

**EatSafe - Evidence and Action Towards Safe,  
Nutritious Food**

# Multi-Country Market Report: Vendor and consumer perspectives on the COVID-19 crisis

Quarter I: September–December 2020

*(April) 2021*



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*This EatSafe report presents evidence that will help engage and empower consumers and market actors to better obtain safe nutritious food. It will be used to design and test consumer-centered food safety interventions in informal markets through the EatSafe program.*

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## EXECUTIVE SUMMARY

Understanding the rapidly changing situation for vendors in traditional markets and the consumers that rely on these markets can provide vital information for determining what is needed to ensure the availability of affordable, safe, nutritious food during the COVID-19 pandemic. The Keeping Food Markets Working (KFMW)/EatSafe market data presented in this report provide timely information and unique insights on vendor and consumer's attitudes and behaviour in a set of key markets in Bangladesh, Ethiopia, Kenya, Nigeria and Tanzania.

This report summarises cross-country analysis of data from rapid surveys undertaken in Bangladesh, Kenya and Nigeria – countries with the most robust datasets at the time of writing. Data were collected from two markets in each country, every two weeks between September and December 2020.

The situation during the COVID-19 pandemic in these countries is unsettling; although there were major variations in caseloads across the three countries, all three have experienced massive increases in poverty and job losses (GIEWS-FAO 2021; World Bank 2020a, 2020b).

The KFMW/EatSafe data shows that most market vendors and consumers have adopted safety measures and behaviours to mitigate the spread of the virus. In Bangladesh and Kenya, 90–100% vendors reported taking their own measures to reduce the risk of transmission to themselves, employees, and consumers (this was less common in Nigeria, at 75%). Mask wearing was the most common measure taken by vendors, across all countries. The second most common measure was to remind consumers to maintain appropriate distances while in the market.

Vendors were more likely to notice market safety measures and describe them as useful, compared with consumers. Both consumers and vendors considered the installation of handwashing and sanitisation stations to be the most useful market safety measures, followed by masking mandates. In all countries there was some indication of pandemic fatigue, wherein respondents suggested that people have become lax in following the rules compared with earlier in the pandemic. To address this, more active enforcement of safety measures and financing of additional measures by the market leadership were suggested by consumers and vendors.

Across all countries, 90–100% of vendors felt their businesses were affected by the pandemic. Decreases in sales and consumers were the most commonly reported changes (68–85% of vendors). Difficulty accessing products to sell and disruptions in transportation were less commonly reported, though they were among the top challenges for vendors in Kenya and Nigeria.

Among consumers, the most common behaviour change due to COVID-19 was to reduce shopping frequency. Other common changes included avoiding peak shopping hours and increased demand for cleanliness among vendors. Over time, fewer consumers reported changed behaviours. This was particularly apparent in Bangladesh, where nearly 80% of consumers reported changing shopping behaviours in the first week of September 2020, but only 10% did so by mid-November. Despite this, most vendors continued to report negative effects of the pandemic, including fewer consumers and decreased sales.

## I. INTRODUCTION

Since early 2020, the necessary COVID-19 lockdowns have placed a spotlight on the weaknesses of food systems across the world. In the COVID-19 context, a critical part of supporting the health and resilience of people and economies is to protect the nutritional status of current and future generations. The Global Alliance for Improved Nutrition (GAIN) has developed the [Keeping Food Markets Working \(KFMW\) program](#) as an emergency response to the COVID-19 crisis, providing rapid support to food system workers, to small and medium enterprises supplying nutritious foods, and to keeping fresh food markets open. While disease control responses to the pandemic are essential, they may also disrupt food systems, depress income, and put a strain on social protection programs, which can threaten the nutritional status of the most vulnerable. The KFMW programme is focused on mitigating those risks and keeping affordable nutritious foods flowing in African and Asian markets to the people who need it the most.

Through KFMW, the USAID-funded programme EatSafe: Evidence and Action Towards Safe, Nutritious Food is working to better understand the rapidly changing situation in traditional food markets from the vendor and consumer perspective in order to help markets stay open and operate safely. EatSafe is a five-year project aiming to enable lasting improvements in the safety of nutritious foods in traditional markets by focusing on the consumer. EatSafe is led by GAIN, a Swiss foundation working to improve the consumption of safe, nutritious foods. Partners include the International Livestock Research Institute (ILRI), a research centre with expertise in food safety, and Pierce Mill Entertainment and Education, a firm specialising in social media impact for positive behaviour change.

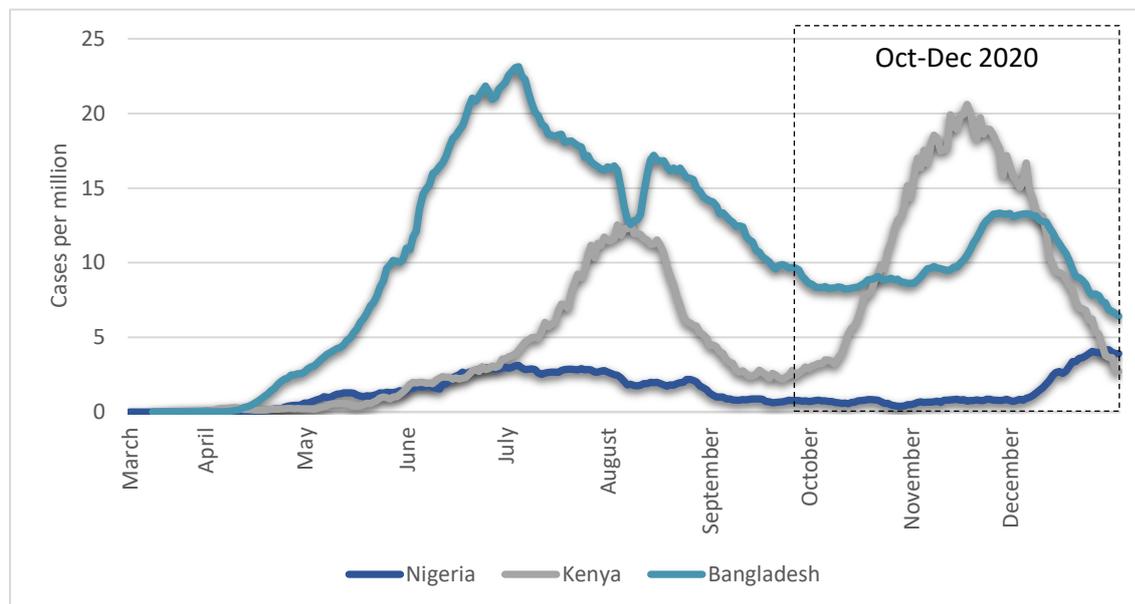
While traditional markets are an important source of food and income for the nutritionally vulnerable, they also create ideal conditions for transmission of the virus. Market vendors in traditional markets, already operating on very tight margins, must now make difficult choices on whether to return to their food sales workplaces or to shutter them. Working in crowded, risky environments, and falling ill will have devastating effects not only on their family finances and the nutrition security of the entire household, but also for their consumers; these decisions have potentially far-reaching consequences.

While rich and valuable information is now emerging regarding the resilience of supply chains that move food to traditional markets, the situation for market vendors and consumers in these markets remains unseen. Understanding the rapidly changing situation and assessing the availability of food and health safety information and the resilience of traditional markets will help ensure the availability of affordable, safe, nutritious food under COVID-19 and provide vital information for further programming.

The analysis presented here provides a unique perspective, delving into the perceptions and actions of vendors and consumers on the ground and how their businesses, products, and supply chains are responding to critical limitations and uncertainty. Rapid information gathering, assessment, and dissemination of COVID-19 prevention best practices in traditional markets builds on GAIN's established relationships with traditional markets where nutritious foods are traded and sold in Bangladesh, Ethiopia, Kenya, Nigeria and Tanzania. This report

presents multi-country results from the rapid assessment in Bangladesh, Kenya and Nigeria, for the October–December 2020 timeframe<sup>1</sup>.

## 2. COVID-19 SITUATION



**Figure 1. New confirmed cases of COVID-19 per million people, in Bangladesh, Kenya and Nigeria (7-day smoothed)**

Source: (Our World in Data n.d.)

The prevalence of COVID-19 cases, government measures, and economic implications across KFMW countries have had varied timelines and trajectories. The situation for the last quarter of 2020 is summarised here for Bangladesh, Kenya, and Nigeria<sup>2</sup>. Figure 1 displays the recent trends (through January 2021) in new cases per million people in each focus country, though recorded cases are likely an underestimate of the true scale of the outbreak. Many countries worldwide have now eased movement restrictions put in place in March and April 2020 that brought parts of the global economy to a halt.

- In Bangladesh, cases began increasing in May 2020, peaking in late June. A high level of cases, though with a downward trend, was maintained through December 2020. This resulted in delayed easing of restrictions compared with other countries (GAIN 2020).

<sup>1</sup> This report covers results from all the survey rounds in 2020. While the focus of this report is October–December 2020, the analysis includes survey rounds from September for Kenya and Bangladesh.

<sup>2</sup> Insights on the COVID-19 situation build on results from “Impact of COVID-19 on Food Systems: A Situation Report” (GAIN 2020).

- Kenya had a significant downturn of cases after a peak at the end of July/early August 2020. However, a subsequent second wave reached the highest number of cases and fatalities in November. As a result, the government re-imposed restrictions on November 4, 2020, including mandatory closure of bars and restaurants by 9pm and mandatory mask wearing in public<sup>3</sup>.
- Nigeria showed a more modest growth trend that was sustained until the last few weeks of the year, when cases began increasing. Measures restricting movement were largely eased in June and July 2020; while in December 2020 a curfew resumed, bars and restaurants were recommended to close temporarily, and face masks were again required in public places (US embassy)<sup>4</sup>.

The COVID-19 pandemic is widely understood to cause a global economic downturn, job losses, and increased poverty and food insecurity. It is difficult to document these effects in real-time; the summary below captures the most recent figures available but may underestimate the true impacts of the pandemic.

- In Bangladesh, 70% of workers are employed in businesses that are either temporarily closed or are partially closed due to the pandemic (Kader and Pattanayak 2020). Losses of income and remittances in the country have led to an estimated increase in poverty of nine percentage points (GIEWS-FAO 2021).
- According to the World Bank, one in three Kenyan workers is currently employed in a firm facing high risk of closure due to the pandemic, unemployment has doubled since pre-COVID times, and two million additional people are experiencing poverty, constituting an increase of four percentage points from the previous year (World Bank 2020a).
- While Nigeria was not as hard hit by the COVID-19 pandemic, World Bank analysis indicates that precautionary measures to halt the spread of the virus, along with lower oil prices and decreased remittances, has created the biggest recession in decades. While employment levels were rebounding from the initial months of the pandemic, many households are reporting declines in income and food security and poverty is expected to increase by 15–20 million by 2022 (World Bank 2020b).

While the national economic situation provides a broad perspective of the challenges caused by the pandemic, understanding the experiences of food system actors within the food market environment provides critical insights needed to support market system resilience under COVID-19 and beyond.

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<sup>3</sup> According to the U.S. Embassy of Kenya (<https://ke.usembassy.gov/covid-19-information/>).

<sup>4</sup> According to the U.S. Embassy of Nigeria <https://ng.usembassy.gov/u-s-citizen-services/covid-19-information/>).

### 3. DATA COLLECTION AND ANALYSIS

The KFMW/EatSafe rapid assessment market survey was designed to provide timely information on vendor and consumer's attitudes and behaviour in traditional markets in response to the COVID-19 pandemic in Bangladesh, Kenya, and Nigeria (data from Ethiopia will be reported on in the next quarterly report). Data were collected from two markets within each country, approximately every two weeks. In consultation with local officials, two markets were chosen in or near the capital cities of the focus countries. Criteria for choosing markets included that it be an open-air market selling fresh foods, engage in direct sales to consumers, and be a large major market serving the urban population.

Countries rolled out the surveys at different times, and thus have conducted different numbers of survey rounds to date. In each round approximately 40 consumers and 40 vendors were interviewed. For vendor surveys, a non-random stratified sampling approach was taken in each round, aiming to represent both the gender composition of the market vendors and the distribution of different commodity categories<sup>5</sup>. A convenience sampling approach was taken for consumer surveys. While the sample may not be representative of the population, it provides critical insights into the perceptions of vendors and consumers over time in the focus countries.

In Bangladesh, data collection started in September 2020 in Islambagh and Bonolota markets in Dhaka. The analysis represents five rounds of bi-weekly data collected from 402 vendors and 402 consumers. In Kenya, data collection started in September in Madaraka and Machakos markets outside of Nairobi. The analysis represents seven rounds of bi-weekly data collected from 636 vendors and 634 consumers. In Nigeria, data collection started in October in Utako and Gosa markets in Abuja. The analysis represents three rounds of bi-weekly data collected from 240 vendors and 240 consumers. In total, this analysis is based on interviews from 2557 respondents, 1317 males and 1240 females, between September and December 2020. Data were analysed using State software (StataCorp. 2019)<sup>6</sup>. Surveys were conducted in adherence to GAIN's internal ethical guidelines on COVID-19 prevention and control.

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<sup>5</sup> Despite the effort to sample in line with the composition of the market, there were some uncertainties about the sample in Nigeria, which may have oversampled fruit and vegetable vendors and under-sampled female vendors. These issues will be tracked more closely in future rounds.

<sup>6</sup> For questions on current behaviours or impacts, respondents were asked to recall the two weeks prior to the survey. Modifications to behaviours refer to a comparison between the time of the survey versus behaviour without/before COVID-19.

## THE SURVEY POPULATION

**Table 1. Respondent demographics**

	Gender		Age group					
	Males	Females	18–24	25–30	31–40	41–50	51–65	66–75
<b>Nigeria</b>								
<b>Consumers</b>	33%	67%	9%	29%	36%	23%	3%	0%
<b>Vendors</b>	60%	40%	8%	23%	33%	31%	4%	0%
<b>Bangladesh</b>								
<b>Consumers</b>	80%	20%	5%	16%	36%	33%	10%	0%
<b>Vendors</b>	100%	0%	2%	6%	26%	46%	20%	1%
<b>Kenya</b>								
<b>Consumers</b>	30%	70%	13%	26%	34%	17%	8%	2%
<b>Vendors</b>	28%	72%	7%	12%	25%	33%	20%	4%

As shown in Table 1<sup>7</sup>, in Kenya 72% of vendors interviewed were female and in Nigeria 40% were female, whereas in Bangladesh almost no female market vendors were interviewed. Restrictive norms related to gendered participation in commerce in South Asia can explain the dearth of female vendor respondents in Bangladesh.

The age distribution for vendors was slightly older in Bangladesh, where almost half of vendors were between 41–50 years old, than in Nigeria, where more than half are aged between 25–40. In Kenya, 33% of vendors are between 41–50 years old and 36% are aged between 25–40 years. In Bangladesh, consumers interviewed were mostly (80%) male, while in both Kenya and Nigeria over 60% of consumer respondents were female.

**Table 2. Vendors, by major commodity sold**

	Fruits and vegetables	Grains	Poultry, meat and/or fish	Eggs and dairy	Legumes
<b>Bangladesh</b>	28%	26%	21%	13%	11%
<b>Kenya</b>	78%	10%	2%	2%	7%
<b>Nigeria</b>	24%	14%	35%	11%	15%

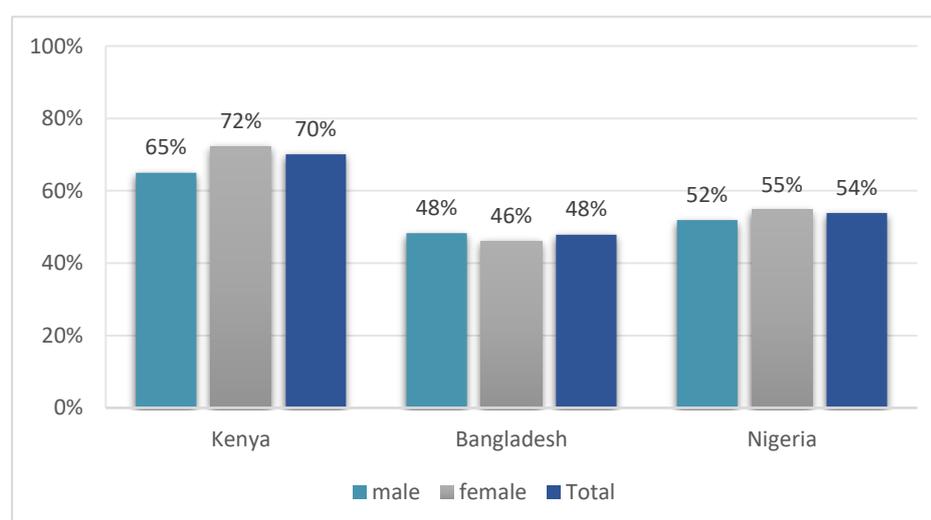
<sup>7</sup> The sample was not random: care should be taken in generalising the results to the broader population.

Major commodity sold was one of the sampling criteria for vendors, such that the types of vendors sampled covered nutritious commodities of interest and reflected the proportions found in the market (Table 2). Most vendors sampled specialised in one main commodity, though some (23% in Bangladesh, 13% in Kenya and 55% in Nigeria) specialised in two or three commodities.

- 
- *With the exception of Nigeria (75%), vendors reported taking measures to reduce risk 90 to 100% of the time.*
  - *Mask wearing was the most common preventative measure across all countries, followed by distancing.*
  - *In Kenya, use of mobile money was commonly cited as a mechanism to decrease risk.*
  - *In Bangladesh, consumers were less likely than vendors to report any useful safety measures in place in the markets.*
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#### 4. VENDOR AND CONSUMER PERCEPTIONS OF MARKET SAFETY DURING COVID-19

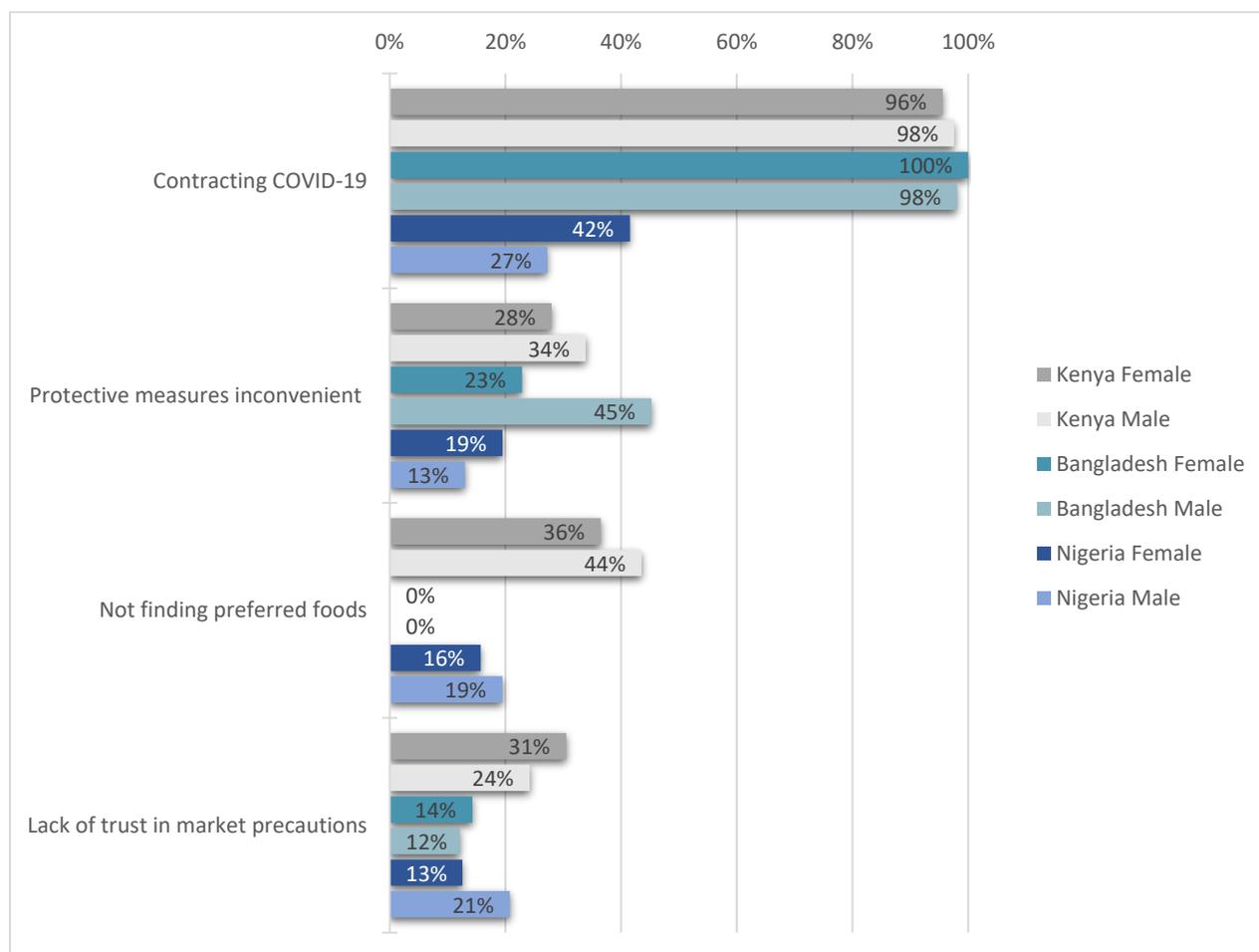
Consumers in all three countries reported having concerns about shopping in the markets due to COVID-19 (Figure 2). In Kenya, 70% of consumers had concerns overall, ranging from 59–80% over time and with slightly more women than men expressing concern. In Bangladesh, the proportion of concerned consumers was 48% overall. However, this value was not constant over time: this average represents much higher proportions (over 80%) in early survey rounds, compared to around 20% in the later rounds. In Nigeria, the proportion of concerned consumers was 54% overall, and was consistently around 50% over survey rounds and between men and women.



**Figure 2. Proportion of consumers who have concerns shopping in the market**  
 Note: Consumer responses across multiple survey rounds; differences by gender are not statistically significant. Source: Author analysis of survey data.

Those consumers who did have concerns were asked to specify what they were (Figure 3). Fear of contracting the virus was the most common concern across all three countries: 96–100% of male and female consumers in Bangladesh and Kenya shared this concern. While this is also the top concern in Nigeria, it is mentioned at much lower rates: 42% of women and 27% of men are concerned with contracting the virus. Not finding preferred foods in the market was the second most common concern in Kenya and Nigeria, but not a concern for any of the consumers in Bangladesh. Overall, responses of men and women were similar.

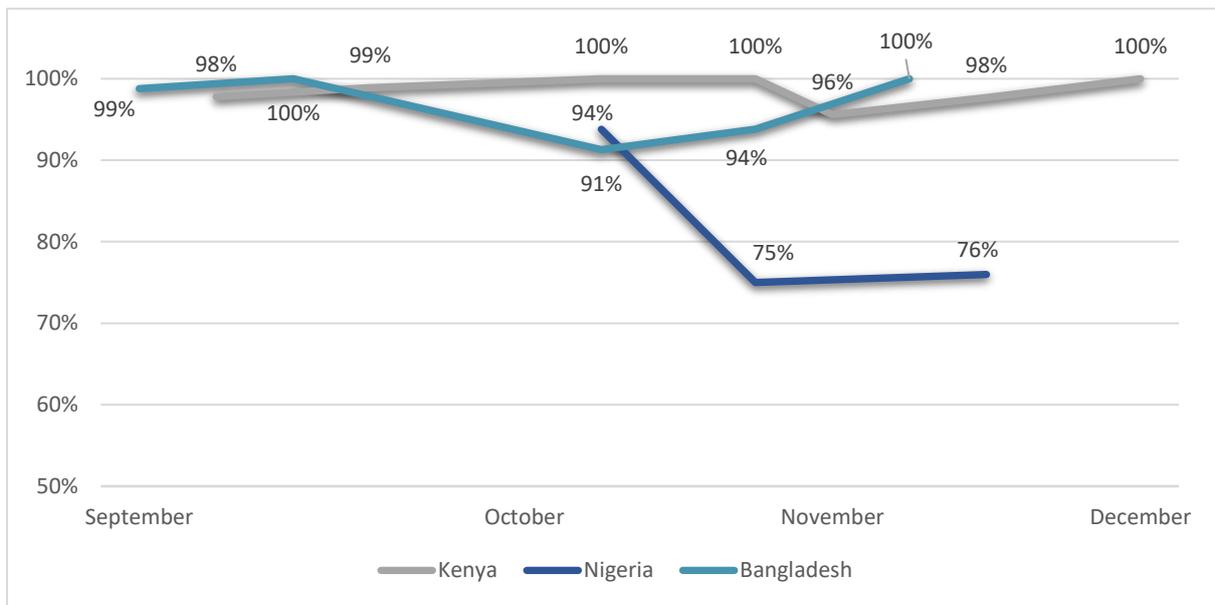
Respondents were asked a number of questions about measures they took themselves while selling or shopping in food markets to decrease their risk of contracting or spreading the virus, and also measures they observed that were put in place by market associations with guidance from local municipal authorities.



**Figure 3. Top concerns of consumers when shopping in the market, by gender**

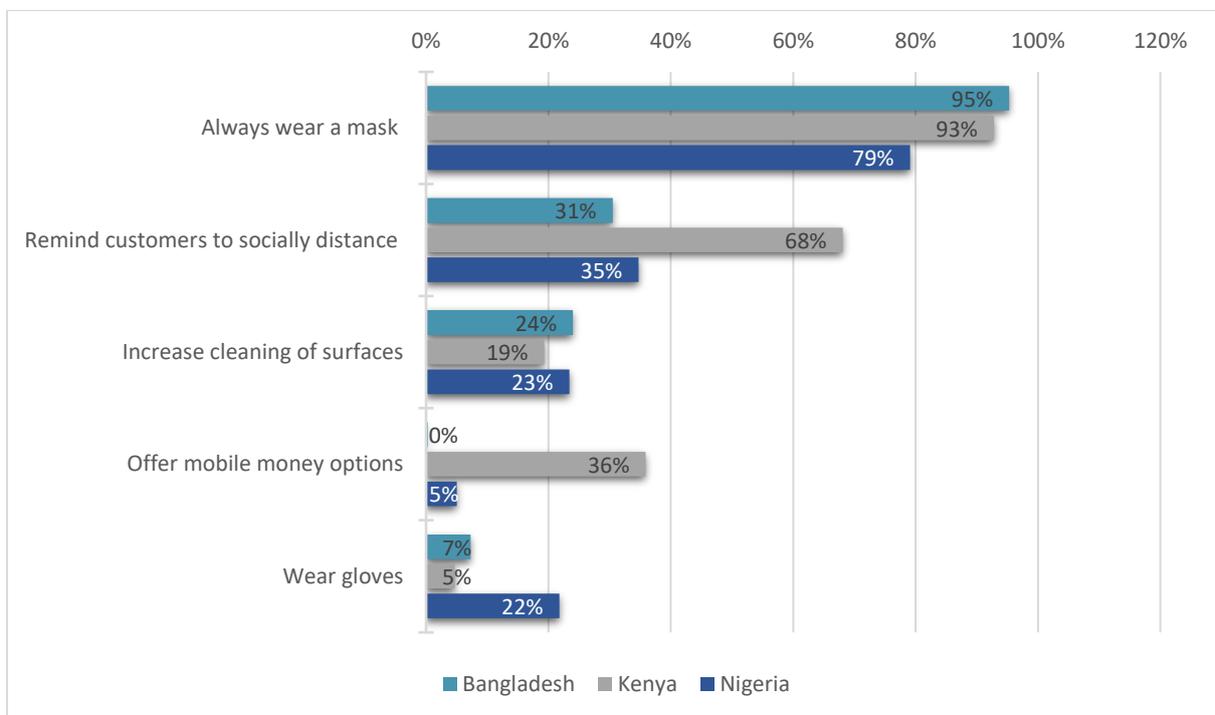
Note: Consumer responses across multiple survey rounds; differences by gender are not statistically significant. Source: Author analysis of survey data.

As shown in Figure 4, most vendors (above 90% of respondents in most rounds) consistently reported taking some measures to reduce the risk of transmission to themselves, employees, and consumers. The lowest percent of vendors taking measures was in Nigeria, where it fell from 94% in mid-October to around 75% by late October.

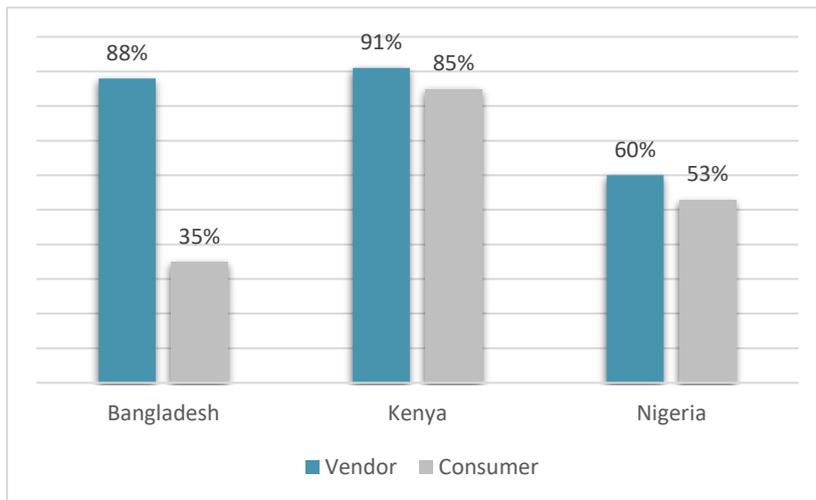


**Figure 4. Proportion of vendors who report taking preventive measure to reduce the risk of COVID-19 spread**  
 Note: Vendor responses across multiple survey rounds asking about measures taken in the two weeks prior; statistically significant differences across rounds for Bangladesh and Nigeria. Source: Author analysis of survey data.

Figure 5 shows which preventive measures were taken by vendors, across all survey rounds. For those vendors who did take preventative measures, mask wearing was the most common measure taken by vendors, across all countries. The second most common was to remind consumers to maintain appropriate distances while in the market. In Bangladesh and Nigeria, handwashing, cleaning surfaces and other hygiene and sanitisation practices were the third most common, while in Kenya use of mobile money to minimise contact was common.



**Figure 5. Commonly reported preventive measures taken by vendors to reduce the risk of COVID-19 spread**  
 Note: Of those who said they took measures (Figure 4), what measures were taken in the two weeks prior (aggregated across all survey rounds). Source: Author analysis of survey data.



**Figure 4. Proportion of respondents who noticed any safety measures put in place by the market**

Note: Aggregated responses from all survey rounds, referring to the two weeks prior to the survey. Source: Author analysis of survey data.

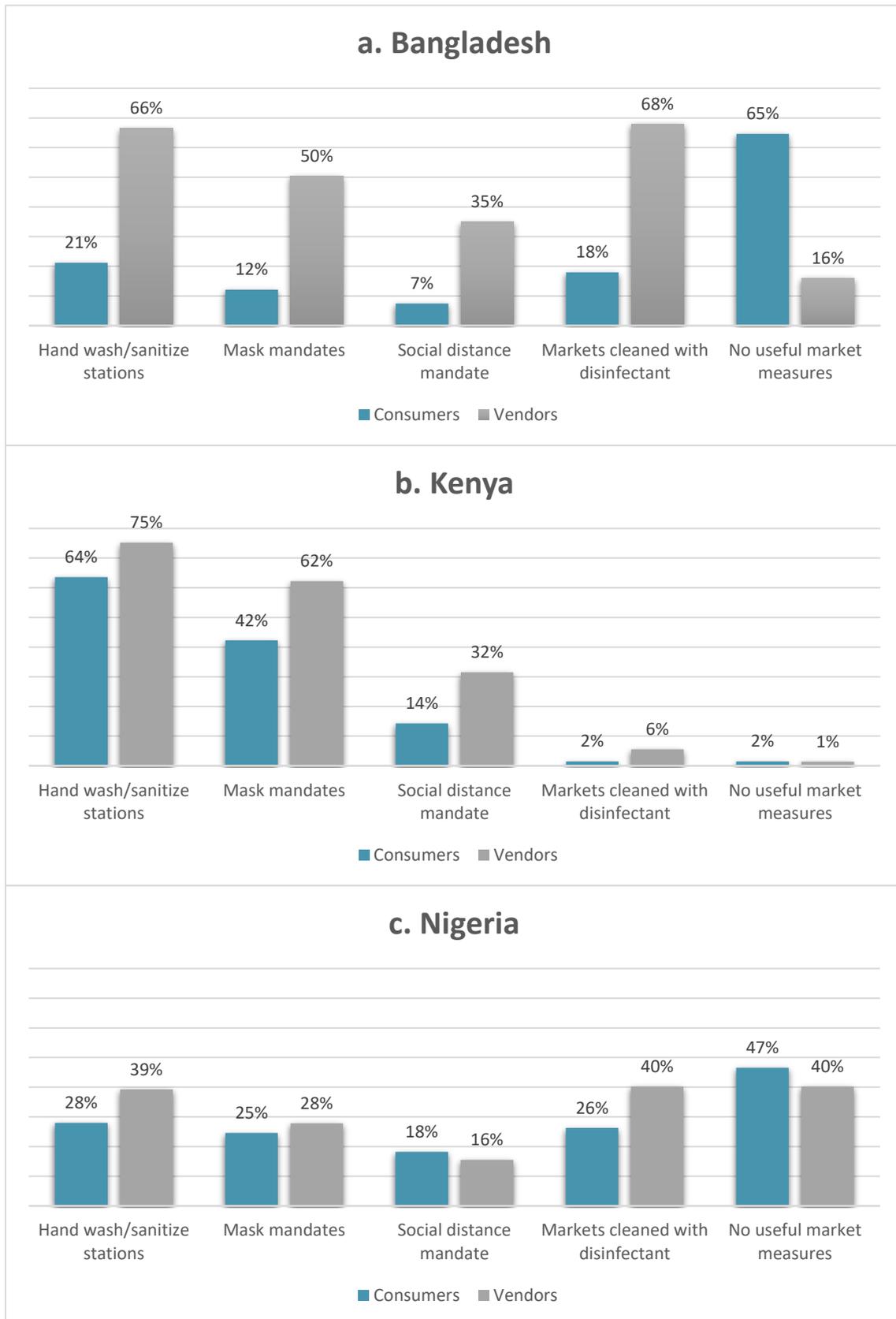
Figure 6 compares consumer and vendor responses as to whether they have observed any safety measures put in place by the market. In Kenya, almost all consumers and vendors noticed safety measures. In Bangladesh, most vendors (88%) noticed safety measures put in place by the market, but only 35% of consumers did. In contrast, in Nigeria just over half of vendors and consumers noticed safety measures by the market. For

those who did not observe any safety measures, it could mean that the measures were not highly visible – such as handwashing stations placed out of the way – or not enforced, such as masking mandates. Furthermore, the difference between consumers and vendors in Bangladesh could be explained by “behind the scenes” measures, such as cleaning measures after consumers leave.

## USEFUL AND SUGGESTED SAFETY MEASURES

For those respondents who did observe measures, they were asked which of those they considered useful. As shown in Figure 7, vendors are more likely to find measures useful, compared with consumers. This difference is especially stark in Bangladesh, where 65% of consumers do not consider any measures useful in protecting them. In contrast, 68% of Bangladeshi vendors consider cleaning markets with disinfectant useful and 66% consider handwashing stations useful.

- 
- *Measures considered most useful are handwashing and sanitisation stations and mask mandates for consumers and vendors, across countries.*
  - *Market safety measures tend to be noticed and considered useful by more vendors than consumers.*
  - *Respondents in all three countries suggested that market leadership should pay for masks, water, sanitiser, and additional handwashing stations.*
-



**Figure 5, a, b, c. Market measures considered most useful for reducing individual risk (by country and role)**

Note: Of those who said they noticed measures (Figure 4), what measures were noticed in response to COVID-19 in the two weeks prior (aggregated across all survey rounds). Source: Author analysis of survey data.

Handwashing and sanitisation stations are most often mentioned as useful measures by the markets (Figure 7). The second most common measure is masking mandates for consumers and vendors. Vendors in Bangladesh are highly supportive of disinfecting the markets. In Kenya, almost all respondents consider market safety measures useful. In Nigeria, nearly half of all consumers and vendors do not consider any measures useful in protecting them.

Vendors and consumers were asked to provide suggestions for making the markets safer. Open-ended responses were recorded (see boxes for some noteworthy responses).

The responses largely mirror the measures identified as useful in Figure 7. However, suggestions were made to enforce safety policies, such as masking and handwashing. In addition to assigning market staff to enforcing policies,

respondents also suggested that awareness should be improved through loudspeaker announcements and signs to remind people of safe practices.

Furthermore, respondents in all three countries suggested that market leadership should pay for masks, water, sanitiser, and additional handwashing stations.

#### Markets should better enforce safety policies

“[They should] announce through miking to wear mask while going outside.” (Source: Vendor, Bangladesh, September)

“Need to be strict to follow rules strictly as it is followed before.” (Source: Vendor, Nigeria, October)

“They should make it mandatory for both the consumer and vendors to wear face mask all through the period in the market.” (Source: Consumer, Nigeria, November)

#### Markets should finance safety measures

“Handwashing booths should be installed all over the market because the gates are far from the vendors, or vendors can take turns in the market – some sell in the morning, some sell in the evening.” (Source: Consumer, Kenya, October)

“The market should provide free sanitisers and masks to the vendors.” (Source: Vendor, Kenya, December)

“...by providing PPE materials to all vendors in the market and also mandatory washing of hand during and after shopping in the market.” (Source: Vendor, Nigeria, November)

In all countries there was some indication of pandemic fatigue, wherein respondents suggested that people have become lax in following the rules, compared with earlier in the pandemic. In Nigeria, a number of respondents suggested that the virus was no longer a problem in the country.

#### **Pandemic fatigue and perceptions that the virus risk is over**

“People [do] not follow the rules now as they used to follow before. [The] committee should try to convince them about this.” (Source: Vendor, Bangladesh, September)

“The market is no longer concerned whether people are following the guidelines or not. They should ensure the resources are available and that people are following the guidelines.” (Source: Consumer, Kenya, November)

“I don't think anything should be done because things are basically back to normal now.” (Source: Vendor, Nigeria, November)

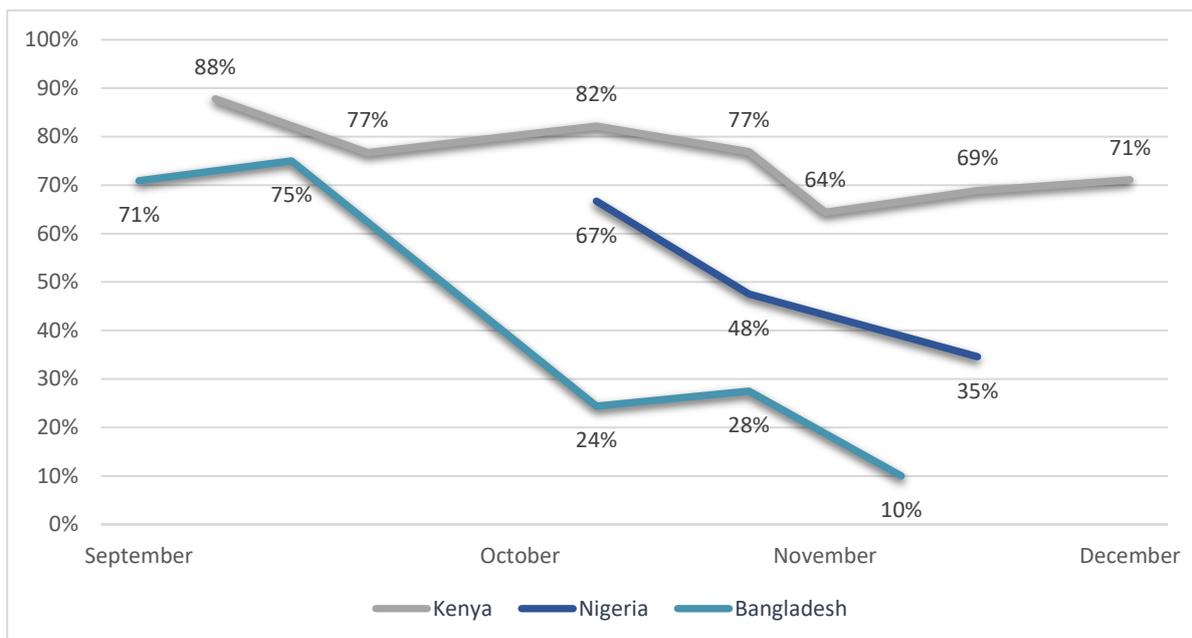
## **5. PERCEIVED EFFECTS OF COVID-19 ON FOOD PURCHASE AND SALES**

### **CHANGES IN CONSUMER BEHAVIOUR**

Across all survey rounds, 70% of consumers interviewed in Kenya had concerns about shopping in the market due to COVID-19, while in Bangladesh and Nigeria around half of the consumers surveyed had concerns. Consumers were asked about changes in shopping behaviour and vendors were asked about effects on their business due to COVID-19 in the two weeks prior to the survey. Changes in shopping behaviour suggest risk awareness and mitigation by consumers, but some risk mitigation behaviours also have negative implications for vendor livelihoods.

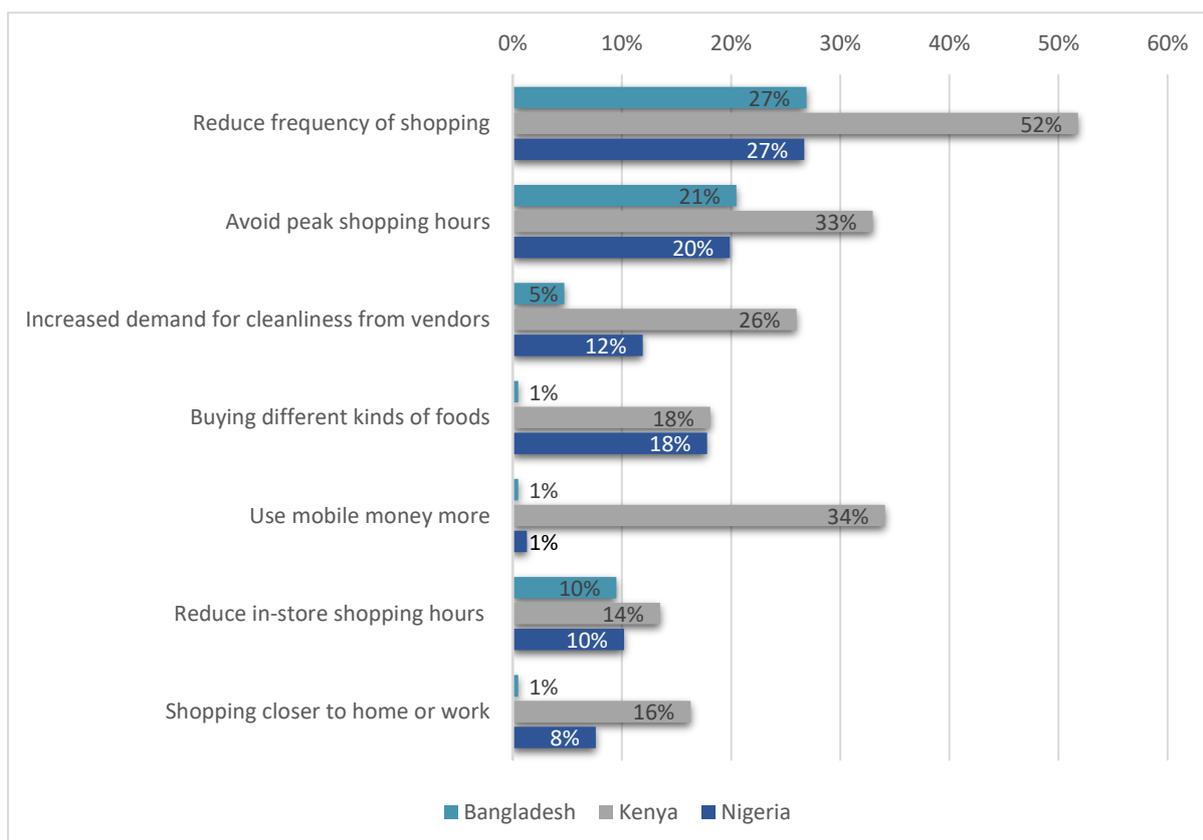
Changes in shopping behaviour in response to COVID-19 were reported at higher rates (64–88%) in Kenya compared with other countries across all survey rounds (Figure 8). In Bangladesh, the proportion of consumers that changed their shopping behaviour peaked in September (75% at the highest) but decreased sharply by October through November (down to 10%). The first round of data was collected in Nigeria in October, with 66% of consumers reporting changing their shopping behaviour, falling sharply to 34% by November.

- 
- *Consumers' most common behaviour change due to COVID-19 was to reduce shopping frequency.*
  - *The most commonly reported effect of COVID-19 on businesses was decreased sales and consumer numbers.*
  - *Over time, fewer consumers reported changed behaviours, but most vendors continued to report negative effects of the pandemic.*
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**Figure 8. Consumers reporting changes in shopping behaviour in response to COVID-19**

Note: Consumer responses across multiple survey rounds reporting changes in response to COVID-19 in the two weeks prior. Source: Author analysis of survey data.



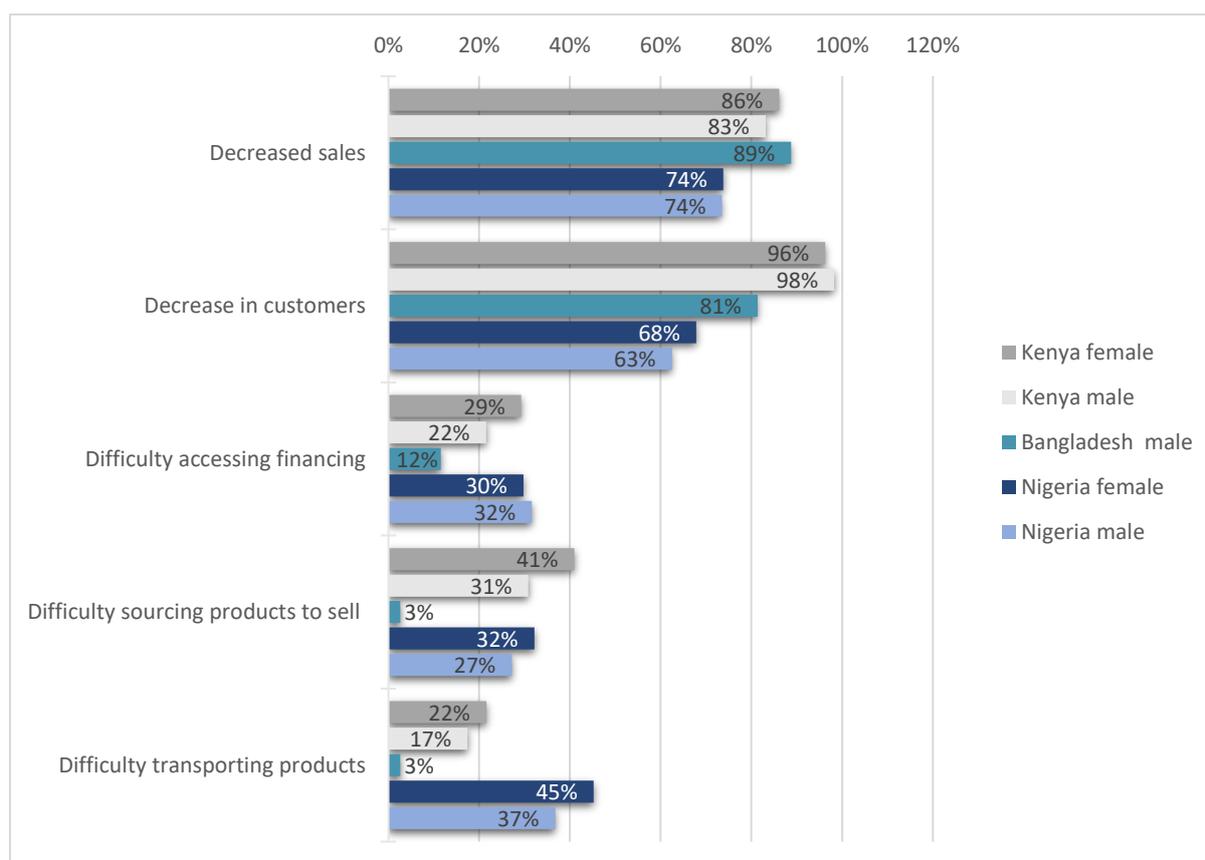
**Figure 9. Changes in consumers' shopping behaviour in response to COVID-19**

Note: Of those who said they changed behaviour (Figure 6), what changes were reported, aggregated across survey rounds, in response to COVID-19 in the two weeks prior. Source: Author analysis of survey data.

The consumers that reported changing their shopping behaviour in response to COVID-19 were asked to specify what they were doing differently (Figure 9). The most common change in behaviour reported was reducing the frequency of shopping trips. Other common changes included avoiding the market during peak shopping hours and demanding cleanliness from vendors. In Kenya and Nigeria, many consumers also reported purchasing different types of foods. Once again, increased use of mobile money was a common response in Kenya (where 34% of consumers relying more on mobile money) but not in other countries.

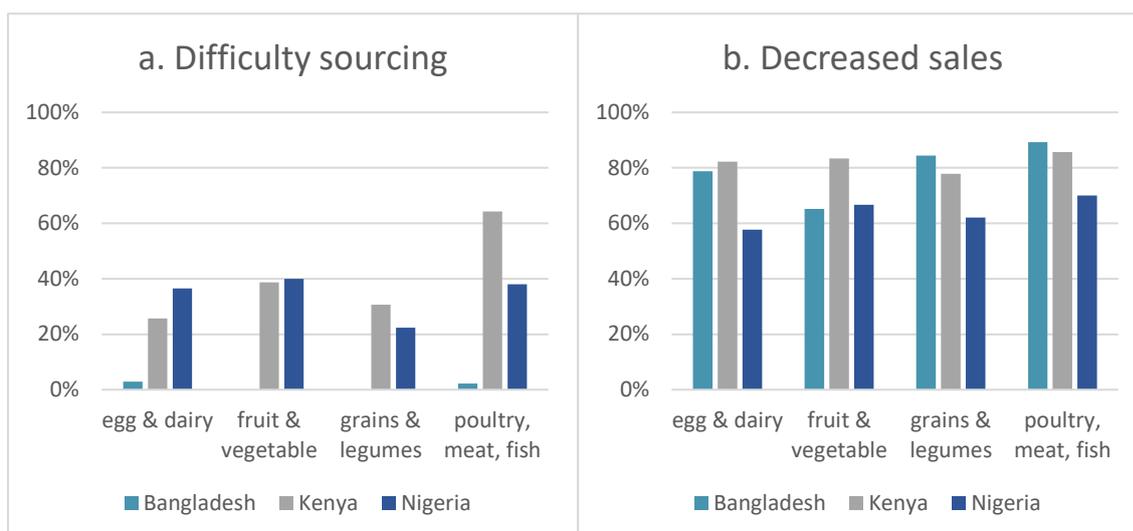
## EFFECTS FELT BY VENDORS

In contrast to the percentage of consumers reporting changes in shopping behaviour (which decreased over the survey rounds), the proportion of vendors reporting impacts on their business due to COVID-19 remained between 90–100% across all rounds in all countries. The most common challenges reported were decreased consumer numbers and sales (Figure 10). Difficulty sourcing products to sell was perceived by 27% of vendors in Nigeria and 36% in Kenya; and difficulty transporting products was mentioned by 37% of vendors in Nigeria and 23% in Kenya. However, only 3% of vendors in Bangladesh had these challenges. There were no significant differences in responses between male and female vendors.



**Figure 10. Commonly reported business challenges vendors faced due to COVID-19**

Note: Of those who said they were impacted by COVID-19 in the last two weeks (see Figure 8), these are the frequently reported challenges. Source: Author analysis of survey data.



**Figure 11, a, b. Comparing vendor challenges by food group: difficulty sourcing products to sell vs. decreased sales**  
 Note: Proportion of vendors who said they were impacted by the pandemic for whom difficulty sourcing food products to sell was a challenge vs. those who said decreased sales was a challenge. The effects were not statistically significant by gender of vendor. Differences by food group were statistically significant in Kenya (a) and Bangladesh (b). Source: Author analysis of survey data.

Figure 11 compares the extent to which vendors of different food types reported two important challenges: difficulty sourcing products to sell and decreased sales. Comparing these two challenges can help in identifying where food systems may be constrained during the pandemic for specific nutritious foods. In Nigeria and Kenya, difficulty sourcing products to sell was mentioned across all food groups, though highest for meat, poultry, and fish and lowest for grains and legumes). However, this was rarely mentioned in Bangladesh for any food groups.

Considering decreased sales, vendors in all countries for all food groups perceived a decrease in sales due to the pandemic. Once again, the proportion of vendors experiencing decreased sales was highest for meat, poultry, and fish. Also, fewer vendors in Nigeria perceive lower sales across all food groups. Despite these variations, the challenge is relatively consistent across food groups.

## 6. CONCLUSIONS

While COVID-19 caseloads differed greatly by country in the final quarter of 2020, Bangladesh, Kenya and Nigeria were all struggling with the negative impacts of the pandemic, as reflected in national statistics in joblessness and rising poverty. Taking a more localised view, this work provides a unique perspective of the effects of the pandemic, delving into the perceptions and actions of vendors and consumers on the ground and how their businesses, products, and supply chains are responding to health concerns, supply limitations, and market uncertainty.

Most vendors adopted safety measures to protect themselves and their consumers: more than 75% throughout the period in Nigeria and from 90–100% in Bangladesh and Kenya. Most common measures were masking, social distancing, and (in Kenya) use of mobile money. Consumer and vendor perceptions of safety measures implemented by the market leadership differed. Fewer consumers observed measures or found them useful compared with vendors. This may, in part, reflect safety measures that take place behind the scenes, such as deep

cleaning and sanitisation of markets, that consumers would not be likely to observe. No significant differences were found between male and female vendors and consumers.

The most reported business challenges were decreased sales and decreased number of customers, suggesting that movement restrictions and consumer risk avoidance were a major source of difficulty. Supply chain challenges, such as sourcing products to sell and disruptions in transportation, were less commonly reported, but still important challenges in Nigeria and Kenya, but not Bangladesh.

Despite the majority of vendors reporting continued negative effects on their business, including decreased sales and customers, although consumers suggest that their shopping behaviour was going back to normal (especially in Bangladesh and Nigeria) over the period of study.

Over the study period – September–December 2020 – while effects on vendors such as decreased sales and customers persisted, consumers increasingly report returning to their normal shopping behaviours. The steepest decline in the number of consumers reporting changed shopping behaviours due to COVID-19 occurred in Bangladesh and the slightest in Kenya. While some consumers may still be avoiding large markets entirely (and thus will not be reflected in the sample), a possible interpretation of these combined results is that consumer constraints such as purchasing power may be a more pronounced challenge in these communities than supply chain disruptions.

Analysis of vendor challenges by type of food sold suggests that challenges are similar across food types, with the exception of vendors of poultry, meat, and fish, who reported difficulties sourcing products to sell at higher rates, particularly in Kenya. In addition, the same vendors reported decreased sales at higher rates than vendors of other food groups. As these products are highly perishable and relatively expensive, this result is not surprising.

Consumer and vendor suggestions to subsidise additional safety measures, such as more handwashing stations, free masks, and enforcing compliance with safety measures, could increase safety and encourage more shoppers to come back to the market. Furthermore, attention should be paid to consumer purchasing power to support nutrition and food security and vendor livelihoods.

## WHAT'S NEXT?

At the onset of the KFMW project, GAIN facilitated the organisation of Market Response Units (MRUs) for each market where data was being collected. These are made up of market association leaders, vendors, consumers, and local authority representatives. The MRUs were key in the design and implementation of the consumer and vendor surveys and are the primary recipients of the results. GAIN holds monthly MRU meetings to share the latest survey results, discuss implications and make decisions around how to improve the health and safety of the market.

The next quarterly report will continue to present results and insights from the ongoing bi-weekly surveys in Bangladesh, Kenya and Nigeria, while also including data from Ethiopia. Analysis of issues of supply chain constraints and changes in consumer purchasing patterns of nutritious foods will be further explored in future reports. In addition, these results will be combined with data from vendor and consumer surveys that focus on market resilience in the

face of COVID-19. This will provide further insights on consumer preferences, prices of nutritious foods, and business practices associated with resilient markets.

## 7. REFERENCES

- GAIN. 2020. Global Alliance for Improved Nutrition (GAIN) *Impact of COVID-19 on Food Systems: A Situation Report*. <https://www.gainhealth.org/resources/reports-and-publications/impact-covid-19-food-systems-situation-report>.
- GIEWS-FAO. 2021. *GIEWS Country Brief: Bangladesh*. <http://www.fao.org/giews/countrybrief/country/BGD/pdf/BGD.pdf>.
- Kader, Ananya Wahid, and Manoranjan Pattanayak. 2020. *Business Pulse Survey: Impact of COVID-19 on MSMEs in Bangladesh*. Washington D.C. [https://www.ifc.org/wps/wcm/connect/region\\_ext\\_content/ifc\\_external\\_corporate\\_site/south+asia/resources/business+pulse+survey+-+impact+of+covid-19+on+msmes+in+bangladesh](https://www.ifc.org/wps/wcm/connect/region_ext_content/ifc_external_corporate_site/south+asia/resources/business+pulse+survey+-+impact+of+covid-19+on+msmes+in+bangladesh).
- Our World in Data. "Coronavirus Pandemic (COVID-19) - Statistics and Research." <https://ourworldindata.org/coronavirus> (March 17, 2021).
- StataCorp. 2019. "Stata Statistical Software."
- World Bank. 2020a. *Navigating the Pandemic Trilemma*. Washington D.C. <http://documents1.worldbank.org/curated/en/968481572468094731/pdf/Kenya-Economic-Update-Securing-Future-Growth-Policies-to-Support-Kenya-s-Digital-Transformation.pdf>.
- . 2020b. *Rising to the Challenge: Nigeria's COVID Response*. Washington D.C. <https://www.worldbank.org/en/country/nigeria/publication/nigeria-development-update-ndu>.