

Impacts of Pandemics and Epidemics on Child Protection Lessons learned from a rapid review in the context of COVID-19

Shivit Bakrania, Cirenia Chavez, Alessandra Ipince,
Matilde Rocca, Sandy Oliver, Claire Stansfield and
Ramya Subrahmanian

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Correspondence should be addressed to:

UNICEF Office of Research - Innocenti

Via degli Alfani 58

50121 Florence, Italy

Tel: (+39) 055 20 330

Fax: (+39) 055 2033 220

florence@unicef.org

www.unicef-irc.org

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IMPACTS OF PANDEMICS AND EPIDEMICS ON CHILD PROTECTION LESSONS LEARNED FROM A RAPID REVIEW IN THE CONTEXT OF COVID-19

Shivit Bakrania^a, Cirenia Chavez^a, Alessandra Ipince^a, Matilde Rocca^a, Sandy Oliver^b, Claire Stansfield^b, Ramya Subrahmanian^a

(a) UNICEF OoR-Innocenti

(b) EPPI-Centre, University College London

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ACRONYMS AND ABBREVIATIONS

COVID-19	Coronavirus disease
CP	Child protection
DRC	Democratic Republic of Congo
EISI	Evidence Information System Initiative
EVD	Ebola virus disease
FGD	Focus-group discussion
FGM	Female genital mutilation
H1N1	Influenza
HIV/AIDS	Human Immunodeficiency Virus/Acquired Immune Deficiency Syndrome
HMIC	High- and middle-income countries
IDP	Internally displaced person/s
IPV	Intimate partner violence
LMIC	Low- and middle-income countries
MERS	Middle East Respiratory Syndrome
OECD	Organisation for Economic Co-operation and Development
SARS	Severe Acute Respiratory Syndrome
UNICEF	United Nations Children’s Fund
WHO	World Health Organization
ZVD	Zika virus disease

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EXECUTIVE SUMMARY

Background and aims

Policy guidance, media commentary and initial empirical research suggests that COVID-19, and its infection control measures, have had detrimental impacts on children's development, safety and well-being. The disruptive impacts of the virus are being seen to play out in several ways, directly eroding families' capacities and resources to care adequately for children due to multiple health, financial and socio-economic stresses, as well as the closure of or restrictions in access to essential services and schools.

Previous pandemics and epidemics have all generated insights into the negative protection impacts of health crises. With this in mind, the UNICEF Office of Research – Innocenti undertook a rapid review, which collated and synthesized evidence on the child protection impacts of COVID-19 and previous pandemics and epidemics. The research questions of the rapid review were:

- What are the effects of pandemics and epidemics on child protection outcomes?
- What are the effects of pandemic and epidemic infection control measures on child protection outcomes?
- How do the effects of pandemics and epidemics and their associated infection control measures vary for children and adolescents in vulnerable circumstances or at risk?

Part of the challenge of applying lessons from previous pandemics is that pandemics and epidemics, by their very nature, are often unique and the COVID-19 pandemic is unprecedented in modern history in its global coverage. Despite the limitations to generalizability and applicability, lessons learned about how such crises impact some of the most vulnerable children remain valid pointers for concerted global, national and local actions.

By informing on the nature of the potential impacts of COVID-19 on child protection outcomes and key risk factors, the review can be seen an agenda-setting tool for a multidimensional strategy for UNICEF's response and for future research prioritization.

What evidence was included?

The rapid review collated evidence from studies that reported on the impacts of COVID-19 and previous pandemics and epidemics on a broad range of child protection outcomes. Studies that met the following criteria were included:

- **Pandemics and epidemics:** COVID-19, Ebola, Zika, Severe Acute Respiratory Syndrome (SARS), Middle East Respiratory Syndrome (MERS), HIV/AIDS and H1N1/swine flu.
- **Infection control mechanisms:** Quarantine and isolation, physical distancing, movement restrictions and the closure of schools, services and non-essential businesses.
- **Child protection outcomes:** Stigmatization, discrimination and xenophobia; child labour and exploitative/hazardous work; unpaid work; unpaid care and domestic work; early and adolescent pregnancy; harmful acts including child marriage and female genital mutilation (FGM); orphanhood; family separation and abandonment; and unsafe and irregular migration.

- **Violence outcomes:** Intimate partner violence (IPV) between married, cohabiting or dating partners; sexual violence and exploitation by caregivers and strangers; violent child discipline; child abuse and maltreatment; peer bullying; self-directed violence including suicide or self-harm; violence from security actors; gang involvement and crime; homicide; and online abuse and exploitation.
- **Outcomes at the intersection between education and child protection:** school enrolment, attendance and dropout.

What evidence was found?

Systematic searches generated 6,000 studies. These were screened and only 53 studies were found to be relevant. The review attempted to look for evidence only since 1980 but most of the studies found to meet our inclusion criteria were from the previous decade. These included 16 systematic reviews and 16 non-systematic reviews, which themselves reviewed many single studies. The evidence overwhelmingly focused on HIV/AIDS in sub-Saharan Africa, where time and attention since the 1980s has resulted in extensive literature collated in systematic reviews. This also included 22 single studies, strongly concentrated on the Ebola outbreak in West Africa (which ran from 2013 to 2016 and particularly affected Sierra Leone, Liberia and Guinea). These single studies contained some evidence on the effects of Ebola on orphanhood; stigma; sexual violence and exploitation; school enrolment, attendance and dropout; early and adolescent pregnancy; and harmful practices (including early marriage and female genital mutilation). The evidence on other pandemics or epidemics, or on other outcomes, was extremely limited.

What are the key impacts of pandemics and epidemics on child protection?

Being orphaned – by losing one or both parents – was a direct outcome of infectious disease outbreaks and also a key risk factor towards other negative child protection outcomes. Children orphaned during outbreaks who lived with extended families, or were in foster or institutional care, were more prone to discrimination and stigmatization and sexual exploitation and abuse. They were also more likely to drop out of school, to assume parental responsibility for younger siblings and to be engaged in child labour. The impacts of infectious disease outbreaks on orphans were gendered. Orphaned girls were more likely to become child brides and/or were at higher risk of being sexually exploited and abused, while boys were more likely to end up as child labourers, street dwellers and/or engaged in unlawful behaviors such as theft.

Stigmatization and discrimination of infected children and adolescents, or of those living with infected individuals, was consistently identified as pervasive and widespread. They were also significant drivers of other negative outcomes for children and adolescents. In previous outbreaks, peers, teachers, communities and kin networks all contributed to the stigmatization of children, some of whom were perceived to live in disease ‘hotspots’. Sometimes entire communities were affected, further isolating them from basic services and essential resources, including shelter, water, food and livelihoods.

Stigma and discrimination prevented people from seeking health care for fear of drawing attention to their diagnosis. Stigmatization was also part of a chain of outcomes that led to the unequal distribution of financial and emotional support within families, including abandonment and eventual homelessness. These effects exacerbated the vulnerabilities and inequalities faced by women and girls, including dispossession and disinheritance and rejection by families and spouses (or potential partners).

Reductions in household income and the illness or death of breadwinners meant that children were increasingly engaged in **wage labour** to obtain an income that allowed them to manage their household expenses. Quarantine and lockdown restrictions, combined with lengthy school closures, increased the economic impact on vulnerable families and disincentivized children's return to school.

Younger children and girls were less likely to be engaged in child labour outside the home, but more likely to be engaged in **work within the home**, including domestic work and chores. Pre-existing gender norms shaped the division of tasks during health crises and quarantine. This included the need to collect more water and firewood and the need to provide for the family if a member fell ill.

Pandemics and epidemics can lead to increases in **child marriage** – which can be considered as a negative coping mechanism – associated with financial hardships during an outbreak (often as a result of quarantine and social isolation measures) and school dropout.

Early and adolescent pregnancy was associated with infection control measures. Economic insecurity and a lack of food increased pressures on families and caregivers, and school closures increased the likelihood of girls spending more time with older men. Transactional sex was sometimes a strategy used by girls and families to earn additional money, or access services and resources, thus exposing themselves to a higher risk of becoming pregnant. Moreover, health services disrupted during outbreaks reduced the use of contraception by teenage girls. A lack of access to medical facilities during outbreaks also intensified risks during childbirth and compromised the safe delivery of children.

Child abuse and maltreatment can increase during and after pandemics and epidemics, both for those co-residing with infected adults and those living with caretaker families.

Infectious disease outbreaks intensified the experience of **sexual violence and abuse, particularly of women and girls**. Quarantines and lockdown conditions presented higher risks, resulting in increased domestic stress, the exercise of controlling behaviors by perpetrators, and restricted access of victims to services and help. Disruptions to existing violence prevention programmes and potential safe spaces, such as schools, also increased exposure to violence.

Reliable and safe reporting of intimate partner violence and sexual violence and exploitation were constrained by: the inaccessibility of basic justice and medical services during the disease outbreak; restrictions on movement stemming from quarantines and checkpoints; a fear of contracting infection, which prevented victims of violence from seeking medical attention; and the costly nature of pursuing criminal cases, which led to increases in unrecorded mediation at a local level. Access to water and sanitation also affected exposure to and risks of IPV and sexual violence and exploitation for women and girls whose role was to fetch water. This included increased risks of rape or exploitation by guards stationed to police quarantine. Barriers to women seeking medical care included the fear of being assaulted on the way to, and in, public hospitals and the prohibitive costs of taxis.

Policy recommendations

Based on the evidence from previous pandemics and epidemics, child protection responses to those affected by COVID-19 may usefully focus on some of the key risk factors identified in this review. Links to available technical guidance on these issues are included in Section 11 of this report (*see Box 2*).

Responding to children in vulnerable circumstances, including orphans: Key approaches may include psychosocial interventions focused on improving mental health, social protection, cognitive interventions, and community-based interventions that provide families with resources and access to services.

Responding to stigmatization and discrimination: Ongoing information and communication campaigns are key to ensuring that stigma and discrimination do not impose such high costs in terms of children's mental health and well-being in the longer-term. Public health systems, communities and schools can also play an important protective role in building positive relationships and addressing the stigmatization of populations affected by outbreaks of an infectious disease. Teachers and community leaders should be sensitized to possible longer-term psychosocial and mental health effects and be encouraged to provide social support. Another option may be to set up self-help groups and safe spaces at school and within communities.

Investing in social protection: Social safety nets could reduce the participation of children in paid and exploitative labour and decrease the chances of school dropout. This may further decrease the chances of early marriage and teenage pregnancy. Expanding social safety nets may also contribute towards providing survivors of sexual violence and exploitation with access to justice and medical services.

Promoting access to health and protective services: The evidence emphasizes the importance of prioritizing services to respond to issues of violence against women and girls. This includes ensuring access to female healthcare workers and to safe, alternative and confidential spaces, as well as increasing communication and awareness of services through advocacy.

Access to justice: The evidence finds that access to the police and formal justice was restricted in many locations. Particular attention could be given to the role of community leaders and customary justice systems, ensuring that cases of criminal sexual violence are recorded and referred to the formal justice system.

Ensuring continued access to education: It is vital to sensitize parents to the importance of returning children to school. Once schools have reopened, there may be a need for psychosocial support and counselling for children affected by the virus. Flexible and supportive education is required for girls, who may be more likely to sacrifice schooling for unpaid domestic work and childcare or due to early pregnancy.

Research recommendations

It is evident there is a need for further research on the effects of infectious outbreaks and other crises focusing specifically on children and adolescents. At the same time, there is a higher burden of proof for data collection during the current outbreak than there would be in normal circumstances. The value and benefits for children and adolescents from research should be immediately clear.

Primary research

- **Rigorous retrospective studies:** Consideration should be given to the value of retrospective cross-sectional surveys and case-control designs to investigate causal links between exposure to pandemics and epidemics and child protection outcomes.
- **Build upon or reinforce the monitoring, evidence and learning functions of pre-existing programmes:** Pre-existing programmes present opportunities for conducting experiments, quasi-experiments or longitudinal studies to determine pre- and post-outbreak trends and impacts of the outbreak over time. If there is ongoing longitudinal data collection in areas when an outbreak hits, there is both baseline data and the infrastructure to quickly collect data. Efforts should be made to collect age-disaggregated data, to ensure that the specific effects on children and adolescents can be determined.

- **Rigorous remote or long-distance qualitative research:** Remote or virtual qualitative data collection (phone interviews for example) with children and adolescents may be feasible in certain circumstances. There should be a strong burden of proof for data collection.
- **Focus on children and adolescents in vulnerable circumstances:** There is a need for detailed investigations of population heterogeneity.
- **Broaden geographic focus:** There is a need to expand the evidence base beyond Sub-Saharan Africa, and beyond West Africa in particular. This may entail retrospective studies on outbreaks other than Ebola, such as the SARS, MERS and H1N1 outbreaks in other regions. It may also entail retrospective or longitudinal studies on the effects of COVID-19 in Asia and Latin America.

Secondary research and synthesis

- **Robust analysis drawing on administrative data:** The use of administrative data and national statistics may help to provide robust statistical evidence through econometric analysis of the socio-economic impacts of COVID-19.
- **Deep dives into evidence on HIV/AIDS:** There is limited synthesis on the impacts of HIV/AIDS on other child protection outcomes, including child labour, unpaid care and domestic work.
- **Synthesis of evidence on interventions to reduce child protection risks:** One way to strengthen recommendations and the evidence-base for programming would be to collate evidence, perhaps as part of a review of reviews, on the effectiveness of interventions seeking to respond to the key risks identified, both within pandemic contexts and without.

1. INTRODUCTION

1.1 Background and rationale

The COVID-19 outbreak was declared a pandemic by the World Health Organization (WHO, 2020) on 11 March 2020. The rapid spread of the newly-discovered coronavirus (2019-nCoV) has driven a large number of countries to respond to a public health emergency of unprecedented proportions in modern history. The nature of COVID-19 has led to the global adoption of key policy measures to control infection rates, including quarantine and isolation, physical distancing, movement restrictions and the closure of schools, services and non-essential businesses.

Policy guidance, media commentary and initial empirical research have highlighted the significant immediate, intermediate and long-term negative impacts of COVID-19 and its infection-control measures on children and adolescents and their families due to multiple health, financial and socio-economic stresses (End Violence Against Children, 2020). These disruptions can have adverse consequences for children's well-being, development, safety and protection (The Alliance for Child Protection and Humanitarian Action, 2020b), particularly for those already vulnerable to socio-economic exclusion (The Alliance for Child Protection and Humanitarian Action, 2020a; UN, 2020; UN Network on Migration, 2020). Young people will carry the societal and economic costs from the COVID-19 crisis for years to come, and sub-groups of children and adolescents in vulnerable circumstances may carry an inordinate burden.

In the face of the COVID-19 crisis, UNICEF has rapid evidence needs to understand the key threats to children's and adolescents' protection and well-being, and to better address these through its programmatic efforts. Throughout the process of writing this review, we became aware of research and syntheses written in the context of COVID-19. Some of these were published during the peer review and editorial phase, which meant we were unable to include them in the analysis, even if they did meet our eligibility criteria. These included studies on the impact of quarantines on psychosocial outcomes (Brooks et al., 2020); on the impact of social isolation on children's mental health (Loades et al., forthcoming); on how school closures can affect the spread of infection (Viner et al., 2020); on how school closures affect educational attainment (Education Endowment Foundation, 2020); on how school closures affect the reporting of child maltreatment (Baron et al., 2020) on violence against women and children (Peterman et al., 2020); and on violence and crime (Ashby, 2020). However, in general there is limited evidence on socio-economic effects of the pandemic (Nicola et al., 2020) and much of the research being produced is not child- or adolescent-specific or fails to disaggregate the effects on children and adolescents.

1.2 Aims and research questions

This rapid review includes findings on the impacts of COVID-19 and previous regional epidemics and pandemics, including Ebola, Severe Acute Respiratory Syndrome (SARS), Middle East Respiratory Syndrome (MERS), Zika, H1N1/swine flu and Human Immunodeficiency Viruses and Acquired Immune Deficiency Syndrome (HIV/AIDS).¹

It aims to answer the following research questions:

- What are the effects of pandemics and epidemics on child protection outcomes?
- What are the effects of pandemic and epidemic infection control measures on child protection outcomes?
- How do the effects of pandemics and epidemics and their associated infection control measures vary for children and adolescents in vulnerable circumstances or at risk?

By informing on the nature of the potential impacts of COVID-19 on child protection outcomes and the key risk factors, the review can be seen as an agenda-setting tool for a multidimensional strategy for UNICEF's response and for future research prioritization.

1.3 Challenges to generalizability and applicability

Part of the challenge of applying lessons from previous pandemics and epidemics is that, by their very nature, these are often unique. Furthermore, the COVID-19 pandemic is unprecedented in modern history in its global reach. It should be noted that there are some key differences between the nature of these past infectious diseases and their outbreaks and the current COVID-19 pandemic. In particular, HIV/AIDS (a sexually transmitted disease), Zika (mosquito-borne) and Ebola (primarily spread through direct contact with body fluids) have different transmission mechanisms to COVID-19 and other coronaviruses such as SARS and MERS, which are primarily airborne or spread through close person-to-person contact. This means impact pathways may be different and there may be differences in the infection control measures used. The contexts and coverage of different outbreaks also matter; the evidence on Ebola is largely drawn from Western Africa and the evidence on HIV/AIDS from sub-Saharan Africa. Furthermore, new modalities and innovations of mitigating contagion, such as digital engagement and online schooling, are more prevalent now compared to when these previous outbreaks took place.

Despite the limitations, their inclusion allows consideration of the child protection and violence impacts that may be similar, such as the effects on morbidity and mortality of parents, on household income and livelihoods, and on stigma. Furthermore, in spite of limitations to generalizability, lessons learned about how such crises impact some of the most vulnerable children remain valid pointers for concerted global, national and local actions.

¹ The timelines of various outbreaks vary:

- The COVID-19 outbreak was first identified in December 2019 and continues to the present day (at the time of writing).
- There have been various Ebola outbreaks, starting in 1976 in Sudan and stretching to a current outbreak (at the time of writing) in the Democratic Republic of Congo and Uganda. The largest and most severe Ebola outbreak was in West Africa (Sierra Leone, Liberia and Guinea) and ran from 2013-2016.
- The SARS outbreak took place from 2002 to 2004.
- MERS has affected several countries, primarily in the Middle East region since 2012. Sporadic outbreaks have been reported in other countries globally until 2015.
- There have been multiple Zika outbreaks, including from 2013 to 2014 in the Pacific region, but the most severe was in 2015-2016 in Latin America and the Caribbean.
- The H1N1/swine flu pandemic lasted from 2009-2010, affecting the United States and Mexico in particular.
- The first cases of AIDS were reported in 1981 and infections with HIV have since grown to epidemic proportions.

1.4 Complementary outputs

This rapid review is part of a package of materials intended to be of use to policy makers and research commissioners in the context of the COVID-19 pandemic. By highlighting the risks that infectious outbreaks present to the protection of children and adolescents, these resources aim to inform both the management of the current COVID-19 pandemic and the development of longer-term pandemic and epidemic preparedness strategies. They also highlight evidence gaps, which can underpin future research avenues.

This report is part of a package of resources, which include:

- An evidence gap map, providing a graphic illustration of the distribution of the evidence found on the effects of pandemics and epidemics on child protection outcomes covered by this review. This is fully interactive and provides an accessible means of viewing the details and summaries of the studies included in this review. This is available at www.unicef-irc.org/evidence-gap-map-pandemics-child-protection-violence.
- A research brief, placing the findings of this rapid review in a COVID-19 policy response context and providing policy and programme recommendations. This is available at <https://www.unicef-irc.org/publications/1103-brief-impacts-of-pandemics-and-epidemics-on-child-protection-lessons-learned-review.html>.
- A study protocol, containing full details of the review methodology. This is available at <https://www.unicef-irc.org/publications/1106-study-protocol-impacts-of-pandemics-and-epidemics-on-child-protection-lessons-learned.html>.

1.5 Structure of the report

The following section of the report describes the scope and eligibility criteria for this review. The third section presents the conceptual framework developed as part of the synthesis process. The fourth section provides an overview of the methodology and limitations. The fifth section presents the results of the searches and screening processes, including descriptive analysis on the quantity and nature of the evidence collated. Section six presents the findings of pandemics and epidemics on child protection outcomes, section seven does the same for violence outcomes, and section eight includes analysis of outcomes at the intersection of education and child protection. Section nine concludes, while section 10 offers policy and programme lessons, and section 11 offers research recommendations. Section 12 offers brief reflections on uptake and coordination on evidence-informed responses to COVID-19. Appended to the report is a table of studies included in the rapid review and key data extracted.

2. THE SCOPE OF THIS REVIEW

This review focuses on the effects of pandemics and epidemics and infection control measures on a broad range of child protection and violence outcomes.

As well COVID-19, we included infectious disease epidemics that became regional crises, including: HIV/AIDS, Ebola, Zika, SARS and MERS. We also included those designated as global pandemics, including: H1N1/swine flu.^{2, 3}

Additionally, we considered the effects of infection control measures. We found limited evidence for these on the first set of searches, so we undertook further searches with specific search terms related to infection control. These included: quarantine and social isolation; social and physical distancing; movement restrictions within and across borders; the suspension or restriction of health, protection and social services; the suspension or restriction of schooling and daycare; and the closure of non-essential businesses.

We also considered a broad range of outcomes that might arise from families being under stress, or children lacking their usual parental or institutional care. We made distinctions between child protection outcomes, violence outcomes and outcomes at the intersection between education and child protection. Whilst all of these outcomes are considered to be part of the broad thematic domain of child protection, these distinctions helped as an analytical tool for this review. Our selection of outcomes was partly guided by knowledge of other reviews on related issues being undertaken at the time of this review. It was also influenced by what was feasible within the confines of a rapid review and the short time frame allowed. The included population of interest, pandemics and epidemic types, infection control policies and (included and excluded) child protection outcomes are presented in Box 1.

2 For a discussion on the differences between epidemics and pandemics, see: Centers for Disease Control and Prevention, (n.d.), *Principles of Epidemiology in Public Health Practice: An introduction to Applied Epidemiology and Biostatistics*, Retrieved May 29, 2020 from <https://www.cdc.gov/csels/dsepd/ss1978/lesson1/section11.html>

3 For a description of major infectious diseases and their classification as pandemics or epidemics, see: World Health Organization, (2018), *Managing epidemics: Key facts about major deadly diseases*. World Health Organization. <https://www.who.int/emergencies/diseases/managing-epidemics/en/>

Box 1: Study inclusion and exclusion criteria

Population	Children and adolescents (ages 0-19 years old)
Pandemics and epidemics	Epidemics that rose to become regional crises: HIV/AIDS, Ebola, Zika, Severe Acute Respiratory Syndrome (SARS) and Middle East Respiratory Syndrome (MERS). Designated global pandemics: H1N1 and COVID19.
Infection control measures	Studies of the effects of pandemic or epidemic infection control measures on child protection outcomes. These include: quarantine and social isolation; social/physical distancing; movement restrictions within and across borders; the suspension or restriction of health, protection and social services; and the closure of non-essential businesses.
Child protection and violence outcomes	Child protection outcomes: Stigmatization, discrimination and xenophobia; child labour and exploitative/hazardous work; unpaid work; unpaid care and domestic work; teenage pregnancy; harmful acts including child marriage and female genital mutilation (FGM); orphanhood; family separation and abandonment; and unsafe and irregular migration. Violence (exposure to or perpetration of) outcomes: Intimate partner violence between married, cohabiting or dating partners; sexual violence and exploitation by caregivers and strangers; violent child discipline; child abuse and maltreatment; peer bullying; self-directed violence including suicide or self-harm; violence from security actors; gang involvement and crime; homicide; and online abuse and exploitation. Outcomes at the intersection between education and child protection: School enrolment, dropout and attendance.
Context	Global (high-, middle- and low-income countries)
Study type	Systematic or non-systematic reviews on the effects of pandemics and epidemics on child protection outcomes. Qualitative and quantitative primary empirical studies of whatever research design on the effects of all included pandemic and epidemic types apart from HIV/AIDS. Note that we did not include single studies on HIV/AIDS. Searches were undertaken in English but without language restrictions. We included studies from 1980 onwards to account for the initial classification of HIV/AIDS as an epidemic.
Study type exclusion criteria	We excluded the following types of studies: <ul style="list-style-type: none"> ■ Conceptual and theoretical studies ■ Studies that did not report on their methodology ■ Entire books, unless there was a chapter as part of an edited book, which was both eligible and freely available ■ Academic theses and dissertations ■ Single studies on HIV/AIDS
Thematic/sectoral exclusion criteria	We excluded physical and mental health outcomes with the caveat that certain outcomes within our scope will, at points, be inevitably linked to mental health – for instance, in cases of xenophobia, stigma and abuse.

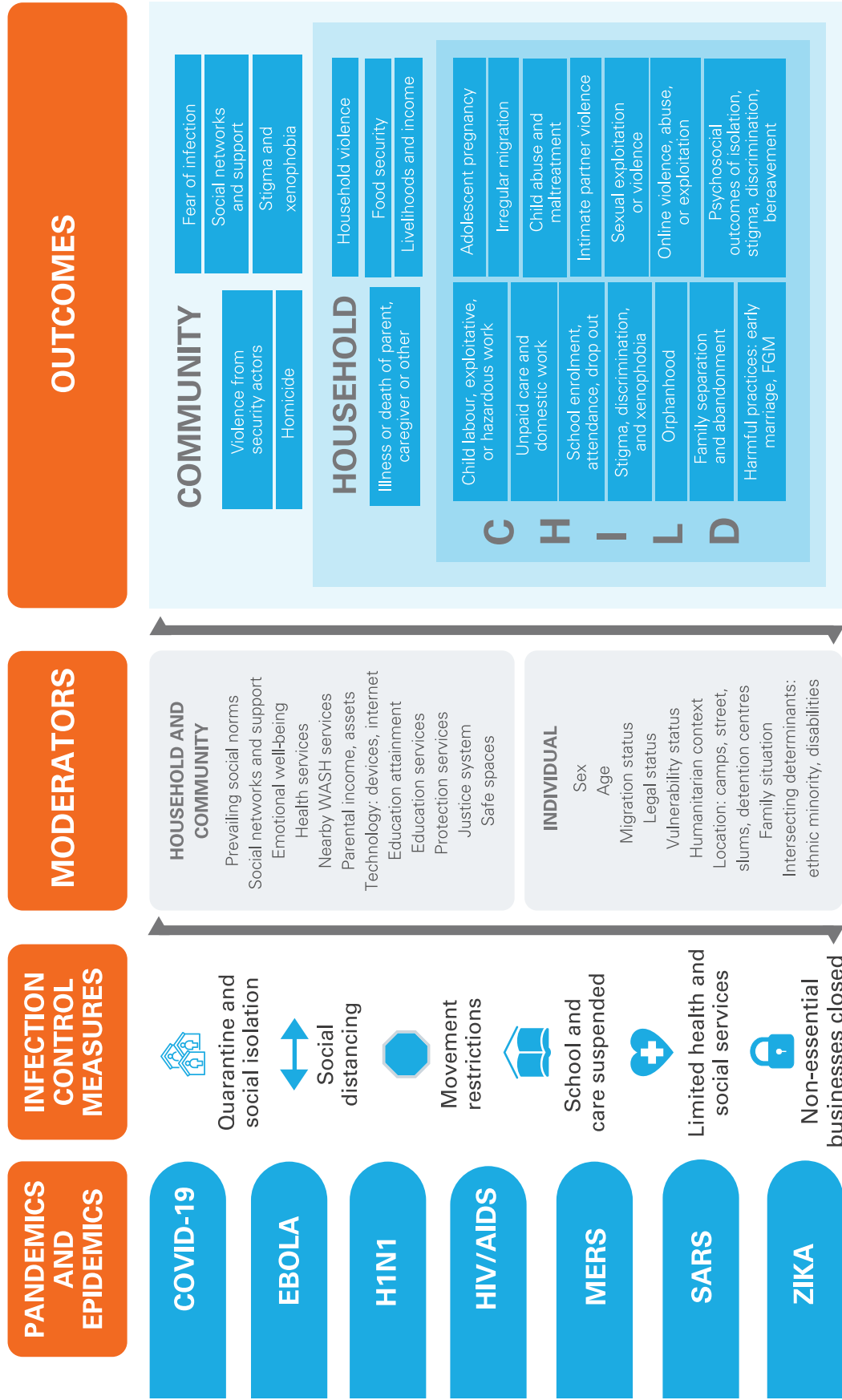
3. CONCEPTUAL FRAMEWORK

Figure 1 shows the conceptual framework we constructed to guide our approach to synthesis as part of a 'framework synthesis' approach. The inclusion criteria, the search strategy, the coding of studies, and the analysis of the literature are all aligned with this framework. This was developed as the accrued literature advanced our understanding of the linkages between pandemics, epidemics and child protection outcomes. This includes the reviewed studies but also theoretical and conceptual studies that did not meet the eligibility criteria. Several of these conceptual studies present a socio-ecological model of child protection outcomes during pandemics and epidemics, and these have been incorporated into the framework (Sistovaris, M. et al., 2020; The Alliance for Child Protection and Humanitarian Action, 2020).

The framework illustrates the relationship between pandemics, epidemics and infection control measures (on the left-hand side) to child protection outcomes (on the right-hand side). Moderating the relationship are community, household and individual characteristics, represented by the orange boxes in the middle. Similarly, effects on child protection outcomes can occur at the community, household and individual-child level. As in any socio-ecological model, the interactions between the different parts of the framework are complex. Child protection risks can stem directly from the pandemic or epidemic itself, or through the related infection control measures. The moderators are separated into community and household, and individual child-level variables and are interconnected. For example, many of the moderators at the individual level, such as vulnerability status, determine the level of access to services at the community and household level. The nature of the socio-ecological ordering of outcomes means that outcomes at the community, household and individual child levels are nested, and therefore outcomes can have impacts through and across the different levels. Furthermore, the outcomes identified in the conceptual framework (and therefore in the review) can materialize at different stages of the pandemic/epidemic, from the short-term, intermediate to long-term.

It is important to note that the conceptual framework is broader than the evidence base included in this review. There are a number of evidence gaps, and therefore we understand less about certain elements of the framework. These gaps are further explored in Section 5 below.

Figure 1: Conceptual framework on the relationship between pandemics and epidemics, and child protection outcomes.



4. METHODOLOGY

A rapid review is an ‘accelerated’ form of evidence synthesis conducted in a timely and cost-effective manner to inform policy and practice (Featherstone et al., 2015; WHO et al., 2017). This rapid review follows UNICEF’s methodological guidance on evidence synthesis, which describes a transparent, explicit and systematic approach to finding, collating and synthesizing evidence (Bakrania, 2020). It also draws from the Cochrane Collaboration’s interim guidance on rapid reviews, with some exceptions made due to time and resource constraints (Garrity et al., 2020). Compared to a systematic review or a rapid evidence assessment, the approach here was streamlined in the following ways: the searches were designed to take less time and were conducted in only a few databases; we conducted a rapid screening and simultaneous data extraction process; and we did not conduct a quality appraisal of the included studies.

The entire process from protocol agreement to draft report completion took seven weeks from late April to early June 2020. Please refer to the accompanying study protocol for full details on the methodology (Bakrania et al., 2020).

4.1 Search strategy

We conducted systematic searches in Web of Science and Google Scholar.⁴ We undertook further targeted and hand searches in specialist databases, including Social Systems Evidence, EPPI-Centre’s Living Map of the evidence on COVID-19, Save the Children’s Resource Centre, UNICEF’s Evidence Information System Initiative (EISI), the Better Care Network, Harvard University’s Centre on the Developing Child, the Alliance for Child Protection in Humanitarian Action and a COVID-19 public database of Chinese studies translated into English. Lastly, we searched Open Grey for information on Grey Literature in Europe.⁵ The search strings were based upon the scope and key concepts presented in Box 1. We also screened studies recommended by experts and colleagues and checked the references of key studies as part of a backward snowballing process. We did not set any language restrictions in the searches of academic databases but searches in grey literature sources were limited to English. In recognition of the potential for large numbers of studies on HIV/AIDS compared to other pandemics and epidemics, only systematic and non-systematic reviews on HIV/AIDS-related topics were included. We included primary studies as well as systematic and non-systematic reviews on other pandemic and epidemics. The full search strategy is included in the study protocol (Bakrania et al., 2020).

4.2 Screening and data extraction

Screening and data extraction were conducted in the EPPI-Reviewer Web application. We screened according to our pre-defined inclusion criteria and with the aid of a screening checklist (*see Box 1*). We screened first by title and abstract, and the included studies were then forwarded for simultaneous full text screening and data extraction. Data extraction was conducted according to a pre-defined coding framework, but some data were extracted inductively to refine our framework.

4 The Web of Science searches included the Core Collection, Medline and SciELO Indices. The latter of these is a database of Spanish and Portuguese studies.

5 The searches were undertaken in April 2020.

4.3 Analysis and synthesis

We adopted a framework synthesis approach because this allows structuring of the data extraction, analysis and synthesis of evidence on a broad range of outcome categories to suit potential evidence users (see *Figure 1*). This method was also suitable because we wanted to develop and refine a framework as findings emerge, envisioning that the framework would be useful for UNICEF's broader child protection policy response to COVID-19 (Gough et al., 2013). The process consisted of several overlapping stages: **familiarization** with the current issues and ideas about COVID-19 and child protection; **discussion** with experts and colleagues on the scope of the review; the **development** of an initial framework, which drew on established theory and policy guidance to explain the relationships between pandemics/epidemics and child protection outcomes; **screening and data extraction** based on the initial conceptual framework, while allowing the framework to evolve in light of recurrent themes emerging from the data; and the **narrative synthesis** of data using the framework as a means to guide the **interpretation, grouping and analysis** of data (Brunton et al., 2020).

4.4 Methodological limitations

We recognize that the accelerated synthesis process resulted in several limitations. Many of these are due to the rapid nature of this research and the resulting need to keep the process manageable and within a limited time frame. We attempted to quickly collate and synthesize evidence in a fast moving and dynamic situation. The time taken from agreement of the protocol to production of the first draft was six weeks. In order to achieve this, the established approach to evidence synthesis was accelerated, which meant taking shortcuts, such as limiting the number of databases we searched within and not quality appraising the included studies.

We cannot claim comprehensive coverage of all available evidence that falls within our broad scope. This means that we collated and synthesized fewer studies than would normally be expected in a systematic review, with an inevitable lack of detailed analysis for each included outcome area. Furthermore, the evidence base on COVID-19 is rapidly evolving, making it hard to guarantee that all relevant and current papers (at the time of publication) have been included.

We also did not conduct a quality appraisal of the included studies – this would have added considerably more time to the process. However, we have made attempts in the narrative to indicate the nature of the studies from where findings are being reported. We also acknowledge that in undertaking a rapid review covering many types of child protection and violence outcomes, we were unable to explore all the cross-cutting perspectives and specific risk factors justified for each outcome category.

5. FEATURES OF THE EVIDENCE BASE

This section reports on the searching and screening process, summarizing findings on the nature and characteristics of evidence collated for this review. We screened a total of 6,433 records, including results from searches, expert recommendations and snowballing. Fifty-three studies met the inclusion criteria, which included 22 single studies, 16 systematic reviews and 16 non-systematic reviews (see *Figure 2*). The relatively large number of systematic and non-systematic reviews compared to single studies is possibly due to the search strategy. We excluded single studies and only included systematic and non-systematic reviews that focused on HIV/AIDS.

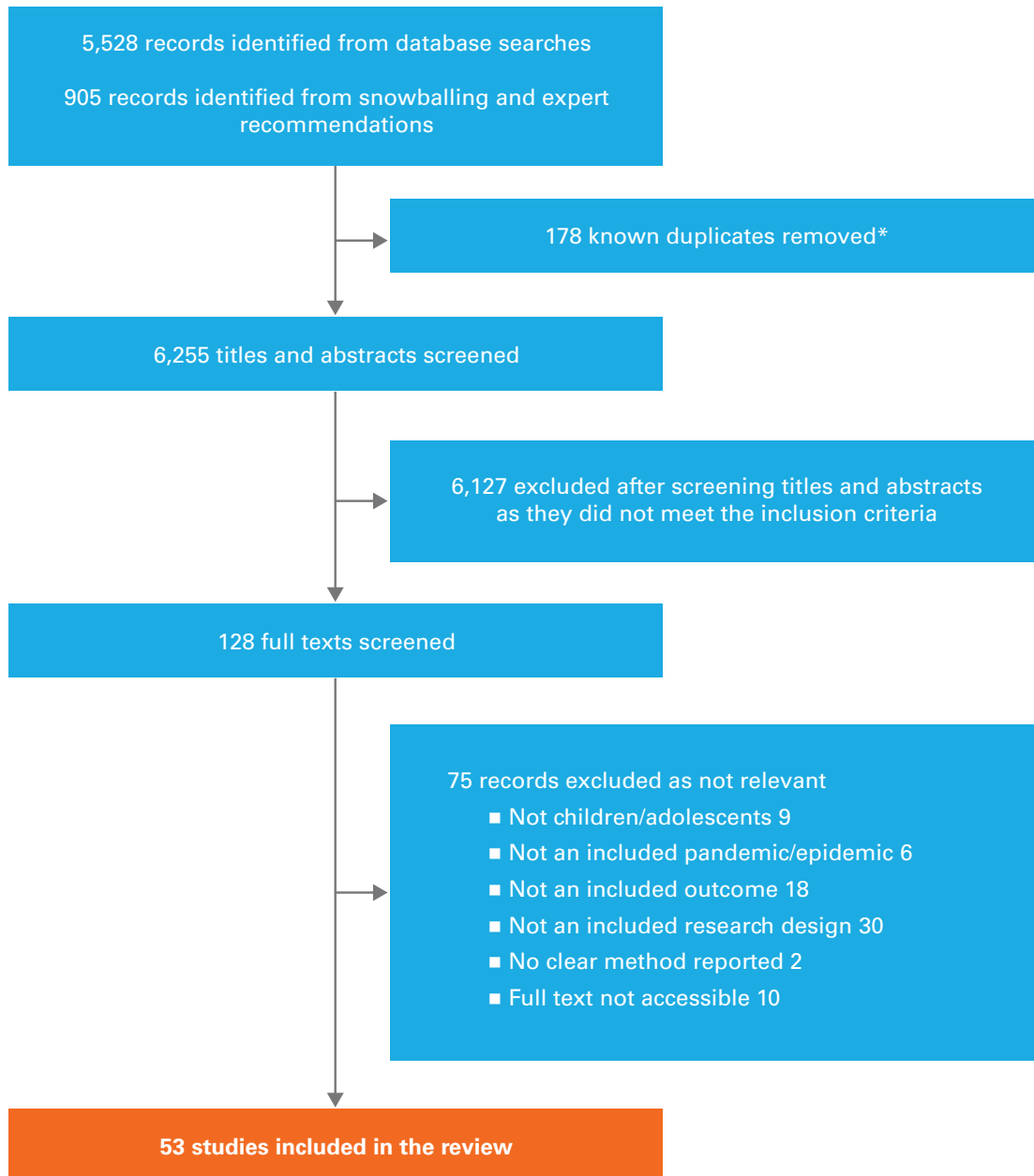
5.1 Research design of included studies

We found 22 single studies. The majority of these were observational: nine studies use qualitative data collection methodologies, four use mixed methods (usually a combination of surveys with focus group discussions or interviews), and one used quantitative survey methods. Two studies used an ethnographic design to study the social consequences of specific pandemics and epidemics. Three studies used a longitudinal cohort design with statistical models to study the effects of specific pandemics or epidemics. We only found one experimental study. Two further studies used statistical modelling and projections techniques to model or to estimate the potential impacts of specific pandemics or epidemics on children.

We found 16 systematic reviews and 16 non-systematic reviews. Systematic reviews were coded as such and were explicitly defined. The methodology included a clear, explicit and systematic approach to searching for and collating evidence, screening for eligibility, extracting data and appraising the quality of studies. Non-systematic reviews are different forms of literature reviews, some of which borrow systematic techniques for searching for and appraising research studies and some of which are 'traditional' literature reviews.⁶

⁶ Our research design coding followed the typology offered by DFID. *How To Note: Assessing the Strength of Evidence*. The Department for International Development, London, 2014.

Figure 2: PRISMA diagram



5.2 Coverage of pandemics and epidemics in the included studies

All 16 systematic reviews focused on HIV/AIDS, and one of these also focused on Ebola. Twelve of the 16 non-systematic reviews focused on HIV/AIDS and six on Ebola. The evidence overwhelmingly focused on HIV/AIDS in sub-Saharan Africa, where time and attention since the 1980s has resulted in an extensive literature collated in systematic reviews.

The majority of the single studies (19 studies out of 22) concentrated on the Ebola outbreak in West Africa, which ran from 2013 to 2016 and particularly affected Sierra Leone, Liberia and Guinea. We only found one study each that focused on COVID-19, Zika and SARS. We did not find any relevant studies on H1N1/swine flu or MERS.

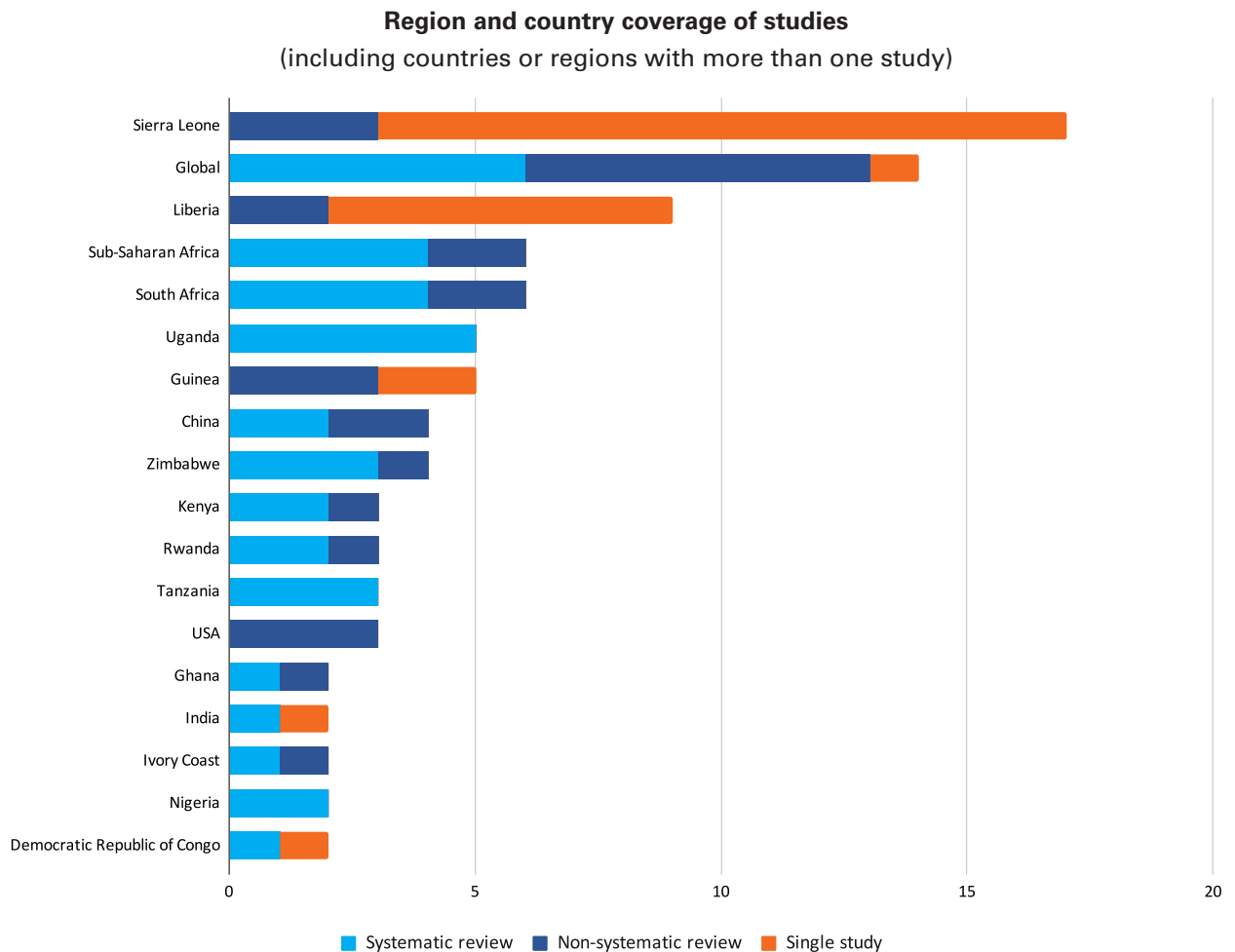
Because systematic reviews themselves synthesize evidence from multiple single studies, and usually quality-appraise these studies, we conclude that the quantity and quality of evidence on HIV/AIDS far outweighs evidence on other infectious disease outbreaks.

5.3 Geographic and contextual coverage in the included studies

The most frequently studied region in single studies was West and Central Africa, and Sierra Leone and Liberia in particular, which were particularly affected by Ebola outbreaks. The most frequently studied country was Sierra Leone (1), followed by Liberia (7). There were a limited number of single studies focusing on other regions and countries.

Uganda is included as one of the countries studied in five systematic reviews, and South Africa in four. Six systematic reviews had a general global focus, and four focused on HIV/AIDS in Sub-Saharan Africa as a whole.⁷ Countries outside Sub-Saharan Africa were rarely the focus of systematic reviews. Non-systematic reviews mostly had a global scope and focus on HIV/AIDS. (Figure 3).

Figure 3: Country and regional coverage of included studies⁸



⁷ We considered a review to be 'Global' when it covered more than seven individual countries. Those coded as 'Sub-Saharan Africa' contained studies from more than seven countries in the continent.

⁸ Note that the number of countries in this chart is higher than the number of studies. This is because systematic reviews focus on more than one country. We considered a systematic review as 'global' when it included evidence from more than seven countries. Likewise, a number of systematic reviews focused specifically on Sub-Saharan Africa and were considered as covering the entire region if more than seven Sub-Saharan countries were covered.

It is difficult to assess the extent to which the included evidence incorporates different governance or crisis contexts, including ‘humanitarian’ contexts, or ‘fragile and conflict-affected contexts’, and how contextual factors play a role in moderating the effects of pandemics or epidemics on child protection outcomes. In some studies, the pandemic or epidemic is itself defined as a humanitarian event. In other cases, we would need a way of distinguishing and coding those countries that are considered to be humanitarian or fragile and conflict-affected and there are no globally accepted indices. Furthermore, countries classified as ‘humanitarian’ at the time a study was undertaken may not be at the time of undertaking this rapid review.

We coded 14 studies that explicitly mentioned the term ‘humanitarian’ in their analyses. Ten of these focused on the Ebola outbreak in West Africa and defined this as a humanitarian crisis. One considered the Zika outbreak in the Dominican Republic as a humanitarian crisis. Three were reviews that included evidence from studies on humanitarian crises to extrapolate or comment on the potential effects of pandemics or epidemics on child protection outcomes.

5.4 Coverage of outcomes in the included studies

The evidence gap map illustrates the distribution of studies with evidence on the effects of pandemics or epidemics on child protection outcomes (*see Figure 4*). Each cell shows the quantity and type of evidence we found for each pandemic/epidemic and outcome combination. Individual studies are represented by a coloured block, with green representing a single study, light blue representing a systematic review, and dark blue representing a non-systematic review.

Studies and reviews were heavily skewed towards stigmatization, discrimination and xenophobia (36 studies and reviews in total), and coverage of this outcome category was far higher than any other included in this review. Single studies most frequently assessed the effects of Ebola on stigma (8), while a large proportion of systematic and non-systematic reviews (22) studied the effects of HIV/AIDS on stigma.

Single studies less frequently studied the effects of Ebola on teenage pregnancy (11), school attendance or dropout (7), being orphaned (5), and child labour (5). Studies on the effects of other pandemics and epidemics on child protection outcomes were limited. A limited number of systematic and non-systematic reviews studied the effects of HIV/AIDS on educational outcomes (5) and orphanhood (4) (*see Figure 4*).

The evidence gap map illustrates the distribution of studies with evidence on the effects of pandemics or epidemics on violence outcomes (*see Figure 5*). Evidence on sexual abuse and violence far exceeds the evidence collated on other violence types, with 11 single studies and 11 reviews. There are also a relatively large number of single studies assessing the impacts of Ebola on IPV and child abuse and maltreatment, and reviews (systematic and non-systematic) that assess the effects of HIV/AIDS on child abuse. Indeed, there was a lot of cross-over in studies exploring IPV and sexual violence and exploitation. The evidence on other violence outcomes was limited, including on self-directed violence, violence from security actors and gang/crime involvement. We found no studies with analysis of homicide and online abuse and exploitation in a pandemic or epidemic context.

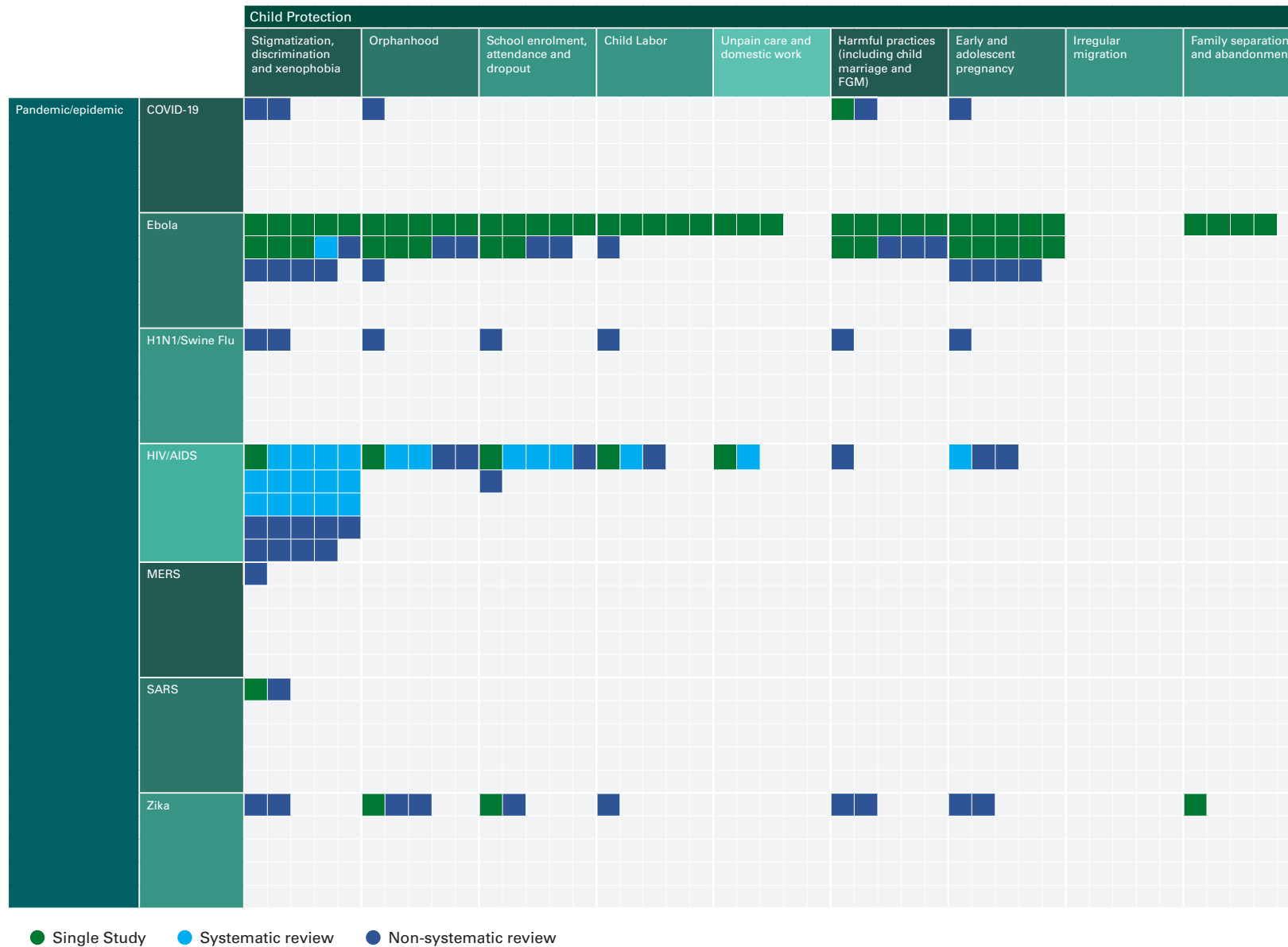
5.5 Coverage of infection control measures in the included studies

Generally, the evidence on the child protection effects of infection control measures is limited. Of the studies included, there was relatively more abundant evidence on quarantine and social isolation measures (16 studies and reviews in total), followed by movement restrictions (8), school closure (5), social and physical distancing (5), and closure on non-essential businesses (4).

5.6 Coverage of children and adolescents living in situations of vulnerability in the included studies

Coverage and analysis of the effects of pandemics and epidemics on specific groups of children or adolescents living in pre-existing situations of vulnerability was also very limited. There were many more studies (19) focusing on orphans relative to other groups. Many of these focused on children or adolescents being orphaned as a result of parents contracting HIV/AIDS or Ebola, and how orphanhood was a pathway to other risks. Five of these studies also focused on orphans as heads of households. Three studies included analysis on ethnic minority or indigenous sub-groups, although this was only a primary focus of one of these studies. Coverage on other vulnerable children and adolescents was very scant such as: those with disabilities; those living in institutional care; refugees living in camps; those living in slums and in high-density areas; those living on the street or homeless; children on the move; and internally displaced children.

Figure 4: Evidence map of the effects of pandemics and epidemics on child protection outcomes



6. FINDINGS ON CHILD PROTECTION OUTCOMES

This section presents the findings from the synthesis of evidence on child protection outcomes included in this review. It is divided into sub-sections focusing on each outcome of interest. Each sub-section includes: analysis on the key overall findings of the effects of pandemics and epidemics on the outcome of interest; the specific findings on effects of infection control measures; the moderating factors and risk factors; and evidence on children and adolescents living in situations of vulnerability.

6.1 Stigmatization, discrimination and xenophobia

This section includes synthesis of the findings on:

- Stigmatization, mostly addressed as stigma experienced, internalized, or felt due to acts such as: discrimination; xenophobia; isolation; ostracization; exclusion; negative attitudes; abuse; and bullying and insults. These are found in relation to physical health, treatment adherence/ seeking of healthcare or support, disclosure of health status, and most prominently, in relation to psychosocial wellbeing.
- Discrimination and xenophobia, which are forms of stigmatization by communities, peers, teachers or family. This can be public or individual, and it can be suffered as a consequence of having contracted a virus or by association to others who have (such as parents, other family members or the community). The latter is referred to as associative stigma, or secondary stigma (Chi and Li, 2013; Denis-Ramirez et al., 2017; Krauss et al., 2016; Lee et al., 2005; Pellecchia et al., 2015)

Included studies used different measures for stigma, depending on whether it was internalized, felt or enacted stigma. Almost all indicators were based on self-reported scales and indices.

The majority of studies included in this review reported on stigma, rather than discrimination or xenophobia. This means that the evidence base for this outcome is relatively much larger than for all the other outcomes considered in this review combined. Ten single studies were included, which mostly focused on the Ebola outbreak in West Africa. Eight of these were cross-sectional studies using qualitative or mixed methods (combining interviews and focus group discussions with survey data). Two were longitudinal studies, which used statistical analysis to measure Ebola-related stigma over time. Thirteen systematic and 14 non-systematic reviews mainly focused on HIV/AIDS-related stigma.

6.1.1 The key findings on the effects of pandemics and epidemics on stigmatization, discrimination and xenophobia

The literature consistently identified stigmatization as a pervasive and widespread social phenomenon accompanying infectious diseases, and which is enacted by peers and teachers (Kimera et al., 2019; Verma and Lata, 2015), the wider community (Brooks et al., 2020; Korkoyah and Wreh, 2015; Pellecchia et al., 2015), and by close relatives (Mason and Sultzman, 2019). Stigma was typically reported alongside narratives of fear, including the fear of suffering discrimination or being judged. It was considered a primary outcome leading to other child protection outcomes included in this review, such as: school attendance; enrolment and dropout (*see Section 8*); IPV, sexual violence and exploitation (*see Section 7.1*); and child abuse and maltreatment (*see Section 7.2*). It was also associated with subsequent or longer-term psychosocial and emotional outcomes.

Internalized and felt stigma

Internalized stigma was reported in four reviews related to HIV/AIDS and one study on Ebola. Children and youth with internalized stigma had accepted negative views of themselves, which affected their sense of self-worth and were linked to depression (Haines et al., 2019; Oluyemisi et al., 2016; Yassin et al., 2018). Felt stigma referred to a child's individual sense of shame, anger, resentment (Mason and Sultzman, 2019) or fear of discrimination (Denney et al., 2015; Fraser, 2020; Oluyemisi et al., 2016; Overholt et al., 2018). Both internalized and felt stigma were found to have a significant impact on the willingness of children and youth to disclose their HIV-status to peers and their communities. This sometimes made school a challenging environment, leading to feelings of loneliness and isolation (Dahourou et al., 2017; Kimera et al., 2019). Children internalizing stigma also avoided seeking much-needed emotional support and healthcare treatment (Bailey and Ventura, 2018; Dahourou et al., 2017).

Stigma-based bullying

Children suffered the consequences of a parent's HIV/AIDS-positive condition through being victims of bullying and teasing, or through being ridiculed and ostracized (Krauss et al., 2016; Mason and Sultzman, 2019). This association was particularly pervasive for children orphaned due to HIV/AIDS (Chi and Li, 2013; McAteer et al., 2016; Verma and Lata, 2015; Yassin et al., 2018; Yassin and Erasmus, 2016). Several studies also claimed that children and youth could face discrimination for living in communities from which an infectious outbreak was reported (Chi and Li, 2013; Fraser, 2020; Lee et al., 2005; Pellecchia et al., 2015).

The persistence of stigma

Two longitudinal studies on Ebola-related stigma in Liberia provided differing results on the persistence of stigma after the outbreak. In one study, stigma levels were high throughout the outbreak but diminished over an 18-month period after it was over, including for adolescent girls of reproductive age (Kelly et al., 2019). Another study concluded that levels of enacted and internalized stigma persisted over a two-year period after the initial outbreak (Overholt et al., 2018).

6.1.2 The effects of infection control measures

The evidence on how infection control measures affect stigma is limited. Some studies suggested that quarantine could fuel a fear of infection in neighboring families and communities, leading to families and neighbors avoiding individuals suspected of being infected (Brooks et al., 2020; Korkoyah and Wreh, 2015; Pellecchia et al., 2015). Quarantine can also reinforce discrimination against entire communities, including minority groups, who are then denied access to basic services and goods, including food, water and livelihoods (Korkoyah and Wreh, 2015; Rothe, 2015). Access to shelter may also be affected for particular communities who are discriminated against, or who are perceived to live in virus 'hotspots', through forced relocation and the destruction of dwellings and housing structures (Peterman et al., 2020; UN Women et al., 2014).

6.1.3 Moderating and risk factors towards stigmatization, discrimination and xenophobia

There is some evidence to suggest that age, gender, education levels, social norms and access to information moderate the effects of pandemics and epidemics on stigma, but the mechanism is generally not clear. A longitudinal study of Ebola survivors in Liberia associated age with the stigmatization of children and adolescents. It reported that 12 to 19-year-olds were subjected to lower levels of felt stigma than 20 to 29-year-olds. It also reported that primary, junior, high or vocational school education was

associated with higher odds of felt stigma compared to those having no formal education (Kelly et al., 2019). No explanation of the mechanisms underlying these relationships is offered.

Women and girls were identified as a vulnerable group, particularly those from rural areas (UN Women et al., 2014). For example, female Ebola survivors were found to face rejection by their spouses (Peterman et al., 2020), struggled to be accepted back into their households, and were prevented from participating in community affairs and from marrying (O'Brien and Tolosa, 2016).

Social norms and widespread beliefs towards the spread of infections drive stigma. A narrative review of the social and cultural aspects of HIV/AIDS in West Africa stated that HIV stigma was frequently driven by judgment and questions about possible routes of transmission, including its association to drug use, promiscuity, homosexuality and transactional sex (Samuelson et al., 2012). In Liberia, those infected by Ebola were also derogatorily referred to as 'Ebola people' and suspected of partaking in perceived inappropriate and controversial behavior (Pellecchia et al., 2015).

Access to information can affect stigma in various ways. A systematic review of HIV/AIDS stigma found that children from affected families with higher HIV/AIDS knowledge suffered less stigma (McAteer et al., 2016). In India it was found that children living with HIV were less subject to stigmatization once the communities' awareness about modes of transmission was heightened (HIV/AIDS Alliance and Tata Institute of Social Science, 2006). However, in Hong Kong, SARS-related stigmatization was fueled by negative and constant reporting by the media (Lee et al., 2005). Similarly, awareness campaigns, conducted as part of the 'no-touch' policy in Sierra Leone, played a role in framing an environment of fear and rejection among children, leading them to think of 'others' as a threat (Denis-Ramirez et al., 2017).

Pathways toward stigma include the health status of parents, orphanhood and fear of infection. Having infected parents or living in communities with outbreaks was consistently found to lead to felt stigma and discrimination in several studies focusing on HIV/AIDS, Ebola and SARS (Chi and Li, 2013; Lee et al., 2005; Pellecchia et al., 2015). HIV-related orphanhood was also associated with higher stigmatization and isolation when compared to HIV-free families (Chi and Li, 2013). A fear of infection was found to be a major driver of stigmatizing attitudes in the case of the Ebola outbreaks in Liberia and Sierra Leone, heightened by quarantine and a government 'no touch' campaign (Denis-Ramirez et al., 2017; Pellecchia et al., 2015). Stigma was found to rise in Liberia when new Ebola outbreaks in the country and in neighboring Sierra Leone emerged (Overholt et al., 2018).

6.1.4 Children and adolescents in vulnerable circumstances

The evidence on how stigma affects children and adolescents' circumstances is limited. There is some coverage elsewhere in this section on how orphanhood and gender are associated with increased stigma, and how orphanhood is a pathway toward other longer-term impacts from stigmatization. A systematic review on HIV-infected youth in Southern Africa reported that HIV-related disability was associated with depression through discrimination and abuse, although it did not specify the type and nature of disability (Haines et al., 2019). A literature review on HIV-related behavior among indigenous people merely noted that a fear of being stigmatized prevented many communities from seeking health care (Negin et al., 2015). Minority ethnic and religious communities in Liberia were found to be particularly vulnerable to stigmatization and social exclusion (Brooks et al., 2020a; Pellecchia et al., 2015).

6.1.5 Subsequent and longer-term impacts

Stigmatization is frequently considered as a mediator towards other intermediate and longer-term child well-being outcomes, including a lack of access to services and resources, isolation and exclusion, and increased impoverishment. Stigmatization is also a pathway towards school attendance and dropout (*see Section 7*), IPV and sexual violence and exploitation (*see Section 14*), and child abuse and maltreatment (*see Section 15*).

The effects of stigmatization can reinforce existing vulnerabilities and inequalities for women and girls. This includes the loss of property, housing and inheritance, the loss of livelihoods, rejection by families and spouses (or potential partners), and exclusion by local communities (O'Brien and Tolosa, 2016; Peterman et al., 2020). Stigmatization can also lead to violence against women and girls inside and outside the home. In Sierra Leone, anecdotal evidence suggests that there were cases of women and girls who had contracted Ebola being stigmatized within their homes. They were treated as if they had bad omens and were responsible for bringing Ebola to their homes. Some were abused and chased from their homes having been regarded as 'witches' (UN Women et al., 2014).

A systematic review on youths living with HIV/AIDS in East Africa found that stigmatization was part of a chain of impacts that can lead to the unequal distribution of financial and emotional support within families (Kimera et al., 2019). Ebola-infected children in Sierra Leone and Liberia were found to be abandoned or socially excluded after presenting minor common symptoms such as fever or diarrhoea (Krauss et al., 2016; Rothe, 2015).

Stigmatization may affect health-seeking behaviors. Two systematic reviews focused on transitions from paediatric to adult healthcare for adolescents living with HIV. They found that a fear of stigma, discrimination and judgement affected the transition of youths to adult healthcare, which affected adherence to treatment and access to emotional support (Dahourou et al., 2017; Jones et al., 2019).

Stigma is often associated with longer-term emotional and psychosocial outcomes. Children described feelings of anger, resentment, depression, stress and shame related to both felt and enacted stigma (Chi and Li, 2013; Mason and Sultzman, 2019; McAteer et al., 2016). Lee et al. (2005) found that SARS-related stigma brought on psychosomatic issues. Internalized stigma was strongly linked to negative psychosocial outcomes, such as a low sense of self-efficacy (Chi and Li, 2013), and depression and anxiety (Goldberg and Short, 2016; Haines et al., 2019; Overholt et al., 2018). Overholt et al. (2018) cautioned, however, that direct evidence of these links was limited.

Parental HIV and stigma and Ebola-related orphanhood were also linked to emotional distress and psychosocial outcomes. Children can feel burdened by the weight of the secrecy of their parents' condition. Prior to disclosure, they can feel concern about not being able to share their experience with others. After disclosure, they can experience distress from witnessing verbal abuse and discrimination towards their parents (Chi and Li, 2013; Denis-Ramirez et al., 2017; Mason and Sultzman, 2019; Yassin et al., 2018).

6.2. Child Labour

UNICEF defines child labour as: children aged 5 to 11 years engaged in at least one hour of economic work or 21 hours of unpaid household services per week; those aged 12 to 14 years engaged in at least 14 hours of economic work or 21 hours of unpaid household services per week; and those aged 15 to 17 years engaged in at least 43 hours of economic work per week (UNICEF, 2019a). Six single studies reported on this outcome, five of which were observational with a cross-sectional design, and one that was an experimental study. In addition, we found one systematic and one non-systematic review.

6.2.1 *The key findings on the effects of pandemics and epidemics on child labour*

In pandemic settings, reductions in household income and the illness or death of breadwinners means children are increasingly engaged in wage labour to obtain an income that would allow them to manage their household expenses. For example, an assessment of children's Ebola recovery in Sierra Leone found that 43 per cent of 216 children reported having to work to support their families (Guo et al., 2012). An assessment of the impacts of a vocational programme on adolescent and youth females' time use in Sierra Leone also found that work for income generation increased by 41 per cent when comparing low-versus-high Ebola disruption villages (Bandiera et al., 2019).⁹ In Liberia and Sierra Leone, a qualitative study documenting the consequences of Ebola on children and youths also found that children's involvement in work had increased (Rothe, 2015). A cross-sectional study on the protection of children in the West African Ebola epidemic documented that child labour was on the rise due to great stress on family and community relations and a growing threat to household income (UNICEF, 2016).

The work that children performed varied across sources. In Andhra Pradesh and Tamil Nadu (India), children affected by HIV/AIDS worked as casual labourers, construction workers, shop helpers, domestic workers and salespersons. This work was often arduous, unskilled and with long working hours that were inadequate for children, which made them vulnerable to health problems and exploitation (HIV/AIDS Alliance and Tata Institute of Social Science, 2006). In Liberia and Sierra Leone, older children were helping with business work outside the home, or they would take on a considerable burden of work on farms (Rothe, 2015).

6.2.2 *The effects of infection control measures*

Studies reviewed made no direct or explicit links between control measures and child labour. However, it is important to emphasize that the restriction of movement and quarantines restricted the types of jobs that parents were able to perform to meet households needs. In these cases, the household could have relied to a greater extent on child labour to compensate for income losses (HIV/AIDS Alliance and Tata Institute of Social Science, 2006). Evidence from the Ebola outbreak in West Africa also suggested that if children were out of school due to school closures, they may be put to work (Bandiera et al., 2019; Elston et al., 2016)

6.2.3 *Moderating and risk factors towards child labour*

The key moderating factors reported between pandemics, epidemics and child labour were socio-economic conditions, age and gender. Several studies reported that the economic situation of a family, precipitated by the pandemic or epidemic, had forced some children to contribute to their family's

⁹ This was based on a disruption index which used community-level disruption of economic opportunity and health service provision as proxies for Ebola disruption.

income, with worse-off families more likely to have children engaged in labour (HIV/AIDS Alliance and Tata Institute of Social Science, 2006; Rothe, 2015; Save the Children, 2015). With regard to age, there is some evidence from Sierra Leone that younger children were usually confined to helping with domestic chores, while older children would take on more arduous forms of labour. Girls perceived that work had increased more for them than for boys. This may be because petty trading, usually of food, is a sector in which women are more prevalent and this activity continued to a greater extent during the economic lockdown (Rothe, 2015).

6.2.4 Children and adolescents in vulnerable circumstances

The evidence base on vulnerable groups is limited. Five studies mentioned orphans but did not provide disaggregated data or findings exclusively for these groups, while two studies mentioned child-headed households. The main finding was that orphans or carers in child-headed households had to work as the main income earners to support their families. In Sierra Leone, children who had lost family members during the Ebola outbreak were taking on the role of the household's breadwinner. This was especially the case for older children who had to find ways to support their younger siblings (UNICEF, 2016). In Andhra Pradesh and Tamil Nadu (India), children affected by HIV/AIDS not only took on major household chores but also worked to earn a substantial income that would enable them to manage their household expenses, particularly where children were orphans (HIV/AIDS Alliance and Tata Institute of Social Science, 2006).

6.3 Unpaid care and domestic work

Unpaid care in the form of domestic work is defined as unpaid services provided within a household for its members, including care of persons, housework and voluntary community work. These activities are considered work, because theoretically one could pay a third person to perform them (OECD, 2014). It was measured in the included studies by the proportion of time spent on these activities. There were very few studies reporting on unpaid care/domestic work, which made it very difficult to draw conclusions about the impacts of pandemics/epidemics on this specific outcome. Three single studies that reported on this outcome were observational, all of them with a cross-sectional design. There was only one systematic review, while one study had an experimental design.

6.3.1 The key findings on the effects of pandemics and epidemics on unpaid care and domestic work

The scarce evidence suggests that the impact of a crisis means that children are involved in doing domestic chores to a greater extent than they would be under normal circumstances. Children in Sierra Leone reported having to carry out more domestic chores, largely as a consequence of school closures. The tasks involved collecting water or firewood. An evaluation of the vocational programme on youth females in Ebola-affected Sierra Leone reported that time away from learning was reallocated partly to household chores. From a baseline of 42 weekly hours for 12 to 17-year-olds, the time spent on chores increased by 13 per cent when moving from a low- to high-Ebola disruption villages. Time in domestic chores was partly used to look after newborn children as pregnancy rates were significantly higher for girls in villages that did not have access to the vocational programme. This also kept older girls away from devoting time to household work (Bandiera et al., 2019).

6.3.2 The effects of infection control measures

There was only one direct mention of a link between infection control measures and unpaid care/ domestic work due to closure of schools, which noted an increased burden of household work on children (OECD, 2014). No other studies made the connection between school closures and increased unpaid work.

6.3.3 Children and adolescents in vulnerable circumstances

The evidence base on vulnerable groups is limited, with some evidence that children living with HIV-infected or AIDS-affected adults are more likely to be involved in unpaid care or domestic work. In Andhra Pradesh and Tamil Nadu (India), children who had ill parents began helping them to manage tasks, and these tasks progressively increased as parents became more ill. Eventually, when the children lost both parents, they had to take on household work and care duties and became the breadwinners for their families, particularly in households where there were younger siblings (HIV/AIDS Alliance and Tata Institute of Social Science, 2006).

6.3.4 Moderating and risk factors towards unpaid care and domestic work

The key moderating factors reported between epidemics/pandemics and unpaid care and domestic work were socio-economic conditions, gender and social norms, although the evidence is limited. Children living with HIV/AIDS-infected adults were particularly under stress to take on care work and household responsibilities due to the financial hardship that occurred as a consequence of incapacitated parents (HIV/AIDS Alliance and Tata Institute of Social Science, 2006).

With regards to gender, two studies found that the burden of care work and domestic chores was higher for girls. In Sierra Leone, both boys and girls reported having to take on more domestic chores than before Ebola, but the workload for girls was higher. Similarly, in a systematic literature review of children living with HIV-infected or AIDS-affected adults in Sub-Saharan Africa, two studies found that while both girls and boys participated in caring, girls more often had nursing responsibilities (HIV/AIDS Alliance and Tata Institute of Social Science, 2006). One study on the Democratic Republic of Congo (DRC) noted that pre-existing gender norms meant that Ebola-related changes in daily tasks – such as the need to collect more water and firewood and the need to provide for the family if a member fell ill – affected girls and women disproportionately. This placed them at risk of additional harms such as exploitation and abuse (Goldberg and Short, 2016).

6.3.5 Subsequent and longer-term effects

Although there is no direct evidence, it is possible that school closures and involvement in household work could be associated with a lower likelihood of completing further studies. In Sierra Leone, it was documented that older children – particularly girls – thought school would not reopen and that ‘Ebola would never end’, which is why they began building their own families (Risso-Gill and Finnegan, 2015). Being used to household work and not seeing a high likelihood of schools reopening directly impacted their decision to start families of their own and to forget their studies.

It is also likely that the stress of combining household responsibilities with paid work, as some children affected by HIV/AIDS did in India, could have a significant and negative impact on their psychological well-being. According to this report, children interviewed expressed feeling angry, hurt, sad, bitter and frustrated (HIV/AIDS Alliance and Tata Institute of Social Science, 2006). The impacts on their mental health in the long term is not documented because this was not a longitudinal study.

6.4 Harmful practices: Child marriage and female genital mutilation (FGM)

This section includes analysis on two outcome areas that fall under the category of harmful practices:

- **Child marriage**, which refers to any formal marriage or informal union between a child under the age of 18 and an adult or another child (UNICEF, n.d.-a). Child marriage is considered a form of forced marriage given that a child cannot express informed consent in relation to the union (OHCHR, n.d.).
- **Female genital mutilation (FGM)**, which is any kind of procedure involving partial or total removal of the female external genitalia or other injury to the female genital organs for non-medical reasons (UNICEF, n.d.-b). FGM has been internationally recognized as a violation of human rights (OHCHR, 1979).

Six studies reported on child marriage. Four were cross-sectional single studies while two were non-systematic reviews. Eight studies reported on FGM in the context of an outbreak. Six of these were cross-sectional single studies and one was an experimental study. We also found one non-systematic review. Most research focused on Ebola and the West Africa region since the region presents some of the highest rates of FGM in the world (Bandiera et al., 2019).

6.4.1 The key findings on the effects of pandemics and epidemics on harmful practices

The evidence suggests that pandemics and epidemics can lead to increases in child marriage but decreases in FGM. Evidence from the West Africa Ebola outbreak stated that early marriage had been a common practice which was exacerbated by the crisis (Fraser, 2020; Peterman et al., 2020; Risso-Gill and Finnegan, 2015). Indeed, one study found that girls would often get married as a way to generate income to provide for their families or as a result of an unwanted pregnancy (Risso-Gill and Finnegan, 2015). Since many girls could not attend school, a large number of teenage girls ended up pregnant and this phenomenon constituted another major driver of child marriage (Kostelny et al., 2018).

A large share of the evidence on FGM showed that, due to quarantine and social distancing policies, West African countries experienced a suspension of traditional initiation practices often involving FGM, such as 'bondo' (Risso-Gill and Finnegan, 2015; Rothe, 2015; UN Women et al., 2014).¹⁰ Two studies reported that the government of Sierra Leone introduced a moratorium on FGM during the Ebola outbreak, however it was unclear whether that had been enforced (Bandiera et al., 2019; UN Women et al., 2014). The suspension of FGM procedures constitutes a positive finding. However, the cessation of cultural activities and ceremonies during Ebola outbreaks also led to girls feeling distressed since they could not participate in other social activities carried out during the traditional bondo society, as reported in an ethnographic study (Kostelny et al., 2018). Moreover, teenage girls in Sierra Leone were expected to undergo FGM once the emergency measures were suspended (Risso-Gill and Finnegan, 2015).

6.4.2 Infection control measures and other pathways toward harmful practices

Quarantine was identified as having had a negative impact on the socio-economic conditions of families. Early or forced marriage was therefore associated with heightening financial hardships during the outbreak (Risso-Gill and Finnegan, 2015). For example, an ethnographic study in Sierra Leone found that girls were being sold by their families to adult men who promised to eventually marry the

¹⁰ 'Bondo' consists of a "[traditional] ceremony where female genital mutilation is practiced." (Risso-Gill and Finnegan, 2015) (p.31).

girls (Kostelny et al., 2018). Other pathways toward child marriage during or after an outbreak included school closure and dropout, and teenage pregnancy (Fraser, 2020; Kostelny et al., 2018; Peterman et al., 2020; Risso-Gill and Finnegan, 2015).

6.4.3 Subsequent and longer-term impacts

Child marriage is linked to other harmful practices affecting young brides, both in the short- and long-term. Indeed, some studies reported that child and adolescent girls who were forced to marry were subjected to sexual violence and exploitation, IPV and marital rape, and often became pregnant at a very young age (Korkoyah and Wreh, 2015; Peterman et al., 2020).

FGM constitutes a gendered harmful practice that inevitably affects the health of pregnant girls and young women, particularly in the context of an epidemic or pandemic. Indeed one study reported that pregnant girls and adolescents who had undergone FGM prior to the Ebola outbreak were extremely vulnerable to fatal pregnancy outcomes (O'Brien and Tolosa, 2016). Considering that access to health services, including child delivery, was severely restricted during the Ebola outbreak, the risk of fatal pregnancy outcomes was further exacerbated (Bandiera et al., 2019; Kostelny et al., 2018).

6.5 Early and adolescent pregnancy

Early pregnancy is defined by UNICEF as pregnancy before the age of 15, while adolescent pregnancy occurs among those aged 15 to 19 (UNICEF, 2019b). Included studies universally referred to 'teenage pregnancy' rates without specifically mentioning the age range considered. Fifteen studies report on early or adolescent pregnancy. This included nine cross-sectional studies using qualitative or mixed method approaches, one experimental study, four non-systematic reviews and one systematic review. Most of the evidence reviewed focused on Ebola.

6.5.1 The key findings on the effects of pandemics and epidemics on teenage pregnancy

The primary consistent finding of many studies was the increase in teenage pregnancies during, or in the aftermath of, a pandemic or epidemic (Denney et al., 2015; Elston et al., 2017; Kostelny et al., 2018; Menzel, 2019). In Sierra Leone, one study reported a 25 per cent increase in teenage pregnancy during the 2014 Ebola crisis in just one district (Elston et al., 2017). Another study of Sierra Leone, which reported on a survey of 18,119 adolescents aged between 10 and 19 years found that 88 per cent had had a first-time pregnancy and about 12 per cent experienced a repeat pregnancy during the crisis (UNFPA, 2017).

Outside the Ebola crisis, a systematic review assessing the impact of HIV/AIDS on adolescents' sexual behaviors reported high incidences of unintended pregnancy in pregnant adolescents below the age of 17 living with HIV (Zgambo et al., 2018).

6.5.2 The effects of infection control measures

Infection control measures are associated with an increase in teenage pregnancies, whereby quarantine and social isolation exacerbates financial hardship, which in turn increases risks for girls and young women. In Sierra Leone, as economic insecurity and a lack of food put increasing pressures on families and caregivers, girls were found to engage in transactional sex to earn money, thus exposing themselves to a higher risk of becoming pregnant. Moreover, poverty also caused a reduction in the use of contraception by teenage girls who frequently had to prioritise food when spending their money (Kostelny et al., 2018; Menzel, 2019).

Several studies highlighted the association between school closure and teenage pregnancy during an epidemic. Without school commitments, many girls became pregnant – including, at points, intentionally – as they lost hope for the future, experienced idleness, and generally spent more time with older men in their communities (Denney et al., 2015; Elston et al., 2017; Fraser, 2020; Kostelny et al., 2018; Peterman et al., 2020; Risso-Gill and Finnegan, 2015).

6.5.3 Moderating and risk factors toward adolescent and early pregnancy

Infection control measures are the starting point for many pathways leading to teenage pregnancy, especially reductions in household income and school closures. Other pathways stem from a lack of access to services, which are often affected during pandemics and epidemics. A lack of access to healthcare can result in the unavailability of contraception and an inability to access safe abortion, both of which can contribute to the increase of teenage pregnancies during outbreaks (Denney et al., 2015). Access to drinking water is also a factor. During the Ebola crisis in Sierra Leone, many girls had to walk longer distances to fetch water, thus exposing themselves to violence, abuse, and the subsequent risk of pregnancy (Peterman et al., 2020; UN Women et al., 2014).

‘Ebola marriages’ was a phenomenon in Sierra Leone by which Ebola workers lured girls into engaging in a sexual relationship with the promise of eventually marrying them. Instead, soon after the men would leave these girls who, in some cases, were expecting a child (Kostelny et al., 2018). Two other studies identified rape and sexual violence as highly relevant contributing factors to teenage pregnancies in the context of Ebola (Risso-Gill and Finnegan, 2015; Rothe, 2015).

There is also some indication that future outlook is a pathway towards teenage pregnancy. For example, there are reports from Sierra Leone that girls’ perceptions that the Ebola crisis was never going to end contributed to pregnancies. In some cases, this led to an early marriage; in others, the pregnancy was kept secret from the community by a girl’s parents (Kostelny et al., 2018).

6.5.4 Children and adolescents in vulnerable circumstances

While evidence is limited, there was some indication that teenage girls who lost their parents or caregivers were more likely to become pregnant (Denney et al., 2015). Indeed, orphaned girls in Sierra Leone were found to be more exposed to transactional sex, sexual abuse and exploitation, and thus unwanted pregnancies (Risso-Gill and Finnegan, 2015; UN Women et al., 2014). Another study of Sierra Leone reported the effects of teenage pregnancies on young fathers; boys who decided to stay with a pregnant girl sometimes would have to drop out of school to support their young family (Kostelny et al., 2018).

6.5.5 Subsequent and longer-term impacts

Several studies reported that the lack of access to medical facilities for women during an outbreak led to many complications during childbirth for teenage girls, who experienced difficulties even more severely than before the Ebola outbreak. In some cases, newborn children died during birth or shortly after the delivery (Kostelny et al., 2018). Maternal mortality was another adverse consequence that increased in the context of the outbreak (Fraser, 2020). There was mixed evidence that a fear of contracting Ebola in healthcare settings contributed to infant and maternal mortality. Some studies highlighted a widespread lack of trust in health facilities, while others reported that the fear experienced by pregnant teenagers influenced their decision to give birth in a health centre (Denney et al., 2015; Kostelny et al., 2018).

A longer-term impact stemming from teenage pregnancy was school dropout, which in some cases affected both young mothers and fathers. The main reasons for dropping out of school in Ebola-affected Sierra Leone were identified as: feeling shame and embarrassment in confronting peers; loss of interest in pursuing education; a lack of financial resources to afford school expenses; and government policies preventing pregnant girls from re-enrolling in school (Bandiera et al., 2019; Risso-Gill and Finnegan, 2015; UN Women et al., 2014).

6.6 Orphanhood

An orphan can be defined “as a child under 18 years of age who has lost one or both parents to any cause of death” (UNICEF, n.d.-c). Twelve studies reported on children losing one or both parents to an epidemic or pandemic. Six of these were cross-sectional studies, most of which adopted qualitative research methods, while one used mixed methods, and one study relied on quantitative data collection. Six of 12 studies dealt with Ebola, four related to HIV/AIDS, one paper focused on COVID-19 and one concerned different pandemics. Two studies specifically looked at girls and young women, thus adopting a gender-specific lens. Orphanhood was treated as an outcome in this review, but it is also a key pathway or mediator towards other child protection risks.

6.6.1 The key findings on the effects of pandemics and epidemics on orphanhood

Many children and adolescents have become orphans due to deadly outcomes of viral outbreaks, and this is particularly evident as an impact of the Ebola outbreak in West Africa (Risso-Gill and Finnegan, 2015). One observational study estimated that in Guinea, Liberia, and Sierra Leone, around 9,600 children were orphaned by Ebola in 2014 (Evans and Popova, 2015). HIV/AIDS is another major driver of orphanhood; one systematic review reported that HIV/AIDS orphans accounted for 30 per cent of the total number of orphans in the African continent (Chi and Li, 2013).

The limited evidence suggests that child protection outcomes may differ between girls and boys orphaned by a viral outbreak. One study reported that in Liberia, many girls orphaned by Ebola became child brides and were at a high risk of being sexually exploited and abused (Korkoyah and Wreh, 2015). Boys orphaned by Ebola were more likely to end up as child labourers, street dwellers and to engage in unlawful behaviors such as theft (Korkoyah and Wreh, 2015).

6.6.2 Orphanhood is a key pathway toward other child protection risks

Several studies reported that children orphaned by an epidemic or pandemic, who lived with extended families or were in foster care, were more prone to discrimination and stigma and displayed poorer psychological well-being than others (Chi and Li, 2013). One study reported that in China, caregivers or HIV/AIDS orphans would not tell peers that their parents died from the virus due to the fear of stigma (Qiao et al., 2013). A review of qualitative studies of orphans living with relatives in Sub-Saharan Africa found that children were often subjected to intra-household discrimination, neglect, child labour, sexual exploitation and abuse by extended family members, and did not have access to education (Peterman et al., 2020).

The evidence suggests that the responsibility orphaned children and adolescents must bear as heads of households adds to an already vulnerable state. A few studies illustrated how orphans who became the head of their households prematurely grew into adult roles. Older siblings often replaced the parent in the role of caregiver at the expense of educational outcomes and personal development (HIV/AIDS Alliance and Tata Institute of Social Science, 2006; UN Women et al., 2014).

6.6.3 Subsequent and longer-term effects

The long-term impacts on children orphaned by epidemics or pandemic were only reported in two studies, and not in great depth. The limited evidence suggests that children orphaned by Ebola may suffer long-term debilitating impacts on their development considering the physical and psychological trauma experienced (Korkoyah and Wreh, 2015). They are impacted by parent mortality in ways that persist into adulthood, whereby the death of one or both parents drives poorer human capital outcomes in the future (Evans and Popova, 2015).

6.7 Other child protection outcomes with very limited evidence

6.7.1 Family separation and abandonment

Epidemics, pandemics and infection control measures could result in the separation of the family unit, creating a sense of insecurity among children. However, this review identified only one study that dealt with family separation as a result of pandemic or epidemic. This cross-sectional mixed methods study assessed the broader protection of children during the Ebola outbreak in West Africa. The report highlighted that, in accordance with infection control measures, many children were sent to quarantine centres. As such, they were separated from their parents and did not know where they were nor whether they were alive or dead. In Sierra Leone and Liberia, children suspected of being infected with Ebola were reported to have been forcibly taken from their families, who were left with no information about their movements or return (UNICEF, 2016).

6.7.2 Unsafe and irregular migration

Unsafe and irregular migration is understood as the movement of persons, within or across borders, that goes against laws and regulations and often results in dangerous journeys (IOM, 2015). Child trafficking is the recruitment, transportation, transfer, harbouring or receipt of children for the purpose of exploitation (United Nations Office on Drugs and Crime, 2004). Reduced disposable income for households, coupled with movement restrictions, could lead children and adolescents to pursue unsafe and irregular migration journeys, both within and across countries. No studies investigating the relationship between epidemics and children's irregular migratory movements and/or child trafficking were found, suggesting an evidence gap. Only one non-systematic review briefly expressed concern over the adverse impacts of COVID-19 on children on the move as a particularly vulnerable sub-group, but did not refer to empirical evidence (Fraser, 2020).

7. FINDINGS ON VIOLENCE OUTCOMES

This section presents the findings from the synthesis of evidence on childhood violence outcomes included in this review. It is divided into sub-sections focusing on each outcome of interest. Each sub-section includes analysis on the key overall findings on the effects of pandemics and epidemics on the outcome of interest and the specific findings on effects of infection control measures, the moderating factors and risk factors, and evidence on children and adolescents living in situations of vulnerability.

7.1 Intimate partner violence, sexual violence and exploitation

This section includes analysis on:

- Intimate partner violence (IPV) against adolescent girls, including economic, emotional, physical or sexual violence between married, cohabiting or dating partners (WHO, 2010).
- Sexual violence and exploitation experienced by children and adolescents and perpetrated by caregivers and strangers, including coerced or forced sex or sexual acts, rape or transactional sex (ibid.).

In the literature collated, the distinction between the two outcome types was not clear, particularly where studies reported on violence against women and children or on gender-based violence. Therefore, the same studies were often reporting on both outcomes. Furthermore, few studies included sexual violence and exploitation against boys.

Eight single studies reported on IPV and nine reported on sexual violence and exploitation. The majority of these were qualitative cross-sectional studies, in some cases combining this with survey data. These mostly reported on perceptions of prevalence or self-reported accounts, while one study collected data from help-seeking sources (i.e. police and service provider accounts). These cannot provide data on incidence. For IPV, there were two non-systematic reviews and no systematic reviews. For sexual violence and exploitation, there were three systematic reviews and six non-systematic reviews.¹¹

7.1.1 The key findings on the effects of pandemics and epidemics on IPV, and sexual violence and exploitation

The majority of single studies assessing the effects of pandemics and epidemics on IPV and sexual violence and exploitation focused on the Ebola crisis in West Africa. Some studies reported an increase in violence from perceptions and self-reported survey data. For example, a mixed methods impact assessment of the gender dimensions of the Ebola crisis in Sierra Leone found an increase in IPV, sexual violence and exploitation of women and girls (UN Women et al., 2014). Similarly, the majority of respondents of a perceptions survey on violence against women in the Ebola outbreak in DRC perceived that both IPV and sexual violence and exploitation had increased since the beginning of the outbreak (IRC, 2019).

A qualitative study of sexual and gender-based violence during the Sierra Leone Ebola crisis combined reviews of police and service provider records with interviews and FGDs. It concluded that the outbreak contributed to increasing cases of sexual abuse (of minors) and IPV (UNDP and Irish Aid, 2015).

¹¹ It is worth emphasizing that we restricted our eligibility criteria to children and adolescents in pandemic and epidemic contexts. We are aware that there is a lot of evidence on the associations between HIV/AIDS and sexual violence and IPV from outside pandemic and epidemic settings that is not captured here due to our eligibility criteria.

Other studies reported a decrease in levels of violence, but the mechanisms underlying these decreases were not clarified in any of these studies. Evidence from a study on the effectiveness of an adolescent vocational programme in Sierra Leone suggested that rates of self-reported IPV fell as the severity of Ebola-related disruption to health services and schooling increased (Bandiera et al., 2019). Similarly, in an assessment of the differing impact of the Ebola outbreak on women and men in Liberia, 65 per cent of survey respondents believed that IPV had decreased and only 2.6 per cent believed it had increased since the onset of the Ebola crisis. However, these results were not gender disaggregated (Korkoyah and Wreh, 2015).

Several systematic and non-systematic reviews reported positive associations between HIV/AIDS and sexual violence and exploitation outcomes on children and adolescents. A systematic review of the health-risk behaviours of adolescents living with HIV in sub-Saharan Africa stated that the pooled prevalence of sexual violence (either as victim or as perpetrator) was 21.4 per cent among HIV-infected adolescents, while among uninfected adolescents it was 15.3 per cent. These pooled estimates were not found to be statistically significant and the data was not disaggregated by victim or perpetrator status, or by sex. The higher prevalence among HIV-infected adolescents may partly result from their vulnerable background, often characterized by stigma, psychological vulnerability, family stressors, poverty, and orphanhood (Ssewanyana et al., 2018).

A systematic literature review of children living with HIV-infected or AIDS-affected adults in sub-Saharan Africa showed positive associations to sexual risk behavior, abuse victimization and transactional sex, with increased vulnerabilities for adolescent girls (Goldberg and Short, 2016). A literature review of child sexual abuse in sub-Saharan Africa anecdotally reported that increases in the rates of sexual violence against young virgin girls was due to the belief that such intercourse can cure sexually transmitted diseases. The authors admit that the extent and validity of this claim is uncertain (Lalor, 2004).

Other reviews associated viral transmission of HIV directly with IPV, but there was a lack of rigorous evidence demonstrating the causal links between the two. For example, the disclosure of HIV status has been linked to an increased risk of IPV and some qualitative studies argue that people infected with HIV may deliberately attempt to infect their partners through forced sex or as an act of punishment or revenge in the wider community (Peterman et al., 2020).

There is some evidence to suggest that there is underreporting of both IPV and sexual violence and exploitation in pandemic and epidemic contexts. This is explored in further detail below.

7.1.2 The effects of infection control measures

The reviewed evidence explicitly or implicitly associates increasing levels of violence with the effects of infection control measures such as quarantine and social isolation, movement restrictions and suspensions or restrictions in access to services. There are multiple pathways towards increases in violence, including women's exposure to potential perpetrators within the home and economic stresses (Peterman et al., 2020). These measures also reinforce existing gender inequalities by further increasing barriers to service provision, making it difficult for survivors to access help, and therefore increasing risks for women and girls.

Quarantine may increase existing controlling behaviors of perpetrators in an attempt to regain a sense of control, which may result in IPV and sexual exploitation (Peterman et al., 2020). Increases can also occur in contexts where IPV and sexual exploitation programming have been seriously disrupted and where schools, which can function as a first line of defense, have been closed due to quarantine

measures. In Sierra Leone, orphaned children, especially teenage girls, found themselves exposed to a heightened risk of IPV, sexual exploitation and adolescent pregnancy (UN Women et al., 2014).

7.1.3 Moderating and risk factors toward IPV and sexual violence and exploitation

The evidence suggests that in a pandemic/epidemic setting, many institutions may have limited capacity to respond, access to justice may be interrupted, and resources and attention are directed elsewhere. Access to health and protective services can be restricted or suspended during outbreaks or overburdened by responses to the crisis. This can result in reduced services for victims of violence, such as emergency contraception and psychosocial support. Referral pathways may change during or after a pandemic and there can be a failure of health and legal services to address immediate and medium-term needs of women. Survivors of violence who cannot access medical facilities may find it difficult to access justice if they cannot obtain medical reports documenting sexual assaults (Peterman et al., 2020).

Pandemic and epidemic conditions can also prevent access through the reinforcement of existing insecurity. For example, a gender analysis of the impact of the Zika virus in the Dominican Republic reported that barriers to women seeking medical care included the fear of being assaulted on the way to, and in, public hospitals together with the prohibitive cost of taxis (Cepeda, 2017).

A lack of access to health, protective and justice provision may subsequently serve to mask trends in IPV and sexual violence and exploitation due to under-reporting of incidences. In Sierra Leone, there was an upward trend of incidents reported in the first half of the year but a downward trend in the latter half of the year. After triangulating official statistics with data received at a community-level, the reduction can be attributed to difficulties in reporting due to: the inaccessibility of basic justice and medical services during the crisis; restrictions on movement stemming from quarantines and checkpoints; a fear of contracting Ebola among victims, preventing them from seeking medical attention; and the costly nature of pursuing criminal cases, which led to an increase in unrecorded mediation at a local level (UNDP and Irish Aid, 2015).

There is some anecdotal evidence that access to water and sanitation affects the exposure to, and risks of, IPV and sexual violence and exploitation for women and girls whose role is to fetch water during quarantine. In Sierra Leone, focus group discussions revealed that the risk of rape was highest when girls went to collect water or were using the bush to go to the toilet (Risso-Gill and Finnegan, 2015). Qualitative evidence from Benin suggests that this is because water collection requires more time on roads and at water points (IRC, 2019). There is also anecdotal evidence from Sierra Leone that women and girls had to bargain with guards stationed in communities to leave their houses, which resulted in manipulation and sexual exploitation (UN Women et al., 2014).

There is qualitative evidence that household income and poverty were a driver for transactional sex in the DRC and Sierra Leone during the Ebola outbreak. Several qualitative studies reported that the death or illness of a family member meant adolescent girls may have partaken in transactional sex with older or wealthier men – either to earn an income or in exchange for goods (IRC, 2019; Menzel, 2019; Rothe, 2015; UNDP and Irish Aid, 2015). An ethnographic study reported that poverty was a driver for transactional sex with frontline Ebola workers in exchange for food and basic necessities in Sierra Leone. In some cases, this was moderated by quarantine and social isolation orders, which prohibited social gathering and impaired the ability to visit places where transactional sex might take place (Kostelny et al., 2018).

In Liberia, counties reported to have the highest proportion of children orphaned by Ebola are also where the practice of child marriage is perceived to be most prevalent. Orphaned girls in particular are likely to fall victim to abuse if they are sent to live with foster parents or guardians (Korkoyah and Wreh, 2015).

7.1.4 Children and adolescents in vulnerable circumstances

The gendered effects of pandemics on girls notwithstanding, there is limited evidence on how other forms of vulnerability moderate effects. Studies provide some analysis on the violence risks for pregnant adolescent girls and on children orphaned due to HIV/AIDS.

Evidence from Sierra Leone suggests that teenage pregnancy can be both a result of sexually exploitative relationships during pandemics and can lead to increased vulnerabilities to IPV (Denney et al., 2015). An assessment of the socio-economic status of adolescent girls who became pregnant during the Sierra Leone Ebola crisis claimed an association between high adolescent pregnancy rates during the crisis and increased vulnerabilities to IPV. Twenty-six per cent of respondents to a survey (n=18,119) stated they had experienced IPV after the crisis. The assessment highlighted that adolescent girls often had little power as a result of their pregnancy, as they were often still dependent on the father of their child or their family (UNFPA, 2017).

A systematic review of child violence experiences in institutionalized care claimed that rates of violence and abuse, and peer-to-peer abuse, were higher among children institutionalized due to HIV/AIDS. However, the study also conceded that the abuse experiences of these children was poorly recorded (Sherr et al., 2017).

7.1.5 Subsequent and longer-term effects

The included studies did not generally include explicit robust evidence on the long-term outcomes of IPV or sexual violence and exploitation stemming from pandemics and epidemics. One evaluation of a women's vocational programme in Ebola-stricken Sierra Leone suggests that in the longer-term, men could potentially change their behavior or backlash against teenage girls partaking in empowerment programmes in times of severe economic disruption from pandemics or epidemics (Bandiera et al., 2019). This suggests that violence against women and girls is both a manifestation of gender inequality and a mechanism to maintain it. Women and girls who are perceived to be challenging the status quo or who become empowered through education and/or income generation opportunities may be at a higher risk of violence.

7.2 Child abuse and maltreatment

This section includes analysis on child abuse and maltreatment. This includes violence against children and adolescents, including psychological, physical or emotional violent discipline perpetrated by caregivers (Krug et al., 2002). Generally, we attempted to distinguish between violent and harsh discipline, and sexual abuse, the latter of which is covered in the previous section. The distinction was not always clear, but we have reported as described in the literature.

The evidence on this outcome was limited. Four single studies reported on this outcome and these were all observational cross-sectional studies, using qualitative, mixed and ethnographic approaches. The majority of these focused on the Ebola crisis in West Africa. Three systematic and four non-systematic reviews also reported on this outcome, mostly in the context of HIV/AIDS.

7.2.1 The key findings on the effects of pandemics and epidemics on child abuse and maltreatment

The evidence suggested that the prevalence of abuse and maltreatment could increase during and after pandemics and epidemics. This can occur for children living with HIV/AIDS, or for children living with HIV-infected or AIDS-affected adults, and for those orphaned by HIV/AIDS. For example, a systematic review of youths affected by HIV/AIDS in schools in East Africa stated that youths who had been orphaned by HIV/AIDS experienced physical and emotional violence in caretaker families (Kimera et al., 2019). Another systematic review on children living with HIV-infected or AIDS-ill adults reported that co-residence with HIV-infected adults was associated with an increased risk of physical and emotional abuse victimization from parents. This is possibly due to stress factors such as the fear of death, AIDS-related stigma and a lower quality of life (Goldberg and Short, 2016). In Sierra Leone, 55 per cent of children participating in focus group discussions believed that the frequency of beatings had increased from pre-Ebola levels. Of those who reported that it had not increased, many said there was already a lot of abuse and violence prior to the Ebola crisis (Risso-Gill and Finnegan, 2015). Apart from the evidence mentioned above on orphanhood as a pathway to abuse, there was no other research that was disaggregated by other types of vulnerability.

7.2.2 The effects of infection control measures

There is some evidence to suggest that school closures can lead to increased household tensions, which can subsequently lead to increased violence and abuse against children. Children in Sierra Leone viewed the closure of schools as a key driver for exposure to violence in the home and community (Risso-Gill and Finnegan, 2015). Furthermore, the loss of income resulting from quarantine and lockdown conditions, combined with other impacts of the Ebola crisis (including bereavement and general fear of the virus) can lead to increased household tension (Fraser, 2020). In Sierra Leone, this sometimes manifested in an increase in violence against children in the home (Risso-Gill and Finnegan, 2015).

7.2.3 Moderating and risk factors toward child abuse and maltreatment

The evidence reviewed suggests that orphanhood, stigmatization (from contracting infections or being associated with those who are infected), and child marriage can lead to abuse. A systematic review of child violence experiences in institutional care found that orphaned children (including those orphaned due to parents contracting HIV) may be subject to higher levels of abuse in institutions than those living in other forms of care or in the general population. However, the data was limited; only nine out of 66 studies included in the review examined the prevalence of abuse, and only two actually measured any form of maltreatment such as harsh punishment (Sherr et al., 2017).

7.2.4 Subsequent and longer-term impacts

Evidence on the subsequent or longer-term impacts was limited. In Sierra Leone, children reported longer-term consequences of being beaten – beyond physical pain – such as psychological problems, fear, stress, hatred towards the abusers, physical deformity or disability, and sometimes death (Risso-Gill and Finnegan, 2015).

7.3 Self-directed violence including suicide and self-harm

Suicidal behavior ranges in degree from merely thinking about ending one's life (suicidal ideation), through to developing a plan to commit suicide and obtaining the means to do so, attempting to kill oneself, to finally carrying out the act (Krug et al., 2002). Although pandemics and epidemics are associated with problematic coping behavior such as suicide and self-harm (Peterman et al., 2020), we found very little evidence of this outcome relating specifically to children and adolescents. Indeed, only four studies reported on this outcome, including two systematic and two non-systematic reviews. There were no in-depth findings, and suicide was often reported as one aspect of broader psychological or psychosocial impacts.

7.3.1 The key findings on the effects of pandemics and epidemics on self-directed violence

A systematic review on the impact of parental HIV/AIDS on children's psychological well-being reports on the findings of studies comparing the emotional adjustment of children affected by HIV/AIDS (either AIDS orphans or those living with HIV-infected adults) with those from HIV-free families. It found that the former scored higher in emotional/internalizing problems, such as depression, suicidal ideation and hopelessness (Chi and Li, 2013). Another systematic review on child violence experiences in institutionalized and orphanage care reported the findings from one study suggesting that suicidal behavior rates were higher for children in institutional care than in those living at home (Sherr et al., 2017).

7.3.2 The impact of infection control measures

There was limited evidence on the impact of infection control measures. A rapid review of the psychological impact of quarantine stated that quarantined children suffered from higher rates of post-traumatic stress symptoms stemming from a loss of freedom, uncertainty over disease status and boredom. However, it did not make an explicit link to suicide or self-harm for children or adolescents (Brooks et al., 2020).

7.3.3 Moderating and risk factors toward self-directed violence

Violence and maltreatment is associated with suicidal attempts (Sherr et al., 2017), but we found limited evidence on the moderating effects and pathways toward self-directed violence in pandemic or epidemic contexts. There were some findings on the moderating effects of individual and demographic characteristics, which were inconsistent (Brooks et al., 2020). Some studies found that boys were vulnerable to HIV-related parental death while other studies concluded that girls showed poorer emotional and social adjustment. Others found no gender differences at all. Studies also found that age does not influence the impact of parental HIV/AIDS (Chi and Li, 2013).

7.4 Other violence outcomes with limited evidence

We considered several other violence outcomes, for which we found extremely limited or nil evidence. There was limited evidence for violence against children and adolescents perpetrated by security actors, nor on involvement in gangs and the perpetration or experience of crime. We found no evidence on exposure to or perpetration of homicide against adolescents or children, or on online abuse and exploitation.

74.1 Violence from security actors

Only three studies briefly touched on violence related to the deployment of security forces in Sierra Leone to enforce quarantine measures. A rapid review exploring the effects of pandemics on violence against women and girls reported cases of financial and sexual exploitation in Sierra Leone by guards stationed to enforce quarantine measures (Fraser, 2020; Peterman et al., 2020). One assessment of the gendered impacts of the Ebola outbreak in Sierra Leone described the accounts of female survivors who experienced trauma related to the processes of extraction from their households and on the security measures imposed by the military and police (UN Women et al., 2014). However, another assessment of the Ebola outbreak in Liberia stated that 92 per cent of survey respondents (n=1562, stratified representative sample) nearly unanimously felt that women and girls were not badly treated by the police or security personnel. This data was not disaggregated by sex (Korkoyah and Wreh, 2015).

74.2 Involvement in gangs and the perpetration or experience of crime

Only two studies briefly referred to the risk of non-sexual crime as a potential outcome of an outbreak.¹² Surveying children on the consequences of the Ebola outbreak in Liberia and Sierra Leone, one study revealed that children described increased concerns about crime in urban areas, with greater risks of boys becoming involved in stealing money or food (Rothe, 2015). A literature review on the impacts of the Ebola outbreak suggested that opportunistic crime increased in West Africa, possibly encouraged by the closure of some police stations. There were also examples of community resilience and cohesion in protecting communities (Elston et al., 2017).

¹² Here we are distinguishing between sexual violence and exploitation and IPV, which are covered in section 7.1, and other forms of crime.

8. FINDINGS ON THE INTERSECTIONS BETWEEN EDUCATION AND CHILD PROTECTION OUTCOMES: ENROLMENT, ATTENDANCE AND DROPOUT

We included certain outcomes at the intersection between education and child protection, including school enrolment, attendance and dropout. Pandemics and epidemics have effects on these outcomes, but these outcomes are also key risks for other negative child protection and violence outcomes. These indicators are defined using standard definitions from UNESCO.¹³

Fifteen studies reported on education outcomes. These included nine single studies, which were mostly qualitative cross-sectional studies. There were six reviews of the literature, both systematic (3) and non-systematic (3).

8.1 The key findings on the effects of pandemics and epidemics on education outcomes

Most studies reporting on education outcomes found that pandemics and epidemics had important and considerable impacts on attendance and dropout. These were a consequence of poor learning, taking on unpaid or paid work and/or adolescent pregnancy. In a cross-sectional qualitative study of children affected by AIDS in Andhra Pradesh and Tamil Nadu (India), children who were orphaned, semi-orphaned or living with adults who had HIV/AIDS mentioned that their performance in school had declined, making them feel they should abandon their education altogether (HIV/AIDS Alliance and Tata Institute of Social Science, 2006). Children were reportedly having difficulty managing school and household chores, and were on the verge of quitting school because the burden of juggling both activities was affecting their academic performance (HIV/AIDS Alliance and Tata Institute of Social Science, 2006).¹⁴

Two additional studies also reported dropout as a consequence of having to support the family or taking on unpaid work. An assessment of the impacts of a vocational programme on adolescent and youth females' time use in Sierra Leone found that in high-Ebola disruption villages, there was a dramatic fall in school enrolment rates of 16 per cent and a significant increase in income generation activities – by 19 per cent in comparison to villages with low disruption (Bandiera et al., 2019). While not establishing causality, there was an association linking high disruption due to Ebola with lower school enrolment rates and higher time spent in income generation activities. A narrative non-systematic review of the impact and consequences of Ebola in Sierra Leone, Liberia and Guinea reported that children often became wage earners during the Ebola response and there were disincentives to families for children returning to school, as children were now actively contributing to the household income (Elston et al., 2017).

Adolescent pregnancy was also found to be linked to a higher likelihood of school dropout and was reported in at least two studies. Research with women and girls in Sierra Leone found that without the presence of vocational programmes to keep out-of-school girls occupied, girls' time spent with older men increased significantly, pregnancies rose and girls experienced a 16 per cent decrease in school enrolment once schools reopened (Bandiera et al., 2019). In some Ebola-affected countries, this could be because girls who were pregnant were not allowed to return to school. In addition, having to look

13 See <http://uis.unesco.org/en/glossary>. Attendance: Number or rate of students attending school at any time during the reference academic year. Enrolment: Number or rate of students of the official age group for a given level of education who are enrolled in school. Dropout: Students who leave school definitively in a given school year.

14 There is abundant empirical evidence external to this review and from non-pandemic/epidemic settings that indicates that poor performance in school is a strong predictor of school drop-out (Bowers et al., 2013).

after their children, insufficient income and stigma prevented young mothers from continuing their education (UNFPA, 2017).

8.2 The effects of infection control measures

Only a few studies reported on the impacts of school closures. These found that learning was affected, which was subsequently associated with decisions to leave school. An ethnographic study to understand how the Ebola crisis had affected a community intervention in Sierra Leone reported numerous cognitive harms related to schools being closed for a full school year, particularly that children had forgotten what they had learned. Being held back, some children lost interest in learning and dropped out of school altogether (Kostelny et al., 2018).

In addition, the lack of access to safe and protective spaces due to school closures and other infection control methods increased adolescent pregnancy, which in turn increased the likelihood that girls would drop out of school once classes resumed. A cross-sectional qualitative study documenting the consequences of Ebola on children and youths in Liberia and Sierra Leone found that schools played an important role in occupying adolescent girls during the day and keeping them in a relatively safe environment. Schools and teachers were also an important source of contraception and sexual health education and supervision. Specifically, in Sierra Leone girls described how they were no longer receiving contraceptive pills through the school-based programme, increasing their likelihood of becoming pregnant and eventually leading them to drop out of school due to parental responsibilities, stigma and insufficient income (Rothe, 2015).

8.3 Moderating and risk factors toward education outcomes

Studies reported on the moderating effects of socio-economic conditions, gender and age, but the evidence was generally limited or inexplicit.

A literature review on the impact of HIV/AIDS on educational outcomes cited several single studies pointing to the importance of household poverty and educational outcomes of children affected by AIDS (Guo et al., 2012). They found that household economic status often moderated the impact of parental illness or death on the educational outcomes of children and that children in poorer households were less likely to attend school, even prior to parental death. They also cited evidence from large data-set comparative studies that household economic status was a more important factor than orphanhood status in explaining the gap in school enrolment between orphans and non-orphans (Guo et al., 2012).

On gender, the evidence points to girls and women being disproportionately burdened by unpaid care work, which could hamper their opportunities for returning to school more than boys, but this relationship is not directly assessed and only briefly mentioned in the literature. An additional issue affecting girls' education outcomes specifically was adolescent pregnancy. One of the findings from an assessment of adolescent pregnant girls in Sierra Leone after Ebola was that while new mothers had a great desire to return to school, money and childcare were major impediments for them to continue their education, burdens that were not faced by adolescent boys (UNFPA, 2017).

Other pathways affecting educational outcomes included access to health services and parental/family health. One study on the Ebola crisis in Sierra Leone mentioned that people were less likely to go to health posts to obtain contraceptives due to their mistrust of health structures, which could have affected pregnancy rates and as a consequence, their decision to drop out of school (UNFPA, 2017).

8.4 Children and adolescents in vulnerable circumstances

Other than gender, the evidence base on how other vulnerabilities affect education outcomes is rather limited. Only one study exclusively focused on orphans and child-headed households (Kostelny et al., 2018), while six studies mentioned them in passing but did not provide disaggregated data or findings exclusively for these groups. Several studies cited in a literature review of the impact of HIV/AIDS on children's educational outcomes (HIV/AIDS Alliance and Tata Institute of Social Science, 2006) did find evidence that orphans were less likely to be enrolled in school or to attend school. However, findings were not conclusive, as other studies did not find any effect of being an orphan on school enrolment when controlling for other factors. Additional studies cited in this review found that the impact of being an orphan on schooling differed by the economic status of the household, with poorer orphans more likely to fall below their appropriate grade than orphans from better-off families (Guo et al., 2012).

8.5 Subsequent and longer-term effects

The closure of schools made children feel sad and alone. During Ebola recovery in Sierra Leone, some children described that, since the closure of schools, they often felt sad and their futures were more uncertain (Kostelny et al., 2018). However, the long-term impact on children's mental health was not reported in the reviewed literature as most of the studies were not longitudinal. Other children mentioned that returning to school in the future would be difficult as they would feel ashamed to share a class with younger learners. Older children also reported that they had lost interest in finishing their education, with girls particularly thinking that schools would never reopen, leaning them towards building their own families instead (Kasirye and Hisali, 2010).

9. CONCLUSIONS

We have reviewed and collated the evidence on the impacts of pandemics and epidemics on child protection and violence outcomes. We found extensive evidence in the form of systematic and non-systematic reviews on the child protection and violence impacts of HIV/AIDS in Sub-Saharan Africa, and more limited evidence from single studies on the consequences of Ebola outbreaks in West Africa, and particularly Sierra Leone. All of the included systematic reviews focused on HIV/AIDS. Because these systematic reviews themselves synthesize evidence from multiple single studies, and usually quality-appraise these studies, we can conclude that the quantity and quality of evidence on HIV/AIDS far outweighs evidence on other infectious disease outbreaks. Evidence on other pandemics or epidemics, or from other regions, is extremely scant.

Many of the single studies identified in this review are characteristic of an emerging field of research: mainly observational studies (with their methods often poorly reported), few longitudinal studies, and only one experimental study. The samples in these studies were of variable sizes, ranging from 24 to 18,119 participants. In many cases, the methodology for selecting samples was not stated and very rarely was there any indication that the sample might be representative. This is unsurprising given that fast-changing circumstances present practical challenges for the rigorous collection of data from the field, particularly in prospective studies, and analytical challenges for attributing change to specific causes in unsettled contexts. Therefore, while we did not undertake a quality appraisal of the included studies, we can assume that on average, the quality of evidence is low. In many of these studies, findings are based on individual anecdotal or perceptions-based accounts rather than rigorous, unbiased and systematic assessments. These cannot reliably establish association let alone a causal link, nor can they reliably explain the mechanisms underlying changes in the rates of outcomes from pre- to post-outbreak.

9.1 The impacts of pandemics and epidemics on child protection

The majority of studies included in this review studied the effects of HIV/AIDS on stigmatization, discrimination and xenophobia. In fact, the evidence base for stigma is much larger than for all the other outcomes considered in this review combined. We expected the volume of literature to be much larger for HIV/AIDS, and therefore we limited our inclusion criteria to reviews and excluded single studies. However, the extent to which the evidence base is skewed towards this outcome – and limited on the other outcome areas – is notable. Figure 4 provides an evidence gap map illustrating the distribution of evidence found on child protection outcomes. This is also available online as a fully interactive evidence gap map www.unicef-irc.org/evidence-gap-map-pandemics-child-protection-violence.

The evidence suggests that stigma is a key pathway towards other child protection outcomes and therefore, may be a key short-term risk with longer-term implications for children and adolescents infected by COVID-19. Stigma may affect access to services and resources; social isolation and exclusion; school attendance and drop out; IPV and sexual violence and exploitation; and child abuse and maltreatment. The effects of stigmatization can reinforce existing vulnerabilities and inequalities for women and girls, including: the loss of property, housing and inheritance; the loss of livelihoods; rejection by families, spouses and communities; and violence. In the longer-term, stigma is linked to emotional distress and psychosocial outcomes.

There was some evidence on outcomes at the intersection of education and child protection, such as: school enrolment, attendance and dropout; early and adolescent pregnancy; orphanhood; and harmful

practices (including early marriage and FGM). Our analysis showed how interlinked many of these outcomes are, with complex and bi-directional interactions between them all.

The majority of studies that reported on education outcomes found that poor learning, taking on unpaid or paid work and/or adolescent pregnancy during outbreaks had considerable impact on school dropout and attendance. Studies consistently reported increases in teenage pregnancies during, or in the aftermath of, pandemics or epidemics. Furthermore, infection control policies such as quarantine are the starting point for many pathways towards teenage pregnancy, especially reductions in household income and school closures.

Orphanhood, while considered as an outcome in this review, was also a key pathway towards other child protection risks. Those orphaned by an epidemic or pandemic and who live with extended families or are in foster care are more prone to discrimination and stigma and display poorer psychological well-being than others. Orphaned children and adolescents who head households have increased vulnerabilities, with poorer educational outcomes and longer-term effects on personal and psychological development.

The evidence also suggests that pandemics and epidemics lead to increases in child marriage but decreases in FGM. Early marriage can result from unwanted pregnancy or from reductions in household income. Girls often get married as a way to generate income to provide for their families or as a result of an unwanted pregnancy.

There was relatively limited evidence on child labour and unpaid care and domestic work. The evidence we found suggests that reductions in household income and the illness or death of breadwinners means that children are increasingly engaged in wage labour. In other cases, school closures means that time is reallocated to domestic chores.

Evidence on sexual abuse and violence far exceeds the evidence collated on other violence outcomes. This is followed by evidence on child abuse and maltreatment and on IPV. Indeed, there was a high degree of cross-over in studies exploring these outcomes. Figure 5 provides an evidence gap map illustrating the distribution of evidence found on violence outcomes. This is also available online as a fully interactive evidence gap map www.unicef-irc.org/evidence-gap-map-pandemics-child-protection-violence.

On IPV and sexual violence and exploitation, most studies reported an increase in violence in Ebola-affected West Africa. Some studies reported a decrease but the mechanisms for these findings were not explained. Infection control mechanisms are considered a key pathway whereby IPV and sexual violence and exploitation can be coping mechanisms for perpetrators to compensate for a loss of control during quarantine. Restricted access to health and protective services can result in the failure of health and legal services to address immediate and medium-term needs of women. This may subsequently serve to mask trends in IPV and sexual violence and exploitation due to under-reporting of incidences. Household income and poverty can also be driver for transactional sex, which exposes women and girls to increased risks of violence.

The prevalence of abuse and maltreatment can increase during and after pandemics and epidemics. School closures can lead to increased household tensions, which can subsequently lead to increased violence and abuse against children. Children orphaned by infections can experience physical and emotional violence in caretaker families or in institutions.

The evidence on other violence outcomes was limited, including on self-directed violence, violence from security actors and gang/crime involvement.

9.2 The evidence on infection control measures

There was limited evidence on the effects of quarantine and social isolation, while evidence on measures such as movement restrictions, school closure, social and physical distancing, and closure of non-essential businesses was even more limited. Quarantine may reinforce stigma and discrimination against certain communities, especially those seen to be more vulnerable to outbreaks. A key pathway through which infection control measures work is through the household-level effects on income, which can lead to child labour and other exploitative income-seeking behaviors.

Such measures are reported to have specific impacts on women and girls. They increase the exposure of women and girls to potential perpetrators of violence, limit access to safe spaces, restrict access to vital health and protective services, and restrict their access to water sources.

9.3 Children and adolescents in vulnerable circumstances

The evidence base on vulnerable groups was extremely limited apart from analysis on the gendered impacts of pandemics and epidemics, and studies exploring the vulnerabilities of orphans. Studies generally did not disaggregate the effects or isolate the specific vulnerabilities of other marginalized sub-populations.

10. LESSONS EMERGING FROM THE REVIEW

We acknowledge the challenges to generalizability and applicability from the findings emerging from this review (*see Section 1.3*). The recommendations offered by studies included in this review did not generally offer evidence-based and intervention-specific recommendations. The lessons synthesized here are often based on anecdotal evidence, and are fairly generic.

The key risk factors identified in this review and which appear consistently as moderators of child protection outcomes are: household income; access to health, justice and protective services; access to education; orphanhood; and stigmatization. Keeping this in mind, a key short-term strategy may be to consider how best to respond to these risk factors. In addition to the lessons summarized below, we have provided technical guidance on addressing and mitigating child protection risks (*see Box 2*).

Responding to children in vulnerable circumstances, including orphans: The evidence reviewed suggested that those orphaned from infectious outbreaks were more vulnerable to stigmatization, school dropout and sexual exploitation. However, the same evidence did not offer clear recommendations. Evidence external to this review (and published after the review was completed) finds key approaches include psychosocial interventions focused on improving mental health, social protection, cognitive interventions, and community-based interventions that provide families with resources and access to services (Thomas et al., 2020).

Responding to stigmatization and discrimination: Stigma is associated with many short and longer-term risks. Much stigma emerges from lack of clear information and communication about how the virus transmits, overlaid with underlying social inequalities where some groups are already stigmatized and the virus may become a way to additionally label them. Ongoing information and communication campaigns are key to ensuring that stigma and discrimination do not impose such high costs in terms of children's mental health and well-being in the longer-term.

Furthermore, public health systems, communities and schools can play an important protective role in building positive relationships and addressing the stigmatization of populations affected by outbreaks of an infectious disease. Children and adolescents who have recovered from the virus or who have been associated with someone who has contracted the virus, should be screened for internalized stigma. Teachers and community leaders should be sensitized to possible longer-term psychosocial and mental health effects and be prepared to provide social support. Another option may be to set up self-help groups and safe spaces at school or community levels.

Invest in social protection: Financial support and social protection are key to enabling livelihoods during outbreaks and to counteracting adverse socio-economic and health-related shocks as families struggle to meet basic needs. Social safety nets could reduce the participation of children in paid and exploitative labour and decrease the chances of school dropout. This may further decrease the chances of early marriage and teenage pregnancy. Expanding social safety nets may also contribute towards providing survivors of sexual violence and exploitation with access to justice and medical services. Evidence external to this review (and published after the review was completed), suggests that in the aftermath of the 2008 global financial crisis, countries that focused on strengthening social protections and who effectively targeted the most vulnerable groups, are better equipped to tackle the current crisis (Tirivayi et al., 2020).

Promoting access to health and protective services: The Ebola outbreak in West Africa demonstrates that access restrictions to health services during the outbreak can lead to increases in sexual violence, IPV and teenage pregnancy. This shows the importance of prioritizing services to respond to issues of violence against women and girls. This includes ensuring access to female healthcare workers and to safe, alternative and confidential spaces, as well as increasing communication and awareness of services through advocacy.

Access to justice: The evidence states that access to police and formal justice was restricted in many locations. Particular attention could be given to the role of community leaders and customary justice systems, ensuring that cases of criminal sexual violence are recorded and referred to the formal justice system.

Ensuring continued access to education: It is key to ensure perceived loss of learning is not a disincentive to return to school. Many families have benefited from child labour – paid and unpaid. Therefore, it is vital to sensitize parents to the importance of returning children to school. Once schools have reopened, there may be a need for psychosocial support and counselling for children affected by the virus. Flexible and supportive education is required for girls, who may be more likely to sacrifice schooling for unpaid domestic work and childcare, or through early pregnancy.

Box 2: Technical guidance

Below is a selection of recent technical guidance for responding to the child protection risks during the COVID-19 outbreak. These have been developed to inform country and global responses to the COVID-19 pandemic.

Child protection

- [Technical Note: Adaptation of Child Protection Case Management to the COVID-19 Pandemic](#)
- [Technical Note: Child Helplines and the Protection of Children during the COVID-19 Pandemic](#)
- [Key Messages and Considerations for Programming for Children Associated with Armed Forces or Armed Groups during the COVID 19 pandemic](#)
- [Working with Communities to Keep Children Safe](#)
- [Technical Note: COVID-19 and Child Labour](#)
- [Social Service Workforce Safety and Wellness during the COVID-19 Response: Recommended Actions](#)
- [Protection of Children during the COVID-19 Pandemic: Children and Alternative Care](#)
- [Technical Note: COVID-19 and Children Deprived of their Liberty](#)
- [COVID-19 and its implications for protecting children online](#)

Violence

- [COVID 19: Protecting Children from Violence, Abuse and Neglect in the Home Identifying & Mitigating Gender-based Violence Risks within the COVID-19 Response](#)
- [UNFPA Interim Technical Brief: Gender Equality and Addressing Gender-based Violence \(GBV\) and Coronavirus Disease \(COVID-19\) Prevention, Protection and Response.](#)

11. RESEARCH RECOMMENDATIONS

Reflecting on the analysis here of the distribution of evidence, several recommendations can be made with regard to research on the child protection and violence impacts of COVID-19. Reviews of this nature would normally assess the clusters of evidence and gaps (both geographic and thematic) and base research recommendations on these findings. However, in this instance the recommendations require more nuance. Evidence across the board is limited and therefore, it is difficult to prioritize certain outcome areas over others. Recommendations also need to account for the practical, operational and ethical implications of researching with and of children in affected and sensitive contexts during an on-going crisis. Therefore, even if there are gaps in the evidence, this does not necessarily mean that we should be attempting to conduct primary research, especially if there is a risk of harm to the researcher and to participants.

UNICEF's guidance on evidence generation involving children on the COVID-19 pandemic suggests that:

- During the emergency and immediate recovery phase – consideration should be given to ceasing all face-to-face primary data collection. Face-to-face data collection should be clearly justified in terms of direct benefits and programming outcomes, such as when it is integral to the delivery of emergency services (Berman, 2020).
- In the post-emergency phase – unless there is a clear and well-justified need for urgency, face-to-face projects should be postponed until services are restored and children's lives have largely returned to pre-COVID-19 routines prior to data collection (ibid.).

These guidelines are particularly pertinent for research on child protection and violence outcomes, which are often seen as sensitive. There may be fewer risks with more general data collection on less sensitive subjects, such as educational outcomes of child well-being, but even then, there is a higher burden of proof for data collection during the current outbreak. The value and benefits for children from research should be immediately clear.

11.1 Recommendations for primary research

Given the practical and ethical implications of undertaking research during the current pandemic, primary research that seeks to draw conclusions from COVID-19 and from previous pandemics may even be difficult. The recommendations below apply to research once the COVID-19 crisis and related infection control mechanisms are lifted.

The value and benefits for children and adolescents from research should be immediately clear, and the research should be designed to be actionable: Ethics protocols must be in place to ensure that research does not do further harm, and that methodologies are appropriate for the issues and groups being addressed. For instance, remote or virtual data collection is likely to be inappropriate to identifying risks for harm, abuse and exploitation which are deeply traumatic and personal experiences.

Focus on children and adolescents in vulnerable circumstances: There is a need for detailed investigations of population heterogeneity, in order to determine associations between child well-being and characteristics such as age, gender and other forms of vulnerability. This is particularly true for high-risk groups, including children with disabilities, street-connected children and refugees and migrants. This would require collection of representative data that includes these groups and allows for disaggregation to better understand impacts on these groups vis-à-vis the rest of the population.

Rigorous retrospective studies: Once the crisis subsides, there may be opportunity for rigorous retrospective studies. Consideration should be given to the value of retrospective cross-sectional surveys and case-control designs to investigate causal links between exposure to pandemics and epidemics and child protection outcomes.

Build upon or reinforce the monitoring, evidence and learning functions of pre-existing programmes: Pre-existing programmes may well present opportunities for conducting experiments, quasi-experiments or longitudinal studies to determine pre- and post-outbreak trends and impacts of the outbreak over time. If there is ongoing longitudinal data collection in areas when an outbreak hits there is both baseline data and the infrastructure to quickly collect data. Efforts should be made to collect age disaggregated data, to ensure the specific effects on children and adolescents can be determined.

Broaden geographic focus: There is a need to expand the evidence base beyond Sub-Saharan Africa, and beyond West Africa in particular. This may entail retrospective studies on outbreaks other than Ebola, such as the SARS, MERS and H1N1 outbreaks in other regions. This might yield useful findings due to the implementation of similar infection control methods to those being used to combat COVID-19. It may also entail retrospective or longitudinal studies on the effects of COVID-19 in Asia and Latin America.

11.2 Recommendations for secondary research and synthesis

This review was broad and shallow, which means that it may still be worthwhile to undertake further rigorous, systematic and rapid evidence synthesis that dives deeper into some of the gaps identified here. These include:

Robust analysis drawing on administrative data: Given that primary research and data generation may be difficult in the current crisis-affected contexts, the use of administrative data and national statistics may help to provide robust statistical evidence through econometric analysis on the socio-economic impacts of COVID-19. This may seem like an obvious point, but few studies included in this review use large administrative datasets to report findings on child protection or violence outcomes. One study (Elston et al., 2016) makes use of health facility data to report on Ebola's impact on teenage pregnancies. Another (Evans and Popova, 2015), uses national demographic data to estimate the impacts of Ebola on orphans

Deep dives into evidence on HIV/AIDS: There appears to be sufficient synthesis on the effects of HIV/AIDS on stigma and longer-term psycho-social and emotional outcomes. However, there is limited synthesis on the impacts of HIV/AIDS on other child protection outcomes, including child labour, unpaid care and domestic work, family separation and abandonment, IPV and self-directed violence. Specific deep dives into these bodies of evidence may unearth further rigorous synthesis that we have missed here.

Synthesis of evidence on interventions to reduce child protection risks: The risk factors identified in this review provide entry points for further synthesis. One way to strengthen recommendations and the evidence-base for programming would be to collate evidence, perhaps as part of a review of reviews, on the effectiveness of interventions that seek to respond to the key risks identified here, both within pandemic contexts and without. In particular, there is a need for child- and adolescent-focused synthesis.

11.3 Reflections on uptake and collaboration on evidence-informed responses to COVID-19

This report is a small contribution to the plethora of evidence that is now appearing about COVID-19 in a largely uncoordinated fashion. Its value will be enhanced the more often it is found, read and used to inform policy decisions or future research. The first step towards this is making it publicly available on UNICEF's website with links and signposting across its evidence infrastructure. The second step will be placing it where evidence is sought; by submitting the report to organisations that collate systematic reviews and networks of evidence users. In addition to sharing the review findings, there will be value in encouraging conversations about how the conceptual framework could contribute to a shared taxonomy for collating evidence about responses to epidemics and their impacts relevant to children and young people. Applying a shared taxonomy to this and other similar reports could make evidence more readily available in databases and evidence maps and enable more effective learning to inform preparedness and response strategies going forward.

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APPENDIX 1: STUDIES INCLUDED IN THE REVIEW AND KEY DATA EXTRACTED

Author	Research design	Countries covered	Pandemic or epidemic	Outcomes explored	Infection control policy explored	Vulnerable groups explored
(HIV/AIDS Alliance and Tata Institute of Social Science, 2006)	Research design <ul style="list-style-type: none"> Observational <i>Cross-sectional qualitative</i>	Country/countries <ul style="list-style-type: none"> India 	Pandemic/epidemic <ul style="list-style-type: none"> HIV/AIDS 	Child protection <ul style="list-style-type: none"> Stigmatization, discrimination and xenophobia Education outcomes Child labour Unpaid care and domestic work Orphanhood Violence <ul style="list-style-type: none"> Sexual violence and exploitation 	Control/containment policy <ul style="list-style-type: none"> None 	Vulnerable group <ul style="list-style-type: none"> Carers/child-headed households Children in institutional care Orphans Slum dwellers/high density urban areas
(Aderomilehin et al., 2016)	Research design <ul style="list-style-type: none"> Systematic review 	Country/countries <i>Sub-Saharan Africa</i>	Pandemic/epidemic <ul style="list-style-type: none"> HIV/AIDS 	Child protection <ul style="list-style-type: none"> Stigmatization, discrimination and xenophobia 	Control/containment policy <ul style="list-style-type: none"> None 	Vulnerable group <ul style="list-style-type: none"> Orphans
(Bailey et al., 2017)	Research design <ul style="list-style-type: none"> Non-systematic review 	Country/countries <i>Caribbean, Central America and South America (CCASA), Eastern Europe (EE) and Asia and Pacific (AP) regions</i>	Pandemic/epidemic <ul style="list-style-type: none"> HIV/AIDS 	Child protection <ul style="list-style-type: none"> Stigmatization, discrimination and xenophobia 	Control/containment policy <ul style="list-style-type: none"> None 	Vulnerable group <ul style="list-style-type: none"> Orphans
(Bandiera et al., 2019)	Research design <ul style="list-style-type: none"> Quasi-experimental 	Country/countries <ul style="list-style-type: none"> Sierra Leone 	Pandemic/epidemic <ul style="list-style-type: none"> Ebola 	Child protection <ul style="list-style-type: none"> Education outcomes Child labour Unpaid care and domestic work Harmful practices (including child marriage and FGM) Teenage pregnancy Violence <ul style="list-style-type: none"> Intimate partner violence 	Control/containment policy <ul style="list-style-type: none"> None 	Vulnerable group <ul style="list-style-type: none"> None identified
(Brooks et al., 2020)	Research design <ul style="list-style-type: none"> Non-systematic review 	Country/countries <ul style="list-style-type: none"> Global 	Pandemic/epidemic <ul style="list-style-type: none"> COVID-19 Ebola H1N1/swine flu MERS SARS 	Child protection <ul style="list-style-type: none"> Stigmatization, discrimination and xenophobia Violence <ul style="list-style-type: none"> Self-directed violence 	Control/containment policy <ul style="list-style-type: none"> Quarantine/isolation 	Vulnerable group <ul style="list-style-type: none"> None identified

(Chi and Li, 2013)	Research design ■ Systematic review	Country/countries ■ Global	Pandemic/epidemic ■ HIV/AIDS	Child protection ■ Stigmatization, discrimination and xenophobia ■ Child labour ■ Orphanhood Violence ■ Self-directed violence	Control/containment policy ■ None	Vulnerable group ■ Orphans
(Risso-Gill and Finnegan, 2015)	Research design ■ Observational <i>Cross-sectional qualitative</i>	Country/countries ■ Sierra Leone	Pandemic/epidemic ■ Ebola	Child protection ■ Education outcomes ■ Child labour ■ Unpaid care and domestic work ■ Orphanhood ■ Harmful practices (including child marriage and FGM) ■ Teenage pregnancy Violence ■ Sexual violence and exploitation ■ Child abuse and maltreatment	Control/containment policy ■ Quarantine/isolation ■ Social or physical distancing ■ School closure	Vulnerable group ■ Carers/child headed households
(Dahourou et al., 2017)	Research design ■ Non-systematic review	Country/countries ■ <i>Sub-Saharan Africa</i>	Pandemic/epidemic ■ HIV/AIDS	Child protection ■ Stigmatization, discrimination and xenophobia	Control/containment policy ■ None	Vulnerable group ■ None identified
(Denis-Ramirez et al., 2017)	Research design ■ Observational <i>Cross sectional qualitative</i>	Country/countries ■ Sierra Leone	Pandemic/epidemic ■ Ebola	Child protection ■ Stigmatization, discrimination and xenophobia ■ Family separation and abandonment	Control/containment policy ■ Quarantine/isolation ■ Social or physical distancing	Vulnerable group ■ None identified
(Denney et al., 2015)	Research design ■ Observational [Info] <i>Cross-sectional qualitative</i>	Country/countries ■ Sierra Leone	Pandemic/epidemic ■ Ebola	Child protection ■ Teenage pregnancy Violence ■ Sexual violence and exploitation	Control/containment policy ■ Quarantine/isolation ■ School closure	Vulnerable group ■ None identified
(Abdul-Razak et al., 2019)	Research design ■ Systematic review	Country/countries ■ <i>Sub-Saharan Africa</i>	Pandemic/epidemic ■ HIV/AIDS	Child protection ■ Stigmatization, discrimination and xenophobia	Control/containment policy ■ None	Vulnerable group ■ None identified

(Cepeda, 2017)	Research design <ul style="list-style-type: none"> Observational <i>Cross sectional qualitative</i>	Country/countries <ul style="list-style-type: none"> Dominican Republic 	Pandemic/epidemic <ul style="list-style-type: none"> Zika 	Child protection <ul style="list-style-type: none"> Education outcomes Family separation and abandonment Violence <ul style="list-style-type: none"> Sexual violence and exploitation 	Control/containment policy <ul style="list-style-type: none"> None 	Vulnerable group <ul style="list-style-type: none"> None identified
(Korkoyah and Wreh, 2015)	Research design <ul style="list-style-type: none"> Observational <i>Cross-sectional mixed methods</i>	Country/countries <ul style="list-style-type: none"> Liberia 	Pandemic/epidemic <ul style="list-style-type: none"> Ebola 	Child protection <ul style="list-style-type: none"> Stigmatization, discrimination and xenophobia Orphanhood Harmful practices (including child marriage and FGM) Violence <ul style="list-style-type: none"> Intimate partner violence Sexual violence and exploitation Child abuse and maltreatment Violence from security actors 	Control/containment policy <ul style="list-style-type: none"> None 	Vulnerable group <ul style="list-style-type: none"> Children with disabilities Slum dwellers/high density urban areas
(Rothe, 2015)	Research design <ul style="list-style-type: none"> Observational <i>Cross sectional qualitative</i>	Country/countries <ul style="list-style-type: none"> Liberia Sierra Leone 	Pandemic/epidemic <ul style="list-style-type: none"> Ebola 	Child protection <ul style="list-style-type: none"> Stigmatization, discrimination and xenophobia Education outcomes Child labour Orphanhood Harmful practices (including child marriage and FGM) Teenage pregnancy Family separation and abandonment Violence <ul style="list-style-type: none"> Sexual violence and exploitation Gang/crime involvement 	Control/containment policy <ul style="list-style-type: none"> Quarantine/isolation Movement restrictions Closure of non-essential business School closure 	Vulnerable group <ul style="list-style-type: none"> Orphans
(Elston et al., 2016)	Research design <ul style="list-style-type: none"> Observational <i>Longitudinal</i>	Country/countries <ul style="list-style-type: none"> Sierra Leone 	Pandemic/epidemic <ul style="list-style-type: none"> Ebola 	Child protection <ul style="list-style-type: none"> Teenage pregnancy 	Control/containment policy <ul style="list-style-type: none"> None Closure of non-essential business 	Vulnerable group <ul style="list-style-type: none"> None identified

(Elston et al., 2017)	Research design ■ Non-systematic review	Country/countries ■ Liberia ■ Sierra Leone ■ Guinea	Pandemic/epidemic ■ Ebola	Child protection ■ Stigmatization, discrimination and xenophobia ■ Education outcomes ■ Orphanhood ■ Teenage pregnancy Violence ■ Intimate partner violence ■ Sexual violence and exploitation ■ Gang/crime involvement	Control/containment policy ■ Quarantine/isolation ■ Movement restrictions ■ School closure	Vulnerable group ■ Carers/child-headed households ■ Orphans
(Evans and Popova, 2015)	Research design ■ Observational <i>Cross-sectional quantitative - statistical modeling</i>	Country/countries ■ Liberia ■ Sierra Leone ■ Guinea	Pandemic/epidemic ■ Ebola	Child protection ■ Orphanhood		Vulnerable group ■ Orphans
(Goldberg and Short, 2016)	Research design ■ Systematic review	Country/countries ■ <i>Sub-Saharan Africa</i>	Pandemic/epidemic ■ HIV/AIDS	Child protection ■ Stigmatization, discrimination and xenophobia ■ Education outcomes ■ Unpaid care and domestic work Violence ■ Sexual violence and exploitation ■ Child abuse and maltreatment	Control/containment policy ■ None	Vulnerable group ■ None identified
(Guo et al., 2012)	Research design ■ Non-systematic review	Country/countries ■ Global	Pandemic/epidemic ■ HIV/AIDS	Child protection ■ Education outcomes		Vulnerable group ■ Indigenous ethnic minority ■ Orphans
(Haines et al., 2019)	Research design ■ Systematic review	Country/countries ■ <i>Southern Africa</i>	Pandemic/epidemic ■ HIV/AIDS	Child protection ■ Stigmatization, discrimination and xenophobia Violence ■ Sexual violence and exploitation		Vulnerable group ■ Orphans
(Heeren, 2011)	Research design ■ Non-systematic review	Country/countries ■ <i>Sub-Saharan Africa</i>	Pandemic/epidemic ■ HIV/AIDS	Child protection ■ Stigmatization, discrimination and xenophobia	Control/containment policy ■ None	Vulnerable group ■ None identified

(Fraser, 2020)	Research design <ul style="list-style-type: none"> ■ Non-systematic review 	Country/countries <ul style="list-style-type: none"> ■ Global 	Pandemic/epidemic <ul style="list-style-type: none"> ■ COVID-19 ■ Ebola ■ Zika 	Child protection <ul style="list-style-type: none"> ■ Stigmatization, discrimination and xenophobia ■ Orphanhood ■ Harmful practices (including child marriage and FGM) ■ Teenage pregnancy <p>Violence</p> <ul style="list-style-type: none"> ■ Sexual violence and exploitation ■ Child abuse and maltreatment ■ Violence from security actors 	Control/containment policy <ul style="list-style-type: none"> ■ Quarantine/isolation ■ School closure 	Vulnerable group <ul style="list-style-type: none"> ■ Refugees, Internally displaced persons and/or Children on the move.
(IRC, 2019)	Research design <ul style="list-style-type: none"> ■ Observational <p><i>Cross-sectional qualitative</i></p>	Country/countries <ul style="list-style-type: none"> ■ Democratic Republic of Congo (DRC) 	Pandemic/epidemic <ul style="list-style-type: none"> ■ Ebola 	Child protection <ul style="list-style-type: none"> ■ Child labour ■ Unpaid care and domestic work <p>Violence</p> <ul style="list-style-type: none"> ■ Intimate partner violence ■ Sexual violence and exploitation 	Control/containment policy <ul style="list-style-type: none"> ■ None 	Vulnerable group <ul style="list-style-type: none"> ■ None identified
(Jones et al., 2019)	Research design <ul style="list-style-type: none"> ■ Systematic review 	Country/countries <ul style="list-style-type: none"> ■ Global 	Pandemic/epidemic <ul style="list-style-type: none"> ■ HIV/AIDS 	Child protection <ul style="list-style-type: none"> ■ Stigmatization, discrimination and xenophobia 	Control/containment policy <ul style="list-style-type: none"> ■ None 	Vulnerable group <ul style="list-style-type: none"> ■ None identified
(Kelly et al., 2019)	Research design <ul style="list-style-type: none"> ■ Observational <p><i>Longitudinal cohort study</i></p>	Country/countries <ul style="list-style-type: none"> ■ Liberia 	Pandemic/epidemic <ul style="list-style-type: none"> ■ Ebola 	Child protection <ul style="list-style-type: none"> ■ Stigmatization, discrimination and xenophobia 	Control/containment policy <ul style="list-style-type: none"> ■ None 	Vulnerable group <ul style="list-style-type: none"> ■ None identified
(Kimera et al., 2019)	Research design <ul style="list-style-type: none"> ■ Systematic review 	Country/countries <ul style="list-style-type: none"> ■ Kenya ■ Rwanda ■ Tanzania ■ Uganda 	Pandemic/epidemic <ul style="list-style-type: none"> ■ HIV/AIDS 	Child protection <ul style="list-style-type: none"> ■ Stigmatization, discrimination and xenophobia ■ Education outcomes <p>Violence</p> <ul style="list-style-type: none"> ■ Child abuse and maltreatment 	Control/containment policy <ul style="list-style-type: none"> ■ None 	Vulnerable group <ul style="list-style-type: none"> ■ None identified

(Kostelny et al., 2018)	Research design <ul style="list-style-type: none"> Observational <i>Cross-sectional - Ethnographic</i>	Country/countries <ul style="list-style-type: none"> Sierra Leone 	Pandemic/epidemic <ul style="list-style-type: none"> Ebola 	Child protection <ul style="list-style-type: none"> Education outcomes Harmful practices (including child marriage and FGM) Teenage pregnancy Violence <ul style="list-style-type: none"> Sexual violence and exploitation Child abuse and maltreatment 	Control/containment policy <ul style="list-style-type: none"> Quarantine/ isolation Social or physical distancing Movement restrictions 	Vulnerable group <ul style="list-style-type: none"> None identified
(Krauss et al., 2016)	Research design <ul style="list-style-type: none"> Systematic review Review 	Country/countries <ul style="list-style-type: none"> Global 	Pandemic/epidemic <ul style="list-style-type: none"> HIV/AIDS 	Child protection <ul style="list-style-type: none"> Stigmatization, discrimination and xenophobia 	Control/containment policy <ul style="list-style-type: none"> None 	Vulnerable group <ul style="list-style-type: none"> None identified
(Lalor, 2004)	Research design <ul style="list-style-type: none"> Non-systematic review 	Country/countries <ul style="list-style-type: none"> <i>Sub-Saharan Africa</i> 	Pandemic/epidemic <ul style="list-style-type: none"> HIV/AIDS 	Violence <ul style="list-style-type: none"> Sexual violence and exploitation Child abuse and maltreatment 	Control/containment policy <ul style="list-style-type: none"> None 	Vulnerable group <ul style="list-style-type: none"> None identified
(Lee et al., 2005)	Research design <ul style="list-style-type: none"> Observational <i>Cross-sectional mixed method</i>	Country/countries <ul style="list-style-type: none"> Hong Kong 	Pandemic/epidemic <ul style="list-style-type: none"> SARS 	Child protection <ul style="list-style-type: none"> Stigmatization, discrimination and xenophobia 	Control/containment policy <ul style="list-style-type: none"> Quarantine/ isolation 	Vulnerable group <ul style="list-style-type: none"> None identified
(Mason and Sultzman, 2019)	Research design <ul style="list-style-type: none"> Non-systematic review 	Country/countries <ul style="list-style-type: none"> China Rwanda Scotland South Africa USA 	Pandemic/epidemic <ul style="list-style-type: none"> HIV/AIDS 	Child protection <ul style="list-style-type: none"> Stigmatization, discrimination and xenophobia Orphanhood 	Control/containment policy <ul style="list-style-type: none"> None 	Vulnerable group <ul style="list-style-type: none"> Carers/child-headed households Orphans Street connected children
(McAteer et al., 2016)	Research design <ul style="list-style-type: none"> Systematic review 	Country/countries <ul style="list-style-type: none"> Global 	Pandemic/epidemic <ul style="list-style-type: none"> HIV/AIDS 	Child protection <ul style="list-style-type: none"> Stigmatization, discrimination and xenophobia 	Control/containment policy <ul style="list-style-type: none"> Social or physical distancing 	Vulnerable group <ul style="list-style-type: none"> Orphans
(Menzel, 2019)	Research design <ul style="list-style-type: none"> Observational <i>Cross-sectional - qualitative participant observations.</i> <ul style="list-style-type: none"> Single stud 	Country/countries <ul style="list-style-type: none"> Sierra Leone 	Pandemic/epidemic <ul style="list-style-type: none"> Ebola 	Child protection <ul style="list-style-type: none"> Teenage pregnancy Violence <ul style="list-style-type: none"> Sexual violence and exploitation 	Control/containment policy <ul style="list-style-type: none"> Quarantine/ isolation 	Vulnerable group <ul style="list-style-type: none"> None identified

(Mutambo et al., 2019)	Research design ■ Non-systematic review	Country/countries ■ <i>Sub-Saharan Africa</i>	Pandemic/epidemic ■ HIV/AIDS	Child protection ■ Stigmatization, discrimination and xenophobia	Control/containment policy ■ None	Vulnerable group ■ None identified
(Negin et al., 2015)	Research design ■ Non-systematic review	Country/countries ■ Australia ■ Canada ■ New Zealand ■ USA	Pandemic/epidemic ■ HIV/AIDS	Child protection ■ Stigmatization, discrimination and xenophobia Violence ■ Sexual violence and exploitation ■ Child abuse and maltreatment	Control/containment policy ■ None	Vulnerable group ■ Indigenous ethnic minority
(O'Brien and Tolosa, 2016)	Research design ■ Non-systematic review	Country/countries ■ Liberia ■ Sierra Leone ■ Guinea	Pandemic/epidemic ■ Ebola	Child protection ■ Stigmatization, discrimination and xenophobia ■ Harmful practices (including child marriage and FGM)	Control/containment policy ■ None	Vulnerable group ■ None identified
(Overholt et al., 2018)	Research design ■ Observational <i>Longitudinal cohort</i>	Country/countries ■ Liberia	Pandemic/epidemic ■ Ebola	Child protection ■ Stigmatization, discrimination and xenophobia	Control/containment policy ■ None	Vulnerable group ■ None identified
(Peterman et al., 2020)	Research design ■ Non-systematic review	Country/countries ■ Global	Pandemic/epidemic ■ Ebola ■ H1N1/swine flu ■ HIV/AIDS ■ Zika	Child protection ■ Stigmatization, discrimination and xenophobia ■ Education outcomes ■ Child labour ■ Orphanhood ■ Harmful practices (including child marriage and FGM) ■ Teenage pregnancy Violence ■ Intimate partner violence ■ Sexual violence and exploitation ■ Child abuse and maltreatment ■ Self-directed violence	Control/containment policy ■ Quarantine/isolation. ■ Movement restrictions ■ School closure	Vulnerable group ■ Orphans
(Pellecchia et al., 2015)	Research design ■ Observational <i>Cross sectional qualitative - Ethnography</i>	Country/countries ■ Liberia	Pandemic/epidemic ■ Ebola	Child protection ■ Stigmatization, discrimination and xenophobia	Control/containment policy ■ Quarantine/isolation ■ Movement restrictions	Vulnerable group ■ Indigenous ethnic minority

(Qiao et al., 2013)	Research design <ul style="list-style-type: none"> ■ Systematic review 	Country/countries <ul style="list-style-type: none"> ■ Global 	Pandemic/epidemic <ul style="list-style-type: none"> ■ HIV/AIDS 	Child protection <ul style="list-style-type: none"> ■ Stigmatization, discrimination and xenophobia ■ Education outcomes ■ Orphanhood 	Control/containment policy <ul style="list-style-type: none"> ■ None 	Vulnerable group <ul style="list-style-type: none"> ■ Orphans
(UNFPA, 2017)	Research design <ul style="list-style-type: none"> ■ Observational <i>Cross-sectional quantitative survey</i>	Country/countries <ul style="list-style-type: none"> ■ Sierra Leone 	Pandemic/epidemic <ul style="list-style-type: none"> ■ Ebola 	Child protection <ul style="list-style-type: none"> ■ Education outcomes ■ Teenage pregnancy Violence <ul style="list-style-type: none"> ■ Intimate partner violence 	Control/containment policy <ul style="list-style-type: none"> ■ None 	
(Samuelson et al., 2012)	Research design <ul style="list-style-type: none"> ■ Non-systematic review 	Country/countries <ul style="list-style-type: none"> ■ Burkina Faso ■ Ghana ■ Ivory Coast ■ Mali ■ Senegal ■ Guinea ■ Togo ■ Benin 	Pandemic/epidemic <ul style="list-style-type: none"> ■ HIV/AIDS 	Child protection <ul style="list-style-type: none"> ■ Stigmatization, discrimination and xenophobia ■ Teenage pregnancy 	Control/containment policy <ul style="list-style-type: none"> ■ None 	Vulnerable group <ul style="list-style-type: none"> ■ None identified
(Sherr et al., 2017)	Research design <ul style="list-style-type: none"> ■ Systematic review 	Country/countries <ul style="list-style-type: none"> ■ Global 	Pandemic/epidemic <ul style="list-style-type: none"> ■ Ebola ■ HIV/AIDS 	Child protection <ul style="list-style-type: none"> ■ Stigmatization, discrimination and xenophobia Violence <ul style="list-style-type: none"> ■ Sexual violence and exploitation ■ Child abuse and maltreatment ■ Self-directed violence 	Control/containment policy <ul style="list-style-type: none"> ■ None 	Vulnerable group <ul style="list-style-type: none"> ■ Orphans
(Ssewanyana Derrick et al., 2018)	Research design <ul style="list-style-type: none"> ■ Systematic review 	Country/countries <ul style="list-style-type: none"> ■ Nigeria ■ Rwanda ■ South Africa ■ Tanzania ■ Uganda ■ Zimbabwe 	Pandemic/epidemic <ul style="list-style-type: none"> ■ HIV/AIDS 	Violence <ul style="list-style-type: none"> ■ Sexual violence and exploitation 	Control/containment policy <ul style="list-style-type: none"> ■ None 	Vulnerable group <ul style="list-style-type: none"> ■ None identified

(UN Women et al., 2014)	Research design <ul style="list-style-type: none"> Observational <i>[Info] Cross-sectional mixed method</i>	Country/countries <ul style="list-style-type: none"> Sierra Leone 	Pandemic/epidemic <ul style="list-style-type: none"> Ebola 	Child protection <ul style="list-style-type: none"> Stigmatization, discrimination and xenophobia Education outcomes Orphanhood Harmful practices (including child marriage and FGM) Teenage pregnancy Violence <ul style="list-style-type: none"> Intimate partner violence Sexual violence and exploitation Child abuse and maltreatment Violence from security actors 	Control/containment policy <ul style="list-style-type: none"> Quarantine/isolation Movement restrictions 	Vulnerable group <ul style="list-style-type: none"> Carers/child-headed households Orphans
(UNDP and Irish Aid, 2015)	Research design <ul style="list-style-type: none"> Observational <i>Cross-sectional qualitative</i>	Country/countries <ul style="list-style-type: none"> Sierra Leone 	Pandemic/epidemic <ul style="list-style-type: none"> Ebola 	Child protection <ul style="list-style-type: none"> Teenage pregnancy Family separation and abandonment Violence <ul style="list-style-type: none"> Intimate partner violence Sexual violence and exploitation 	Control/containment policy <ul style="list-style-type: none"> Quarantine/isolation Movement restrictions. School closure 	Vulnerable group <ul style="list-style-type: none"> None identified
(UNFPA, 2017)	Research design <ul style="list-style-type: none"> Observational <i>Modelling and projections</i>	Country/countries <ul style="list-style-type: none"> Global 	Pandemic/epidemic <ul style="list-style-type: none"> COVID-19 	Child protection <ul style="list-style-type: none"> Harmful practices (including child marriage and FGM) Violence <ul style="list-style-type: none"> Intimate partner violence 	Control/containment policy <ul style="list-style-type: none"> Quarantine/isolation 	Vulnerable group <ul style="list-style-type: none"> None identified
(UNICEF, 2016)	Research design <ul style="list-style-type: none"> Observational <i>Cross-sectional mixed method</i>	Country/countries <ul style="list-style-type: none"> Liberia Sierra Leone Guinea 	Pandemic/epidemic <ul style="list-style-type: none"> Ebola 	Child protection <ul style="list-style-type: none"> Stigmatization, discrimination and xenophobia Education outcomes Child Labor Harmful practices (including child marriage and FGM) Family separation and abandonment 	Control/containment policy <ul style="list-style-type: none"> Quarantine/isolation 	Vulnerable group <ul style="list-style-type: none"> None identified

(Verma and Lata, 2015)	Research design <ul style="list-style-type: none"> ■ Non-systematic review 	Country/countries <ul style="list-style-type: none"> ■ China ■ Kenya ■ South Africa ■ USA ■ Zimbabwe 	Pandemic/epidemic <ul style="list-style-type: none"> ■ HIV/AIDS 	Child protection <ul style="list-style-type: none"> ■ Stigmatization, discrimination and xenophobia 	Control/containment policy <ul style="list-style-type: none"> ■ None 	Vulnerable group <ul style="list-style-type: none"> ■ Orphans
(Whembolua et al., 2019)	Research design <ul style="list-style-type: none"> ■ Systematic review 	Country/countries <ul style="list-style-type: none"> ■ Democratic Republic of Congo 	Pandemic/epidemic <ul style="list-style-type: none"> ■ HIV/AIDS 	Child protection <ul style="list-style-type: none"> ■ Stigmatization, discrimination and xenophobia 	Control/containment policy <ul style="list-style-type: none"> ■ None 	Vulnerable group <ul style="list-style-type: none"> ■ None identified
(Yassin and Erasmus, 2016)	Research design <ul style="list-style-type: none"> ■ Systematic review 	Country/countries <ul style="list-style-type: none"> ■ China ■ South Africa ■ Uganda 	Pandemic/epidemic <ul style="list-style-type: none"> ■ HIV/AIDS 	Child protection <ul style="list-style-type: none"> ■ Stigmatization, discrimination and xenophobia 	Control/containment policy <ul style="list-style-type: none"> ■ None 	Vulnerable group <ul style="list-style-type: none"> ■ Orphans
(Yassin et al., 2018)	Research design <ul style="list-style-type: none"> ■ Systematic review 	Country/countries <ul style="list-style-type: none"> ■ China ■ India ■ South Africa ■ Tanzania ■ Uganda ■ Zimbabwe 	Pandemic/epidemic <ul style="list-style-type: none"> ■ HIV/AIDS 	Child protection <ul style="list-style-type: none"> ■ Stigmatization, discrimination and xenophobia 	Control/containment policy <ul style="list-style-type: none"> ■ None 	Vulnerable group <ul style="list-style-type: none"> ■ Orphans
(Zgambo et al., 2018)	Research design <ul style="list-style-type: none"> ■ Systematic review 	Country/countries <ul style="list-style-type: none"> ■ Botswana ■ Ghana ■ Ivory Coast ■ Kenya ■ Malawi ■ Nigeria ■ South Africa ■ Uganda ■ Zambia ■ Zimbabwe 	Pandemic/epidemic <ul style="list-style-type: none"> ■ HIV/AIDS 	Child protection <ul style="list-style-type: none"> ■ Teenage pregnancy <p>Violence</p> <ul style="list-style-type: none"> ■ Sexual violence and exploitation 	Control/containment policy <ul style="list-style-type: none"> ■ None 	Vulnerable group <ul style="list-style-type: none"> ■ None identified

