

The Unequal Economic and Livelihood Impacts of COVID-19 Lockdowns: Qualitative Evidence from Uganda

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David Musoke, PhD¹ , Kevin Deane, PhD², Sarah Nalinya, MPH¹, Grace Biyinzika Lubega, MPH¹, Elizabeth Ekirapa-Kiracho, PhD¹, and David McCoy, PhD³

Abstract

Lockdowns were a key policy response to the COVID-19 pandemic. While they were viewed as a necessary intervention, concerns were raised about their potential for harmful economic and livelihood impacts. However, few studies have addressed the unequal economic and livelihood impacts of lockdowns. Our article reports findings from a qualitative study conducted in Uganda on economic and livelihood impacts of COVID-19 lockdowns in urban and rural settings. This study used 14 focus group discussions, 40 household, and 31 key informant interviews in both urban (Kampala district) and rural (Wakiso district) areas in central Uganda. Data analysis was conducted thematically with NVivo 2020 (QSR International). The findings emphasize the unequal impacts of the COVID-19 lockdowns across a range of dimensions: informal sector activities, formal employment, fluctuating prices alongside scarcity and surpluses, food insecurity, and government interventions. Wealthier households in urban areas were least affected, with urban households reliant on informal sector activities experiencing the most significant impacts. Our findings also suggest that longer-term development strategies, such as increased food self-sufficiency and informal sector interventions can support future pandemic preparedness and response. To address these impacts, policymakers should provide targeted support, alongside protecting key productive sectors, and supply chains.

Keywords

economic impacts, COVID-19 pandemic, formal sector, informal sector, livelihood impacts, urban, rural, Uganda

What do we already know about this topic?

COVID-19 lockdowns raised concerns about their potential for harmful economic and livelihood impacts.

How does your research contribute to the field?

We assessed the economic and livelihood impacts of COVID-19 lockdowns in Uganda.

What are your research's implications towards theory, practice, or policy?

Policymakers should provide targeted livelihoods support, alongside protecting key productive sectors and supply chains in response to future pandemics.

Introduction

Lockdowns and associated control measures constituted one of the key responses to the global COVID-19 pandemic.¹ Designed to contain the spread of COVID-19, protect vulnerable populations, and flatten the curve to reduce pressure on health systems, lockdowns were initially implemented in China and countries in the global north that were the first to experience significant levels of COVID-19 infections.¹ As the pandemic was seen to reach most regions across the world, this policy measure was also implemented in

¹Makerere University, Kampala, Uganda

²The Open University, Milton Keynes, UK

³United Nations University, Kuala Lumpur, Malaysia

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Corresponding Author:

David Musoke, Department of Disease Control and Environmental Health, School of Public Health, College of Health Sciences, Makerere University, New Mulago Hospital Complex, P. O. Box 7072, Kampala, Uganda.

Email: dmusoke@musph.ac.ug



lower-income settings as an initial response to limit the spread of COVID-19.^{2,3} This policy measure was also prioritized to reduce the potential impact on already over-burdened and under-funded health systems.⁴ The nature of lockdowns implemented in the sub-Saharan context varied widely by country in terms of the mix of measures, exceptions, timing, and duration. The lockdown measures typically included the closure of national borders, other travel restrictions on internal population movement and the use of transport, limits on social gatherings, home confinement, the closure of public and private spaces (such as schools, universities, restaurants/bars, shops, other service-related facilities), and curfews.^{1,3}

Although these lockdowns were often viewed as necessary from a public health perspective, many commentators raised concerns about the anticipated and unintended negative consequences the restrictions would have on economic activity and livelihoods in the African context.⁴⁻⁹ The mechanisms through which lockdowns impact economic activity and livelihoods include reduced cross-border and international trade,¹⁰ disrupted supply chains,^{11,12} reduced opportunities for income generation for the self-employed in the informal sector,^{13,14} and increased unemployment in the formal sector.¹⁴⁻¹⁸ In addition, disrupted agricultural production as movement restrictions coincided with key planting seasons,⁶ reduced local demand from the closure of urban markets, cessation of international tourism,⁵ reduced fishing activities due to curfews,¹⁹ and increases in food prices^{11,18} were observed.

The multiple impacts of lockdowns have undermined livelihoods, resulting in lost and lower incomes for many households,^{18,20-22} increased food insecurity and poverty,^{15,16,23} as well as business closures.¹⁷ In addition, lockdowns disproportionately impacted lower income households already in a vulnerable position prior to the pandemic and households reliant on informal sector activities in urban areas.^{5,13,16,24,25} This has led to ongoing debates in the literature as to whether the cure (lockdowns) is worse than the disease (COVID-19)(or not).²⁶ This notion is supported due to the fact that some households have had to make difficult choices and trade-offs regarding access to livelihood activities and basic needs due to the exposure to COVID-19.^{7,13} Concerns were also raised that the consequences of lockdowns would increase poverty rates, negatively impact economic growth, and reverse recent progress towards the Sustainable Development Goals across the global south.²⁷⁻²⁹

This article aims to contribute to this discussion through reporting findings from a qualitative study conducted in Uganda which, amongst other objectives, aimed to understand the economic and livelihood impacts of lockdowns and associated control measures. Uganda is a good case study for this purpose given the relatively stringent lockdown measures implemented, which included a national lockdown consisting of a curfew from 19:00 to 05:30 h (later revised to 21:00h start time), suspension of various forms of

public transport, and restricted movement of people. Other lockdown interventions were closure of schools and other institutions of learning, closure of non-food related small businesses, suspension of all forms of public gatherings, and closure of national borders.³⁰ The study also aimed to explore differences between wealthier and poorer households, as well as urban and rural settings. The differential impacts of lockdowns and the direct comparison of the experiences of different social groups has hardly been explored before in the Uganda context (nor in the wider literature). This is therefore one of the novel contributions that the study makes to the existing body of knowledge. The findings from the study could provide guidance to policy makers regarding balancing health and livelihood needs during future infectious disease outbreaks, as well as the implications for longer term economic and development strategies that can support pandemic preparedness.

Methodology

Study Design and Setting

This study was qualitative and used three data collection techniques: focus group discussions (FGDs), key informant interviews (KIIs), and household interviews. This study was conducted in two settings: one rural and the other urban. Kasanje Town Council in Wakiso district represented the rural setting, while Rubaga Division in Kampala district represented the urban setting. The major economic activity was agriculture in the rural setting and small-scale business in the urban setting. Kasanje Town Council, with a projected population of 46,042 people, had one public health facility, two government-aided health facilities, nine registered clinics, and 22 registered drug shops.³¹ Rubaga Division, with a projected population of 427,300 people,³² had two government health facilities, eleven private-not for profit health facilities, and over forty private health facilities.³³ More details about the study setting can be found in our earlier published paper.³⁰

Study Participants and Data Collection

The study conducted a total of 14 FGDs, 31 KIIs and 40 household interviews which were informed by data saturation. FGD and KII guides, and a non-structured questionnaire were used during data collection. These tools were developed by the researchers given their expertise and experience in public health and communicable diseases including COVID-19. Pretesting of the tools was carried out in a community in Wakiso district that was not selected for involvement in the study. Guiding questions explored participants' views of the social and economic effects of the COVID-19 lockdown. Issues explored included the effects of the lockdown on livelihood activities such as subsistence agriculture, small and medium businesses, and formal employment. The study

participants for both the FGDs and household interviews were recruited from ten rural zones in Kasanje Town Council, Wakiso District and seven urban zones in Rubaga Division, Kampala City. These zones were purposively selected because they were largely comprised of informal settlements, as well as had a high population and overcrowded households which increased their vulnerability to COVID-19. They also had limited access to social services, and a high proportion of people with informal jobs and businesses hence were more susceptible to the socio-economic consequences of the COVID-19 control measures. Participants of the household survey consisted of individuals from low, middle, and high socio-economic classes (urban: 6 high-income, 7 middle-income, and 7 low-income households; rural: 5 high-income, 7 middle-income, and 8 low-income households) which provided a broad spectrum of experiences and insights. Several factors were used to assess socio-economic class of the households including location of residence, employment type, and house structure. Participants of the household interviews provided personal, household, and community experiences of the COVID-19 control measures and their social and economic effects. The household interviews were conducted in *Luganda*, the most widely used local language in the study districts and audio taped using a tape recorder. Two female research assistants who had vast experience in qualitative research collected the data. The research team had no prior relationship with the participants.

The participants of the FGDs were purposively selected by local leaders and community mobilizers with guidance from the research team. They were selected to represent separate youth female, youth male, older female, older male, community health workers, and community leader groups. These FGDs were comprised of between 8 and 16 individuals and conducted within the community at a public location. Separate FGDs were conducted among health practitioners at their respective health facilities. The health practitioners were selected by the health facility in-charge to represent various departments. The FGDs were participatory and involved assigning participants to smaller groups of 3 to 4 people. The small groups then discussed and recreated the time-line of various COVID-19 prevention and control measures from March 2020 to July 2021. They then discussed the social and economic effects of these measures. Each (smaller) group then elected a leader who presented the experiences and insights to the rest of the FGD participants. The FGDs were audio recorded, with all community FGDs conducted in *Luganda*. The health practitioner FGDs were conducted in English.

Key informants were purposively selected due to their involvement, expertise and influence regarding response to COVID-19 and their social and economic effects. The KIIs were conducted virtually via Zoom due to COVID-19 travel

restrictions during the data collection period. Data collection for the various methods lasted between 30 and 80 min.

Data Analysis

The audio recordings, which were in the local language (*Luganda*) for the community FGDs and household interviews were transcribed verbatim. The transcripts were then verified by the experienced qualitative research team (SN, female—MPH; GBL, female—MPH; and DM, male—PhD) and later translated to English. The health practitioner FGDs and KIIs which were conducted in English were auto-transcribed by a software, and the generated transcripts edited and verified by the research team. Data analysis was conducted by GBL and SN in NVivo 2020 (QSR International) guided by the thematic analysis framework. Data analysis involved identifying recurring codes arising from the data. Related codes were then grouped to form sub-themes and then themes as noted in more detail elsewhere.³⁰ The major themes on the livelihood and economic effects of the COVID-19 lockdown are presented in this paper including selected quotations from participants.

Ethical Statement

The study received ethical approval in two stages: initially from Makerere University School of Public Health Research and Ethics Committee (number 923), followed by approval from the Uganda National Council for Science and Technology (number SS881ES). All participants provided written informed consent and participated in the study voluntarily. To protect anonymity, participants' identifiable information including names was not audio recorded during data collection. Only the research team accessed the data and did not use it for any other purpose. The FGDs adhered to COVID-19 prevention guidelines in the country. Indeed, both research assistants and participants were supplied with face masks, frequent hand sanitization was ensured, and social distancing was maintained. Household interviews took place in open spaces to facilitate social distancing as a preventive measure for COVID-19. Moreover, the FGDs and household interviews occurred during a period of low community COVID-19 transmission, situated between the first and second waves of the pandemic.

Results

Five themes from the study emerged and are presented: varied impacts on informal sector activities; varied formal employment impacts; fluctuating prices, scarcity and surpluses; food insecurity; and government interventions. Some of the findings are compared between low, middle and high

incomes households, as well as rural and urban settings in the study area.

Varied Impacts on Informal Sector Activities

Participants reported significant disruption to a wide range of economic activities due to different aspects of the lockdown measures. Overall, there was a consensus across the participants that those in the informal sector and those with small-scale businesses experienced the most severe consequences. For example, due to the curfew many small-scale informal sector activities such as selling food in markets or on the roadside in the evening were curtailed, with the reduced hours of business having an impact on earnings:

Even when the start of curfew was shifted from 7pm to 9pm, nothing improved, because curfew mostly affects the low earners, our mothers who sell foodstuff at night. As my brother has said, these youths that sell chips and chicken, they set up their business at 7pm and they must close at 9pm saying that it is time up. Opening for less than 2 hours is as if you didn't open up that business, as if we are still in lockdown. In 2 hours, you cannot get money to pay rent, take care of your children, the truth is that curfew affects the low earners and so the low earners were and are still being affected them. (Community Leaders, FGD, Participant 2, Kampala)

Other participants noted that reduced operating hours and restrictions on public transport were felt particularly keenly by *boda boda* (commercial motorcycles) and taxi drivers. For small-scale business owners, general reductions in local demand due to reduced hours of operation and the consequences of the more general effects on livelihoods (such as reduced incomes) were compounded by the refusal of property owners to waive rent during periods of lockdown when non-food businesses were not allowed to open. Other participants mentioned that after the lockdown, their landlords increased rent, making it difficult for them to clear their arrears. This led to tenants in arcades being evicted as there were unable to pay rent while the premises were closed:

Rent has been a major challenge for business operators. Most of the business operators were evicted from their working spaces even when the President of Uganda directed that no tenant should be evicted because they were not working. However, most of the owners of the working spaces went ahead and evicted business operators who could not afford to pay rent. Those that were renting in arcades were told to take out their property and they had nowhere to work from. (Youth Women, FGD, Group 3 Participant 1, Kampala)

Similar issues were reported in relation to loans, with banks and other loan companies refusing to write off or delay loan repayments, further compounding the challenging financial environment:

There was nothing like writing off a loan. People who rented workspaces in arcades were very negatively affected because all these arcades were closed due to the lockdown. However, the owners of the buildings would close their shops and demand for rent even for the months when arcades were in total lock-down. In addition, most of these people owed big loans to different loan companies which could not be written off. (Middle Income HH, KII 4, Kampala)

One consequence of mandatory loan payment was that many households had to resort to selling property and using up savings to get them through lockdown periods:

And all of a sudden, we had a lockdown, yet the banks are demanding. People had to sell off their properties at a very low cost and all those are losses. And basically, it is leading to a lot of financial distress in our country. (Health practitioner, Local Government, KII 18, Wakiso)

However, on the other hand some participants reported that they were able to continue accessing their gardens/agricultural land, and that the lockdowns did not significantly disrupt this. This was particularly observed in the rural settings among the study population:

Well, at home and in terms and economic activities, nothing much changed (during the lockdown). We would spend most of the time in the garden, just like we would before COVID-19. We grew all sorts of crops from matooke (bananas), to maize, beans and cassava. We also grew vegetables for a balanced diet. (Middle Income HH, KII 6, Wakiso)

Other participants also noted that they were able to focus on expanding activities related to agriculture and animal husbandry given that other livelihood activities were more impacted:

. . . other sources of income beside agriculture were all on hold. The people you were used to meeting you could not meet, so my family's livelihood evolved. What was once a small garden became a much bigger farm. Since we had our quite a big piece of land and a lot of time, we concentrated most of our efforts on agriculture. We ventured into poultry and rabbits and used the waste products of the animal farming as manure for the crops. So, the lockdown brought change of livelihood. We had other jobs we were doing which completely stopped so it brought creativity. People had to improvise, and we saw the other side of life we were not used to. (High Income HH, KII 4, Wakiso)

However, these reports were primarily from middle- and higher-income households, and in settings with more land available for agriculture.

Varied Formal Employment Impacts

Alongside having a significant impact on informal sector business and activities, lockdowns also led to significant

reductions in the formal employment across both the public and private sectors. For example, it was reported that local government employment was operating a reduced capacity:

Very many people are out of jobs right now, even at local government level we are operating at 30% and most of the employees are still home. (Health practitioner, Local Government, KII 18, Wakiso)

This impact was also experienced by those working in the private sector, such as the banking sector, with temporary pauses in employment eventually leading to permanent job losses, or situations where employees were still waiting to return to work:

Our daily life was affected by COVID-19 in a way that we lost our jobs. For example, my sister who financially supported our household worked in a bank. When the pandemic came, the boss told her to go home until the situation normalized. Unfortunately, she was never called back to work and eventually lost her job due to COVID-19. (Youth Men, FGD, Participant 10, Kampala)

From the findings, the impacts of lockdown to households across the social spectrum led to the slowdown in economic activity due to COVID-related restrictions. However, on the other hand, some participants highlighted a range of occupations that were able to continue or were more in demand during lockdown, emphasizing that not all economic activities ceased. The quote below highlights key roles and sectors, for example IT support that could be done from home, and increased opportunities for e-commerce and those in the medical profession:

I think there are always opportunities even in crisis or that kind, I'm sure there could be a few beneficiaries either out of this, I mean, I've just told you about Jumia and the UNDP, there have been opportunities for e-commerce, e-business, e-governance, the opportunities have been there. I'm sure whereas many people working from home, people in like the IT unit, I think they have been quite busy all through, so I think it has created some demand for some services and skills that people who are positioned in such sectors have ended up benefiting or maybe even getting jobs. I don't know but that's what I would think. I mean, if you're graduating from medical school, I'm sure now looking at the demand may be someone may not go so long without getting a job. So, yes, well it has affected broadly, but I think there are some opportunities it has presented as well. (Researcher, University, KII 7, Kampala)

Fluctuating Prices, Scarcity and Surpluses

There were conflicting reports about the availability of food and food prices. In particular, participants noted that some agricultural producers, such as those producing milk and eggs on a large scale experienced large losses due to the collapse in markets for the goods and the closure of international borders, and this resulted in large decreases in prices:

The farmers, cultivators and animal farmers in particular were very much affected by the lockdown. Milk fluctuated to the extent that people made losses, The milk farms were far away from the market and the vehicles couldn't access the milk from the farms. For the eggs and chicken, they were affected even more. There is a man that I know, he had broilers that amounted to 70,000 birds. For the eggs, he reached an extent of selling a tray of eggs at 4,000 UGX (a third of the usual price), because there was no market compared to the past where they would export them to Rwanda, DRC, Southern Sudan and others. (Men, FGD, Participant 6, Kampala)

Consumers also noted that for some goods, prices had not increased:

No food prices did not increase. In fact, it improved because food stuffs were very cheap. We used to buy a tray of eggs at almost \$1.0 USD or \$ 1.5 USD (UGX 4,000-5,000), chicken was \$2.5 USD or \$3.0 USD (UGX 8,000-10,000). (High Income HH, KII 3, Wakiso)

On the other hand, some participants noted that prices for most basic necessities had increased in urban areas, creating hardship for many households:

You see here, we are like in a town and everything you need to buy. It [food prices] increased very much, even the price of salt increased, yes and yet we had no money, even salt which should have been cheap became expensive, we used to buy it at UGX 500 and it increased to UGX 1,500, the prices increased. (Low Income HH, KII 5, Wakiso)

The combination of impacts of the lockdown resulted in a surplus of certain products alongside instances of food scarcity. Certain produce which usually would have been exported to other countries in the region created an artificial surplus and subsequent price decrease. Other surpluses, such as bananas, a key staple food, were also reported:

The other good thing I have witnessed, in the last lockdown, there was kind of a good coincidence, if I may, the food prices reduced. I think it was because there was a good food supply during that season and it was not being exported. I remember I got my brother from the village, coming with some big bunches of matooke [bananas] to my place. When he offered me the food, I declined it because I was quite okay in terms of food. I told him to take it to our other brother, he could be in more need. So, I think by and large, it was a good coincidence that the food supply was high and prices were down, that maybe minimized the effect. (Researcher, University, KII 7, Kampala)

Food Insecurity

Another impact from the lockdown was a decrease in access to food which undermined food security for many households. This was related to increases in food prices by some participants which made food unaffordable, especially when combined with a collapse in household income:

Yes, even the children were affected by increased food prices. Women would come to me crying that could no longer afford food because prices were too high. They would plead to me to give them some food so that they could feed their children, because their husbands were out of work, and prices had increased. (High Income HH, KII 4, Kampala)

Alongside this finding, food security was also impacted in situations where participants were unable to access their gardens as they were too far away from home, with a mixture of transport restrictions and curfews making gardens difficult to access:

Collecting the food from the garden was the challenge. The only thing I buy is matooke [bananas], other food I have, but even getting that food from the garden was an issue because it is far, my garden is in Ssisa [approximately 5 km away] so they would sometimes arrest us when we have gone to collect the food, due to curfew. (Middle Income HH, KII 6, Wakiso)

Other participants noted that the markets were also far away, which made accessing food difficult even if they had money to buy the food:

What I can add on is that the markets were closed and on opening, those that were opened were far away. So in that way, open markets were far which made living conditions so hard, in that even with your money, you would not get where to get food nearby. (Youth Women, FGD, Participant 12, Wakiso)

The food insecurity experienced by many families was also reported through statements about the need to reduce the number of meals they had, and that many food items were unaffordable:

My children were used to eating breakfast, lunch and supper, but we had to resort to two meals. In addition, they got fed up of eating only posho [maize flour] or matooke [bananas], which were the readily available foods. They sometimes wanted rice but we could not afford it. We would mostly eat cassava flour and posho and when the child asked for different food varieties, you would tell them to just eat what was available, there was nothing more to say. (Low Income HH, KII 6, Kampala)

Government Interventions

From the findings, the Ugandan government recognized the negative effects of lockdown hence provided some support to disadvantaged and poorer households. The support was initially in the form of food support (maize flour, beans, and other household necessities such as salt). Later, cash distribution of 100,000 Uganda shillings (approximately 27 US dollars) was provided. The targeted list of beneficiaries of the support were in urban areas and focused on sectors and occupations that were particularly impacted by the measures,

such as those working in the transport, education, and service sectors. Other agencies also came in later and provided some relief items to affected households:

Yes, the government is trying to support people especially those who rely on a daily income to get some relief food. They have started giving out 100,000 shillings to such people and we've seen other individuals donating some food and other relief supplies. So, some interventions are being done by government but also other non-government actors. (Health practitioner, Local Government, KII 15, Kampala)

Participants in the study expressed mixed views about these interventions. Some experienced this in a positive way, commenting on the fact that in this time of need the government had delivered:

We are very glad that we got food in our zone. We might say other bad things about the government but for the food, we got it. Wherever you pass, people will tell you that you people really gave us food. (Community Leaders, FGD, Participant 7, Kampala)

Other participants noted that when combined with their existing savings, the food deliveries enabled them to get through the most challenging phases of the lockdown:

What the government gave us (posho and beans) was appreciated because me, I got 3 sacks of posho and 3 sacks of beans and luckily enough, I had some money so, I managed to sustain the family for the initial days that is how we managed to get through the worst phase of the lockdown. (Middle Income HH, KII 3, Kampala)

On the other hand, some participants noted that food distribution was primarily focused on urban populations based in Kampala, with limited reach outside of the capital:

If I can talk about vulnerable people, they talked of food, people were given food. And when you looked at that food that they were distributing, they only distributed in Kampala and Wakiso but there are people who are vulnerable elsewhere, some in Mukono, Mbarara there are those who are in the Karamoja. So outside Kampala, people are not looked at. . . (Policy maker, national level, KII 20, Kampala)

Other participants noted that they did not receive any food deliveries even though they believed that they met the distribution criteria:

No, we didn't get because even the food that we were promised that we are going to get, we did not receive it. They only distributed food in a few households and the rest of us were informed that the food is finished. We didn't get any support even when we were registered as vulnerable. (Low Income HH, KII 6, Kampala)

Discussion

Our findings illustrate a wide range of negative impacts of the COVID-19 lockdowns, such as decreases in a range of formal employment and informal sector livelihood activities, as well as increased food prices, food shortages and an increase in food insecurity. These findings reflect much of the current literature on the impact of COVID-19 related lockdowns and the need for mitigating economic measures. In particular, the evidence presented in our study supports the general consensus that it is primarily the urban poor reliant on informal sector activities that have been affected most, and are most vulnerable to, the negative livelihood impacts of lockdowns and associated restrictions.^{7,13,34,26} This exacerbated vulnerability is primarily related to a collapse in small businesses and other economic opportunities, aggressive practices from landlords over rent and rent arrears, a lack of financial support, and increased basic food prices in urban areas where supply chains were most disrupted. Transport restrictions that prevent access to gardens that are located on the edges of the city and beyond further limit livelihood activities that many urban households rely on. The result is reduced incomes, increased food insecurity, and depletion of savings or the selling of assets that can harm longer term livelihood trajectories and embed patterns of socio-economic inequality. Therefore, this evidence could be used in the response to future epidemics and pandemics in Uganda.

Our findings also show how the impacts of lockdown restrictions varied between rural and urban households, as well as by socio-economic status. Whilst middle income and wealthier households were clearly not immune to the general impacts of lockdowns, those working in key sectors and occupations that could be done from home, and those working in larger commercial operations, reported maintaining employment despite the restrictions. These households are not only more likely to retain access to incomes but also more able to adapt to the new economic situation, through moving businesses online or adapting and investing in alternative livelihood strategies.³⁵ In terms of differences between urban and rural areas, it was reported in our study that households in rural areas were able to continue to access land, and larger scale rural industries involving animal husbandry also managed to continue with productive activities which maintained some rural employment. To some extent, then, negative impacts on overall food security may well be less keenly felt in lower-income rural households than in lower-income urban households. Therefore, where one lives and what they do will shape the nature of the household level economic and livelihood impacts that they experience, as well as will also have implications for how quickly their household will be able to recover after the pandemic. Our findings provide a more nuanced and detailed understanding on the unequal and varied impacts. This is in contrast to much of the literature reviewed above that either focuses on the informal, urban

settings, or present the economic and livelihood impacts of lockdowns as wholly negative.

The diversity of impacts of the lockdown, and the regional/localized nature of impacts is also reflected in the evidence we have presented on prices and availability of food products. In contrast to much of the literature, we found the lockdown periods characterized by fluctuating prices alongside surpluses and scarcity that varied by location, sector and product.^{34,36} In rural areas where producers had limited or no access to domestic and international markets due to the lockdown restrictions, prices plummeted, whereas in urban areas prices for staple food increased. The consequence of this in some settings were localized surpluses, for example concerning milk and eggs, whereas in other settings products were either very scarce or unaffordable. This narrative about prices reported by our participants is supported by other evidence on price changes in Uganda that shows a diversity of price movements. For example, it has been reported that those living in households in informal settlements in urban areas experienced higher prices for staple foods during lockdown periods than before,²⁴ though other evidence points to an initial increase in prices followed by a relatively rapid decline.³⁷ However, a study that focused on the local market for matooke (bananas) noted that in the months following the first lockdown, prices were significantly lower due to the collapse in demand.³⁸ Prices, therefore, will vary along a range of dimensions, especially regarding the extent to which agricultural products are exported or not, how dependent market access for different products are on well-functioning supply chains, and the degree to which products are perishable. Our findings also suggest that, left to their own devices, in times of crises, markets will not tend towards efficient outcomes, with high prices for urban consumers exacerbating food insecurity, and producer incomes in rural areas collapsing. This illustrates that government interventions, which can include an expansion of government procurement and food distribution programmes, are necessary to not only support households through periods of lockdowns but also to maximize the ability of households to recover once restrictions are lifted.

There are a number of policy implications from the evidence presented in our study that are relevant for future infectious disease outbreaks. Firstly, food and cash distribution programmes that specifically target poorer urban households are necessary. Recent evidence demonstrates that such programmes can support households through these economically challenging periods.³⁹ Indeed, our evidence, despite some complaints from those who did not receive support, suggests that these interventions were well-received by the population. Whilst we did not examine in great depth views about whether food or cash was preferred by households who benefited from them, during strict lockdown periods, food distribution may be more necessary, whereas cash may be more appropriate when lockdown conditions ease and

markets are open. Secondly, once modes of transmission of the given infectious disease are established, productive activities, which present relatively low risk of transmission or settings where transmission is more easily mitigated, should be encouraged. This will support employment, incomes and contribute to national food security needs. This could entail the development of more nuanced national lockdown restrictions that could vary between urban and rural areas, given that in practice enforcement of restrictions in different contexts has been highly variable. In addition, the risks for transmission of the virus related to different livelihood activities will also vary. Related to this, efforts to maintain the working of vital supply chains such as keeping borders open, limiting export bans, providing targeted financial support for producers, and ensuring that food supply chain workers are protected, are also important.⁴⁰

Our findings also have implications for longer-term economic and development strategies that can support future pandemic preparedness. At the macro level, our evidence enables a reflection on contemporary debates about food security and how in times of crises, this can be protected. The dominant discourse, promoted through influential agencies such as the World Bank and International Monetary Fund for the past three decades, prioritizes market liberalization and the global integration of economies operating along principles of comparative advantage enabling efficient market outcomes such as improved market access and cheaper food for consumers.⁴¹ However, following the 2007/08 financial crisis, a range of countries began actively pursuing policies to promote food self-sufficiency.⁴² More recently, the notion of food sovereignty, which entails promoting local and sustainable food production, has also been promoted as a key strategy for supporting the aims of self-sufficiency. Crises like COVID-19 expose the problematic nature of a dependence on international markets for agricultural output and national food security.⁴³ Debates concerning whether food sovereignty and national food self-sufficiency, long viewed as at odds with a fully liberalized global economy in which food is produced for sale and export in international markets, should be key development priorities inevitably resurface. During closed international border and disrupted supply chains, not to mention the collapse of demand from international markets, economies such as Uganda may be better served pursuing national food sovereignty and self-sufficiency as a strategic priority to promote food security with future pandemics or other crises in mind.

Another key strategic issue that is subject to much debate is the existence and role of the informal sector. The general consensus, supported by our findings, is that urban informal sector workers and own account entrepreneurs were the most impacted by COVID-19 related lockdown restrictions. This is in part because the restrictions exacerbated pre-existing livelihood vulnerabilities, with recent evidence from Uganda finding that within a given year, between 58% and 74% of

small scale entrepreneurs earn below the threshold of a living wage.⁴⁴ This vulnerability is also reflected in the experiences of casual workers and those working in the informal sector following the 2008/09 global financial crisis.⁴⁵ Whilst it has been noted that the informal sector provided a means of survival during lockdown restrictions, with some urban households in Uganda moving from formal to informal activities and taking advantage of the flexibility that informality enables with respect to changing to alternative trades,²³ those reliant on the informal sector are particularly vulnerable to economic shocks and the consequences of crises. To reduce vulnerability, strategies to promote the creation of high-quality jobs, and the necessary labor market reforms are required.⁴⁵

Limitations and Strengths

Due to the qualitative nature of this study, we are unable to make any claims about the size of the impacts, although the themes presented reflect the broader empirical literature. In addition, generalizability of the findings is limited as only two districts in central Uganda were involved in the study. Nevertheless, our findings present novel evidence from households from different socio-economic backgrounds in urban and rural areas which enabled a more nuanced understanding of the unequal impacts of the COVID-19 lockdown in Uganda. Our study did not particularly investigate the gendered nature of the livelihood impacts, and we did not specifically target female headed households through the sampling process. However, our findings demonstrate the value of including wealthier households in our study to present a more holistic overview of the impacts. Future research on the gendered nature of livelihood impacts in times of lockdowns and economic crises is needed.

Conclusion

The COVID-19 lockdowns in Uganda had some of the predicted negative economic and livelihood impacts, but these were unequally distributed across society. Wealthier households were better able to maintain access to employment and adapt to the new economic conditions, whereas urban households dependent on informal sector activities experienced the most significant impacts. Rural households were to some extent able to continue with productive activities. Our findings suggest that the consequences of the lockdowns depended on where one lived and what they did which shaped the nature of the household level economic and livelihood impacts. The study provides evidence on key populations that need targeted financial support during lockdowns, but also has implications for other strategies that focus on maintaining the operation of vital sectors such as agriculture, and protecting the functioning of key supply chains. Further, longer-term development strategies, such as addressing the fragility of livelihoods in the informal sector and a focus on

building food self-sufficiency can contribute to future pandemic preparedness and response.

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Author Contributions

DMc, DMu, KD, and EEK conceived and designed the study. SN and GBL were involved in data collection and analysis. KD wrote the first draft of the manuscript. All authors contributed to writing the manuscript. All authors read and approved the final manuscript.

Data Availability Statement

The data is available from the corresponding author on reasonable request.

Declaration of Conflicting Interests

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Ethical Statement

The study received ethical approval in two stages: initially from Makerere University School of Public Health Research and Ethics Committee (number 923), followed by approval from the Uganda National Council for Science and Technology (number SS881ES). All participants provided written informed consent and joined the study voluntarily. To protect anonymity, participants' identifiable information was not audio recorded during data collection, and their names were not recorded. The research team accessed the data solely to maintain confidentiality and did not use it for any other purpose. The FGDs adhered to COVID-19 prevention guidelines in the country. Both research assistants and participants were supplied with face masks, frequent hand sanitization was ensured, and social distancing was maintained. Household interviews took place in open spaces to facilitate social distancing as a preventive measure for COVID-19. Moreover, the FGDs and household interviews occurred during a period of low community COVID-19 transmission, situated between the first and second waves of the pandemic.

ORCID iD

David Musoke  <https://orcid.org/0000-0003-3262-3918>

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