

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

This brief presents findings from a longitudinal study of 1,144 women and 825 men in Nigeria during the COVID-19 pandemic. The study explored the effects of the pandemic 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 2020 to January 2021, the second from March to April 2021, and the third from December 2021 to January 2022.

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 down and worried, a pattern not observed among men who experienced an increase in domestic work. Both men and women reported that household conflict increased during the initial phase of the pandemic, but household conflict subsequently decreased in later phases. 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 conducted a Random Digit Dial (RDD) survey which achieved a final sample of 1,144 women and 825 men. The RDD survey was administered over the phone and the sample of respondents was obtained by purchasing phone numbers from third-party operators. As phone ownership is linked to education level, RDD surveys tend to overrepresent respondents who are educated and employed (Glazer et al., n.d.). We also used quota sampling to increase the representation of our sample based on gender, age groups (18-25 years old, 26-44 years old, and 45 years old and older), and geographic regions (North or South). To adjust for this overrepresentation, we constructed survey weights from national household surveys. However, these survey weights do not eliminate the differences in population characteristics between those who own and do not own cellphones. We conducted the surveys over three rounds: November 2020 to January 2021 (Round 1), March to April 2021 (Round 2), and December 2021 to January 2022 (Round 3). The attrition rate from the first to the second round was 15 percent for men and 22 percent for women, while the attrition rate from the first to the third round was 31 percent for men and 38 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 2020 - January 2021	March - April 2021	December 2021 - January 2022
Sample Size for Women	1,144	909	710
Sample Size for Men	825	704	570
Total Sample Size	1,916	1,613	1,280

Results

Our findings show that women respondents were slightly more likely to report experiencing food insecurity compared to men respondents. In the first two survey rounds, women respondents were 3 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 respondents were 8 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 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

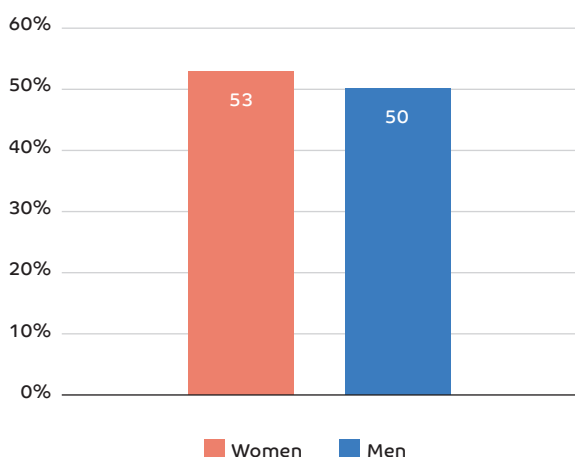


Figure 2. Percentage of men and women who fell into the extreme food insecurity category

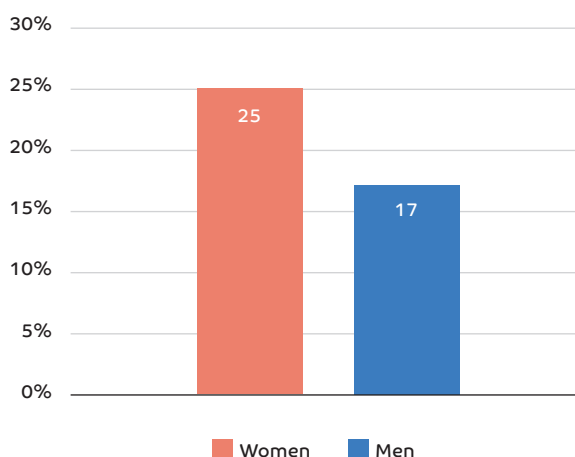


Table 2: Summary Statistics of Food Insecurity

	Total	Women	Men
Household food insecurity within 7 days	0.51	0.53	0.50
N	3,582	2,045	1,537
Food insecurity composite index	0.43	0.45	0.41
In 75th percentile of the composite index distribution	0.20	0.25	0.17
N	1,803	1,044	759

With regards to paid and unpaid work, 30 percent of women spent more time on domestic care and 29 percent spent less time on paid employment in March or April 2021, compared to back in November 2020 to January 2021. 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, 17 percent of women who had been employed in November 2020 to January 2021 were no longer employed in March or April 2021, indicating that women have been exiting the workforce during the pandemic.

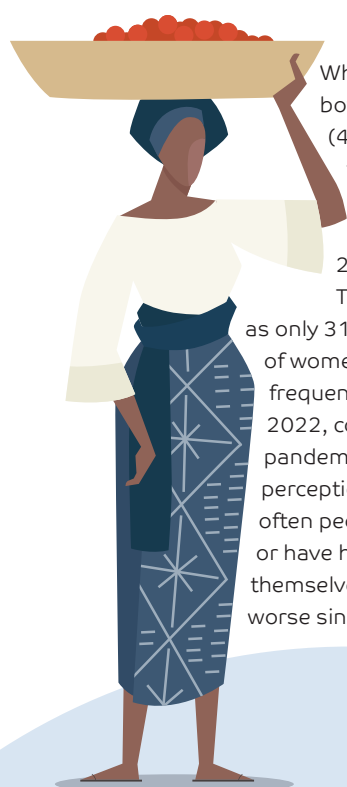
In addition, our findings show that increased domestic care was associated with markers of anxiety and depression among women – but not among men. Women who experienced an increase in domestic work were 7 percentage points and 6 percentage points more likely to feel down and worried (markers for depression and 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 and depression (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	0.031 (0.030)	0.074 (0.036)*	0.052 (0.033)	0.057 (0.030)*
R ²	0.04	0.03	0.03	0.02
N	882	882	882	882

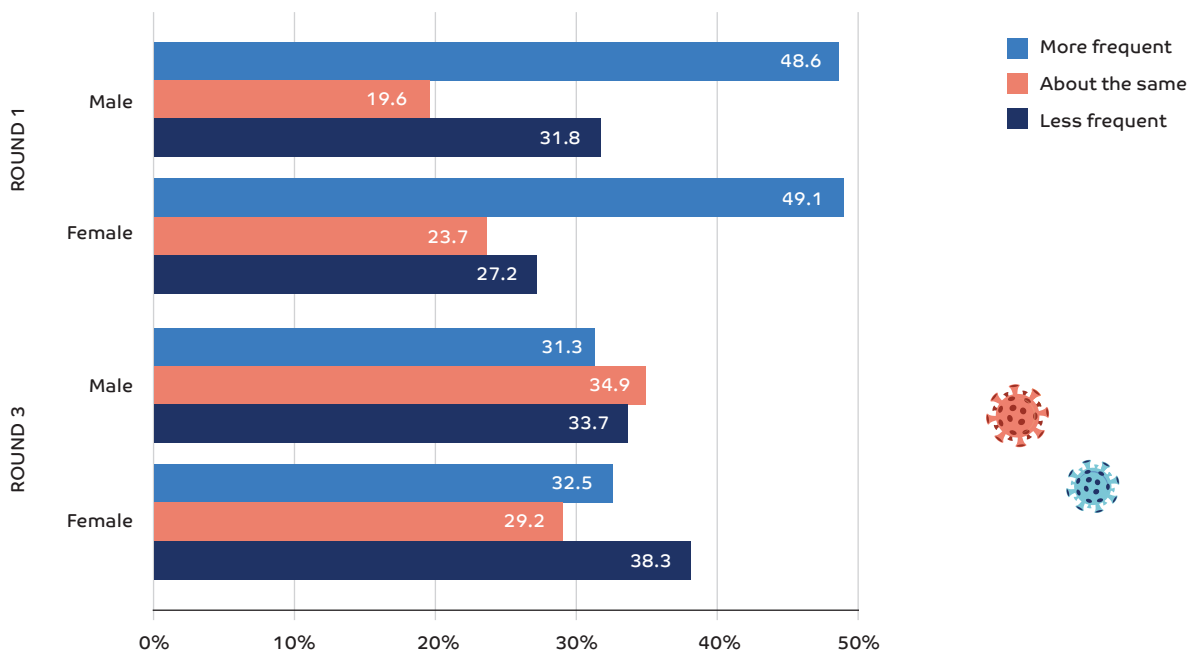
Note: *p<0.1, **<0.05, *** p<0.01. Source: Mueller (2022b)



When it came to household conflict, both men (49 percent) and women (49 percent) said that conflict within the household had worsened from the start of the pandemic to the first survey round in November 2020 to January 2021 (Figure 3). The conflict decreased one year later, as only 31 percent of men and 33 percent of women said that conflicts were more frequent in December 2021 to January 2022, 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.



Nigeria: Conflict Perception since COVID-19 by Gender and Round



Conclusion

Our results show that the COVID-19 pandemic has disproportionately affected women in Nigeria. 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 down and worried, a pattern not observed among men who experienced an increase in domestic work.

These findings highlight the urgent 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 Nigeria's pandemic response to help cushion women from the brunt of the pandemic as well as future infectious disease outbreaks.

References

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