

LESSONS FROM EBOLA: THE IMPACTS OF PREVIOUS INFECTIOUS DISEASES ON SUPPLY CHAINS AND CHILD LABOUR IN FRAGILE CONTEXTS TO INFORM COVID-19 RESPONSES

Authors: Sylvi Simonnet, Ana Marija Apostoloska, Angela Lake

The Partnership Against Child Exploitation (PACE) is a consortium of private sector, academic, media development and civil society organisations working together to combat the exploitation of children in the worst forms of child labour (WFCL). Working in some of the world's most challenging places for children, PACE aims to identify the most effective approaches to tackling the worst forms of child labour through a combination of innovation and tried and tested methods.

Introduction - Learning from the past:

While COVID-19 impacts are proving vast in scale and complexity, making it the biggest health crisis in modern history, the challenges it creates are not entirely unprecedented in the light of previous outbreaks. In recent decades, Ebola, Polio and Cholera, where impacts were localised on a regional level, can all inform our understanding of both the economic and social challenges it can create for communities and children in fragile contexts. Globalisation has accelerated the scope and ease of travel and trade, putting the management of disease outbreaks into a more complex framework; making them difficult to localise and control. The shocks in supply chains globally will most harshly hit labourers upstream in the production process, where the poorest communities are most exposed to economic fluxes caused by supply chain impacts.

This paper analyses the lessons that can be drawn from past infectious disease outbreaks and provides insights on how companies, governments, NGOs and others can collaborate to mitigate the negative effects of COVID-19 in affected communities.

The dilemma of how to cope with disease outbreaks in contemporary times and the impacts they have on communities and human rights is especially significant in locations that lack sufficient economic and health resources for an effective response. Previous experience has demonstrated that marginalised communities, those in fragile contexts and vulnerable individuals are most harshly affected and often the last to benefit from remedial interventions or immunisation programmes. In light of the current COVID-19 crisis, it is valuable to provide comprehensive research on more developed and better understood infectious diseases and detect the impacts they have had on supply chains and the knock-on consequences for communities, child labour and human rights. This paper analyses the consequences caused by three infectious diseases: Ebola, Polio and Cholera. A special focus is put on child labour exploitation among adolescents and younger children, identified as groups with unique characteristics whose rights are most likely to be violated.

Since the effects of infectious diseases are multidimensional, disrupting many aspects of children's lives, it is vital to identify previous lessons learned that can be adapted into both quick and sustainable responses to the current COVID-19 crisis, in order to secure the wellbeing of children, protection of their rights and mitigate long term harm.

Ebola impacts on child labour, communities and supply chains

As we are witnessing with COVID-19, Ebola had a devastating impact on the national economies of affected countries and their value chains. According to the World Bank, an estimated \$2.2 billion was lost in 2015 GDP of Guinea, Liberia, and Sierra Leone.ⁱ As with COVID-19, stagnation of the national economy was mainly a result of border closures, reductions in trade and travel, and fragility of supply chains.

In spite of the Ebola outbreak being a localised disease, it reverberated into global supply chains, impacting international trade in sectors such as agriculture and mining. In some locations, employees and crew members refused to work on vessels destined for West Africa and Asia, delaying shipments of a range of commodities.ⁱⁱ As BSI notes in its 2014 Report, the Ebola outbreak's negative effect on output of specific commodities led to significant downstream impacts for certain industries. With the spread of the infection, the sourcing and production of West Africa's rich natural resources of oil, minerals, ores and agricultural products shrunk substantially, forcing companies to seek alternative supplies from other parts of the globe, which both drove up the cost of industrial imports across the board and damaged future trade prospects for source countries affected by the virus.ⁱⁱⁱ Stigmatisation of suppliers in regions that are perceived to lack sufficient resources to suppress and eradicate infectious diseases has often damaged trade exports and economies more aggressively and pervasively than the disease itself.

One of the most important raw materials exported from the region is oil, mainly from reserves in Nigeria. The re-emergence of Ebola in Nigeria affected a significant portion of the global oil supply, provoking many companies to search for new sources of oil and oil-based products. Similarly, Liberia exports considerable amounts of rubber to the United States and hosts some of the world's leading rubber production companies. Due to the large manual labour force required for harvesting and production, an outbreak among rubber workers has proven harmful to supplies if not managed properly.^{iv}

Moreover, as FAO has observed, the food supplies of rice, palm oil, potatoes and cassava faced market turbulences and trade insecurities on a global level due to the Ebola epidemic.^v

A similar pattern in global supply chains is expected to occur due to the current COVID-19 pandemic. For example, EPRS research highlights significant potential disruptions to supply chains centred near COVID hotspots such as technology manufacturing and component providers with operations in affected Chinese provinces and automotive supply chains in Northern Italy. The research predicts COVID-19 will reduce global baseline GDP growth by 0.3 percentage points; China by 0.7 ppt; Asia-Pacific by 0.5 ppt; and for the USA and Europe by 0.1 to 0.2 ppt.^{vi}

The Ebola crisis shows that global supply chain shocks will most harshly hit labourers upstream in the production process, as the poorest communities are most exposed to economic fluxes caused by changes in supply chains.

The Ebola crisis left its deepest impacts on Sub-Saharan Africa, and especially the most vulnerable communities of the poorest African states. The 2014-2016 Ebola outbreak led to a disruption of the healthcare systems of countries affected by the virus, resulting in massive restrictions to healthcare services for the most vulnerable community groups. Thousands of children were infected with the Ebola virus, and an estimated 30,000 children lost one or both parents.^{vii} Moreover, the virus led to over 80% reductions in

maternal delivery care in Ebola-affected areas, a 40% reduction in malaria admissions among children under the age of five, and substantial reductions in vaccination coverage.^{viii}

Aside from the health challenges, the Ebola outbreak also significantly harmed the environment and the quality of life for children living in the affected areas. These impacts have both economic and social dimensions, both contributing factors to an increased level of child labour.

In recent research on the Ebola impacts on children in Sierra Leone, 43% of 216 children interviewed reported having to work to support their families. The issue of child labour was identified as a top-three priority in Sierra Leone by 19% of the children in focused group discussions.^{ix}

From an economic point of view, the Ebola outbreak caused reductions in family incomes, as a result of the imposed restrictions on trade and movement in the affected countries, which ultimately led to an increased level of poverty pushing many children into child labour.

Ebola had long-term consequences related to child protection in disadvantaged and poorer communities. An Ebola-related death of a family member was more likely to cause children to be stigmatised and excluded from the local community. This social impact left a vast number of children and young people without economic support and care, pushing them towards work.^x Additional side effects reported among children and teenagers included mental health fragility and wellbeing issues, marked by feelings of exclusion and isolation.

5 million children were left out of school as a result of the Ebola outbreak in Sub-Saharan Africa.^{xxxiii}

In Guinea, Liberia, and Sierra Leone more than 17,300 children have been orphaned because of Ebola.

By the time the schools reopened in 2015, students had lost approximately 1,848 hours of education due to school closures.^{ix}

Ebola also had marked effects on children's social and cognitive development. The crisis led to schools being closed, causing disruption to children's social environments. The closure of schools, compounded by Ebola-related deaths in the family, changed many children's roles in the household. Many who had lost one or both parents took responsibility for the surviving family members, engaging in physical work instead.^{xi} In addition, the economic shocks prompted growth in informal employment as the newly unemployed sought alternative sources of income. As ILO indicators suggest, this likely also contributed to increased levels of child labour due to Ebola's higher prevalence in informal economies, where children can more easily access workplaces as unskilled labourers.^{xii}

School closures caused a higher level of hunger among children. Thousands were unable to benefit from school feeding programmes, resulting in increased hunger, prompting more to resort to child labour simply to source food or secure a better family income.^{xiii} Additionally, the alternative of staying at home made many children vulnerable to rape, domestic abuse and recruitment into armed groups.

The Ebola outbreak caused a dramatic increase in pregnancies among young girls, unregistered births and undocumented new-born children. The decline of agriculture increased the financial dependence of West-African women on men, since they are disproportionately active in the agricultural sector and informal economy. The increased economic inferiority among women led to further sexual and physical abuse and forced marriages, causing many girls to turn to more drastic measures to earn money, such as engaging in sexually exploitative work.

These contributing factors to the vulnerability of young women stimulated a trend towards dropping out of school and engaging in harmful work, even after the threat of Ebola had passed and schools had reopened. Moreover, young mothers in West-Africa became victims of exclusionary educational policies and social humiliation inflicted by broader society.

In Sierra Leone in areas affected by Ebola, the chance of pregnancy for girls aged 12 to 17 has increased by 7.2%.^{xiv} Later, Sierra Leone's government banned pregnant girls from continuing with schooling, due to the fear that "innocent girls" could be negatively affected by their pregnant peers in spite of some studies maintaining this is not the case.^{xv}

In Liberia, during the Ebola outbreak, only 700 children's births were registered between January and May 2015, with up to 70,000 births going unregistered. This required a massive catch-up programme in the aftermath in an effort to ensure children could receive official documentation.^{xvi}

In its 2019 report, Mercy Corps highlighted that the measures restricting movement and market operations in Liberia caused total disruption to their supply chains. People consistently reported difficulties in getting inventory and goods for their households. This impact was most severe in the agricultural sector, particularly impacting food security where households described getting fewer meals per day, and at lower quality. Moreover, 41% of households reported significant reductions in income.^{xvii} In addition, border closures directly affected 12.8 million people in The Democratic Republic of Congo (DRC) triggering the need for humanitarian assistance. Only recently was strong international pressure applied to ease the restrictions on the borders between DRC and Rwanda, imposed as a result of the Ebola outbreak.^{xviii}

Ebola still presents a challenge to some African countries, which now additionally need to cope with the COVID-19 crisis. Although COVID-19 is less fatal than Ebola in terms of reported deaths among those infected, particularly children, it could have similarly dire consequences on the safety and security of children. These potentially mirrored impacts almost certainly encompass increases in child labour, social impacts and supply chain disruption. The known outcomes of the Ebola outbreak on children should therefore be taken into account in any response to the COVID-19 crisis.

Polio impacts on child labour

The polio virus caused muscle weaknesses and various forms of disability for millions of children and adults, mainly in Africa and Asia. Though largely eradicated, as recently as July 2020 two countries reported active cases of wild poliovirus type 1 (WPV) – Pakistan and Afghanistan.^{xix} In the decades before mass immunisation, polio had dire effects on the populations of affected countries; most notably in Nigeria, DRC, Ethiopia and India.

In northern Nigeria, children who were paralysed as a result of polio, faced stigma and discrimination at schools and within the broader community.^{xxvii}

The consequences of polio impacted the wellbeing of many children from both a medical and socio-economic perspective. As with Ebola, the polio outbreak also bore an economic impact on many families. Although the polio virus mostly infected children, it also caused disabilities in adults who were consequently unable to work. For households whose incomes directly depended on physical work, such as agriculture, manufacturing and mining, the role of breadwinner transferred to children, making them directly responsible for the family's income and increasing the likelihood of children engaging in child labour. Additionally, many children infected with the virus were left paralysed, faced discrimination, stigmatisation and/or were left out of school due to a lack of governmental provisions.^{xx}

At present, due to the COVID-19 crisis and the consequential disruption to immunisation systems, global markets and supply chains, millions of children are in danger of missing life-saving vaccines against polio.^{xxi} As many countries have transferred resources to fighting the current health crisis, polio vaccination programmes have been deprioritised. This risk is magnified for those living in conflict areas, where immunisation campaigns have historically struggled to gain access. In the midst of COVID-19, when many humanitarian efforts are paused, immunisation programmes are resulting in a higher risk of infection among children in particular.

While many laboratories around the world rush to create a vaccine for COVID-19, governments (especially from low and middle-income countries) could find themselves experiencing similar challenges to the dissemination of the polio vaccine. UNICEF reported shortages of polio vaccines in 2015 that continued through 2016, mainly as a result of technical issues; global and local supply chain logistical challenges, lack of firm guidance on correct dosage; corruption and lack of professional diagnostics on the number of vaccinations required. They conclude that this experience highlights the importance of supply chain considerations when planning the implementation or scale-up of new vaccine introductions.^{xxii} These experiences should serve as forewarnings of the potential challenges posed by disseminating a COVID-19 vaccine globally, where timing is critical in preventing localised resurgence.

Cholera impacts on Child Labour

Annually, 2.9 million cases of cholera infections occur in 69 endemic countries, causing 95,000 deaths.^{xxiii} The affected areas are predominantly in Asia and Africa, where communities are additionally experiencing socio-economic impacts as a result of the current COVID-19 crisis.

Cholera outbreaks have led to major disruptions in large parts of the African economy. Many sectors of the formal and informal economy, such as tourism, trade and agriculture have become inactive, dramatically lowering the household incomes of workers in those industries. For example, the 439,419 cases of cholera reported to the WHO by countries within Africa between 2005-2007, resulted in an estimated economic loss of USD 241.3 million (assuming an average regional life expectancy of 53 years).^{xxiv}

The ensuing economic downturn became a self-perpetuating cycle, pushing already disadvantaged communities into further poverty, and increasing the probability of children engaging in child labour. Furthermore, the high morbidity rate left many children orphaned and vulnerable to forced labour due to a lack of appropriate social care. These children were even more exposed to the cholera virus as a result of poor working environments and unsatisfactory labour conditions.

The cholera outbreak also had a huge impact on food supply chains and general industry in affected countries. For example, marine products from Kenya's cholera-infected areas were subjected to automatic border inspection in countries such as Japan or were completely restricted in ports such as Spain and Italy, leading to reduced trade and higher export costs.^{xxv} These trade restrictions caused an increase in poverty levels and vulnerability of both adults and children dependent on these industries.

Cholera remains a health threat in some states. Over 5 million children under the age of five in Yemen are facing a heightened threat of cholera and Acute Watery Diarrhoea (AWD) as the country tries to cope with the COVID-19 crisis.^{xxvi} In addition, according to *Save the Children*, at least 193 children died of cholera related illnesses in 2019.^{xxvii} The DRC has reported outbreaks of cholera every year since 1990, with some 31,000 recorded cases of cholera up to 2019.^{xxviii}

As with polio vaccination initiatives, COVID-19 is causing many governments to postpone cholera immunisation programmes, increasing the probability of infections and the ensuing consequences.^{xxix}

Haiti was hit by cholera in the 2010s. In 2015, a study found that there were approximately 286,000 children engaged in child labour.^{xxx} In 2018, the Government of Haiti closed eight orphanages where there was evidence of child labour in domestic work and prevention of children attending school.^{xxxi}

During the 2017 cholera outbreak in Yemen, many children who accompanied their sick caregivers to cholera treatment centres were left alone to sleep outside on the veranda while their caregivers were admitted for treatment. This unsupervised arrangement exposed children, especially girls, to risks of sexual abuse.

Potential Interventions

As governments race to analyse and respond to the effects of COVID-19, it is increasingly evident that the current outbreak will leave many countries facing similar impacts on child labour and child protection as those presented by the Ebola, Polio or Cholera crises. All of the indicators in research published by civil society, academia and governments are suggesting that COVID-19 is significantly disrupting many aspects of children's social environments. As with previous disease outbreaks, COVID-19 is producing a higher level of hunger and poverty among children, an increasing number of orphans, challenges caused by school closures, isolation and stigmatisation, as well as vulnerabilities to sexual and domestic abuse, and engagement in child labour. Additional challenges in relation to food safety and security may emerge from disrupted supply chain and production processes. COVID-19 responses must draw from previous experiences of programme planning and international collaboration; firstly to meet the immediate needs for lifesaving public healthcare, and then to cope with the effects of COVID-19 regarding other socio-economic aspects of children's lives and communities.

Bearing in mind that every health crisis is unique and requires a distinctive approach on how to reduce its negative impacts, this paper aims to provide some guidance on potential interventions, drawn from previous and long standing health crises that can contribute to the response against the impacts of COVID-19 on children's wellbeing and child labour in supply chains.

The following interventions identify how companies and other stakeholders can holistically consider the impacts of COVID-19 in fragile contexts and how they might collaborate and support one another in their response. They are divided contextually into four different categories: business and supply chains, education, community-level, awareness-raising and policy.

BUSINESS & SUPPLY CHAIN INTERVENTIONS

Continue to source from fragile contexts and work with suppliers to implement mechanisms to ensure goods and workplaces can be adequately screened and adapted to comply with WHO/ national recommendations for covid- safe work environments.

Work collaboratively with others sourcing from the same regions to find innovative ways to trial new routes and methods for the transportation of goods where border closures might prevent the use of traditional trade routes.

Continuing trade and local-level engagement wherever possible rather than withdrawing from fragile contexts is essential to mitigating the impacts on children and communities.

Medical and logistics supply chains should work with all stakeholders, implementing effective strategies to ensure mass immunisation programmes can be adequately resourced/ scaled -up, ensuring COVID-19 vaccination supplies can safely reach communities in fragile contexts, prioritising those most vulnerable to both health complications and negative social and economic effects of COVID-19 restrictions.

Work actively to protect female jobs and implement safeguards to ensure female workers are not discriminated against during COVID-19;

EDUCATIONAL INTERVENTIONS

(Re)establishment of social feeding programmes to tackle increased levels of hunger, poverty and food insecurity and to incentivise a return to school.

Adopting special measures and programmes for the education of pregnant girls to protect them from potential stigmatisation and community discrimination.

Increasing affordability and access to free education at both primary and secondary level to maximise return to school attendance levels.

Facilitating school re-entry initiatives, assisting older children to fill gaps and catchup within the education process, implementing special measures, adapted to their needs.

Developing sustainable catch-up programmes for all children returning to schools.

Introducing creative online or radio education programmes to reach children unable to attend school during lockdowns and beyond;

COMMUNITY LEVEL INTERVENTIONS

Governments, companies and civil society actors should contribute to supporting vulnerable and marginalised children and communities in times of the COVID-19 health crisis, by providing emergency financial and social assistance as well as food supplies for those in need.

Providing caregivers for children that are excluded from the broader family and lack social care.

Developing well-resourced childcare provision with educated social workers to assist children who have lost parents and supporting affected families.

Providing necessary equipment and human resources in rural areas, making health facilities more accessible to everyone, especially within poorer and more highly affected communities.

Facilitating the COVID-19 Prevention protocol and providing as many isolated health facilities as possible for the purposes of COVID-19.

Financially supporting research for the development and effective deployment of a vaccine against COVID-19;

AWARENESS-RAISING INTERVENTIONS

Promote the COVID-19 prevention protocol (handwashing, maintaining distance, face covering, self-isolation etc) among children and communities.

Educating children & communities on:

The importance of schooling and childrens' return.

De-stigmatisation of those affected with COVID-19: survivors and the bereaved.

The importance of preventive vaccination;

POLICY INTERVENTIONS

International collaboration to accelerate understanding of best practice in relation to COVID-19 treatment and immunisation.

Allocation of state budget to vital health care services, supporting pregnant women, infants and young children.

Secure international health assistance and financial support for the most vulnerable communities.

Prioritise the continuation of both polio and cholera immunisation programmes within COVID-19 safety protocols.

Effective management of state sponsored vaccination supply and dissemination, building on learning from previous health crises.

Developing specialist nutrition programmes for children that have suffered nutritional deficiency due to COVID-19 related food shortages.

Developing appropriate mental health programmes and models to assist children and families who have developed mental health problems as a result of social exclusion and stigmatisation from disease outbreaks.

References:

- ⁱ CDC (Centers for Disease Control and Prevention, 'Cost of the Ebola Epidemic' (2019) CDC <<https://www.cdc.gov/vhf/ebola/history/2014-2016-outbreak/cost-of-ebola.html#:~:text=Aside%20from%20the%20devastating%20health,4%20of%20the%20three%20countries.>>
- ⁱⁱ BSI 'Supply Chain Impact of 2014 Ebola Outbreak' (2014) BSI Group <https://www.bsigroup.com/globalassets/localfiles/aaa/Whitepaper%20Ebola_10.14_7.pdf>
- ⁱⁱⁱ Ibid.
- ^{iv} Ibid.
- ^v See full Report at: FAO (2016) <<http://www.fao.org/3/a-i5641e.pdf>>
- ^{vi} EPRS 'Economic impact of epidemics and pandemics' (2020) EU <[https://www.europarl.europa.eu/RegData/etudes/BRIE/2020/646195/EPRS_BRI\(2020\)646195_EN.pdf](https://www.europarl.europa.eu/RegData/etudes/BRIE/2020/646195/EPRS_BRI(2020)646195_EN.pdf)>
- ^{vii} Leah Selim 'Children and the DRC Ebola outbreak: 4 things you need to know' (2018) UNICEF <<https://www.unicef.org/stories/children-and-drc-ebola-outbreak-4-things-you-need-know>>
- ^{viii} Elston, Cartwright, Ndumbi and Wright, 'The health impact of the 2014-15 Ebola outbreak' (2017) Public Health <<https://pubmed.ncbi.nlm.nih.gov/28159028/#:~:text=Results%3A%20The%20impact%20of%20the,and%20closure%20of%20health%20facilities.&text=Increased%20morbidity%20and%20mortality%20and%20reduced%20expected%20life%20expectancy%20were%20reported.>>
- ^{ix} Isabelle Risso-Gill and Leah Finnegan, 'Children's Ebola Recovery Assessment: Sierra Leone' (2015) Save the Children <<https://www.savethechildren.org/content/dam/global/reports/emergency-humanitarian-response/ebola-rec-sierraleone.pdf>>
- ^x Hanna-Tina Fischer, Leilani Elliott and Sara Lim Bertrand, 'Guidance Note: Protection of Children During Infectious Disease Outbreaks' (2018) The Alliance for Child Protection in Humanitarian Action <https://resourcecentre.savethechildren.net/node/13328/pdf/protection_of_children_during_infectious_disease_outbreak_guidance_note.pdf>
- ^{xi} Isabelle Risso-Gill and Leah Finnegan (n ix)
- ^{xii} ILO - UNICEF, 'COVID-19 and child labour: A time of crisis, a time to act' (2020) ILO <https://www.ilo.org/wcmsp5/groups/public/---ed_norm/---ipecc/documents/publication/wcms_747421.pdf>
- ^{xiii} Hilde Selbervik, 'Impacts of school closures on children in developing countries: Can we learn something from the past?' (2020) Chr. Michelsen Institute (CMI) <<https://www.cmi.no/publications/7214-impacts-of-school-closures-on-children-in-developing-countries-can-we-learn-something-from-the-past>>
- ^{xiv} The Conversation, 'Lessons from Sierra Leone's Ebola pandemic on the impact of school closures on girls' (2020) The Conversation <<https://theconversation.com/lessons-from-sierra-leones-ebola-pandemic-on-the-impact-of-school-closures-on-girls-137837#:~:text=Our%20analysis%20shows%20that%20over,increased%20by%207.2%20percentage%20points.>>
- ^{xv} Laura Starecheski 'Visibly Pregnant' Girls Are Banned From School In Sierra Leone' (2014) NPR <<https://www.npr.org/sections/goatsandsoda/2015/04/06/397272538/visibly-pregnant-girls-are-banned-from-school-in-sierra-leone?t=1575656453280&t=1595858643046>>
- ^{xvi} UN, 'Thousands of unregistered children born in Liberia during Ebola crisis at risk of exploitation – UNICEF' (2015) UN <<https://www.un.org/africarenewal/news/thousands-unregistered-children-born-liberia-during-ebola-crisis-risk-exploitation-%E2%80%93-unicef>>
- ^{xvii} Mercy Corps, 'The Ebola effect - The economic impacts of a public health crisis' (2019) Mercy Corps <https://www.mercycorps.org/sites/default/files/2020-01/The_Ebola_Effect_August_FINAL.pdf>
- ^{xviii} See at: BBC, 'Ebola crisis: Rwanda reopens border with DR Congo amid outbreak' (2019) BBC <<https://www.bbc.co.uk/news/world-africa-49191715>>
- ^{xix} See at. <<http://polioeradication.org/polio-today/polio-now/this-week/>>
- ^{xx} Elisha P. Renne, 'The Politics of Polio in Northern Nigeria' (2010) Indiana University Press <<https://muse.jhu.edu/book/1378>>
- ^{xxi} WHO, 'At least 80 million children under one at risk of diseases such as diphtheria, measles and polio as COVID-19 disrupts routine vaccination efforts, warn Gavi, WHO and UNICEF' <<https://www.who.int/news-room/detail/22-05->

2020-at-least-80-million-children-under-one-at-risk-of-diseases-such-as-diphtheria-measles-and-polio-as-covid-19-disrupts-routine-vaccination-efforts-warn-gavi-who-and-unicef>

^{xxii} Bruce Y. Lee and Leila A. Haidari. 'The importance of vaccine supply chains to everyone in the vaccine world' (2017) NCBI <<https://www.ncbi.nlm.nih.gov/pmc/articles/PMC6622174/>>

^{xxiii} Charurut Somboonwit, Lynette J Menezes, Douglas A Holt, John T Sinnott, and Paul Shapshak, 'Current views and challenges on clinical cholera' (2017) NCBI <<https://www.ncbi.nlm.nih.gov/pmc/articles/PMC5767916/>>

^{xxiv} Jose M Kirigia, Luis G Sambo, Allarangar Yokouide, Edoh Soumbey-Alley, Lenity K Muthuri and Doris G Kirigia, 'Economic burden of cholera in the WHO African region' (2009) 9(8) BMC International Health and Human Rights <<https://bmcinthealthumrights.biomedcentral.com/articles/10.1186/1472-698X-9-8>>

^{xxv} Spencer Henson and Winnie Mitullah, 'Kenyan Exports of Nile Perch: Impact of Food Safety Standards on an Export-Oriented Supply Chain' (2016) SSRN <https://papers.ssrn.com/sol3/papers.cfm?abstract_id=610393>

^{xxvi} WHO, (n xiii)

^{xxvii} Allen S. Craig, Rustam Haydarov, Helena O'Malley, Michael Galway, Halima Dao, Ngashi Ngongo, Marie Therese Baranyikwa, Savita Naqvi, Nima S. Abid, Carol Pandak, and Amy Edwards, 'The Public Health Legacy of Polio Eradication in Africa' (2017) The Journal of Infectious Diseases <<https://www.ncbi.nlm.nih.gov/pmc/articles/PMC5853432/>>

^{xxviii} 2017 Findings on the Worst Forms of Child Labor: Haiti' (2017) <<https://www.refworld.org/pdfid/5bd05acb0.pdf>>

^{xxix} 2018 Findings on the Worst Forms of Child Labor: Haiti (2018) <https://www.dol.gov/sites/dolgov/files/ILAB/child_labor_reports/tda2018/Haiti.pdf>

^{xxx} UNICEF, 'Over 5 million children face threat of cholera and acute water diarrhea in the midst of COVID-19 as Yemen gets heavy rains' (2020) UNICEF <<https://www.unicef.org/press-releases/over-5-million-children-face-threat-cholera-and-acute-water-diarrhea-midst-covid-19>>

^{xxxi} Save the Children, 'Yemen – at least 193 Cholera related deaths reported amongst children' (2019) Save the Children <<https://www.savethechildren.net/news/yemen-%E2%80%93-least-193-cholera-related-deaths-reported-amongst-children>>

^{xxxii} UNICEF, 'Children in the Democratic Republic of the Congo at risk from killer measles, cholera epidemics' (2020) UNICEF <<https://www.unicef.org/press-releases/children-democratic-republic-congo-risk-killer-measles-cholera-epidemics>>

^{xxxiii} Global Business Coalition for Education 'Restoring Education, Ebola Emergency: Creating Safe Schools and Published in collaboration with: Preventing a Long-term Crisis' (2014) GBC-Edu. <<https://gbc-education.org/wp-content/uploads/2018/09/EbolaandEducationReport122014.pdf>>