2nd International Summit on Medical Nutrition Education and Research

PROGRAMME

Wolfson College, Cambridge, UK
June 17th - June 18th 2016
NNEdPro represents a strategic partnership between doctors, dietitians, nutritionists and other healthcare professionals, as well as educators, researchers and key influencers of nutritional health policy (See: www.nnedpro.org.uk). It is also composed of key members from several partner organisations including: the British Dietetic Association (BDA), the UK Medical Research Council Elsie Widdowson Laboratory (incorporating the UK National Diet and Nutrition Survey), the Society for Nutrition Education and Behaviour, Ulster University School of Biomedical Sciences, Wolfson College in Cambridge and Cambridge University Health Partners (including Cambridge University Hospitals and the School of Clinical Medicine).

At its core, NNEdPro brings together the best of two world-leading Universities as well as harnessing the strengths of the British Dietetic Association. The University of Cambridge houses a world class Medical School, whilst Ulster University is home to leading Health Professions Schools, including Dietetics, Nursing and Pharmacy. In Ulster, NNEdPro members deliver Nutrition Education to students and practitioners, particularly in the Allied Health Professions. In Cambridge, NNEdPro is responsible for the delivery of Nutrition Education to medical students as well as other students/professionals without a formal background in Nutrition. In particular, NNEdPro has formal affiliation agreements with Cambridge University Health Partners and Wolfson College, University of Cambridge.
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INTRODUCTION

Dear Delegates,

On behalf of the UK ‘Need for Nutrition Education/Innovation Programme’ (NNEdPro), we are pleased to welcome you to the 2nd Annual International Summit on Medical Nutrition Education and Research from June 17th-18th, 2016 in Cambridge, UK.

At the 2015 Summit, our aim was to share knowledge on the current state of medical nutrition education and associated research in regions throughout the world. This year, we aim to advance our understanding in order to take action on priorities for medical nutrition education.

The pre-conference session (June 17th) will provide an overview of latest nutrition research through a ‘Great Nutrient Debate’. This session aims to review what we should be teaching to medical and healthcare professionals in light of emerging evidence and changing guidelines.

The main conference day (June 18th) will include showcasing of results from the current Global Research Priorities project, which has identified the current priority research questions in the area of medical nutrition education and provides guidance for future work. We have engaged with stakeholders from over 20 countries, including medical student associations, medical education associations, patient representative groups and nutrition societies. The presentations and discussions will help plan collaborative projects that address the priorities, and advance on discussions from the inaugural Summit in 2015.

Feel free to go through the following pages to get more information of our activities during the conference and details on registration. Remember to Tweet with #NNEdProSummit to stay updated on news from the Summit.

Kind Regards,

Dr Lauren Ball, Celia Laur, Marietta Sayegh, Pauline Douglas, Prof Sumantra Ray
ORGANISING COMMITTEE

Dr Lauren Ball
Co-Facilitator & Session Co-Chair

Celia Laur
Co-Facilitator & Session Co-Chair

Prof Sumantra Ray
Summit Chair

Pauline Douglas
Summit Vice-Chair

Marietta Sayegh
Supporting Summit Organiser

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Rinku Banerjee
Public Relations & Sponsorship

MINHA RAJPUT-RAY
NNEdPro Medical Director

DANIELE DEL RIO
NNEdPro Scientific Director
AGENDA

8:30-9:00
Registration, Refreshments & Poster Set-Up

9:00-9:10
Opening Remarks: Dr Lauren Ball and Celia Laur, Co-Leads of the NNEdPro Global Innovation Panel

9:10-10:30
The Great Nutrient Debate! Focus on macronutrients
Facilitators: Dr Lauren Ball, Celia Laur
Discussant: Prof Sumantra Ray

Presenters:
Prof Luc Tappy, Physiology Department, University of Lausanne (Presenting on latest evidence on macronutrient requirements)
Prof Martin Kohlmeier, UNC Schools of Medicine and Public Health (Presenting on Dietary Guidelines with a focus on macronutrients)

10:30-11:00
Morning Tea and Poster Viewing

11:00-12:30
The Great Nutrient Debate! Focus on vitamin D and phytonutrients
Facilitators: Dr Lauren Ball, Celia Laur
Discussant: Prof Sumantra Ray

Presenters:
Prof Caryl Nowson, Institute for Physical Activity and Nutrition (Presenting on Vitamin D)
Prof Daniele Del Rio, Department of Food Science, University of Parma, Italy (Presenting on phytonutrients)

12:30-13:30
Complimentary Lunch

13:30-15:30
Global Nutrition Report
Facilitator: André Laperrière, Executive Director of the Secretariat for Global Open Data for Agriculture and Nutrition (GODAN)

GODAN Panel:
Dr Elizabeth Dodsworth, Centre for Agriculture and Biosciences International (Presenting: Evidence-based decision making: managing nutrition information and data)
Dr Veronica Tuffrey, Independent public health nutritionist (Presenting: Nutrition surveillance in low-income countries – time to refocus?)
Patrizia Fracassi, Senior Nutrition Analyst for Scaling Up Nutrition (Presenting: Data use for decision making: walking the talk)
Dr Sylvia Szabo, Save the Children (Presenting: Accountability for action: filling evidence gaps to ensure well-being of children and advance Sustainable Development Goals [SDG2])
Dr Daniela Beltrame, Biodiversity International (Presenting: Bridging the gap: Building capacities and networks to analyze and use nutrient data on edible biodiversity in Brazil)
15:30-16:00
Afternoon Tea and Poster Viewing

16:00-17:00
Question and Answer Panel: So what should we teach our students?

Panel:
Dr AT Jotheeswaran, Epidemiologist, Department of Ageing and Life Course, World Health Organisation
Dr Somnath Bhar, NELICO India
Dr Suzanne Piscopo, Society for Nutrition Education and Behaviour
Prof Christi Deaton, Florence Nightingale Foundation Professor of Clinical Nursing Research, The University of Cambridge

Further panel members may be included on the day.

17:00
Conclusion, followed by complimentary reception with canapés

The Great Nutrient Debate: What should we teach our students?

Wolfson College, University of Cambridge
8:30-9:00
Registration, Refreshments & Poster viewing

9:00-9:10
Opening Remarks: Dr Lauren Ball and Celia Laur, Co-Leads of the NNEdPro Global Innovation Panel

9:10-9:20
Setting the Scene for Medical Nutrition Education: Prof Sumantra Ray, NNEdPro Chair

9:20-10:10
Keynote Speaker: Dr Rachel Pryke, Clinical Champion for Nutrition for Health at the Royal College of General Practitioners

10:10-10:40
Nutrition and Workplace Wellbeing

Speakers:
Pauline Douglas, NNEdPro Vice-Chairman and Education Director

Dr Minha Rajput-Ray, NNEdPro Medical Director

10:40-11:00
Morning Tea and Poster Viewing
#NNEdProSummit

## AGENDA

### 11:00-12:30
Research Priorities in Medical Nutrition Education

**Speakers:**
- Katelyn Barnes, *Overview of the Global Research Priorities Project*
- Dr Jennifer Crowley, *Research Priority A*
- Celia Laur, *Research Priority B*
- Dr Lauren Ball, *Research Priority C*

### 12:30-13:30
Complimentary lunch and poster viewing

### 13:30-15:00
Priorities in Delivery and Assessment Panel Discussion

**Speakers:**
- Melita Avdagovska, *WellnessRx, University of Alberta*
- Melissa Olfert, *Society for Nutrition Education and Behaviour*
- Harrison Carter, *BMA Medical Students Committee*

*Further panel members may be included on the day.*

### 15:00-15:30
Afternoon Tea and Poster Viewing

### 15:30-16:40
Facilitated Breakout Sessions with plenary feedback: Critiquing the next steps in global collaboration (by region)

### 16:40-17:00
Conclusion and Poster Winners Announcement

### 17:00
Conclusion, followed by complimentary reception with canapés
Rachel Pryke is a part-time GP partner and trainer in Redditch, Worcestershire, with particular interests in obesity, malnutrition and women’s health. She was RCGP Clinical Champion for Nutrition until 2015 and began a NICE Fellowship in April 2015. She established the RCGP Nutrition Group in 2013. Rachel has written two books – “Weight Matters for Children” and “Weight Matters for Young People”, Radcliffe Publishing 2006, plus many e-learning modules on obesity, child obesity and adolescent health.

She runs primary care obesity training courses throughout the UK and has collaborated with WHO on a European primary care obesity training package. She has contributed to the Academy of Medical Royal Colleges Obesity Steering Group 2013 report: Measuring up: The medical profession’s prescription to the obesity crisis, and to the 2013 RCP Action on Obesity: Comprehensive care for all report, which looks at how the NHS should adapt to meet the needs of an increasingly obese nation.

Presentation Abstract

Improving nutritional skills, addressing low confidence and promoting engagement amongst primary care staff will be of value to both the obesity epidemic and to chronic disease care in view of the profound impact that nutrition and weight have on co-morbidities. Yet distilling the extensive obesity literature into training programmes is complex. The field is rapidly evolving, yet solutions are perceived as elusive whilst ‘common knowledge’ prevails. ‘Myths, fads and ‘miracles’ influence patients and health workers alike.

Internationally, obesity now matches malnutrition as health priority. Historically nutrition featured rarely throughout clinical training, with neither an established curriculum nor cohort of trained trainers.

Primary care require concise, locally pertinent, communication-skills training that reflects their unique relationship with patients: conveying the impact of weight and nutrition on health; signposting and encouraging long-term (re-) engagement through cycles of predictable weight variation. RCGP guidelines for long-term follow-up after bariatric procedures highlight what primary care could do well – if we were commissioned to do this.
ANDRÉ LAPERRIÈRE

Executive Director of the Secretariat for Global Open Data for Agriculture and Nutrition (GODAN)

André Laperrière rejoined the Global Open Data for Agriculture and Nutrition (GODAN) initiative as its first Executive Director, in September 2015. He has played a senior role in the design and the implementation of major reforms within a number of agencies such as the International Criminal Court (ICC), the World Health Organization (WHO) and UNICEF. He has extensive work experience in the Americas, Caribbean, Africa, Europe and the Middle East, in particular in developing countries and in conflict/post conflict environments. Before joining GODAN, Mr. Laperrière was Deputy Chief Executive Officer at the Global Environment Facility (GEF) in Washington DC. Among other positions, he has also been Director of the Administration and Finance Division in the World Health Organization (WHO), and Coordinator for reconstruction and rehabilitation activities under the responsibility of UNICEF in Iraq.

DANIELA BELTRAME

Biodiversity International

Daniela is a Brazilian Nutritionist, MSc in public Health and PhD in Nutrition (Food Science). With a background on food composition, bioactive properties and bioavailability of compounds from native and underutilized species from Brazilian biodiversity, she is currently the National Coordinator for the “Biodiversity for Food and Nutrition” Project in Brazil and is involved in the establishment of a network for food composition analysis and data compilation, development of a database and management system of nutritional composition data for native underutilized species and is also contributing to the development of an online module to mainstream biodiversity into nutrition education. Daniela believes that biodiversity is the key for achieving diversified, nutritious diets.

ELIZABETH DODSWORTH

Centre for Agriculture and Biosciences International

Dr Elizabeth Dodsworth has been responsible for CABI’s Knowledge Management Theme for the past 16 years. She is actively engaged in finding solutions to the long term sustainability of open access knowledge bases developed with public funding. Since 2006 she has been developing programmes to harness mobile technologies to serve the knowledge needs of farmers in the field, and to identify sustainable business models for access. Elizabeth’s early career in teaching took her to The Gambia and St Lucia, followed by a period in research in livestock nutrition. The majority of her career has been in knowledge sharing and management, as a publishing editor of Nutrition Abstracts and Reviews and information scientist. An interest in building capacity in information management in developing countries has resulted in management of consultancies in a variety of developing countries around the world.
PATRIZIA FRACASSI
Senior Nutrition Analyst for Scaling Up Nutrition

Patrizia Fracassi is Senior Nutrition Analyst and Strategy Advisor in the SUN Movement Secretariat and a member of the Independent Expert Group of the Global Nutrition Report. The Scaling Up Nutrition Movement currently has 57 country members. Her main roles at the Secretariat involve advancing the country-led agenda on effective multi-sectoral approaches for planning, costing, managing and monitoring implementation, tracking investments and mobilizing resources. Previously, Patrizia worked in Ethiopia with UNICEF on Nutrition Information System strengthening and for the World Bank on Linkages between the Productive Safety Net Program and the National Nutrition Program. She also worked for UNICEF Uganda as a Nutrition Specialist and for CESVI and Oxfam Italia in Vietnam as Country Representative, specializing in Community Based Nutrition, Primary Health Care and Livelihoods. Patrizia holds an M.A. in Human Sciences and a M.Sc. in Development Management. She is a Doctorate candidate in Health Research.

DR SYLVIA SZABO
Save the Children

Sylvia Szabo, PhD, is an international development and research professional with expertise in food and nutrition security, population studies, and urbanisation. Her most recent research interests include accountability for nutrition and issues around data gaps in nutrition, food security and agriculture. Sylvia currently works as Nutrition Policy and Advocacy Adviser in Save the Children’s Research and Policy department. Previous employers include the University of Southampton, the Global Fund to Fight AIDS, Tuberculosis and Malaria, International Organization for Migration and the European Commission. Sylvia published widely, including scientific papers, policy briefs, blogs and a book on urbanisation and inequalities.

DR VERONICA TUFFREY
Independent public health nutritionist

Veronica obtained her first degree from Cambridge University, and her Masters and PhD from the London School of Hygiene and Tropical Medicine. She works as an independent consultant, and has undertaken assignments for UN agencies (FAO, UNHCR, WFP and WHO), donors (DFID and EU), NGOs (SC-UK, SC-International and PATH) and several academic institutions. She has an honorary research post at the University of Westminster, and was a senior lecturer in statistics and research methods there. Recent freelance assignments relating to information systems and data gaps were a review of the history and methods of nutrition surveillance, and a feasibility assessment for implementation of a National Information Platform for Nutrition in the Lao People’s Democratic Republic. Veronica is currently providing technical assistance to the SUN (Scaling-Up Nutrition) movement in Somalia.
PROF CARYL NOWSON  
Institute for Physical Activity and Nutrition

Caryl Nowson is a qualified dietitian, who holds the Deakin Chair of Nutrition and Ageing. Her position encompasses both teaching in the medical program and research. She is an active nutrition researcher conducting dietary intervention studies and assessing their impact on cardiovascular and osteoporosis risk. More recently she has engaged in research relating public health applications to achievement of population dietary change and has further extended her work into embedding nutrition into medical education through collaboration with a number of medical schools in Australia through a joint National Teaching grant.

CELIA LAUR  
Summit Co-facilitator and Session Co-chair

Celia is a Registered Public Health Nutritionist and a Fellow of the Higher Education Academy. She completed her BSc Honours in Health Sciences, at Carleton University in Ottawa, Canada, a Masters in Public Health Nutrition at the University of Southampton, UK, and is currently a PhD student at the University of Waterloo, School of Public Health and Health Systems, in Canada. For her doctoral training, Celia is working with a team of experts in hospital malnutrition (the 'More-2-Eat' team), including the Canadian Malnutrition Task Force, to pilot the implementation of the Integrated Nutrition Pathway for Acute Care (INPAC) in five hospitals across Canada. This work links well with NNEdPro Theme 3b and several NNEdPro Core Team members are co-investigators within the More-2-Eat project.

PROF DANIELE DEL RIO  
Department of Food Science, University of Parma, Italy

Daniele Del Rio is Associate Professor of Human Nutrition at the University of Parma. As a visiting scientist at the University of Glasgow in 2002-2003, he developed interests and expertise in HPLC-MS/MS analysis of polyphenols and related compounds in food and in human tissues/fluids. The absorption, metabolism and bioactivity of dietary polyphenolics became the principal focus of Daniele’s interests and his research and collaborations in this area have made him one of the leading researchers in the field. Dan is the Editor in Chief of the International Journal of Food Sciences and Nutrition and is a member of the editorial board of Molecular Nutrition and Food Research (Wiley), Nutrition Metabolism & Cardiovascular Diseases (Elsevier) as well as Commissioned Reviews Editor for the Journal Of Human Nutrition and Dietetics. Since January 2011, Daniele is leading the Laboratory of Phytochemicals in Physiology, a research laboratory of the Department of Food Science of the University of Parma and is the co-funder of the LS9 Bioactives & Health Interlab Group (www.ls9.it).
**DR JENNIFER CROWLEY**  
University of Auckland, New Zealand

As a teacher and a dietitian, Jennifer has always had a passion for nutrition education. Since beginning her PhD in 2011, which investigates the New Zealand context of nutrition in undergraduate medical education, Jennifer has established contacts with Griffith University and the University of Queensland, in Australia as well as the Need for Nutrition Education/Innovation Programme (NNEdPro) an independent group based in Cambridge, England. Some of the publications from these collaborations are part of her recently submitted doctoral thesis. Jennifer plans to continue researching ways to enhance the quality and quantity of New Zealand undergraduate medical nutrition education.

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**KATELYN BARNES**  
Griffith University, Australia

Katelyn is a registered dietitian and PhD student in Nutrition and Dietetics at the Menzies Health Institute Queensland, Griffith University, Australia. Katelyn’s PhD is investigating personal trainers’ confidence in giving nutritional advice and the levels of knowledge and skills they feel they have in nutrition. Along with Dr Lauren Ball, Katelyn is also working on the Research Priorities project regarding nutrition in medical education.

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**DR LAUREN BALL**  
Summit Co-facilitator and Session Co-chair

Dr Lauren Ball is an Australian National Health and Medical Research Council Early Career Research Fellow, Accredited Practising Dietitian and Lecturer in Nutrition & Dietetics at Griffith University in Australia. Dr Ball conducts research in primary health care that contributes to a better understanding of how patients with, or at risk of chronic disease can be supported to have healthy dietary behaviours. The research Dr Ball leads is patient-centred, interdisciplinary, and utilises a knowledge-translation approach to support high quality health care. The research is aligned with the international research agenda on chronic disease prevention and management, and patient-centred primary health care.
SPEAKERS (alphabetical order by first name)

PROF LUC TAPPY
Physiology Department, University of Lausanne

Luc Tappy is a senior researcher at the Institute of Physiology, Lausanne University School of Medicine. His studies focus on nutrition, physical exercise and metabolism in healthy individuals and in various clinical conditions, such as diabetes, obesity, organ transplant patients and critically ill patients. In 2002, he was appointed full professor of physiology at the Department of Physiology of the University of Lausanne, and associate physician at the Division of Endocrinology and Metabolism of the CHUV. He has also been invited professor at the Centre Hospitalier Sart Tilman in Liège, Belgium (1998-2001), and in the Department of Nutrition, at the University of California at Berkeley (1995). His present research is focused on the environmental factors involved in the present epidemics of obesity and type 2 diabetes.

PROF MARTIN KOHLMEIER
UNC Schools of Medicine and Public Health

Martin Kohlmeier specialises in laboratory diagnostics, nutritional genetics and the use of computers in nutrition education for healthcare professionals and the general public. His clinical and laboratory experience uniquely help him translate bench research to the bedside and general consumer applications and to bring nutrition education to the health professions. He is director of Nutrition in Medicine project, which has provided comprehensive online nutrition education to students and healthcare professionals since 1992, currently at more than 150 medical institutions worldwide. He has introduced interactive assessment features, tailored content presentation, and adaptive remediation. Current efforts concern the scalable implementation of video-realistic virtual reality environments for clinical nutrition training.

DR MINHA RAJPUT-RAY
NNEdPro Medical Director

Dr Minha Rajput-Ray is an Occupational and Disability Physician and holds dual registration with the General Medical Council and General Osteopathic Council. She was awarded the 2015 Mobbs Corporate Fellowship of the Royal College of Physicians Faculty of Occupational Medicine and the Golden Jubilee Travelling Fellowship of the Society for Occupational Medicine, Dr Rajput-Ray is also Chair of the International Commission on Occupational Health Scientific Committee on Unemployment, Job Insecurity and Health. Dr Rajput-Ray has actively maintained a special interest in clinical nutrition, from supervising Intercalated BSc projects on Nutrition to developing and delivering nutrition education programmes both in the UK and overseas. As NNEdPro Medical Director, Dr Rajput-Ray is clinical quality lead, providing medical advisory input with a specific emphasis on interprofessional learning (bringing together medical student, junior doctors and allied health professions). She also heads the wellbeing at work initiative with a focus on nutrition and hydration in promoting healthier workplaces, reducing sickness absence and improving staff performance.
PAULINE DOUGLAS  
NNEdPro Vice-Chairman and Education Director

Pauline has over 25 years of Clinical and academic experience in dietetics, and her main teaching disciplines are in Professional Practice for dietetic students and dietetic practice educators. Pauline is a member of the Professional Practice Committee of European Federation of the Associations of Dietitians, and the current Chair and co-founder of the Commonwealth Dietitians and Nutritionists Association. Pauline is a partner with the Health and Care Professions Council, the statutory regulator for Allied Health Professions in the UK, and was a previous Honorary Chairman of the British Dietetic Association (BDA). She was elected to Fellowship of the BDA for her professional achievements in 2010.

PROF SUMANTRA RAY  
NNEdPro Chair

Sumantra ‘Shumone’ Ray is a Medical Doctor and Registered Nutritionist, with interests in Nutrition, Cardiovascular Disease and Medical Education. He works at the MRC Elsie Widdowson Laboratory as a Senior Clinician Scientist and UK National Diet and Nutrition Survey Lead Clinician (Public Health England). Shumone is Founding Chair of the NNEdPro Global Centre for Nutrition and Health, and in 2015 he was elected as a governing body Fellow of Wolfson College, University of Cambridge. Also in 2015, NNEdPro won the Complete Nutrition Outstanding Achievement Award and Shumone was appointed as Adjunct Professor at University of Waterloo in Canada as well as receiving a Griffith University Visiting Fellowship from Australia. In 2016, Shumone was appointed as Visiting Professor at Imperial College London and NNEdPro was a finalist and runner-up in the 2016 BMJ Awards. Most recently, Shumone has published the Oxford Handbook of Clinical and Healthcare Research aimed at strengthening basic research skills across the global health-related workforce.
ABSTRACTS
ABSTRACTS

POSTER 1

A Prospective study of the prevalence of malnutrition in adult hospitalised patients at an urban tertiary care hospital
Ayusmati Thakur

**Objective:** To study the prevalence of malnutrition among patients admitted to a tertiary care hospital in India by various methods of nutritional assessment and to assess their correlation.

**Methodology:** A prospective observational study done at The AMRI, a tertiary care hospital in Kolkata, between 1st December 2010 and 30th November 2011. Nutritional status was assessed on 255 adult patients on admission, by the following methods: Modified Subjective Global Assessment (MSGA)(Category A- normal, B- Moderately malnourished, C- Severely malnourished), Body Mass Index (BMI), Clinical Features assessment (CFA) and Serum Albumin (SA).

**Results:** Of the 255 adult hospitalised subjects studied, 52% were males and the mean age was 51.2 years. MSGA and CFA was performed in all the 255 patients, BMI could be measured in 237 patients and SA was measured in 201 patients within 36 hours of admission. The prevalence of malnutrition was found to be 57.2% on admission according to MSGA score, out of which 14.1% were severely malnourished. BMI of the patients assessed revealed that 29.1% were underweight (BMI <18.5 kg/m2) and 28.3% were overweight (BMI ≥ 23 kg/m2). When examined clinically 49.8% showed clinical features of malnutrition. The mean value of SA in the patients was 3.4 gm% and 56.7% of the subjects had a low albumin on admission (<3.5 gm%). On comparison of the different methods of nutritional assessment, a statistically significant correlation was detected between MSGA and BMI, with almost 71% of the subjects with BMI < 18.5 kg/m2, belonging to the malnourished category by MSGA .83.8% with clinical features of malnutrition belonged to the malnourished category by MSGA. All the subjects with severe malnutrition on MSGA had clinical features of malnutrition (p<0.001). Amongst the patients assessed for BMI, 48.5% had clinical features of malnutrition, 42.6% of them had a BMI <18.5 kg/m2 (p<0.001), and 15.7% belonged to the overweight category. On analysis of the subjects with low SA (<3.5 gm%) (n=114), it was found that 86.8% belonged to category B or C by MSGA and 91% of the severely malnourished subjects by MSGA , who were assessed for SA on admission had a level <3.5 gm% (p<0.001).

**Conclusion:** More than half of the patients in an urban tertiary care hospital in eastern India were found to be malnourished on admission. One third of the subjects were underweight and one third overweight. The various methods of nutritional assessment were comparable.
ABSTRACTS

POSTER 2
The More-2-Eat project: Preliminary audit of nutrition practices in 5 Canadian hospitals
Renata Valaitis, Celia Laur, Stephanie Barnes, Michelle Booth, Donna Butterworth, Heather Keller

The Integrated Nutrition Pathway for Acute Care (INPAC) was developed through an evidence consensus based process to improve patient care and prevent/detect/treat malnutrition in Canadian hospitals. The More-2-Eat (M2E) project aims to address these concerns by developing and testing the implementation of the INPAC tool in 5 Canadian hospitals.

The M2E project collects data from 5 Canadian hospitals via 3 phases: baseline, implementation and sustainability. Baseline data collected between September-December 2015 related to nutrition screening, malnutrition detection, nutrition care practices, and identification and amelioration of barriers to food intake. Trained hospital staff collected inpatient information from medical records using a standardized INPAC audit form. The audit was conducted on all patients on the study unit for one on day per week for four weeks (N=698).

Nutrition screening was completed on 40% of the patients audited. Of the patients who were screened, 269 (39%) were identified as ‘at risk’; however, Subjective Global Assessment was not routinely completed by regular staff as a follow up to ‘at risk’ screens. Twenty-eight percent (n=195) of patients had a dietitian nutrition assessment completed; however, 12% of those patients were identified as ‘not at risk’. Additionally, 17% (n=44) of screened patients who were identified as ‘at risk’ were not assessed by a dietitian. In terms of barriers, 85% of patient charts noted at least one barrier to food intake while in hospital. The most common barriers included: pain (59%), nausea/vomiting (34%), and constipation (38%). Results showed that 83% of patients received standard nutrition care strategies, many of which addressed the barriers above (i.e. pain, nausea, constipation, dysphagia). Forty percent of patients received advanced nutrition care strategies (i.e. oral nutritional supplements, preferred foods, high energy/protein diets).

Baseline results provide a snapshot of what nutrition care is being provided on a single unit in 5 Canadian hospitals, prior to implementation of change processes of INPAC. Results highlight strengths and areas for improvement regarding screening, nutrition assessment and reducing food intake barriers. The INPAC audits will be used by each hospital as a guide to improve nutrition care into the implementation and sustainability phases of the M2E project.
POSTER 3

Nutrition care in hospital: Using focus groups and interviews to examine current nutrition care practices in Canadian Hospitals
Celia Laur, Josephy Murphy, Heather Keller

The More-2-Eat (M2E) project aims to optimize nutrition care in Canadian hospitals through use of the Integrated Nutrition Pathway for Acute Care (INPAC). This optimization of nutrition care aims to prevent, detect and treat malnutrition and poor food intake, thus promoting recovery, function and quality of life of patients.

To optimize nutrition care, an understanding of the barriers and facilitators to best practices is required. For M2E baseline data collection, interviews and focus groups were conducted at each site with the aim to understand from the perspective of hospital staff and management, the challenges and promoters of quality nutrition care. Interviews (n=40) and focus groups (n=11) were conducted with staff and management from 5 Canadian hospitals, in 4 provinces. Preliminary thematic analysis of transcripts identified barriers and facilitators regarding incorporation of nutrition screening tools, assessment tools, and integration of nutrition into the discharge process.

Communication across departments was described as a problem in all sites. It is not always clear who is responsible for certain tasks, and there are often several steps required to communicate a patients’ need/care. There is lack of ownership regarding mealtimes, making it more difficult to make a change if no one is accountable. The staff care about nutrition and their patients, however they need specific and manageable tasks which can be built into their current workload. Change should begin small and be tested for feasibility before upscaling. Incorporating all staff will be essential for a culture change.

An individual summary of the key findings from the focus groups and interviews have been presented to each site. These summaries are being used in combination with quantitative baseline data to highlight gaps in nutrition care and suggest ways to address these gaps. Understanding the barriers, facilitators, and opportunities is essential to optimize nutrition care in hospital.
POSTER 4

More-2-Eat: Testing the implementation of the Integrated Nutrition Pathway for Acute Care in Canadian hospitals
Heather Keller, Celia Laur

The Integrated Nutrition Pathway for Acute Care (INPAC) is an evidence-informed, consensus based algorithm designed to promote the detection, treatment and monitoring of malnutrition. Based on the Model for Improvement and Quality Implementation Framework, More-2-Eat is designed to test and implement all aspects of the INPAC in five diverse hospitals in four provinces of Canada. The developmental phase is focused on building readiness, including creating clinical education materials and training key site staff, as well as the site implementation team. The implementation phase is focused on mentoring site teams in their plan-do-study-act cycles to test and implement the INPAC, while the sustainability phase focuses on continuation of INPAC components with minimal supports. Data collection is qualitative and quantitative at the site, unit, staff, and patient levels, including audits of INPAC components as well as patient reported outcomes (e.g. food intake). The primary outcome of More-2-Eat is the INPAC implementation toolkit.

POSTER 5

Bridging the gap: Building capacities and networks to analyze and use nutrient data on edible biodiversity in Brazil
Daniela M. de Oliveira Beltrame, Teresa Borelli, Camila Neves Soares Oliveira, Lidio Coradin, Danny Hunter

Nutritional data about native edible biodiversity is scarce and, to date, a comprehensive online food composition database is missing in Brazil. Food composition data can raise awareness among researchers, students and nutritionists of the value of biodiversity for food and nutrition, as well as provide evidence for the inclusion of nutritious native species in public policies, programs and initiatives targeting food and nutritional security and nutrition education.

In Brazil, the Biodiversity for Food and Nutrition (BFN) Project established partnerships with six Federal Universities and Research Institutes to conduct nutritional analysis of 70 edible and underutilized native plant species. Data is being compiled through a literature review and integrated with food composition analysis for those species for which data is missing or incomplete. Capacity building workshops on food composition data compilation and food analysis were organized for master students and professors. An online course on BFN is also being developed and nutritional data will be used as one of the tools to demonstrate the importance of biodiversity for food and nutrition to students and professionals working with nutrition and health.

The data generated by the BFN Project will be available online on the Biodiversity Nutritional Composition Database, currently being developed as part of the Information System on Brazilian Biodiversity. The database platform will include the management of food composition data, so researchers will be able to continuously insert and update the database.
POSTER 6

Education and research Dietitian- An innovative new role within Brighton and Sussex Medical School (BSMS)
Elaine MacAninch, Kathryn Martyn, M Smith

From concept to practice
BSMS believe in an integrated, practical and multi-disciplinary (MDT) approach to education. A review of the nutrition content of the curriculum revealed nutrition themes integrated into generic outcomes without signposting or an obvious strand. Enthusiasm amongst students and lecturers to enhance Nutrition was evident and BSMS supported the need to improve and integrate nutrition and a research through recruitment of a dietitian to co-ordinate this initiative, and to link students to dietetic departments.

Making it work
An MDT nutrition education group was formed to include the dietitian, senior nutrition lecturers and gastroenterologist. Embedding nutrition into an already demanding and full timetable requires a collaborative and innovative approach. New medical students were prioritised and first year module leads contacted to gauge interest and to offer contributions. Networking within BSMS we have established links and contribute to lectures, SSC, Symposia and workshops.

The first 6 months
Nutrition content has been added to renal, diabetes and osteoporosis symposiums. A series of 5 lectures on micro and macronutrients, malnutrition, treatment, feeding routes and dilemmas and 3 x Nutrition SSCs in cancer, allergy and renal disease are offered in the first year. All 3rd year students now attend a practical workshop on nutrition assessment. We are currently developing a podcast to invite new medical students to listen out for nutrition related questions during GP/hospital clinical placements.

Future developments
As momentum has gained new opportunities for developing nutrition content, identify learning outcomes and assessment strategies including new SSCs and research projects are emerging.

Summary
This new role has been well received within BSMS. Student feedback is positive and we are responding to ideas and feedback to continue building and improving nutrition education at BSMS.
Aim
The aim of this study was to explore dietitians’ perceptions on teaching nutrition to medical students.

Methods
This study utilised a qualitative design and was conducted in collaboration with The Need for Nutrition Education/Innovation Programme (NNEdPRo) which is based in Cambridge in the UK. Potential participants were dietitians from any country who currently provide, or who have previously provided nutrition education to medical students in a tertiary institution or a hospital education rotation. Purposive and snowball sampling was used to recruit the participants. Overall, 24 dietitians participated in the study. Participants came from Australia (n=5), NZ (n=1), US (n=6), Canada (n=5), the UK (n=5), Germany (n=1) and Finland (n=1). Data collection involved individual semi-structured interviews via Skype that used open-ended questions to guide discussions. Interview questions focussed on dietitians’ perceptions of their role, scope of practice, challenges and future opportunities. Data analysis was conducted concurrent to data collection using a constant, comparative approach to thematic analysis.

Results
Analysis of the data revealed four emergent themes including: Educating medical students to be competent in nutrition is fundamental; Feeling confident in their teaching role; Overcoming challenges of the role; Utilising many resources and tools; and Promising opportunities. Overall, dietitians expressed confidence in their ability to teach nutrition to medical students and believed they were the most appropriate health care professionals to administer the education. However, they were unconfident that the students were graduating with necessary levels of nutrition competence. Dietitians attributed this to a number of factors associated with medical curriculum planning. They suggested possible solutions to improve the perceived problems including; integrating nutrition across the whole degree, increasing the time dedicated to multi-disciplinary teaching activities and receiving more support from and engagement with the medical faculty.

Conclusion
This study suggests that dietitians are appropriate nutrition educators in medical programs and should be involved more often. To utilise dietitians most effectively in this role and to allow medical nutrition education to reach its fullest potential, dietitians need to have further involvement in curriculum development and planning. This could be achieved by having dietitians present in the medical faculty at universities and enabling them to have direct input with nutrition’s integration in the curriculum. This change could enhance the nutrition education being delivered, helping to improve medical students’ nutrition competence. In turn, this higher nutrition competence could positively affect nutrition care delivery rates and facilitate a reduction in the double burden of malnutrition.
POSTER 8
A Folate, Vitamin B12 and Homocysteine-related dietary pattern and risk of subclinical atherosclerosis: findings from the MRC National Survey of Health and Development (NSHD)
Jane Maddock, Gina Ambrosini, Sumantra Ray, NSHD Study Team

Elevated homocysteine concentrations have been shown to increase the risk of stroke. However, the relationship between dietary patterns (DP) associated with homocysteine and associated nutrients (i.e. folate and vitamin B12) with subclinical atherosclerosis, an early marker of stroke, remains unknown. This study identifies a DP characterised by plasma homocysteine, dietary folate and vitamin B12, and investigates its association with carotid intima-media thickness (cIMT).

Food consumption in the NSHD, a British birth cohort, was assessed using 5-day estimated food diaries at 36 years (y), 43y, 53y and 60-64y. High resolution cIMT in the right and/or left common carotid artery was measured amongst 1565 participants at 60-64 years. Reduced rank regression was used to identify DPs based on plasma homocysteine (μmol/L), dietary folate (ug/kcal) and vitamin B12 (ug/kcal) as response variables. Multiple linear regression models examined cross-sectional and prospective associations between DP z-scores.

The DP explaining the maximum amount of total variation (4.5%) in all response variables was correlated with high intakes of folate (r=0.96) and vitamin B12 (r=0.27) and weakly correlated with homocysteine (r =0.10). The DP was characterised by high intakes of vegetables, fruit and breakfast cereal and low intakes of processed meat, white bread, sugar and preserves. No cross-sectional association was observed between DP z-scores and left (0.34% 95% CI -1.09%, 1.79%) or right cIMT (0.07%, 95%CI -1.28% to 1.45%), adjusting for age, gender, dietary misreporting, socioeconomic status, BMI, smoking, physical activity, lipid-lowering/antihypertensive medication and diabetes. Similarly, there was no association between DP z-scores measured at the ages of 36y, 43y, 53y and cIMT at 60-63y.

No cross-sectional or prospective associations were observed between cIMT and a DP high in dietary folate and vitamin B12 in this study. However, the observed DP explained only a small amount of variation in response variables and food intake. Further examination of DPs explaining greater amounts of variation in alternative response variables and their relationships with cIMT is warranted.
ABSTRACTS

POSTER 9
Process and Development of Global Nutrition Competencies for Nutrition Educators
Melissa Olfert

In recent years, there has been an increased demand and need for nutrition education, globally, nationally and locally. While there may be no international standard definition of nutrition education, the need for qualified nutrition educators who can promote healthy individuals, communities, and food systems is widely acknowledged. The Society for Nutrition Education and Behavior (SNEB) has been a leader in developing effective nutrition education and nutrition educators as far back as 1987 when the first competencies were issued by the society.

Objective: Recognizing the need for updated nutrition education competencies that reflect current research and professional opportunities, a decision was made in 2013 to develop foundational competencies for nutrition educators around the world.

Methods: With continued input and review by the SNEB Board of Directors, general membership and the Division of Higher Education, a SNEB Task Force was established in 2011 to explore the best way forward. Over the course of two years, the Task Force developed a set of competencies involving ten focus areas of knowledge and skills. These competencies articulate the foundational knowledge and performance skills nutrition educators need for the development, implementation and evaluation of effective nutrition education. The ten theme areas, and the more specific competencies under each of these, provide a practice guide for a well-rounded nutrition educator.

Outreach: These competencies were presented at an open hearing and distributed to members at the 2015 SNEB Annual Conference and later through listservs for feedback. Comments were reviewed and incorporated into the final document. The Board formally adopted the competencies in January 2016.

Impact: The competencies may be used for individual professional development, curriculum and program planning for educational institutions, training within extension or other programs, or preparation for capacity development at the country level.
POSTER 10
Enhancement of Nutrition and Physical Activity Knowledge and Skills through Game-Designed Learning
Melita Avdagovska, L Bistritz, K Olson, K Kovacs Burns, L Gramlich

The WellnessRx educational intervention was developed in response to a needs assessment among Health Sciences Faculties at the University of Alberta demonstrating a curricular gap in the domains of nutrition and physical activity (NPA) necessary to prepare healthcare professionals to foster their own self-health and to counsel patients. This intervention has been tested with over 1,500 health professional students. Initially, the intervention was delivered through a website; however, this platform had limitations in incorporating and delivering interactive learning. As part of an iterative developmental evaluation process, the intervention was modified with a goal of increasing interactivity of the participant with the content of the modules resulting in positive shifts of their KSAs assessments. Course content, objectives and resources/tools for each module were evaluated for their effectiveness and modified accordingly. The result of this process were that the course content and objectives were aligned through a game-based learning platform to increase learner engagement, and offer active learning opportunities with immediate feedback and more efficient use of learner time compared to the website modular format. Through this game-based platform, the WellnessRx team has focused on integrating the best available NPA resources in health promotion and chronic disease prevention. By implementing the WellnessRx program, we anticipate: (1) an improvement in the KSAs of health sciences students in NPA; (2) a better understanding of the usefulness of the gaming platform we used to build our modules; and (3) increased understanding of the reach, process implementation and maintenance of WellnessRx in university curriculum including assessment of the barriers, enablers and opportunities for involvement.
POSTER 11

Online Education Intervention for Nurses

Melita Avdagovska, L Bistritz, K Olson, K Kovacs Burns, L Gramlich

WellnessRx is an interdisciplinary education intervention (5 modules based on authentic learning experiences) designed to address gaps in healthcare professionals knowledge, skills, and attitudes (KSAs) to foster self-health and enhance their ability to advise patients about nutrition and physical activity (NPA). The objectives were to determine the current KSAs of nurses regarding NPA, to examine shifts in the KSAs of the nurses who completed our online modules, and to ascertain the capacity of nurses to use online platforms for continuing professional development activities. Online surveys were conducted with nurses, to evaluate their experiences with the education intervention format and process used; modules content, resources and activities; and time involvement. Pre and post testing was done to assess learning. Surveys were descriptively and thematically analyzed. Although 73 nurses volunteered, only 16 completed all five modules. The post-test showed an increase in knowledge and skill scores, compared to pre-test results. The internal consistency of the modules was low and the error ratio indicated a probability that answers were likely due to chance. The low participation rate by nurses initially interested was associated with module length and technological difficulties. Survey analysis showed that the participants: engaged in learning opportunities about NPA despite the lack of employer-provided incentives; wanted to learn how to encourage patients in behaviour modifications for healthier lifestyles; and understood the importance of NPA in prevention. Nurses were interested in learning about physical activity and nutrition and those who completed our modules demonstrated an increase in KSAs. Given busy schedules of health professionals, online education approaches need to be feasible and easy to access and use.
POSTER 12

Evaluation of Nutrition Knowledge, Attitude & Practices and Mapping of Stress among first year MBBS students in two different Medical Colleges in Kolkata and intervention through Nutrition Education

Riya Ghosh, Mayukh De, Srirupa Guha, Sadika Sadaf, Shinjini Bhattacharya

This piece of work is dedicated to evaluate the nutritional knowledge, attitude and practice of 1st year MBBS students of 2 different state Medical colleges.

The study objectives were:

- To assess the nutritional knowledge, attitude and practice (KAP) of the 1st year MBBS students of 2 different State Medical Colleges in the city of Kolkata, India, by using questionnaire (KAP).
- To assess and quantify stress by mental health questionnaire (SF 36) among 1st year MBBS students of 2 different State Medical Colleges in the city of Kolkata, India.
- To provide Nutrition intervention to the 1st year MBBS students of 2 different State Medical Colleges in the city of Kolkata, India.

The study was done in 2 State Medical Colleges in Kolkata, West Bengal, India. The study comprised of total 85 students: NRS Medical college – 23 students ; RG Kar Medical college – 62 students.

On identification of the 1st year Medical students from each College, data was collected for each participant with the support of team members. Data collection took place at College premises, based on the convenience of each participant. The participant was given a Participant Information Sheet (PIS), by agreeing on the Consent form data was collected from each participant. The data collection visits were planned in coordination with the principal of each College.

After collection of baseline data on knowledge, attitude and practice of 1st year MBBS students, an intervention through nutrition education was conducted by the team members followed by collection of post intervention data.

As a result it was seen that before Nutrition intervention the Nutrition Knowledge among the 1st year MBBS students was 4.98±1.8; Attitude was 17.7±3.10; and Practice was 13.95±3.28. After the Nutrition intervention the following result was observed, Nutrition Knowledge increased to 5.35±1.8; Attitude was 17.86±4.04; and Practice was 13.30±4.62. There was increase in all parameters but these were not significant. It was analyzed that if the sample size would have been 142 then all the results would have been significant.

Conclusion: Positive changes were observed in knowledge scores after intervention. No significant changes in attitude and practice were observed as the post intervention questionnaires were filled on the same day as the pre intervention questionnaires.
POSTER 13

The Relationship Between Dietary Patterns and Carotid Intima Media Thickness, as an Early Biomarker of Cardiovascular Disease: A Systematic Review and Narrative Synthesis

Shivani Bhat, Sumantra Ray

Objective: To systematically review current literature on the association between empirically derived dietary patterns and carotid-intima media thickness, an early subclinical marker of cardiovascular disease.

Methods: A systematic search of MEDLINE, CINAHL, and Web of Science (2000 to 2015) supplemented by manual searches of bibliographies was conducted. Studies that derived dietary patterns using empirical methods (principal component analysis (PCA)/factor analysis (FA)) or investigator-defined or a combination (reduced rank regression (RRR)) were included with CIMT as the outcome. All papers studied adults (≥18 years). The Critical Appraisal Skills Programme (CASP) checklist was adapted to assess each study for validity, methodology, and relevance. The narrative synthesis discusses the findings from each study according to the method used to derive the dietary patterns.

Results: Out of a total of 1582 papers, 15 papers were eligible for review. Six papers (cross sectional n=4, cohort n=2) used empirical methods (PCA n=4, FA n=1, RRR n=1), while 9 papers (cross sectional n=7, RCT n=2) used investigator-defined methods to determine dietary patterns. Of the papers using empirical methods, four reported (3 cross sectional, 1 cohort) a statistically significant association with increased CIMT. Overall, the dietary patterns identified in those studies were characterized by high consumption in ‘unhealthful’ food groups such as processed and red meat, soda and meal replacement drinks, refined grain and starchy foods. While two studies (1 cross sectional, 2 cohort) that identified dietary patterns empirically were associated with a decrease in CIMT, characterized by high consumption of ‘healthful’ foods namely fruits and vegetables, fish, and rice and low in the ‘unhealthful’ foods. Of the papers using investigator-defined methods, four cross sectional studies showed that adherence to lacto-vegetarian/low-calorie vegan diets is associated with a decrease in CIMT. Dietary patterns derived from each study varied depending on derivation method and study design. When assessed for quality, RCTs scored the lowest on quality assessment, cross sectional studies failed to provide sufficient information on the measurement of exposure variables and methods collecting dietary information, and cohort studies proved to be the most robust study design when assessed using the CASP criteria for study quality.

Conclusions: Findings from this review is generally supportive of an association between dietary patterns characterised by greater consumption of ‘healthful’ foods and lower consumption of ‘unhealthful’ foods and decreased CIMT. However, the evidence is heterogeneous as seen from the difference in CIMT measures with varying dietary patterns. Large-scale prospective observational and interventional studies are needed to evaluate the association between dietary patterns and CIMT.
POSTER 14

The assessment of the current nutritional status of children between 6 to 12 years in Kolkata slum areas, to educate mothers through nutrition education workshops, a NELICO India Initiative

Somnath Bhar, Aparajita Saha, Riyanka Roy, Arpita Jana, Suprakash Pradhan

The aim of this project was to educate mothers to improve the health of their school going children (6-12 years) in urban slums.

Methods: Field visits were conducted and nutrition workshops were organized in three different slums situated in Kolkata. Anthropometric data of the children were collected and medical checkup was done by a qualified doctor part of the study team. Micronutrient deficiency and other ill-health related signs were identified. Screening for malnutrition was done using the STAMP tool and the children were classified into low, medium and high risk for malnutrition. Every child was given a health report card consisting of the anthropometric data, nutritional deficiency status, and referral advice wherever necessary. Semi-structured interviews of the mothers were conducted to obtain qualitative and quantitative data on demographic profile of the family, awareness, attitude and practice of nutrition and hunger and food insecurity using the Community Childhood Hunger Identification Project (CCHIP) questionnaire. Nutrition intervention workshops were conducted by a qualified nutritionist in each of the three slums to enhance awareness among the mothers.

Results: One twenty seven children aged between 6-12 years and their mothers took part in this nutrition education intervention project. Among the children 51.15% were male and 48.85% were female. The mean age of the children was 102.24 months (SD=21.74). Almost all the children were school attending (98.40%). Mean body weight and the height of the children were 24.38 kg (SD=7.76) and 123.40 cm (SD=12.14) respectively. Mean BMI was 15.79 (SD=2.93). Mean Mid Upper Arm Circumference (MUAC) was 17.08 cm (SD=3.14). Gum related problems were found in 13%; angular stomatitis and chilosis were found in 5%. About 2% of the children had Bitot spot. Using STAMP tool 5% of the children had high risk for malnutrition. Among 126 mothers participated in this study, 28% had no formal education while 35% had basic primary education. Eighteen percent of the families had a monthly income of less than 2000 INR per month. Forty two percent had a monthly earning between 2000 INR and 4999 INR. Forty percent family earned 5000 INR or more per month. Awareness, Attitude and Practice (AAP) regarding nutrition were evaluated in this study. Mean of the awareness score (highest possible score 50 and lowest possible score 0) of the mothers came out to be 25.33 (SD=9.65) which was just above the 50th percentile. Mean attitude score (highest possible score 50 and lowest possible score 5) of the mothers came to be 39.26 (SD=3.99) which was just below the 50th percentile. In practice section it was seen that only 40% of the children ate milk or milk products more than 3 times per week. Twelve percent of the children ate fruits less than once per week. Only 37% of the children are provided homemade food in all the meal throughout the day. Food insufficiency due to constrained resources assessed by CCHIP hunger index indicated that 16% have experienced hunger. Thirty one percent were at risk of hunger and 53% have appeared food secure.

The mothers enthusiastically participated in the nutrition intervention workshop conducted by the qualified team members. Knowledge about low cost nutritious food items, proper way of cooking were given to the mothers.

Conclusion: This project has been conducted only in 3 slums of Kolkata and these 3 slums may not be the representative of all slums. The characters of the slums vary with location, religious belief, sanitation facility and other socio-economic factors, so as their problems including childhood malnutrition. Although many interesting facts have come out with the preliminary observations, more analysis is warranted with the available data. This type of novel nutrition education intervention can be an effective way of increasing the awareness, attitude and healthy practice of the mothers thereby reducing the risk of the malnutrition of their children.
GODAN supports the proactive sharing of open data to make information about agriculture and nutrition available, accessible and usable to deal with the urgent challenge of ensuring world food security. It is a rapidly growing group, currently with 267 partners from national governments, non-governmental, international and private sector organisations that have committed to a joint Statement of Purpose.

- Agricultural and nutritional data to be available, accessible, usable and unrestricted
- Partners aim to build high level policy and private sector support for open data
- Encourage collaboration and cooperation across existing agriculture, nutrition and open data activities and stakeholders to solve long-standing global problems

GODAN activities and its Secretariat are financially supported by the US Government, the UK Department for International Development, the Government of the Netherlands, FAO, Technical Centre for Agricultural and Rural Cooperation, GFAR, The Open Data Institute, the CGIAR and CABI. Contact us to find out more about how your organization can get involved in this growing network enquiries@godan.info
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We are grateful to Soremartec for their support towards the Summer School Formal Dinner.
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