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Covid-19 & Children

# COVID-19: Missing More Than a Classroom

## The impact of school closures on children's nutrition

Artur Borkowski, Javier Santiago Ortiz Correa, Donald A. P. Bundy, Carmen Burbano, Chika Hayashi, Edward Lloyd-Evans, Jutta Neitzel and Nicolas Reuge

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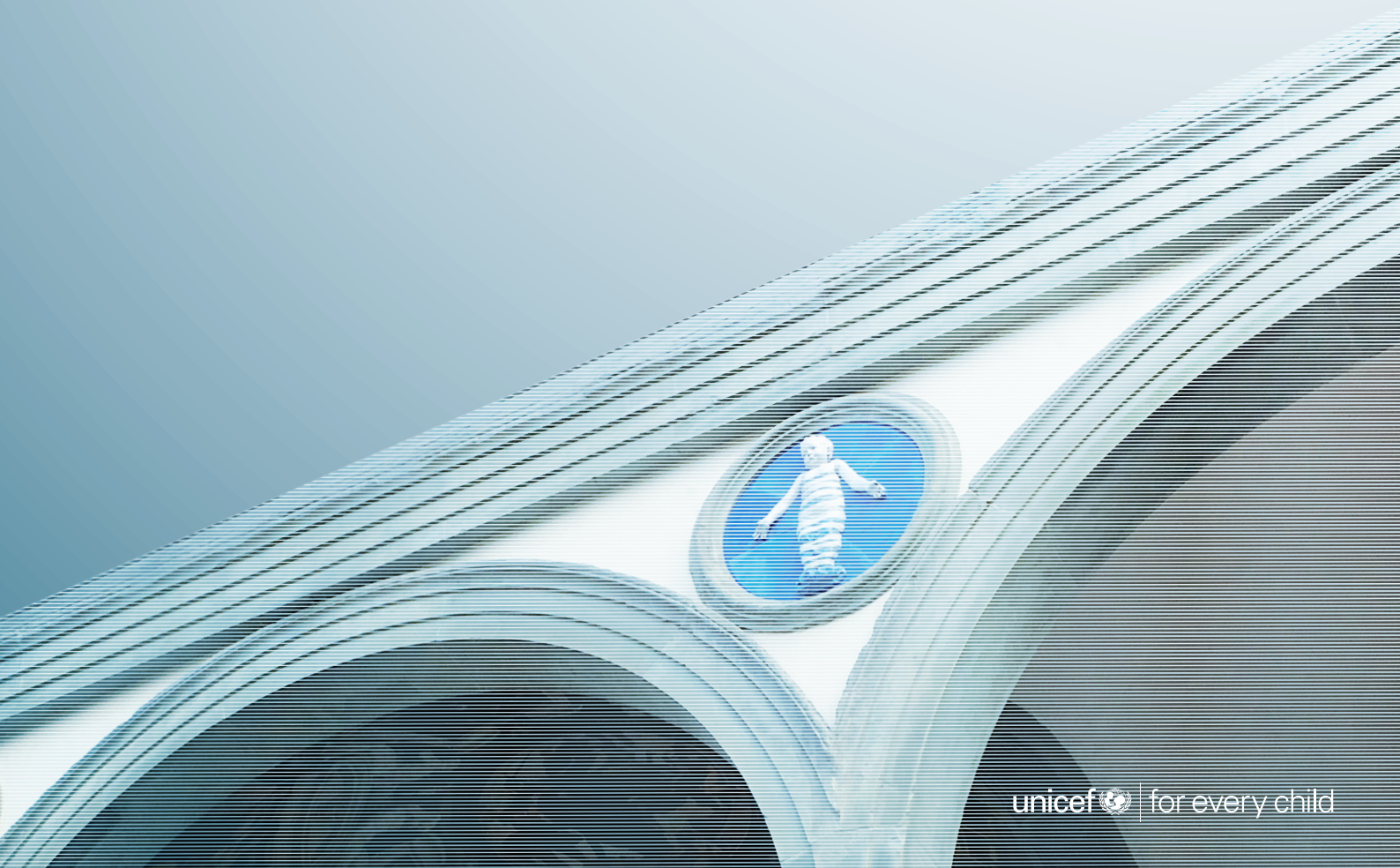

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# COVID-19: MISSING MORE THAN A CLASSROOM. THE IMPACT OF SCHOOL CLOSURES ON CHILDREN'S NUTRITION

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## KEY FINDINGS AND RELATED RECOMMENDATIONS

1. **Identify and reach out to vulnerable children in the first 8,000 days who are at greatest risk of deteriorating nutrition outcomes due to suspension of school feeding programmes.** In 2019, there were 144 million stunted children under 5 globally, with the COVID-19 pandemic projected to add another 3.4 million children under 5. While similar trends may exist for older children, the paucity of data on nutrition in children over 5 means that few estimates exist, (e.g., 74 million girls and 117 million boys aged 5–19 suffering from thinness). As a result of this data scarcity, identifying those who are vulnerable to nutrition shocks and to school dropout through ongoing household assessment and data collection (e.g., VAM,[1] DHS[2]) at the household level is a necessary first step to minimizing these effects through interventions with school-aged children.

2. **Prioritize reopening schools and take all possible measures to reopen safely. When schools are closed, adapt traditional school feeding programmes as take-home rations or cash transfers, so that the children who need it most continue to receive this vital source of support and food.** Globally, in 2020, an estimated 39 billion in-school meals have been missed during school closures by the 370 million children who were benefiting from school feeding programmes pre-crisis. Adapting existing programmes to use take-home rations, top-up cash transfers or food vouchers creates an important safety net. However, these are not long-term solutions. Priority should be given to reopening schools safely as school-based targeting and delivery of nutrition are more cost effective and have been shown to yield substantial benefits in education and health outcomes.

3. **Leverage the power of school feeding programmes to encourage children, especially girls and the vulnerable, to return to school post-crisis.** Without increased efforts to bring children to school, the pre-crisis level of out-of-school children is likely to worsen as a result of the current COVID-19 crisis. Evidence shows that school feeding programmes can increase enrolment and attendance, especially for girls and disadvantaged children, and they can play a key role in getting children back to school and keeping them enrolled post-crisis, if implemented safely. Countries can also take the opportunity to improve existing provision, post crisis, by paying attention to programme design and formerly neglected issues, such as the quality of diets and food-fortification options.

1 Vulnerability analysis and mapping surveys

2 Demographic health survey

# 1. CONTEXT

In 2019, 690 million people, equivalent to 8.9 per cent of the global population, were already undernourished, 135 million in 55 countries were in food crises[3] or worse, and 2 billion people did not have regular access to safe, nutritious and sufficient food (FAO, IFAD, *et al.*, 2020b, 2020a). The COVID-19 crisis exacerbates these hardships and may result in an additional 121 million people facing acute food insecurity by the end of 2020 (WFP, 2020d). There is a clear need to support vulnerable households during the COVID-19 crisis, where incomes and levels of food security are falling even further (Hebbar and Phelps, 2020; Sumner, Ortiz-Juarez and Hoy, 2020; Wieser *et al.*, 2020).

Schools play an important role in the direct provision of health and nutrition services in the first 8,000 days of a child's life that are critical for their development (Mason-Jones *et al.*, 2012; Skar, Kirstein and Kapur, 2015; Xu *et al.*, 2020). Since the beginning of the pandemic, UNESCO estimated that 1.6 billion learners in 199 countries worldwide were affected by school closures[4], with nearly 370 million children not receiving a school meal in 150 countries (UNESCO, 2020a; WFP, 2020b). In 2020, globally, an estimated 39 billion in-school meals have been missed during school closures. Children globally are estimated to have missed an average of 4 out of 10 in-school meals they would have regularly received, with children in some countries missing 9 out of 10 in-school meals.

While, there is an emerging body of work on the impact of the crisis on education outcomes (See Azevedo *et al.*, 2020; Brossard *et al.*, 2020; Dreesen *et al.*, 2020) there has been less focus on nutrition outcomes. Children that relied on nutrition services provided by schools may suffer from worsening health and nutritional status in the short and medium term. Nutrition shocks, especially for the youngest children, in the first 1,000 days, have strong long-term impacts on test scores, educational attainment, income, absenteeism and health (Almond and Currie, 2011; Sudfeld *et al.*, 2015; Andrabi, Daniels and Das, 2020). Furthermore, lost schooling and learning in the next 7,000 days – particularly for girls, who are already at higher risk of not being in school or of being taken out of school early – may also lead to poor nutrition and health for themselves and their children in the long term (World Bank, 2007, 2016; Sperandio and Priore, 2015). However, well-designed school feeding programmes have been shown to enable catch-up from early growth failure, making school-based nutrition programmes important coping and mitigation solutions to the nutritional loss children may face during the crisis (Bundy *et al.*, 2018).

3 Refers to IPC/CH Phase 3 or above, defined as households that have either: "food consumption gaps that are reflected by high or above-usual acute malnutrition; or are marginally able to meet minimum food needs but only by depleting essential livelihood assets or through crisis-coping strategies" (FAO, IFAD, *et al.*, 2020b, p. 14).

4 See Annex 1 for the methodology on this estimate.

## 2. FOOD INSECURITY AND CRISES

Nutrition deficits and all forms of malnutrition are tragically common in children under 5, with 144 million stunted,[5] 47 million wasted,[6] 38 million overweight,[7] and 340 million suffering from micronutrient deficiencies in 2019 (FAO, IFAD, *et al.*, 2020b, 2020a; United Nations, 2020). Less is known on children in the 5–19 years age group due to the paucity of data (Galloway, 2018). However, there is evidence suggesting various forms of malnutrition in children aged 5–19 (Best *et al.*, 2010; Akseer *et al.*, 2017). This evidence suggests that many countries having a triple burden of malnutrition with high levels of undernutrition, hidden hunger (e.g., micronutrient deficiencies), and obesity (Delisle, 2008; Gulland, 2016; UNICEF, 2019; Huizar, Arena and Laddu, 2020). In this triple burden, stunting highlights past deprivation and predicts future poverty, hidden hunger (such as iron deficiency) reduces children's ability to learn, and overweight children experience reduced learning and suffer from type 2 diabetes, stigmatization and adult obesity (UNICEF, 2019).

In 2016, there were 74 million girls (4 per cent) and 117 million boys (12.3 per cent) aged 5–19 years suffering from thinness, while 124 million children were struggling with obesity (Abarca-Gómez *et al.*, 2017). In low-income settings, monotonous plant-based diets comprised of cereals, roots, and tubers with limited animal-source foods remain common, especially in rural areas. This places children and adolescents at risk of poor growth and micronutrient deficiencies (Ochola and Masibo, 2014). At the same time, moves to energy-dense but nutrient-poor diets (e.g., highly processed foods, edible oils, sugar sweetened beverages) and decreased physical activity, especially in upper-middle-income countries, have led to sharp increases in the number of children in this age group overweight, obese or suffering from diet-related, non-communicable diseases (Popkin, Adair and Ng, 2012; Abarca-Gómez *et al.*, 2017; Cediel *et al.*, 2018; Marrón-Ponce *et al.*, 2018).

However, there are large variations between (and within) countries and regions. For example, household survey data from 17 countries shows that the prevalence of underweight adolescents aged 15–19 varies from 0.3 per cent to 66 per cent depending on country and gender (Galloway, 2018) and estimates of anaemia in girls aged 15–19 ranged between 16 per cent in Middle East and North Africa and 54 per cent in South Asia (Benedict, Schmale and Namaste, 2018). Data from the Global School Based Student Health Survey (GSHS) in 68 countries were analysed and showed that, before the crisis, 50 per cent (ranging from 23 per cent in Uruguay to 84 per cent in the Solomon Islands) of 13–17-year-old children had felt hungry in the previous 30 days. Of those who said they had felt hungry, 7 per cent (up to 29 per cent in Samoa) did so most of the time and 5 per cent (up to 18 per cent in Benin) felt this way "always"[8] (US Centers for Disease Control and Prevention, 2020a) (*see Figure 1*).

Food insecurity rises dramatically in crises when poor households, who already spend as much as 78 per cent of their expenditure on food (Banerjee and Duflo, 2006) are faced with falling incomes, increasing prices and decreasing stability of food supply (FAO, IFAD, *et al.*, 2020a; United Nations, 2020). The impact of crises on food insecurity may take multiple pathways. For instance, the Boko

5 Stunting is defined as: "height/length (cm) for age (months) < -2 Standard Deviation of the WHO Child Growth Standards median." (FAO, IFAD, *et al.*, 2020a, p. 196)

6 Wasting is defined as: "weight (kg) for height/length (cm) < -2 Standard Deviation of the WHO Child Growth Standards median. Low weight-for-height is an indicator of acute weight loss or a failure to gain weight and can be a consequence of insufficient food intake and/or an incidence of infectious diseases, especially diarrhoea." (FAO, IFAD, *et al.*, 2020a, p. 196)

7 Overweight is defined as:" weight (kg) for height/length (cm) > +2 Standard Deviation of the WHO Child Growth Standards median." (FAO, IFAD, *et al.*, 2020a, p. 196)

8 Average gender differences are small, with 52 per cent of boys and 48 per cent of girls going hungry. The percentage of girls experiencing hunger was higher in only 25 of 68 countries (US Centers for Disease Control and Prevention, 2020a).

**Figure 1: Percentage of children feeling hungry by frequency**