



EVIDENCE BRIEF 6: DATA, MONITORING AND EVALUATION

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1 INTRODUCTION

1.1 STRENGTH OF EVIDENCE

The literature review showed that there is a serious lack of reliable data on education in emergencies (EiE) in hot conflict, protracted crises, and natural disaster contexts. There is consensus in the literature that better data is critical. In hot conflict contexts, the evidence showed the largest data gaps. The review did not find evidence of an approach to data collection that had been tested successfully across different hot conflict contexts. The review found promising practices related to education monitoring and data systems in various protracted crises contexts. However, these interventions have started in recent years and evidence of their effectiveness or impact is not yet available. Very little evidence was found regarding successfully tracking individual children's educational attainments across borders. Some evidence was found regarding tracking students' achievements as they move in and out of formal and non-formal education. The review found limited evidence specifically pertaining to data and M&E related to natural disaster contexts.

1.2 RESEARCH QUESTION

This evidence brief aims to answer the following research question:

*How to get the right kind of **data** to **design** programmes and **monitor** their impact on beneficiaries and that **tracks individual children's access and attainment and education pathways** as they move in and out of formal and non-formal education and migrate across borders or within countries (e.g. from Lebanon)?*

As part of this brief's introduction it is useful to provide an overview of key statistics¹:

- 1 in 4 of the world's out-of-school children live in crises-affected countries.
- In 35 crisis-affected countries, humanitarian emergencies and protracted crises disrupted the education of 75 million children between the ages of 3 and 18.
- Refugee children are five times more likely to be out of school than non-refugee children.
- Only 50 per cent have access to primary education, compared with a global level of more than 90 per cent.
- 84 per cent of non-refugee adolescents attend lower secondary school, compared to only 22 per cent of refugee adolescents.
- At the higher education level, just one per cent of refugees attend university compared to 34 per cent globally.
- For children who attend school during emergencies, the quality of education can be low, with an average of 70 pupils per teacher, who are often unqualified.
- Girls in conflict-affected settings are 2.5 times more likely to be out of school than boys.

1.3 HOW THE EVIDENCE IS STRUCTURED

The literature review has focused on different themes that are relevant to the research question. These themes include, first, an assessment of the status of various national-level indicators on education in fragile and conflict affected states. Can these be reported on during emergencies, and what are the data limitations? The development and management of an EMIS or comparable national-level data systems is being considered as

¹ (UNICEF, 2017) (UNHCR, 2016)

part of this theme. Data on the impact of conflict on education is also being considered, including data and existing monitoring systems on attacks on education, which may take different forms, ranging from the occupation of school buildings by armed forces to the abduction of children from schools. What does the evidence say about producing education sector statistics during emergencies and how can extended data gaps be avoided? The review will also take into consideration which data sources have informed recent DFID business cases for national education programmes in Lebanon, South Sudan, and DRC.

A second theme is the data that is being collected mainly by humanitarian actors – particularly UNHCR and UNICEF – on refugee and IDP education. What does the evidence say about the use of rapid education or situational assessments for generating data that can inform education programming? What are the limitations of this data?

A third theme is the data that is generated by Monitoring and Evaluation systems managed by programme implementers (INGOs, management consultants, research firms). What does the evidence say about M&E systems that work well in emergency contexts? Is there evidence of innovative use of technology, for example mobile data collection systems, and how effective these are? Is this data publicly accessible? As part of this theme, evidence related to tracking pupils as they move in and out of formal education and are displaced internally or across borders is discussed. This is a particularly challenging task and the literature review only found minimal evidence on systems that have managed this successfully to date.

Data and monitoring and evaluation related to education in the context of natural disasters is discussed separately as a fourth theme.

A cross-cutting theme that will be looked at throughout is the level of disaggregation that is available. Does the data provide insights into gender disparities, urban/rural differences, age, and disability needs of the population? The brief will also provide an overview of relevant conflict databases and research initiatives that are currently ongoing on this topic.

2 KEY FINDINGS FROM THE LITERATURE

A literature review of the availability and use of education data in conflict and emergencies shows that there is a serious lack of reliable data on EiE, whilst there is consensus that better data is critical. Better data is important to understand the scale of the problem, to inform programming, to monitor response

Better data is needed to inform policies, programme design and to monitor progress in improving access to education for the most marginalised. Data is also needed to substantiate global advocacy work for education support as part of humanitarian response. Without complete data, there is a risk that there are 'pockets of forgotten children' in a crisis that are not reached with education or other basic services at all. A wider range of data is also necessary at country and local level to ensure education programming responds to needs, and that levels of human rights violations or other threats against children and attacks on educational infrastructure can be assessed. Data that is available is characterised by incompleteness, lack of accuracy or it may not be available at the right time. For example, access and enrolment data may be available for refugee children, but little data is collected about quality aspects such as their learning achievements and other indicators such as attendance and retention. More data on education quality is important, because poor quality education may result in high drop-out rates. Data on attendance is important because being enrolled is not the same as attending. There may be incentives (i.e. funding) hinging on enrolment and no subsequent concern on attendance which means that learning is not taking place.

The key findings from the literature review are summarised below, including references to source documents in Annex 1.

1. National level educational indicators are rarely available for conflict-affected countries. Where they are available, they may not be inclusive of conflict- or disaster-affected areas within the country². This suggests alternative sources of data are needed for the design and monitoring of programmes in conflict-affected areas.
2. Data on the impact of conflict on education is most meaningful at local units of analysis (school/district level)³. Aggregate data often fails to capture the full impact. This suggests a need for a disaggregate monitoring system as part of an EiE programme design.
3. Data on refugees and IDPs in urban environments is particularly scarce, while UNHCR estimates that over 60 per cent of the world's 19.5 million refugees and 80 per cent of 34 million IDPs live in urban environments⁴. Many of these people are not formally registered as refugees or IDPs. Donors and UN projects typically do not fund work with unregistered refugees unless they are in the formal system. Revising assessment tools to better inform urban programming may need to be prioritised⁵.
4. There is a general lack of data on IDPs' educational pathways and achievements. Monitoring and administration systems often do not classify pupils as IDPs. While this may prevent issues of stigmatisation, it prevents gaining a better understanding of the needs of IDP children that can inform education programming. The Internal Displacement Monitoring Centre has filled this information gap to an extent, but more education data is needed⁶.
5. Humanitarian education needs assessments and other education data collected by UNHCR, UNICEF and programme implementers tend to lack data on education quality, in particular, on learning achievements⁷. Several reports recommend a stronger focus on learning outcomes in the M&E of education in emergencies programmes⁸. Determining and understanding impact on learning outcomes will require more longitudinal or multi-year studies.
6. The lack of standardisation of indicators can prevent meaningful comparison of data between different contexts, an issue applicable to several types of data. For example, there was variation in how UN country offices, responsible for monitoring attacks on education, defined what constitutes such an attack⁹. Another example was the use of different monitoring frameworks with different indicators by programme implementers making comparison of results within the same country difficult¹⁰.
7. Little evidence was found regarding the tracking of individual children's educational attainments across borders. The certification of learning achievements for refugee and IDP children remains a technical and political challenge, and solutions are very context-specific¹¹. The review found some recommendations and e-learning pilots to develop standardised competency-based indicators of learning achievement to overcome this challenge¹².
8. The review found multiple examples of EiE innovations that made use of ICT. Some are developed for the administration of education and designed to capture population movements¹³. Others support learning efforts through cloud-based content that can be accessed from anywhere, for example¹⁴. Since these interventions have been launched within the last three to five years, evidence related to

² (Montjourides, 2013) (Education Policy and Data Center, 2010)

³ (Montjourides, 2013) (Education Policy and Data Center, 2010)

⁴ (UNHCR, 2016)

⁵ (Mohiddin & Smith, 2016) (UNHCR, 2009)

⁶ (Ferris & Winthrop, 2010) (UNESCO, Global Education Monitoring Report 2016, 2016)

⁷ (RAND Corporation, 2016) (Montjourides, 2013)

⁸ (Culbertson & Constant, 2015) (International Rescue Committee, 2017) (UNESCO, Certification Counts, 2009)

⁹ (Kalista, 2015)

¹⁰ (RAND Corporation, 2016) (Norwegian Refugee Council, 2015) (Culbertson & Constant, 2015)

¹¹ (UNESCO, Certification Counts, 2009)

¹² (World Bank, 2016)

¹³ (OpenEMIS, 2017) (World Bank, 2016)

¹⁴ (World Refugee School, 2017)

their effectiveness could not yet be found. There seems to be a lot of potential use for ICTs in education, but human resources and teachers were found to remain crucial to the success of educational projects¹⁵. ICT tools should play a supportive and enabling role and not be the determining factor for the success of a project.

9. The review found limited evidence specifically pertaining to Data and M&E related to natural disasters. Experience from the Pakistan Earthquake response suggest that the M&E challenges outlined above (i.e. lack of standardised monitoring frameworks; lack of quality and learning indicators) also apply to the first response phase of a natural disaster¹⁶. UNESCO's International Institute of Education Planning (IIEP) recommends the inclusion of disaster preparedness plans into education sector planning, based on sector diagnostics that should include data on a countries' vulnerabilities to natural disasters¹⁷. Depending on their capacity, ministries may require technical support to carry out this diagnostic. The review did not find evaluations of this approach. The review found some evidence that disaster risk reduction efforts are most successful when led by national government institutions and mainstreamed in the education system¹⁸.

3 LIMITATIONS OF THE EVIDENCE REVIEWED

The available evidence generally comprises studies, reports and information sources that fall far short of the 'gold standard' of independent, peer-reviewed evaluations and papers. Nevertheless, they contain very useful learning from practitioners in the field. Noteworthy is also a lack of evidence on the effectiveness of technological innovations in monitoring and evaluation approaches to refugee and IDP education, many of which have only recently been introduced. The review generally found more evidence pertaining to data and M&E practices to monitor refugee and IDP children in hot conflict and protracted crises than in natural disasters.

4 CONCLUSION

In conclusion, efforts are needed to enhance the relevance, coverage, quality, timeliness, and comparability of data on EiE. Based on the literature review, the following priorities emerged:

Focus on disaggregate data

The impact of conflict and emergencies on education can get lost in aggregate data. The collection of disaggregate data should be a priority for monitoring systems of education programmes in crises. In particular, more data is needed on the educational needs and achievements of IDP children. Innovative ways of collecting more data on IDPs, without compromising their safety, should be explored.

Focus on quality education indicators

Too little is known about the educational achievements of refugee and IDP children. Monitoring frameworks should be inclusive of learning outcome indicators and track these over time. Attendance, retention and drop-out should be better monitored, with more qualitative studies to understand the reasons for dropping out. Advocacy efforts may be needed for the inclusion of better quality data on education in standard monitoring frameworks of UNHCR and other agencies.

¹⁵ (World Bank, 2016)

¹⁶ (Kirk, 2008)

¹⁷ (MacEwen, Choudhuri, & Bird, 2011)

¹⁸ (Save the Children, 2015)

Focus on standardisation of indicators

Definitions of indicators and methods for collecting data differ widely between implementing partners and other agencies collecting data. It is therefore difficult to compare information between different situations and learn from best practice. The lack of standardised learning indicators complicates pupils' pathways to formal education certification. Donors can lead efforts to standardise data at country level and globally, and promote the sharing of data.

5 ANNEX 1- SUMMARIES OF DOCUMENTS AND BIBLIOGRAPHY

Please note that the titles for the following summaries contain hyper-links to the full-length documents that can be found online. To access a hyper-link, press 'Ctrl' and click on the bolded title.

5.1 THEME 1: GLOBAL INDICATORS, A REPORTING CHALLENGE IN EMERGENCIES AND PROTRACTED CRISES

Education data in conflict-affected countries: The fifth failure? (Montjourides, 2013)

Patrick Montjourides' paper provides the most complete overview of the strengths and weaknesses of available data on education in emergencies at a global level. His paper aims to answer two research questions:

1. How does the international community use data to establish educational needs and design policies for children?
2. What are the limits of this data and the weaknesses of current monitoring and reporting systems with respect to conflict situations, education, and the lives of children?

Montjourides argues that a critical lack of data on the impact of conflict on education and children's lives holds back global progress on Education for All goals. Data collection is not prioritised during an emergency, but evidence shows that data can help to advocate for emergency support and increase global awareness, while at the local level data is crucial for effective planning that can meet the high demand for education provision of affected people. Available data comes from a range of sources, and only in recent years, efforts have started to evaluate the full impact of conflict on education by combining data from different sources, including the impact of conflict on health and livelihoods which indirectly impacts on educational attainment. Montjourides also shows that the establishment of an EMIS, or similar periodic school censuses, have enabled South Sudan, Afghanistan, Sierra Leone, and Liberia to estimate annual progress on education at a national level in an on-going or post-conflict period.

The paper assesses the strength of available data against the dimensions of the IMF-set Global Data Dissemination Standards and finds shortcomings in Coverage, Periodicity and Timeliness of Data and Access by the Public. At a global level, weak data coverage risks under-reporting large numbers of children whose education is affected by conflict because of different definitions used by different institutions on what qualifies as a conflict-affected state. At a national level, data gaps often occur in national surveys for regions affected by armed conflict which can result in 'pockets of forgotten children' within a state. In particular, internally displaced children are largely absent from any international monitoring exercise even though they are often the most deprived of education services. Shortcomings related to the timeliness and accessibility of the data are caused, amongst other factors, by the costliness of undertaking data collection in conflict-affected regions and by the policies of some agencies to not make their data publicly available. High standards of data quality of some international institutions can also slow down the timely availability of data.

Montjourides also identifies quality concerns, in particular, a lack of accuracy and reliability. Available data is assessed against the IMF-set Data Quality Assessment Framework. The paper finds that there are different definitions in use for measuring violations against children and education which makes aggregate global data

less reliable. He also finds shortcomings on data completeness. For example, data on important education indicators such as retention and dropout rates are not part of the standard UNHCR data set that monitors the education of refugee children. Another dimension of data completeness are the gaps in national education data that can be caused by conflict. Conflict affected countries often manage to produce the most basic education statistics only (e.g. GER, NER) or do not produce any data at all for prolonged periods (e.g. the case of Somalia, or Rwanda between 1994 and 2001). The paper shows that the most extreme conflict-affected countries produce only 25-33% of the average number of education indicators available. Data on learning outcomes is particularly difficult to obtain for conflict-affected countries, while it is argued that education quality suffers the most from conflict (World Bank 2005). International surveys on learning outcomes, such as the TIMSS (Trends in International Mathematics and Science Study), often largely exclude conflict-affected countries. 60% of low- and lower-middle income conflict affected countries have never been included in any international survey.

This paper was published in 2013 and therefore some findings may no longer be fully accurate. The literature review did not find an updated publication that was as complete in its assessment of global data availability and quality on education in conflict affected countries. The commitment to 'Greater Transparency', the first principle in the Grand Bargain pledge to improve services to people in need, may accelerate efforts to make data publicly accessible, which is identified as a shortcoming in the global data by Montjourides. Naturally, in a conflict context, safeguarding the 'Do No Harm' principle and the need to ensure protection of sensitive data that may put people affected by conflict at risk will need to be paramount.

How do violent conflicts affect school enrolment? Analysis of sub-national evidence from 19 countries¹⁹ (Education Policy and Data Centre, 2010)

This background paper prepared for the Education for All Global Monitoring Report 2011 ('The hidden crisis: Armed conflict and education') assesses available school enrolment and attendance data for the period 2000-2010 for 19 countries identified as having been or still being affected by conflict. Sub-national data is drawn from national administrative systems and household surveys. The report finds a severe lack of data from national administrative systems on enrolment and attendance; national administrative data is only available at very limited points in time for four out of 19 countries. Another general finding is that data for 14 out of 19 countries is available either for periods of peace or for periods of conflict but not consistently. The paper also finds that data that is aggregated at provincial or regional level may fail to capture the effects of conflict on education. Flare-ups of conflict are often highly localised and will not be identifiable in provincial or higher level aggregated totals, or they may not be captured if the area is left out of data collection efforts when insecurity restricts access. Analysis of the weighted net attendance rates show that in conflict affected regions, school participation is lower than in non-conflict areas in most of the countries included in the study. However, multiple year data (covering times of both conflict and peace), do not point towards a correlation between these factors, but this may be due to data limitations and the level of analysis used. The report suggests that the real impact of conflict on education may only be measurable at the most local levels of disaggregation.

Education and Displacement: Assessing Conditions for Refugees and Internally Displaced Persons affected by Conflict (Ferris & Winthrop, 2010)

Elizabeth Ferris and Rebecca Winthrop in a Background Paper for the UNESCO Global Monitoring Report, recommend improved basic statistical information collection on the education needs and achievements of refugees and IDPs. Particularly for IDPs, there is a dearth of education data and other information that is only recently starting to be filled by the data collection efforts of the Internal Displacement Monitoring Centre. They recommend improved research into issues affecting the education of refugees and IDP children, such as

¹⁹ Countries included are Afghanistan, Burundi, Central African Republic, Chad, Colombia, the Democratic Republic of the Congo, Côte d'Ivoire, Ethiopia, Indonesia, Iraq, Liberia, Myanmar, Pakistan, Philippines, Rwanda, Senegal, Sierra Leone, Somalia, Sudan, Uganda

language of instruction, certification, livelihoods development, and gender. Ferris and Winthrop also underscore the point made by the Education Policy and Data Centre that a comparison of sub-national data is much more meaningful in understanding the impact of conflict on education than national level data. Aggregate national data may be incomplete in its coverage of conflict-affected areas and thereby mask educational dynamics within the country. Their paper looks in detail at four case studies (Pakistan, Colombia, Sudan, and Iraq). These studies show that marginalised population groups in non-conflict settings are again more likely to be marginalised in their access to education in situations of displacement. Secondly, the impact of conflict-induced displacement on access to education is not unidirectional; displacement can also increase access to education.

Measuring Equity in Education, a Review of the Global and Programmatic Data Landscape (Education Equity Research Initiative, 2016)

This review did not focus on education in emergencies specifically, but the overview and assessment of data sources on equity aspects of education contribute to an understanding of available data disaggregation by gender, disability status, urban-rural locality, region, poverty, and ethnicity. The report focused specifically on poverty, ethnicity, and disability dimensions of equity. The review looks at the levels of disaggregation available in four global education databases: World Inequality Database on Education (WIDE), Education Policy Data Center (EPDC), UIS. Stat from UNESCO Institute for Statistics, and EdStats from the World Bank. As noted above by Montjourides, many of these databases, particularly databases based on global household surveys, tend to have gaps for conflict-affected states. The report's main finding is that dimensions of inequality remain largely un-standardised across datasets produced by programmes and international sources. Particularly for disability, the researchers found that this dimension is measured infrequently and conceptualised inconsistently. Programme data collection on equity dimensions is often done at the request of the donor. Tools and frameworks for collecting information on equity dimensions in programmes and projects are not standardised.

Global Education Monitoring Report 2016 (UNESCO, 2016)

This report discusses the shortcomings of global data on refugee and IDP education in chapter 14 'Equity', section 'Migration and Forced Displacement'. Data on IDP education comes mainly from the Internal Displacement Monitoring Centre, but data is still infrequent and incomplete. As a result, IDP education needs remain neglected. UNHCR collects data on refugee children receiving education in camps or camp settings. As more than half of the world's refugees live in urban areas and are frequently not registered as refugees, it remains a challenge to obtain data on their education access and achievements. Information systems generally do not classify pupils as 'refugee' or 'IDP'. While this may prevent stigmatisation, it also prevents policy-makers from addressing the specific needs of these children. The report provides two examples of exceptions to this in recent years: Ukraine, which collects monthly education status information on children displaced by conflicts in Crimea, Donetsk, and Lugansk. As of March 2016, 51,000 displaced children (1.4% of the total student population) were enrolled in schools in other areas (Ukraine Ministry of Education and Science, 2016). Chad developed an integrated system to improve refugee education data management to eventually integrate the data in the national education management information system (UNHCR, 2016).

The quantitative impact of armed conflict on education: counting the human and financial costs (Jones & Naylor, 2014)

This paper is published by the Protect Education in Insecurity and Conflict (PEIC)²⁰ initiative. The authors argue that while attacks on education and short-term interruptions of education as a result of conflict are starting to

²⁰ <http://educationandconflict.org/>

be better documented, the indirect impact of conflict on education is likely to be much greater in magnitude. Indirect impact includes forced displacement, public health impacts, increased demand for household labour, reduced returns to education, reduced educational expenditure, and a reduced public capacity to deliver education. This argument is supported by three case studies, on the Democratic Republic of the Congo (DRC), Nigeria and Pakistan, which together account for around half of the total number of Out Of School Children (OOSC) living in conflict-affected countries.

Findings from these case-studies show that conflict directly or indirectly contributed to lack of access to education for up to one-fifth of all OOSC living in conflict-affected countries. Many children are out of school due to underlying socio-political factors that precede the outbreak of conflict, or in some cases were a contributing cause of conflict. It is difficult to arrive at a precise estimation of the number of OOSC due to conflict, because the impact of conflict on education is highly context-dependent and the situation can change rapidly as conflicts (de-)escalate. What is clear is that the millions of OOSC, as a result of conflict, is much greater than the hundreds of thousands of children whose education is disrupted or stopped as a result of attacks on education. The paper argues that the impact of conflict on education should be considered in terms of the number of years of schooling lost by the school-age population during a conflict. This can be used to estimate the loss in human capital due to missed education. The three case-study countries are estimated to have lost billions of dollars, as a result of reduced human capital and its effect on their economy. By comparison, the cost of direct attacks on education was in the millions of dollars and therefore small, relative to the long-term and more indirect impact on the economy. Quantifying the human and financial costs of the impact of conflict on education, the authors shed light on the scale of impact beyond the short-term disruptions.

Attacks on education: addressing the data challenge (Kalista, 2015)

This report presents findings from a seminar held on 15-16 June 2015 in Qatar that brought together practitioners and researchers from the fields of education, child protection, public health, and forensic psychology to discuss data available on attacks on education. The seminar was organised by the Protect Education in Insecurity and Conflict (PEIC)²¹ initiative, a policy, research, capacity building, and advocacy programme of Education Above All based in Qatar. The report provides an overview of the pros and cons of different data collection systems on attacks on education and children. Current systems in use include:

- UN Monitoring and Reporting Mechanism (MRM) on Grave Violations against Children in Situations of Armed Conflict
- The Education under Attack Study
- Field Research, in particular, by the Columbia Group on Children in Adversity at Columbia University
- Counting Out-of-School Children
- Global Terrorism Database
- Behavioural Analysis of Attacks
- Small Arms Survey
- Humanitarian Technology

The MRM has been the principal source of aggregated data on attacks on education. Data generated by the MRM carries weight through a mandate of reporting directly to the Security Council and is subject to a high threshold of verification. However, its scope, in terms of countries and types of violations reported on, was considered quite narrow, and indicators were not consistently defined across contexts, creating problems with accurate categorisation and comparability of data across contexts. Seminar participants recommended

²¹ <http://educationandconflict.org/>

improving systematising the data collection on attacks on education for example by agreeing on a set of core common indicators. The seminar recommendations informed the development of a Global Data Service on Attacks on Education at PEIC²².

5.2 THEME 2: HUMANITARIAN DATA ON REFUGEE AND IDP EDUCATION

The following UN agencies are involved in monitoring education for refugee and IDP children:

United Nations Children's Fund (UNICEF), which focuses on the education of children below the age of 18 and assists IDPs and refugee children; UNICEF is co-lead of the Global Education Cluster, together with Save the Children. The Global Education Cluster produced a Joint Education Needs Assessment Toolkit in 2010, which is freely accessible online. The Cluster conducts a rapid joint education needs assessment within the first month of a sudden onset emergency, which can be a natural disaster or conflict. The Short Guide to Rapid Joint Education Needs Assessments (Global Education Cluster, 2010) states:

'Rapid joint assessments provide a snapshot of education-related needs. They're not meant to be baseline studies or to provide background information. They're not school surveys, and they don't replace existing education data from sources such as Education Management Information Systems (EMIS). Instead, they're intended to be a first step in a lengthier process of gathering evidence and managing information about an emergency. Rapid joint assessments provide a starting point for defining the education needs in an emergency. They also flag information gaps and emerging issues for consideration in a comprehensive education assessment. Comprehensive assessments can inform in-depth responses to identified needs and can serve as a baseline for monitoring and evaluation purposes'.

The rapid assessment should be followed up by a Comprehensive Education Needs Assessment within the first two months of onset of the emergency. In some cases, education is part of a multi-cluster needs assessment, which looks at the impact of the crisis on the population in the areas of Health, Nutrition, WASH, and others. In these cases, it is important for Education Cluster coordinators to ensure that the assessment includes relevant education-related questions. While general in scope, the multi-cluster assessments provide immediate data on a population's urgent needs. They are a key opportunity to advocate for children's basic right to education and for the provision of education from the first phase of an emergency response.

Missing out, Refugee Education in Crisis (UNHCR, 2016)

UNHCR primarily focuses on education for refugees and returning refugees. This publication brings together data on refugee education from UNCHR's population data base, reporting tools and education surveys. Globally, over 50% of the six million primary and secondary school-age refugees under UNHCR's mandate, are not enrolled in school. Refugee children are five times more likely to be out of school than non-refugee children. Only 50 per cent have access to primary education, compared with a global level of more than 90 per cent. 84 per cent of non-refugee adolescents attend lower secondary school, compared to only 22 per cent of refugee adolescents. At the higher education level, just one per cent of refugees attend university compared to 34 per cent globally. UNHCR estimates that over 60 per cent of the world's 19.5 million refugees and 80 per cent of 34 million IDPs live in urban environments.

Designing appropriate interventions in urban settings: Health, education, livelihoods, and registration for urban refugees and returnees (UNHCR, 2009)

²² The status of the development of this service is not clear from the PEIC website (accessed 1st August 2017)

This report specifically looked at education interventions and practices for refugee education in urban settings. UNHCR generally advocates for the integration of refugee children into national public education systems. The establishment of parallel structures should be avoided.

A Review of Needs Assessment Tools, Response Analysis Frameworks, and Targeting Guidance for Urban Humanitarian Response (Mohiddin & Smith, 2016)

This working paper produced under the 'Urban Crises Learning Fund' managed by the International Institute for Environment and Development (IIED) assesses to what extent a range of humanitarian needs assessment tools are suited to assessing specific needs of displaced people residing in urban areas. The review found that despite the increasing number of urban responses, the development of tools or guidelines remain behind. Needs assessment and response frameworks tend to be sector or thematically specific, making it hard to identify priorities between sectors, whilst urban targeting approaches have not been translated into detailed available guidance. There is a need for development of urban tools that are inclusive, coherent, cost-effective, rigorously tested, and build on existing good practice. They recommend that urban assessment tools should include not only the views and needs of displaced people, but also of the host population and local stakeholders – in the case of education local government, schools, teachers, and school management committees – to ensure that solutions suit both displaced and host populations.

Vulnerability Assessment of Syrian Refugees in Lebanon (World Food Programme, 2016)

The World Food Programme (WFP) conducts vulnerability assessments that can include education information as well. The Vulnerability Assessment of Syrian Refugees in Lebanon (VASyR) is an example of UNICEF, UNHCR and WFP collaboration on the assessment of economic vulnerability of Syrian refugees that included questions around the impact of vulnerability on education. The same happened in Jordan through an annual Comprehensive Food Security Monitoring Exercise (CFSME) of registered Syrian Refugees in Jordan. The 2016 CFSME data is comparable with the UNHCR-led interagency Vulnerability Assessment Framework (VAF), and also contains data on education.

Evaluation of the Emergency Education Response for Syrian Refugee Children and Host Communities in Jordan (RAND Corporation, 2016)

This report includes an evaluation of the monitoring and evaluation systems that were used during this emergency response. The evaluation identified that many implementing partners were using different monitoring and evaluation frameworks, without unified indicators. The Theory of Change was also not clearly articulated from the start, making evaluation against agreed indicators difficult. Furthermore, monitoring of quality should be strengthened. The evaluation found that the Government of Jordan was committed to monitoring results against sector plans and had started to require monitoring and evaluation plans from each partner, as well as results report. UNICEF supported this process.

UNICEF Bayanati (UNICEF, 2015)

The Bayanati reporting system was introduced in 2015 and aims to standardise the reporting of implementing partners during an emergency response. The system was developed during the Jordan emergency response, to keep track of a growing number of UNICEF partners and beneficiaries. Bayanati monitors the delivery of UNICEF services to individual children in real time. Bayanati is a web application that is designed with a role-based access control approach at different levels. Implementing partners can input individual children's records directly into the Bayanati database and data can be accessed from anywhere by UNICEF staff. The system creates one ID per child and may therefore be suitable to track different types of assistance to that child if scaled

up to inter-agency level. The system is being piloted in Turkey as well. No evaluation of Bayanati's effectiveness could be found.

Hear it from the Children (Save the Children, 2015)

There are only limited reports available that represent the voices of children and present a more qualitative picture on their priorities during crises situations. Save the Children's report series 'Hear it from the Children' is a strong example of research that aims to fill this gap. Research is conducted into the value communities place on education in emergencies. Data is collected through Key Informant Interviews and Focus Group Discussions with adults and children. Findings from South Sudan, Ethiopia and DR Congo show that communities prioritise education during emergencies. In Ethiopia and DR Congo, of the basic services like health, water, food, shelter, psychosocial support, and education, 30% of those surveyed ranked education first – more than for any other need.

Children on the Move in Italy and Greece (REACH/UNICEF, 2017)

This report contains findings from research into child-specific drivers of migration and children's lives once in Europe. This research was commissioned to fill an information gap on these issues and to inform programming. An assessment on the profiles and experiences of children who arrived in Italy and Greece in 2016 and 2017 was conducted, including why they left home, the risks children encountered on their journey and their life once in Europe. With the regards to access to education, findings differ for Italy and Greece, but in both countries children face challenges in accessing education. In Greece, language issues play a role and many children expect to leave Greece to other destinations, thus missing out on education for extended periods. In Italy, education is only obligatory for children in secondary reception centres, while the average length of stay for children in primary reception centres is six months, and children do not go to school for extended periods of time as a result.

5.3 THEME 3: M&E SYSTEMS IN USE BY PROGRAMME IMPLEMENTERS IN EMERGENCIES AND CRISES, COVERING CERTIFICATION ISSUES AND THE USE OF TECHNOLOGY

Girls' Education South Sudan, South Sudan Schools Attendance Monitoring System (SSSAMS)

As part of the DFID-funded Girls Education South Sudan (GESS) programme, the South Sudan Schools Attendance Monitoring System (SSSAMS) was designed, developed, and put into operation in 2013. The SSSAMS database has now been operational for almost four years, and contains a wide range of individual school-, teacher- and student-related data that can be accessed through a public website (www.sssams.org). Although it was set up initially as a system to measure student attendance, the data available through the system cover a much wider range of indicators. Part of its function is to collect annual enrolment data for all schools in South Sudan that is disaggregated to the level of individual pupils. As such it has functioned as a programme database that is used effectively in a large-scale cash transfer programme, and as the basis for paying out School Capitation Grants that are calculated based on school enrolment totals. Data entry is decentralised to state levels and is the responsibility of contracted NGO implementing partners, in collaboration with State Ministries of Education.

An independent review of SSSAMS was undertaken in 2017 to take a critical in-depth look at SSSAMS, reviewing its functionalities, accuracy, costs, manageability, and user-friendliness, while looking at its potential for sustainability within the education sector in South Sudan. The review findings are under review with DFID South Sudan.

Currently the SSSAMS system does not include records of pupils' learning outcomes. Attempts have been made to include exam results for individual pupils in the SSSAMS database, but this has proved difficult to

realise to date. Multi-year pupil tracking remains a major challenge. This is to do with data entry complications. Pupils' names and short codes are not consistently spelled and entered year-on-year. Most pupils do not possess ID cards or other forms of identification.

SSSAMS has aided the GESS programme to adapt to situations of displacement. Displaced school communities can, in principle, take Capitation Grants with them to temporary host schools, provided that their School Development Plans and Budgets are adapted to the different emergency needs, while maintaining accountability and transparency through submission of documents to SSSAMS. While data is captured once a year, the system has a functionality for adding pupils that enrol in the middle of a school year by SMS. In this way, displaced school girls who enrol in another host school can still access a Cash Transfer. SSSAMS has not yet been used for tracking pupils across borders.

Impact of war on Syrian children's learning (International Rescue Committee, 2017)

This report aims to fill an information gap about levels of learning of children inside Syria. Although small in sample size (the report is based on findings from five IRC-supported schools in Idleb Governorate) the report demonstrates the feasibility of measuring learning outcomes in crises situations. The study is based on an Annual State of Education (ASER) assessment. In 2005, ASER reading and math tools were launched to document the level of children's learning on a national scale in India. They are easy to administer, and provide basic information about learning outcomes. Average scores in both reading and math are low for both boys and girls in the Syrian case, pointing to a need for additional programming to support foundational skills. The IRC plans to further roll-out the ASER data collection methodology to collect additional data and enable greater focus on learning outcomes in programming.

Accelerated Learning Programme (ALP) of the Afghanistan Primary Education Programme (APEP) (Nicholson, 2007)

The Accelerated Learning Programme (ALP) of the Afghanistan Primary Education Programme (APEP), which ran from January 2003-December 2006, was evaluated in a case study that included an assessment of the programme's monitoring and evaluation system. The M&E system included a research component with 'Accelerated Learning Longitudinal Surveys' (ALLS) to provide detailed data and in-depth analysis of student learning experiences, skills gains, and outcomes over the period of the ALP. The case study finds that the expansive M&E framework was a reporting burden to implementing partners, this was addressed successfully through capacity building and putting in place a clear reporting and data collection system. As a result, the project impact was very well documented, including details on learning achievements and employment status of the 170,000 students reached.

Alternative Education in the DRC (USAID, 2014)

This research report finds that although there is a national policy on alternative education in the DRC, many alternative education programmes operate in parallel to the government system. An example is quoted from an interview with international staff members implementing a USAID-funded alternative education programme, who were not aware of the existence of the Ministry's Directorate for Non-Formal Education (DGENF). This is, despite the fact that the USAID/DRC Country Development Cooperation Strategy (CDCS) for 2015-2019, includes support to national institutions as a key development objective. The DGENF's institutional capacity to monitor and oversee the quality of alternative education programmes is limited and the allocated budget insufficient. As a result, despite its formal legitimacy, alternative education in the DRC today reaches fewer than 10% of the estimated number of school-age children who remain out of school. Increased coordination between the government and private providers is needed to integrate alternative education programmes better into the formal system.

Meta Analysis of Norwegian Refugee Council's Accelerated Education Responses (Norwegian Refugee Council, 2015)

This analysis finds that, in regard to pathways between alternative and formal education:

There is evidence to demonstrate that NRC's alternative education programming has afforded its beneficiaries pathways for reintegration into the formal schooling system. However, they have varying rates of efficiency in terms of numbers of students initially enrolling compared to those who end up reintegrating due to drop out or failure to sit and/or pass the transition examination to the formal system. Typically, this is greater in Alternative Basic Education (ABE) programmes where children remain outside the formal education system for up to four years before transiting. Often when learners do not perform at expected levels, on programme specific or national examinations, they are either retained and supported within the AEPs for an additional period, or offered the option to transfer to the formal schooling system at a lower grade level. Also, many learners who do complete NRC's AEPs choose not to transit into the formal system, for a number of different factors including concerns of stigmatisation, early marriage, the costs of schooling, or the need to support ones' family.

The evaluation identifies as priority areas for further research the bottlenecks and pathways students face on re-entry to the formal schooling system and accreditation approaches. Another data-related recommendation is for alternative education (AE) programmes to systematically collect data that can be benchmarked against indicators in the formal education system. This will help AE programmes to set better targets for success and provide comparison on their performance against schools in the formal education system. Furthermore, many AE programmes were found to be weak on the collection of data on drop-outs, in particular, on the reasons for dropping out. The analysis is based on evaluations of NRCs programming in 15 countries across Africa, Asia and Latin America and includes short summaries of the evaluation per country.

ICT and the Education of Refugees: A Stocktaking of Innovative Approaches in the MENA Region, Lessons of Experience and Guiding Principles (World Bank, 2016)

This report discusses several ICT solutions for capturing learning outcomes currently in use by programme implementers. The report covers both the use of ICT for teaching and learning refugee children, as well as the use of ICT for capturing learning achievements and information management and student administration. It should be noted the examples included are all relatively recently developed and put to use. It is still too early to evaluate their effectiveness, but they are included here to show innovative responses that make use of technology and that may produce evidence on their effectiveness in the near future:

sQuidcard, a digital transaction and eLearning solutions provider, offer humanitarian and development services as well. The sQuid CheckIn offers digital attendance monitoring based on smart-cards.

Tangerine, open source software developed by RTI to conduct Early Grade Reading Assessments, Early Grade Mathematics Assessments, and interviews with students, teachers, and principals on home and school context information. Tangerine is optimised for data collection on tablets and smartphones. Its primary use is to enable capture of students' responses in oral early grade reading and mathematics skills assessments, specifically Early Grade Reading Assessment (EGRA) and Early Grade Mathematics Assessment (EGMA), and interview responses from students, teachers, and principals. Tangerine received recognition from the Center for Education Innovations (CEI) as an emerging trend and is now part of CEI's list of "Emerging Technology Models."

OpenEMIS, is an Open Source Education Management Information System (EMIS) designed to collect and report data on education systems. The OpenEMIS initiative aims to change access to data through open channels and transparency in the dissemination and use of disaggregated data from multiple sources for better decision-support. The system was developed by UNESCO and can be customised to the needs of different countries. In Jordan, the system was customised as OpenEMIS Refugees to track educational data of Syrian

refugee children in Jordan since 2014. In 2016 the system was rolled out as OpenEMIS to cover all schools in Jordan as part of a restructuring of the country's EMIS²³.

World Refugee School is another example of a recent e-learning initiative that was launched in Jordan in 2016²⁴. Based on an online platform ('EduWave®'), it aims to deliver education to student users. The cloud-based platform is designed to serve multiple communities, standards, functions, and roles, integrating content from different sources. Content is currently provided from formal and non-formal sources and the private sector, and will be contextualised by 'local talent' to be relevant in different locations. The following institutions are involved in the production of content:

- Formal education: Ministries of Education
- Non-formal education: MoEs, UNICEF, other organisations
- Informal & remedial education: UNICEF, other organisations
- Enrichment Material: BrainRush, Lego, JAID. TBD: National Geographic, BBC, local content providers, etc.

The platform aims to facilitate continuity of learning during transitions, regardless of location. Content can be accessed through tablets and other mobile devices.

With regards to certification, the report recommends solving the complicated issue of certification through the introduction of a competency-based approach for emergency situations. Standardised competency tests could be mapped to a national curriculum. Simple age-based benchmarks could be used in the development of tests that could be based on internationally recognised systems such as TIMSS or PISA. This would allow non-formal education providers in emergencies to conduct standardised quality monitoring and provide learners and parents with an overview of their competencies based on simple assessments. The report also provides examples of Education Management Information Systems that are tailored to refugee contexts. In Turkey, UNICEF worked with the Ministry of National Education to establish YOBIS, a data system for foreign students and teachers in Turkey.

Independent evaluation of UNICEF's response to the refugee crisis in Turkey 2012-2015 (Darcy, et al., 2015)

This evaluation found that YOBIS filled a critical data gap, and could be considered in other refugee contexts where alternative methods of needs assessment are problematic. The system is compatible with the existing Education Management Information System, and could include all foreign students and teachers, not just Syrians alone. Additional examples include:

Education of Syrian Refugee Children – Managing the Crisis in Turkey, Lebanon and Jordan (Culbertson & Constant, 2015)

This report includes several relevant recommendations on data and information systems. These include the development of a consistent set of access, quality, and protection indicators. Particularly on quality, standards of alternative or non-formal education programmes need to be improved. They should be fully equivalent to certified formal education. Quality monitoring of non-formal education programmes then needs to be strengthened. These programmes should include clear linkages to the formal education system and follow a recognised curriculum.

²³ <https://www.openemis.org/>

²⁴ <http://www.wrschool.org/>

Certification Counts (UNESCO, 2009)

This UNESCO publication provides a global overview of issues encountered in the certification of learning achievements of refugee and internally displaced pupils. Obstacles to the certification of learning achievements can be technical (lack of documentation; weak policy frameworks; resource gaps) or political in nature. At the onset of an emergency, securing formal recognition of learning achievement is often overlooked as it not considered an 'emergency' issue: however, this means that education provided may not be validated later. The publication recommends the development of curricula and assessments, within regional or international frameworks, which support cross-border equivalency.

Education in Conflict and Crisis: How Can Technology Make a Difference? A Landscape Review (Dahya, 2016)

This publication provides a good overview of the challenges and potential of the use of ICT in education in crisis settings. The report finds that ICT has a high potential for education system strengthening in conflict and crisis settings. Examples include the use of mobile money transfers to ensure teachers receive regular salaries. Two-way communication systems using SMS (text messaging) over mobile phones to promote safe learning spaces by informing parents, guardians, and young people directly about danger near schools. ICT is also being used for data collection about students, teachers, schools, and the larger education infrastructure. There is room for growth, however, especially regarding the use of ICT for teacher training and student learning. Tools can and should be the least determining factor for the success of a project: the review finds that human resources and teachers remain crucial to the success of educational projects, while technology should play a supportive, enabling role. Most of the identified projects are still at a pilot stage and examining ways to increase sustainability and scale. The publication concludes that there is no single or simple model for ICT tools' sustainability or scale given the diversity and complexity of contexts in conflict and crisis. ICT for education programmes in conflict and crisis need to be iterative and adaptable.

5.4 THEME 4: NATURAL DISASTERS

Education sector planning: working to mitigate the risk of violent conflict (MacEwen, Choudhuri, & Bird, 2011)

This background paper prepared for the Education for All Global Monitoring Report 2011 includes a review of education sector planning for both conflict and natural disasters. The paper argues that education sector planning should involve analysis that identifies the core vulnerabilities of a country. These could be related to natural disasters or conflict. National level education planning based on this 'sector diagnosis' can help to mitigate the impacts of natural disasters. National governments may need capacity development support to produce this analysis. The report includes examples of IIEP's experience working with MoEs in Ethiopia, Uganda, and Nepal to ensure the inclusion of education in emergency into national education sector plans. The long-term engagement with Nepal provided an opportunity for raising awareness within the MoE of why education should be prioritised following disasters. In Ethiopia one of the expected outcomes is the inclusion of information on emergency situations in EMIS. Another example from Kenya demonstrates work done on specific education indicators for disaster risk reduction and emergency response in 2010. The report includes examples of planning initiatives of the IIEP, but as these were all still ongoing or in initial stages, there was no evidence on the effectiveness of these plans during implementation in a disaster response.

Save the Children's Experience in Disaster Risk Reduction in the Education Sector in Asia: 2007-2013: Preparing for the Post-2015 agenda (Save the Children, 2015)

This report provides a comprehensive overview of Save the Children's Comprehensive School Safety framework and its application in a range of disaster-prone countries in Asia. The framework addresses school safety standards, school disaster management, and curriculum development. Save the Children has worked

closely with Ministries of Education to ensure that emergency preparedness plans for the education sector were developed (e.g. in Timor Leste) or on the integration of Disaster Risk Reduction in the national curriculum (e.g. in the Philippines, Vietnam, and other countries). As part of emergency preparedness planning, they have provided school-level training on risk and hazard mapping. The report is a summary note produced by Save the Children and not an evaluation on the effectiveness of these interventions, however it gives a good overview of current practice.

Building back better: post-earthquake responses and educational challenges in Pakistan (Kirk, 2008)

This publication documents the experiences of sector planners, managers, and implementers of the education sector response to the 2005 earthquake in Pakistan. The magnitude of impact demonstrates the importance of emergency preparedness in disaster-prone areas. The study highlights the importance of government involvement to provide leadership and co-ordination between sector initiatives and different levels of government during the relief period and afterwards. The study finds that the vision of 'building back better' proved hard to realise as funding for longer-term recovery and reconstruction was scarce. Regarding monitoring and evaluation, the study finds that larger INGOs involved in the response developed monitoring frameworks that were based on the INEE Minimum Standards in some cases. Smaller national NGOs had weak capacity to meet monitoring standards set by UNICEF. A key finding and recommendation is that there was no sector-wide monitoring and reporting framework, which would have strengthened coordination and the quality of response. Monitoring and evaluation was furthermore weak on qualitative aspects such as the impact of teacher training and capacity building.

5.5 ONGOING RESEARCH INITIATIVES

Education Inequality and Violent Conflict: Evidence and Policy Considerations (FHI360 Education Policy and Data Centre, 2017)

This research project explored education inequality as a determinant and an outcome of internal conflicts, given the cyclical relationship between inequality and conflict. To investigate these relationships, FHI 360 examined inequality using the Education Inequality and Conflict Dataset (EIC), a new dataset developed for this research project. The EIC spans 1960–2010 and is global in scope, covering nearly 100 countries. It includes data on conflict incidence and onset from the Uppsala Conflict Data Program (UCDP), as well as several estimates of inequality in education, measured as disparity in average years of schooling among youth ages 15–24, extracted from household survey and census data. The study examined education inequality between culturally defined or constructed groups and socioeconomic divisions (e.g., ethnic, religious etc.), referred to as horizontal inequality following Stewart (2000), as well as inequality across households or individuals, or vertical inequality. Findings show, in summary, there is evidence that rising inequalities in education can increase the risk of conflict, and consequently, experiencing conflict can exacerbate pre-existing education inequality.

Education Equity Research Initiative

A collaborative partnership formed by research and programme implementing organisations with the common objective of advancing research to inform policy and programming on the effective ways of strengthening equity in and through education systems.

Promising Practices in Refugee Education Initiative

An initiative launched in 2016 by Pearson, UNHCR and Save the Children. The initiative will release its first publication at the UNGA in September 2017 in New York.

Centre for Education Innovations (CEI)

This centre seeks to fill the gaps in global understanding about innovative education programmes striving to increase access to quality education for students in low income communities. The Research and Evidence library contains over 700 documents on recent education innovations, including in conflict and crises contexts.

6 BIBLIOGRAPHY

- Culbertson, S., & Constant, L. (2015). [Education of Syrian Refugee Children – Managing the Crisis in Turkey, Lebanon and Jordan](#). RAND Corporation.
- Dahya, N. (2016). [Education in Conflict and Crisis: How Can Technology Make a Difference? A Landscape Review](#). Bonn: Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ).
- Darcy, J., Durston, S., Ballarin, F., Duncalf, J., Basbug, B., & Buker, H. (2015). [An independent evaluation of UNICEF's response to the refugee crisis in Turkey, 2012-2015](#). UNICEF.
- Data for Education. (2017). [Data on Education](#). Armed Conflict Location and Event Data Project (ACLED).
- EC Publications. (2017). [Index of publications relating to Education and Conflict](#). Protect Education in Insecurity and Conflict (PEIC).
- Education Equity Research Initiative. (2016). [Measuring Equity in Education, a Review of the Global and Programmatic Data Landscape](#). Education Equity Research Initiative.
- Education Policy and Data Center. (2010). [How do violent conflicts affect school enrolment? Analysis of sub-national evidence from 19 countries](#). UNESCO.
- Ferris, E., & Winthrop, R. (2010). [Education and Displacement: Assessing Conditions for Refugees and Internally Displaced Persons affected by Conflict](#). UNESCO.
- FHI360. (2017). [Education and conflict monitoring and reporting](#). FHI360 Education Policy and Data Centre.
- FHI360. (2016). [Education Inequality and Violent Conflict: Evidence and Policy Considerations](#). FHI360 Education Policy and Data Centre.
- Global Education Cluster. (2010). [The Short Guide to Rapid Joint Education Needs Assessments](#). UNICEF and Save the Children.
- INEE. (2017). [A reference guide on external education financing: Implementation tools](#). INEE.
- IDMC. (2017). [About internal displacement](#). Internal Displacement Monitoring Centre.
- International Rescue Committee. (2017). [Impact of war on Syrian children's learning](#). International Rescue Committee (IRC).
- Jones, A., & Naylor, R. (2014). [The quantitative impact of armed conflict on education: counting the human and financial costs](#). CfBT Education Trust.
- Justino, P. (2016). [Supply and demand restrictions to education in conflict-affected countries: New research and future agendas](#). *International Journal of Educational Development*, 47(1), 76-85.
- Kalista, J. (2015). [Attacks on education: addressing the data challenge](#). Protect Education in Insecurity and Conflict (PEIC).
- Kirk, J. (2008). [Building back better: post-earthquake responses and educational challenges in Pakistan](#). UNESCO IIEP.

- MacEwen, L., Choudhuri, S., & Bird, L. (2011). [Education sector planning: working to mitigate the risk of violent conflict](#). IIEP. UNESCO.
- Mohiddin, L., & Smith, G. (2016). [A Review of Needs Assessment Tools, Response Analysis Frameworks, and Targeting Guidance for Urban Humanitarian Response](#). Urban Crises Learning Fund. International Institute for Environment and Development (IIED).
- Montjourides, P. (2013). [Education data in conflict-affected countries: The fifth failure](#). *Quarterly Review of Comparative Education*, 43(1), 85-105.
- Myers, J., & Pinnock, H. (2016). [Accelerated Education Programmes: A toolkit for donors, practitioners and evaluators](#). UNHCR.
- Norwegian Refugee Council. (2015). [Meta-Evaluation of Norwegian Refugee Council's Accelerated Education Responses](#). Norwegian Refugee Council (NRC).
- OpenEMIS. (2017). [Open EMIS Refugees: Overview](#). *OpenEmis.org*
- Østby, G., & Urdal, H. (2010). [Education and civil conflict: A review of the quantitative, empirical literature. Background paper prepared for the Education for All Global Monitoring Report 2011](#). Paris: UNESCO.
- REACH/UNICEF. (2017). [Children on the Move in Italy and Greece](#). REACH/UNICEF.
- Save the Children. (2007). [Last in line, last in school: how donors are failing children in conflict-affected](#). Save the Children UK.
- Save the Children. (2015). [Disaster Risk Reduction in the Education Sector in Asia: 2007-2013: Preparing for the Post-2015 agenda](#). Save the Children.
- Save the Children. (2015). [Hear it from the Children South Sudan: 'We want to learn – even during war'](#). Save the Children.
- Shields, R., & Paulson, J. (2014). ["Development in reverse"? A longitudinal analysis of armed conflict, fragility and school enrolment'](#). *Comparative education*, 51(1), 212-230.
- Spink, J. (2007). [Education and politics in Afghanistan: the importance of an education system in peacebuilding and reconstruction](#). *Journal of Peace Education*, 2(2), 195-207.
- Swee, E. (2009). [On war intensity and schooling attainment: the case of Bosnia and Herzegovina](#). HiCN Working Paper 57.
- UNESCO. (2009). [Certification Counts: Recognising the learning attainments of displaced and refugee students](#). UNESCO.
- UNESCO. (2016). [Education for people and planet: Creating sustainable futures for all](#). *Global Education Monitoring Report 2016*, UNESCO.
- UNHCR. (2009). [Designing appropriate interventions in urban settings: Health, education, livelihoods, and registration for urban refugees and returnees](#). UNHCR.
- UNHCR. (2016). [Missing out: Refugee Education in Crisis](#). UNHCR.
- UNICEF. (2015). [Bayanati: A real-time monitoring system for large UNICEF operations](#). *UNICEF Jordan*.
- USAID. (2014). [Alternative Education in the DRC: Final Research Report](#). USAID Education in Conflict and Crisis Network (ECCN).
- World Bank. (2016). [ICT and the Education of Refugees: A Stocktaking of Innovative Approaches in the MENA Region, Lessons of Experience and Guiding Principles](#). Global Education Practice. World Bank.
- World Food Programme. (2016). [Vulnerability Assessment of Syrian Refugees in Lebanon](#). UNHCR, UNICEF, WFP.
- World Refugee School. (2017). [The WRS Initiative](#). *World Refugee School*.