

### Impact of COVID-19 on Nutrition, Food Security and Dietary Diversity and Quality in Burkina Faso, Ethiopia and Nigeria

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**Objectives:** COVID-19 has far-reaching consequences for developing countries through the combined effects of infection and mortality and unintended consequences from mitigation measures. COVID-19 can adversely impact food systems and dietary diversity for populations. This cross-sectional study evaluated, using a mobile platform, the effect of COVID-19 on food prices and dietary diversity and quality, among 1797 households in Nouna and Ouagadougou (Burkina Faso), Addis Ababa and Kersa (Ethiopia), and Lagos and Ibadan (Nigeria).

**Methods:** Dietary intake was assessed as the frequency of consumption of 20 food groups over the previous 7 days. Dietary diversity scores (DDS; range: 0–10) and Prime Diet Quality Score (PDQS; range: 0–40) assessed dietary diversity and quality. Linear regression models were used to evaluate associations between changes in the prices of staples, pulses, vegetables, fruits, and animal source foods (ASF) with DDS and PDQS during COVID-19.

**Results:** Most households reported increases in prices of staples, pulses, fruits, vegetables and ASF, and  $\geq 40\%$  reported decreased consumption of staples, legumes, ASF, other vitamin A rich vegetables, other vegetables and other fruits, and lower DDS and PDQS compared to the period before the COVID-19 emergency. Increases in pulse prices were associated with lower DDS (estimate  $-0.35$ , 95% CI:  $-0.61, -0.09$ ). Lower crop production (estimate  $-0.70$ , 95% CI:  $-1.02, -0.37$ ), and skipping meals (estimate  $-0.39$ , 95% CI:  $-0.56, -0.21$ ) or not eating for a whole day (estimate  $-0.23$ , 95% CI:  $-0.43, -0.03$ ) were also associated with lower DDS.

**Conclusions:** The price increases and worsening dietary diversity and quality call for social protection and other strategies to increase the availability and affordability of nutrient-rich foods during the COVID-19 pandemic and other public health emergencies.

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