

Working with the NNEdPro Global Centre for Nutrition and Health

The <u>NNEdPro Global Centre for Nutrition and Health</u> is an award-winning, interdisciplinary, independent non-profit social enterprise headquartered in Cambridge. Our core mission is centred on nutrition education, research and innovation. Our work involves the development of 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.

To demonstrate our commitment to quality and effectiveness in this field, we have chosen to benchmark our work against the IMPACT principles (Independent, Methodologically Rigorous, Practical, Accessible, Capacity-building, Transparent), employed by the UK Cabinet Office and HM Treasury 'What Works Initiative', which aims to improve outcomes and productivity across the public sector through the better use of evidence.

How does NNEdPro meet the IMPACT principles?

1) INDEPENDENT

NNEdPro has four hubs of academic activity, including Ulster University, University of Parma, Imperial College London and the University of Cambridge, and two formalised academic collaborations with Monash University and the University of Wollongong in Australia (1). Additionally we operate more than ten regional networks across six continents, which supports NNEdPro's mission to produce and provide independent, unbiased, evidence-based and -

informed solutions in nutrition research, education, advocacy and impact (2, Appendix 1). NNEdPro retains editorial control over all of our research and products and although our networks operate internationally, they are centrally governed from within the NNEdPro group, allowing us to maintain independence from any/all of the groups that we choose to collaborate with.



Figure 1: NNEdPro Global Regional Networks (2)

2) METHODOLOGICALLY RIGOROUS

Process for engaging with wider academic and policy community to ensure quality of evidence products; giving primacy to findings from high-quality impact evaluations through a robust system for ranking evidence; Use of clear and consistent process for evidence generation and synthesis;

NNEdPro is well positioned in the global nutrition research community. By fostering strategic collaborations and partnerships with well-known centers of excellence in nutrition, we have taken the first step in ensuring the quality of evidence products we creates. For instance,

NNEdPro primary research and secondary research are conducted across four well-known hubs of academic research in the United Kingdom, Italy and Australia, as well as across our global regional networks. Beyond this, NNEdPro works closely with specialist organisations in nutrition such as the British Dietetic Association (BDA), British Medical Journal (BMJ), Laboratory of the Government Chemist (LGC), Lord Rana Foundation Charitable Trust, Society for Nutrition Education and Behaviour (SNEB) and Swiss Re Institute. Finally, NNEdPro holds organisational memberships with the European Food Information Council (EUFIC), Cambridge University Health Partners, Global Data for Agriculture and Nutrition (GODAN), One Nucleus, Royal Society of Biology and St John's Innovation Centre (3).

In addition, NNEdPro ensures the quality of evidence products in nutrition it creates by publishing findings from high-quality research, through our co-owned open-access journal BMJ Nutrition, Prevention and Health (4). As part of the BMJ family, the journal is aligned with a champion recognised among the research community for its high impact research in clinical practice & healthcare policy since 1840. BMJ Nutrition, Prevention & Health aims to curate and present the best available evidence of the specific impact of nutrition and lifestyle factors on the health of individuals and populations.

NNEdPro also has a track-record of publications in other high impact journals, such as the Lancet Diabetes Endocrinology, European Journal of Public Health, BMC Health Services Research, International Journal of Food Sciences and Nutrition, Journal of Nutrition Education and Behaviour and others. Among published papers, there are primary and secondary studies linking diet to important health outcomes, which illustrate NNEdPro's expertise in consistently generating and synthesising evidence (5).

With the emergence of the COVID-19 pandemic, NNEdPro has created a Nutrition & COVID-19 Taskforce with the aim to influence actions in the nutrition domain to mitigate the impact of COVID-19 on food and healthcare systems as well nutrition and health outcomes. The taskforce continues to maintain a dedicated microsite, which provides specific COVID resources and

guidance on nutrition and public health from international bodies such as the World Health Organisation and the United Nations, as well as specific national guidance for our regional networks (6). The site provides COVID-19 specific nutrition guidance from a host of international nutrition bodies, examples include the American Society for Parenteral and Enteral Nutrition (ASPEN) and European Society for Clinical Nutrition and Metabolism (ESPEN), British Dietetic Association (BDA), which are also centrally sign-posted. Additional resources included emerging research, educational courses, articles, and support services. Alongside citing the important resources of others, we have also contributed to the evidence base significantly through our own work and collaborations.

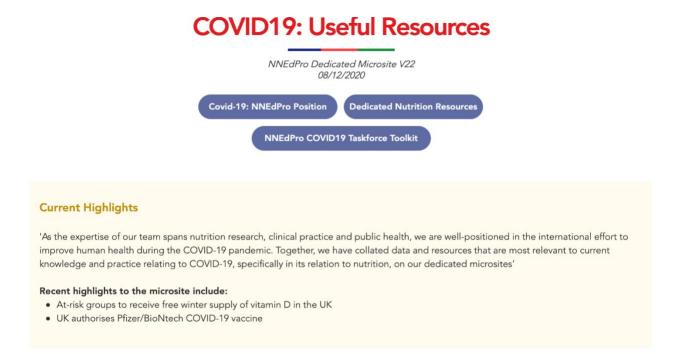


Figure 2: NNEdPro Nutrition & COVID-19 Microsite (6)

Building upon the success of the microsite, NNEdPro is currently expanding this content to be the first focussed collection the of 'IKANN' or 'International Knowledge Application Network in Nutrition.' This is an open access online portal that will strive to set the standard for compiling nutrition resources across a number of focus areas (Appendix 2). The hub comprises a nutrition research registry, a sandbox for sharing and analysing nutrition data, curated collections of published literature, along with bespoke learning opportunities and information on relevant

nutrition events worldwide. The I-KANN aims are aligned with the UN Decade of Action on Nutrition 2016-2025 to improve capacity for nutrition knowledge use. The I-KANN initiative is led by the NNEdPro Global Centre for Nutrition and Health and has received extensive support from the Swiss Re Institute.

3) PRACTICAL

Driving the use and generation of evidence in a specific, predefined policy area across the United Kingdom

NNEdPro has four well predefined areas for advocacy and impact in the United Kingdom, including: i) Nutrition training and education ii) Nutrition research iii) Nutrition implementation and iv) Nutrition and equity (1). In terms of nutrition education, NNEdPro aims to influence the harmonisation of standards in nutrition training and education so that it promotes an understanding of food systems, the effect of nutrients on health and the social factors which influence nutrition. NNEdPro also aims to inform and support education institutions, government, professional regulatory and other public bodies to provide evidence-based and informed nutrition education for all. This includes health & social care, public health and education professionals/workers, as well as to food producers and those in compulsory education. In terms of nutrition research, NNEdPro encourages well designed, ethical research focused on public/patient benefit. In the nutrition and implementation domain, NNEdPro supports evidence-based or -informed food and nutrition policy. Our practice spans primary, secondary and tertiary sector health and social care and adds value through recognising successes and challenges experienced across all areas. Additionally, we support the development and evaluation of tools and monitoring systems to assess the impact of nutrition policies and practices. Last but not least, NNEdPro aims to promote equity by encouraging the use of lived experience, fostering collaborations with end-users, and empowering communities to innovate in addressing issues related to food accessibility and affordability (7).

The NNEdPro Nutrition & COVID-19 Taskforce provides an example of this action within a representative subgroup of the organisation. Our aim has been to educate and influence on action in the nutrition domain, in order to mitigate the impact of COVID-19 on food and healthcare systems, as well as population nutrition and health outcomes. The taskforce has achieved this through our projects and collaborations, contributing significantly to the scientific landscape and understanding of the relationship between nutrition interactions with the virus. This has been in the form of a number of peer-reviewed publications, presentations, as well as contributions to evidence reviews that have already played a part in informing government agencies (Appendix 4).

Making practical steps towards evaluating and improving the Centre's own impact

NNEdPro has two main projects under the Nutrition education and Nutrition equity domains, The Nutrition Education Policy for Healthcare Practice (NEPHELP) and the Mobile Teaching Kitchen (MTK) (7,8).

The NEPHELP initiative aims to improve nutrition education to help healthcare professionals recognise and treat nutrition related problems. A nutrition teaching package has been developed using a knowledge to action methodology.

The NEPHELP project has aimed not only to educate, but also to identify research gaps in skills and trainings of students and professionals. Comparative analysis of our findings has been undertaken to idenfify the perceived importance of nutrition in medical education and practice, adequacy of nutrition training, and confidence in current nutrition knowledge and skills (9, Appendix 3).

The second project, the MTK, is an award-winning, scalable micro-model that was developed following the World Congress of Public Health 2015 in Kolkata. This was then launched in two slums (Chetla and RG Kar Canal) in Kolkata, India in October 2017. The MTK aims to transform mothers from vulnerable communities into MTK champions, capable of delivering nutrition education to others and generating income for their families. The impact of the MTK has been

evaluated through questionnaires, focus groups and clinical measures of participants, as well as questionnaires with costumers from the MTK unit (7).

More emerging developments in this area include the evaluation of the value, engagement, and sustainability of the regional networks along with the development of metrics to evaluate NNEdPro's impact on nutrition policy. As part of these developments, NNEdPro recently launched our advocacy and impact strategy, shared with members during our annual Global Strategy Day (Appendix 1).

4) ACCESSIBLE

Sharing evidence with users at no cost in formats that are easy to understand and that enable them to make practical decisions on the basis of "what works"

Almost all resources created by NNEdPro are provided at no cost, including all papers published by BMJ Nutrition, Prevention and Health, resources collated by the Nutrition and COVID-19 taskforce, and the resources posted in the I-KANN-25 platform. Informed by current needs in facilitating the translation of evidence to decision-makers and end-users, NNEdPro has recently engaged in efforts to create infographics, podcasts, videos and in the near future, policy briefs. We have engaged researchers with experience in dissemination and implementation science to drive the required changes.

For instance, we recently developed a response to the UK Government Obesity Strategy (10, Appendix 5). As a group of nutrition researchers, educators and clinicians, we recognise the complexity which spans diet, nutrition and health interfacing with diverse domains such as the social sciences, economics and politics on one hand as well as genetics and biomedical sciences on the other. We also recognise the complexities associated with obesity and weight loss. Therefore, we have advocated for the appreciation and adoption of a wider, more complete understanding of the science behind obesity and the strategies which are needed to address it.

The International Knowledge Application Network Hub in Nutrition (I-KANN) is 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 (11). The initiative seeks to provide open access to translatable information and training at a global level, drive the implementation of knowledge into policy and practice and bridge the gap between the agricultural and human nutrition communities to foster collaborative change. We anticipate that as a multi-stakeholder platform, the I-KANN will enhance collaborative efforts, support the monitoring of progress and drive stronger governance and co-ordination of efforts.

5) CAPACITY BUILDING

Mobilising evidence and working to ensure that it is put into practice by decisionmakers; Building user groups' understanding of how and when to use and generate evidence.

Since 2016, NNEdPro has run a Summer School in Applied Human Nutrition (12). This course provides successful participants with a foundation certificate in human nutrition and covers basic concepts like introductions to macronutrients, macronutrients and study design before discussing some of the most cutting-edge areas of nutrition research and practice. The course is taught by members of NNEdPro who gather in Cambridge to lecture in their area of expertise to a multi-disciplinary audience of doctors, food and nutrition researchers as well as well as students. Each Summer School has been accredited for continuing professional development points from both the Royal College of Physicians (RCP) and the Royal Society for Biology (RSB).

As with many similar courses, the NNEdPro Summer School was compelled to radically adapt in 2020 to move fully online in the wake of the coronavirus pandemic. This was done using a mixture of live and pre-recorded lectures that students could access in their own time. It also included live mentoring sessions, a critical appraisal workshop and full assessment. Moving forward, the opportunity to increase and expand our online learning offerings appears to be growing steadily.

6) TRANSPARENT

Publishing both the research generated and the evidence around the impact of the Centre's work.

Providing comprehensive, easy-to-understand information about the methods and limitations behind the Centre's output;

NNEdPro main initiatives, such as the NEPHELP, MTK and I-KANN have been and will be published in the format of blogs and scientific papers which are open to scrutiny by public and academic experts. The basis for and findings of these projects have always been presented through a number of means, be that written, visual and more recently audio in the form of our podcast. All public methods we use to disseminate our results invite peer feedback and provide opportunities for reflection, ultimately helping us to continuously improve the work that we do. Beyond this, the publication of our efforts in scientific journals allows us to provide details on methods and evaluations, while also addressing potential limitations and direction for future research focus.

References:

- 1. NNEdPro research activity and academic institutions: https://www.nnedpro.org.uk/nric
- 2. NNEdPro regional networks: https://www.nnedpro.org.uk/regional-networks
- 3. NNEdPro organisational links: https://www.nnedpro.org.uk/about-us
- 4. NNEdPro flagship journal BMJ Nutrition, Prevention and Health: https://nutrition.bmj.com/
- 5. NNEdPro publications: https://www.nnedpro.org.uk/journal-papers
- 6. NNEdPro COVID-19 microsite: https://www.nnedpro.org.uk/coronavirus
- 7. NNEdPro Mobile Teaching Kitchen initiative: https://www.nnedpro.org.uk/mtk
- 8. NNEdPro NEPHELP initiative: https://www.nnedpro.org.uk/nephelp
- 9. Macaninch E, et al. bmjnph 2020;0:1–9. doi:10.1136/bmjnph-2019-000049
- 10. NNEdPro response to the UK Government Obesity Strategy:

 https://www.nnedpro.org.uk/post/nnedpro-global-centre-response-to-the-uk-government-obesity-strategy
- 11. IKANN Website: https://www.ikann.global/
- 12. NNEdPro Summer School: https://www.nnedpro.org.uk/summer-school

Appendices:

- 1. Strategic Plan: The NNEdPro Nine
- 2. IKANN Evidence Algorithm
- 3. Time for Nutrition in Medical Education Infographic
- 4. NNEdPro Nutrition and COVID-19 Taskforce Infographic
- 5. NNEdPro Response to the Government Obesity Response Infographic

Appendix 1: The NNEdPro Nine

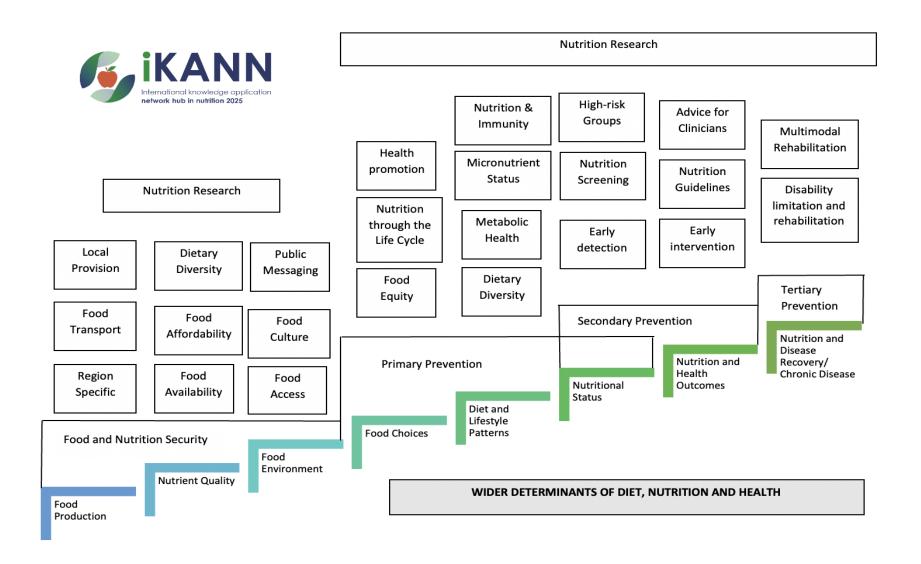
THE NNEDPRO NINE



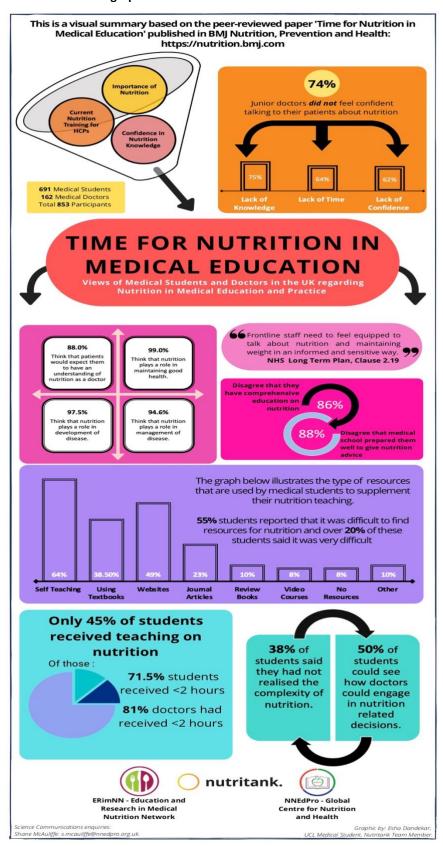
During Global Strategy Day 2020, members of the NNEdPro Global Center for Nutrition and Health assembled virtually to discuss our vision and key strategic priorities for 2021-2025.

- To become a globally recognised apex body for interdisciplinary knowledge exchange in nutrition, health, and closely related domains.
- 2. To continue to lead sustainable voluntary regional networks for nutrition knowledge exchange and advocacy across the globe, aligning to relevant national and international organisations.
- To continue to deliver a range of 'gold-standard' nutrition education programmes that encourage capacity building across international networks, driving the inclusion of nutrition in clinical education and practice.
- 4. To advance priority nutrition research through basic science, human interventions, population studies, evidence syntheses and an associated publication platform.
- 5. To work towards minimising nutrition and health inequities by empowering individuals and driving systemic change for underserved populations.
- 6. To drive the implementation of nutrition knowledge into policy, practice, and wider food and health systems, by providing leadership, advocacy, as well as encouraging collaboration with like-minded individuals and organisations.
- 7. To function as an agile nutrition think-tank with high quality infrastructure for provision of consultancy services.
- 8. To facilitate the funding and commissioning of nutrition related projects in priority areas.
- 9. To increase focus on sustainability and climate change within food and nutrition related research and practice.

Appendix 2: IKANN Evidence Algorithm - Nutrition & COVID-19

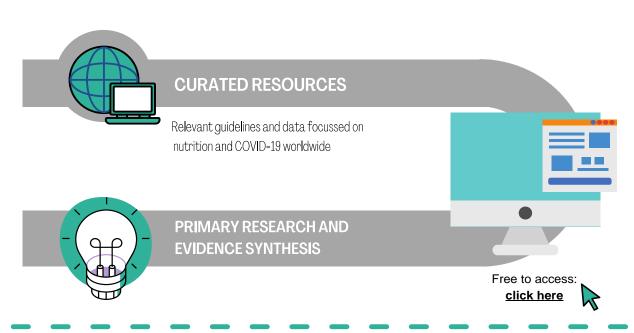


Appendix 3: Time for Nutrition Inforgraphic



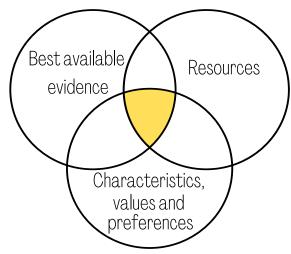
Appendix 4: NNEdPro Nutrition and Covid-19 Taskforce Infographic





OUR APPROACH

to decision-making:



OUR EFFORTS are focussed on:

Nutrition & Immunity <u>1, 2, 3, 4, 5</u>

Vitamin-D $\underline{1}, \underline{2}, \underline{3}, \underline{4}$

Food and Nutrition Security 1,2,3

Government responses $\underline{1}$

& COVID-19

Appendix 5: NNEdPro Response to the Government Obesity Strategy Infographic

