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

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 Kenya.

37% of caregivers reported that their infant under two years was breastfed less frequently due to the COVID-19 pandemic.

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

64% of caregivers of under two years, 92% of caregivers of children 2-18 years and 90% of pregnant and lactating women (PLW) reported that their child reduced consumption of one or more healthy food groups due to the COVID-19 pandemic.

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.

Many respondents reported that dietary changes were the result of reduced purchasing power with 79% of PLW reporting reduced household income during the COVID-19 pandemic.

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 (81% of caregivers of children < 2 years, 81% of caregivers of children aged 2-18 years, and 80% of PLW).

Health workers reported that most nutrition services continued to be delivered during the COVID-19, although some reported disruptions in the delivery of some services, including nutrition counselling and iron and folic acid (IFA) supplementation for adolescent girls.
Background

The first case of COVID-19 was detected in Kenya on 13th March 2020, after which it spread to all regions of the country. By July 2022, 5,672 confirmed COVID-19 deaths had been reported.\(^1\) According to the COVID-19 INFORM risk scale, Kenya is classified as a high COVID-19 risk country (score 5.6). 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.

Kenya 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 services and nutrition practices 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 Kenya are presented here.

Methodology

Primary data were collected in Kenya in July and August 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; 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 lists provided by Geopoll and recruitment through Facebook.

Findings

Sample characteristics

Due to very low response, U-Report results from Kenya were not included. Sample characteristics from the CATI surveys are described in Table 1. The largest respondent group were caregivers of children aged 0-2 years (50%). Analysis of the characteristics of this group revealed a higher than expected proportion of male respondents (31%) and bias towards more educated respondents 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/ke](https://covid19.who.int/region/afro/country/ke)
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 Kenya

<table>
<thead>
<tr>
<th>Survey type</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>
</tr>
<tr>
<td>CATI</td>
<td>2,292</td>
<td>2,637</td>
<td>13%</td>
</tr>
</tbody>
</table>

### Nutrition practices and behaviour

**Children under two years:** Thirty seven percent of caregivers of children under two years of age reported via the CATI survey that their child was breastfed less frequently due to COVID-19. Only 10% of caregivers in Kenya in this survey reported that their infant was exclusively breastfed up to six months of age (the lowest rate across all countries studied), however, due to potential bias this may not be representative and cannot be compared to baseline household data.

Sixty four 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 3.2 (out of 11). Decreased consumption was reported most frequently for the following food groups: cereals, roots and tubers (39%), dairy products (36%), meat and poultry (34%), pulses and beans (34%) and organ meat (33%). Many caregivers reported that unhealthy foods were also consumed less (sugary foods 31% and savoury and fried snacks 30%). Food groups most frequently reported to be consumed more were vitamin A rich fruits and vegetables (20%) and other fruits and vegetables (18%).

**Figure 1:** Proportion of caregivers in Kenya reporting changes in consumption of children under two years by food group (CATI U2 survey)
64% of caregivers of under two years, 92% of caregivers of children 2-18 years and 90% of pregnant and lactating women (PLW) reported that their child reduced consumption of one or more healthy food groups due to the COVID-19 pandemic.
Reduced consumption of staple foods, animal source foods and other nutrient dense foods was frequently reported by all age groups due to the COVID-19 pandemic.
Children and adolescents aged 2-18 years: Ninety two percent of caregivers of children aged 2-18 years and adolescents 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 7.4 out of 13 food groups. Healthy food groups most frequently reported to be consumed less by children aged 2-18 years due to COVID-19 were meat and poultry (74%), rice, bread, cereals and tubers (68%), fish and seafood (68%), organ meat (67%), dairy products (62%) and oils and fats (62%). Many respondents also reported reduced consumption of unhealthy food groups (savoury and fried snacks 65% and sugary foods 62%) as well as sugary drinks (65%). For all food groups, reduced consumption in this age group was reported more frequently in the Kenya sample than for any other country included in the study. Foods most frequently reported to be consumed more by children aged 2-18 years due to COVID-19 in the Kenya sample were dark green leafy vegetables (32%), and vitamin A rich fruits and vegetables (15%).

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 women who recently gave birth: Ninety 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 6.5 (out of 13). Healthy food groups most frequently reported to be consumed less were meat and poultry (66%), organ meat (65%), fish and seafood (62%), dairy products (53%), and nuts and seeds (53%). Many respondents also reported reduced consumption of unhealthy food groups (sugary foods 53%, savoury and fried snacks 54%,) as well as sugary drinks (56%). Foods most frequently reported to be consumed more were dark green leafy vegetables (27%), beans and pulses (20%), and vitamin A rich fruits and vegetables (20%).
Figure 3: Proportion of pregnant and lactating women in Kenya reporting changes in consumption by food group (CATI MQ survey)

<table>
<thead>
<tr>
<th>Food Group</th>
<th>Increased COVID-19</th>
<th>Decreased COVID-19</th>
<th>No change</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dark green leafy vegetables</td>
<td>27%</td>
<td>46%</td>
<td>36%</td>
</tr>
<tr>
<td>Beans and pulses</td>
<td>20%</td>
<td>44%</td>
<td>36%</td>
</tr>
<tr>
<td>Vitamin A rich fruits and vegetables</td>
<td>20%</td>
<td>46%</td>
<td>34%</td>
</tr>
<tr>
<td>Other fruits</td>
<td>19%</td>
<td>47%</td>
<td>34%</td>
</tr>
<tr>
<td>Other vegetables</td>
<td>19%</td>
<td>35%</td>
<td>46%</td>
</tr>
<tr>
<td>Rice, bread, cereals, tubers</td>
<td>16%</td>
<td>50%</td>
<td>34%</td>
</tr>
<tr>
<td>Dairy products</td>
<td>16%</td>
<td>53%</td>
<td>31%</td>
</tr>
<tr>
<td>Eggs</td>
<td>14%</td>
<td>52%</td>
<td>33%</td>
</tr>
<tr>
<td>Oils and fats</td>
<td>10%</td>
<td>52%</td>
<td>37%</td>
</tr>
<tr>
<td>Fish and seafood</td>
<td>10%</td>
<td>62%</td>
<td>28%</td>
</tr>
<tr>
<td>Meat and poultry</td>
<td>8%</td>
<td>66%</td>
<td>26%</td>
</tr>
<tr>
<td>Organ meat</td>
<td>7%</td>
<td>65%</td>
<td>28%</td>
</tr>
<tr>
<td>Nuts and seeds</td>
<td>7%</td>
<td>53%</td>
<td>40%</td>
</tr>
</tbody>
</table>

Food insecurity

**Food access:** The most frequently reported reason for changes in foods purchased during COVID-19 by PLW was reduced purchasing power. Substituting expensive items (such as meat) for cheaper items was commonly reported. Seventy nine percent of PLWs reported that their household income had decreased since before the pandemic.

**Food Insecurity Experience Scale (FIES):** According to the Food Insecurity Experience Scale (FIES), severe household food insecurity was experienced by 44% of caregivers of children under two years, 40% of caregivers of children aged 2-18 years, and 42% of PLW and mothers who recently gave birth. Severe or moderate household food insecurity was experienced by 81% of caregivers of children under two years, 81% of caregivers of children aged 2-18 years, and 80% of PLW and mothers who recently gave birth.

**Social protection:** School meals are an important form of social protection that serve to protect child diets. In Kenya, 11% of adolescents aged 15-18 years reported receiving free school meals during the COVID-19 pandemic, while 41% attended school but did not receive free school meals and 48% did not attend school because schools were closed.
Nutrition services

**User experiences:** One 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, 8% did not seek treatment because of fear of contracting COVID-19. Four percent of caregivers of children aged 2-18 years (and adolescents aged 15-18 years) did not seek treatment when sick during the past year. Of these respondents, 31% did not seek treatment due to fear of contracting COVID-19. Nineteen percent of pregnant women did not attend an ANC visit due to risk of COVID-19 and 43% of women who recently gave birth changed their birth plans due to COVID-19.

**Health worker perceptions:** Health workers reported some disruption to nutrition services during COVID-19. Services most frequently reported to be disrupted were nutrition counselling (28%), iron and folic acid (IFA) supplementation (25%), distribution of micronutrition powders (18%), wasting screening (17%) and vitamin A supplementation (13%). Very few health workers reported the disruption of maternal micronutrient supplantation and severe wasting treatment services.

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. Health workers reported that some services had not yet restarted at the time of the survey, including IFA supplementation (32%), and delivery of MNPs (26%).

Discussion and conclusions

Results indicate that the COVID-19 pandemic had a negative impact on breastfeeding and on child, adolescent, and women's diets in Kenya in terms of reduced variety of foods consumed, and reduced consumption of healthy foods, especially animal source foods, staple foods, pulses and oils and fats. 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 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.

Health workers reported disruption in the delivery of some nutrition services, with disruptions to nutrition counselling and IFA supplementation for adolescent girls being reported most frequently, with evidence of ongoing disruption.

The negative impact of COVID-19 on diets, nutrition services and nutrition practices is likely to affect progress against child nutrition targets in Kenya for years to come. Resources are urgently needed to re-expand and prioritise efforts to prevent stunting and micronutrient deficiencies by protecting and promoting 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 resilient health service delivery modalities adopted, such as mobile phone based education and messaging, and decentralization of services. Efforts should also be made to build population nutrition resilience by expanding national social safety nets including cash transfers 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 Kenya 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.