Data and Research on Children and Youth in Forced Displacement: Identifying Gaps and Opportunities
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ABSTRACT

Despite the growing scale of forced displacement involving children and youth, our understanding of this phenomenon is severely limited by significant gaps in the availability of both relevant data and data-driven research. According to UNICEF, there is recorded data by age for just 56 percent of the refugee population under UNHCR’s mandate, while IDMC notes that just 14 percent of countries and territories with reported internally displaced populations provide data on age. The following edition of the Joint Data Center Quarterly Digest, jointly produced by UNICEF and the JDC, spotlights several recent data-driven contributions addressing these critical gaps in knowledge. We focus, in particular, on mental health risks faced by forcibly displaced children; evidence from existing evaluations and assessments on ‘what works’; and emerging research into the use of technological innovations for the management of child migration and displacement data. Taken together, this literature selection offers examples of the kinds of credible, actionable evidence which practitioners and policymakers urgently need to better support those who are forcibly displaced around the world, regardless of age.
Introduction

Globally, the number of people being forcefully displaced is increasing.1 Among them is a large number of young people, including at least 31 million children living in forced displacement in their own countries or abroad. States are committed to protect the rights of these children under the United Nations Convention on the Rights of the Child2. Hence, meeting their needs through sustainable, impactful, and age-sensitive solutions – as well as supporting their talents, aspirations, and capabilities in the process – has become a defining challenge for the international community, and a key global policy priority3. Data and analysis, in turn, are critical in ensuring that decision-making and programming to protect, support and empower displaced children and youth are grounded in sound evidence.

Traditional approaches to managing forced displacement, however, remain largely child blind. There are widespread gaps in data and analysis, which in turn limit the impact of evidence-driven practice. The need to better understand how forced displacement affects children’s well-being and security differently than adults has never been greater or more urgent.

Key actions to close the data and knowledge gaps include, but are not limited to:

• how to create effective, sensitive and dignified responses to children’s needs and vulnerabilities;
• building new insights into gender and migration, including the different opportunities, challenges and risks faced by girls and boys from their early years through to adolescence;
• supporting the resilience which adolescent and young people possess even in displacement, and the role family and community play in their decision-making.

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3 Two critical policy frameworks include the Global Compact for Safe, Orderly and Regular Migration (IOM, 2016), and the Global Compact for Refugees (UNHCR, 2018).
Data limitations in child and youth displacement evidence

An evidence agenda to strengthen our understanding of children and youth who are forcibly displaced is urgently needed to address two inter-related issues: first, the availability of timely age-disaggregated data; and second, the quality of data-driven analytical literature produced to date.⁴

Challenges related to the quality and coverage of global migration statistics are even more evident in relation to children and youth: there is a dearth of accessible age-disaggregated displacement data. According to UNICEF, there is recorded data by age for just 56 percent of the refugee population under UNHCR’s mandate, while IDMC notes that just 14 percent of countries and territories with reported internally displaced populations (IDPs) provide data for age.⁵ Moreover, data from different sources are often not comparable, because of the way they are collected, and the use of different measures in assessing displaced children’s well-being, integration, and access to services.

Improved governance of forced displacement data requires a more systematic alignment of definitions, standards, and methods. The international community needs to insist that forced displacement data is disaggregated by type of displacement facing specific populations - including IDPs, refugees, asylum seekers, and other populations of concern. Additional challenges exist across an array of technical domains, including the lack of consistent data to measure progress towards achieving durable solutions around the world.

Such gaps are the result of a range of significant data access and collection challenges. Not only do many countries lack reliable age-disaggregated displacement data, but, where data does exist, it is not always analyzed or made available. Different age categorizations used by countries and agencies makes comparison of data on displaced children and youth difficult, while these same stakeholders also often differ on criteria for recording data.⁶

⁶ For a useful overview of these data challenges, see Mixed Migration Center (2020) ‘Child and Young Migrants’
Taken together, these challenges severely limit our understanding of the specific difficulties – but also of the opportunities – that children and youth face in responding to displacement.

Research limitations in child and youth displacement evidence

Data-driven analysis and research on children and youth’s vulnerabilities and experiences in forced displacement – both operational and academic – are limited. In his contribution on forced displacement to the *Oxford Handbook of Child Migration*, Hart (2014) describes how this small but growing body of literature on children and youth engaged in forced migration has been particularly informed by research drawing from the fields of psychology, ethnography, and social work. This literature has made progress in challenging existing analyses of child and youth migrants framed solely in terms of vulnerability; instead, it moved the discourse towards a more nuanced and comprehensive understanding of their resiliency, actions and social engagement. At the same time, it remains essential to expand this literature, improving our understanding of the challenges and vulnerabilities this population faces, including from a more diverse field of research.

Spotlighting recent contributions in child and youth forced displacement research

The publications summarized in this Digest offer a selection of welcome contributions to this research agenda. Within the range of existing resources, we focus on three emerging literature strands, which we believe are of particular relevance for informing evidence-based interventions around forcibly displaced children.

1. Data-driven evidence and systematic reviews on the public health challenges, in particular *mental health risks, faced by forcibly displaced children*. By focusing on the under-researched area of emotional wellbeing, this literature sheds light on the risks and protective factors for the mental health of children. Hence it provides critical information to support social work and mental health
and psychosocial support interventions (MHPSS) in contexts of displacement and IDPs.⁷

2. Data-driven reviews and assessments on the efficiency of existing interventions and on ‘what works’ to protect children on the move. Increasingly commissioned by UN organizations, NGOs and other humanitarian actors, this line of evaluative research makes it possible to appraise, identify and eventually scale up best practices in action. Moreover, it allows to identify gaps and lessons learned to strengthen policies and interventions.

3. Emerging literature on the use of technological innovations in child migration and displacement data management. New research is focusing on novel ways to address data gaps and more rapidly access evidence for improving the efficacy of existing interventions, particularly in tracking displacement flows, education in humanitarian settings and cross-border coordination.

Evidence on health risks and MHPSS for children in displacement settings

Globally, 41.3 million people were estimated to be internally displaced at the end of 2018,⁸ with approximately 7.4 million IDPs just in Sub-Saharan Africa. Children are a particularly vulnerable group of IDPs because their unique health needs are often not addressed by general health service provision.

An overview of the specific contextual health challenges faced by this population in Sub-Saharan Africa is presented by Salami et. al in BMJ Global Health (2020). Propelled to move by war violence or natural disasters, internally displaced children are shown to be at higher risk of infectious diseases and sexually transmitted infections. Health risks are exacerbated by poor sanitary conditions, poor nutritional status, and sexual exploitation, as well as by fragmented health service delivery in IDP camps.

Experiences of violence stand out as compounding factors in mental health problems that emerge during or after displacement, leading to post-traumatic stress, depression and anxiety disorders. Mental health problems are significantly more elevated in

⁷ ‘Psychosocial’ in this context refers to the broader psychological and social factors that influence an individual’s mental health. See UNICEF (2019) MHPSS Technical Note
⁸ Internal Displacement Monitoring Center. Global report on internal displacement. Geneva; 2019
children displaced by war. For example, a review by Owoaje et al.\textsuperscript{9} indicates that the prevalent mental health problems include post-traumatic stress disorder (reported by 42 percent–54 percent of the respondents in the reviewed publications), and depression (reported by 31 percent–67 percent of the respondents).

Such risks have intensified in the last year with the spread of COVID-19 epidemic, which has heightened vulnerabilities for girls and boys in refugee and displacement settings. As evidenced by Guglielmi et al. (2020) in a mixed-method study on 1,761 Rohingya and Bangladeshi adolescents in Cox’s Bazar, the direct health impacts of COVID-19 and the indirect repercussions of its mitigation strategies have intensified pre-existing risks for adolescents. In particular, the health crisis, coupled with educational and economic disruptions in humanitarian contexts, has been found to impact on educational marginalization, food security and child protection. One year into the COVID-19 pandemic, only 7 percent of boys and 0.8 percent of girls in the sample were still enrolled in schooling, and 58 percent of Rohingya households reported cutting back on food served to children. Across locations, 8 percent of adolescents noted an increase in gender-based violence in the community during the pandemic, with married girls reporting an increase of 22 percent in incidents of gender-based violence.

Despite the importance of mental health in displacement settings, evidence in this area is comparatively limited. A growing body of research, however, highlights the effects of displacement on the mental and emotional status of children in situations of continued danger, and by extension on psychosocial interventions to address trauma and promote resilience.\textsuperscript{10} Much of this literature, largely based on social work practice, has focused on displaced children, particularly unaccompanied or separated, in high-income resettlement countries (Fazel et al., 2012; Hart, 2014). However, research is increasingly examining the psychological status of displaced children also in low- and middle-income settings.

In particular, the Lancet systematic review by Fazel et al. (2012), covering 44 studies with 5,776 displaced children, and the more recent global review by Sharpf et al. (2021), look at risk and protective factors for mental health in children and adolescents

who are forcibly displaced, both in high and low-middle income countries. In both scenarios, direct and indirect exposure to violence emerges as a prominent risk factor for poor mental health. Conversely, overarching protective factors at a family, community and societal level include family cohesion, education and school belonging, peer support, and inclusive integration approaches, such as foster care and vocational training options.11

Assessing interventions to protect forcibly displaced children

Focusing on low- and middle-income countries, the Lancet Global Health paper by Purgato et al. (2018) provides an assessment of the effectiveness of focused psychosocial support interventions in children exposed to traumatic events in humanitarian settings. The analysis draws on a systematic review and meta-analysis of individual participant data from 3,143 children recruited to 11 randomized controlled trials in Sierra Leone, Uganda, Rwanda, Burundi, Democratic Republic of the Congo, Kosovo, Gaza, Nepal, Sri Lanka, and Indonesia. Focused psychosocial support interventions were shown to significantly reduce post-traumatic stress disorder (PTSD) symptoms 0–4 weeks after intervention, and to maintain beneficial effects at follow-up stages. However, such interventions were found to be less effective with younger children, displaced children, and children living in larger households - calling for more research to understand intervention mechanisms and their interaction with contextual vulnerabilities.

Within the existing body of policy and program driven literature, we highlight the comprehensive 'Rapid Evidence Assessment: What Works to Protect Children on the Move' conducted by the Overseas Development Institute (2020). Drawing on 89 studies, the review examines what has worked to strengthen policies and systems, and showcases best practices and services to help protect different groups of children on the move. Multi-sectoral interventions aimed at reducing violence against children and gender-based violence were more consistently reported to produce positive change in 87 percent of the studies reviewed. The report recommends strengthening systems for protecting children on the move through national-level policy and legal

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11 For case studies on integrative approaches and participatory methods in research see also: UNICEF, UNHCR, IOM and ISMU (2019), At a Crossroads, Unaccompanied and separated children in their transition to adulthood in Italy.
reform, investment in community-based child protection mechanisms, and workforce consolidation at a community level.

**Exploring technological innovations in child migration data**

To address the increasing need of up to date, rapid access evidence, recent literature has explored emerging technological innovations for the sourcing and management of child migration data. A paper by Sekara et al. (2019) examines the opportunities and challenges in data access and analysis presented by mobile technology and big data analytics. Campo and Raymond (2019) review the potential of increased digital connectivity, predictive analytics, block-chains, educational and biometric technologies for improving the efficacy and impact of the existing programming approaches.

These technologies and approaches to data present migration-mandated organizations with new opportunities to change models for the management of child and youth migrant responses. Nevertheless, there are risks involved in introducing these new technologies to work with displaced communities. Data protection issues and ethical challenges in data use and dissemination are particularly sensitive in research on irregular and vulnerable migrant populations. Child-appropriate policy and programmatic approaches, as well as improved safeguarding policy guidance, are required for responsibly leveraging technological innovation for child displacement.

**Summary – Expanding the data-driven research agenda on children and youth affected by forced displacement**

Traditional approaches to managing migration and forced displacement remain largely child blind. Better data, in turn, enables and reinforces new opportunities for cutting-edge research in this space. There remains, however, a critical need for more actionable, data-driven evidence on child and youth forced displacement.12

The publications summarized in this Digest represent contributions to this agenda, but there is significant need for deepening it further. We still lack sufficiently detailed,

localized evidence on their migratory journeys that can practically inform responses and models of decision-making. Longitudinal analysis of cross-border returns, reintegration, and protracted displacement is still rare, but essential for understanding the experiences of displaced children and youth. In addition, we still have insufficient research on the roles that households and communities play in influencing displaced child and youth motivations, behaviors and vulnerabilities. And there remains an urgent need to build greater age-disaggregated understanding of other key dimensions of marginality amongst displaced populations, including gender, disability, and labor.

Building a deeper understanding of these areas, and many others related to children and youth engaged in forced displacement, calls for an inter-disciplinary evidence agenda that combines insights from across practices perspectives and methods – ranging from economics to demography to development studies. Data-driven research should be complemented with qualitative knowledge, including the perspectives of displaced children, youth, and their communities themselves. It is also imperative that any data, research, and innovation efforts focusing on this vulnerable population are, at all levels and at all times, guided by rigorous and contextualized ethical standards.13

Taken together, this knowledge agenda can help provide the credible, actionable evidence practitioners and policymakers critically need to best target protection and support for populations who are forcibly displaced around the world, including children.

Approximately half of UNHCR’s ‘people of concern’ (including refugees, asylum-seekers, IDPs and recent returnees) are under the age of 18 years and classified as children. This article examines some of the key features characterizing the study of children and forced migration, in three broad, overlapping areas: (a) mental health and social work; (b) laws designed to protect the rights of displaced children; and (c) ethnography.

Mental health and social work approach

- Research in this area has explored the effects of displacement on the mental and emotional health of children, coping strategies in situations of continued danger, and interventions to promote healing and closure in situations of refuge.

- In the 1990s most mental health research focused on ‘trauma’ with particular emphasis on the development of diagnostic tools to measure Post Traumatic Stress Disorder (PTSD) in war-affected and displaced children, as well as interventions for the resolution of trauma. This research has been

*The JDC Quarterly Digest provides summaries of published research to encourage the exchange of ideas on topics related to forced displacement. The findings, interpretations and conclusions expressed in the literature included in this review are entirely those of their authors and do not necessarily represent the views of the Joint Data Center, UNHCR, the World Bank, the Executive Directors of the World Bank or the governments they represent. For convenience, the Digest contains links to websites operated by third parties. The Joint Data Center and its affiliate organizations do not represent or endorse these sites or the content, services and products they may offer, and do not guarantee the accuracy or reliability of any information, data, opinions, advice or statements provided on these sites.
criticized for an overly simplistic view of children as inevitably traumatized objects of concern, requiring expert assistance.

- More recent mental health research focuses on ‘resilience’, based on the view that children’s response to trauma is mediated by numerous environmental factors, and that children are potentially resilient social actors who may act in meaningful ways to overcome the challenges to their mental and emotional health caused by potentially traumatic experiences.

- Social work scholars have focused on the challenges of resettlement and integration. Much of this work is focused on social work practice with displaced children, particularly unaccompanied or separated children. Research has been conducted largely in high-income resettlement countries, where social work is carried out on an individual or family basis, rather than within clans or villages, and consequently it tends towards the individualistic.

**Legal approach**

- A body of research explores how international, regional and national legal systems relate to children. A particular emphasis has been on how children, their families and officials negotiate legal systems in specific jurisdictions, with a view to influencing policy.

- Research is often conducted in accordance with categories of experience (e.g. trafficked, unaccompanied/separated, internally displaced etc.) or violations common as a cause or characteristic of flight (e.g. sexual violence, forcible recruitment, detention, denial of access to basic services).

- The legal/human rights research conducted in settings of displacement has paid particular attention to the issue of child recruitment, with a passing consideration of the connection between forced migration and involvement with military groups (e.g. fear of abduction causing children to flee). There is a small body of research that has examined the ways in which displacement may render the young vulnerable to recruitment. Studies have also considered whether former child soldiers may be considered ineligible for asylum under Article 1F the 1951 Refugee Convention which stipulates that an application may be refused on the grounds that the individual has committed a war crime.
**Ethnographic approach**

- Ethnographic research tends to locate study of forced migration in historical terms, including documenting the process of displacement and resettlement/encampment to contextualize data emerging from participant-observation and other methods. Study may also explore children’s experience as members of a generational cohort situated differently from parents or grandparents in a setting of long-term encampment. It may also document the life history of displaced children, locating their experiences within a historical context.

- The ethnographic approach has been principally but not exclusively pursued by anthropologists, sociologists, and human geographers, and focuses on displacement not primarily as cause but as context for children’s experiences.

- The possibility is held open that forced migration may present opportunities, for example for the renegotiation of conventional hierarchies built around age, gender, or socio-economic class. Like mental health scholars interested in resilience, ethnographers consider children as social actors who may mediate the negative experience of forced migration for themselves and others. Some studies have sought to explore the experiences that children themselves find distressing rather than assuming that certain events and stressors conventionally associated with displacement will inevitably have the greatest negative effect.

- Themes explored by ethnographers in displacement settings have included children’s political engagement, their education, and their friendships and support networks. Research findings (for example, research showing that children actively engage in confrontational politics) challenge assumptions that commonly inform policy and programming at a global level (for example, that young people have limited agency and limited role as social actors).

- Some ethnographic research explores children’s experience of humanitarian organizations’ assistance, often revealing questionable assumptions that inform humanitarian work. Research on experiences of unaccompanied children negotiating their way around the demands and
assumptions of immigration officials have revealed shortcomings in the asylum system.

The author concludes by arguing that the mental health and social work approach may be encouraged by policymakers and practitioners (e.g. UN agencies and international NGOs) because it conceptualizes the needs of young forced migrants in primarily psycho-emotional terms (enabling these organizations to appear efficacious) while sidestepping those priorities articulated by young people themselves that might be politically sensitive to address. A stronger involvement by scholars undertaking ethnographic and legal research in debates surrounding policy and practice could help to challenge the current status quo, confronting donors and major agencies with their obligations to act in ways that are accountable to displaced populations and to international law.

The health of internally displaced children in sub-Saharan Africa: a scoping review

Bukola Salami, Stella Iwuagwu, Oluwakemi Amodu, Mia Tulli, Chizoma Ndikom, Hayat Gommaa, Tina Lavin, Michael Kariwo

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This paper examines what is known about the health and health concerns of internally displaced children in sub-Saharan Africa. 25 articles met the inclusion criteria for the scoping review, including 16 quantitative, six qualitative and three mixed methods studies. Six articles focused on childhood infections or diseases, including studies in Sudan, Nigeria, South Sudan and northern Uganda. Six articles concerned child growth and nutrition, with studies conducted in Rwanda, Nigeria, Zambia, Kasese district along the Uganda–Congo border, northern Uganda, and Somalia. Eight articles focused on children’s mental health and psychological wellbeing, conducted in Democratic Republic of the Congo, Sierra Leone and northern Uganda. Five articles focused on health services delivery in Sudan and South Sudan.
Main findings:

• **Internally displaced children in sub-Saharan Africa are at an increased risk of infectious diseases.** Several studies found a high rate of infectious diseases among internally displaced children, including parasitic infections that cause diarrhea, cholera, schistosomiasis, malaria and sexually transmitted infections. Poor sanitation and living conditions, insecurity, and sexual exploitation were the main factors that increase the risk of infectious diseases. Some studies found that gender is associated with the likelihood of infection (e.g. higher rates of intestinal parasitic worm infection among displaced boys in Khartoum). The existing research does not examine which contextual factors or interventions may decrease the prevalence of infectious diseases among internally displaced children.

• **Findings on nutritional status of internally displaced children are mixed.** Nutritional status is found to be poorer among internally displaced children in some studies, and poorer among host population children in other studies. Mixed results reflect variations across settings, for example due to differences in the quality of health services provided by aid agencies in IDP camps versus public health services provided to the host population. Access to nutritional foods (rather than lack of education about healthy nutrition) and the extent to which children’s food needs are prioritized over adults’ needs or other household expenditures, are also found to be relevant factors. Internally displaced children under five years are at a higher risk of malnutrition compared with older children, which may be due to maternal early infant-feeding practices. Gender was not a noted factor in these studies. The available studies also suggest that community interventions, including incentive-based nutrition education, do not improve growth and nutrition for internally displaced children.

• **Internally displaced children in sub-Saharan Africa are at an increased risk of mental health problems.** Experiences of violence were a compounding factor in mental health problems that emerged during or after displacement. Mental health problems result from a complex interplay of factors at the individual level (e.g. exposure to violence, child’s age, exposure to sexual abuse), family factors (e.g. low income), community factors (e.g. extent of social support following migration) and social factors
Interventions in classroom settings and group psychotherapy interventions were found to be more beneficial for girls than boys. School-based trauma treatment programs including drama and art therapy techniques were found to improve emotional outcomes in children. Additionally, adverse life experiences after exposure to conflict (such as the death of a family member) can impede the success of interventions.

- Internally displaced children experience challenges with access to health services. Overall, infant care in IDP camps was inadequate. Age-appropriate reproductive healthcare was also lacking in IDP camps, often resulting in unplanned pregnancies.

- Overall, results indicate poorer health outcomes among internally displaced children in the areas of mental health and infectious disease. Several pre-migration factors (e.g. trauma) and post-migration factors (e.g. humanitarian assistance in displacement settings) contribute to the health of internally displaced children, however further research is needed to better understand options for improving the health of internally displaced children.

Exploring the impacts of COVID-19 on Rohingya adolescents in Cox’s Bazar: A mixed-methods study

Silvia Guglielmi, Jennifer Seager, Khadija Mitu, Sarah Baird, Nicola Jones
Journal of Migration and Health, 1-2 (2020)

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There are nearly one million Rohingya refugees living in Cox’s Bazar, Bangladesh, in two registered and 32 unregistered camps, alongside impoverished host communities. This article explores the direct and indirect impacts of COVID-19 containment policies put in place by the Government of Bangladesh, as well as the changing context due to COVID-19, on the lives of Rohingya adolescents.

The analysis is based on data collected from a sample of 692 Rohingya adolescents living in camps and 1,069 Bangladeshi adolescents living in host communities who
were surveyed by telephone from May to June 2020. The sample is derived from a
baseline of 1,071 Rohingya adolescents and 1,209 Bangladeshi adolescents who
were surveyed from March to August 2019 as part of the Cox’s Bazar Panel Survey
(CBPS), which surveyed a representative sample of Rohingya and host community
households within 60 km of refugee camps in Cox’s Bazaar. Additionally, 30 older
adolescents participated in in-depth qualitative telephone interviews. Key informant
interviews were also conducted with staff in the camps to document the containment
measures put in place by government, United Nations agencies and non-
governmental organizations (NGOs) in response to the ongoing pandemic.

Key findings:

• The police strictly enforced stay-at-home orders and mandatory facemasks
during lockdown, including by force. 38 percent of adolescents in camps
stayed at home in the seven days prior to the survey, with girls significantly
more likely to do so than boys (68 percent versus 15 percent). Adolescents
believed that lockdown policies were justified (94 percent of older
adolescents thought that shops should close, and 84 percent thought that
religious gatherings should be forbidden).

• Some adolescents do not have reliable and accessible information
about COVID-19. The most common sources of information on COVID-19
in the camps include: information campaigns (30 percent of adolescents);
friends and neighbors (25 percent); and NGOs (22 percent). With
containment measures in place, Rohingya adolescents have reduced
access to television (which men and boys used to watch in local shops or
tea stalls) and reduced access to social media (due to a prolonged Internet
shutdown). Limited access to information on COVID-19 may contribute to
misinformation about the disease in the camps.

• Self-reported health among Rohingya adolescents has deteriorated.
10 percent of the sample (9 percent Rohingya and 10 percent Bangladeshi)
reported that their health had deteriorated since COVID-19, with boys nearly
twice as likely to report this as girls (12 percent and 7 percent respectively).
Qualitative data suggests that Rohingya adolescents may be reluctant to
visit health centers and hospitals for non-COVID-19 illnesses because they
fear contracting COVID-19 in these settings, with negative consequences for their health.

- **Food insecurity is the most concerning impact of COVID-19 in both Rohingya and host households.** Interviewees reported decreased availability of food, due to reduced rations, reduced income from selling rations, and reduced food purchases. 21 percent of adolescents reported feeling hungrier during the pandemic (23 percent of Bangladeshi and 18 percent of Rohingya adolescents). Girls are more likely to report hunger than boys (22 percent versus 14 percent in the camps, 27 percent versus 18 percent in host communities). 58 percent of Rohingya households reported reducing food served to children. On average, households have experienced at least one of three types of extreme food insecurity in the past four weeks (half of the households reported not having food because of a lack of resources, 17 percent reported that at least one household member went to sleep at night hungry, and 4 percent reported that a household member went a whole day and night without eating anything at all).

- **The decision to define education as a non-essential activity exacerbated inequitable access to education in the camps.** 41 percent of adolescents in the camp were enrolled in some kind of schooling before COVID-19 (53 percent of boys and 29 percent of girls). After COVID-19, 7 percent of boys and less than one percent of girls were enrolled in some kind of schooling. Less than one percent of adolescents enrolled in informal school were able to use the Internet or media to continue learning during the pandemic. School closures have impacted the amount of time adolescents spend on household chores and childcare, both in the camps and in host communities; 93 percent of adolescents reported an increase in time spent on chores and childcare.

- **Rohingya adolescents are also more likely to experience violence from police and military related to the pandemic.** In camps, boys report concerns around escalation of police and military violence when enforcing lockdown measures (38 percent of boys versus 22 percent of girls).

- **The pandemic appears to have increased gender-based violence.** Across locations, 8 percent of adolescents reported an increase in gender-based violence during the pandemic.
The pandemic has substantially reduced opportunities for paid work. Across the Bangladeshi and Rohingya samples, 10 percent of adolescents were engaged in paid work prior to COVID-19, with boys four times more likely to be working than girls (17 percent versus 4 percent). However, paid work has either stopped or decreased for 85 percent of the working sample, with 57 percent of Bangladeshi adolescents reporting not having restarted work compared to 75 percent of Rohingya adolescents. 2 percent of the sample had engaged in new work since the onset of the pandemic.

Adverse impacts of the pandemic compound preexisting marginalization and hamper the future trajectories of Rohingya adolescents. Adverse impacts affecting adolescents need to be addressed to avert the risks of increased child marriage, educational marginalization, poverty and gender discrimination, which have long-lasting, intergenerational impacts. In particular, the increased food insecurity must be addressed urgently, by scaling up food support in the camps. Additionally, in light of fewer educational and training opportunities, it is even more critical that education sector humanitarian partners renew efforts to initiate the Myanmar curriculum pilot for grades 6–9 (paused due to COVID-19), so that Rohingya students can obtain educational certification for their schooling.

Mental health of displaced and refugee children resettled in high-income countries: risk and protective factors

*Mina Fazel, Ruth V Reed, Catherine Panter-Brick, Alan Stein*  
The Lancet, Volume 379 (2012), Pages 266–82  
https://doi.org/10.1016/S0140-6736(11)60051-2

This paper examines the individual, family, community, and societal risk and protective factors for mental health in children and adolescents who are forcibly displaced to high-income countries.

The systematic review covered 44 studies from high-income countries, with 5,776 displaced children and adolescents. They included children from Bosnia, Cambodia, Central America, Chile, Croatia, Cuba, Iraq, the Middle East, Somalia, Sudan,
Vietnam, and the former Yugoslavia, who were either internally displaced or resettled in Australia, Belgium, Canada, Croatia, Denmark, Finland, the Netherlands, Sweden, the UK, and the United States. Mental health outcomes measured in these studies were generally grouped as: (a) internalizing or emotional problems, including depression, anxiety, and PTSD; and (b) externalizing or behavioral problems. A meta-analysis was not undertaken due to clinical and methodological heterogeneity in the research.

The review identifies the following risk and protective factors, at individual, family, community, and societal levels:

**Individual**

- **Exposure to violence is associated with an increased likelihood of mental health disorders in refugee children.** Psychological problems in refugee children can arise from: personal experiences of pre-migration violence; direct and indirect exposure to post-migration traumatic events; and cumulative exposure to traumatic events.
- In about half the studies, the prevalence of depression and internalizing problems was higher in girls than in boys.

**Family**

- **Familial experiences of adverse events affect children’s psychological functioning.** Some types of parental experiences are more strongly associated with children’s mental health problems than are children’s own experiences, particularly if parents have been tortured or are missing.
- **Being unaccompanied on arrival in the host country increases the risk of psychological disorders.** Unaccompanied children who had at least one family member living in the host country had lower scores for internalizing difficulties and PTSD. Accompanied children subsequently separated from their relatives were also at risk of poor mental health. Children whose relatives were in difficult circumstances (e.g. imprisoned), and those who had difficulty contacting their relatives had worse psychological functioning.
- **Children in single-parent households were at greater risk of psychological disorders.** Boys living with both parents had lower rates of psychological symptoms than boys living in other family arrangements. Fewer
changes of family structure were protective for boys. Adolescents living with both parents had lower internalizing scores in mid-adolescence, whereas those in single-parent households reported greater feelings of competence.

- **Family cohesion and perception of high parental support were associated with fewer psychological difficulties in children than were poor family support or cohesion.**
- **Good parental mental health, particularly in mothers, is an important protective factor.**
- **Socioeconomic status might provide some protection, because access to material and social resources could enable an early flight from conflict and reduce cumulative exposure to adversity.**

**Community**

- **Perceptions of acceptance or discrimination in host countries are highly relevant.** Low peer violence and discrimination were positively linked to self-esteem. Boys were more likely to report discrimination than girls, and this difference was predictive of poorer psychological functioning.
- **High perceived peer support was associated with improved psychological functioning.**
- **Living and socializing alongside other people of the same ethnic origin seems to provide protection from psychological illness, particularly while in foster care.**
- **A perceived sense of safety at school has been associated with low risk of PTSD, and an increased sense of school belonging was shown to protect against depression and anxiety.** This sense of belonging is important because of the potential for interventions to improve school learning and social environments.

**Society**

- **Frequent changes of residence in a host country were predictive of poor mental health in children and adolescents in some studies.**

In their conclusion, the authors note that cumulative adversities usually worsen health outcomes, exerting more powerful effects than any factor alone. **The most harmful**
factor was exposure to violence—whether experienced personally, witnessed, or feared—and the loss of family support by death or violence. The authors emphasize that post-migration factors provide opportunities for high-income countries to intervene directly to achieve improved outcomes for refugee children. At the same time, the possibility of intervention by governments and non-governmental organizations in high-income countries to keep negative exposures to a minimum in countries of origin and countries of transit should not be neglected.

A systematic review of socio-ecological factors contributing to risk and protection of the mental health of refugee children and adolescents

Florian Scharpf, Elisa Kaltenbach, Angela Nickerson, Tobias Hecker
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Child development can be viewed as a dynamic process arising from complex interactions between different levels of the ‘social ecology’ (individual, family, school, community, society). This socio-ecological framework can help conceptualize the stressful experiences faced by refugee children, as well as the protective resources they may draw on.

This systematic review investigates the factors contributing to the mental health of refugee children and adolescents from a socio-ecological perspective. The review covers studies in both high-income countries (HIC) and low- and middle-income countries (LMIC). Of 63 selected studies, 41 were conducted in HIC and 22 were conducted in LMIC. Refugee children came from 53 countries in: Africa (21 countries), Asia (17), Middle and South America (10), and Eastern Europe (5). The most frequent countries of origin were Syria, Iraq, Afghanistan, Iran, Burma, Somalia, South Sudan, and Eritrea. 15 studies included unaccompanied refugee minors.

The review identifies the following factors across different socio-ecological levels (individual, family, community, society/culture) and stages of the refugee experience (pre-, peri- and post-migration):

*Individual*
• **Cumulative exposure to traumatic events prior to migration was related to increased mental health problems** (PTSD, depression, anxiety, and externalizing problems). Traumatic events involving severe interpersonal violence and family members as victims were associated with worse mental health outcomes. In the case of unaccompanied refugee minors, pre-migration trauma continued to impact mental health years after arrival in the host country.

• **Girls were at a higher risk of internalizing problems and PTSD, while boys were at an increased risk of externalizing problems.**

• **Education is pivotal for the wellbeing and development of conflict-affected children.** A longer period of schooling prior to arrival in the host country was a protective factor associated with fewer PTSD symptoms and fewer emotional and behavioral problems. Additionally, better school performance (both self-perceived or parent reported) is a protective factor associated with higher psychological wellbeing.

• **An increased duration of stay in camp settings was associated with exacerbated mental health problems.**

• **Previous symptoms of depression and anxiety are a risk factor for the development of later PTSD symptoms.**

• **Avoidant coping strategies (i.e. avoiding engagement with problems and distressing emotions through behavioral and cognitive efforts) is associated with PTSD and depression.**

• **An individual’s resilience (defined as an ability to bounce back from stress, or a set of interpersonal and intrapersonal strengths) is a protective factor that leads to higher levels of wellbeing.**

*Family*

• **Loss of a parent or separation from immediate family members is a risk factor for psychological disorders, while the presence of at least one biological parent is a protective factor.** In two studies in LMIC, adolescents who had lost one or both parents were more likely to have PTSD and higher levels of internalizing problems. Previous and current separation from immediate family members was associated with a diagnosis of PTSD. Although the integrity of the whole family unit appears to be
crucial, other findings indicate that the presence of at least one biological parent is already protective.

- **Higher socioeconomic status appears to be a protective factor in resource poor settings such as refugee camps.** Post-migration socioeconomic status could be particularly relevant in very poor settings. In resource-poor settings, such as refugee camps, low socioeconomic status may also be an indirect risk factor for children’s wellbeing as it increases their risk to be engaged in child labor, which was associated with higher levels of depression.

- **A link between parents’ own mental health problems and refugee children’s mental health has been found across a variety of cultural and socioeconomic settings.**

- **Negative parenting behaviors and parental abuse are risk factors for mental health problems in refugee children.** Parenting styles perceived as negative (low in emotional warmth and support, harsh, rejecting and controlling) were associated with higher levels of internalizing and externalizing problems. Children and adolescents’ self-reported experiences of abuse by parents were associated with higher levels of mental health problems including PTSD, depression, anxiety, and attention deficit hyperactivity disorders symptoms.

- **Warm parent-child relationship and a more cohesive and supportive family life are protective factors.** Positive parenting (supportive and emotionally warm) was linked to lower levels of emotional and behavioral problems. A more positive (warm and stable) family life was associated with lower levels of anxiety, and higher connectedness with family (perceived understanding, care and respect) predicted lower levels of internalizing problems in some settings. A family environment that encouraged the direct expression of emotions was related to decreased risk for PTSD in some settings.

**Community (evidence almost exclusively from HICs)**

- **Support from mentors and peers, and close relationships with friends are protective factors.** Lower support from mentors and peers increased the risk of PTSD and depression (mentors) as well as anxiety (mentors and
peers) after stressful life events. The importance of having supportive and understanding friends for children’s mental health was underlined by findings from two studies.

- **Schools can play a vital role for the adjustment and wellbeing of resettled refugee children and youth**, as they not only provide opportunities of learning and academic progress, but also constitute the context in which a major part of socialization and acculturation processes take place. Feeling accepted and supported by teachers and fellow students at school was associated with lower levels of aggressive behavior, emotional dysregulation and psychological distress and with higher levels of wellbeing. On the other hand, perceived discrimination by teachers and peers was related to more emotional and behavioral problems in one study and being bullied by peers at school was associated with lower levels of self-esteem and happiness.

**Society and culture (evidence almost exclusively from HICs)**

- **Post-migration detention as a form of placement appears to be especially harmful to children's wellbeing.**
- **An integrative acculturation style, i.e. being engaged both in the host and heritage culture, appears to be associated with refugee youth’s higher wellbeing.** (Acculturation refers to “the dynamic process of psychological and behavioral change that arises from a prolonged confrontation with a new culture’s norms, customs and values”.)
- **Higher exposure to daily post-migration hassles and acculturation stressors is a risk factor for mental health problems.** Higher cumulative exposure to daily hassles in the host country was associated with higher levels of mental health problems. Higher exposure to acculturative stressors in the host country, in particular perceived discrimination, was associated with worse mental health outcomes.
- **Resettlement in a poor region appears to be a risk factor for mental health issues.** Living in proximity to ongoing war and/or in poorly developed regions may perpetuate children’s feelings of insecurity and helplessness.
- **Being placed in living arrangements characterized by lower support, e.g. semi-independent care or reception centers, puts unaccompanied
refugee minors at an increased risk for mental health problems compared to more supportive arrangements, e.g. foster care.

- Acceptance of asylum claims in the host country appears to be protective, marking the end of a period of uncertainty and offering a long-term perspective.

The contributing factors at the family and community levels (e.g. parental mental health problems, maladaptive parenting and peer support) are for the most part in line with established evidence from non-refugee populations. The review also identifies a number of factors that are unique to refugee children and adolescents, at least those resettling in HIC, such as acculturation, discrimination, placement type (for unaccompanied refugee minors) and the asylum decision.

**Focused psychosocial interventions for children in low-resource humanitarian settings: a systematic review and individual participant data meta-analysis**


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Randomized studies on the effectiveness of focused psychosocial support interventions for children exposed to traumatic events in humanitarian settings in low-income countries have generated conflicting results. Evaluations of school-based interventions have found promising improvements in child mental health, including reduced distress symptoms and increased protective factors, such as peer and family support. However, results have been inconsistent across settings, with different results for specific subgroups (by gender, age, or previous trauma exposure) or outcomes.

This paper provides a detailed assessment of the effectiveness of focused psychosocial support interventions in children exposed to traumatic events in humanitarian settings in low-income and middle-income countries (LMICs), and identifies which children are likely to benefit most from these interventions. The
assessment covers interventions for both displaced and non-displaced children, permitting comparisons between these two groups. Interventions tend to involve techniques from evidence-based psychotherapeutic interventions (for example, cognitive behavioral therapy) but do not follow complete standard treatment protocols (for example, trauma-focused cognitive behavioral therapy including exposure-based techniques). They also tend to include additional techniques aimed at establishing strengths, such as creative expressive techniques (drama, dance, music, art, and games), social support-building activities (cooperative games, trust-focused activities, sharing difficulties, and coping methods), or mind–body oriented skills (meditation and breathing exercises).

The analysis is based on a systematic review and meta-analysis of individual participant data (IPD) from 3,143 children recruited to 11 randomized controlled trials of focused psychosocial support interventions in children exposed to traumatic events in LMICs, compared with children on waiting lists (so-called ‘inactive controls’). The studies recruited participants in Africa (two studies in Uganda, one study in Sierra Leone, Rwanda, Burundi, Democratic Republic of the Congo), Kosovo, Gaza, Nepal, Sri Lanka, and Indonesia.

The main outcomes examined were continuous scores in PTSD symptoms, depressive symptoms, and anxiety symptoms assessed with rating scales administered immediately (0–4 weeks) after the intervention. Secondary outcomes included: strengths (coping, hope, and social support); functional impairment; and PTSD symptoms, depressive symptoms, and anxiety symptoms assessed at follow-up (6 weeks after the end of the intervention or later). The meta-analysis of individual participant data groups children by age, gender, displacement status, regions, and household size, in order to identify which children are likely to benefit most from interventions.

Key findings:

- **Focused psychosocial support interventions had a small, beneficial effect on PTSD symptoms** (at 0-4 weeks after intervention). This beneficial effect was reduced but still significant at follow-up at least six weeks after the intervention was completed. There wasn’t any effect
found on depressive and anxiety symptoms at either the end of the intervention or at follow-up.

- **Focused psychosocial support interventions** had a beneficial effect on functional impairment. There were also significant positive effects on hope, coping, and social support (at 0-4 weeks after intervention).

- **Interventions were effective** across gender, age, and displacement status, but were more effective for particular subgroups, i.e. children aged 15–18 years, non-displaced children, and children living in smaller households. There weren’t any different benefit effects by gender. Additionally, no difference between interventions was identified for depressive symptoms and anxiety symptoms at endpoint and follow up for the different groups, except that focused psychosocial support interventions were associated with a significant improvement in anxiety symptoms at endpoint in the subgroup of displaced people.

The authors conclude that focused psychosocial interventions are effective in reducing PTSD and functional impairment, and in increasing hope, coping, and social support. The authors recommend that future studies focus on strengthening interventions for younger children, displaced children, and children living in larger households.

**Rapid evidence assessment: what works to protect children on the move**

Rachel Marcus, Amina Khan, Carmen Leon-Himmelstine and Jenny Rivett
ODI, ILO, IOM, UNHCR, UNICEF Report


This rapid evidence assessment examines interventions that have been effective in ensuring the protection of children on the move, distilling those factors that improve or hamper effectiveness.

The analysis is based on a review of 89 studies of health and education sector interventions with child protection objectives and outcomes. Studies have been carried out in all five continents, but most are concentrated in sub-Saharan Africa (mainly East
and Central Africa) and the Middle East. Around a third of interventions aimed to strengthen systems for protecting children on the move through either national-level policy and legal reform, investment in community-based child protection mechanisms, or workforce strengthening at national or community level. The majority of studies examined direct activities with children and families; these tended to be small-scale interventions of relatively short duration.

Key findings:

• **Interventions aimed at national-level policy or legal reform demonstrated some progress, even if reforms were not complete at the time of evaluation.** Reforms related to the protection of refugee children in emergency situations, anti-trafficking laws and policies, and the protection of child migrants (often child laborers), usually in more stable contexts.

• **Investments in community-based child protection mechanisms were effective in challenging entrenched interests to address child protection violations, provided stakeholders had a sense of ownership and collective responsibility.** These were typically implemented in refugee camps, post-emergency contexts with significant numbers of internally displaced children, and in communities with high levels of child migration and trafficking. Activities were often hampered by lack of operational budgets, lack of remuneration of volunteers, and a perceived lack of follow up after referral, which undermined ongoing commitment in some initiatives.

• **Workforce strengthening initiatives (such as the training of social workers or police) generated improvements in knowledge or skills.** Workforce training was most effective when sustained over time, repeated frequently to take account of staff turnover, and carried out alongside wider system strengthening efforts that enabled staff to put new learning into practice.

• **Interventions aimed at improving children’s knowledge of migration and trafficking risks were largely successful in raising awareness.** Effective initiatives used good quality information sharing and behavior change methods, with multiple information, education and communication
materials, community conversations, and messages delivered by trusted facilitators or public figures. However, interventions were insufficient to deter unsafe migration among adolescents living in poverty or communities with high levels of violence.

- **Cash transfers provided to refugees produced mixed impacts on child protection outcomes**, with some evidence of an association between improvements in living conditions and reduced financial stress, better psychosocial wellbeing for adults and children, and reduced violence against children. There was little evidence that skills training is effective in reducing protection violations.

- **Interventions such as social and behavioral change activities had positive impacts on violence against children.** In projects focused on gender-based violence, effective interventions directly raised awareness of harmful norms, and engaged men as partners in change rather than perpetrators only.

- **Interventions targeting refugee and migrant child workers produced mixed results.** Interventions reporting improvements tended to have a clear focus on combating child labor. Livelihoods components were generally ineffective.

- **Interventions to improve the care of children on the move reported positive results.** The majority of initiatives focused on reunification of unaccompanied and separated children in emergencies, and on alternative care arrangements for child refugees and asylum-seekers in more stable contexts.

- **Mental health and psychosocial support (MHPSS) activities reported positive changes to children’s psychosocial wellbeing.** They included psychosocial interventions such as creative arts, play, group therapy, and counseling, the majority of which were provided through safe/child-friendly spaces in refugee or IDP camps, and/or host communities.

- **Factors that contributed to the effectiveness of interventions,** include: (a) a supportive political environment for policy and system reforms, and a supportive policy environment for community-level initiatives; (b) ownership of initiatives—by politicians and civil servants at the national level who felt a mandate to drive reform, and by community leaders and stakeholders at the
local level; (c) adequate financial resources for implementation; (d) interventions that worked simultaneously at policy, system and local levels, and with multiple actors and agencies; and (e) skilled and committed staff and volunteers, particularly in initiatives working directly with children, where ability to develop rapport was essential.

• **Factors that reduced the effectiveness of interventions** include: (a) overambitious goals for relatively short projects, particularly for initiatives that aimed to change deeply entrenched norms (e.g. around gender-based violence or violence against children) or to develop alternatives to child labor; (b) insufficient cultural grounding; (c) discriminatory gender norms which, particularly insecure settings, limited girls’ access to opportunities such as safe spaces; and (d) challenging socioeconomic contexts, resulting from high levels of unemployment and poverty, or restrictions on refugees’ right to work, which undermined efforts to improve livelihoods as a means of addressing child protection violations.

• **The review also identifies several weaknesses in the research on the effectiveness of interventions.** These included: (a) the lack of a counterfactual—few studies compared impacts between participants and non-participants or reflected on the extent to which results were attributable to project activities; (b) limited quantitative data on the scale of change (effect sizes) and limited discussion of whether changes were statistically significant; (c) limited comparisons of the relative impact of different activities in multi-component initiatives, and of multiple activities compared to single activity initiatives; (d) while findings suggest that livelihood interventions achieved some lasting impact on skills, participants were not always able to generate substantial incomes with those skills; (e) assessments of policy and legal reform typically reported on whether new laws or policies had been developed, or international or inter-departmental coordination strengthened, however they did not examine the impact of these changes on the lives of the children or families; and (f) the lack of insights into emerging innovative practices.

• **Specific gaps in the evidence were also identified** in the following areas: (a) child protection following disaster-related displacement; (b) child protection at borders or in transit; (c) initiatives with returnees; (d)
interventions focused on specific social groups such as children with disabilities, LGBTQI adolescents and young people, and ethnic or religious minorities; (e) statelessness; (f) specific strategies such as cross-border cooperation, approaches to workforce strengthening other than training (e.g. secondments, social work degrees) as well as strategies to address xenophobic discrimination; (g) evidence on what works to reduce specific protection violations; and (h) evidence of children’s active involvement in initiatives.

In their conclusion, the authors make a number of recommendations to improve the evidence base. In addition to further evidence assessments and thematic evaluations to fill key gaps, they recommend embedding impact assessments more systematically in project design, as well as making greater use of agencies’ internal monitoring and case management data (with appropriate anonymization) to understand the impacts of initiatives with a shorter timeframe, complemented with interviews with staff familiar with implementation, challenges and facilitating factors. Finally, they recommend improving the analysis of the sustainability of results (and the factors that have contributed to sustainability), the impacts of policy reforms and system-strengthening activities on the lives of children on the move, and the differential effects of initiatives on different groups of children on the move.

Mobile Phone Data for Children on the Move: Challenges and Opportunities

Vedran Sekara, Elisa Omodei, Laura Healy, Jan Beise, Claus Hansen, Danzhen You, Saskia Blume and Manuel Garcia-Herranz
In Guide to Mobile Data Analytics in Refugee Scenarios: The “Data for Refugees Challenge” Study

Reliable, timely and accessible data are essential for understanding how migration and forced displacement affect children, and for informing policies and programs to meet their needs. This chapter discusses opportunities for using mobile phone data to address gaps in the data on displaced and migrant children. The authors identify three key challenges—data access, data and algorithmic bias, and
operationalization of research—which need to be addressed if mobile phone data is to be successfully used in humanitarian contexts.

Key points:
• Although mobile phone data mainly represents adult populations (since children are less likely to own a mobile phone) it can nevertheless be used in combination with other data sources (e.g. surveys) to understand youth mobility.
• Mobile phone data has been used to estimate population displacements after national disasters, understand collective behavior during emergencies, predict the geographic spread and timing of an epidemic, and estimate short-term mobility (e.g. temporary and circular migration). However, since SIM cards are linked to national providers, human mobility calculated from phone records can only be used only to estimate movements within countries. To study international migration patterns, alternative sources of data have been used, such as geo-tagged tweets and Facebook data. Twitter data has also been used to estimate the relationship between short-term mobility and long-term migration.
• In principle, mobile phone data coupled with tools from network science, algorithms from machine learning, and artificial intelligence techniques have the potential to be used for: mapping socioeconomic vulnerabilities, tracking epidemics in real-time, and establishing causal relationships between factors such as climate change and migration.
• Access to data is one of the key challenges faced by organizations that wish to incorporate data-driven methods into operations. It is difficult to access mobile phone data from telephone operators due to privacy concerns, and lack of data anonymization and aggregation standards. Four different privacy-conscientious models have been proposed that balance privacy concerns and usefulness of data: (1) limited release of a restricted data sample to a small group of trusted researchers; (2) remote access to anonymized data on a virtual environment controlled by the mobile phone operator, which ensures better security but requires mobile phone operators to invest in infrastructure and technical expertise; (3) question and answer model, where data stays within the premises of mobile phone operators but researchers can interact with it by submitting code (questions) to the system, which takes the code, validates and runs it, and returns results through an application interface—this method also
requires substantial investments in infrastructure and systems; and (4) *aggregated data* that involves sharing indicators that are harder to link back to individuals, however this approach requires proper aggregation standards.

- **A further challenge is data representativeness and bias.** Much of the research conducted so far has been undertaken in data-rich populations in high-income countries. Consequently, findings and methodologies might not generalize to vulnerable populations (children, low-income individuals), who tend to be the least represented in datasets that rely on technology usage (because they are less likely to own a phone, and if they do, they have lower usage rates). To address this problem, datasets should be built by accurately selecting representative demographics among mobile phone users (using demographic information provided by users when subscribing, or based on phone usage patterns) and the time window selected to compute mobility should be wide enough to reduce bias. Mobile network coverage is another potential source of bias that needs to be considered.

- **Data challenge initiatives**—in which private sector companies share a curated dataset with the research community—can provide insights into human behavior patterns and provide the opportunity to test mathematical and computational models. Once models have been finalized, their operationalization requires data streams which can be aggregated but need to be updated in near real-time. Models running on real-time data should also learn in real-time, using techniques such as data assimilation. The authors call for: the creation of pipelines to allow joint research to be conducted with a strong focus on the most vulnerable; data explorations and models packaged into open-source modules that can be reused and adapted to different contexts; and implementations that easily integrate with the existing systems already in place.

- **There is a general disconnect between the scientific communities that work with ‘Big Data’ and the humanitarian and development sector.** However, there are a number of areas where technology is already being used to protect forcibly displaced children, and where further inroads could be made. For example: (1) mobile phone data and self-reported data have been used to monitor drivers of migration, which could be expanded to better understand causal relationships, tipping points, and monitoring strategies; (2) phone data can provide detailed population maps that can be used to identify populations with poor access to
services; (3) phone data has been used to analyze the relationship between mobility patterns and social ties; (4) mobile phone data has been applied to categorize social networks, identify communities and understand urban environments in terms of social dynamics and segregation; and (5) a growing body of research within computational social science has been devoted to analyzing complex societal issues, such as polarization, community integration, gender and ethnic stereotypes, as well as fake news; (6) research has demonstrated how network analysis can be applied to design more efficient interventions to reduce conflict in schools, and mobile phone data can be used to study individual communication capacities, behavioral adaptation, and detection of unusual behaviors.

Displaced Children and Emerging Technologies: Save the Children's opportunities for investment and impact

Stuart Campo and Nathaniel Raymond
Save the Children Report, 2019


This report identifies key opportunities and risks for adopting technological innovations in child displacement programming. Several technological trends are creating opportunities for reaching and assisting vulnerable, hard-to-reach populations, including: increased digital connectivity of displaced populations through mobile devices; the growing reliance on data technologies in aid programming aimed at large, mobility-affected populations; and emerging, potentially disruptive new technologies. Technological innovations also pose new ethical dilemmas, and potential threats to the safety and wellbeing of displaced child.

The report includes the discussion of several case studies, which illustrate Save the Children’s progress in: piloting and scaling new technologies in displacement contexts; successfully adapting existing external technologies to Save the Children’s case-management work-flows; and introducing new data science advancements for improved protracted displacement planning. For example:
• The Protection-Related Information Management (Primero) case management system is an open source software application that permits frontline protection and social welfare workers securely collect, store, manage, and share data for protection-related incident monitoring, case management, and family tracing and reunification. By making data handling easier for frontline protection and social welfare workers, it frees up their time for service provision and promoting improved quality of care. It also fosters accountability, helping supervisors monitor and report on the work of their teams, while helping to generate evidence for programming and policy at national, regional and global levels.

• The “Every Child Learning” EdTech initiative has introduced a new app for supporting Syrian refugee and host community child learning opportunities in Jordan. The math learning app, “Space Hero”, integrates learner-centered design approaches, and permits children to accelerate their learning outside of school hours.

• Save the Children’s Migration and Displacement Initiative (MDI)’s has created a predictive analytics model that forecasts the duration and scale of conflict-induced forced displacement. MDI’s predictive displacement tool has been recently tested in multiple countries where Save the Children is currently supporting children and families affected by mass displacements, including Burundi, Ethiopia, South Sudan, and Mali.

The report outlines five technological domains particularly relevant to child displacement programming innovation. These are:

1. **Registration and case management**: including the use of biometrics to manage the identity of displaced individuals and populations, as well as different software platforms for family tracing and reunification;

2. **Digital connectivity**: leveraging growing mobile phone and internet usage to improve reach and delivery of services to displaced populations;

3. **Educational technology (EdTech)**: software and hardware designed for use by children, teachers, parents or facilitators to provide education to hard-to-reach populations, including those that are displaced or on the move;

4. **Predictive analytics**: particularly models drawing from big data for early warning and strategic planning around child displacement; and
5. **Remote sensing**: the use of geographic information systems (GIS), using data from satellites and aircraft, including drones, to monitor mobile populations.

The report outlines a suggested framework for selecting safe, ethical and appropriate technologies within each domain, reflecting core ethical obligations to: (a) ensure that activities are based on the needs of affected populations; (b) maintain minimum standards of organizational competency, capacity, and capability; (c) ensure and encourage the agency of affected populations; (d) identify and minimize adverse effects; (e) promote and protect the dignity of populations by ensuring free and meaningful consent; (f) ensure data privacy and security; (g) strive to reduce future vulnerability and neither degrade nor disrupt local capacity; (h) coordinate, ensure complementarity, and prevent duplication of efforts in designing and implementing activities; and (i) ensure transparency and accountability.

The study then identifies and analyses opportunities and barriers for improving innovation management capacity in migration-mandated organizations, focusing on **Save the Children**. In Save the Children, the authors highlight the need to strengthen centralized innovation coordination capacity across the organization's federated structure, to build capacity in key technological skillsets, and to increase the number of long-term innovation management staff positions.

The report identifies a range of ethical risks posed by digital technologies. These include impediments to the displaced child's right to: (i) access and communicate relevant information during a crisis; (ii) be protected from potential threats and harm resulting directly or indirectly from the use of data; (iii) expect privacy and security of their personal information; (iv) maintain agency over the collection, use and disclosure of personally identifiable information; (v) receive rectification and redress of inaccurate or incomplete personal data. Within this context, the study found that Save the Children does not yet have safeguarding policies and procedures specific to assessing, preventing, and mitigating the new risks, threats, and harms that may come from digital technology.

The report concludes with specific recommendations to improve Save the Children's use of technological innovations for impact in child displacement programming. It also recommends that Save the Children ensure that its child...
safeguarding guidance keeps pace with new technologies it adopts for work in child displacement programming.

Annex A: Overview of Articles


