

LONG TERM SOCIO-ECONOMIC EFFECTS OF COVID-19 IN RURAL KENYA

When the novel coronavirus arrived in sub-Saharan Africa, many feared the continent would not be able to cope with the impact of such a fast-evolving pandemic. Memories of how the Ebola virus overwhelmed weak health systems in West Africa in 2014 loomed large, and many braced themselves for the socio-economic fallout. But with COVID-19, this never fully materialized. In this research brief we show that despite falls in income, in the long-term rural communities in western Kenya found a way to cope economically with COVID-19 and its containment measures.

Introduction

Over 4 million people have lost their lives worldwide, and many more their livelihoods as a result of the novel coronavirus pandemic.¹ COVID-19, and the subsequent measures to contain it, has resulted in one of the worst global economic shocks in history.² The World Bank estimated in June 2020 that up to 150 million people will be pushed into extreme poverty by the end of 2021, the majority of which will be in sub-Saharan Africa (SSA).³ With weak health systems, and the slow roll-out of vaccines, early projections indicated that it would take SSA until 2025 to reach levels of pre-COVID per capita income.⁴

Our initial research into the short-term impact of the virus in western Kenya showed a sharp drop in income and expenditures in rural communities.⁵ Since December 2019, we had been visiting households on a weekly basis to collect detailed information on each adult's financial transactions in the past seven days, allowing for an analysis of pre- and post-COVID-19 trends, unlike studies that were initiated in response to the pandemic.

In this paper, we follow up that research with analysis on the longer-term impact of COVID-19 up to the end of November 2020. These new figures provide insights into coping mechanisms over an extended period. Our work has implications for policy makers, who seek to balance protecting the health of the population by containing the spread of the virus with implementing policies to protect people's economic wellbeing. As of 28 of November 2020, there were 83,618 total confirmed cases, 1,469 deaths, and 26,805 active cases in Kenya.⁶

Financial and health diaries research in Kisumu and Kakamega County

The Amsterdam Institute for Global Health and Development (AIGHD) and the African Population and Health Research Center (APHRC) tracked a sample of 330 households in Western Kenya. These households were target populations of a free public care pilot in Kisumu and a subsidized health insurance program

COVID-19 pandemic timeline, Kenya

- 12 Mar** – First case detected in Kenya
- 13 Mar** – Suspension of all public gatherings, meetings, religious crusades games events
- 15 Mar** – Schools closures, homeworking. International flights suspended, bars and restaurants closed.
- 18 Mar** – All markets closed Kisumu
- 25 Mar** – Nationwide curfew enforced
- 27 Mar** – President announced 100% tax relief to Kenyans earning KSh 24,000 (US\$228) and below, KSh 10 billion (US\$95 million) to vulnerable groups including the elderly and orphans
- April** – Travel restrictions put in place in most affected areas, including Nairobi.
- 27 Apr** – Partial reopening of eateries
- 23 May** – Kenyatta promised a Sh53.7 billion stimulus package in order to help Kenyans.
- 17 Jun** – Further restrictions due to worsening crisis. Kakamega and Kisumu declared 'hotspot zones'. 7pm to 4am curfew. Non-food and livestock markets suspended 30 days.
- 26 Aug** – Nationwide curfew extended, closure of bars and nightclubs for 30 days.
- 1 Oct** – Curfew shifted to 11pm to 4am. Bars and restaurants open but must close by 10pm. Partial reopening of economy.
- 12 Oct** – Schools reopen starting with examination classes, i.e., Grade 4, Class 8, and Form 4 students.



(i-PUSH) in Kakamega, the latter being implemented by Amref Health Africa and PharmAccess Foundation from September 2020.

Enumerators visited the households every week to collect (in 10–15-minute interviews) a detailed record of each adult's financial transactions in the past week (income, expenditures, gifts, loans, remittances, and savings – including savings in informal groups). Since the new COVID-19 mitigation measures had been put in place, data collection shifted from in-person interviews to phone interviews, conducted by the same, trusted enumerators.

Our longitudinal and diaries data provide detailed information on pre-COVID-19 trends in income and consumption in our sample of rural, low-income households. The results from the study hence allow for a granular, near real-time analysis of the immediate impacts of the COVID-19 crisis on households' economic wellbeing and the strategies they used to cope with the financial consequences of the pandemic.

As pre-COVID-19 period, we take the weeks between early February and mid- March 2020, when the first case was detected, and the first measures were taken in Kenya.

Long-term economic effects of COVID-19

Income from work remained below pre-COVID-19 levels in the long-term as can be seen in Figure 1. There was an initial drop immediately after the lockdown, April to mid-June, where the average cash inflow fell by around 25%. A short recovery followed which lasted till mid-August and after that, incomes fell again. The first drop in income was larger than the second. Pre-COVID-19 diary studies in Kenya show that the drops are not down to seasonal fluctuations, and there were no major climatic events recorded, so there must be another explanation as to why incomes fell so dramatically.

To what extent then can these long-term losses be related to the COVID-19 pandemic and virus containment measures?

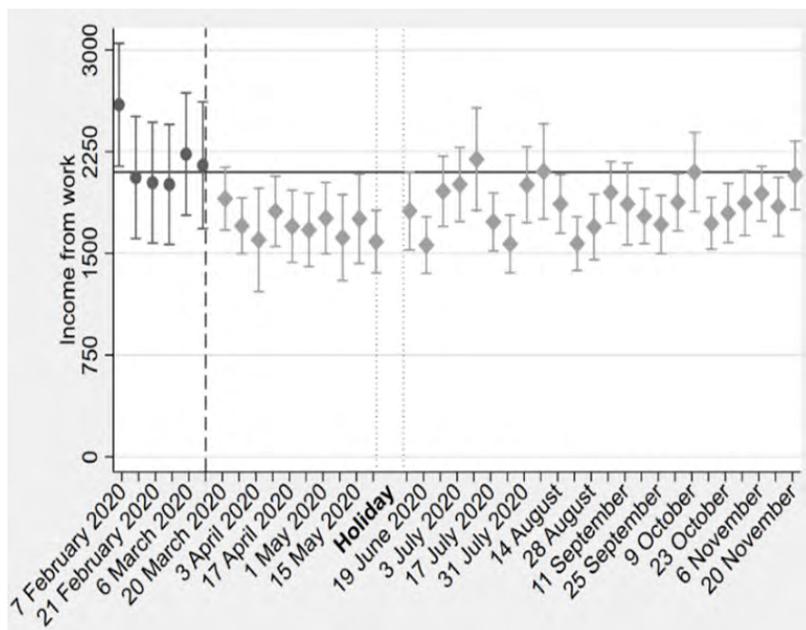


Figure 1: Income from work in rural Kakamega and Kisumu households.

Examination of the regional mobility data in Figure 2 points towards a direct relationship between the level of movement within a community and the drop in income. In Figure 2, we see that as mobility decreased, so did the income (Figure 1). This suggests that the first drop in cash flow could be the result of the lockdown measures introduced by the government to contain the virus, especially as there were no reported cases in the two counties at that time. And in Figure 3, we see that the rise in COVID-19 cases in Kenya, the first wave which peaked in late July-early August, preceded the second fall in income. Here again, curfews were reinstated after a partial reopening of the economy (see timeline).

negative effects of the COVID-19 pandemic and subsequent containment measures in a number of ways. When we looked closer at the nature of the work, we saw a shift from informal business and salaried income, which made up 80.8% of employment-related cash inflow pre-COVID-19, towards casual income from mid-August onwards. However, the increase in casual income, which is small, did not fully make up for the (second) drop in business and salaried income. Separately, we also saw the proportion of income from farming (comprising 5.5% of total household income pre-COVID-19) took a hit in the months after the virus arrived in Kenya but returned to pre-COVID-19 levels by late August.

Coping mechanisms

The households in our study area countered the evidently

In spite of the hardship, we found that households generally did not increase their income from other sources than work.

For example, they did not withdraw more savings as savings withdrawals were 10.2% lower post-covid ($p < .10$). The households did not sell livestock or harvest in stock as income from farming was 17.2% less post-covid ($p < .05$), nor did they borrow increased amounts as money borrowed decreased with 9.2% post-covid (not significant). Instead, households reduced their outgoings. They deposited 13.7% less savings post-COVID-19 ($p < .01$), gave less social support to others by reducing gifts given to other households by 34% ($p < .01$) and postponed their own loan repayments to others by 14.2% ($p < .10$). Thus, informal risk-sharing and social support between households decreased.

Expenditures on food were fractionally lower than pre-COVID-19 levels over the longer-term but remained steady at around KSH900 per week. Meanwhile, expenditures on education dropped substantially below the pre-COVID-19 levels of KSH176, and never really recovered until the end of November. This might partly be explained by the phased return to school, with the first groups resuming classes on 12 October. Schools fully re-opened in January 2021. Though transportation expenditure decreased significantly in the short-term, which can possibly be explained by the stringent lockdown in April, they rose to above pre-COVID-19 levels from August through to the end of November when measures were gently eased.

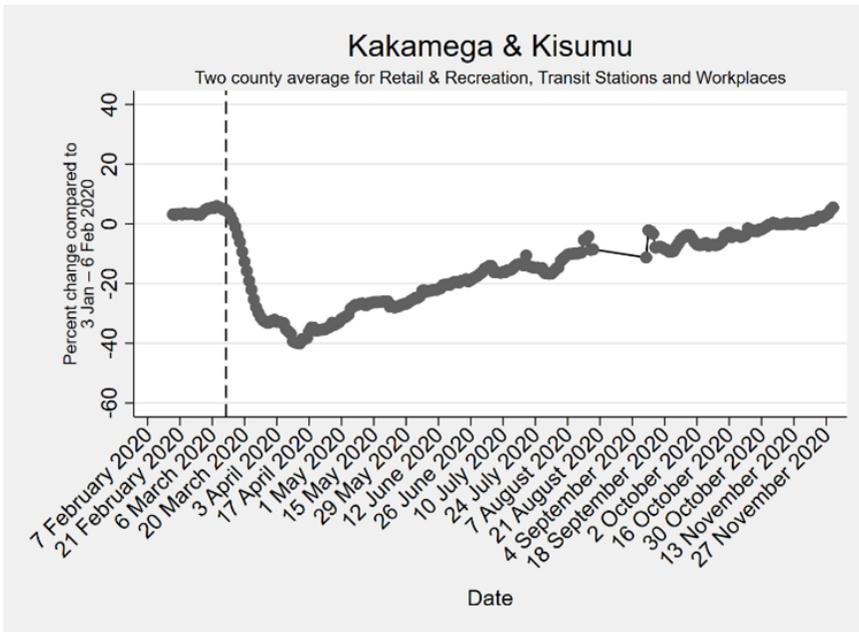


Figure 2: Mobility patterns in Kakamega and Kisumu County, Kenya, created with aggregated, anonymized sets of data from users who have turned on the Location History setting, which is off by default. Source: Google

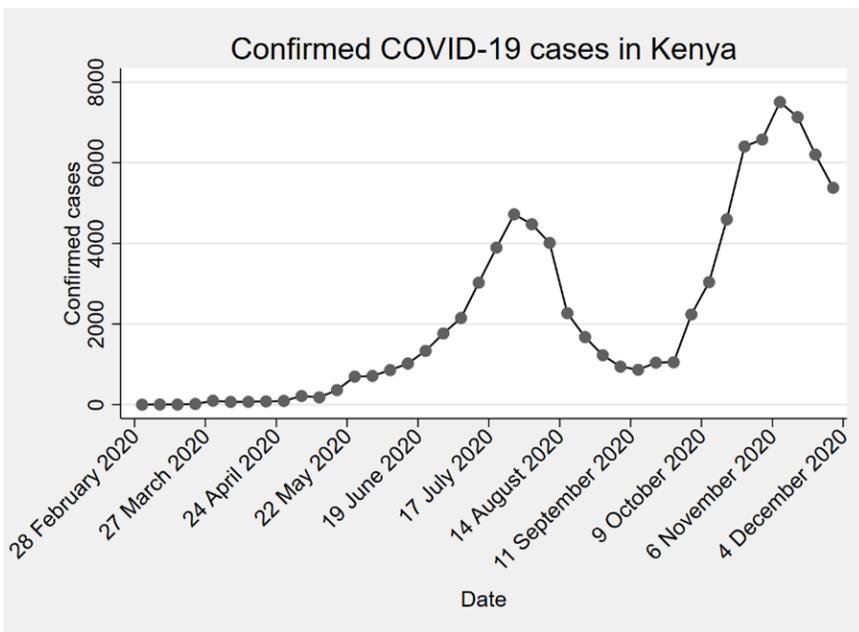


Figure 3: Number of COVID-19 cases in 2020. Source: World Health Organisation

Discussion

Despite the dramatic fall in income in the months following the arrival of COVID-19 in Kenya, our findings indicate that after eight months, incomes and expenditures in rural communities in the west of the country were close to pre-COVID-19 levels. This is in line with updated projections from the World Bank, with recent analysis showing that SSA will recover economically much earlier than previously anticipated⁷ (though that doesn't necessarily mean that poverty levels will improve). There is a resilience within rural Kenyan communities to deal with the pandemic, despite widespread fears that African economies would not be able to cope with such catastrophic events.⁸

Much of the sting of the economic crisis was taken out through national and international relief packages. For the informal sector, who don't benefit from tax relief, cash transfers were particularly popular. Direct support programs, such as the Inua Jamii program, which distributed KSH 8,000 to the elderly, orphans, and other vulnerable populations during the week of 20 April eased the food insecurity and economic hardship. In May 2020, the World Bank also approved \$1 billion to the Kenyan government for budgetary support.⁹ Lockdowns too appear to have had an impact on the containment of the virus, though there will need to be a discussion around how stringent curfews ought to be. Many have questioned the tough enforcement of the restrictions, which threatened to undermine the fight against the disease.¹⁰ Indeed, our data suggests that overly curbing mobility leads to dramatic drops in income-generation.

By the end of November, Kakamega had reported 848 cases and 27 deaths, whilst Kisumu had reported 1,915 cases and 14 deaths,¹¹ though these numbers are likely to be underestimations due to lack of resources for testing. The full economic impact of the novel coronavirus pandemic might not be fully evident in this study period alone but may manifest itself also through morbidity due to reduced access to health care for non-COVID-19 conditions, or mental health issues caused by the pandemic. Our ongoing work investigates gender differences in risk-coping and resilience, the indirect health impacts of COVID-19 (both negative and positive) as well as analyzes mental health consequences (fear of the epidemic, financial stress). This could have knock-on effects on adults' productivity, hence, their ability to contribute to the economy much further down the line. Finally, the school closures have undermined children's educational attainment potential, reinforcing the intergenerational cycle of poverty.

Conclusion

We observe substantial decreases in income in the short-term as a result of the virus containment measures. It recovers in the long-term, though remains below pre-COVID-19 levels. Households hold on to their food consumption levels throughout the study period, partly facilitated through the reduction of spending on education, transportation, and healthcare. Coping mechanisms include giving less through gifts and remittances, a crucial part of the economy and an important element that binds a community. Despite a slightly more positive economic outlook than a year ago, the impact of COVID-19 on school attainment potential and productivity remains to be seen.

Research team

AIGHD

Richard de Groot, PhD
Wendy Janssens, PhD
Menno Pradhan, PhD

APHRC

Amanual Abajobir, PhD
Estelle Sidze, PhD
Caroline Wainaina, MPH
Anne Njeri, BSc
Daniel Maina, MSc

PharmAccess

Misha Hussain, MSc

Amref Health Africa

Rachel Ambalu, MPH

Acknowledgements

This work is funded by the Dutch National Postcode Lottery, the Joep Lange Institute, and the Dutch Ministry of Foreign Affairs through the Health Insurance Fund. The research team is highly grateful for the funder, study participants and the field team as well as all stakeholders.

Contact information: info@aighd.org

Commissioned by:



References

1. World Health Organisation. [COVID-19 Dashboard](#). Accessed on: 2 September 2021
2. World Bank. [Global Economic Prospects 2020](#). Washington, DC. World Bank. 2020.
3. World Bank. [Poverty and Shared Prosperity 2020: Reversals of Fortune](#). Washington, DC. World Bank. 2020.
4. International Monetary Fund. Sub-Saharan Africa: navigating a long pandemic. Washington, DC. International Monetary Fund. 2021
5. Janssens W, Pradhan M, de Groot R, Sidze E, Donfouet HPP, Abajobir A. [The short-term economic effects of COVID-19 on low-income households in rural Kenya: An analysis using weekly financial household data](#). World Development. 2021 Feb; 138:1-8. 105280.
6. World Health Organisation. [COVID-19 Dashboard](#). Accessed on: 2 September 2021
7. Mahler, D. G. et al. [Updated estimates of the impact of COVID-19 on global poverty: Turning the corner on the pandemic in 2021?](#) Washington, DC. World Bank. 2021.
8. The Economist. [Africa is woefully ill-equipped to cope with covid-19](#). The Economist. UK. 2020.
9. World Bank. [World Bank Approves \\$1 Billion Financing for Kenya, to Address COVID-19 Financing Gap and Support Kenya's Economy](#). Washington, DC. World Bank. 2020.
10. Otsieno Namwaya. [Kenya Police Abuses Could Undermine Coronavirus Fight](#). Human Rights Watch. 2020.
11. Office for Coordination of Humanitarian Affairs. [Kenya COVID-19 operations dashboard](#). Accessed on: 2 September 2021