Impact of the COVID-19 pandemic on diets, nutrition practices and nutrition services in Uganda

September 2022
Acknowledgements

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Key findings

Results of a remote survey in 2021 revealed that the COVID-19 pandemic led to changes in the diets of infants, children, adolescents, and pregnant and lactating women in Uganda.

20% of caregivers reported that their infant under two years was breastfed less frequently due to the COVID-19 pandemic.

73% of caregivers reported that their child consumed less variety of foods due to the COVID-19 pandemic.

Reduced consumption of animal source foods and other nutrient dense foods due to the COVID-19 pandemic was frequently reported in all age groups.

Some positive changes in diets were reported due to the COVID-19 pandemic, including reduced consumption of unhealthy foods and drinks and increased consumption of vegetables.

A very high level of moderate or severe food insecurity was reported in this sample during the COVID-19 pandemic according to the Food Insecurity Experience Scale (77% of caregivers of children < 2 years, 73% of caregivers of children aged 2-18 years, and 77% of PLW).

Many respondents reported that dietary changes were the result of reduced purchasing power with 82% of pregnant and lactating women (PLW) reporting reduced household income during the COVID-19 pandemic.

Many health workers reported the disruption of nutrition services due to COVID-19. Results suggest that fear of COVID-19 and lockdown measures reduced some health seeking behaviours.
**Background**

The first case of COVID-19 was detected in Uganda on 22nd March 2020, after which it spread to all regions of the country. By July 2022, 3,627 confirmed COVID-19 deaths had been reported.\(^1\) According to the COVID-19 INFORM risk scale, Uganda is classified as a high COVID-19 risk country (score 6.1\(^2\)). While there are no known direct impacts of COVID-19 on child nutrition status globally, secondary impacts of the virus have led to reduced household incomes, disruption to food systems and reduced uptake of nutrition and health services, leading to greater risk of child undernutrition.

Uganda was one of six countries included in research undertaken by UNICEF’s Eastern and Southern Africa Regional Office (ESARO) in 2021 to understand the impacts of the COVID-19 pandemic on diets, nutrition practices and nutrition services in the region. The research was undertaken in two parts: the first phase involved a desk review of all available literature across the ESAR, with a detailed report produced. The second phase involved primary data collection in six countries in the region using remote methods including telephone and internet-based surveys, the overall objective of which was to identify changes since the COVID-19 pandemic began in child, adolescent and women’s nutrition practices, food security and nutrition services. Results of the second phase for the Uganda sample are presented here.

**Methodology**

Primary data were collected in Uganda between September and October 2021. Target groups included caregivers of children aged 0-23 months and 2 to 18 years; adolescents aged 10 to 18 years; pregnant and lactating women (PLW) and women who recently gave birth\(^3\); and health workers. Surveys were designed and administered using Computer Assisted Telephone Interviewing (CATI) and U-Report (using the RapidPro platform). Surveys and polls were tailored to each respondent group, with standardized indicator modules integrated where possible. Respondents were reached through UNICEF and Ministry of Health contacts and databases.

**Findings**

**Sample characteristics**

Sample characteristics from the CATI surveys and U-Report are described in Table 1. The largest respondent group for the CATI surveys in Uganda were caregivers of children aged 0-2 years (50%). Analysis of the characteristics of the caregivers of children under two years respondent group revealed a bias towards more educated caregivers compared to household survey samples.\(^4\) This should be considered in the interpretation of results.

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1. [https://covid19.who.int/region/afro/country/ug](https://covid19.who.int/region/afro/country/ug)
2. The total score is 10, of which a score of 6.5 or more is considered very high, 5 or more high, 3.5 or higher medium, 2 or higher low, and below that very low.
3. Women who gave birth within 20 months prior to the survey.
4. Data on socioeconomic status and urban versus rural location were not collected so level of bias is unknown.
Table 1: Characteristics of CATI and U-Report respondents from Uganda

<table>
<thead>
<tr>
<th>Survey type</th>
<th>Sample</th>
<th>Gender % (n)</th>
<th>Groups % (n)</th>
<th>Sample</th>
<th>Gender % (n)</th>
<th>Groups % (n)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Total planned sample size</td>
<td>Total actual sample size</td>
<td>Male</td>
<td>Female</td>
<td>Unknown</td>
<td>Caregivers of children aged 0-2</td>
</tr>
<tr>
<td>CATI</td>
<td>2,031</td>
<td>2,455</td>
<td>13%</td>
<td>87%</td>
<td>N/A</td>
<td>50%</td>
</tr>
<tr>
<td>U-REPORT</td>
<td>2,031</td>
<td>13,046</td>
<td>60%</td>
<td>33%</td>
<td>7%</td>
<td>63%</td>
</tr>
</tbody>
</table>

*Adolescents aged 15-18 years; ** adolescents aged 10-18 years.

**Nutrition practices and behaviour**

**Children under two years:** Most caregivers of children under two years reported that their child continued to be breastfed. However, 33% reported that their child was breastfed less frequently due to COVID-19. Sixty six percent of caregivers reported that their child aged 6-23 months reduced consumption of one or more food groups due to COVID-19. The mean number of food groups with reduced consumption was 3.4 (out of 11). Food groups most frequently reported to be consumed less in this age group were meat and poultry (46%), organ meat (42%), fish and seafood (42%), dairy products (29%), and oils and fats (38%). Many caregivers reported that unhealthy foods were also consumed less (sugary foods 38% and savoury and fried snacks 36%). Food groups most frequently reported to be consumed more were pulses and beans (22%) and vitamin A rich fruits and vegetables (21%).

**Figure 1:** Proportion of caregivers in Uganda reporting changes in consumption of children under two years by food group (CATI U2 survey)
73% of caregivers reported that their child consumed less variety of foods due to the COVID-19 pandemic.
Reduced consumption of animal source foods and other nutrient dense foods due to the COVID-19 pandemic was frequently reported in all age groups.
**Children and adolescents aged 2-18 years:** Ninety two percent of caregivers of children and adolescents aged 2-18 years reported reduced consumption of one or more food groups due to COVID-19. The mean number of food groups with reduced consumption for this age group was 6.1 (out of 13). Food groups most frequently reported to be consumed less by children aged 2-18 years due to COVID-19 were meat and poultry (68%), fish and seafood (63%), organ meat (62%), dairy products (62%), and rice, bread, cereals and tubers (59%). Many respondents also reported reduced consumption of unhealthy food groups (sugary foods 55% and savoury and fried snacks 46%) as well as sugary drinks (57%). The foods most frequently reported to be consumed more by children aged 2-18 years due to COVID-19 were dark green leafy vegetables (40%), other vegetables (27%) and vitamin A rich fruits and vegetables (27%).

**Figure 2:** Proportion of caregivers and adolescents reporting changes in consumption of children aged 2-18 years by food groups (CATI U19 survey)

**Pregnant and lactating women and mothers who recently gave birth:** Ninety three percent of PLW and women who recently gave birth reported reduced consumption of one or more food groups due to COVID-19. The mean number of food groups with reduced consumption for this group was 6 (out of 13). Food groups most frequently reported to be consumed less were organ meat (62%), meat and poultry (61%), fish and seafood (57%), eggs (57%) and dairy products (54%). Many respondents also reported reduced consumption of unhealthy food groups (sugary foods 57%, savoury and fried snacks 52%), as well as sugary drinks (57%). The foods most frequently reported to be consumed more were beans and pulses (40%), dark green leafy vegetables (35%), and other vegetables (32%).
Food insecurity

**Food access:** The most frequently reported reason for reduced consumption of foods by PLW and mothers who recently gave birth was diminished purchasing power. Substituting expensive items (such as meat) for cheaper items was commonly reported. Eighty two percent of PLW reported that their household income had decreased since the pandemic. Caregivers reported via U-Report that the most common reason for changes in food consumption patterns during COVID-19 were financial, either due to the family having no money (74%) or the high cost of food (19%). Fifty eight percent of caregivers reported that they ate less during the pandemic to enable their children to eat.

**Food Insecurity Experience Scale (FIES):** According to the Food Insecurity Experience Scale (FIES), severe household food insecurity was experienced by 32% of caregivers of children under two years, 29% of caregivers of children aged 2-18 years, and 31% of PLW and mothers who recently gave birth. Severe or moderate household food insecurity was experienced by 77% of caregivers of children under two years, 73% of caregivers of children aged 2-18 years, and 77% of PLW and mothers who recently gave birth.

**Social protection:** Caregivers of children aged 2-18 years and adolescents were asked if their child/they received free school meals during the COVID-19 pandemic – an important form of social protection that serve to protect child diets. In the Uganda sample, 13% reported receiving free school meals during the COVID-19 pandemic, while 16% attended school but did not receive free school meals and 71% did not attend school because schools were closed. This was the highest rate of school closures reported across the six countries studied and higher than the average of 42%. PLW were asked if they received any form of social protection during the COVID-19 pandemic. Eighty two percent reported that they received no social protection, 11% reported that they received food subsidies, 3% cash assistance and 4% another form of social protection.
Nutrition services

**User experiences:** Four percent of caregivers of children under two years of age reported having a sick child during the past year and not seeking treatment. Of these, 7% did not seek treatment because of fear of contracting COVID-19 and 16% due to COVID-19 related movement restrictions. Eight percent of caregivers of children aged 2-18 years (including adolescents aged 15-18 years) did not seek treatment when sick during the past year. Of these respondents, 13% did not seek treatment due to fear of contracting COVID-19 and 17% due to COVID-19 related movement restrictions. Twenty six percent of pregnant women did not attend an ANC visit due to risk of contracting COVID-19, 14% reduced consumption of Iron and Folic Acid (IFA) supplements due to COVID-19 related disruption in supplies, and 29% of women who recently gave birth changed their birth plans due to COVID-19.

**Health worker perceptions:** Health workers reported disruption to all nutrition services during COVID-19. Widespread services frequently reported to be disrupted were nutrition counselling (32%), screening (19%), severe wasting treatment services (19%), vitamin A supplementation (18%) and maternal micronutrient supplementation (12%). Health workers reported that nutrition programmes were adapted to enable delivery in the COVID-19 context. Adaptations included physical distancing at contact points, use of alternative delivery platforms in the community and the use of radio, TV and other media to deliver nutrition messages.

Discussion and conclusions

Results indicate that the COVID-19 pandemic had a negative impact on child, adolescent, and women’s diets in Uganda in terms of reduced variety of foods consumed, and reduced consumption of healthy foods, especially animal source foods. Results also suggest some positive impacts on diets in terms of reduced consumption of unhealthy drinks and snacks high in sugar, salt and fat, and increased consumption of micronutrient-rich vegetables. Changes in foods purchased appear to have been driven by cost-related changes driven by reduced household incomes. A high level of food insecurity was reported in this sample across all age groups during the COVID-19 pandemic, which is very concerning.

Results indicate the disruption of many nutrition services in Uganda due to the COVID-19 pandemic. The delivery of free school meals appears to have been severely affected by school closures and nutrition counselling was frequently reported to have been disrupted. Service users reported reduced uptake of maternal health and nutrition services, and reduced health seeking behaviours due to lockdown measures and fear of contracting COVID-19.

The negative impact of COVID-19 on diets, practices and services is likely to affect progress against child nutrition targets in Uganda for years to come. Resources are urgently needed to re-expand and prioritise efforts to prevent stunting and micronutrient deficiencies by protecting breastfeeding, delivering micronutrient supplementation at scale, and increasing access to diverse, healthy diets for children, adolescents and pregnant and lactating women. To protect against future emergencies, routine health systems must be strengthened, and population nutrition resilience built by expanding national social safety nets and developing strategies to build sustainable livelihoods.

Remote survey methods proved useful for collecting information on caregiver, adolescent and health worker perceptions and experiences in Uganda at a time when movement restrictions prevented household surveys. The utility of their wider use to complement household survey data should be explored.
Some positive changes in diets were reported due to the COVID-19 pandemic, including reduced consumption of unhealthy foods and drinks and increased consumption of vegetables.