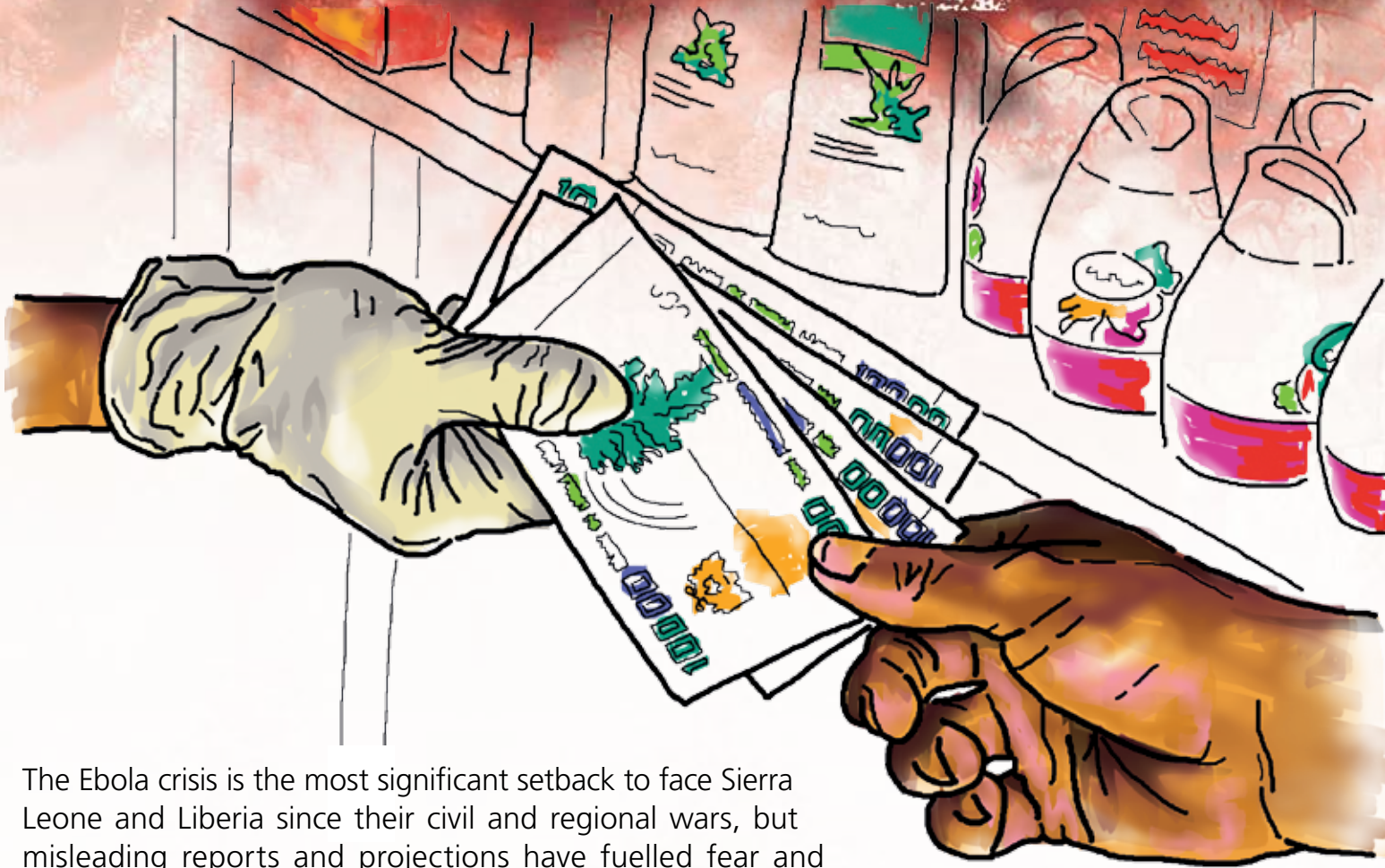


THE ECONOMICS OF Ebola



The Ebola crisis is the most significant setback to face Sierra Leone and Liberia since their civil and regional wars, but misleading reports and projections have fuelled fear and exacerbated the crisis. **Rachel Glennerster** and **Eric Werker** report on the true economic impacts of the outbreak.

On 31 July 2014, one of the authors of this article (Dr Rachel Glennerster), like so many others in Sierra Leone, crowded round the radio with friends to hear President Koroma announce a state of emergency: two entire districts were placed under a cordon sanitaire and all bars across the country were closed, in addition to the gradual closure of land borders with Guinea and Liberia, in a desperate attempt to stop the spread of the Ebola virus.

Just the previous month, when the other author (Professor Eric Werker) met with Liberian ministers in Monrovia to discuss economic reforms, Ebola had mainly been a health issue in a rural area

where Guinea, Liberia and Sierra Leone meet. Now, however, it was spreading rapidly in the slums of Liberia's capital, Monrovia, and was about to do the same in Freetown, the capital of Sierra Leone. Fear was spreading even faster than disease and a lack of reliable information was exacerbating that fear. This pattern was to repeat itself and become more pronounced over the next few months, with damaging economic consequences.

The Ebola crisis is, without doubt, the most significant setback to face Sierra Leone and Liberia since their devastating civil and regional wars. Until the onset of Ebola, the countries had experienced rapid and consistent growth, unlocked by peace,

reformist governments, foreign investment and significant foreign assistance financing infrastructure development and improvements to national education and health systems. Then the outbreak, and peoples' responses to it, began to reduce economic activity, slow the pace of reform (as governments turned to the crisis itself) and halt foreign investment as firms pulled their workers out.

The impact on the economies of Sierra Leone and Liberia was significant and immediately tangible, but there was no way to say accurately what exact damage Ebola would do to the residents beyond the health effects themselves. For the same reason that weak health systems in the countries were unprepared to

“What is becoming clear from our work is that the indirect economic impacts of Ebola will touch many more lives than the disease itself”

respond to the outbreak, so too were national data-gathering exercises unable to provide accurate and consistent measures of the economic impact.

While transport disruptions and the risk of infection made it difficult to collect reliable data, agencies and ministries also faced incentives to attract attention and money by accentuating the negative, without taking into account the negative impact this might have on others. A good example is the WHO's decision to characterise the death rate from Ebola as “up to 90 per cent”. In other words, it could be less than 90 per cent but the WHO wanted people to focus on 90 per cent. This was certainly a good way to attract attention. What does not appear to have been taken into account, however, is that warning people of almost certain death is unlikely to be a good way to encourage them to seek care, a critical element in reducing the spread of the disease. A related problem is that, with all agencies and sectors focusing on the negative, raising the alarm and seeking support, it is hard for policymakers to know which sector is being hit the hardest and how to prioritise assistance.

Having had a long-term engagement with the region, the LSE-based International Growth Centre (IGC) has been able to provide reliable data and analysis on the economic impact of Ebola in Liberia and Sierra Leone throughout the crisis. The IGC, co-directed by LSE and the University of Oxford, has had an office in Sierra Leone since 2010 and an office in Liberia since 2013. Together, these programmes have funded over 70 research projects on Sierra Leone's and Liberia's development, and our researchers have extensive experience in these countries, in some cases dating back more than a decade.

These programmes have enabled us to provide policymakers, NGOs and the public with data that have sometimes contradicted the claims being made by interested parties and/or from less reliable data sources. Research pre-Ebola on the impact of investment in rural roads, for example, included us tracking monthly food prices across Sierra Leone.

Contrary to media reports of rising food prices, our findings showed that average food prices were in reality following a seasonal pattern similar to previous years. The results have fed into food security planning by the government and donors. Similarly, previous work on firm-level employment and contracts in Liberia has proved useful in estimating the impact of the crisis on these firms.

The impact of Ebola on employment

Informal economic activity provides employment to 68 per cent of Liberia's work force and over 90 per cent of Sierra Leone's. It is also a sector dominated by female workers – 75 per cent of Liberia's female workforce is informally employed, compared to 60 per cent of the male workforce. Unfortunately, the informal sector is particularly vulnerable to the panic and fear that accompanied the Ebola outbreak. A standard reaction to uncertainty is for people to cut back on discretionary purchases such as eating a snack on the street, buying new clothes or having their hair done. This sector was also hit by emergency restrictions on transportation, markets, bars and restaurants. What is becoming clear from our work is that these indirect economic impacts of Ebola will touch many more lives than the disease itself.

In Sierra Leone, collaboration between IGC researchers and the World Bank has shown that employment of household heads in urban areas decreased from 74 per cent to 66 per cent from August to November 2014 but rose back to 69 per cent in January/February 2015. Non-farm household enterprises in Sierra Leone, which have suffered a 54 per cent decline in revenue, provide employment for just over a quarter of household heads. The six-month failure rate of these businesses has quadrupled. The data indicates that the urban informal non-farm sector has been disproportionately hit by the crisis, suggesting that aid for post-Ebola economic recovery should be targeted here.

A project funded by IGC Liberia has recorded a similar impact on employment in the capital city of Monrovia. In a survey taken between 6 December 2014 and 9 January 2015, the research team found that nearly half of the respondents had lost their job since the start of the Ebola outbreak, the rest reporting that they were working less than they would prefer owing to a lack of employment opportunities. This decline in employment was attributed to Ebola by 91 per cent of respondents.

People in Monrovia also reported that their incomes had dropped dramatically. When asked how much they earned in the seven days prior to the survey, as well as how much they earned in a normal week before Ebola, they reported on average a 74 per cent decrease in income, from an average reported income of \$43 USD per week before the Ebola outbreak to \$11 USD per week in December. Mapping the responses to geographic areas of Monrovia allows aid organisations and public health workers to target their response better, and future rounds of data collection will sharpen the strength of these estimates.

Our research in partnership with the Liberian NGO Building Markets (founded by LSE alumnus Scott Gilmore, see page 28), which focuses on small and medium enterprises, shows that firm employment and new contracts in Liberia have largely suffered, specifically in Monrovia. However, it is interesting to note that there is little difference between the most and least affected counties outside Montserrado (Monrovia's county); this supports research from Sierra Leone that shows widespread indirect economic effects regardless of incidence of Ebola cases.

The impact of Ebola on food security and food prices

Even in non-crisis years, food security is a persistent problem in Sierra Leone and Liberia. It is therefore difficult to gauge accurately the impact of Ebola on food security. Over two-thirds of those canvassed across Sierra Leone had experienced food insecurity

in the week prior to the survey, with 71 per cent of households reporting having to take at least one of six steps, including eating less expensive or less preferred foods, reducing portion sizes and the number of meals eaten, reducing consumption by adults in order for small children to eat, selling assets to buy food, or borrowing food. Quarantined areas, or those with a larger number of Ebola cases, were not more likely to experience food insecurity than other areas. A similar survey in Monrovia found that 88 per cent of households exhibited at least one sign of food insecurity in the week prior to the survey.

Despite widespread press reports of skyrocketing food prices, repeated rounds of IGC-funded research of markets across the country, carried out by Innovations for Poverty Action, have found that average prices for domestic and imported rice, cassava and palm oil in markets in Sierra Leone have followed a remarkably similar pattern to those in previous years. For palm oil and gari (processed cassava), the number of traders in 2014 is sharply below previous years, again reinforcing the finding that the informal sector is particularly badly hit by the crisis.

There are a few markets where prices are substantially higher than average, and there are more of these in 2014 than in previous years. The challenge for those responding to Ebola is identifying how to target aid effectively to areas that have been affected by transport restrictions and are facing higher food prices, without flooding the market and causing prices to drop. We have been supporting the effort to target responses by participating in an international food security working group, as well as sharing our data with the World Food Programme.

Using research in a crisis

Thorough and reliable research can be instrumental in informing response efforts and spending priorities. As attention turns to rebuilding post-Ebola, it is vital not just to continue to produce demand-driven research and analysis to address pressing policy questions, but to ensure that those findings are presented appropriately and through effective forums so that they reach the policymakers and donors who can make best use of the data.

In response to Ebola we have funded six projects in Sierra Leone and Liberia touching on issues including

agricultural markets, traders, food security, firm-level impacts, socio-political determinants and impacts, trust in government, health-seeking behaviour and the impact on the poorest. Most of that research is still in progress. It is our hope that it will ensure that the response is efficient and targeted to areas that need help most, while also preparing Sierra Leone and Liberia for the post-Ebola recovery. ■

See the *IGC Economics of Ebola* page for updates and bulletins on the results of the research: theigc.org/economics-of-ebola-research



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Touched by the pain of Ebola

Africa at LSE editor **Syerramia Willoughby** recounts how her distant sympathy for Ebola victims and their surviving families became a raw and uncompromising personal pain.



Syerramia with her father in the 1970s

Bound together in the tight left-hand corner of western Africa, the fates of Guinea, Sierra Leone and Liberia are intertwined. So when the World Health Organisation announced that there was an outbreak of the Ebola virus in Guinea, it was no surprise to hear that cases were also being investigated in Sierra Leone and Liberia.

As the editor of the *Africa at LSE* blog, I naturally found the Ebola outbreak in Sierra Leone of interest. Yet my interest was more than just professional. Not only had I grown up in Sierra Leone, but I had family and friends in the country, including my father, Dr Victor Willoughby, who was a leading physician in the country.

I devoured all reports on the disease. Yet, despite the natural sympathy I felt about the disastrous effect Ebola was having on people's lives and

livelihoods, having not lived in the country for over 20 years, I felt disconnected and distant from the tragedy unfolding in the country and sub-region.

On Saturday 13 December 2014, my dad became the latest doctor to succumb to the disease. I had spoken to him five days earlier and been filled by immense foreboding as he described just how decimated the health landscape was in the country. Despite having precautions in place at his private practice, he told me then that he had treated someone for Ebola for two weeks who had not shown the usual symptoms.

I have always admired my father's dedication to his profession. He was always at the disposal of his patients and was one of the few doctors not to leave the country during the civil war, so it was unthinkable that he would shut down his surgery during the Ebola crisis.

For five days, my life was all about waiting to make the next phone call. There was hope, in the form of ZMaB, a precursor of the experimental drug ZMapp which had successfully treated American health workers. The Sierra Leone government went to great lengths to secure the last two doses in the world of this drug from Canada. However, it was not to be. My dad died from a heart attack the morning the ZMaB was to be administered, the 11th doctor to die from Ebola in Sierra Leone.

At times like this, it is very easy to ponder what could have been, but I choose to be comforted by the fact that he had excellent care and that he stayed true to the values of his profession to the very end.

Read the full blog post at blogs.lse.ac.uk/africaatlse/2015/01/21/touched-by-the-pain-of-the-ebola-epidemic