Abstract 18 Table 1 Proposed data framework in relation to health, food, nutrition, and the COVID-19 pandemic

	Food Production & Supply	Food Access	Food Choices & Dietary patterns	Nutritional status & comorbidities	Health/disease outcomes	Health & Nutrition Services
Individual/ Household	Allotment use/gardening metrics; Policies and incentives	Proportion of expenditure on food; Food bank use; Food insecurity; Coping strategy index; Social mobility (across generations and in the shorter term); Numbers moving into (and out of) poverty	Food preferences; Food purchasing; Food preparation; Food consumption; Food waste; Breastfeeding	Primary/ secondary health care records	Physical activity; Mental health; Wearable device data; Chronic disease management; Health insurance data	Access to sanitation & potable water; Use of universal healthcare services; Use of nutrition/dietitian services; Use of mental health services
Regional/ National	Production indices of specific food groups; Production values; Export/ import quantities & values; Dietary energy supply adequacy; Share of dietary energy supply derived from cereals, roots and tubers; Protein supply; Protein supply of animal origin; Local food production; Organic agriculture; Policies and incentives for farmers; Local or Community initiatives	Cereal import dependency; Population living in poverty; Un/ Employment rates; Proportion of expenditure on food; Food prices (food basket & food groups); Food bank use; Financial aid for families; Food emergency services; Disruption food provision services (schools, community kitchens, etc.); Food delivery services	Purchasing patterns (supermarkets, grocery stores, take away, restaurants); Food waste; Food advertisement; Supplement sales; Policies & incentives promoting specific foods	Low birthweight; Stunting/ wasting; Overweight & obesity; Micronutrient deficiencies	Hospital admissions; Prescribed/OTC drugs purchasing; Mortality rates (disease-specific & all cause)	Provision of sanitation services & potable water; Universal healthcare services; Nutrition/dietitian part of universal healthcare; Mental health part of universal healthcare; Healthcare services disruption; Hospital admission patterns
Global	UN Food and Agriculture Organisation (FAO) surveillance data	Global Hunger Index; Global Food Security Index	Global Dietary Database	WHO, UNICEF and Global Nutrition Report surveillance data	WHO and Global Burden of Disease and CDC (with regional equivalents) surveillance data	Commonwealth Association of Dietitians and Nutritionists, European Federation of Associations of Dietitians (with regional equivalents)

of food, nutrition and health are identified under each category.

Discussion/Conclusion This collaborative framework is the first step towards the development of a better understanding of the impact of COVID-19 on food, nutrition, and health systems. Limited data availability and disruption in routine data collection as well as other nutrition assessments during the pandemic are challenges that might limit the potential of the proposed framework. Next steps will include formal research and data gap analysis and the identification, as well as utilisation, of other indicators that could be used as proxies of the variables identified.

20 LESSONS LEARNED FROM THE NNEDPRO NUTRITION AND COVID-19 TASKFORCE

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Background Nutritional issues relating to the COVID-19 pandemic span clinical nutrition in acute patients to impacts on global dietary patterns and food security. In March 2020, the NNEdPro Global Centre for Nutrition and Health established a rapid-response Nutrition and COVID-19 Taskforce to help the organisation navigate the initial phases of the pandemic and make a constructive contribution to the scientific landscape.[1–3]

Objectives To highlight lessons learned over 6 months (March-September 2020) of the COVID-19 pandemic in understanding the role(s) of nutrition.

Methods Critical and constructive reflections from Taskforce co-chairs and lead scientific members based on a 6-month summative webinar and journal club examining the strength of evidence and key gaps.

Results Successes in Taskforce operations include pooling a broad range of expertise including clinical medicine, nutrition and dietetics, research, public health, and communications. Pre-existing NNEdPro operations were predominantly online and dedicated virtual meetings supported the proactive collation of key resources relating to nutrition and COVID-19 with production of public-facing information summaries. Academic collaboration with partner organisations, including BMJ Nutrition, Prevention & Health, has focused research priorities and produced contributions to the scientific landscape.[4]

Challenges included managing the sense of urgency, particularly earlier in the pandemic and driven by an unease of the unknown, both at organisational level and in the need to

translate nutrition knowledge to COVID-19 sensitive practice. A collaborative, scientific and politically neutral approach was intended to ensure the quality of outputs and the avoidance of hasty conclusions. Other challenges have been maintaining relevance to all geographic regions given the global variation of COVID-19 and maximising the reach of outputs to stakeholders who would benefit most from them. More recently the Taskforce has provided key inputs to consensus in a national guideline agency and global advisory bodies. Further progress will require involvement of researchers and innovators, policymakers, practitioners, patients and the public.

Discussion/Conclusion This Taskforce has already made a significant contribution to the scientific conversation about food and nutrition in the prevention and management of COVID-19. Future work should focus on multiple-stakeholder collaboration to transform research into positive action at all levels (from patient to policy) for the benefit of public health.

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22 THE INFLUENCE OF BODY MASS INDEX, GLYCEMIC CONTROL AND VITAMIN D STATUS ON OUTCOMES IN PATIENTS ADMITTED TO INTENSIVE CARE WITH COVID-19: A SINGLE CENTRE RETROSPECTIVE STUDY

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Background Coronavirus disease 2019 (COVID-19) is an inflammatory syndrome caused by a novel coronavirus (SARS-CoV-2). Symptoms range from mild infection to severe acute respiratory distress syndrome (ARDS) requiring ventilation and intensive care (ICU).[1] UK cases have exceeded 300,000 with a fatality rate of 13% necessitating >10,000 critical care admissions.[2] Nutrition is important to immune function and influences metabolic risk factors such as obesity and glycaemic control. Poor nutritional status is associated with worse outcomes in ARDS and viral infections yet limited research has assessed pre-morbid nutritional status and outcomes in patients critically unwell with COVID-19.[3]

Objectives Investigate the effect of body mass index, glycemic control and vitamin D status on outcomes in adult patients admitted to a ICU with COVID-19.

Methods Retrospective review of all patients admitted to a central London ICU between March-May 2020 with confirmed COVID-19. Electronic patient records data was analysed for patient demographics; co-morbidities; admission BMI; serum vitamin D concentration and plasma HbA1c. Serum vitamin D and HbA1c were measured on admission, or within one month of admission to ICU. Primary outcome was mortality. Secondary outcomes included time intubated, ICU stay duration, and ICU-related morbidity.

Results N = 72 patients; 54 (75%) male, mean age 57.1 (± 9.8) years. Overall mortality was 24 (33%). The highest rate was observed in the overweight BMI range (25-29.9kg/m2) p-value <0.001. In the survival arm admission HbA1c (mmol/mol) was lower 50.2 vs 60.8 but was not statistically significant. Vitamin D measures (n=51) correlated significantly higher mortality for individuals with vitamin D deficiency (<25 IU/L) 16%, p-value 0.013, versus no deaths in those with levels >50 IU/L (n=8).

Discussion/Conclusion There was a correlation between overweight and mortality, and possible (nonsignificant) association between glycaemic control and poor prognosis, as seen in larger observational studies.[4] [5] Increased adiposity and deranged glucose homeostasis may potentially increase risk of COVID-19 infection and severity, possibly relating to impaired lung and metabolic function, increased proinflammatory and thrombotic mechanisms. Vitamin D deficiency associated with poorer outcomes and mortality, supporting a possible role of vitamin D in immune function specific to pulmonary inflammation and COVID-19 pathophysiology.[6] Further research is needed into specific nutritional markers influencing critical care admissions with COVD-19.

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23 A QUALITATIVE STUDY OF THE PERCEPTIONS OF LOW CARBOHYDRATE DIETS AND THEIR DISCUSSION ON SOCIAL MEDIA AMONG DIETITIANS IN ENGLAND

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Background Low carbohydrate diets (LCDs) have gained popularity among those seeking to lose weight and improve glycaemic control. They feature heavily in online discussions such as on social media. Evidence exists to support their use,[1] but at present no universal definition of 'low carbohydrate' exists. Though the practices of dietitians around LCDs have been examined,[2] [3] none have assessed this in relation to use of social media.