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
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, glycaemic control and vitamin D status on outcomes in adult patients admitted to an 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 COVID-19.

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