

COVID-19 impacts on women's well-being: Insights from a longitudinal study in Kenya

This brief presents findings from a longitudinal study of 1,294 women and 744 men in Kenya during the COVID-19 pandemic. The study explored the effects of COVID-19 in relation to food insecurity, domestic care, paid employment, mental health and household conflict. To study how these effects changed over time, we conducted three rounds of phone surveys, the first from November to December 2020, the second from March to April 2021, and the third from November to December 2021.

Our findings show that women were more likely to report experiencing household food insecurity compared to men. Moreover, as the pandemic progressed, women spent more time on domestic care and less time on paid employment, with some women exiting the workforce altogether. Women who experienced an increase in domestic work were more likely to feel worried, a pattern not observed among men who experienced an increase in domestic work. Both men and women reported that household conflict increased as the pandemic progressed.

These findings highlight the need to alleviate the burden of domestic care and target social protection measures at women, particularly those from poor households, as well as develop strategies to alleviate these effects in future infectious disease outbreaks.



Methods

We initiated a Random Digit Dial (RDD) survey in October 2020 targeting both men and women. Our Round 1 sample included 1,294 women and 744 men. The RDD survey was administered over the phone and the sample of respondents was obtained by purchasing phone numbers from a third-party operator. As phone ownership is linked to education level and income, RDD surveys tend to overrepresent respondents who are more educated and more likely to be employed (Glazerman et al., n.d.). To adjust for this overrepresentation, we constructed survey weights using data from national household surveys. However, these survey weights do not entirely eliminate the differences in population characteristics between those who own and do not own cellphones.

We conducted the surveys over three rounds: November to December 2020 (Round 1), March to April 2021 (Round 2), and November to December 2021 (Round 3). The attrition rate from the first to the second round was 17 percent for men and 20 percent for women, while the attrition rate from the first to the third round was 30 percent for men and 35 percent for women. The summary of the survey rounds is shown in Table 1. In this brief, we summarize data from the first two rounds, as well as compare well-being metrics from data only collected in the first and third rounds.

Table 1: Summary of Survey Rounds

Survey Round	1	2	3
Data Collection Period	November – December 2020	March - April 2021	November – December 2021
Sample Size for Women	1,294	1,029	843
Sample Size for Men	744	617	524
Total Sample Size	2,038	1,646	1,367

Note: In Round 2, we collected 135 additional surveys from the original RDD pool to increase the sample size. In Round 3, 105 of the 135 respondents completed the follow-up survey. This sub-sample is excluded from the current analysis.

Results

Our findings show that women were slightly more likely to report experiencing food insecurity compared to men. In the first two survey rounds, women respondents were 8 percentage points more likely than men to report that they lived in a household where they did not have enough food or money to buy food in the past seven days (Figure 1). In addition, women were 4 percentage points more likely to fall in the extreme food insecurity category (Figure 2). Those in this category have food insecurity composite index scores that ranked in the top 25 percent of the group. The composite

index was based on the number of days households relied on less preferred/expensive food, borrowed food from friends or relatives, reduced the number of meals eaten per day, reduced the portion size of meals, and reduced the quantities eaten by adults in order for small children to eat. Further statistics on food insecurity are shown in Table 2, while additional analysis is provided in Mueller et al. (2022a). It should be noted that food insecurity measures reflect the experiences of households and not individuals; hence, we should be careful when interpreting gendered effects.

Figure 1. Percentage of men and women who experienced household food insecurity

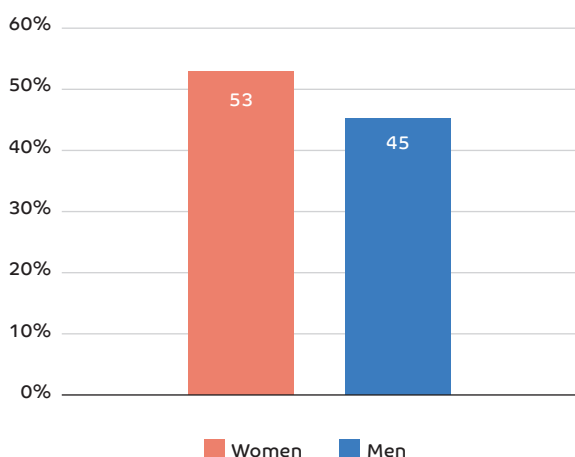


Figure 2. Percentage of men and women who fell into the extreme food insecurity category

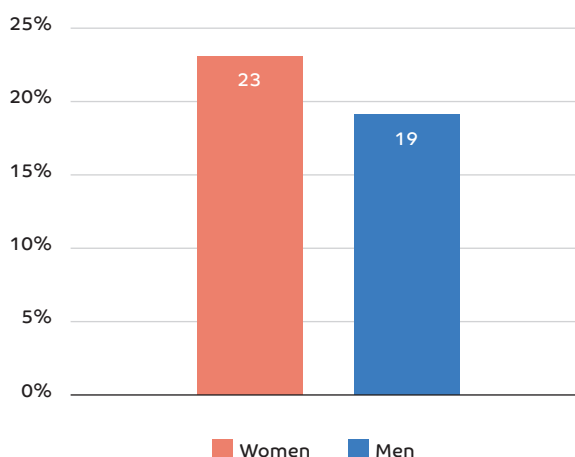


Table 2: Summary Statistics of Food Insecurity

	Total	Women	Men
Household food insecurity within 7 days	0.50	0.53	0.45
N	3,686	2,325	1,361
Food insecurity composite index	0.40	0.40	0.37
In 75th percentile of the composite index distribution	0.22	0.23	0.19
N	1,707	1,170	537

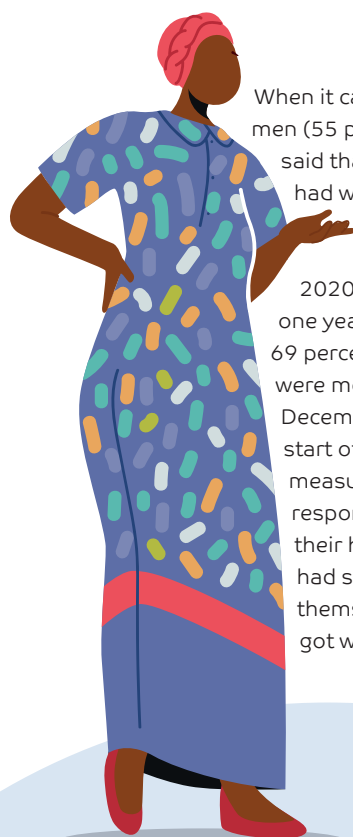
With regards to paid and unpaid work, 38 percent of women spent more time on domestic care and 46 percent spent less time on paid employment in March to April 2021, compared to back in November to December 2020. The magnitude of change in time spent on unpaid care work is on par with the change in time spent on paid work, suggesting that women were substituting paid work with unpaid work. Moreover, 12 percent of women who had been employed in November to December 2020 were no longer employed in March to April 2021, indicating that women have been exiting the workforce during the pandemic.

In addition, our findings show that increased domestic care was associated with markers of anxiety among women – but not among men. Women who experienced an increase in domestic work were 6 percentage points more likely to feel worried (a marker for anxiety), compared to women who did not experience an increase in domestic work between the first and second survey rounds. Interestingly, although men also perceived an increase in domestic work, it did not influence markers of anxiety (not shown here). Regression analysis of the relationship between increased domestic care and various markers of anxiety and depression is shown in Table 3.

Table 3: Relationship between Change in Domestic Care and Mental Health

	Lack interest	Felt down	Nervous	Worried
Domestic care increased since round 1	-0.014 (0.025)	0.010 (0.030)	-0.020 (0.024)	0.062 (0.033)*
R ²	0.03	0.01	0.03	0.03
N	1,027	1,027	1,027	1,027

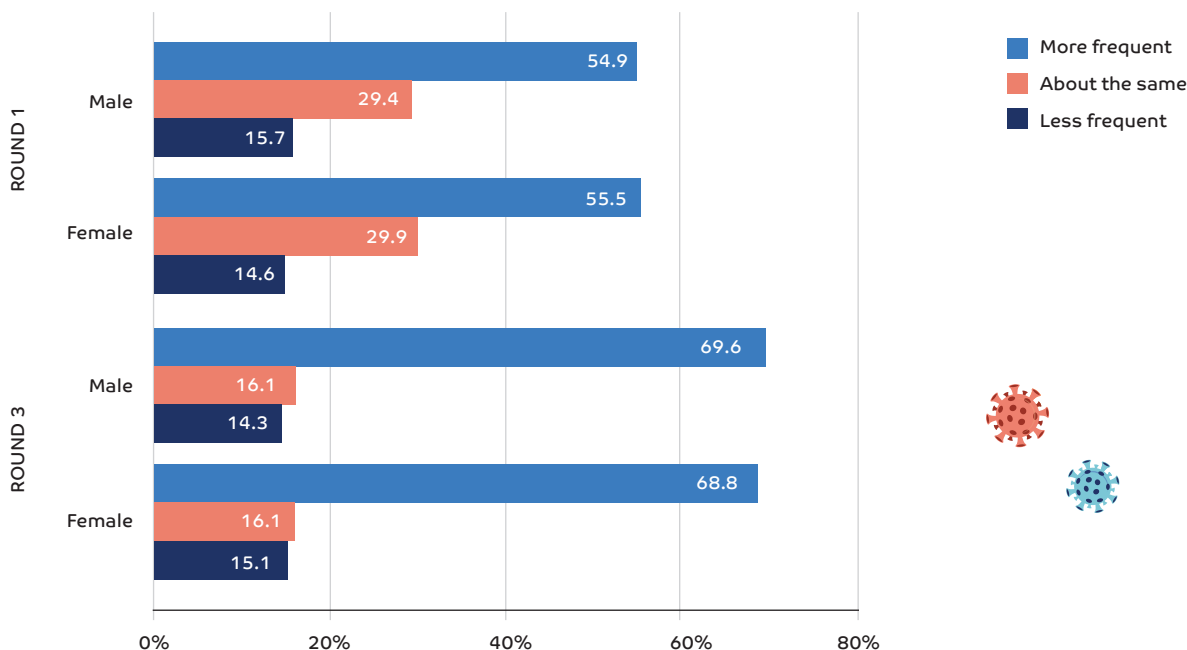
Note: *p<0.1, **<0.05, *** p<0.01. Source: Mueller (2022b)



When it came to household conflict, both men (55 percent) and women (56 percent) said that conflict within the household had worsened from the start of the pandemic to the first survey round in November to December 2020 (Figure 3). The conflict increased one year later, as 70 percent of men and 69 percent of women said that conflicts were more frequent in November to December 2021, compared to at the start of the pandemic (Figure 3). We measured conflict perception by asking respondents how often people in their household have argued or have had some sort of conflict among themselves and whether the conflict got worse since COVID-19.



Figure 3: Change in Frequency of Intrahousehold Conflicts
Kenya: Conflict Perception since COVID-19 by Gender and Round



Conclusion

Our results show that the COVID-19 pandemic has disproportionately affected women in Kenya along the dimensions we investigated. Women were more likely to report experiencing household food insecurity compared to men. Moreover, as the pandemic progressed, women spent more time on domestic care and less time on paid employment, with some women exiting the workforce altogether. Women who experienced an increase in domestic work were more likely to feel worried, a pattern not observed among men who experienced an increase in domestic work. These findings highlight the need to target social protection measures such as food aid and cash transfers at women, particularly those from poor households. In addition, measures are needed to alleviate the burden of unpaid care work faced by women. Such measures include allocating more public funds for

childcare centers, providing tax credits and other incentives for childcare, as well as shifting gender norms to encourage men to share caregiving responsibilities. All these measures should be incorporated into Kenya's pandemic response to help cushion women from the brunt of the pandemic as well as future infectious disease outbreaks.

References

- Glazerman, S., Grépin, K. A., Mueller, V., Rosenbaum, M., & Wu, N. (2022a). "Do Referrals Improve the Representation of Women in Phone Surveys?". Working Paper.
- Mueller, V., Grépin, K., Rabbani, A., Navia, B., Ngunjiri, A. S. W., & Wu, N. (2022a). "Food Insecurity and COVID-19 Risk in Low- and Middle-Income Countries." *Applied Economic Perspectives and Policy* 44(1), 92-109.
- Mueller, V., Grépin, K., Rabbani, A., Ngunjiri, A., Oyekunle, A., & Wenham, C. (2022b). "Domestic Burden Amid COVID-19 and Women's Mental Health in Middle-Income Africa." Paper presented at the Population Association of America Conference in Atlanta, April 8, 2022.

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