# Foodservice for Vulnerable Groups – in Practice and Research

Ylva Mattsson Sydner  
Associate Professor, Senior lecturer, Director of Studies  
Department of Food, Nutrition and Dietetics, Uppsala University, Sweden

## Biography

Ylva is an Administrative Dietitian and Head of the Department and Leader for the new European Specialist Dietetic Network for Administrative Dietetics. Her research focus is on food habits, especially in vulnerable groups like old people, disabled people and people with disease. Her main research interest is in foodservice in the public sector as a part of the Scandinavian welfare state. She has used different methodologies, but foremost qualitative methods.

## Abstract

Foodservice organizations in the public sector (in pre-schools, schools, hospitals, elderly care homes, military settings and prisons) are the focus of this presentation. All settings in this sector feature people eating meals that are more or less determined by the institution. Even if there is no comprehensive international data on the size of the public foodservice sector, it is assumed that in developed countries the public sector provides between 10-15% of all foodservice meals. This is a lot of meals and therefore is a great opportunity for intervention in order to reduce diet-related problems and malnutrition that includes both undernutrition and overweight. Moreover, foodservice is an area where we can improve nutrition and food safety as well as implement food and nutrition policies. This is especially important in dependent, vulnerable groups of people at various stages of their lives. For example, those vulnerable in relation to food service could include: children at pre-schools and schools, old people in nursing homes and those living at home dependent on meals-on-wheels, people with disabilities and patients in hospital. Irrespective of their problems and dietary needs, each person has individual preferences and values in relation to food and meals in addition to different nutritional needs. Within these vulnerable groups, administrative dietitians have a great responsibility and an important role to provide food and meals that are consumed because they are tasty and in line with social and cultural needs and expectations, as well as meeting the requirements of nutrition, food safety, sustainability and affordability.

## Key References

   Pearson
Can e-health be the way for dietitians to engage with their obese clients?

Avril Collinson
Plymouth University, England

Biography
Avril currently lectures at Plymouth University and has a research interest in e-health and obesity management. She also has a keen interest in renal disease, having worked as a specialist renal dietitian for 8 years. She completed her doctorate in 1997, which investigated eating patterns and their effects on body weight and lipid levels. Her first degree was a BSc in Nutrition and Dietetics in 1989 and she has worked in many different dietetic specialities both in the NHS and in private practice.

Abstract
Over the last few decades, obesity rates have increased sharply, which poses a major risk for the development of Type 2 diabetes, cardiovascular disease and certain forms of cancer. Lifestyle interventions such as making healthy dietary choices, increasing activity levels and losing excess body weight require a high level of professional support, are costly and the organisation required is not sustainable. This stresses the urgent need for novel, effective, accessible and sustainable weight loss approaches. The internet and e-health have the potential to provide an alternative means of supporting large numbers of individuals in making diet and activity changes. Advances in mobile phone technology have led to a new generation of smartphones, which offer both a platform for accessing the internet and a plethora of weight management applications (apps). Evidence highlights that information provision on its own is not enough to produce meaningful change in individuals. Additional support via personalised feedback and self-monitoring is required to sustain the level of motivation needed for long-term behavioural change (Saperstein 2007). Technology-based interventions that include a strong behavioural component have been shown to be a successful medium for delivering weight loss advice in the short term (Collinson et al 2011, Pellegrini et al 2012). As healthcare professionals, we need to ensure we keep up to date with the latest developments in this field. There is still a huge gap in the evidence base to show which technology-based interventions offer most benefit and further research is needed to see how these should be integrated within our health care infrastructure.

Key References
### Micronutrients in the Prevention of Non-communicable Diseases

**Hans K Biesalski**  
University of Hohenheim, Germany

**Biography**  
*Since 1993, Hans has been Professor of Biological Chemistry and Nutritional Medicine at the University of Hohenheim. He is also Director of the Institute of Biological Chemistry and Nutrition and Director of the Food Science Center of the same university and a board member of the Center for Agriculture in the Tropics and Subtropics.*

**Abstract**  
The effect of micronutrients needs to be separated into two targets: prevention of a deficiency and prevention of an inadequate intake. In the first case, micronutrients are delivered to treat a deficiency disorder with classical clinical signs, eg scurvy, rickets, pellagra, anaemia etc. In the second case, micronutrients are recommended to prevent either a disease or a clinical sign of a disease. This approach may be justified by the fact that before the occurrence of specific clinical signs of deficiency, more or less unspecific signs might occur such as moderate impairment of the immune system, increased risk for infections or alterations of mood and cognitive performance. Indeed, in a couple of non-communicable diseases (eg obesity, diabetes) either low intake of different micronutrients or a low status of one or more micronutrients (eg Vitamin A, D, Folate, Iron, β-carotene) have been described. In particular, in diabetes and obesity there is up to now no evidence that these diseases are associated with a higher need for micronutrients due to a higher turnover. A special case is the elderly. In this population, energy need decreases but the need for micronutrients remains constant. As a consequence, micronutrient inadequacies are frequent in this group. Recent data from the Physicians Health Study show that a long-term (12yrs), intake of a multivitamin supplement lowers total cancer incidence significantly (8%). A particular group at risk of low intake of micronutrients are children living in poverty (18% in Germany). The lower the socio-economic-index, the lower the supply of micronutrients. The consequences are manifold, ranging from inadequate physical performance to inadequate cognitive performance. Reasons for micronutrient inadequacy and the consequences for the development of diseases will be discussed.
The Effects of Flavonoids in Diabetes – can chocolate really help?

Duane Mellor
Lecturer in Dietetics, The University of Nottingham, England

Biography
Duane has recently moved to The University of Nottingham, but previously taught dietetics at the University of Chester, where he was the programme leader for the postgraduate nutrition and dietetics course. He is a member of Work Package 7 of DIETS2, edits the nutrition section of Diapedia (an online text for diabetes) and was part of the Diabetes UK Nutrition Working Group that developed the current UK nutritional guidelines for diabetes. Duane has a PhD from the University of Hull (2013); his research focused on the effects of flavanol-rich chocolate on cardiovascular risk in type 2 diabetes. He is interested in a variety of nutrition and dietetic research, having published 15 peer-reviewed papers and many more conference proceedings.

Abstract
Flavonoids are part of a group of compounds derived from foods defined as polyphenols. These are secondary metabolites produced by plants, and are believed to have protective functions in the plant (particularly against UV radiation) and to taste bitter in order to deter over-grazing.

Initially, scientific interest in these compounds was based on their powerful antioxidant effects demonstrated in the laboratory. An increasing evidence base from epidemiological studies gave rise to the concept of antioxidants beyond vitamins and their potential benefits for human health.

More recently the idea that the beneficial effect of flavonoids was through an antioxidant mechanism has been challenged, with current thinking favouring the manipulation of enzyme pathways as the route to their beneficial activity. This session will discuss the background to the potential beneficial effects of flavonoids in diabetes and cardiovascular disease prevention. A range of flavonoids will be discussed, including my work with chocolate and type 2 diabetes. Potential mechanisms, clinical trial data and epidemiological observations will be considered, including the recent EFSA (2012) health claim for cocoa. This will be set within a critical consideration of the research evidence and what this could mean to dietitians and their patients.

Key References
# Dietetic Intervention – Identifying and Promoting the Health and Cost Benefits

## Annemieke van Ginkel-Res
Director of Nutri-akt and Vialente, The Netherlands

### Biography
Annemieke is Chair of the Committee of Primary Care Dietitians in the Dutch Association of Dietitians and Member of the Executive Committee of EFAD. She is also director/owner of Nutri-akt: a recruitment agency in Food, Technology, Nutrition & Health, and Vialente Diëtheek, an organization of dietary practices in primary care in the Netherlands.

### Abstract
As dietitians we are convinced about the effectiveness of our treatment in malnutrition, obesity, diabetes etc. However, now we also have to be driven by results and costs in order to convince our decision makers such as governments, health insurance companies, management, referrers and even patient groups. Although the positive effects of dietary advice are well described in the scientific literature, the total (monetary) benefits of specialized dietary treatment are barely calculated. In this presentation, we will look at examples of cost-benefit studies. It is important to measure benefits such as: higher quality of life for patients, treatment of illnesses, improving physical health and productiveness (work related). When we look at managerial and financial strategies, the benefits of cost effectiveness in dietary treatment are important. For future sustainability of dietary treatment by the dietitian, we need more relevant data!

### Key References
2. Wilson L (May 2013) A review and summary of the impact of malnutrition in older people and the reported costs and benefits of interventions *Malnutrition Task Force International Longevity Centre UK*
3. Garel P (May 2013) Managerial and financial strategies and incentives to ensure good nutritional care *Results of HOPE-EHMA workshop*
Preparing students for the new roles of dietitians in Europe

Sofie Joossens
University College Leuven, Belgium

Biography
Sofie Joossens is lecturer in the program of professional bachelor in nutrition and dietetics at the department of Health and Technology, Leuven University College. She graduated as professional bachelor in nutrition and dietetics at LUC and continued her studies at the Catholic University of Louvain, where she obtained the title of Master in Dietetics and Nutrition and subsequently the title of Doctor in the Medical Sciences. Sofie teaches subjects including dietetics and evidence-based practice. In addition, she is member of the educational committee and she coordinates the theses and the practical placements for last year students. From this latter role, her engagement in DIETS2 can be explained. Since 2010, Sofie has been lead of Work Package 1 (WP1 ‘Supporting Work based/Placement Learning’).

Abstract
Preparing students for the new roles of dietitians in Europe implies a commitment towards innovations of all parties involved, namely the Higher Education Institution (HEI), practice placement and student. The aims of (WP1) ‘Supporting Work based/Placement Learning’ were to map diversity of placements, to develop a database with supporting documents, to select best practices and lastly to prepare pedagogic standards for dietetic placement teachers to support both innovation and high quality practice placements. Focusing on the latter, a face-to-face workshop was held and an online questionnaire was distributed to 67 HEI partners or corresponding National Dietetic Associations (NDAs) of DIETS 2. One section of the survey aimed to explore the quality of supporting documents used for practice placement referring to the 'EFAD (2010) European Dietetic Practice Placement Standards (EDPPS)’. Meanwhile, a database was developed to collect supporting documents for practice placement. Subsequently best practices were selected using 13 standards out of 18 (EDPPS, 2010) to assess documents of HEI partners across Europe. Finally, pedagogic standards for dietetic placement teacher were formulated. The database (see DIETS2 website) contains supporting documents including syllabi, general guidelines for students and/or supervisors, specific learning outcomes, final and interim evaluation forms of students and documentation for students going abroad, of 39 partners. The guide to best practice, based on the supporting documents of 16 HEI partners, comprises best practice for 13 out of 18 standards (EDPPS, 2010). Nineteen standards were formulated with regard to qualification and work experience of the dietetic placement teacher, relations with the HEI, professionalism, educational skills and the practice placement environment representing the pedagogic standards. In conclusion, these products of WP1, namely the database with supporting documents, the guide to best practice and the pedagogic standards for dietetic placements, hopefully inspire the HEIs and the professional field. In this way both profession and education contribute to innovation and high quality practice placements.

Key References
2. DIETS2 WP1 August 2013 Pedagogic standards for dietetic placement teachers Consultation document
3. DIETS2 WP1 October 2013 Guide to best practice; dietetic practice placements in Europe
Lifelong Learning: Developing Your Portfolio

Uta Köpcke  
German Dietitian Association

Biography  
*Uta works for the German Dietitian Association and is also Lead of the DIETS2 Work Package 'Lifelong Learning for Dietitians in Europe (WP3). In addition to her profession as a dietitian, Uta studied teaching, specialising in adult education. She also has experience of working in public health and the food industry.*

Abstract  
Lifelong learning is no longer just an aspect of education and training; it must become the guiding principle for provision and participation across the full continuum of learning context (1).

Professional development is essential to maintain a high level of professional competence by continually improving knowledge and skill and reflecting one's own perspective. In the highly competitive area of food and nutrition, it provides the drive to progress your career and can maximise your potential for lifetime employability (2).

EFAD has adopted 'The International Code of Ethics and Code of Good Practice for Dietitians' and states that European dietitians should have professional accountability and continued competence (3). Additionally EFAD has now considered and made recommendations about a Lifelong Learning Strategy for its member Associations and individual European dietitians.

Professional development can be broken down into different stages and shown as a cycle featuring the elements: Plan - Action - Self-assessment - Evaluation.

A ‘toolkit’ has been prepared to support all four areas of development for dietitians in Europe. Following the consultation phase, a guide including the tools has been made available. Like a carpenter using different tools out of his toolkit for different tasks, dietitians can choose from the toolkit the appropriate tool for different goals of their professional development. The tools are templates, methods, checklists and other documents. The collection of documents reflects the various working fields relevant to dietitians and nutritionists.

This session will give an overview of tools for self-assessment like a SWOT analysis, tools for planning development, to support actions like reflection on informal learning, peer group supervision, teaching/peer group observation and tools for evaluation.

Our aim is to encourage you to start your personal journey, to encourage all NDAs to support their dietitians with a translation of this guide so they are fit for their future work and continue to develop their competence.

Key References  
1. EU Memorandum on Lifelong Learning  
Meeting of the European Specialist Dietetic Networks (ESDN)

"NCDs and the Role of the Dietitian"

All those with an interest in a specialist area are welcome to attend.
ESDN: Administrative Dietetics

Ylva Mattsson Sydner
Associate Professor, Senior lecturer, Director of Studies
Department of Food, Nutrition and Dietetics, Uppsala University, Sweden

Biography
Ylva is an Administrative Dietitian and Head of the Department and Leader for the new European Specialist Dietetic Network for Administrative Dietetics. Her research focus is on food habits, especially in vulnerable groups like old people, disabled people and people with disease. Her main research interest is in foodservice in the public sector as a part of the Scandinavian welfare state. She has used different methodologies, but foremost qualitative methods.

Abstract

Agenda
• Welcome and presentations of participants
• New on the websites
• The competences described for administrative dietitians – do we agree?
• What is the role of administrative dietitians in relation to the prevention of NCDs?
• Name of this ESDN – how can we name our specialist area of competences?
• The ESDN has a folder on EFAD web page – what do we want to include?
• To write a position paper – what to include?
• How to define experts and specialists in dietetics?
• Who can be a member in an ESDN?
• How can our ESDN support people working in the area?
• What kind of organizations do we want partner with (in relation to EFAD)?
• What are our areas of specific interest, eg food safety, sustainability, leadership, culinary nutrition and so on?
• Who are our contacts for particular areas of interest?
• How do we continue the work?
### ESDN: Obesity

**Ellen Govers**, Chair to the European Specialist Dietetic Network on Obesity  
**Maria Hassapidou**, Professor of Nutrition & Dietetics, Thessaloniki, Greece

### Biographies

*Ellen* works as a dietitian in primary care, specialising in obesity and its comorbidities, and in prevention. She is also a research dietitian in the field of obesity management in primary care. She is a member of the Partnership Obesity of the Netherlands and President of the Knowledge Centre of Dietitians specialising in Overweight and Obesity (KDOO). *Ellen* has written four books on nutrition and dietetics for the general public.

*Maria* is currently Professor of Nutrition and Dietetics in the Department of Nutrition and Dietetics of the Alexander Technological Education Institute of Thessaloniki. She is a member of the executive committee of the Greek Association for the Study of Obesity, the national coordinator for Greece for COSI (WHO European Childhood Surveillance Initiative) and member of the EASO Childhood Obesity Task Force. She has coordinated and/or participated in several research projects funded by the EU, the research committee of ATEI, the Greek Ministries of Health, Education, Research and Technology, and food or pharmaceutical companies in the areas of dietary assessment and nutritional evaluation, experimental nutrition, dietary treatment of obese patients and childhood obesity.

### Abstract

Collecting evidence of effective treatment and sustainability of the results is the most important thing in the near future that dietitians have to accomplish in the field of obesity. Although we are committed and professional health workers with a lot of experience, we are reluctant to tell others about the effects of our treatment. Evidence-based dietetics is the way to show our abilities, and to show which patients are best treated by dietitians.

In the workshop we will focus on:
1. What evidence is available for dietetic interventions in the field of obesity?
2. How can we improve the evidence there is?
3. Are dietitians good researchers in the field of obesity?
4. What would be needed to improve those qualities?
5. Could the ESDN take the lead in writing an article on evidence on management by dietitians?

We encourage all dietitians who visit the workshop to bring along examples of evidence, or speak about studies that are running.

### Key References

### Biography

Cathy graduated with a BSc (Human Nutrition and Dietetics) from DIT/TCD in 2002 and has worked as a clinical and research dietitian in diabetes and obesity management in Dublin, Ireland for over 10 years. She is an active member of the Irish Nutrition and Dietetic Institute. Her research interests include the role of carbohydrate in diabetes management and approaches to patient education. She is the current chair of EFAD’s Diabetes European Specialist Dietetic Network.

### Abstract

This workshop will involve each of the participants considering their role in the European Specialist Dietetic Network in Diabetes and how best the group can support its members in sharing expertise and continuing to develop the competencies required for specialisation in the area of diabetes. We will consider:

- The terms of reference, functions and membership of the group
- Communication within the group:
  - Utility of the EFAD website
  - Consideration of Diabetes ESDN satellite meetings at European diabetes conferences
  - Email group
- Forging links with other European groups and networks in the area, eg International Diabetes Federation
- Advanced dietetic competencies specific to diabetes
- Lifelong learning database and opportunities for members in the area

### Key References

1. European Federation of the Associations of Dietitians (2012) Briefing paper on the role of the dietitian in the prevention and management of gestational and type 2 diabetes mellitus
2. EFAD (2009) European Dietetic Competences and their Performance Indicators
ESDN: Ageing

Elisabet Rothenberg
Associate Professor, President of the Swedish Association of Clinical Dietitians

Biography
Since 2010, Elisabet has been the EFAD expert on malnutrition. She is a board member of The Swedish National Board of Health and Welfare and the Swedish Association of Clinical Nutrition and Metabolism. She is also a member of the expert group in food & health of the National Food Administration and on the Senior Alert quality register of the Swedish Association of Local Authorities and Regions. Elisabet was a Chief Dietitian from 1997-2010, worked as a clinical dietitian within geriatric settings and holds a PhD. Her research interests include geriatric nutrition, epidemiology and clinical aspects of malnutrition, food intake, texture modified food, energy metabolism and body composition.

Abstract
In order to specialise in geriatric nutrition, dietitians need to have a profound knowledge of gerontological theories. In particular, they need to know:

- how age affects physiological and psychological processes
- the nutritional needs of the ageing body
- about age-related disease, geriatrics, and how these affect the human body
- how to treat age-related nutritional problems

This workshop will focus on the aim of the specialist group within geriatric nutrition and how it could support EFAD members and EC within this specialist field. Within the scope of the aim we will decide what to deliver 2013-14 as a contribution to health, well-being and quality of life for older adults in Europe.

Key References


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<th>ESDN: Public Health Dietetics</th>
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| **Stojan Kostanjevec**  
Assistant Professor, Faculty of Education, University of Ljubljana, Slovenia |

**Biography**  
*Stojan is the Slovenian delegate to EFAD. He is also an active member of several European projects such as Consumer Education for Adults; Science for Consumers (both Grundtvig funded) and Food Safety supported by Dolceta. From 2002 to 2010 he was President of the Slovenian Nutritionist and Dietetic Association and a former member of the first DIETS Network as well as DIETS2. His research interests include the nutrition habits of different groups of people, nutrition and consumer education.*

**Abstract**  
Participants in this workshop will discuss the role of dietitians who are active in the field of public health dietetics and involved in programmes for the prevention and treatment of Non-Communicable Diseases (NCDs). Knowledge and experience are needed to achieve quality in performing our profession. Active participation at the workshop will enable us to exchange mutual information and experiences; we will also identify priority goals and tasks that can be implemented through mutual co-operation. We will discuss the importance of dietitians being included in the research work and about the ways in which the exchange of scientific information can take place. Successful discussion at the workshop depends on the experiences and ideas of each participant, so we will also look at and select options for effective mutual co-operation in future.

**Key References**

1. DIETS2 (2012) *European Dietetic Advanced Competences (EDAC)* Available at www.thematicnetworkdietetics.eu
2. European Public Health Alliance (2013) *EPHA Guide - The EU and Health*  
   Available at www.epha.org/5594
Workshops

8/9 November 2013
### Workshop: Applications of Standardised Language on Malnutrition Part 1: International Classification of Functioning (ICF) in Dietetics: a Dutch Approach

**Wineke Remijnse**  
Policy Consultant, Dutch Association of Dietitians

#### Biography
For the last 11 years, Wineke has worked as policy consultant for the Dutch Association of Dietitians. Her topics of interest are: quality of work, the quality register, evidence-based practise, the nutritional care process and the chronic care model. Before that she worked as a dietitian for over 12 years in the University Medical Center in Utrecht, the Netherlands, eventually becoming Head of the Dietetic Department.

#### Abstract
The purpose of this workshop is to apply standardized language in a major area of clinical practice: malnutrition. To demonstrate how different systems work we will consider applications of ICF-Dietetic and IDNT (International Dietetic and Nutrition Terminology).

**Part 1: ICF-Dietetic**

Dietetic intervention needs to lead to concrete results that are transparent, effective and efficient. This means that we have to question:
- What kind of disorder are we dealing with?
- What causes patient-specific problems?
- Which intervention goals can we reach by dietary treatment?
- What measurements are needed for diagnosis and evaluation?
- Does the patient reach the treatment goals?

To answer these questions and to create possibilities for improving our interventions, the use of standardized language is an important tool. In the presentation examples you will discover how to describe different steps of the nutritional care process by using standardized language. You will also learn about malnutrition cases described from a Dutch perspective using ICF-Dietetics.

#### Key References


Constantina Papoutsakis Chair, EFAD Professional Practice Committee (PPC)
Naomi Trostler, Member, EFAD PPC

Biographies
Constantina is nutrition instructor at the National and Kapodistrian University of Athens and adjunct Assistant Professor at the University of Maryland. She has been a member of EFAD PPC since its beginning and has lead initiatives to monitor best practices throughout Europe with emphasis on standardized language developments. Since 1994, she has worked as a clinical dietitian and holds a PhD, with clinical and managerial expertise in randomized clinical trials. She has published widely with emphasis on the impact of nutrition in chronic disease.

Naomi has been active in the Israeli Dietetic Association for many years and has been a leader in advancing the practice of dietetics in Israel. She is a team player and contributor to numerous committees. She holds a PhD, has wide international experience and is a champion of the Nutrition Care Process (NCP) and IDNT.

Abstract
The purpose of this workshop is to apply standardized language in a major area of clinical practice: malnutrition. To demonstrate how different systems work we will consider applications of ICF-Dietetic and IDNT (International Dietetic and Nutrition Terminology).

Part 2: IDNT (International Dietetic and Nutrition Terminology)

The purpose of this part of the workshop is to showcase the use of IDNT in a malnutrition context. As a foundation, we will briefly describe the basic standardized characteristics recommended for the diagnosis of adult malnutrition (undernutrition). Using the Nutrition Care Process through case study material, we will demonstrate the application of IDNT as an essential tool for clinicians to better establish malnutrition prevalence and, consequently, provide effective nutritional interventions and achieve expected outcomes.

After the presentations there will be a Q&A discussion as an opportunity to learn from each other.

Key References
Workshop: European Advanced Dietetic Competences and Specialist Dietitians

Agneta Hörnell
Professor of Food and Nutrition, Umeå University, Sweden

Biography
In addition to being Professor of Food and Nutrition in Umeå, Agneta is also: chair of the DIETS Work Package ‘Second and third cycle specific dietetic competences’ (WP2); chair of the EFAD Education and Lifelong Learning (LLL) Committee; chair of the expert group for children 0-18 y in the 5th revision of the Nordic Nutrition Recommendations; member of the Swedish Food Administration’s expert group in paediatric nutrition, and the Swedish National Breastfeeding Committee. Her research interests include different aspects of food and health in children and ‘meals for many’ (eg school meals and food for elderly).

Abstract
According to the European Commission, Lifelong Learning (LLL) is defined as ‘all learning activity undertaken throughout life, with the aim of improving knowledge, skills and competence, within a personal, civic, social and/or employment-related perspective.’

Dietitians need to be committed to constant development as they progress through their career; making effective use of LLL to increase their competence and attain a high quality of performance, creativity and innovation together with safe practice. LLL has a key role to play in advancing the status and reputation of the dietetic profession, reducing inequalities and improving nutritional health in Europe.

In 2012, EFAD adopted the advanced level benchmark competence statements for European dietitians: European Dietetic Advanced Competences (EDAC), developed in the DIETS project. EDAC defines the competences highly qualified dietitians should be able to reach after “some years” of professional experience combined with LLL, eg continued education. Dietetic work experience is essential to improve competence, but years in practice are not enough by themselves to reach advanced level. How a dietitian works and what LLL-experiences the individual chooses to undertake will be crucial in the process. It is possible to work many years as an adequate and competent dietitian without reaching advanced level.

The workshop will focus on how EDAC can be used, eg when assessing competence, planning LLL and when considering requirements for specialist dietitians.

Key References

1. European Dietetic Advanced Competences (EDAC) Adopted at EFAD General Meeting in Portoroz, Slovenia 2012 Available at www.efad.org and www.thematicnetworkdietetics.eu
2. Strategy for Lifelong Learning within EFAD To be discussed and adopted at EFAD General Meeting in Italy, 2012 Available at www.efad.org
3. Strategy for Lifelong Learning for dietitians in Europe To be discussed and adopted at EFAD General Meeting in Italy, 2012 Available at www.efad.org and www.thematicnetworkdietetics.eu
Workshop: Dietetic Intervention - how can we identify the benefits?

Carole Middleton
EFAD Executive Committee / Delegate from the British Dietetic Association (BDA)

Biography
Until recently, Carole worked as the Service Manager for Countrywide Services and Professional Lead for Dietetics at Oxford Health NHS Foundation Trust. She has been an EFAD BDA Delegate since 2000, on the EFAD Executive Committee since 2006 and a Director of the International Confederation of Dietetic Associations since 2004. Carole is a past Chairman of the BDA and has been a BDA Fellow since 1993. She was honoured with an MBE in the Queen’s Birthday Honours list 1997 for services to dietetics.

Abstract
EFAD aims to:
• Promote the development of the dietetic profession
• Develop dietetics on a scientific and professional level in the common interest of the member associations
• Facilitate communication between national dietetic associations (NDAs) and other organisations – professional, educational, and governmental
• Encourage a better nutrition situation and as part of its ambition: to realise the contribution that dietitians can make to the improvement of nutritional health in Europe

The EFAD Ethical Statement includes the following: to provide high quality, cost-effective services in nutrition and dietetics. However, when looking for the evidence to support these statements, there is a lot published about the benefits of the nutritional/dietetic intervention, but very little on the benefits to health and cost of that intervention being delivered by a dietitian. To demonstrate and promote the value of the dietitian we need to demonstrate and document how utilising the unique skills of the dietitian has a positive impact on health outcomes and cost. Some examples that have been published are:
• A report commissioned by the Dutch Association of Dietitians on the social costs and benefits of treatment by a dietitian for patients who are overweight with co-morbidities.
• Clinical Oral Nutritional Support project in London
• Nutritional services for older people in Greece

Aims of the Workshop
• To identify what benefits can be attributed to intervention by a dietitian
• To discuss more examples from the workshop participants
• To discuss what EFAD and the European Specialist Dietetic Networks can do to help individuals, National Dietetic Associations or HEIs to build up the evidence

Key References
Workshop: Models of Dietetic Practice

Sue Kellie  
Deputy Chief Executive, British Dietetic Association (BDA)

Biography
Since 2005, Sue has been Head of Education and Professional Development at the BDA and is also the lead on Practice-based Evidence in Nutrition (PEN) and the use of information to support practice through systematic recording using nutrition process and standard language. She initially trained as a dietitian in Glasgow and Nottingham (UK) and worked in the National Health Service in various posts and specialties before settling in paediatrics and service management. She also developed an interest and expertise in education and informatics.

Abstract
This workshop will explore models of practice. Participants will be encouraged to apply a model of practice within their practice area. Across Europe, dietetics has to establish itself as a profession and practice that contributes to improving the health of the population and individual clients through the application of nutrition. The use of models of practice contributes to this outcome by encouraging a systematic approach to the practice of dietetics.

The application of a practice model with an emphasis on enhancing professional decision-making does not remove the autonomy of the dietitian or detract from the art of dietetic practice. It enhances the practice of dietetics by providing a robust framework for the application of nutrition science within the practice environment. Models of practice are used in the education and training of student dietitians, developing standards for practice, evaluation of outcomes of dietetic care and the development of clinical records. In this way the quality of dietetic care is enhanced and the contribution of dietitians to improving the health of the population is made explicit.

Key References
**Workshop: Dietetic Research - which topics should be explored at a European level?**

**Elke Naumann**  
Lecturer in Dietetics & Nutrition, Han University of Applied Sciences, The Netherlands

**Biography**  
*Elke has a PhD from Maastricht University (2006) and her research interests include nutrition in the elderly and (measurement of) effectiveness of dietetic treatment. Until this year, she was Head of the Department of Nutrition and Dietetics at Han University. She was also chair of the Education and Practice Group in DIETS 1 and chair of WP 5 (Teaching enquiry based learning) in DIETS 2.*

**Abstract**  
Over the last few years, the DIETS Work Package 5 (WP5) concentrated on teaching research. There are now several e-courses available and a database to share teaching and research materials. In addition, in June 2013, the first e-journal was launched, which contains abstracts of student research. In order to build on the achievements of the DIETS network when the project comes to an end, it was decided that WP5 should merge with EFAD as a research committee. The purpose of this committee is to embed evidence-based working in dietetic practice. The aims of this committee are to:

- embed an evidence-based and research-based approach to dietetic practice in Europe at all levels (Taormina Declaration, EFAD 2007)
- identify and promote systematic investigation/research methodologies to improve nutritional health
- facilitate sharing of emerging research and evidence-based practice in dietetics

This workshop will describe EFAD's current view of the purpose, aims and terms of reference of this committee and our work plan for 2014. However, since this is a new committee, we will welcome your views on the work of a research committee. We will discuss what topics you think are relevant to explore at a European level and what, in your opinion, the role of the role of the research committee could be. We will use the outcome of this workshop to set our work plans for the future.

**Key References**

1. DIETS deliverables: E-courses, available at:  
   www.thematicnetworkdietetics.eu/everyone/3857/7/0/30
2. DIETS deliverables: E-journal, available at:  
   www.thematicnetworkdietetics.eu/everyone/3907/5/0/30
3. DIETS deliverables: Database of materials on research and teaching enquiry available at:  
   http://www.thematicnetworkdietetics.eu/everyone/3858/7/0/30
## Workshop: Reflection on Lifelong Learning Outside the Classroom

### Ursula Lukas (WP9), Koen Vanherle (WP4), Lucy Frost

#### Biographies

Ursula is a clinical dietitian at Kreiskrankenhaus Dormagen, Germany and is certified in enteral and parenteral nutrition and geriatrics. For DIETS2 she is active as deputy lead in Work Package 9 and is a member of the EFAD Conference Organizing Committee.

Koen is active in the DIETS2 project as co-lead of Work Package 4 “Dietitians engagement with ICT to improve learning”. He is also manager of the DIETS Facebook Page and host of the student meetings. He has an MSc in Nutrition and Dietetics and has taught at Artesis Plantijn Hogeschool, Antwerp, Belgium since 2003, mainly subjects in the area of research, statistics and food science. Lucy is a newly qualified UK dietitian.

#### Abstract

This workshop will reflect on lifelong learning outside the classroom and is mainly aimed at students. Rather than being a theoretical lecture, this workshop will be interactive and inspiring, based on the experiences and expectations of participants. The following topics will be discussed:

- Learning: each student finds out about his/her personal learning style
- Lifelong learning activities during the courses
- Professional development activities outside the classroom
- Reflection about these activities: what makes a good and valuable reflection, aids to reflection, instruments of evaluation, student experience and examples
- Writing a reflection about the conference: the result will be a database of reflection and will be posted on the DIETS Facebook page

In the evening the student programme will end with an informal dinner that will include:

- Welcome and looking back at the last student meeting (2012)
- Networking, sharing information on students website, research ideas
- Reflection on today, the workshop (did you learn and did you reflect?) and future student events

#### Key References

1. de Looy A *Reflection about learning* Webinar  
   https://bnf.adobeconnect.com/_a874223199/pzhmcxz5ys/?launcher=false&fcContentType=true&pbMode=normal
2. DIETS2 Work Package 2, DIETS2 Strategy for LLL for Dietitians,  
3. DIETS2 Work Package 3, DIETS2-Toolkit-LLL-2013,  
4. Lukas U *DIETS2 6th Conference Proceedings*  
Posters

Sessions 1-6

8/9 November 2013
SESSION 1: Obesity
Chairman: Maria Hassapidou

Intake of Milk and Milk Products in Female Patients with Metabolic Syndrome following Special Diets
Amalia Tsagari, Antonis Galanos, Garifalia Belegreti, Ioannis Triantafillopoulos, Ismini Donta, Nikolaos Papaioannou
Greece

Evaluation of Nutritional Status of Overweight and Obese Women in Turkey
Gülşah Kaner, Gülden Pekcan, Bariş Önder Pamuk, Banu Pınar Şarer Yürekli
Turkey

Reduced Metabolic Complications Among Greeks Living in the Islands, Compared to the Mainland
Maria Grammatikopoulou, Alexandra Koulouri, Ionas Pagkalos, Maria Hassapidou
Greece

Analysis of Hypertension Risk Factors in Patients with BMI > 25kg/m²
Lucyna Pachocka, Miroslaw Jarosz, Longina Kłosiewicz-Latoszek, Irena Stolarska
Poland

Nutrient Intake before and after Bariatric Surgery
Ina Gesquiere, Jolien Marreel, Katlijn Vangilbergen, Sofie Joossens, Veerle Foulon, Matthias Lannoo, Ann Meulemans, Bart Van der Schueren, Christophe Matthys
Belgium

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Turkey

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Chairman: Monica Caixinha

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T Libert, P Houdayer, L Cepré
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Kelly Frames
South Africa

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Alexandra Koulouri, Maria Grammatikopoulou, Ionas Pagkalos, Maria Hassapidou
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Dietary Fibre Intake among Different Groups of Patients as Compared to Recommendations
Danuta Gajewska, Anna Harton, Joanna Myszkowska-Ryciak, Sa’eed Bawa
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The Relationship between Cardiometabolic Disease Risk Factors and Anthropometric Measurements in Adolescents
Nalan Hakime Noğay
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Body Composition and Physical Function in Healthy Community-Dwelling Older Adults in Sweden, a Cross-Sectional Study  
Amanda Lindblad, Synneve Dahlin-Ivanoff, Ingvar Bosaeus, Elisabet Rothenberg  
Sweden

Assessment of Nutritional Status of Elderly People Residing in Nursing Homes  
Anastasia Markaki, Maria-Evridiki Pyrgou, Victoria Siampeka, Angeliki Papadaki  
Greece

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Honey: Consumer Knowledge Levels and Consumption in Kayseri, Turkey  
Gülsah Kaner, Meltem Soylu, Eda Demircioğlu, Neriman İnanç  
Turkey

Comparison of Eating Habits between Freshmen and Senior Students of Nutrition & Dietetics  
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Greece

Evaluation of Dietary Habits of Healthcare Students  
Turkey
Posters
Intake of Milk and Milk Products in Female Patients with Metabolic Syndrome following Special Diets

Amalia Tsagari, Antonis Galanos, Garifalia Belegreti, Ioannis Triantafillopoulos, Ismini Donta, Nikolaos Papaioannou

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Abstract

Introduction:
Adequate calcium intake is important for bone health.

Objective:
The aim of this research is to study the calcium intake of women with metabolic syndrome that follow a special diet.

Methodology:
Medical and social history and a semi-quantitative food frequency questionnaire was performed in 486 female patients.

Results:
Obese women consumed more yogurt and low-fat milk in comparison with non-obese (p<0.001).
The consumption of the low-fat/low-calcium cheese was higher in patients with dyslipidaemia, diabetes mellitus and hypertension (p<0.001).

Conclusions:
Women with metabolic syndrome may be at risk of inadequate calcium intake due to adherence to a low fat diet.

Key Reference

Outcomes that may inform future practice
Nutritional counselling in postmenopausal female patients with metabolic syndrome should take into consideration the need of consumption of adequate calcium.
Evaluation of Nutritional Status of Overweight and Obese Women in Turkey

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Abstract

Introduction:
Obesity is an important public health problem.

Objective:
To determine the nutritional status of overweight and obese women.

Methodology:
619 women, aged 20-49 years, were selected in the following categories: normal weight - BMI: 18.5-24.9 kg/m² - (27% n=170); overweight - BMI: 25.0-29.9 kg/m² - (29% n=179) and obese - BMI: ≥30 kg/m² - (44% n=270). Women admitted to İzmir Bozyaka Training and Research Hospital internal medicine, endocrinology and diet clinics outpatients were included. The following were recorded for each woman: demographic characteristics, food consumption frequency and 24-hour dietary intake for 3 consecutive days. The daily intake of energy and nutrients was measured using the Nutrient Database (BeBiS computer program).

Results:
Intake of all the following were significantly higher in the obese group than in the overweight group or the controls: energy (p<0.001), protein (p<0.001), fat (p<0.001), carbohydrate (p<0.001), fibre (p<0.001), vitamin E (p<0.001), B₆ (p<0.001), folate (p<0.001), vitamin C (p<0.01), Ca (p<0.05), K (p<0.001), Mg (p<0.001), K (p<0.001), P (p<0.001), Fe (p<0.001), Zn (p<0.001).

Outcomes that may inform future practice

- Obesity is an important public health problem.
- Precautions should be taken to prevent the occurrence of obesity.
- Preventive measures should cover lifelong activities.
Reduced Metabolic Complications Among Greeks Living in the Islands, Compared to the Mainland

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Abstract

Objectives: To compare the risk for metabolic disease between Greeks living in the islands compared to the mainland.

Methods: A total of 865 adults participated in the study, all, with at least one metabolic complication.

Results: Islanders demonstrated significantly lower risk of developing Metabolic Syndrome, hypertension, obesity, IR, T2DM, or cardiovascular disease, compared to those living in the mainland (p≤0.05 for all). The effect was not persistent for central obesity, elevated triglyceride levels or low HDL. No difference was observed between islanders and mainlanders for mean daily sleep duration. Patients living in the islands also had increased chances of being normal weight obese (NWO). When the number of metabolic syndrome criteria was compared, islanders demonstrated reduced clustered criteria compared to patients living in the mainland (2.0±1.0 vs 2.5±1.2, p≤0.001).

Conclusion: Living in the islands appears to reduce the risk for metabolic disease compared to living in the Greek mainland. Further analysis is needed to identify the lifestyle and environmental factors associated with this effect.

Key References


Outcomes that may inform future practice

Normal body weight does not appear to ensure health.
Analysis of Hypertension Risk Factors in Patients with BMI > 25kg/m^2

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Abstract

**Introduction:**
Is hypertension caused by factors that are environmental and/or genetic?

**Objectives:**
The effect of environmental factors on hypertension.

**Methodology:**
A biochemical assessment of diet and nutritional status was conducted on two groups of patients with BMI > 25kg/m^2: those with and without hypertension.

**Results:**
In the group with hypertension, there were more smokers and fewer who admitted to being physically active. In comparison with the group without hypertension, these patients also had a significantly greater waist circumference, higher levels of triglycerides, total cholesterol and glucose and higher intakes of sodium, total fat, saturated fat and dietary cholesterol.

**Conclusion:**
Lifestyle factors influence the occurrence of hypertension in patients.

**Key References**

Nutrient Intake before and after Bariatric Surgery

Ina Gesquiere, Jolien Marreel, Katlijn Vangilbergen, Sofie Joossens, Veerle Foulon, Matthias Lanno, Ann Meulemans, Bart Van der Schueren, Christophe Matthys

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Abstract

Introduction: Bariatric surgery is an effective treatment for morbid obesity. However, micronutrient deficiencies are known to be common.

Methods: Patients were included during the multidisciplinary intake sessions of the obesity clinic, University Hospital Leuven, Belgium, and followed up. Patients completed a 2-day estimated dietary record pre-operatively and at 1 and 3 months post-operatively.

Results: 33 patients completed the study. Significant differences between pre-op and post-op intake were observed for energy, protein, fat.

Conclusion: Energy and macro- & micronutrients intake decreases following surgery and slightly increases for energy and macronutrient while micronutrient intake remains at the same level.

Key References


Outcomes that may inform future practice

• Specific dietary advice (rather than general) is necessary after a bariatric surgery diet.
• Tailored-made information is necessary, based upon the individual needs of the patient.
• Specific attention needs to be paid to the micronutrient intake and status.
Evaluation of the Relationship between Hyperinsulinemia and Lifestyle Factors in Children and Adolescents

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Abstract

Introduction: Diet and physical activity are among the most important factors that determine insulin resistance.

Objectives: The aim of this study was to determine the relationship between diet, physical activity and hyperinsulinemia.

Methodology: This study was conducted among 192 children and adolescents. The following were measured: blood glucose and insulin levels, anthropometric measurements, duration of physical activities and nutrition intake.

Results: In the group that had a fasting insulin value > 15 µU/ L the fructose and sucrose intake were higher, and folic acid, zinc, iron intakes were lower. In the group that engaged in more physical activity the insulin and HOMA values were significantly lower.

Conclusion: Dietary habits and physical inactivity are factors that contribute to the increased prevalence of hyperinsulinemia.

Key References


Outcomes that my inform future practice

• The most direct approach in the prevention of hyperinsulinemia is preventing childhood obesity.
• The first step in preventing and treating hyperinsulinemia should be encouraging lifestyle changes beginning from an early age.
• In order to manage the diet and physical activity behaviours of all children and their families, school and community-based programs should be developed.
Breakfast Glucose Response and Perceived Satiety in Healthy Young Adults

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**Abstract**

**Introduction:**
The relation between satiety and meal carbohydrate content is still unclear. Analysing responses to different food items can contribute to the quality of nutrition recommendations.

**Objectives:**
To examine the association between carbohydrates and satiety.

**Methodology:**
We assessed glucose response to different meals with the same carbohydrate content and measured satiety with a 7 point Likert scale.

**Results:**
Perceived satiety did not significantly differ when the meal main carbohydrate source was bread or corn cereals.

**Conclusion:**
In a mixed meal, if the proper amount of food is provided, the type of carbohydrates is not related with satiety perception.

**Key References**


**Outcomes that may inform future practice**

Although glucose response to a mixed meal is determined, in part, by the type and amount of carbohydrates, perceived satiety of healthy individuals seems independent of glycaemic index and glycaemic load.
Why is the treatment of childhood obesity ineffective?

Halina Weker, Marta Barańska, Agnieszka Riahi, Hanna Dyląg, Małgorzata Strucińska, Małgorzata Więch, Patrycja Kurpińska, Witold Klemarczyk, Grażyna Rowicka, Hanna Nagalska

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Abstract

Objective:
To identify factors contributing to excessive body mass in children aged 13-36 months with reference to their normal body mass counterparts.

Methodology:
A representative nation-wide sample of children (n=400) were divided in two subgroups: those with excessive body mass and controls with normal body mass. Their nutritional status was evaluated using selected anthropometric indicies. The relation between environmental and nutritional factors was evaluated and compared to the control group.

Results:
Identification of factors causing obesity is difficult due to many co-factors. Correlation was observed between excessive body weight and: birthweight >4000g, snacking and a frequency of night-time breastfeeding.

Key References


Outcomes that may inform future practice

• Excessive body mass is an effect of many co-factors, not only nutrition but also prenatal development.
• Children with excessive body mass demand permanent control of food intake and actual body weight.
Nutritional Needs During the First Year Following a Sleeve Gastrectomy

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Abstract

Introduction:
Micronutrient deficiencies are considered infrequent after sleeve gastrectomy (unlike after gastric bypass) but few studies document this assertion.

Methodology:
A retrospective analysis was performed on 51 obese patients before sleeve gastrectomy and then quarterly for one year after.

Results:
Several micronutrients deficiencies emerged during follow-up, especially for vitamin A folic acid, vitamin B12 and selenium. In addition, we found insufficient energy and protein intakes during the first year after sleeve gastrectomy, which may partly explain micronutrient deficiencies.

Conclusion:
Multidisciplinary management and reinforcement of therapeutic education are essential to ensure prevention and treatment of these deficiencies.

Key References


Outcomes that may inform future practice

- Daily energy and protein intakes after sleeve gastrectomy
- Micronutrient deficiencies after sleeve gastrectomy
Manual and Digital Guide for Nutrition in Cancer
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Abstract

Introduction:
Dietitians should have both practical nutritional knowledge of cancer in general and in tumour-specific situations.

Methodology:
A nationwide survey gives insight in the most relevant nutritional questions and information needs of cancer patients. A systematic literature search was performed. Thirty-two experienced Dutch oncology dietitians were invited to write a chapter about their field of expertise. In addition to the printed version of the Manual, a digital version was published in Dutch and English.

Results:
The first part deals with the dietetic counselling in cancer in general, e.g. malnutrition, nutritional requirements, the nutrition care process, complaints, comorbidity, cancer in the elderly, rehabilitation and palliative care. The second part includes the dietetic counselling in 20 tumour types per treatment and per stage of disease.

Conclusion:
The printed Manual and the free access Digital Guide are very practical tools for dietitians in the counselling of cancer patients.

Key References


Outcomes that may inform future practice

• Dietetic counselling in cancer is different and depends from the tumour type, treatment and stage of the disease.
• To improve daily practice of dietetic oncological counselling, it is important that nutritional guidelines are freely available for colleagues all over the world and can be discussed.
• Disease-specific nutritional guidelines should be approved by the national specialized dietetic network.
Dutch Multidisciplinary Evidence-Based Guideline ‘Malnutrition In Patients With Cancer’

S Beijer, J Vogel, H Jager-Wittenaar, N Doornink, J Chua-Hendriks, E Kampman, J van Esch, Stichting Laurens, J van Binsbergen, M Hulshof, A de Graeff

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Abstract

Objective:
To provide evidence-based recommendations to support all professionals dealing with malnutrition in patients with cancer.

Methods:
A systematic literature search was performed for the seven most important bottlenecks concerning malnutrition based on an inventory in patients and professional care givers.

Results:
The guideline describes the definition, prevalence and consequences of malnutrition in patients with cancer and provides recommendations for the diagnosis, early detection (nutritional screening) and interventions that can be used to treat malnutrition.

Conclusion:
All professionals dealing with malnutrition in patients with cancer can use the Dutch multidisciplinary evidence-based guideline ‘Malnutrition in patients with cancer’.

Key References

Outcomes that may inform future practice
- Criteria for malnutrition in patients with cancer are: Unintended weight loss ≥ 10% in six months or ≥ 5% in one month and/or BMI ≤ 18.5 kg/m² (65 years and older ≤ 20 kg/m²) and/or BMI 18.5-20 kg/m² (65 years and older 21-23 kg/m²) in combination with seriously reduced intake or > 2% weight loss and/or loss of muscle mass in combination with > 2% weight loss.
- A screening tool should at least contain the indicator weight loss to identify acute malnutrition. BMI as second indicator will also identify chronic malnutrition. In tumour types and kinds of treatment with a high risk of developing malnutrition, patients should be referred to a dietitian before symptoms occur.
- Patients with cancer classified by screening as malnourished or at risk should be referred to a dietitian for (repeated) individual dietary advice. Written dietary advice or dietary advice by other health care professionals can be valuable but cannot replace individual advice from a dietitian.
### Abstract

**Introduction:**
Cancer cachexia in far advanced cancer has a strong negative impact on the quality of life of cancer patients and cannot be treated by nutrition alone.

**Methodology:**
A multidisciplinary expert group discussed the European guideline ‘Clinical practice guidelines on cancer cachexia in advanced cancer patients’. Dietitians, physiotherapists, nurses and doctors report their possible contributions to combat the symptom.

**Results:**
The expert group developed the flyer ‘Weight loss, when cancer cannot be cured’. The flyer describes the criteria for recognising cachexia and gives advice on nutrition and exercise to cope with the symptoms.

**Conclusion:**
A multidisciplinary approach is a necessity to treat cancer cachexia.
Introduction:
In cancer patients, there is a belief that nutrition plays a major role in cancer treatment. These patients are interested in good nutrition and have doubts about dietary patterns.

Objectives:
Identify dietary doubts and the sources queried towards its clarification.

Methodology:
A sample of 36 cancer patients undergoing chemotherapy was studied. They were mostly females with breast and colon cancer diagnosed. The dietary doubts of cancer patients were recorded using a questionnaire.

Results:
52.8% of cancer patients have or had dietary doubts during chemotherapy.

Conclusion:
Dietitians help cancer patients to clarify dietary doubts and the nutritional intervention during cancer treatment.

Key References


Outcomes that may inform future practice

- The improvement of dietitians’ knowledge about the dietary doubts of cancer patients can help these professionals to develop better nutrition intervention.
- Acknowledgement of the importance of nutritional intervention in cancer treatments
Changes in Body Weight During and After Colorectal Cancer Treatment

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Abstract

Objective:
To investigate weight change in 256 stage II/III colorectal cancer patients treated with surgery and adjuvant chemotherapy.

Methodology:
Weight and medical information was collected from medical records or retrieved from the Eindhoven Cancer Registry and analysed using multivariate linear regressions analyses.

Results:
From diagnosis to minimal 6 months follow-up, body weight decreased during surgery (-2.2±4.1 kg); increased during adjuvant chemotherapy (+3.7±5.0 kg) and further increased during the follow-up period (+2.2±7.5 kg). The number of chemotherapy courses was independently associated with weight gain.

Conclusion:
Oncology care providers should inform these patients about the possibility of weight gain and promote a healthy lifestyle.

Outcomes that may inform future practice

• In patients with stage II/III colorectal cancer receiving adjuvant chemotherapy, weight gain occurs during and after chemotherapy after a decline in weight during surgery.
• Weight gain is related to the number of chemotherapy courses.
• To clarify the underlying mechanism and consequences of weight gain in stage II/III colorectal cancer patients receiving chemotherapy, more research is needed.
• Oncology care providers should inform these patients about the possibility of weight gain and promote a healthy lifestyle.
## Association of Nutritional Status with Depression in Haemodialysis Patients

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### Abstract

**Introduction:** Several studies have reported high rates of depression among haemodialysis (HD) patients, which are closely related to nutritional status and could be an independent risk factor for malnutrition.

**Objectives:** To investigate the nutritional status of HD patients and its association with depression.

**Methodology:** 54 HD patients, aged 18-85 years were assessed for their nutritional status by anthropometry, BIA-derived indices and FFQ. Depression was assessed using the CES-D questionnaire.

**Results:** Mean BMI was 25.7 ± 3.3 kg/m² and mean phase angle was 5.25 ± 1.25. Moderate or severe depression was noticed in 23.1% and 5.8% of the patients respectively. Depression was inversely related to consumption of meat, fish and snacks.

**Conclusion:** No malnourished patient was found. Depression was related to lower consumption of food.

### Key References


### Outcomes that may inform future practice

- Regular nutritional screening can protect end stage renal disease (ESRD) patients from malnutrition and further complications.
- Early diagnosis and treatment of depression in ESRD patients can lead to improved appetite and therefore better nutritional status.
- Interdisciplinary support by a dietitian and a psychologist can minimize the malnutrition and depression prevalence among HD patients.
Adherence to the Mediterranean Diet among Greek Multiple Sclerosis Patients

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Abstract

Introduction: Multiple sclerosis (MS) is a chronic autoimmune inflammatory neurodegenerative disease. Adherence to a healthy diet is important for MS patients.

Objectives: To assess adherence to the Mediterranean diet (MD) among Greek MS patients from Larissa.

Methodology: 50 healthy people from Larissa were age-group matched to 50 MS patients. Adherence to the MD was evaluated using MedDietScore.

Results: The MS group had significantly lower mean MedDietScore (28.8±6.2), compared to the control group (34.8±6.2).

Conclusion: Both groups had good compliance to the Mediterranean diet. However, the MS patients consumed less fish and fruits (contrary to MS recommendations) and had mean MedDietScore slightly above the borderline.

Key References


Outcomes that may inform future practice:

- This is a case-control study. An interesting finding is that our patients consume less fish and fruits than the healthy population assessed.
- The relationship between MS and nutrition has not yet been adequately described. Nevertheless, adherence to a healthy well-balanced diet is beneficial for everyone, including MS patients.
- MS can affect each patient differently, but generally, MS patients are at a higher risk for certain vitamin and mineral deficiencies. Dietitians could play a central role in the nutritional care of MS patients, through nutritional counselling and dietary intervention.
A Framework to Facilitate A 2:1 Practice Placement Education Model

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Abstract

Introduction: The use of collaborative or peer learning models has increased, associated with positive effects on desired outcomes such as learning, competence and reflective practice.

Aim: The aim of this study was to develop a framework to implement a 2:1 practice placement education (PPE) model in the dietetics setting.

Methodology: A pilot study of a 2:1 model was conducted and feedback was collected from the educators. This feedback informed the design and development of the Lynam framework to guide the implementation of a 2:1 model.

Conclusion: Further research into the use of a 2:1 model and the effectiveness of the Lynam framework to guide the implementation of this model is warranted and has commenced.

Key References


Outcomes that may inform future practice

• Increased knowledge regarding collaborative and peer learning education models
• Introduction to a framework which may be used to successfully implement a 2:1 model during practice placement education within their own setting
Broadening Computer Support for Healthier Catering

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Abstract

Quadro Byte developed one of the most widespread pieces of catering software in Hungary. It is primarily used in hospitals, in schools, in twilight home services and in institutional catering. Programs developed by QB support the production, stock management and sales tasks of the catering firm and integrate the dietetic professional databases and management. Caterers may guarantee up-to-date catering according to different diseases and age groups. All of these are possible without the need for additional work.

Our new initiative is based on the professional database of Nutricomp. Nutricomp has decades of experience. Our old professional partner is the Hungarian Dietetic Association. Our presentation demonstrates this new development. Due to the increasingly stringent regulations and professional requirements, caterers guarantee a standardized healthy diet in all fields of mass catering in the country. We showed representations of the following measures on the menu card: allergens, added sugar and salt, saturated and unsaturated fatty acids. During the organization and delivery of daily catering, missing information and warnings may present a risk in special cases. The allergens, sugar and salt content are represented automatically. In future menu plans we will provide information about storage and food preparation technology as well. The quality of catering will become unified in different economic areas of our country because of this standardized professional product.
Development of an Educational Tool to Calculate Fat Intake

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Abstract

Introduction:
Restricition of dietary long-chain triglycerides can be part of dietary management of fatty acid oxidation disorders.

Methods/Results:
An educational tool - the fat exchange system - was developed and expresses foods in terms of fat exchanges. One fat exchange equals 1g of fat. Fat exchanges represent the fat content of foods, depending of the serving size and the fat density of the foods. A calculation program has been developed as well.

Conclusion:
The fat exchange system may contribute to the control of daily dietary fat intake, to learn more about the fat content of foods and to avoid a monotonous food pattern.

Key References

2. Jameson E (2100) Medium-chain acyl-CoA dehydrogenase deficiency- a review J Paediatr Child Health 21 (2) 90-93

Outcomes that may inform future practice:

• Specific dietary advice is necessary and more specific than a healthy diet.
• Tailored-made information based the person’s individual needs is necessary and available.
# Multipurpose Nutrition Software for Health Professionals: Students and Dietitians

Laura Grecu, Doina Miere

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## Abstract

**Introduction:**
The nutrition field is becoming increasingly important and complex. Nutrition software is a particularly valuable tool for health professionals.

**Aim:**
The project aimed to create software that gathers relevant scientific information, equations and tools necessary when providing nutritional services, and structures this information in the form of recommended steps to be followed.

**Method:**
Data was collected from European and international guides, recommendations and from the scientific literature.

**Conclusion:**
The resulting software enables patient scheduling, patient records, carrying out the nutrition care process, calculating recipes, planning and analyzing food menus. The software supports the work of dietitians, guiding it and at the same time leaving the possibility for their knowledge and critical thinking to influence the process.

**Outcomes that may inform future practice**
The release of this software offers a starting point in the development of more complex and advanced versions, facilitates the elaboration of statistical analysis and reports, highlighting the effectiveness of nutrition interventions, and sets a positive example, making possible other related projects.
Nutrition Consultation in a Rural Area of Madeira
Bruno Sousa

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**Abstract**

**Introduction:**
It is important that nutrition consultations are available in all health centres.

**Objective:**
To characterize the nutrition consultation at health centres in a rural area of Madeira

**Methodology:**
The age and sex of individuals who attend this type of consultation were recorded as well as the reasons for consultation between October 2006 and October 2009.

**Results:**
This population (n=3454) was mostly female (84%). They had an average age of 38±20 years. 56% were in the age range of 25 to 65 years. The main reasons for consultation were: pre-obesity (29%), dyslipidaemia (29%), hypertension (28%), type 2 diabetes (18%), obesity class 1 (18%) and paediatric obesity (17%).

**Conclusions:**
Although mostly of those consulted were women, the clinical conditions that led to the nutrition consultation reveal the necessity and relevance of this intervention to improve this population health.

**Key References**


**Outcomes that may inform future practice**

It is important that dietitians are available at all health centres, participating in the multidisciplinary intervention for users, contributing to the improvement of the health of population.
Training Courses to Fight Malnutrition in Azienda Ospedaliero Universitaria Pisana

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Abstract

Introduction:
Prevalence rates of malnutrition in hospitalized patients vary from 25-40%

Objective:
To fight malnutrition through training courses.

Methodology:
The Azienda Ospedaliero Universitaria Pisana (AOUP) coordinated some training courses on pressure ulcers and malnutrition and developed two different protocols. From 2010 until to 2013, 995 workers at AOUP (nurses, doctors) attended training courses on pressure ulcers and malnutrition. 81 nurses from different departments answered a questionnaire about utilization of the protocol on malnutrition and they answered again after 6 months.

Results:
The utilization of this protocol had increased from 60% to 78%.

Outcomes that may inform future practice

Maintain high attention to the problem is a way to fight malnutrition
OPEN Platform for Clinical Nutrition
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Abstract

Background and Objectives:
We present a dietary-assessment approach taken by the Open Platform for Clinical Nutrition (OPEN).

Methods:
This web application supports food and physical activity recording and diet planning including photographs. It enables online dietitian-patient interaction. To support its use in different countries and languages, OPEN allows translation of the user interface and the use of any food composition dataset that complies with standard EN 16104:2012.

Results:
OPEN has been used in two hospitals, and in several research projects.

Conclusions:
OPEN is an efficient tool that relies on evidence-based dietary recommendations and ensures repeatability and validity of measures.

Outcomes that may inform future practice

- Web-based application to support dietitians and their patient in dietary assessment is available.
- As EuroFIR (http://eurofir.org) and EFAD have supported OPEN, dietitians are welcome to get involved in further development of the application.
- The application also supports research work and clinical studies.
Abstract

Introduction:
The Degree Programme Profile (DPP) is a document designed to convey essential information about a specific study programme at the level of higher education.

Objectives:
How do we define programme competences and learning outcomes in writing a good DPP?

Methodology:
Using the TUNING Guide as an innovative tool to assist in writing the DPP.

Results:
A DPP of the Bachelor of Health: Nutrition and Dietetics is formulated.

Conclusion:
The DPP is an orientation tool for students choosing their studies and for guiding them in the acquisition of competences. For schools to profile the content of study programmes. For employers to get insight in the achieved competences and learning outcomes of the graduate and for authorities in obtaining accreditation.

Key References

1. www.hanze.nl/home/International/About+Us/erasmusprogramme/Degree+Programme+Profiles.htm
2. www.efad.org/iextranet/3818/5/0/70

Outcomes that may inform future practice

- A Degree Programme Profile is a brief document with the essential information about a specific bachelor degree programme.
- The TUNING Guide is a useful tool to assist in writing the DPP.
- A Degree Programme Profile offers information to students, schools, employers and authorities.
Child Nutrition Centre

Jitka Tomesova, Hana Knizkova

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**Abstract**

The Child Nutrition Centre provides services in the field of child nutrition since November 2006. It was created to address worsening health concerns in Czech children, particularly overweight and obesity and the high cholesterol level. The counselling is provided using a phone hotline, websites with online counselling, and face-to-face counselling. The CNC holds press conferences, as well as educational events designed for nurses and paediatricians. Since its creation, the CNC the following numbers of users have been in touch (method in brackets): 8,252 (phone), 6,205 (online counselling), 776 (consultations in an advisory centre), and the website has had over a million hits.

**Key References**


**Outcomes that may inform future practice**

- The number of obese children in Czech Republic is increasing, as well as in other European countries. In 2008, 15% of children in all age groups were overweight or obese.
- In most cases is the reasons for this are poor eating habits over long periods within families, and lack of physical activity.
- Face-to-face counselling is the most successful intervention in changing eating habits and behaviour, but not all potential clients are able to visit a health care provider. This problem may partially solved by health care providers using online or phone counselling.
Plasma Fatty Acids, Inflammation and Growth in Premature Infants Receiving MCT/ω-3-PUFA-Containing or Soybean-Based Lipid Emulsions

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Abstract

Objectives: To study the comparative effects on growth, inflammation and plasma fatty acid concentration in pre-term infants of: two lipid emulsions (LEs), a medium-chain triglyceride (MCT)/ω-3-polyunsaturated fatty acid (PUFA)-containing LE and a soybean-based LE.

Methodology: In this prospective, observational study, 2 groups of pre-term neonates who received parenteral LEs for at least 7 days were included: the MCT/ω-3-PUFA-containing LE (SMOFlipid group) (n=30) and the soybean-based LE (INTRAlipid, control group) (n=30). Fatty acid profile in plasma, proinflammatory cytokine concentrations and weight record were performed successively 1, 15 and 30 days post-delivery.

Results: Fatty acids DHA and EPA, total n-3 and total n-6 plasma concentrations were higher (P<.000) in SMOFlipid, but AA showed no significant difference (P=.158) between the groups. Mean concentrations of proinflammatory cytokines TNF-α, IL-6, IL-8 were higher in control, but not significant. A significant negative correlation between measured cytokines and DHA, EPA was observed in Intralipid group (P=.015, P=.004 respectively).

Conclusion: In the SMOFlipid group, the MCT/ω-3-PUFA-containing LE administration is associated with increased levels of DHA, EPA fatty acids and more favourable growth rate. Although a trend toward a regulation in pro-inflammatory profile (a preventive effect of MCT/ω-3-PUFA-containing LE on inflammation) is not supported.

Key References


Outcomes that may inform future practice

The association of the n-3 fatty acids with increased levels of DHA, EPA fatty acids, more favourable inflammatory profile and greater growth rate in premature infants and their use in the parenteral nutrition may bring advantages for the premature infants.
The Assessment of Teachers’ Knowledge about the Nutrition of Children Aged 3-6 Years

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Abstract

Introduction: Nutritional knowledge of teachers is essential to educate children about the diet.

Objectives: Assessment of teachers’ knowledge about nutrition of children.

Methodology: Questionnaire included 14 questions about the basic principles of nutrition of children aged 3-6 years.

Results: Majority of teachers (n=223) had knowledge on the correct number of meals, type of fat recommended for spreads and beverages. Every second person identified products recommended for snacks, sources of protein, vitamin C. Few correctly pointed balanced breakfast, cereals as a basis of diet, the amount of milk needed to meet recommendation for calcium.

Conclusion: Nutritional knowledge of teachers was insufficient, which indicates the need for education.

Key References


Outcomes that may inform future practice

- The knowledge of pre-school teachers in the field of nutrition might be insufficient for proper education of children.
- Practical information on balanced nutrition of children provided in the form of workshops, brochures etc might be useful for preschool teachers.
# Eating Disorders in Schoolchildren

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## Abstract

**Objectives:**
To investigate the perception of body weight and prevalence of eating disorders among students from secondary schools

**Methodology:**
A cross-sectional survey of 358 students aged 16-18 years were chosen from the secondary schools in Mazeikiai district in 2013. The self-administered questionnaire and Eat-26 test was filed.

**Results:**
The prevalence of overweight was more common among boys compared to girls. 24% of girls were underweight as compared to 3% of boys. More than 50% of girls and 19% of boys tried to reduce their weight. The study found that 6% of all respondents had eating disorders.

**Conclusion:**
Health promotion activities are essential to prevent eating disorders.

## Key Reference

Stonytė A (2013) *Eating disorders among secondary school students in Mazeikiai district* Bachelor Thesis in Public Health, Lithuanian University of Health Sciences, Kaunas (in Lithuanian)

## Outcomes that may inform future practice

- Eating disorders are complex illnesses that are affecting schoolchildren with increasing frequency.
- Girl students often try to lose weight to keep in shape or even because of societal pressures.
**Kids Summer School: Exercise/Food/Health**

Ana Carvalhas, Nathalie Cunha, Sílvia Oliveira, Rita Peixoto, Rafaela Trincão, Marina Vaquinhas

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**Abstract**

Thirty children, aged between 6 and 10 years, about half with overweight or obesity, participated in the *Kids Summer School: Exercise/Food/Health*, a two week program of physical activity and nutrition we organized in Coimbra Portugal, in the school holidays of 2013. At the end, there was a slight loss in weight but a significant decrease in the percentage of fat mass in 24 infants. It was a positive experience for children, normally inactive in the school holidays, who participated enthusiastically. More programs of this type may have a large impact on the nutritional status and health of children.

**Key References**


**Outcomes that may inform future practice**

Children and their families have improved their eating habits following guidelines given by nutritionists and became aware of the relevance of physical activity for preventing obesity and promoting health. We believe this project has contributed to consistent changes of risk behaviours that lead to obesity. We will keep monitoring the children and their families through periodic assessments of dietary habits and physical activity.
Assessing School Food Policies across the EU28 plus Norway and Switzerland

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Abstract

Introduction: Schools are considered a protected environment where children should learn healthy diet and lifestyle habits. How is this reflected in school food policies across Europe?

Objective: To collate official school food policies across Europe.

Methodology: We screened public databases, EU level reports, national ministerial websites and the scientific literature.

Results: School food policies in Europe vary from voluntary to mandatory and differ in scope and detail (eg types of meals targeted; nutrient and/or food-based advice; vending machines and wider food environment such as kiosks near schools, packed lunches, etc) considered).

Conclusion: We provide an up-to-date overview of European school food policies.

Key References


Outcomes that may inform future practice

• All 30 countries (EU-28 plus Norway and Switzerland) have a school food policy in place.
• The majority of policies entail voluntary guidelines rather than obligatory standards.
• Our descriptive map of European school food policies can help policymakers facilitate exchange of experiences and support researchers in assessing impact on public health.
The Results of the Project “Friendly School Canteen 2013”

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**Abstract**

**Introduction:**
The Project was ordered by Tallinn Department of Education and conducted by Tallinn Health Care College students.

**Objective:**
The main objective of the Project was to monitor and evaluate children’s meals in municipal schools.

**Methodology:**
The students developed a set of criteria covering 23 different aspects with the aim to evaluate the quality of meals provided in schools.

**Results:**
The results indicated an improvement in the quality of school meals.

**Conclusion:**
All participating schools were given feedback and suggestions for improving the quality of served meals. Furthermore, the Project has received attention from both school administrations and wider public.

**Outcomes that may inform future practice**
The model of the project and the set of criteria can be modified and used worldwide.
Relation Between Lifestyle Factors and Religiosity/Spirituality in Adolescents

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Abstract

Background:
There is a high prevalence of smoking, alcohol abuse, unhealthy eating behaviour and lack of physical activity among adolescents. The aim is to acquire a representative population-based-data sample to evaluate the relationship between lifestyle factors and religiosity/spirituality.

Method:
A cross-sectional survey in randomized high schools, 225 11th-grade pupils, with online questionnaire.

Results:
Positive correlation between religiosity/spirituality and both food choices and the number of main meals weekly – in boys additional with physical activity and indirect relationship with smoking and alcohol intoxication - these results remain also in the logistic regression models.

Conclusion: Religiosity/spirituality is an important health resource, which should not be ignored.

Key References


Outcomes that may inform future practice

- Surveys among adolescents should include religiosity/spirituality as an additional health resource.
- Further Studies are needed to explore the influence and difference in socioeconomic status and the interaction of religiosity/spirituality with other health determinants (family, peer group, school and personality)?
- This study also indicates that there is a need for gender-specific health promotion programs for adolescents.
“Fruit Heroes” at School

Bruno Sousa

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Abstract

Introduction: The health benefits of eating fruit are known.

Objective: To evaluate an intervention of school food education program “Fruit Heroes”.

Methodology: A food education program was implemented in two 1st cycle classes (n=54, between 8 and 10 years old) during school year 2012/2013. The sample was 56% boys. The evaluation compared fruit consumption and nutritional status of these children at the beginning and end of the school year. Fruit consumption was assessed through the application of a food frequency questionnaire and the nutritional status was determined by BMI, using IOTF criteria.

Results: Considering the 3-5 pieces of fruit per day recommended by the Portuguese Food Wheel, the consumption in these students evolved from 20.4% to 35.2%. In nutritional status it was observed that overweight (pre-obesity + obesity) decreased from 46.3% to 25.9%.

Conclusions: This type of educational intervention in schools increased fruit consumption and reduced the prevalence of overweight in children.

Key References


Outcomes that my inform future practice

This type of food educational intervention in schools can be a good way to encourage fruit consumption and to reduce the higher prevalence of overweight in children.
### Nutritional Knowledge and Eating Behaviour of Adolescent Male Soccer Players - an Empirical Analysis

Catharina Cernkovic, Stefanie Kohl, Bianca Neuhold, Elisabeth Pail

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**Abstract**

**Introduction:**
Adequate and balanced nutrition is essential for the level of performance in adolescent athletes.

**Methodology:**
We investigated nutritional knowledge and behaviour in 304 male adolescent soccer players based on a standardized validated questionnaire of regional male players (n=145, age =15,6±1,4 yrs) and (inter)national male players (n=159, age=15,5±1,2 yrs).

**Results:**
The (inter)national peer group showed a healthier eating behaviour concerning breakfast and meal frequency and the tendency to consume healthier foods. In both groups the knowledge about nutrition was very low (50%).

**Conclusion:**
While (inter)national players know more about sports drinks and fluid management, regional players know more about micro- and macronutrients as their (inter)national counterparts.

**Key References**


**Outcomes that may inform future practice**

- The (inter)national peer group shows a healthier eating behaviour concerning breakfast and meal frequency and the tendency to consume healthier foods.
- Both peer groups showed no clear differences in nutrition knowledge, while (inter)national players know slightly more about sports drinks and water management, regional athletes know slightly more about micro- and macronutrients.
- Cross correlation of results from specific aspects like breakfast intake, sport drinks, fast food and meal frequency shows that a higher level of knowledge goes along with a healthier eating behaviour.
Effect of Nutrition Education on The Nutritional Status of Low-Income Pregnant Women in Cubuk, Turkey

Meltem Soylu

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**Abstract**

**Introduction:**
Nutrition education improves maternal nutrition and reduces the risk of poor health outcomes in both mothers and their children.

**Methodology:**
This study investigated the relationship between maternal nutrition education and mother's nutritional knowledge score, dietary habits, food consumption and health status (haemoglobin, haematocrit, blood pressure and body weight gain). A random sample of 150 low-income pregnant women (ages of 18-35) was selected for the intervention and control groups. Data was collected at an initial interview and again at a final interview after two nutrition-education programs.

**Results:**
There were significant increases in the nutritional knowledge score and mean intake of calcium, iron, vitamin A and weight gain in the intervention group (p<0.05). There were also increases in the mean intake of energy, protein and vitamin C. Haemoglobin and haematocrit levels in the intervention group did not appear to be influenced by the nutrition education.

**Conclusion:**
The results suggest that nutrition counselling during pregnancy can improve dietary intake and maternal weight gain.
# Relationship Between Carotid Intima Media Thickness, Atherosclerosis Risk Factors and Birth-Weight in Young Males

Dorota Szostak-Węgierek, Katarzyna Szamotulska, Arkadiusz Maj, Milena Gabka

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## Abstract

**Introduction:**
Foetal malnutrition results in intrauterine growth retardation.

**Objective:**
The aim was to estimate the relationship between carotid intima media thickness (CIMT) and atherosclerosis risk factors and birth-weight in young males.

**Methodology:**
110 subjects were recruited. The group with CIMT >0.6 mm (n=30), in comparison to the group with CIMT £0.6 mm (n=80), had lower serum HDL-c level (p=0.012), and higher TC/HDL ratio (p=0.009), fasting serum glucose level (p=0.045), HbA1c (p=0.044), and insulin resistance index HOMA-IR (p=0.074). The mean birthweight in this group was lower (p=0.001) and metabolic syndrome was more prevalent (p=0.031).

**Conclusion:**
Classic risk factors and birth-weight were related to cardiovascular risk. We assume that proper maternal nutrition during pregnancy may contribute to atherosclerosis prevention in the offspring.

## Key References


## Outcomes that may inform future practice

- The CIMT value in young males was related both to disturbances of carbohydrate and lipid metabolism and to foetal growth retardation.
- Both classic risk factors and birth-weight were independently related to the atherosclerosis risk.
- Foetal malnutrition may result in enhanced susceptibility to cardiovascular diseases.
Dietitians Involved in Prevention with “Santé Active” in France

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Abstract

Objective:
To encourage people to engage in behaviours that will limit chronic diseases development and reduce healthcare costs.

Methodology:
We developed a program (Santé Active) with information and advice, plus workshops on three themes: active nutrition, cardiovascular diseases and low back pain prevention. Intervention by dietitians comprised nutritional assessment, followed by informative and practical workshops.

Results:
There are currently 10 centres, 14 due in 2014 and up to 50 by 2016. 86 dietitians are involved. The pilot project has been evaluated: demonstrating the effectiveness of the program. Another evaluation is planned. By the end 2013, we expect that 40,000 people will have experienced the program there will have been1700 nutritional assessments and 950 workshops.

Conclusion:
Santé Active demonstrates the feasibility of this kind of action and the important role of dietitians.

Key References


Outcomes that may inform future practice

• “Santé Active” proves that we can mobilize a network of dietitians and participate with the main National Health Insurance Body in large-scale preventative action.
• Dietitians can play an important role in the prevention of NCDs (via nutritional assessment and providing dietary counselling), thus helping people to change eating habits and adopt nutritional recommendations.
# The Effect of a Low-Dose Ingestion of Glycyrrhetinic Acid (Liquorice) on Blood Pressure in Normotensive Individuals

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## Abstract

**Introduction:**

Anecdotal evidence suggests that consumption of liquorice is associated with an increase in blood pressure. This may be of clinical significance for cardiac patients.

**Method:**

51 healthy, normotensive participants consumed 1g of liquorice per 1kg of body weight (75mg - 200mg glycyrrhetinic acid) over a period of 2 hours. Blood pressure was measured before and at 30 minute intervals after consumption up to two hours.

**Results:**

No significant changes in blood pressure throughout the duration of the test (p = 0.4)

**Conclusion:**

The consumption of 1g of liquorice per 1kg of body weight does not alter blood pressure over a period of 2 hours.

## Key References


## Outcomes that may inform future practice

- Continuous liquorice ingestion for longer periods of time may have an effect on blood pressure.
- The active ingredient in liquorice, glycyrrhetinic acid may need to be ingested for longer than 2 hours prior to taking results to ensure better digestion, as well as continuous ingestion to elicit an effect on blood pressure.
- A higher dose of liquorice, such as 2 grams per 1 kilogram of body weight (150mg - 400mg glycyrrhetinic acid), may elicit a more significant response on blood pressure measurements.
**Consumption of Breakfast Cereals among Adults with Non-Communicable Diseases:**

**Primary Baseline Results from the Food4Health Intervention**

Alexandra Koulouri, Maria Grammatikopoulou, Ionas Pagkalos, Maria Hassapidou

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**Abstract**

**Objective:**
To report the consumption of breakfast cereals (BCs) among adults with NCDs in Greece.

**Methods:**
865 adults from municipalities throughout Greece participated in the study. Each one had at least one metabolic complication. BC consumption was recorded with a semi-quantitative food-frequency questionnaire. The prevalence of T2DM, HT, hypercholesterolaemia, central obesity and weight status were recorded.

**Results:**
All the participants seemed to eat breakfast, but the majority of them they never ate BCs. Consumption of BCs was higher among those on a reducing diet compared to non-dieters. Men, CVD, hypercholesterolemic, overweight and metabolic syndrome patients are less likely to be on a reducing diet, but patients with morbid obesity and BF consumers are more likely.

**Conclusion:**
A low BC intake among NCD patients with the highest overall consumption was recorded among underweight and normal body weight patients. Since BC consumption appears to be more common among dieting NCD patients and the majority of the sample does not diet, this could explain the low BC consumption.

**Key References**


# The Assessment of Dietary Adherence in Patients with Chronic Pancreatitis

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## Abstract

**Introduction:**
Compliance with diet is crucial in the treatment of chronic pancreatitis (CP).

**Objective:** To assess dietary adherence in patients with CP.

**Methodology:** Habitual diets of 96 patients of gastroenterology department were assessed by modified food frequency questionnaire and compared to dietary recommendations.

**Results:** High intake of fat, especially saturated fatty acids, low intake of fruits, vegetables and dairy products were observed. The amount of protein and fibre were adequate. Majority of patients used not recommended cooking techniques (frying) and some admit to drinking alcohol.

**Conclusion:** Patients had problems with compliance with dietary recommendations, which indicates the need for intensified dietary counselling.

## Key References


## Outcomes that may inform future practice

- Compliance to dietary recommendation is very important in the treatment of chronic pancreatitis: reduces pain and improves nutritional status of patients.
- Majority of patients have problems with adherence to the diet, especially in choosing low-fat products and low-fat cooking techniques.
- There is a need for permanent systematic dietary counselling, particularly for patients with chronic diseases.
Dietary Fibre Intake among Different Groups of Patients as Compared to Recommendations

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Abstract

Introduction: Dietary fibre (DF) provides many health benefits, including reducing the risk of the coronary heart disease (CHD) and diabetes.

Objectives: Assessment of the DF intake among different groups of patients.

Methodology: DF intake in 1056 patients was assessed using a three-day food record provided by dietitians.

Results: Low intake of DF was observed among haemodialysis patients (13.1±5.3 g/d), and those with celiac disease (16.0±5.2), dyspepsia (18.5±6.7) and hypertension (19.7±6.4). Higher intake was observed among patients suffering from chronic pancreatitis (24.6±8.1), CHD (26.7±7.6) and T2DM (26.0±5.3).

Conclusion: More than 50% of patients did not meet the recommended amount of DF. Education is necessary to improve intake of DF.

Key References


Outcomes that may inform future practice

- The effects of dietary fibre and its components on health and related mechanisms are still being examined
- There is no simple definition of dietary fibre, useful for nutritionists and dietitians.
- Despite the beneficial role of fibre, some conditions make it difficult to achieve the recommended amount.
The Relationship between Cardiometabolic Disease Risk Factors and Anthropometric Measurements in Adolescents

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Abstract

Introduction: Anthropometric parameters can easily reveal some changes in the body when chronic disease is present.

Objectives: To investigate the relationship between certain anthropometric parameters and cardiometabolic disease risk factors in female adolescents.

Methodology: Anthropometric parameters and cardiometabolic risk factors were measured in 274 female adolescents aged between 12 and 18.

Results: BMI, waist, hip circumferences, and triceps skinfold thickness were positively correlated with triglyceride, fasting insulin, and blood pressure values; and negatively correlated with HDL. Body fat percentages were significantly correlated with all cardio-metabolic risk factors.

Conclusion: There are significant correlations between all cardio-metabolic risk factors and most of the anthropometric parameters in female adolescents.

Key References


Outcomes that my inform future practice

- Anthropometric parameters can easily reveal changes in the body’s lipid concentrations.
- BMI, waist, abdominal, and hip circumferences are useful anthropometric indicators of cardiovascular disease risk.
- Body fat percentage is significantly correlated to cardiometabolic risk factors, BMI and waist, abdominal, and hip circumferences.
Evaluation of Food Waste and Associated Factors in Hospitalized Elderly

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Abstract

Introduction: Food intake in the elderly is at increased risk of impairment. The evaluation and control of food that is thrown away becomes important not only because of the waste of money, but also in addressing the nutritional needs of each person. Objectives: Calculate food waste and identify associated factors in Lusíadas Hospital elderly hospitalized patients. Methodology: Observational study with 36 patients aged ≥ 65 years. Food waste obtained by the percentage of waste produced (Waste Indicator, WI) and associated factors mentioned by elders. Results: 158 meals were evaluated, giving a WI=30%. Leading waste-related factors were decrease in appetite and lack of smaller food portions. Conclusion: Quantification and food monitoring strategies are needed for better hospital response.

Key References


Outcomes that may inform future practice

• The analysis of food waste in hospital may lead to the adjustment of general and individual nutritional needs with better understanding of individual habits, food choices and customs.
• The food waste analysis and the related factors may lead to improved food service, environment and the meal itself and contribute to a reduction in hospital malnutrition
Body Composition and Physical Function in Healthy Community-Dwelling Older Adults in Sweden, a Cross-Sectional Study

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Abstract

Methodology:
Body composition and physical function were measured in an elderly Swedish population of 51 men and 51 women. Each participant was at least 83 years old (mean age 86.5) and the following measures were used: Sit-to-Stand-test, hand-grip strength and body composition using a bioimpedance spectroscopy (Impedimed).

Results:
The men were significantly stronger (34.1 kg) compared to the women (19.5 kg). 15 % had BMI below 22 kg/m2. According to skeletal muscle index 62 % were severe sarcopenic (Cruz-Jentoft et al 2010).

Conclusion:
Well preserved body composition and strength compared to previous studies. Many classified as sarcopenic according to current cut-offs. Results can be used as reference values for community-dwelling older adults.

Key References


Outcomes that may inform future practice

- There is limited data available on body composition and physical function in healthy adults over 80 years of age. This potentially hampers the development of reference values in old age.
- Our results can be used as reference values for community-dwelling older adults.
Assessment of Nutritional Status of Elderly People Residing in Nursing Homes

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Abstract

Introduction: Elderly people are often seen as a vulnerable age group with many observed nutritional deficiencies.

Objectives: To nutritionally assess elderly who reside and are fed in nursing homes.

Methodology: Sixty-nine elderly people aged over 65 years were assessed for their nutritional status by weighed food records, anthropometry, full MNA and Mediterranean Score.

Results: The majority displayed inadequate dietary intakes of many nutrients. 70% of subjects were at risk of malnutrition, while 46% were overweight and 61% had medium adherence to the Mediterranean Diet.

Conclusion: Inadequate dietary intake and risk of malnutrition were common in this institutionalized elderly group.

Key References


Outcomes that may inform future practice

• A variety of food and a configuration of servings according to needs of each elderly can lead to a better nutritional status of this age group.
• Overweight in elderly people does not correlate with a better nutritional status. The elderly need more frequent nutritional screening to avoid nutritional deficiencies
• Nutritional support by a registered dietitian is necessary to decrease the risk of malnutrition and increase the adherence to the Mediterranean diet among elderly people residing in nursing homes.
Rehabilitation Outcomes of Elderly Patients with Different Nutritional Status

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**Abstract**

**Objective:**
To evaluate the prognostic role of nutritional status in functional outcomes of rehabilitation in stroke survivors.

**Methodology:**
95 adults ≥ 65 years were recruited. Nutritional status was assessed at admission and discharge using MNA and BMI. Functional independence was measured at admission and discharge using the Modified Barthel Index (MBI). MBI ≥ 90 at discharge was defined as satisfactory rehabilitation outcome.

**Results:**
Positive independent predictors for the satisfactory rehabilitation outcome were: MNA at admission (p=0.001), MBI at admission (p<0.001) and BMI at admission (p<0.001).

**Conclusion:**
More attention should be paid to malnutrition treatment to improve rehabilitation outcomes.

**Key References**

**Outcome that may inform future practice**

- Rehabilitation conducted in patients with normal nutritional status, as well as in patients who are at risk of malnutrition or undernourished contributes to the improvement in their functional status.
- The greatest chance of successful rehabilitation is with patients who are characterized by a relatively high degree of functionality and proper nutritional status at admission.
- Poor nutritional status should be an indicator for the modification of diet, which will lead to the maximum benefit from the rehabilitation process.
# Interaction between Emotional State and Food Intake: A Cross-Sectional Survey In Female Students of Nutrition or Science

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## Abstract

**Introduction:** Emotion is one of the factors that affect dietary behaviour.

**Objectives:** To examine the interrelationship between emotions and eating habits, and consequently body weight, of young women studying nutrition or other scientific fields, as well as the influence that the nutritional knowledge may or not have.

**Method:** Anthropometric measurements, in conjunction with validated questionnaires to assess eating behaviour, nutritional knowledge and food frequency consumption, were collected from a sample of 201 students.

**Results:** Normal BMI seemed to be correlated to both restrained and external eating behaviour. However, despite the significantly higher score in nutritional knowledge, nutrition students weren’t found to follow a balanced diet.

**Conclusion:** Body weight retention was mainly influenced by psychological factors and practices, less affected by healthy dietary habits and nutritional knowledge.

## Key References


## Outcomes that may inform future practice

- Emotions can influence human dietary behaviour. Negative emotions may lead to increased food consumption. However, positive feelings may also increase dietary consumption, but not in consistent findings.
- People with emotional dietary behaviour were positively correlated to overeating, whereas people with restrained eating were not found to be associated increased body weight.
- Mostly people within normal BMI range seem to combine behaviours like overeating and dieting. An explanation for this is that normal range people keep their normal weight by frequent dieting, which can increase the frequency of overeating episodes.
# Honey: Consumer Knowledge Levels and Consumption in Kayseri, Turkey

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## Abstract

### Objective:
This study aimed to investigate honey consumption and knowledge levels of consumers about honey in Kayseri, Turkey.

### Methodology:
1000 consumers (528 women, mean age 24.4±8.3 years) and 472 men (mean age 29.4±11.1 years) were randomly selected. In face-to-face interviews, the following were recorded: demographic characteristics, honey consumption and level of knowledge about the alleged health effects of honey.

### Results:
87% of participants were consumers of honey. Consumption of honey in women was significantly higher compared to men (p<0.05). Women (68%) had a significantly higher level of knowledge about the nutritional value of honey than that of men (59% p<0.05). The most consumed varieties of honey were flower (61%) and pine (15%). The importance given to the production and expiry date of honey among consumers were 53% and 61%, respectively. The number of male consumers who thought that crystallized honey was fake was found to be significantly higher compared with woman (62% and 55%, respectively, p<0.05). 36% of participants preferred Black Sea Region honey in their breakfast. Although there was no significant difference between the sexes, 22% of consumers thought that honey was beneficial for those suffering from heart palpitations. Consumers also thought that the following conditions could benefit from honey consumption: insomnia (27%), digestion (43%), ulcers (41%), liver diseases (34%) and the healing of wounds (28%, p>0.05). In this study, honey consumption was found to be common in Kayseri, Turkey.

### Conclusion:
Consumers did not have enough knowledge about the nutritional value and health effects of honey.

## Outcomes that may inform future practice

Consumer awareness of the nutritional value and health effects of honey should be addressed.
Comparison of Eating Habits between Freshmen and Senior Students of Nutrition & Dietetics

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Abstract

Introduction:
Students starting university are prone to nutritional imbalances mainly attributed to lifestyle changes, resulting in unhealthy choices. However, healthy eating awareness may improve nutritional status.

Objectives:
To examine whether food intake, along with health profile, differ between first and final-semester students of Nutrition & Dietetics from TEI of Crete, Greece.

Methodology:
Biochemical, dietary (validated FFQ) and anthropometric measurements were collected from 31 freshmen and 23 senior students.

Results:
Significantly higher consumption of dairy and fat for seniors (higher levels of triglycerides, cholesterol), whereas freshmen consumed more sweets and potatoes.

Conclusion:
Overall dietary habits were not proven to be superior among seniors.

Key References

Outcomes that my inform future practice

Nutrition education was found in this study to be beneficial, although not statistically significant for last-semester students regarding their higher preoccupation with cooking procedure. However, providing adults with consistent information about nutrition and health does not always lead to a healthier way of eating. In many cases, practical difficulties, such as being away from home for students, may constitute obstacles to perform significant changes into their diet (eg healthy foods, functional foods).
Evaluation of Dietary Habits of Healthcare Students


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Abstract

Introduction:
Adequate and balanced nutrition is one of the important factors in coping with life stress, starting life on a healthy infrastructure and continuing a healthy lifestyle.

Methodology:
Data was collected from 452 volunteer healthcare students (72% male and 28% female). The following were recorded: age, body mass index (BMI), smoking habits, alcohol and drug use, health status and dietary habits. The mean age of students in the study was 20.3±1.7. By BMI grouping, 14% of the students were underweight, 74% normal weight, 11% overweight and 1% obese.

Results:
4% of students said that they ate just one meal over a day, 43% ate two meals, 47% ate three meals and 4% ate more than three meals. 43% of students skipped breakfast, 29% slipped lunch and 2% skipped dinner. The percentage of students who had regular breakfast was 60%, and of these students, 54% said that they had tea, cheese, olives, eggs. 16% of students said that they had the fixed lunch menu in the university’s dining hall and 15% chose fast food.

Conclusion:
Healthcare students were not eating an adequate main meal.