

# THE TWELVE-YEAR COMPENDIUM (2008-2020)

*Building on over a decade of nutrition education,  
research and innovation*



**NNEdPro Global Centre for  
Nutrition and Health**

*Advancing and implementing nutrition knowledge  
to improve health, wellbeing and society*

NNEdPro is an award-winning, interdisciplinary think-tank, training academy and knowledge network anchored in Cambridge and working through global networks.

Our aim is to improve nutrition related health outcomes by training professionals, strengthening research, implementing solutions and addressing inequalities, in line with the United Nations' Sustainable Development Goals and Decade of Action on Nutrition 2016-2025.

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# EXECUTIVE SUMMARY

While there is much focus on the application of evidence from human nutrition research, whether this involves experiment, observation or intervention, there is considerably little investment in the development and evaluation of the efficacy of these approaches. When translating nutrition knowledge to the population at large, there are barriers to implementation, retention and sustained impact, often due to largely unregulated public information on nutrition causing significant confusion and conflict. Healthcare professionals, thus, have a key role in becoming reliable knowledge brokers to translate nutrition science to clinical or public health practice. However, with the exception of dietitians, who are relatively few in number, other teams of the healthcare workforce receive little or relatively inconsistent training in practice-ready aspects of nutrition.

Over the past decade the NNEdPro Global Centre in Cambridge has been working as a partnership between doctors, dietitians, nutritionists and others, both within and across borders to assess nutrition practice gaps affecting patients and the public. This is typically followed by first taking a step back to look at the available nutrition evidence base – this evidence base can benefit from better synthesis for education and strengthening through further primary research to strengthen the evidence base – and then we can take a step forward to develop, deliver and evaluate the impact of bespoke nutrition education interventions on the knowledge, attitudes and practices of the healthcare workforce. Whilst focusing on the nutrition education of healthcare professionals the NNEdPro lean-innovation approach spans over 40 projects and initiatives in over 12 countries using the Knowledge-to-Action Cycle as a framework to ignite the implementation potential of high quality research to promote best practice.

A decade ago there was little evidence in the UK and across other comparable countries with regards to the need for nutrition education in medical and healthcare practice. This prompted a series of studies to assess needs as well as build and pilot models of good practice whilst taking stock of population needs and shifting understanding of applied human nutrition. In the UK, a study was conducted across 15 medical schools to look at the effectiveness of a short curriculum intervention in nutrition for latter stage medical students to assess whether this leads to a sustainable increase in Knowledge, Attitudes and Practices. Having observed positive changes from such a model, some of the highest performers from this cohort were

recalled post-qualification to build three change teams in the health service to address the challenge of food fluid and nutritional care standard, through nutrition education and awareness weeks. This resulted in qualitative work demonstrating the effect of combining nutrition education with change management and leadership techniques to achieve greater implementation within healthcare settings. By 2013/14, these models were also replicated in other parts of the world galvanized by parallel needs assessments and small intervention studies that took place in six countries with similar health ecosystems. Further work included piloting and incorporating nutrition education into key medical school and clinical training curricula through a multidisciplinary approach.

Over the past 5 years there has been an emphasis in achieving better connections between nutrition research and nutrition education, including research into the effectiveness, impact and implementation potential of evidence based nutrition education models. There has also been an increase in cross border information exchange, shared learning and adoption of collaborations as well as consensus on best practices in healthcare related nutrition education not only across countries but across sectors. The intersectorial piece includes upstream thinking of the nutrition education that is required for nutrition quality in the agricultural sector as well as food production, the food environment and food choices, all of which determine diet and lifestyle patterns, which in turn modulate nutritional status and health outcomes.

All in all, the evidence base supporting the case for nutrition education, particularly in the health sector, as a key strategy to reduce the burden of nutrition-related disease has reached a critical point over the past decade, setting the stage for such interventions to become an integral part of the United Nations Decade of Action 2016-2025.

NNEdPro, the Swiss Re Institute, and the Laboratory of the Government Chemist are delighted to announce the launch of the International Knowledge Application Network in Nutrition by 2025 (iKANN), which can be accessed at [www.ikann.global](http://www.ikann.global) ([www.nnedpro.org.uk/ikann](http://www.nnedpro.org.uk/ikann)).

The flagship NNEdPro journal BMJ Nutrition, Prevention and Health (<https://nutrition.bmj.com/>) has also been founded as a curator of good quality evidence underpinning nutrition and health systems education amongst other areas relevant to improving nutrition policy and practice worldwide.



# OUR PURPOSE



## OUR PURPOSE

The NNEdPro Global Centre for Nutrition and Health was established as an innovative think-tank, training academy and knowledge network in 2008, to bring together the best of education, research, evaluation and advocacy, particularly in nutrition-related aspects of medicine and healthcare systems.

Our mission is to develop a critical mass of self-sustaining knowledge, skills and capacity in Nutrition and Health, within the global healthcare and public health workforce, resulting in significantly improved health practices and outcomes.

Our aim is to improve nutrition-related health outcomes by **training professionals, strengthening research, implementing solutions** and **addressing inequalities**, in line with the United Nations' Sustainable Development Goals and Decade of Action on Nutrition 2016-2025.

*\*Key strategic goals for 2008-2020, for strategic goals going forward please refer to the NNEdPro Strategic Plan 2021-2025'*

## KEY STRATEGIC GOALS\*

- To develop, provide and evaluate the impact of medical and health systems nutrition education as a health improvement tool.
- To significantly strengthen the medical and healthcare nutrition evidence-base by identifying gaps, undertaking primary research and evidence synthesis, and improving access to high quality, translatable information for policymakers and practitioners at a global level.



# MESSAGE FROM THE CHAIR

(DECEMBER 2018 - UPDATED JANUARY 2021)



2020 was an unprecedented yet hugely productive year, due largely to the commitment of NNEdPro [members](#) and stakeholders across the world. Our Summer Events were attended by over 100 delegates from across the globe, following the successful transition to an online format for the Summer School in Applied Human Nutrition and the International Summit on Medical and Public Health Nutrition Education/Research 'A 2020 Evaluation of Global Knowledge Networks in the UN Decade of Action on Nutrition (2016-2025)'. In particular, the Summer School drew 46 candidates from 24 countries and was co-organised with the School of Advanced Studies on Food and Nutrition of the University of Parma, dual accredited by the Royal College of Physicians and Royal Society of Biology and recognised for the provision of scholarships by the International Union of Nutritional Sciences. We have truly done some major pivoting in our transformation to a fully digital and virtual organisation.

Also in 2020, we have clocked a record number of peer reviewed papers as well as other publications in which NNEdPro has played a lead or key role and we feel privileged to have contributed as co-owners of BMJ Nutrition, Prevention and Health, towards

the success of our flagship peer-reviewed journal. Our 2020 Global Strategy Day assembled key NNEdPro members virtually to discuss our vision and implementation of nine key strategic aims for 2021-2025: 'The NNEdPro Nine'.

Things have come a long way from starting as the 'Need for Nutrition Education Project' within the realms of the Cambridge Institute of Public Health from 2008-10, then becoming the 'Need for Nutrition Education/Innovation Programme' which evolved from 2010-16 in the Medical Research Council (MRC) Human Nutrition Research Unit at the Elsie Widdowson Laboratory (EWL) in Cambridge, and latterly becoming the 'NNEdPro Global Centre for Nutrition and Health' hosted partly in the MRC EWL and additionally at St John's Innovation Centre (SJIC) in Cambridge over 2016-18. As the MRC EWL closed its doors after 20 years in December 2018, we continue to embrace the future in our new virtual offices headquarters at SJIC Cambridge.

Today we are an award-winning interdisciplinary think-tank, building upon over a decade of nutrition education, research, and innovation. We are anchored in Cambridge (UK) and convene central as well as regional networks [across six continents](#) as part of the International Knowledge Application Network Hub in Nutrition-2025. We develop adaptable and scalable educational models for nutrition capacity building in health systems. We also conduct a range of training courses as well as primary research studies and syntheses to fill key evidence gaps. Read more [about us](#) and our [work](#).



Additional to our research with the University of Cambridge and Ulster University in 2020 we further strengthened our existing partnership with Imperial College London to include new research and projects starting in 2021, building on the 'living data science' work of the South London Cohort, in which we are co-founders and leading on nutrition in non-communicable diseases. This cohort is the first of its kind with regards to ethnic minority representation in UK health research.

However, what makes NNEdPro unique is not just projects but people, in the form of our 500 plus think-tank membership and I would like to take this opportunity to sincerely thank every individual and organisation that continues to contribute to our mission, vision and aims. A special call out to colleagues in Operations and Strategy who make it all happen as well as our Global Innovation Panel

for creativity and Directors for being the bedrock on which it stands!

As we mark two solid years of our journey in the wider world beyond our decade in academia, in 2020 we have successfully navigating a volatile, uncertain, complex and ambiguous environment, where we have placed a compass through our dedicated [Nutrition and COVID-19 Taskforce](#) as our part in combatting the pandemic whilst looking to brighter horizons. As we look ahead in our knowledge-based mission to tackle malnutrition in all its forms, I invite one and all to join us on the challenging yet exciting road ahead.

Very best wishes,  
Professor Sumantra (Shumone) Ray  
(NNEdPro Founding Chair and Executive Director)



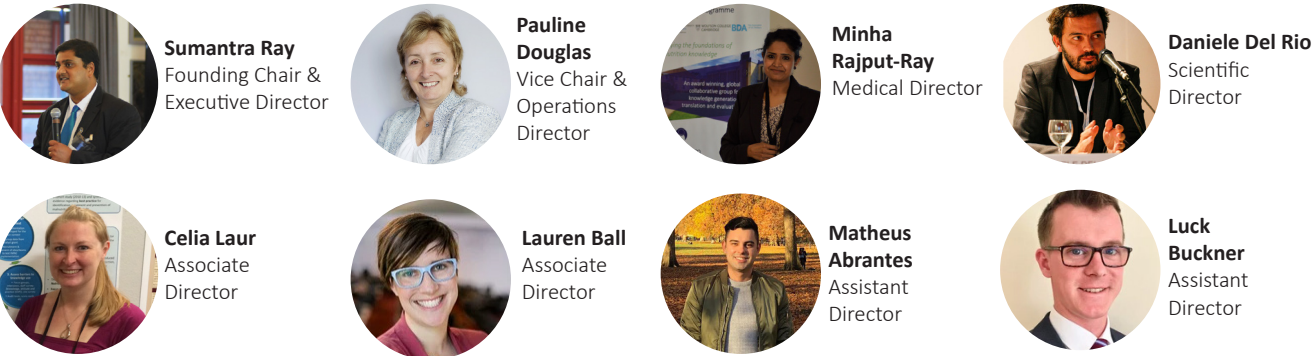


# MEET THE TEAM

## AN OVERVIEW

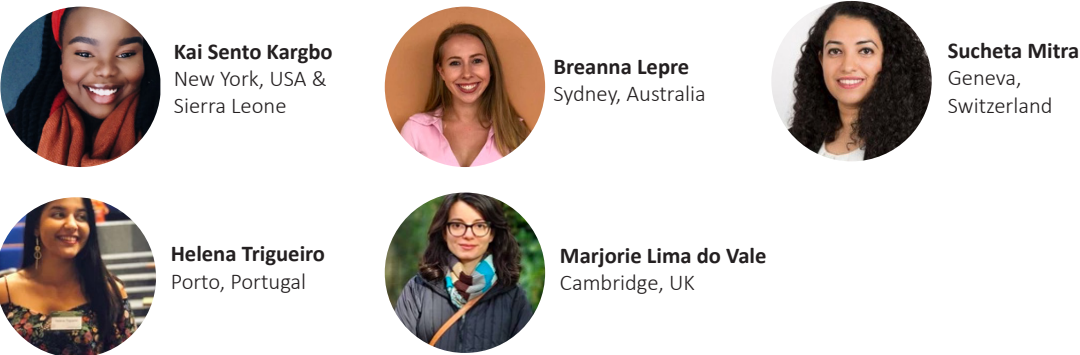
As of January 2021, NNEdPro's team structure is composed of a Virtual Core team of over 43 members from across the world. The Virtual Core aims to function flexibly and efficiently without borders and is comprised of a directorial board, a operations and strategy team, and 2 panels of expertise (each with its own executive team drawn from within the panel).

## BOARD OF DIRECTORS



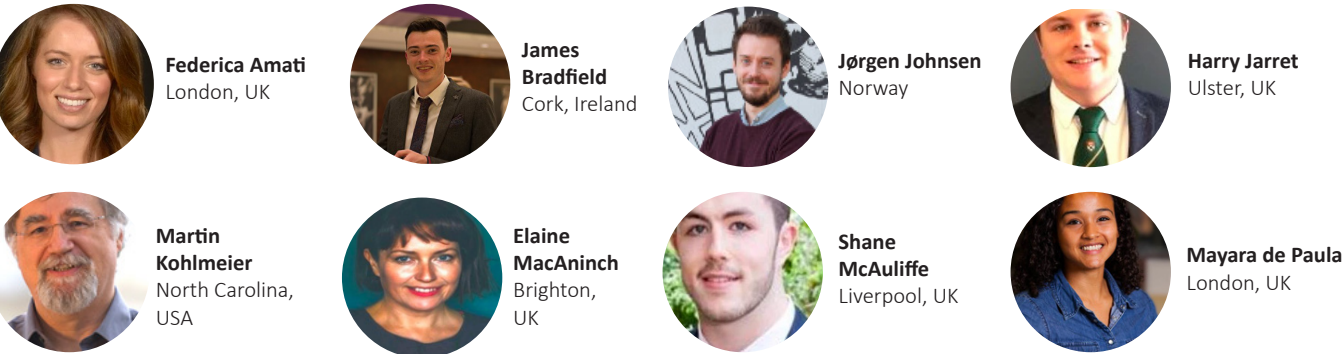
## OPS & STRATEGY LEADERSHIP AND EXECUTIVE (CROSS-APPOINTED TO GIP)

+Sumantra Ray, Matheus Abantes & Luck Buckner



## GIP MEMBERS (CROSS-APPOINTED TO WIDER OPS & STRATEGY TEAM)

+ Pauline Douglas & Celia Laur



# MEET THE TEAM

## TWO PANELS OF EXPERTISE

### GLOBAL INNOVATION PANEL (GIP)

#### GIP Leaders

Dr Celia Laur - GIP Lead  
Dr Luke Buckner - GIP Deputy Lead  
Mr James Bradfield - GIP Deputy Lead

#### GIP Principal Advisors

Professor Sumantra Ray  
Mr Matheus Abrantes  
Dr Rajna Golubic  
Dr Giuseppe Grosso  
Prof Martin Kohlmeier

#### GIP Executive Members

Ms Melissa Adamski  
A/Prof Lauren Ball  
Prof Eleanor Beck  
Mr Jorgen Johnsen  
Ms Elaine MacAninch  
Mr Shane McAuliffe  
Ms Sucheta Mitra  
Dr Kathy Martyn  
Mr Kannan Raman  
Ms Ananya Ria Roy  
Helena Trigueiro  
Ms Mercedes Zorrilla Tejeda  
Dr Marjorie Lima do Vale

#### GIP Key Members

Ms Federica Amati  
Dr Donato Angelino  
Mr Iain Broadley  
Prof Mei Yen Chan  
Dr Dominic Crocombe  
Dr Jennifer Crowley  
Ms Pauline Douglas  
Dr Timothy Eden  
Mr Sonigitu Asibong Ekpe  
Ms Emily Fallon  
Mr Harry Jarret  
Mr Ali Ahsan Khalid  
Ms Kai Sento Kargbo  
Ms Breanna Lepre  
Dr Dionysia Sissy Lyra  
Dr Daniela Martini  
Ms Claudia Mitrofan  
Prof Caryl Nowson  
Ms Mayara de Paula

Prof Clare Wall  
Dr Minha Rajput-Ray  
Professor Daniele Del Rio

#### GIP Admin Support

Sarah Rade

### FACULTY & MENTORS PANEL (FMP)

Assistant Professor Donato Angelino  
Dr Federica Amati  
Ms Melissa Adamski, APD  
Associate Professor Lauren Ball, APD  
Professor Eleanor Beck, FDA  
Mr James Bradfield\*\*, RD  
Dr Dominic Crocombe  
Professor Mei Yen Chan, RD  
Dr Jennifer Crowley, RNutr  
Ms Pauline Douglas\*, RD  
Dr Timothy Eden, RD  
Dr Rajna Golubic  
Assistant Professor Giuseppe Grosso  
Mr Harry Jarret  
Mr Jorgen Johnsen  
Professor Martin Kohlmeier  
Dr Celia Laur, RNutr  
Ms Breanna Lepre, APD  
Ms Elaine MacAninch, RD  
Assistant Professor Daniela Martini  
Dr Kathy Martyn, RNutr  
Ms Claudia Mitrofan  
Mr Shane McAuliffe, RD  
Ms Mayara de Paula  
Professor Daniele Del Rio  
Mr Kannan Raman  
Professor Sumantra Ray\*, RNutr  
Dr Minha Rajput-Ray  
Ms Mercedes Zorrilla Tejeda, RD  
Ms Helena Trigueiro, RD  
Ms Marjorie Lima do Vale, RD  
Professor Clare Wall, RD

\* Panel Co-Chairs | \*\* Panel Lead Co-ordinator



# OUR MEMBERS

You can click on or use your phone's camera to scan the QR codes below and navigate our membership networks

## AMBASSADORS AND ADVISORS



President and Patron



Governors and Advisors



Intercultural Ambassador



Junior Ambassadors Club

## LEADERSHIP AND VIRTUAL CORE



Board of Directors



Ops & Strategy Team



Global Innovation Panel



Faculty & Mentors Panel

## COLLABORATORS AND REPRESENTATIVES



Key Collaborators



Key Representatives



Summer School Alumni



IANE Subscribers



# REGIONAL NETWORKS

You can click on or use your phone's camera to scan the QR codes below and navigate our regional networks





Australia & New Zealand



Canada



Brazil



Central, South East & East Asia



India & South Asia



Italy & The Mediterranean



Mexico



Middle East



Pan-Africa (including Morocco)



Switzerland

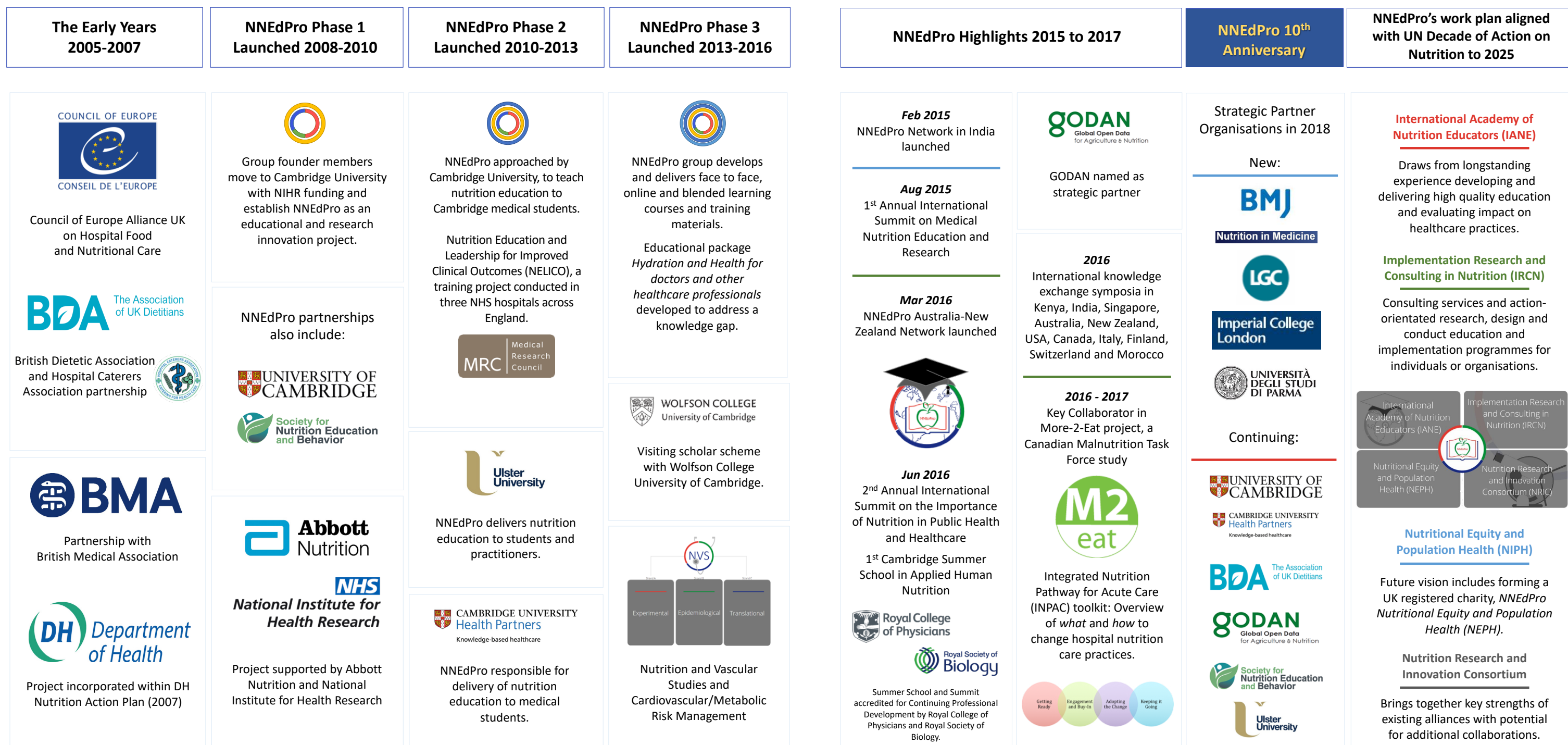


United Kingdom & Ireland



United States

# THE NEED FOR NUTRITION EDUCATION/INNOVATION PROGRAMME (NNEDPRO) STORY



2005

2009

2011

2013

2015

2017

2025





# MESSAGES OF SUPPORT

## 2020 MESSAGES



**Melissa Adamski**  
Chair, IANE Steering Committee  
Department of Nutrition, Dietetics and Food,  
Monash University

**December 2020**

Congratulations to NNEdPro for over a decade of achievements in nutrition education, research and innovation.

It is fantastic to see the continued growth of NNEdPro network across the globe. We are a proud collaborator and look forward to continuing to work together.



**Professor Eleanor Beck**  
Chair, ANZ NNEdPro Regional Network  
Discipline Leader Nutrition & Dietetics,  
University of Wollongong Australia  
Chair, Council of Deans of Nutrition & Dietetics,  
ANZ

**December 2020**

Twelve years of positive change and community engagement by NNEdPro! Congratulations on an expanding body of work reaching all corners of the globe to promote nutrition research and education improving the health of individuals, communities and populations. The Australia and New Zealand Network is a proud member of NNEdPro, focusing on promotion of nutrition education for our communities and especially health professionals.

Our ANZ team is particularly proud to be part of NNEdPro during our global pandemic, where the organisation pivoted to virtual connection, and addressing food insecurity and health promotion in a difficult time for all health professionals. Our ANZ team look forward to ongoing collaboration, sharing of resources and stimulating innovation to achieve better nutrition for all.



# MESSAGES OF SUPPORT

## LOOKING BACK ON NNEDPRO 10TH ANNIVERSARY



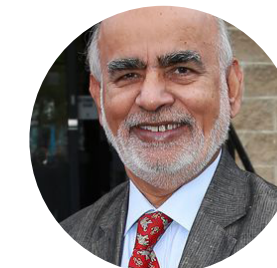
**The Lord Balfe of Dulwich**  
Honorary President of NNEdPro and  
the British Dietetic Association

**July 2018**

The House of Lords regularly considers matters in the fields of diet, nutrition and the problems associated with being both overweight and underweight. Apart from numerous medically qualified Peers there are also a number from other walks of life which mean that contributions to debate are informed and incisive.

The tendency of our popular media often leads to a disproportionate amount of attention being given to obesity at the expense of the problems of inadequate nutrition.

At this the tenth year summit of NNEdPro there are many challenges outstanding for the organisation and the profession. I am happy to send my good wishes to the summit and to the valuable work to be done in the years ahead.



**The Lord Rana MBE of Malone**  
Honorary Global Patron of NNEdPro

**July 2018**

I am pleased to convey my best wishes and congratulations on the 10th Anniversary of NNEdPro. The outstanding efforts and commitment of Prof Sumantra Ray and his colleagues have achieved outstanding global recognition for their work.

The subject of nutrition and health is most important in a world that we live in where some people are suffering from obesity and millions of others are suffering from malnutrition. Education about what to cook, how to cook, what to eat for a healthy living is most important, NNEdPro is doing an outstanding service in many countries in educating in health and nutrition.

I am honoured to be associated with this project. I convey my appreciation to all who are working hard for this project. I have no doubt that this project is now well founded and growing from strength to strength over the coming years.



**Professor Sir Leszek Borysiewicz**  
Chairman Cancer Research UK & Vice-Chancellor Emeritus, University of Cambridge

**July 2018**

In today's world we face a unique problem that mankind has never had to deal with in the past. We have a problem of obesity and excess calorie intake as well as inappropriate nutrition, while at the same time we face problems of malnutrition in terms of low calories but also specific nutritional deficiencies, many of which are still being recognised through research today.

To address these we need a real focus on the importance of the quality of food we eat and the ability of the planet to provide. Furthermore, this must be made available to an ever-increasing world population which will shortly reach nine billion people.

I am delighted to support the 2018 Summit marking 10 years of the NNEdPro Global Centre for Nutrition and Health which seeks to engage those interested in nutritional aspects of healthcare but also the wider imperative to maintain wellbeing for this global population.



We would like to wish you many congratulations and are delighted to note your celebrations of NNEdPro’s 10th Anniversary.

NNEdPro has been a loyal and valued strategic partner of Cambridge University Health Partners.

We look forward many more years of working together and would like to wish you every success at your 4th Seminar.

With best wishes,

Malcolm Lowe-Lauri  
Executive Director, Cambridge University Health Partners (CUHP)




Hearty congratulations on this momentous tenth Anniversary, with plenty to show for all those years of hard work and engagement!

Nutrition in Medicine will continue to support the educational efforts of NNEdPro and is looking forward to many more years of collaboration, achievements, and positive change.

With best regards,

Martin Kohlmeier MD PhD



We would like to congratulate NNEdPro Global Centre for Nutrition and Health on their 10th Anniversary. It has been a tremendous achievement by the group and Imperial and the Imperial Centre for Cardiovascular Disease Prevention is proud to be a strategic collaborator.

We look forward to a long and fruitful partnership.

Kind regards

Imperial College London

Prof Kausik K Ray  
Professor of Public Health, Honorary Consultant Cardiologist, Imperial Centre for Cardiovascular Disease Prevention (ICCP), Imperial College London

Hearty congratulations from Associaton for Nutriton on your 10th Anniversry year. We wish you the best for your celebratory conference on July 20th. Well done!

Kind regards,

Leonie Milliner

Chief Executive,  
Association for Nutrition



On behalf of the British Dietetic Association I am delighted to wish you congratulations on your 10th anniversary.

I do not think that 10 years ago we would have anticipated that NNEdPro would reach the level of impact and status it has, so quickly. While the past 10 years has flown by, the number of achievements is remarkable and this is testament to the drive, dedication and initiative shown by everyone involved.


The nutrition, education and research field continues to be challenging but only through collaboration can we all make the impact we wish. This is the true strength of NNEdPro and the BDA remains committed to making a difference, through our partnerships and alliances.

With best wishes for the next 10 years!

Yours sincerely,

Andy Burman

Chief Executive  
The British Dietetic Association



As an affiliate member of SNEB for the past eight years, The Need for Nutrition Education Project (NNEdPro) has actively contributed to the Society's mission of promoting effective nutrition education and healthy behavior through research, policy and practice.


Contributions include:

- Conducting educational webinars for SNEB members.
- Sharing resources through SNEB enewsletters and listserv.
- Exchanging ideas and information with SNEB leadership through abstract presentations at several SNEB annual conferences and by organizing conference sessions, and
- Hosting SNEB members at the NNEdPro Summit and Summer School where the SNEB Nutrition Educator Competencies were presented.

Congratulations to NNEdPro on 10 years of nutrition education, research and innovation. NNEdPro and SNEB both recognize the importance of building connections and sharing resources with nutrition educators around the world and we look forward to continuing to work toward our shared vision of healthy communities.

Sincerely,

Rachel Daeger  
CAE Executive Director



# NNEdPRO'S EARLY YEARS

In 2003, the Council of Europe published over 100 recommendations to improve nutritional care across European countries and the UK formed an Alliance led by the British Dietetic Association (BDA) to examine this issue.



Between 2005 to 2007, the British Medical Association (BMA) passed a priority motion to strengthen nutrition related healthcare. Over two years, representatives from several professional organisations worked through the Alliance resulting in three outputs: a BBC documentary entitled ‘Hungry in Hospital’ around the patient journey, a consensus

statement ‘The 10 Key Characteristics of Good Nutritional Care’, principles of which were subsequently enshrined in regulatory standards, and the ‘Department of Health 2007 Nutrition Action Plan’ containing a mandate for the ‘Need for Nutrition Education Project’, (NNEdPro).

NNEdPro was subsequently formed in 2008 with Fellowship funding awarded by the National Institute of Health Research to two founding members in Cambridge, as well as an educational award from Abbott Nutrition to the BDA. Since then, NNEdPro has evolved from a single project, through a multifaceted programme to a Global Centre for Nutrition and Health.

**The following ten case studies will walk you through key areas of focus for NNEdPro and how each area has evolved to have strong and global impact over the past ten years.**



# CASE STUDY 1: BRINGING NUTRITION INTO THE MEDICAL CURRICULUM

Nutrition education for medical students is how NNEdPro began and continues to be a core mandate. Prior to NNEdPro’s launch, developmental work was conducted by the founder members at the University of Dundee over a 3-year period (Dec 2005 to Nov 2008). For this project, ‘Nutrition Education Workshop for Tayside Doctors’ (NEWTayDoc), a pilot education intervention was conducted. This pilot was the first step to developing a wide reaching programme targeting nutrition education for senior medical students and junior doctors.

Nutrition and hosted by the British Dietetic Association (BDA). The objective of this project was to deliver and evaluate a novel nutrition education intervention for medical students from 15 medical schools across England. Two-day of intensive workshops were conducted, aimed primarily at 4th year medical students. Academic partners included the Universities of Cambridge and East Anglia, represented by advisors from both institutions.

These workshops aimed to:

- 1. Lay the foundations of nutritional knowledge and attitudes relevant to clinical practice
- 2. Highlight the principles of nutrition and a doctor’s responsibility in providing adequate nutrition care
- 3. Raise awareness of the recognition, prevention and management of malnutrition in hospital

These workshops were conducted as part of an educational study to assess the impact of delivering intensive nutrition education to a cohort of UK medical students. By completing the training, students achieved a practically orientated certificate in clinical nutrition.

The study demonstrated lasting improvement to knowledge, attitudes and practices.



When the founder members of the group moved to Cambridge, NNEdPro was established as an independent educational innovation project that also included research. The NNEdPro “project” was incorporated within the Department of Health Nutrition Action Plan (2007), additionally supported by an unrestricted educational grant from Abbott



## Nutrition Education Review/Research Interests Group (NERG)

To provide sustained delivery of medical nutrition education to Cambridge medical students, NNEdPro instigated the formation of the Nutrition Education Review/Research Interests Group (NERG) in the Department of Public Health and Primary Care, at the University of Cambridge, School of Clinical Medicine in 2010. This group was responsible from 2010 to 2018 for organizing and delivering the nutrition content for Cambridge University medical students.

Today, that collaboration is still going strong, evolving and connecting with other organisations while continuing to provide medical students with the nutrition education they need. **E-learning materials have also been developed including**

**an education and training e-portal, and online learning materials that are being incorporated into the Cambridge medical curriculum.**

The core teaching aims include:

- To highlight that nutrition forms an important part of a Doctor’s responsibilities
- To provide an overview of clinical and public health nutrition issues relevant to medicine
- To outline core principles and practical applications of ‘Food, Fluid and Nutritional Care’ in hospital
- To understand the difference between nutrition screening and assessment and the role of different members of the multidisciplinary team.

## Nutrition Education Policy for Healthcare Practice (NEPHELP)

**NEPHELP was designed to encourage the spread of nutrition education to other medical schools across England using a patient-centred approach.**

To run this project, NNEdPro received the International MNI (Medical Nutrition International) Award, supported by the BDA and endorsed by British Association for Parenteral and Enteral Nutrition (BAPEN). Further funding was received from AIM Foundation to extend the scope of this work.

NEPHeP is developing a potentially scalable teaching model for a sustainable nutrition education initiative, primarily targeting junior doctors and medical students across England.



This project includes development and collation of teaching material as well as collaboration with other organisations with similar objectives. The group actively engages patients, healthcare service and education providers as well as a multidisciplinary cross section of health professions. Plans are underway for further spread across the UK as well as to pilot the approach on other specialisms such as nursing and pharmacy.





## CASE STUDY 2: CONNECTING NUTRITION EDUCATION WITH LEADERSHIP AND CHANGE MANAGEMENT

Following the initial medical student workshops, the need to further support medical graduates students to become nutrition champions led to an approach focused on leadership and change management. **The “Nutrition Education Leadership for Improved Clinical Outcomes” (NELICO) project aimed to deliver and evaluate innovative training in ‘Nutrition Education and Clinical Leadership’ for Junior Doctors, enabling ‘nutrition awareness weeks’ across 3 NHS hospitals in England.**



Medical students, now Junior Doctors, who attended the original NNEdPro nutrition workshop returned for a 2-day refresher course about clinical nutrition with additional teaching in leadership and change management techniques. **The Junior Doctors then returned to their hospitals to run their own teaching, nutrition awareness stalls and a variety of other events, raising the profile of nutrition in NHS hospitals.** By empowering these Junior Doctors to become champions for nutrition, it set the stage for their careers. Many of these participants are still advocates for medical nutrition education and continue to support the NNEdPro mission and vision.

### Canadian More-2-Eat Project led by the University of Waterloo

The NELICO focus on change management and leadership has contributed to international initiatives, including the More-2-Eat (M2E) implementation project, led by Professor Heather Keller at the University of Waterloo. M2E used implementation science, behaviour change, and change management principles to improve nutrition care in 5 Canadian hospitals. NNEdPro is a member of the M2E team, and in M2E Phase 1 contributed to the development of an online toolkit which shares learnings and tools from each of the 5 hospitals. This toolkit can also be used to inform the next steps to improve hospital malnutrition in the UK. <http://m2e.nutritioncareincanada.ca/>



M2E Phase 2 began in 2018 with the aim to use key strategies, including the toolkit, from Phase 1, to create a sustainable model to encourage spread of the nutrition care improvements. NNEdPro is learning from the M2E project and applying principles and tools to other aspects of our work.



### NELICO India

The NELICO approach was also applied in India through the Global Innovation Panel (GIP). The launch of NELICO India initially focused on two of NNEdPro’s key inter-related activities of promoting knowledge strengthening and research capacity within the nutrition workforce. In 2014, the NNEdPro Group conducted a needs assessment in relation to nutritional care of almost 200 doctors and dietitians in Kolkata, India, identifying a need for research training to enable the generation of local data. To address this need, NNEdPro delivered a 2-day workshop to facilitate the generation of local data and support local initiatives in nutrition care. **In continuing the NELICO approach of putting the training into practice, ‘NELICO Champions’ were selected to lead two projects:**

#### Medical Schools Project:

The aim of this project was to understand the level of nutrition knowledge, attitudes and practices (KAP) among medical students in Kolkata and to pilot a nutrition education and lifestyle management intervention with these students. Before and after the education intervention, the team used a survey to evaluate the nutrition KAP of the medical students in attendance. Results of the survey suggest that nutrition knowledge in medical students in India is low. However, given the improvement in scores following delivery of the education and curriculum interventions are now being actively considered by the State Government.

#### Urban Slum Dwellers Project:

The aim of this project was to develop a sustainable solution that will enable the slum dwellers of the Chetla and RG Kar slums in Kolkata, West Bengal, India, to challenge the burden of hunger and malnutrition. Their steps within this project included:

1. Assessment: Assessed children’s nutritional status and mothers’ knowledge, attitudes and practices of nutrition and hunger
2. Intervention: Conducted a nutrition workshop where mothers were taught to cook healthy and nutritious food for children.
3. Long Term Solution: To build a teaching kitchen in the slum to enable mothers to cook nutritious food and be a social change hub.







Addressing the long-term solution is ongoing.

**Within the India Network, NNEdPro is creating a sustainable health promotion Teaching Kitchen programme, envisioned in line with the key UN Sustainable Development Goals.**

The Teaching Kitchen is a mobile multi-purpose space that will serve as a community hub for malnutrition screening and prevention, health promotion, disease prevention and a safe haven within the urban slums. A van has been refitted to create a Mobile Teaching Kitchen unit which will enable the team to bring the programme to other communities across the City of Kolkata where a lack of space presents a challenge. This has led to the "Bhavishya Shakti" project, which has won ESRC (UK gov) funding and a Cambridge University incubator Award.



Work in India is continually expanding, including through NNEdPro's role in the "TIGR2ESS: Transforming India's Green Revolution by Research and Empowerment for Sustainable food Supplies" project which is a Global Challenges Research Fund project. Within TIGR2ESS, NNEdPro focuses on "Impacting Wellbeing in Rural and Urban Communities", specifically "Food, Nutrition, Education" and "Education, Employment, Empowerment and Entrepreneurship." The flagship project hosted by Cambridge University explores the relationships between these factors through assessing needs and piloting innovative intervention models.



## CASE STUDY 3: THE FORGOTTEN REALMS OF HYDRATION AND PHARMACISTS IN NUTRITION EDUCATION

As nutrition has a strong impact across prevention and health, NNEdPro had a unique opportunity to focus on areas that have strong potential but do not receive enough attention. Although there are many such areas, this case will focus on two projects that truly reflect shared learning.



### Hydration Education

**Adequate hydration should go hand in hand with the need for improved nutrition care**, yet it is often missed. To meet this need, NNEdPro applied our experience with nutrition to the field of hydration. In a flagship project, our objective was to determine the educational needs of primary care healthcare professionals (doctors, dietitians) in England with regards to hydration and health; and to pilot and evaluate an education package on 'hydration education and health'.

As part of a needs assessment, the NNEdPro Group conducted a survey on hydration awareness among doctors and dietitians. Results from the survey were used to develop an educational package on hydration which was piloted and evaluated for General Practitioners in 2014. Since this initial pilot, further teaching has been delivered to medical students at several universities across the UK and internationally (specifically India). Teaching material has been converted into an online education package. **The**

**project increased awareness of the importance of hydration and nutrition for healthcare professionals when speaking with the patients and with their own personal health.** Hydration is now considered alongside improving nutrition care across all healthcare settings.

### The Role of Nutrition in Pharmacy

**Community based pharmacists are ideally placed to play a key role in disease prevention** through education of the public about modifiable behaviours such as dietary intake (including safe use of nutritional supplements) and lifestyle decisions. However, the role of pharmacy within nutrition care is rarely considered. To explore the potential of this opportunity, NNEdPro conducted a project with the objective to undertake a preliminary investigation of Northern Ireland pharmacists' attitudes and practice towards diet-related health promotion and disease prevention. The next step was to develop and pilot a nutrition education programme for community pharmacists which was held as an interactive training day with pharmacy students.

**This project has highlighted the increasing need for pharmacists to be key players in nutrition care** and launched a new stream of work focused on how to appropriately involve pharmacy in nutrition care.







## CASE STUDY 4: NUTRITION RESEARCH AND INNOVATION CONSORTIUM

For several years leading up to 2018, the NNEdPro Chair's Nutrition and Vascular Studies Platform in combination with the NNEdPro Scientific Director's Dietary Bioactives and Health Platform, formed the basis for an innovative consortium bringing together a unique combination of collaborators. This work received early recognition through a British Medical Association Research Foundation Award and has attracted significant support from a number of agencies including UK Research Councils.

Over 2018, in its 10th Anniversary Year, the NNEdPro Group formed a refreshed Nutrition Research and Innovation Consortium (NRIC) spanning Cambridge, London, Ulster and Parma (Italy).

Going forward, the combined strengths from these centres of research excellence will seek to address further unanswered questions around Nutrition and Non-Communicable Disease, connecting the cutting edge of science to evidence-informed professional education.

The overall aim of the consortium is: **To undertake primary nutrition research through basic science, human interventions, population studies and evidence syntheses to inform health policy and practice.**

Consortium Research Partners are:

- Ulster University
- University of Cambridge
- Imperial College London
- Parma University
- University of Wollongong
- Swiss Re Institute
- Laboratory of the Government Chemist
- BMJ Nutrition, Prevention and Health
- Education and Research in Medical Nutrition Network (ERimNN)

To provide an idea of some of the work conducted through this consortium, snapshots from the NNEdPro Chair's Nutrition and Vascular Studies Platform at the Medical Research Council are provided:

### Pillar 1: Establishment of a Vascular Function Assessment Laboratory (VFAL) dedicated to Nutrition

Nutritional interventions can have small but significant effects on vascular/endothelial function requiring bespoke measurement protocols. Our VFAL has worked to optimise methods and enhance precision in detecting how dietary exposures/interventions can impact cardiovascular risk, applying these techniques to both population and individual level studies.

Key projects include:

- estimation of relative predictive values of vascular measures
- elucidating the role of hydration as a vascular confounder
- development of a consensus forum on best practices in vascular nutrition studies.

In addition, our Oxford Handbook of Clinical and Healthcare Research serves as a generic skills toolkit.



### Pillar 2: Observational Studies at Population Level

In our observational studies we investigate unmodified dietary variables that a population may ordinarily be exposed to, which can either generate questions for further investigation through explanatory trials or identify patterns leading to evidence synthesis. Three areas of work include:

- The National Survey of Health and Development (NSHD), also called the 1946 British Birth Cohort, has collected a wealth of data over the past seven decades. We have undertaken longitudinal analyses of dietary patterns, biomarkers from stored samples and vascular function in NSHD.
- The National Diet and Nutrition Survey (NDNS) collects cross-sectional data on dietary intakes and nutritional status to inform policy through risk assessment and monitoring. We have undertaken secondary analyses of NDNS data to estimate the contribution of diet (including polyphenol intake) to CVD risk.
- The National Health Service (NHS) collects a plethora of routine clinical data that can be interrogated. We have undertaken secondary analyses of intensive weight management in secondary care, whilst setting up a framework for future collection of prospective data using NHS record linkage looking at diet and cardio-metabolic risk in specific populations.

### Pillar 3: Interventional Studies (Trials) at Individual Level

Examples of interesting mechanistic explanatory vascular/endothelial function trials (with associated sub-studies) include the following controlled dietary interventions:

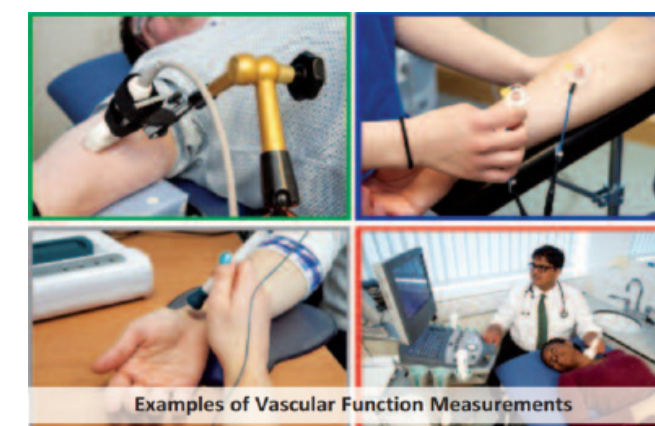
- Fresh frozen berry consumption
- Green tea/coffee extract consumption
- Hazelnut skin extract consumption
- Wide ranging fruit and vegetable extract consumption ('NNTV')

### Pillar 4: Evidence Synthesis for Translation to Professionals in Nutrition and Health

We undertake a series of evidence synthesis pieces particularly as 'umbrella reviews' to inform policy and educational interventions which can impact the knowledge, attitudes and practices of health professionals. We have had key inputs to the Cardiovascular Task Force of the British Nutrition Foundation which has now published the 2nd edition of its compendium of evidence on Diet, Nutrition and CVD Risk Factors as a key translational resource.

### Looking ahead

Going forward, the combined strengths from this Consortium will seek to address further unanswered questions around Nutrition and Non-Communicable Disease. **The aim is to connect the cutting edge of science with evidence informed practice through professional education.**





## CASE STUDY 5: MENTORING AND MEMBERSHIP

The International Academy of Nutrition Educators (IANE) draws from over a decade of experience in developing and delivering high quality nutrition education and evaluating its impact, particularly on healthcare practices. The IANE taps into the NNEdPro Global Innovation Panel (GIP) with its international hubs and unique approach of combining knowledge in technical aspects of Nutrition and Health. **By being part of the IANE, one can participate in knowledge exchange within the nutrition community, faculty development and the provision of mentoring support in the form of academy membership for trainers and trainees.**

Subscribing Members (individuals or organisations) of IANE will receive tailored mentoring support and access to our scientific network to help implement nutrition knowledge in specific settings or contexts. Each member can also access bespoke advisory services on methodology training, developing research or implementation protocols and more, provided by professionals across our networks.

Members of IANE can also receive discounted rates for our knowledge exchange symposia notably the Annual International Summit on Medical and Public Health Nutrition Education and Research, contribute to activities within the NNEdPro Global Centre including implementation, education and primary research projects, and access BMJ Nutrition, Prevention and Health, our flagship journal.

Interested organizations and individuals can apply to become a Student, Associate or Professional Member of IANE, which are determined by formal qualifications and experience in medical nutrition education and research. Professional members can use post nominals at the end of their name to illustrate their membership affiliation. In 2020, an IANE Awards Scheme was announced, with the opportunity for members to be recognised for their contribution to and involvement in IANE and associated member benefits.



## CASE STUDY 6: NNEDPRO NUTRITION WEEK

The NNEdPro Nutrition Week are our way of bringing people together through training and an opportunity for open discussion. Training is provided through our annual Cambridge Summer School in Applied Human Nutrition and open discussion through the International Summit on Medical and Public Health Nutrition Education and Research.



### Cambridge Summer School in Applied Human Nutrition

NNEdPro Nutrition Week starts with our annual Cambridge Summer School in Applied Human Nutrition. **This Summer School is a comprehensive Foundation Certificate Course for professionals in health and health-related sectors.** It provides attendees with an in-depth exposure to applied human nutrition presented by speakers with a variety of backgrounds including clinical nutrition, epidemiology, research methodology, policy, clinical practice, and more.

Topics for the Summer School typically include:

- Basic Concepts in Human Nutrition: dietary assessment, body composition and energy metabolism
- Nutrition Research Methods: nutritional epidemiology, nutrigenetics, nutrigenomics and diet-microbe interactions in the gut
- Nutrition in Disease Prevention: non-

communicable diseases, musculoskeletal health and neurodegenerative diseases

- Nutrition in Healthcare: hydration and clinical leadership, clinical ethics, malnutrition in practice and ageing
- Nutrition Public Health and Policy: global nutrition, nutrition and health claims regulation, policy formulation and industry case studies







## International Summit on Medical and Public Health Nutrition Education and Research

Since 2015 NNEdPro has hosted this Summit as an opportunity to bring together delegates from various countries, professions, and sectors all interested in the dynamic interfaces between Nutrition and Health. The 2015 Summit began as an introduction between these interfaces, encouraging collaboration and setting the stage for the next steps. The 2016 event focused on setting priorities leading to the 2017 event regarding how to implement changes to have sustained impact. For 2018, the overall theme was “Nutrition as a Hard Science to International Knowledge Application Networks.” The 2018 Summit was also a launch for the new journal, BMJ Nutrition, Prevention and Health, which is co-founded by NNEdPro.

In 2020, the International Summit, themed ‘A 2020 Evaluation of Global Knowledge Networks in the UN Decade of Action on Nutrition (2016-2025)’, successfully transitioned to an online format, and included weekly releases of themed

pre-Summit webinars throughout the month of September. The main event led by Dr Celia Laur attracted over 100 delegates and key opinion leaders from across the globe. The 2020 Summit featured 14 peer reviewed abstract submissions for the poster competition, and these will be published in the flagship journal, BMJ Nutrition Prevention and Health. The 2020 Summit included the launch of the International Knowledge Application Network in Nutrition by 2025 (iKANN: [www.nnedpro.org.uk/ikann](http://www.nnedpro.org.uk/ikann)).

Proceedings have been published for each event:

2015: <https://www.ncbi.nlm.nih.gov/pubmed/27726865>

2016: <https://www.ncbi.nlm.nih.gov/pubmed/27814894>

2017: <https://www.frontiersin.org/articles/10.3389/fpubh.2018.00093/full>

2018: <http://dx.doi.org/10.1136/bmjnp-2020-000090>

2019: <https://nutrition.bmj.com/content/early/2020/09/22/bmjnp-2020-000118>

2020: In preparation

2020: In preparation



## CASE STUDY 7: BMJ NUTRITION, PREVENTION AND HEALTH

**BMJ Nutrition, Prevention & Health is a new journal co-owned by NNEdPro and the BMJ Group**, launched at our 2018 International Summit. The journal is dedicated to publishing high quality, **peer reviewed articles that focus on diet, exercise and healthcare technology on health and wellbeing**.

The launch of this journal represents many years of work culminating in the need for research to focus on the connection that nutrition has with prevention and health. The journal aims to present the best available evidence of the impact of nutrition and lifestyle factors on the health of individuals and populations. It will present robust research on the key determinants of health including the social, economic, and physical environment, as well as lifestyle and behaviour. Dietary factors, exercise and healthcare interventions and technologies, will all be explored with the aim to maintain and improve health and wellbeing and to prevent illness and injury.

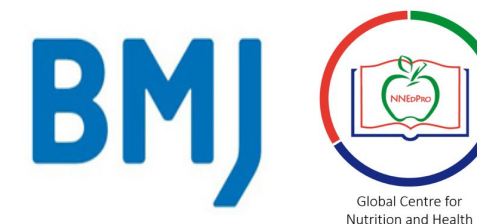
*“The creation of this landmark journal – BMJ Nutrition, Prevention and Health – comes at a pivotal time, particularly as the NNEdPro Global Centre for Nutrition and Health have been working for the past decade to strengthen the translation potential of nutrition science for best practice. This journal will give nutrition and public health researchers the opportunity to ensure that a dynamic evidence base reaches both policy makers and practitioners. This will give patients and the wider public the best possible chance of receiving quality-assured nutritional solutions to prevent and manage disease, as well as to improve health outcomes.”*

- NNEdPro Founding Chair and Executive Director, Prof. Sumantra Ray

*“[The journal] will value contributions that advance practical and evidence-supported nutrition solutions for urgent health challenges. We want to hear what would be most useful for those that can translate new knowledge into better health for their communities. This will help to then engage with researchers and seek high-quality contributions responsive to the recognised priorities. We will not shy away from difficult topics, but will work hard to avoid the fad of the day.”*

- Editor-in-Chief, Prof. Martin Kohlmeier

BMJ Nutrition, Prevention and Health is now accepting submissions. Please visit [nutrition.bmj.com](http://nutrition.bmj.com) for more information and sign up to the journal mailing list for all future updates.







## CASE STUDY 8: TAKING A FOOD SYSTEMS APPROACH: CONNECTING NNEDPRO AND GLOBAL OPEN DATA INITIATIVE FOR AGRICULTURE AND NUTRITION (GODAN)



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. GODAN promotes collaboration to harness the growing volume of data generated by new technologies to solve long-standing problems and to benefit farmers and the health of consumers.



**The partnership between GODAN and NNEdPro is mutually beneficial as GODAN seeks to significantly increase their understanding of nutrition data, while supporting NNEdPro's approach to open data.** The GODAN and NNEdPro partnership was formalised following the 2016 GODAN Summit in New York City. GODAN and NNEdPro have worked together on a Nutrition Open Data Strategy which unites their common goals in agriculture, nutrition and food systems.

NNEdPro and GODAN are working closely together to develop a whole systems approach to the knowledge economy ranging from agriculture through human nutrition to health, wellbeing and livelihood, in line with the UN Sustainable Development Goals. It is this joint working that led to the development of International Knowledge Application Network in Nutrition 2025 (I-KANN-25).

The project so far has highlighted a number of challenges to developing an open nutrition data strategy. Finding data and repositories which are accessible, interpretable and discoverable to begin with are just some of the issues with such a project; although, this has not stifled the efforts of either GODAN or NNEdPro in the quest to develop resources, such as I-KANN-25. Only by working together with data producers, users and sharers this initiative will reach its full potential to provide a matrix of data, information and knowledge, which is freely available for discussions and to make decisions that impact agricultural nutrition as well as human nutrition and health.



## CASE STUDY 9: THE INTERNATIONAL KNOWLEDGE APPLICATION NETWORK IN NUTRITION BY 2025 (IKANN)

Good nutrition is at the foundation of good health, and we see healthcare and public health practitioners as knowledge brokers that can promote nutrition to achieve better public health. To achieve this, NNEdPro, the Swiss Re Institute, and the Laboratory of the Government Chemist are delighted to announce the launch of the International Knowledge Application Network in Nutrition by 2025 (iKANN), an open access, online portal with bespoke e-learning, a collation of openly available knowledge resources with commentary and guidance and interactive sections for workforce capacity building.

### What is iKANN?

At our 3rd Annual Summit in 2017, NNEdPro announced the launch of iKANN as part of NNEdPro's education and training academy, which facilitates: nutrition education; the Summer School in Applied Human Nutrition; the annual International Summit; and e-learning initiatives. iKANN seeks to connect materials from these initiatives and more through an online portal. The key aim of the iKANN is to develop a critical mass of self-sustaining, authoritative knowledge for capacity building in food, nutrition and health, resulting in significantly improved health practices and outcomes. The platform includes ten key functions as follows: 1) News, 2) Events, 3) Training, 4) Evidence, 5) Organizations, 6) Policy (Law and Guidance), 7) Quality (Assurance), 8) Discussion fora, 9) Research Registry and 10) Data Testing Sandbox.

**iKANN seeks to create a global network that will connect knowledge generated from NNEdPro's Nutrition, Education, Training and Skills (NETS) initiative with the online portal, to encourage regional adaptations and opportunities to facilitate learning and collaboration. The iKANN**

**seeks to promote translatable information at a global level and drive implementation of knowledge into policy and practice, also bridging the gap between Agricultural Nutrition and Human Nutrition.**

The iKANN is a joint initiative of NNEdPro and the Laboratory of the Government Chemist (LGC) who manage the successful Food Authenticity Network and is supported in kind by the Swiss Re Institute. We have established an independent governance committee (Project Team & Advisory Panel) for iKANN to provide authoritative oversight to ensure the long-term success of the initiative.

In recent years we have been privileged to convene efforts from over 30 countries across the global community in medical and healthcare nutrition education as well as associated research. This is a potted summary of the scope and impact footprint that our collaboratively crafted work has had at multiple levels to take the cutting edge of evidence and translate to practice relatively close to real time and with tangible, as well as visible, population benefits when effective interventions are implemented appropriately using the leverage of solid education and training strategies.

We hope that our work to date heralds the beginning of scaled up actions spearheaded by the power of well positioned education to tackle the global burden due to malnutrition in all its forms and across the lifecourse. **You can access the iKANN Portal at** <https://www.ikann.global/>.



Open access online portal with bespoke e-learning + collation of openly available knowledge resources with commentary/ guidance + interactive sections for workforce capacity

The I-KANN-25 Model is actively supported by LGC Group



## CASE STUDY 10: AWARDS



In 2015, NNEdPro was pleased to receive the Complete Nutrition Outstanding Achievement Award. This award is selected by readers of Complete Nutrition based on overall impact to the field of nutrition.

*“Abbott would like to recognise the NNEdPro Group, voted as the winners of the Outstanding Achievement Award by CN readers. Congratulations on the progress you have made to drive dedicated nutrition training within the medical curriculum and demonstrate the value of working as a multi-disciplinary team to ultimately enhance patient care.”*

- Mike Smith, General Manager, Abbott Nutrition



In 2016, NNEdPro was pleased to be Finalist and Runner Up for BMJ Education Team of the Year Awards. This award celebrates a team that is leading the way in medical education.



In 2017, the British Dietetic Association (BDA) / NNEdPro Global Centre for Nutrition and Health was pleased to be awarded the MNI Grant 2017, for our project “Nutrition Education Policy for Healthcare Practice”. The award was consigned on 11 September 2017, during the ESPEN – ENHA – MNI Joint Session 2017 on Optimal Nutrition Care for All, by MNI President, Tim Meyerhoff.



In 2018, NNEdPro was pleased to be part of the team to be a joint recipient of the “TIGR2ESS: Transforming India's Green Revolution by Research and Empowerment for Sustainable food Supplies”, as part of the Global Challenges Research Fund project.



In 2019, NNEdPro's Mobile Teaching Kitchen Project was recognised with a Highly Commended status by demonstrating potential real-world impact by the Emerald Interdisciplinary Research Awards.



# APPENDICES

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## NEWSLETTERS AND ARTICLES

### Complete Nutrition Articles

September 2018

#### 2020

Nutrition Science in the Lab  
July 2018

Micronutrients & COVID-19  
October/November 2020

Behind the Scenes @ 10 Years  
June 2018

Dietitians & their Role in Medical Education  
May/June 2020

Nutrition as a Hard Science  
May 2018

Will climate change lead to global dietary change?  
February/March 2020

A Decade of Laying Foundations  
April 2018

#### 2019

A Review of NNEdPro Summer Events 2019  
October 2019

Turning a Terrific Two: The NNEdPro Australia and  
New Zealand (ANZ) Network  
January 2018

Feed for Health  
June 2019

#### 2017

Bringing our 2025 vision of an International  
Knowledge Application Network in Nutrition  
(IKANN25) to life in partnership with GODAN  
May 2019

I-KANN-25: A Case Study from India  
December 2017

The online diet wars. What is it achieving?  
February 2019

NNEdPro Win MNI Award  
November 2017

#### 2018

NNEdPro: A Year in Review and 2019 Sneak Peak  
December 2018

Nutrition Week 2017: Summer School and Summit  
In Review  
October 2017

The NNEdPro GODAN Partnership  
November 2018

Global Challenges – Let's End Malnutrition by 2030  
September 2017

Food Allergy Can Be Fatal  
October 2018

An Online Toolkit to Improve Nutritional Care  
July-August 2017

Can the Kitchen be an Effective Classroom for  
Nutrition Education?

Three Strategies to Integrate Nutrition into  
Existing Medical Curricula  
June 2017

NNEdPro Week 2017: Summit and Summer School  
May 2017



The Renaissance of the Mediterranean Diet  
April 2017

Cooking up a Novel Recipe for Medical Nutrition  
Education  
February 2017 / March 2017

**2016**

NNEdPro Global Centre for Nutrition and Health:  
Translating knowledge, through education, into  
practice  
December 2016 / January 2017

The GODAN-UN Summit 2016: Can open data  
ensure better nutrition and global food security?  
November 2016

Is there a solution to tackling child malnutrition in  
urban slums?  
October 2016

What should we teach students about nutrition?  
September 2016

Scaling up Nutrition in Morocco  
July/August 2016

Nursing Essay Competition 2016  
June 2016

NNEdPro Down Under - Launching an Australia and  
New Zealand Network  
May 2016

An Evidence-based 'gut feeling': Dietary  
polyphenols and the gut microbiome  
April 2016

International initiatives in nutrition education and  
related research  
February/March 2016

**2015**

NNEdPro: Who are we?  
December 2015

Same Challenge- different countries- common  
voice!  
October 2015

NNEdPro at the World Congress on Public Health  
2015  
June 2015

Strengthening doctors' nutrition knowledge and  
education.  
May 2015

**Other Articles**

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deficiencies and COVID-19 (2020).

Nutra Ingredients: Nutrition advice from the GP?  
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change" (2020).

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10 Years of MNI Grant - The Value of Cooperation  
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professionals

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2017

BMA Blog (2015) Let Food Be Thy Medicine



Newcastle University (2013) Students start their  
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NNEdPro End of Summer Newsletter - September  
2020

NNEdPro & IANE Joint Newsletter - July 2020

Inaugural IANE Newsletter - May 2020

Easter Newsletter - April 2020

Seasons greetings from NNEdPro - December  
2019

NNEdPro News - India Special - August 2019

NNEdPro News - February, March and June 2019

Seasons greetings from NNEdPro, December 2018

NNEdPro Nutrition Week 2018

Easter Newsletter, April 2018

Summit and Summer School 2017 Update

Invitation to NNEdPro Week 2017

New Year Newsletter, February 2017

Winter Newsletter, December 2015





## JOURNAL PAPERS (APPLIED)

### PEER-REVIEWED AND INDEXED JOURNAL PAPERS IN EDUCATIONAL AND APPLIED ASPECTS OF NUTRITION AND HEALTH

#### Individual Journal Papers

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## Frontiers in Public Health and Frontiers in Nutrition

### Research Topic: Assessing Evidence to Determine Policy and Practice

**Topic Editors - Giuseppe Grosso, Alessandra Lafranconi, Sumantra Ray\*\***

**The journal, Frontiers in Public Health, is a multidisciplinary open-access journal**

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*\* Articles marked with an asterisk have been written by authors external to NNEdPro and have been edited or reviewed by the NNEdPro Chair (S Ray) and/or NNEdPro Global Innovation Panel member (G Grosso) for this research topic.*

*\*\* Also review editor for Frontiers in Nutrition*

## Public Health - Nutrition Education (Special Section 2016)

**Senior Guest Editor - Sumantra Ray | Guest Editors - Celia Laur, Lauren Ball**

**The journal, Public Health, was established in 1888 and is published by Elsevier on behalf of the Royal Society for Public Health**

S Ray, C Laur, L Ball. Guest Editorial: Nutrition Education for Public Health. Public Health. (2016).

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**JBE - Nutrition Education for the Health Care Professions (Special Issue 2015)**  
**Guest Editors - Martin Kohlmeier, Caryl A Nowson, Rose Ann Di Maria-Ghalili, Sumantra Ray**  
**The Journal of Biomedical Education is published by Hindawi.**

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*\*\* Articles marked with a double asterisk have been written by authors external to NNEdPro and have been edited by the NNEdPro Chair along with the editor-in chief (M Kohlmeier) and other guest editors (C Nowson and RA Di Ghalili) for this special issue.*





# JOURNAL PAPERS (SCIENCE)

## RESEARCH PAPERS IN NUTRITION SCIENCE AND HUMAN HEALTH DEL RIO (DIETARY BIOACTIVES), RAY (NUTRITION AND VASCULAR STUDIES) AND GROSSO (NUTRITION RESEARCH SYNTHESSES AND EPIDEMIOLOGY)

### Peer-Reviewed and Indexed Journal Papers

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## CHAPTERS AND BOOKS

### National Diet and Nutrition Survey:

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Multiple contributors including the NNEdPro Chair: S Ray (2019).

The NNEdPro Chair is a key contributor to the NDNS 10 year report in the capacity of NDNS Lead Clinician over 2013-18.

### Oxford Handbook of Clinical and Healthcare Research

Edited by Sumantra Ray, Sue Fitzpatrick, Rajna Golubic, Susan Fisher, and edited with assistance of Sarah Gibbings.

Oxford Medical Handbooks.

Reflects the latest legislative framework.

Provides equal focus to qualitative and quantitative aspects.

Covers the breadth of information required for Good Clinical Practice education and related examination, including Faculty of Public Health.

Comprehensive start-up toolkit for new researchers in any health-related field.

### Diet-Microbe Interactions in the Gut, 1st Edition

Kieran Tuoy and Dan Del Rio

One comprehensive, translational source for all aspects of nutrition and diet's effect on gastrointestinal health and disease

Experts in nutrition, diet, microbiology and immunology take readers from the bench research (cellular and biochemical mechanisms of vitamins and nutrients) to new preventive and therapeutic approaches

Clear presentations by leading researchers of the cellular mechanisms underlying diet, immune response, and gastrointestinal disease help practicing nutritionists and clinicians (gastroenterologists, endocrinologists) map out new areas for clinical research and structuring clinical recommendations

### Nutrition in Critical Care

Edited by Peter Faber and Mario Siervo

This volume provides comprehensive guidelines for the nutritional support of critically ill patients and is valuable reading for doctors, nurses, dietitians and practitioners working within the critical care environment. It begins by discussing nutritional physiology and patient assessment, providing an essential foundation for planning and managing the dietary requirements of critically ill patients. Internationally-recognized authors present evidence-based guidelines for managing various groups, including surgical patients, patients with burns, and patients with renal failure. The implications of enteral vs. parenteral nutrition, timing of nutritional support, therapeutic strategies, and management of complications are discussed.

### Dietetic and Nutrition Case Studies

Judy Lawrence, Pauline Douglas, Joan Gandy

The ideal companion resource to 'Manual of Dietetic Practice', this book takes a problem-based learning approach to dietetics and nutrition with cases written and peer reviewed by registered dietitians, drawing on their own experiences and specialist knowledge

Each case study follows the Process for Nutrition and Dietetic Practice published by the British Dietetic Association in 2012

Includes case studies in public health, an increasingly important area of practice.

### Manual of Dietetic Practice (5th Ed)

Joan Gandy

Since publication of its first edition, Manual of Dietetic Practice has remained an essential guide to the key principles of dietetics and a core text for healthcare professionals looking to develop their expertise and specialist skills. Published on behalf of the British Dietetic Association, the UK professional body for dietitians, it covers the entire dietetics curriculum and is also an ideal reference text for qualified practitioners.





**Oxford Handbook of Nutrition and Dietetics**

Edited by Joan Webster-Gandy, Angela Madden, and Michelle Holdsworth  
Fully updated with the latest evidence-based guidelines and knowledge  
Practical and concise quick reference guide to the whole field of nutrition and dietetics  
Covers the important and growing problem of obesity  
Includes the nutritional science which underpins the application of nutrition  
Covers the entire lifecycle from preconception to old age.

**Food and Nutrition (Understanding) (Family Doctor Books)**

Joan Webster-Gandy  
The food you eat has a strong influence on your health and on your chances of developing heart disease and some types of cancer. This book is aimed at people who are basically healthy, to help them understand nutrition and choose a diet that will keep them in good health. The book provides an overview of nutrition, explaining the process of digestion and your need for energy, protein, fat, carbohydrates, vitamins and minerals. These sections include the science of nutrition, good food sources and links with illnesses. The book will help you make informed choices about your diet, and explain how to make sense of the nutritional labelling on food packets.

**Chapter in: Dairy in Human Health and Disease across the Lifespan**

Giuseppe Grosso  
Chapter Title: Milk and chronic-degenerative diseases: main components and potential mechanisms

**Diet and Cardiovascular Disease**

Cardiovascular Disease: Diet, Nutrition and Emerging Risk Factors covers everything from epidemiology to genetic factors, to inflammation and much more – offering invaluable advice on

reducing risk factors and preventing CVD, and:

- Authoritatively reports on the link between emerging aspects of diet, lifestyle and cardiovascular disease risk
- Focuses on novel risk factors of CVD, including the human gut microbiome and fetal and childhood origins, and how it can be prevented
- Features recommendations for interventions and future research
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BAPEN Conference (2010). The Need for Nutrition Education Project (NNEdPro) – An educational intervention across UK Medical Schools to lay the foundations for good nutritional care. This poster received the 2010 Nutrition Society prize. Abstract. Poster.

ASME Conference (2010). The Need for Nutrition Education Project (NNEdPro) – A potential vehicle for educational innovation and change across UK Medical Schools. Abstract.

Ray, S., Udumyan, R., Thompson, B., Rajput-Ray, M., Sharma, P., Lodge, K., . . . Wilson, R. (2010). The Need for Nutrition Education Project (NNEdPro) – an educational intervention across UK Medical Schools to lay the foundations for good nutritional care. Proceedings of the Nutrition Society, 69(OCE7), E527. doi:10.1017/S0029665110004611

Ray, S; Udumyan, R; Thompson, B; Rajput-Ray,



M; Sharma, P; Lodge, K; Gandy, J; Douglas, P; Broughton, R; Smart, S; The Need for Nutrition Education Project (NNEdPro) – an educational intervention across UK Medical Schools to lay the foundations for good nutritional care (2010). Cambridge University Press.

ICGN Presentation (2010). Laying the foundations of Nutrition Knowledge, Attitudes and Practices in a cohort of 'Tomorrow's Doctors'.

BDAC Oral Presentation (2010). The impact of a nutritional education intervention on undergraduate medical students. Abstract.

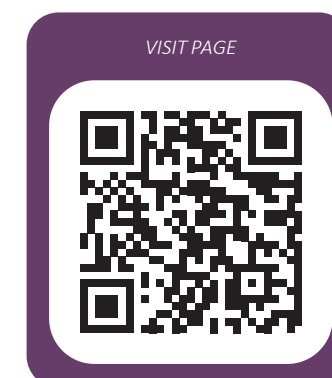
BAPEN Conference (2010). The Need for Nutrition Education Project (NNEdPro) – An educational intervention across UK Medical Schools to lay the foundations for good nutritional care. This poster received the 2010 Nutrition Society prize. Abstract. Poster.

ASME Conference (2010). The Need for Nutrition Education Project (NNEdPro) – A potential vehicle for educational innovation and change across UK Medical Schools. Abstract.

BDAC Oral Presentation (2010). The impact of a nutritional education intervention on undergraduate medical students. Abstract.

ICR conference (2009). Use of a modified, controlled before and after (CBA) study design to investigate the effectiveness of a clinical nutrition education intervention in tomorrow's doctors. Abstract. Poster.

ICR conference (2009). Use of a modified, controlled before and after (CBA) study design to investigate the effectiveness of a clinical nutrition education intervention in tomorrow's doctors. Abstract. Poster.





# INVITED PRESENTATIONS AND SYMPOSIUM CONTRIBUTIONS

## 2020

NNEdPro & TIGR2ESS Sanghol Workshop. Sanghol, India, January 2020.

NNEdPro & TIGR2ESS Odisha Workshop. Odisha, India, January 2020.

NNEdPro & TIGR2ESS Kolkata Workshop. Kolkata, India, January 2020.

TIGR2ESS General Assembly. Hyderabad, India, January 2020.

Invited talk at the High School of Dundee. Dundee, Scotland, February 2020.

NNEdPro Mexico Network Launch, Universidad Tecnológico de Monterrey. Mexico City, Mexico, February 2020.

NNEdPro Italy Network Launch, Parma University. Parma, Italy, February 2020.

NNEdPro Swiss Network Launch, The Ambassador Hotel. Geneva, Switzerland, February 2020.

Australasian Society of Lifestyle Medicine Webinar. Cardiovascular disease prevention: What the nutritional science shows us. March 2020.

TIGR2ESS Virtual Workshop – FP6 Research Output. May 2020.

NNEdPro Online Journal Club. Implementing Effective interventions in Healthcare: Cardiovascular disease. June 2020.

NNEdPro Online Journal Club. Diet, Sustainability & Climate Change. July 2020.

NNEdPro Online Journal Club. Nutrition and

COVID19: The cutting edge of emerging evidence and a look to the future. August 2020.

6th International Summit on Medical & Public Health Nutrition Education & Research. September 2020.

WCPH 2020 Workshop: Data analysis, advocacy activities, and actions to counteract the double burden of malnutrition. October 2020.

TIGR2ESS: Transforming India's Green Revolution by Research and Empowerment for Sustainable food Supplies FP6 Workshop. October 2020.

Integrated Health-Harmony-Healing (IH3) Matrix online meeting. Presentation on Covid: Vitamin D and Micronutrient. October 2020.

NNEdPro Online Webinar. Food allergies and science - Case based discussion of nutritional atopic diseases and their scientific basis. October 2020.

CVD3: Dietary Treatment of CVD Medical management of Cardiovascular Disease. November 2020.

Nutrition and COVID-19. The 3rd ERimNN Brighton Nutrition Showcase. November 2020.

COVID-19 Fall Summit: Moving from Reacting to Managing. November 2020.

DSM webinar: Raising standards in elder & patient care. December 2020.

NNEdPro Regional Network Meetings. Online Events. December 2020.

Nutritank Clinical Student Societies. December 2020.



## 2019

Presentation on Medical Nutrition Education to the Nutrition, Health and Development Department, World Health Organization Headquarters Geneva Switzerland. January 2019.

Presentation of Nutrition Innovation for Global Health to the Swiss Government Agency for International Development in Bern Switzerland. February 2019.

Presentation on the NNEdPro Global Centre and UN Decade of Action on Nutrition n 2016-25. University of Waterloo. February 2019.

Presentation on interim results from a two part survey designed to strengthen medical nutrition education, World Health Organization Headquarters Geneva, Switzerland. February 2019.

INDIA 5 Year Symposium – Lessons learned over 2014-19 and next steps over 2019/20. Space Circle, Kolkata, India. February 2019.

NNEdPro Urban to rural Adaptation Workshop Programme for Mobile Teaching Kitchens. Cordia Group of Educational Institutes in Sanghol, Punjab, India. February 2019.

BMJ The International Forum on Quality and Safety in Healthcare, Glasgow, UK, March 2019

SJIC & FIA Business School Exchange Seminar, Cambridge, UK, April 2019

Culinary Medicine UK – Hackathon, London, UK, April 2019

Public Health Collaboration Conference, London, UK, May 2019

NNEdPro Brazil Network Launch, FIA Business School, Sao Paulo, Brazil, May 2019

International Visiting Professorship Lecture, University of Sao Paulo, Brazil, May 2019

Nutrition and Vascular Studies Platform launch. Ulster University, Northern Ireland, UK, June 2019.

WHO Global Internship Training. WHO Headquarters, Geneva, Switzerland, June 2019.

WHO Global Internship Training. WHO Headquarters, Geneva, Switzerland, June 2019.

5th International NNEdPro Summit. Homerton College, Cambridge, July 2019.

13th Congress of the International Society of Nutrigenetics and Nutrigenomics. Cambridge, July 2019.

Society for Nutrition Education and Behavior (SNEB) Conference. Orlando, USA, July 2019.

NNEdPro & TIGR2ESS Sanghol Workshop. Sanghol, India, August 2019.

NNEdPro & TIGR2ESS Kolkata Workshop. Kolkota, India, August 2019.

Nutrition Therapy for Chronic Diseases Conference. Fitzwilliam College, University of Cambridge. October 2019.

2nd Brighton Nutrition Showcase. UK, November 2019.

Nutrition Roundtable: AIM Foundation. UK, November 2019.

Public Health at Cambridge Annual Showcase: Planetary Health reservation. UK, November 2019.

The Optimal Nutritional Care Conference 2019. UK, November 2019.

Australia and New Zealand NNEdPro 4th Regional





Network Meeting. December 2019.	
Invited talk at University of Wollongong. Australia, December 2019.	American Association of Cereal Chemists International. October 2018.
Invited talk at Griffith University. Australia, December 2019.	3rd ANZ NNEdPro Symposium. Nutrition Society of Australia and the NHMRC Canberra. November 2018.
<b>2018</b>	Contribution to Judging Ilwara Science Competition Health Award. University of Wollongong. November 2018.
Talk on mobile teaching kitchens. February 2018.	
Mobile teaching kitchen launch. February 2018.	<b>2017</b>
An overview of 10 years of NNEdPro work. BMA Board of science. February 2018.	ASN-NNEdPro Nutrition Educators Discussion and Networking Event: Train Nutrition Trainers. Experimental Biology, (2017). Chicago USA
Talk on Nutritional Equity and Population Health. February 2018.	Presentation and Workshop on Nutrition Education at UCLAN Medical School. February 2017.
Symposium on food, nutrition and education. February 2018.	
Talk to the Food security entrepreneurship weekend. Judge Business school, Cambridge. April 2018.	3rd India Symposium in Kolkata and Nutrition Education Lectures at the Cordia Campus Sanghol. February 2017.
Pre-service nutrition education webinar. Talk to USAID. May 2018.	An Overview of NNEdPro – Presentation to Public Health England. April 2017.
Talk for the Parma food security. Italy. May 2018.	An Overview of Innovation in Nutrition and Cardiovascular Disease at the School of Public Health, Imperial College London. May 2017.
Talk on Implementation Science at WSRO. Annual meeting, Munich. June 2018.	Nutrition, Cognition and Language Sciences – Presentation to Cambridge University. May 2017.
4th International NNEdPro Summit. Wolfson College, Cambridge. July 2018.	Invited Talk and Scientific Poster Abstracts (with Young Investigator Award) at the 50th Anniversary Conference of the Society for Nutrition Education and Behavior in Washington DC. July 2017.
3rd NNEdPro Summer School, Wolfson College, Cambridge. July 2018.	
Micro enterprise launch for Mobile Teaching Kitchens. India. August 2018.	2 days of Scientific Conference Proceedings: International Summit on Medical and Public Health Nutrition Education/Research. August 2017.
92nd Nestle Nutrition Institute Workshop. Switzerland. September 2018.	



Talk to the US Nutrition and Medical Education Workshop convened by the National Institutes of Health in Bethesda. September 2017.	Invited Lecture Series: Singapore, Griffith University in Australia, Auckland and Massey Universities in New Zealand and 1st ANZ NNEdPro Symposium at the ANZAPHE Conference in Perth Australia. March 2016.
ESRC & Cambridge University Impact Acceleration Workshop on Mobile Teaching Kitchens in urban Slums in Kolkata India. October 2017.	Invited Lectures on Nutrition and Implementation Science, and Vascular Nutrition at University of Waterloo, Ontario. March 2016.
Talk on the Triple Burden of Malnutrition and UN Sustainable Development Goals at the 175th Anniversary Conference of the LGC Group in London. November 2017.	Nutrition Surveillance, Research and Education in Morocco British Council Morocco Workshops Rabat. April 2016.
Invited Lecture Series in medical Nutrition and Cardiovascular Nutrition at University of Wollongong, Deakin University, the 2nd Australia New Zealand NNEdPro Symposium in Adelaide and the University of Brunei Darussalam. November 2017.	NNEdPro 2nd International Summit & Strategy Day Cambridge. June 2016.
<b>2016</b>	Nottingham University Nutrition and Public Health Guest Lecture. July 2016.
Annual Research Symposium of the British Dietetic Association (2016) - Birmingham, UK	Nutrition and Population Health Presentation to the Health Policy Partnership. London, UK. August 2016.
Yakult Study Day (2016) - London, UK	Talks on NNEdPro Global Strategy at the United Nations and Global Open data for Agriculture & Nutrition Summit. New York, USA. September 2016.
Anaesthesia Directorate Presentation. Cambridge, UK. January 2016.	Association for Nutrition Healthcare Specialism Presentation to Council. London, UK. October 2016.
University of Parma Lecture on Cardiovascular Nutrition Updates. January 2016.	Keynote lecture on the importance of nutrition education for healthcare professionals Yakult HCP Study Day Keynote and Conference. London, UK. October 2016.
NNEdPro UK Symposium and Essay Competition on Nutrition and Nursing at Wolfson College Cambridge. February 2016.	Study presentations at the More-2-Eat Investigators Meetings. Toronto, Canada. December 2016.
Cambridge-India International Symposium on Nutrition, Diabetes and Personalised Nutrition in Kolkata. February 2016.	
An implementation science project in primary care hydration at the BMJ Awards Panel Presentation. London, UK. March 2016.	<b>2015</b>
	NNEdPro UK Symposium and medical student essay competition Wolfson College Cambridge.



February 2015.

Multiple Invited Talks and Satellite Symposia at the World Congress on Public Health in Kolkata, India. February 2015.

Indian Institute of Management, Kolkata, India. February 2015.

Invited talk on the importance of Nutrition Research National Institute of Cholera and Enteric Diseases Kolkata, India. February 2015.

Research methods to answer questions that require multi-modal or complex interventions Srimanta Sankaradeva University of Health Sciences Guwahati, Assam, India. February 2015.

Healthy Eating Rationale Talk Sancton Wood School, Cambridge, UK. March 2015.

10 abstracts including one oral session. Invited speaker and session moderator contributions to a mini symposium and NNEdPro sponsored mini symposium. American Society for Nutrition, Experimental Biology 2015. Boston, USA. March 2015.

Invited talk on 'going back to basics' in the context of confusing evidence on nutrient requirements and health risks The EXPO. Milan, Italy. June 2015.

Invited talk on the Knowledge to Action Cycle at the WHO Collaborating Centre at Imperial College, London. June 2015.

Talk on hydration and workplace health at the International Congress of Occupational Health in Seoul, South Korea. June 2015.

1st NNEdPro International Summit on Medical Nutrition Education at Wolfson College, Cambridge. August 2015.

Invited talk on mentoring Nutrition Society

Postgraduate Conference at Trinity Hall, Cambridge. September 2015.

Invited talk on the Global innovation panel of NNEdPro at Queen's University, Belfast. September 2015.

Invited talk on how one can keep up with the evolving evidence base for Nutrition in the 21st century. EU-China Symposium on Nutrition and Diabetes Shanghai, China. September 2015.

Invited contribution on NELICO India at the CIPH annual conference Cancer Research UK Cambridge Institute. October 2015.

Talk on breaking results from dietary bioactives research. Seventh International Conference on Polyphenols and Health. Tours, France. October 2015.

Series of Talks on nutrition education and cardiovascular nutrition as well as session chairing at the First International Conference on Primary Care and Public Health Imperial College, London. October 2015.

Invited talk on salt and health outcomes at Food Matters Live London. November 2015.

Keynote talk on NNEdPro, Nutrition and CVD at the British Medical Association Annual Research Awards Symposium London. November 2015.

Invited talk on hydration and health at the Annual Research Symposium of the British Dietetic Association Birmingham. December 2015.

Keynote presentation on NNEdPro and the NSHD Diet and CVD project (2015). British Medical Association Annual Research Awards. London, UK. Salt Reduction targets for 2017. (2015). Food Matters Live. London, UK.

Annual Research Symposium of the British Dietetic Association (2015) – Birmingham, UK.



International Conference of Primary Care and Public Health. Can a novel training intervention for General Practitioners improve hydration knowledge for better Healthcare? A Knowledge, attitude and practice study. (2015). Imperial College London, UK.

International Conference of Primary Care and Public Health. Strategic partnership for knowledge generation, translation and evaluation. (2015). Imperial College London, UK.

European Federation of Associations of Dietitians Conference. (2015). Opportunities for dietitians in hydration and patient care. Amsterdam, Netherlands.

European Federation of Associations of Dietitians Conference. (2015). Hydration: Assessment of student dietitians' knowledge, attitudes and current/potential future practices. Amsterdam, Netherlands.

American Society for Nutrition Conference at Experimental Biology (2015). Presentations at the Meeting of New England/Mid-Atlantic Regional Medical School Educators.

NNEdPro and CVD Research (2015). Centre for Public Health Symposium. Queen's University Belfast, UK.

NNEdPro Nutrition Vascular Studies Mini Symposium January (2015). Parma, Italy.

Plenary Chair on Leading through Research and Innovation (2015). International Conference of Primary Care and Public Health. Imperial College London, UK.

NNEdPro approach to Education and Research (2015). EU-China Symposium on Nutrition and Diabetes. Shanghai, China.

The Role of Mentoring (2015). Nutrition Society

Postgraduate Conference. Cambridge, UK.

Back to Basics with Nutrition (2015). EXPO 2015 Nutrition Symposium – Milan, Italy.

'NNEdPro from Local to Global' (2015). WHO Collaborating Centre at Imperial College London.

World Congress on Public Health, Commonwealth Dietitians and Nutritionists Association and associated lecture series in the East of India (2015). 'Nutrition education and Leadership for Improved Clinical/Public Health Outcomes' (NELICO) in India.

Presentations at the Meeting of New England/ Mid-Atlantic Regional Medical School Educators and Supplementary Workshop (2015). American Society for Nutrition Conference at Experimental Biology. Boston, USA.

## 2014

Invited Symposium on Medical Nutrition Education at the American Society for Nutrition and Experimental Biology 2014: San Diego, USA. April 2014.

Invited Talk on NNEdPro at Dietitians Seminar: Addenbrookes Hospital, Cambridge. August 2014.

Invited Talk on Climate, Food And Human Health: Italian Embassy Summit London. October 2014. An Overview of NNEdPro: Brighton-Sussex Medical School. October 2014.

Chairing at Food Matters Live - Salt Reduction Seminar: London. November 2014.

Education Sessions Workshop presentation: Addenbrookes Hospital, Cambridge. December 2014.

Dietetic Education Session Workshop (2014). Addenbrookes Hospital, Cambridge.





‘NNEdPro’- A Platform Bridging Research, Policy and Practice (2014). Brighton-Sussex Medical School.

Presentation on Public Health Nutrition at the Symposium on Climate Change, Food and Human Health (2014). London, UK.

Series of lectures on Hydration Education for General Practitioners, Generic Nutrition Training for Researchers and Research awareness for Dietitians in the East of England (2014).

Presentation on the importance of Medical Nutrition Education (2014), to the Gillings School of Public Health, University of North Carolina at Chapel Hill, USA.

Presentation on the role of healthcare professionals and nutrition in NCD prevention to the United Nations General Assembly in New York, USA (2014).

Workshop entitled ‘Nutrition Competencies in Health Professionals’ Education and Training: A New Paradigm’ (2014). American Society for Nutrition Conference at Experimental Biology. San Diego, USA.

Updates in Nutrition for Healthcare Professionals. BR Singh Hospital, Kolkata, India (2014).  
NNEdPro’- A Platform Bridging Research, Policy and Practice. Brighton-Sussex Medical School. October 2014.

Presentation on Nutrition and Vascular Function to the Anti-Doping Lab of Qatar and University of Qatar (2014).  
Cardiovascular nutrition for pharmacists, Universities of Ulster and Queen’s Belfast (2014).

American Society of Nutrition conference (2014). Presented as two talks as part of the Official Scientific Programme, Nutrition Competencies in Health Professionals’ Education and Training: A New Paradigm.

**2013**

Postgrad researcher session: Medical Research Council Human Nutrition Research. April 2013.

Medical Nutrition Council Symposium at the American Society for Nutrition and Experimental Biology 2013: Boston. April 2013.

British Nutrition Foundation CVD Taskforce Presentation: London. August 2013.

Nutrition Education Overview: University of Parma, Italy. November 2013.

American Society of Nutrition conference (2013). Abstract selected for oral presentation, entitled Need for Nutrition Education Programme: Laying the foundations of nutrition knowledge relevant to clinical and public health practice. Abstract.

**2012**

NELICO Policy Round Table – Medical Research Council London. April 2012.

Nutrition Evidence Update at Primary Care 2012: Birmingham. May 2012.

Invited Speaker on Vascular Function and Nutrition at the Italian Physiological Society Congress. September 2012.

Invited Speaker on Sea Buckthorn and Vascular Function at EuroWorkS 2012: Vilnius. October 2012.

**2011**

Newham Healthy Food Festival and Public Engagement. July 2011.

Sizzling Science with Added Spice and Public Engagement. July 2011.



ACADEMIC TEACHING

**2020**

Research Skills for Clinicians Course. Cambridge University Hospitals and University of Cambridge School of Clinical Medicine. January 2020.

NNEdPro Webinar. An Introduction to Nutrition as a Health Science and our role as a Global Centre in Preventive Practice. May 2020.

NNEdPro Webinar. Cardiovascular Disease Prevention – an appraisal of what the nutrition science tells us and implications for practice. June 2020.

NNEdPro Webinar. Global Food and Nutrition Security towards 2030 - Innovation in Implementation. July 2020.

Nutrition and COVID19 - Lessons learned to date by our Taskforce along with BMJ Nutrition, Prevention and Health. August 2020.

6th NNEdPro Summer School in Applied Human Nutrition. September 2020.

**2019**

Research Skills for Clinicians Course. Cambridge University Hospitals and University of Cambridge School of Clinical Medicine. January 2019.

BMJ India Masterclass in Nutrition for Medicine and Healthcare. India Habitat Centre, New Delhi, India. February 2019.

Basic Concepts in Nutrition for Post-doctorates and Researchers on the University of Cambridge TIGR2ESS Programme. Training Workshop in Koraput, Orissa, India. February 2019.

Clinical and Public Health Nutrition for Foundation Doctors, NEPHELP Roadshow, Brighton, UK, May 2019

Nutrition for Physiotherapists. SOMT University, Netherlands, June 2019

4th NNEdPro Summer School, Homer College, Cambridge. July 2019

Nutrition Science course. Cambridge institute of continuing education. July 2019

The Nutrition Education policy for Healthcare Practice Training Package. Basildon, UK. October 2019.

Medical management of Cardiovascular Disease. Ulster University, UK. December 2019.

Clinical and Public Health Nutrition for Foundation Doctors, NEPHELP Roadshow. Barts and the London, UK. December 2019.

**2018**

Research Skills for Clinicians. Cambridge University hospitals. January 2018.

Core Medical (Nutrition) Training regional days. Basildon hospital. March 2018.

Clinical Public Health Teaching in Nutrition. Cambridge University. April 2018.

Core Medical (Nutrition) Training regional days. Addenbrookes hospital. June 2018.

Nutrition Science course. Cambridge institute of continuing education. July 2018.

Global Public Health Nutrition Workshop for Year-5 Cambridge Medical Students. August 2018.

Nutrition in Medicine and Healthcare Course for Final Year Cambridge Medical Students. October



2018.

Clinical and Public Health Nutrition Introductory Course for Cambridge Graduate Medical Students. October 2018.

Lecture series on Medical Nutrition and Cardiovascular disease. Ulster University. November 2018.

Invited lecture on Nutrition and the UN Decade of Action. University of Brunei. December 2018.

**2017**

Clinical and Public Health Nutrition Introductory Course for Cambridge Graduate Medical Students. Cambridge University. January 2017.

Nutrition in Medicine and Healthcare Course for Final Year Cambridge Medical Students. Cambridge University. January 2017.

Nutrition in Medicine and Healthcare Course for Final Year Cambridge Medical Students. March 2017.

Nutrition in Medicine and Healthcare Course for Final Year Cambridge Medical Students. June 2017.

Plenary Lecture on Diet and Health to the Interdisciplinary Programme of the Cambridge University Institute of Continuing Education. July 2017.

Mini Workshop on Nutrition to the Science Programme of the Cambridge University Institute of Continuing Education. July 2017.

40 hours of Teaching in Applied Human Nutrition to the Interdisciplinary NNEdPro Summer School in Cambridge. July 2017.

Global Public Health Nutrition Workshop for Year-5 Cambridge Medical Students. August 2017.

Nutrition in Medicine and Healthcare Course for Final Year Cambridge Medical Students. October 2017.

Clinical and Public Health Nutrition Introductory Course for Cambridge Graduate Medical Students. November 2017.

**2016**

Clinical and Public Health Nutrition Introductory Course for Cambridge Graduate Medical Students. January 2016.

Nutrition in Medicine and Healthcare Course for Final Year Cambridge Medical Students. January 2016.

NNEdPro Summer School and Certificate Course in Applied Human Nutrition Cambridge. June 2016.

Global Public Health Nutrition Workshop for Year-5 Cambridge Medical Students. August 2016.

Clinical and Public Health Nutrition Introductory Course for Cambridge Graduate Medical Students. November 2016.

Lecture series on Medical Nutrition and Cardiovascular disease. Ulster University. December 2016.

**2015**

Nutrition in Medicine and Healthcare Course for Final Year Cambridge Medical Students. January 2015.

Generic Nutrition Training Day Two Medical Research Council, Human Nutrition Research, Cambridge. January 2015.

Global Public Health Nutrition Workshop for Year-5 Cambridge Medical Students. May 2015.



Generic Nutrition Training Day Three Medical Research Council, Human Nutrition Research, Cambridge. June 2015.

Bridge course on human nutrition for Cambridge Medical Students. August 2015.

MPhil induction seminar, CIPH, Addenbrooke's Hospital, Cambridge. October 2015.

**2014**

General Internal Nutrition Teaching: Seminar Room Medical Research Council Human Nutrition Research. January 2014.

Final Year Nutrition Teaching: Cambridge University Clinical School. January 2014.  
Generic Nutrition Training: Medical Research Council Human Nutrition Research. April 2014.

GP Training on Hydration and Health: Medical Research Council Human Nutrition Research. July 2014.

Final Year Nutrition Teaching: Addenbrookes Hospital. Cambridge. August 2014.

GP Training on Hydration and Health: Medical Research Council Human Nutrition Research. September 2014.

Hydration Teaching: Hinchinbrooke Hospital, Huntingdon, UK. October 2014.

Stage 1 Nutrition Teaching: Cambridge Clinical School. November 2014.

Clinical and Public Health Nutrition Introductory Course for Cambridge Graduate Medical Students. December 2014.

**2013**

Clinical and Public Health Nutrition Introductory Course for Cambridge Graduate Medical Students. January 2013.

Global Nutrition Teaching: Institute for Public Health, University of Cambridge. May 2013.

Public Health Nutrition Forum: Medical Research Council Human Nutrition Research. June 2013.

Clinical and Public Health Nutrition Introductory Course for Cambridge Graduate Medical Students. December 2013.

Clinical and Public Health Nutrition Introductory Course for Cambridge Graduate Medical Students. January 2012.

**2012**

Stage 1 Nutrition Teaching: Clinical School, Addenbrookes Hospital, University of Cambridge. January 2012.

Cambridge University Global Health Society, Nutrition Elective Day. February 2012.  
Global Public Health Nutrition: Clinical School, Addenbrookes Hospital, University of Cambridge. April 2012.

Norfolk & Norwich Hospital Nutrition Awareness Week. May 2012.

Stoke Mandeville and Birmingham: Hospital Nutrition Awareness Week. June 2012.

Final Year Nutrition Introduction: Clinical School, Addenbrookes Hospital, University of Cambridge. August 2012.

Stage 1 Nutrition Teaching: Clinical School, Addenbrookes Hospital, University of Cambridge. November 2012.





2011

Nutrition and International PH SSC Teaching:  
Institute of Public Health, University of Cambridge.  
April 2011.

Nutrition and International PH SSC Teaching:  
Institute of Public Health, University of Cambridge.  
May 2011.



PROJECTS

NUTRITION EDUCATION, TRAINING AND SKILLS (NETS)

Aim: To develop, deliver and evaluate evidence-based education and training in nutrition and health as well as promote the capacity building and mentoring of tomorrow's trainers, particularly in nutrition and medical/healthcare education.

OVERVIEW

CURRENT PROJECTS & INITIATIVES

- E-Learning in Healthcare Nutrition, Podcasts and Webinars
- The International Academy of Nutrition Educators (IANE)
- The International Knowledge Application Network Hub in Nutrition 2025 (I-KANN-25)
- National Medical Student Teaching and Mentoring via Nutritank and the Nutrition Implementation Coalition as well as Membership of the UK Inter-Professional Curriculum Group in Medical Nutrition

PAST PROJECTS & INITIATIVES

INTERNAL OFFERINGS PROVIDED TO CAMBRIDGE (Until 2018)

- Clinical and Public Health Nutrition Education for medical students through the clinical curriculum (mandatory and elective teaching using face-to-face and blended learning, as well as research-based 'Student Selected Components' [SSCs] under the Nutrition Education Review Group [NERG]) at the University of Cambridge School of Clinical Medicine, in conjunction with the Cambridge University Hospitals NHS Foundation Trust.
- Healthcare-related Nutrition, Research and Leadership Education for junior doctors on the Core Medical Training (CMT) Programme under the NHS Health Education East of England Local Education and Training Board (Deanery).

- Mentoring in Nutrition and Medical Education and/or Research for NHS Clinicians, particularly in Obesity Management, Nutrition Support and Dietetics within the Cambridge University Health Partners framework.

EXTERNAL SERVICES PROVIDED FROM CAMBRIDGE

- International Curriculum Development in Nutrition and Health Education in partnership with the American Society for Nutrition Co-ordinating Centre for Nutrition Education in Professional Schools, working in conjunction with the US National Institutes of Health
- Nutrition Science Education (1-week from core concepts to health applications) within the 4-week Science Summer Programme of the University of Cambridge Institute of Continuing Education





**PROGRAMME AREA: NUTRITION RESEARCH AND INNOVATION CONSORTIUM (NRIC)**

Aim: To undertake primary nutrition research through basic science, human interventions, population studies and evidence syntheses to inform health policy and practice.

**OVERVIEW**

**CURRENT PROJECTS & INITIATIVES**

In 2018, the NNEdPro Group formed a refreshed Nutrition Research and Innovation Consortium (NRIC) spanning Cambridge, London, Ulster and Parma to undertake primary nutrition research through basic science, human interventions, population studies and evidence syntheses to inform health policy and practice.

Going forward the combined strengths from these centres of research excellence will seek to address further unanswered questions around Nutrition and Non-Communicable Disease, connecting the cutting edge of science to evidence-informed professional education. Our track-record of over 100 peer-reviewed scientific journal papers is significantly based on these pillars:

**PILLAR-1:** Development of measurements dedicated to human nutrition research in state-of-the-art laboratory facilities.

**PILLAR-2:** Observational studies and secondary data analyses on dietary exposures and health outcomes at population level.

**PILLAR-3:** Intervention studies and mechanistic/explanatory trials at individual level.

**PILLAR-4:** Evidence synthesis for translation to professionals in nutrition and health.

**PAST PROJECTS & INITIATIVES**

*Strand (A) EXPERIMENTAL: Phytonutrients and Vascular Function*

- Two linked Randomised Controlled Trials (University of Dundee) of berry intake and effects on vascular/endothelial function and metabolic risk as well as UV protection.
- Randomised controlled trial looking at the effects of a wide range of fruit and vegetable extracts on vascular/endothelial function and metabolic risk.
- Vascular function sub-study linked with a metabolic trial of green tea/coffee polyphenols.
- Vascular function acute trial comparing techniques using a hazelnut extract intervention.
- Vascular function study of patients undergoing an acute and intensive weight loss intervention.

*Strand (B) EPIDEMIOLOGICAL: Population Diets, Nutrition and Cardiovascular/Metabolic Risk*

- Longitudinal analyses of dietary patterns and vascular function in the 1946 British birth cohort or National Survey of Health and Development (NSHD), including derivation of novel intermediates from stored samples.
- Cross-sectional analyses of diet and cardiometabolic risk data collected in the UK National Diet and Nutrition Survey. In collaboration with the Centre for Diet and



- Clinical audit of cardiometabolic outcomes from the Intensive Weight Management Programme at the Addenbrooke’s Hospital Obesity Clinic.

Advisory role on:  
(i) dietary aspects of population/cohort studies in South London led by the School of Public Health at Imperial College London;  
(ii) vascular aspects of proposed population/cohort studies at the University of Western Australia;  
(iii) blood pressure and cardiometabolic risk in a community based weight loss intervention across England.

*Strand (C) TRANSLATIONAL: Evidence Synthesis and Knowledge Exchange for researchers and/or Practitioners*

- Evidence synthesis and translation (University of Dundee) of knowledge on the Nutritional Management of Ischaemic Stroke, Heart Failure and Raynaud’s phenomenon.
- Evidence synthesis and knowledge exchange, including key contributions to the second edition (2016) of the Task Force on Cardiovascular Disease: Diet, Nutrition and Emerging Risk Factors by British Nutrition Foundation.
- Development of a UK consensus forum on vascular measures in nutritional studies and method development to improve precision (including the role of hydration status measures). [Relevant to Researchers]







**PROGRAMME AREA: IMPLEMENTATION RESEARCH AND CONSULTING IN NUTRITION (IRCIN)**

Aim: IRCIN builds on several years of action-orientated research experience and advocacy. Current work emphasizes on integrating principles of good nutrition into multiple systems with pioneering work funded through competitive awards as well as a range of consulting engagements in the UK and internationally.

**OVERVIEW**

**CURRENT PROJECTS & INITIATIVES**

- Strategic Consulting for the Swiss Re Institute on Nutrition and Health including the development of I-KANN-25 (International Knowledge Application Network Hub in Nutrition 2025) – Since 2019
- Nutrition Education Policy for Healthcare Practice (NEPHELP) - Originally supported by the MNI 2017-19 Award and now supported further by the AIM Foundation over 2019-22
- The Canadian More-2-Eat Project led by the University of Waterloo - Currently in Phase-II over 2018-20
- Development of Electronic Dietary Self-Awareness Tools for the South Asian Population - 2018-20
- Special assignment on Nutrition and Capacity Building in the Healthcare Workforce with the World Health Organization – 2018/19
- Open Data Strategy Partnership with the Global Open Data for Agriculture and Nutrition (GODAN) Initiative supported by G-7 and United Nations partners – 2017-19
- Nutrition Knowledge, Attitudes and Practices Surveys of Medical Students and Junior Doctors - 2017/18
- Implementation Research to Optimise Management of Specific Food Allergies by Health Professionals without Nutrition Training – 2017/19

**PAST PROJECTS & INITIATIVES**

- Round Table Event for Policy Makers and Practitioners
- NHS nutritional care pathways
- Hospital Malnutrition Review
- Intensive Weight Management Programme (IWMP) audit and publication



**PROGRAMME AREA: NUTRITIONAL EQUITY AND POPULATION HEALTH (NEPH)**

Aim: To lessen the nutrition and health inequalities gap through building transferrable and scalable models of lean innovation and through the empowerment of marginalised populations with a focus on lesser resourced settings.

**OVERVIEW**

**CURRENT PROJECTS & INITIATIVES**

- Nutritional Equity and Population Health (NEPH) seeks to operate in three broadly clustered domains:
- Underprivileged, marginalised and neglected populations by instigating action research to improve nutritional health and overall wellbeing within such groups.
- Members of the public including families with children as well as working professionals by increasing public understanding of nutritional prevention through awareness, education and training around food choices, cooking and diet-lifestyle patterns, including occupational wellbeing programmes aimed at improving workplace productivity through adequate provision of nutrition and hydration.
- Nutrition Researchers, Educators and Changemakers by commissioning small but impactful projects to pilot novel ideas requiring ‘first break’ funding, guidance and support.
- Urban Slum dwellers Teaching Kitchens Project
- RCUK Global Challenges TIGR2ESS Programme in India (Cambridge University)
- RCUK Global Challenges SAFEWATER
- Programme in Latin America (Ulster University) Madegus.

**PAST PROJECTS & INITIATIVES**

**Network in India**

- Teaching Kitchen Project
- Medical Students Project
- NELICO India Project

**Network in Morocco**

SUN Workshop in Morocco





## THE CAMBRIDGE RESEARCH, EDUCATION AND TRAINING ENTERPRISE (CREATE) PLATFORM FOR HEALTH INNOVATION

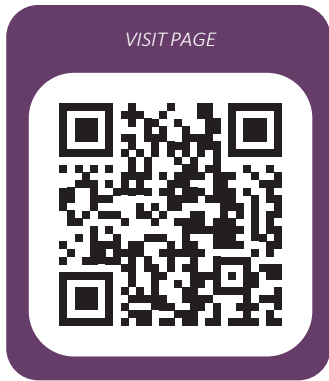
Aim: To harness transferrable/generic skills to impact wider aspects of health and wellbeing ranging from research methods to chronic disease management as well as occupational health and well-being

### OVERVIEW

Cambridge Research, Education and Training Enterprise (CREATE) is distinct from the four main NNEdPro sections, and represents a closely allied platform designed to harness the non-Nutrition or transferrable/generic skills within the NNEdPro group in order to impact wider aspects of health and wellbeing.

### CURRENT PROJECTS & INITIATIVES

- Annual teaching inputs to the 'Research Skills for Clinicians' course run by Cambridge University Health Partners
- Annual teaching inputs on 'Research Methods' to the East of England Core Medical Training Programme
- Consulting on research design, strategy and impact – recent case examples include: the British Dietetic Association and Griffith University Australia – an ongoing case example comprises regular research surgeries for Cambridge Dietitians (N>70) to promote ideas through implementation to impacts
- Oxford Handbook of Clinical and Healthcare Research
- Research Skills for Clinicians' course
- Research Methods' to the East of England Core Medical Training Programme
- Wellbeing Innovation @ Work Initiative (WInWIn)



## ACKNOWLEDGEMENTS TO FUNDERS AND SUPPORTERS

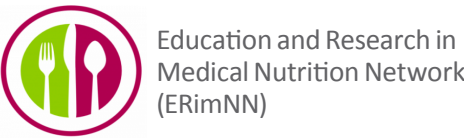
AIM Foundation	Global Challenges Research Fund in partnership with the Biotechnology and Biological Sciences Research Council
Abbott Nutrition	Global Open Data for Agriculture and Nutrition
British Dietetic Association General Educational Trust	Griffith University
British Medical Association Charities	Imperial College London
British Medical Association research Foundation	Medical Nutrition International Industry Award
Josephine Lansdell Award	Medical Research Council
Cambridge Commodities	My food 24
Cambridge India Partnership Fund	National Institute of Health Research
Cambridge University Interdisciplinary Research Centre Incubator Award	National Safety Associates, USA
Cambridge University – Multi-Professional Education and Training / Service Increment for Teaching Grants	NHS Dorset
Cambridge University Hospitals – Clinical Biochemistry Innovation Fund	NHS Norfolk
Chest Heart & Stroke Scotland	NHS Tayside
The Daily 9	Ocean Spray
Danone in partnership with the British Dietetic Association	University of Parma
Department of Health and Public Health England	Reckitt Benckiser
DSM Nutrition	Selwyn College
University of Dundee	Swiss Re Institute
Economic and Social Research Council (including Impact Acceleration Award)	Soremartec Italia
Focus Active	TVN Canada / Canadian Frailty Network in partnership with the Canadian Institutes of Health Research
Food Matters Live	UK Research and Innovation
Genzyme Corporation	Wolfson College Cambridge
GlaxoSmithKline	Yakult





# KEY STRATEGIC PARTNERS

## Specialist Organisations



## Academic Institutions



## Key Organisational Memberships



# VIRTUAL TOUR

LEARN MORE ABOUT NNEDPRO AND OUR WORK BY VISITING  
[WWW.NNEDPRO.ORG.UK](http://WWW.NNEDPRO.ORG.UK)

 Our Story	 Our Members	 Mission, Vision & Aims
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 Our Work	 Support Us	 Blog

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# This Compendium was developed in celebration of NNEdPro's 10 year anniversary

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Global Centre for  
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