USAID MIDDLE EAST EDUCATION RESEARCH, TRAINING, AND SUPPORT PROGRAM (MEERS)

TASK 1: CONTINUOUS DATA COLLECTION

Data Mapping and Stakeholder Consultation Report

October 2019

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Data Mapping and Stakeholder Consultation Report

U.S. Agency for International Development

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Submitted to:
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ACRONYMS & ABBREVIATIONS

4Ws	Who is doing What, Where and When
ACLED	Armed Conflict Location and Event Data
BPRM	Bureau of Population, Refugee and Migration
CIES	Comparative and International Education Society
DDDM	Data-Driven Decision Making
DTM	Displacement Tracking Matrix
ECCN	Education in Crisis and Conflict Network
E3/ED	USAID Bureau for Economic Growth, Education and Environment/Education
EiCC	Education in Crisis and Conflict
EiE	Education in Emergencies
EMIS	Ministry Data on Educational Systems
GCPEA	Global Coalition to Protect Education from Attack
GEC	Global Education Cluster
GEM	Global Education Monitoring
GEMR	Global Education Monitoring Report
GIS	Geographic Information System
HDX	Humanitarian Data Exchange
IDP	Internally Displaced Person
INEE	Inter-Agency Network for Education in Emergencies
INGO	International Non-Governmental Organization
IOM	International Organization for Migration
IRC	International Rescue Committee
M&E	Monitoring and Evaluation
ME	Middle East
MEERS	Middle East Education, Research, Training, and Support
NGO	Non-Governmental Organization
NORRAG	Network for International Policies and Cooperation in Education and Training
NRC	Norwegian Refugee Council
NWOW	New Way of Working
OECD	Organization for Economic Cooperation and Development
REMIS	Refugee Education Management Information system
SSAP	Southern Syria Assistance Platform
SES	Syria Essential Services
START	Syria Transition Assistance Response Team
UN	United Nations
UN OCHA	United Nations Office for the Coordination of Humanitarian Affairs
UNESCO	United Nations Educational, Scientific, and Cultural Organization
UNHCR	United Nations High Commissioner for Refugees
UNICEF	United Nations Children's Fund
UNRWA	United Nations Relief and Works Agency for Palestine
USAID	United States Agency for International Development
USG	United States Government
WHS	World Humanitarian Summit

EXECUTIVE SUMMARY

Background

The Middle East is currently experiencing among the highest rates of displacement in the world. About half of all displaced individuals are children, and options for schooling are limited. Humanitarian and development actors are coordinating in new and better ways to meet children's needs, but the data systems that monitor and support educational provision are highly fragmented and inaccessible. In October 2017, the United States Agency for International Development (USAID)/Middle East (ME) Bureau launched the Middle East Education Research, Training, and Support (MEERS) initiative to support continuous data collection, research, training, and analysis related to learners, teachers, education systems, and education outcomes in the Middle East.

Understanding Data and Data Use in EiE

It is widely understood that there are major education data gaps in emergency contexts, including in the MEERS focus countries of Iraq, Syria and Yemen. Prior literature notes that data systems vary significantly across humanitarian and development sectors, which can hinder the use of data by EiE professionals. This manifests in differences between data systems across sectors, including differences in data collection and dissemination mechanisms. Additionally, numerous factors affect the usage of EiE data, including organizational mandates and political differences, as well as interactions between these factors.

Methodology

To better understand how MEERS could contribute to the global conversation around education in emergencies (EiE) data availability and quality with a focus in the Middle East region, FHI 360 conducted a data mapping and stakeholder consultation process. This process took place in two stages:

1. An initial data mapping and stakeholder consultation process that informed MEERS' Year 1 EiE data activities.
2. A second phase of stakeholder consultations that focused specifically on how different EiE actors use data, leading to validation of an EiE data usage framework.

As part of the data mapping process, MEERS mapped publicly available datasets and resources that allowed for tracking of key educational indicators across Syria, Iraq, and Yemen. The stakeholder consultation process took place over two years. In Year 1, MEERS engaged in three phases of consultations with global data aggregators, implementing organizations, and government actors. Additional consultations took place with strategic partners. In Year 2, MEERS conducted 11 interviews with 14 representatives from INGOs, bilateral organizations, and UN agencies.

Findings

The data mapping and stakeholder consultation process revealed a series of key findings:

1. Publicly available data for Iraq, Syria, and Yemen is widely publicly accessible, but difficult to find and navigate: The data mapping process revealed that a lot of publicly available data on education in conflict-affected regions of the Middle East exists, but is difficult for non-specialist consumers to navigate due to the disparate nature of data dissemination venues, and is often in the form of PDF dashboards. Thus, there is a need for better curation of existing data. Also, most organizations are unwilling to share data that is not already publicly available due to privacy and security concerns.

2. The humanitarian-development divide is reflected in data: Differences in education data systems across the humanitarian and development spectrum reflect organizations' different mandates, creating a recognized "data gap" in EiE.
3. There are operational and strategic uses for EiE data: Results from consultations revealed and confirmed six main ways in which data is used in EiE: 1) planning, 2) coordinating, 3) monitoring, 4) evaluating, 5) policymaking, and 6) advocating. These uses can be group into two main families: operational and strategic uses of data. Operational uses encompass planning, coordinating, monitoring, and evaluating, while strategic uses include policymaking and advocating.
4. Operational uses for EiE data are prioritized: Respondents representing a variety of organizations from across the humanitarian-development spectrum spoke about operational uses as the central uses for data in EiE. Using data for coordination is more salient among humanitarian actors, however few differences in data uses exist between humanitarian and development actors.
5. The biggest differences in data usage are between global and local level actors: Global actors use data for policy and advocacy at the system-level more frequently than those at the national level.
6. Data usefulness depends on context and use: The usefulness of EiE data depends on multiple factors in addition to the technical characteristics of the data, including the context, intended use, and individual and organizational capacity.
7. EiE data is often politicized: EiE data use and usability are influenced by political sensitivities of conflict settings, personal and institutional relationships that facilitate data sharing, and organizational structures that determine individuals' scope of work and mandate.
8. Institutions often lack the capacity to effectively use EiE data: The ability to generate, share, and use data is determined by both institutional and individual capacity. Respondents identified a need for capacity building for data creation, sharing, and use.

Discussion and Conclusion

Our findings pointed to six primary ways that EiE actors use data: planning, monitoring, coordinating, evaluating, policymaking, and advocating. Humanitarian and development actors discussed the use of data in similar ways, despite our initial expectation that there would be a substantial divide between how these two sectors thought about data use for informing their EIE work. These commonalities point to a shared starting point regarding data use and a shared set of challenges that can provide the foundation for increasing coherence between humanitarian and development actors. The more notable difference that emerged from the data was that respondents' proximity to EiE implementation changed the way they thought about data in predictable ways. Finally, when examining how actors use data, we found that although frequency, timeliness, specificity, and aggregation mattered, what mattered most was context, use, politics, relationships, and organizational capacity. The findings indicate that improving data and evidence for EiE does not depend solely on 'technical' aspects of data, but also on institutional and relational factors that enhance data collection, data sharing, and data use.

I. INTRODUCTION AND BACKGROUND

The Middle East is currently experiencing among the highest rates of displacement in the world. Ongoing conflicts in Syria, Iraq, and Yemen have displaced millions. In Syria, the United Nations (UN) estimates that more than 6.6 million people are internally displaced, and over 5.6 million have fled to other countries, including Turkey, Jordan, Iraq, and Lebanon. In Iraq, Islamic State (IS, ISIS, ISIL, Daesh) actors have displaced almost 6 million people. Major anti-ISIS military operations have allowed roughly 3.5 million people to return home and rebuilding efforts are underway to restore essential services, including schools and health centers; however, 1.5 million people remain internally displaced. In Yemen, the failed political transition in 2011, the Houthi separatist movement in 2015, and international interference has led to an escalating humanitarian crisis. Approximately 3.3 million Yemenis are internally displaced and 190,000 have fled to neighboring countries, including Djibouti, Egypt, Oman, Saudi Arabia, Somalia, and Sudan. Due to the conflict, lack of food, and a cholera outbreak, over 24 million people need humanitarian assistance, with 14 million in acute need.

About half of all displaced individuals are children, and conflict and displacement are highly disruptive to young people's lives and development. In response to these conflicts, an unprecedented global response has sought to ensure that displaced children continue to have access to safe, quality education. Throughout the region, United Nations agencies, including the UN High Commissioner for Refugees (UNHCR), the UN Children's Fund (UNICEF), and the UN Relief and Works Agency for Palestine (UNRWA), national governments, donors, and a broad array of local, national and international humanitarian and educational organizations have come together to support solutions that ensure children remain in school. Refugee-hosting countries have enrolled large numbers of refugees in public schools, while civil society organizations have run a variety of support programs, including temporary education centers, remedial education, psychosocial programming, early childhood education, and transportation.

These actors are coordinating in new ways to better meet children's needs amidst protracted and changing conflict dynamics. However, the data systems that monitor and support educational provision and outcomes in areas affected by these conflicts remain highly fragmented and inaccessible. To address some of these challenges, in October 2017 the United States Agency for International Development (USAID)/Middle East (ME) Bureau launched the Middle East Education Research, Training, and Support (MEERS) activity, a four-year effort to support continuous data collection, research, training, and analysis related to learners, teachers, education systems, and education outcomes in the Middle East. A primary goal of MEERS is to collect and disseminate data on the effects of the Syria, Yemen, and Iraq conflicts on education.

In Year 1 of the MEERS project, an in-depth data mapping and stakeholder consultations process undertaken by FHI 360 revealed that a great deal of humanitarian education data is being collected for the three crisis contexts, but that it can be difficult for those working in education in emergencies (EiE) to find and use timely and accurate education data. Moreover, we found that the humanitarian-development divide in education is reproduced in distinct data systems and ecosystems: the humanitarian and development sectors tend to have different indicators, timeliness, reference populations, and actors involved in collection, aggregation, and dissemination. Data usage emerged as an important theme: different actors use EiE data in different ways, and have different data needs. An initial EiE data usage framework was produced, breaking out a set of data use categories. Following this, an additional set of stakeholder consultations was carried out in Year 2 to dig deeper into data usage, while at the same time validating and refining the EiE data usage framework, which highlights six primary uses: planning, coordinating, monitoring, evaluating, policymaking, and advocating.

This report situates MEERS work on EiE data in the broader context of EiE data and data use literature, explains our stakeholder consultation methodology, presents findings from Year 1 and Year 2 consultations, and concludes with remarks on how to improve EiE data and data use more broadly.

II. THE BROADER CONTEXT: UNDERSTANDING DATA AND DATA USE IN EIE

In this section, we review some of the relevant literature associated with the topic of EiE data and how it is collected, shared and used. We begin with an examination of the topic of humanitarian-development coherence in the EiE space, which emerged as a theme from the stakeholder consultation and data mapping processes and is also a focus of USAID's Education in Conflict and Crisis Learning Agenda. We then examine in detail what is meant by EiE data – what is included, and the different dimensions of EiE data – and conclude with a section on the factors affecting EiE data usage.

Humanitarian-Development Coherence in EiE

Through an extensive EiE data mapping activity and an initial set of stakeholder consultations, it became clear that the humanitarian-development divide is clearly manifested in the fragmented nature of education data in crisis and conflict-affected contexts, and any solutions will need to consider strategies for building coherence across agencies and sectors. Additionally, the increasingly protracted nature of many conflicts has called for new forms of collaboration between humanitarian and development actors. The latest thinking around improving humanitarian-development coherence moves away from efforts that support the transition from short-term programmatic responses to longer-term development interventions. Instead, current thinking focuses on how both sectors can engage in joint responses that draw on the capabilities of both development and humanitarian actors based on a shared understanding of the context.

This framework for strengthening humanitarian-development coherence was first conceptualized at the World Humanitarian Summit (WHS) in Istanbul in May 2016, triggering a major shift in how the global community works together to prevent and respond to human suffering. At the summit, global leaders called for a 'new way of working' that not only meets people's immediate needs in a principled manner, but also transcends the long-standing divide between humanitarian and development actors to sustainably lessen those immediate needs by reducing risks and vulnerabilities overtime. The 'New Way of Working' (NWOW) is based on the idea of achieving collective outcomes, building on the comparative advantages of a diverse range of actors over multi-year timeframes. Rather than starting from the need to coordinate the actions of various actors, NWOW takes a results-based approach. It begins by better defining collective outcomes, or shared results, that significantly reduce risk and vulnerability. It then draws on the concept of comparative advantage to outline approaches by various humanitarian and development actors and seeks to take specific operational and financial measures to deliver on outcomes together.

Understanding Data in EiE

In this report, we rely on a general understanding of data as "facts and information," including both quantitative and qualitative data. Some common examples of data in EiE include how many children are of school age, how many children are accessing various educational programs, the location and state of schools, where partners are operating, and how much humanitarian funding is devoted to education, among many others. Prior studies have found that data for EiE often comes from government authorities and UN agencies, who play an important role in aggregating and disseminating data that are originally collected by implementing partners (Anselme et al. 2019). However, there is very little literature specifically on data use or sharing in EiE; nonetheless, various literatures on knowledge mobilization in education (Levin 2013), data driven decision making (Maxwell, Rotz, & Garcia, 2016), and evaluation use (Donnelly & Searle, 2017) all discuss the factors that shape how individuals use data and information for decision-making.

Prior research has noted that data systems vary significantly across humanitarian and development sectors, which is one factor hindering the use of data by EiE professionals (Buckner et al. 2019). Important differences regarding data in humanitarian responses include an unclear and unstable reference population as well as high levels of volatility. This leads to greater difficulty collecting high quality data relevant for EiE with sufficient frequency to be relevant. There are important differences in institutions and coverage. Development data tends to be collected or published annually through Education Management and Information Systems (EMIS) by national or sub-national governments. In contrast, data collected through humanitarian organizations and disseminated through the cluster system or UNOCHA is often only generated where humanitarian responses exist. The coverage of humanitarian data is rarely nation-wide, but rather, is necessarily focused on specific conflict- or crisis-affected areas. Data collection and dissemination mechanisms also vary tremendously, with development data systems typically being managed by government actors, while humanitarian data systems work through a combination of UN systems, non-governmental organizations, and governments, as part of broader humanitarian responses. Finally, indicators in EiE tend to focus on services and beneficiaries where data can be linked to current actions.

In addition, data in EiE vary across a number of dimensions and come in various formats. In EiE, some of the key dimensions of data include frequency of collection, scope and coverage, and the extent to which the data is aggregated and processed. Although some data are collected as one-off assessments, most EiE data are collected at semi-regular intervals. This is particularly true of monitoring and coordinating data, which are collected monthly, quarterly, or annually depending on the data and mechanism for sharing it. Scope and coverage also vary. Some forms of EiE data is collected at the individual level for certain subsets of individuals. Other forms data is collected at the project level, for a sub-population, a geographic area, or an administrative boundary.

Factors Affecting EiE Data Usage

Due to the limited literature on EiE data specifically, we draw on several related bodies of literature below. The literature on knowledge mobilization has contributed to a more nuanced understanding of how data is used in educational programming (Levin, 2013). This literature points out that data usage is not a linear, technocratic process from data collection to use—rather it is an iterative, social process. As such, the context in which data is generated and used should be considered alongside both the context of knowledge generation and utilization. The literature on data-driven decision making (DDDM) highlights the importance of social structures, including an organization's culture around data. Work on DDDM and other measures of organizational culture have highlighted the fact that various members of a single organization may have differing concepts of data, use, and DDDM (Maxwell et al., 2016), thus drawing attention to the importance of understanding the complex interactions of actors, organizations, and sectors. In our study, we draw on this literature to probe how data is used by diverse stakeholders working in the field of EiE, and point to important differences across organizations and mandates.

Research on the utilization of evaluations has highlighted the importance of the process of generating the data as a determinant of its eventual use (Patton, 2008; Ramirez, Kora, & Shephard, 2015). The importance of building relationships between those generating and using data is widely accepted as a crucial determinant of data/evaluation utilization (Donnelly & Searle, 2017). The importance of engaging stakeholders is also aligned with the literature on knowledge mobilization. Indeed, one reason why the term 'mobilization' is used by adherents of this paradigm is that it "indicates that this work requires specific effort, over time, working with others, and involves much more than telling people about research findings" (Levin, 2013, p. 2). Finally, the literature on evaluation use has generated a useful typology of evaluation use which has informed our own data use typology (Liket et al., 2014).

Additionally, the broader literature on inter-governmental information sharing (Gil-Garcia & Sayogo, 2016) and governmental information networks (Henning, 2018) has shed light on factors associated with

data sharing that have relevance for EiE. Gil-Garcia and Sayogo (2016) highlight seven determinants of inter-organizational data sharing, including: organizational, managerial, technological, informational, policy, political and contextual factors. Managerial factors have been identified as particularly important; because the effective use of data and data sharing requires time and effort, the authors' find that it is important for a particular role to be given responsibilities for information sharing, and dedicated time (Gil-Garcia & Sayogo, 2016). This is likely a barrier to data sharing and data use for both humanitarian and development actors, especially non-governmental organizations, given that they often lack a dedicated staff member responsible for data at the local level (Bach-Mortensen, Lange, & Montgomery, 2018). Even in organizations with strong monitoring and evaluation units, these staff often operate at the headquarters level and are unlikely to be experts in knowledge management or data sharing.

Studies have also identified interoperability standards and technical infrastructure as particularly important factors (Gil-Garcia & Sayogo, 2016). The humanitarian sector has moved towards standards of data collection and sharing—for example, the resources available through OCHA's Information Management Toolbox and the Humanitarian Data Exchange (HDX). Development actors share a set of standards for reporting on sustainable development goals at the national level for strategic uses but lack a standardized approach to data collected at a project level for operational uses, which may differ by project and country.

Informational factors concern the content of the data to be shared and concerns to protect the data itself and the individuals linked to that data. If an organization has less secure methods for transferring and retaining data, other organizations with more secure data may not share that data. In addition, data sharing that results in the linking of different data sources can result in the inadvertent reidentification of otherwise anonymous data. Data security and privacy considerations are unfortunately underdeveloped in the humanitarian and development sector (Hayes, 2017), but are certainly of concern given the sensitive data that is sometimes linked to humanitarian case files – for example using UNHCR registration numbers.

Policy factors include the laws and regulations that allow, empower, encourage, or restrict the collection and sharing of data by various entities. For example, most countries have laws that regulate the collection and disclosure of health and education data. Meanwhile, organizations may have internal policies designed to protect data and restrict access to it. While policies that enable some degree of data sharing are a necessary condition for data sharing, they are not sufficient (Gil-Garcia & Sayogo, 2016). Policy factors play an even more complex role in EiE than in traditional inter-organizational data sharing. This is because both humanitarian and development actors operate in multiple countries, including countries that lack strong legal institutions. In addition, humanitarian actors work within international humanitarian principles that are distinct from the policies of development organizations or their countries of operation. Therefore, data sharing must account for policies at multiple levels. However, the shared complexity of both humanitarian and development actors can also provide an opportunity for each to learn from the other and test different data sharing approaches across multiple contexts.

The political (or apolitical) nature of the entities who own various data can also be a factor in the success or failure of data sharing initiatives. Dawes and Pardo have highlighted the importance of 'political distance' in particular—that is the difference in the political orientation and goals of the actors (Dawes et al. 2002). This perspective is important to consider for EiE given the apolitical nature of humanitarian organizations and the political efforts of development and government actors. This difference may increase the political distance between the various EiE actors, such as when an organization linked with an outside government is not allowed to participate in the education cluster.

Finally, the context in which the organizations operate matters. In unstable contexts, or contexts where legal data protections may not be respected by all parties, more conservative approaches to data sharing may be necessary. In addition, in contexts under socioeconomic strain, the short-term costs of setting

up data sharing and data interoperability may prohibit the realization of the long-term savings that data sharing can eventually reap. The conflict affected contexts in which education in emergencies operates heightens both the socioeconomic and political challenges facing both humanitarian and development actors.

III. METHODOLOGY: THE MEERS DATA MAPPING AND STAKEHOLDER CONSULTATION PROCESSES

MEERS carried out a two-year data mapping and stakeholder consultation process in order to:

1. Map existing public and non-public education data sources related to the conflicts in Syria, Iraq and Yemen;
2. Understand different actors' data needs and major challenges, including data gaps;
3. Develop a data usage framework reflecting the data needs of different EiE actors;
4. Outline an agenda for better supporting the use of best practices in educational data collection, dissemination, and research design in conflict-affected regions of the Middle East.

This was carried out in two stages: via an initial data mapping and stakeholder consultation process in Year 1, which informed the first set of MEERS' EiE data activities including presentations, trainings, publications, and conferences focused on issues and challenges associated with the EiE data ecosystem; and a second phase of stakeholder consultations in Year 2, focused specifically on how different EiE actors use EiE data, leading to the validation of an EiE data usage framework that is shared in this document.

Data Mapping Process

In Year 1, FHI 360 mapped publicly available datasets and resources and created a data library that allowed for the tracking of multiple key educational indicators over time in each of the three conflict-affected regions of Iraq, Syria, and Yemen. In Year 2, FHI 360 continued the EiE data mapping activity, and added new monthly humanitarian dashboards published in 2019 for all three contexts. Additionally, FHI 360 identified key education indicators available from different sources, including indicators related to school access, retention, and completion; literacy and learning; and teachers, school infrastructure, and other school resources and supplies. We also looked at the availability of essential indicators for understanding conflict-affected environments, including numbers of IDPs/IDP families and refugees; incidents of violence, armed conflicts, and attacks on schools; numbers of beneficiaries reached by education programs and psychosocial services through the humanitarian responses; and youth employment indicators.

Stakeholder Consultation Process

In Year 1, FHI 360 engaged in three phases of stakeholder consultations and rolling strategic meetings, adopting snowball sampling through a phased approach, with each phase focusing on a distinct type of stakeholder, to elicit wide ranging perspectives. Stakeholders were identified for participation based on their experience in international and national organizations working on educational programming in conflict-affected areas of the Middle East. The consultation process was phased and iterative; after each round of interviews, we revisited and tweaked interview questions as needed. In Phase 1, FHI 360 interviewed 10 organizations working to collect, aggregate, and disseminate data on education in conflict, including the Global Education Cluster (GEC), the World Bank, and UNHCR, to understand existing data collection and dissemination processes and tools. In Phase 2, FHI 360 conducted seven stakeholder consultations and one group consultation with international and national humanitarian and development organizations specifically involved in carrying out education programs on the ground,

including Save the Children, Norwegian Refugee Council (NRC), and People in Need. The aim of Phase 2 was to better understand how these organizations use data in their programming, what their major needs and challenges are, and how their data does or does not feed into global data collection systems identified in Phase 1. Phase 3 stakeholders were recommended and introduced to us by Christine Capacci-Carneal at USAID. In this phase, we spoke with a wide range of US government actors, including the USAID Middle East Bureau, the Department of State Bureau of Population, Refugees, and Migration, and several Syrian stabilization initiatives, to understand their perspectives on data uses, needs, and the role of their office in supporting educational needs of children in conflict or displacement. In parallel to the phased stakeholder consultations, FHI 360 conducted multiple strategic partnership meetings with key players in the EiE data space, including the Inter-agency Network for Education in Emergencies (INEE) and Education Cannot Wait (ECW), to better understand the landscape of EiE data initiatives and consider options for sustainability of MEERS activities.

In Year 2, FHI 360 expanded stakeholder consultations to include actors suggested by USAID after Year 1 and actors working outside of the Middle East region. The selection process focused on identifying professionals working in EiE who were knowledgeable about educational programming generally, as well as those who specialized in data. This wave of consultations included 11 interviews with 14 representatives from INGOs, bilateral development agencies, and UN agencies. Consultations in Year 2 were conducted using semi-structured interviews lasting from 30 to 60 minutes and interviews were recorded and transcribed. In order to synthesize findings from Year 1 and Year 2 consultations, FHI 360 coded and analyzed transcripts from Year 2 and interview notes from Year 1. Analysis took a primarily grounded and inductive approach, in which the team identified and explored themes alongside the application of a coding framework.

The next sections synthesize findings from the stakeholder consultations across Year 1 and 2 and put forth a vision for how MEERS can advance conversations about data and education in the conflict-affected areas of the Middle East and globally.

IV. FINDINGS

As described above, we adopted an iterative approach to data mapping and stakeholder consultations over the course of two years. With each iteration, our understanding of the complexity of educational data systems in conflict-affected regions of the Middle East has deepened. Initially, we were under the impression that we would not find much publicly available data on education, and that much of the data that does exist is held privately by NGOs and other implementing organizations. Our data mapping exercise proved otherwise: many different types of data and robust systems for collecting and disseminating data do exist, and much of it is publicly available, at various levels of aggregation. In particular, the UN's Education Cluster system is the lead actor for data collection and dissemination and makes a lot of data on educational programming publicly available through regular data dashboards. We also learned about many strategic initiatives that are underway to align and harmonize educational data systems in the region.

Subsequent rounds of stakeholder consultations indicated that there is a diverse array of actors who desire better data on education in the Middle East, including policymakers and development donors, for a range of reasons. A key takeaway was that actors' needs for data vary tremendously based on their role, capacity, and context.

Publicly Available Data for Iraq, Syria and Yemen is Widely Accessible but Difficult to Find and Navigate

We mapped publicly available datasets and resources and created a data library that allows us to track multiple key educational indicators over time in each of the three conflict-affected regions. The major finding from the data mapping process is that there is a lot of publicly available data on education in the conflict-affected regions of the Middle East, but there are challenges that non-specialist consumers of education data would likely face when navigating these data. The primary problem is that there are many disparate forms of data and various dissemination venues. It can be extremely difficult for a non-specialist to find up-to-date and relevant data needed to answer specific questions. For example, there are thousands of monthly dashboards related to education and conflict, typically published in PDF format. Some of these dashboards report on levels and locations of displacement and people and children in need, while others track the civil society response (i.e., who is doing what, where, and when). It is rare for the data published by humanitarian organizations to be available in digitized format. **Error! Reference source not found.** summarizes the key indicators and data sources we found.

Table I Findings from EiE Data Mapping for Iraq, Syria, and Yemen

	Data Categories	Key Indicators	Sources and Frequency
PRE-CONFLICT	School access, retention, and completion	Intake enrollment, repetition, dropout, completion, survival, transition, OOSC, pupils, attendance	• EPDC (annual) • UNESCO UIS (annual) • DHS, MICS (~3-5 years)
	Educational resources	Teachers, PTR, trained teachers as a % of all, public expenditure per pupil	• EPDC (annual) • UNESCO UIS (annual) • EMIS (annual)
	Literacy and learning outcomes	Learning achievement in reading, math, or science	• EPDC (annual) • TIMSS, PIRLS, PISA, and/or EGRA (~5 years)
	Employment	Youth not in school or employment (% ages 15-25)	• HDI (annual) • ILO
EFFECTS OF CONFLICT	School access, retention, and completion	Children in need, OOSC (targets)	• HRPs, HNOs (annual) • Humanitarian Dashboards (~monthly)
	Educational resources	Schools or classrooms damaged, learning materials, teachers trained (targets)	• HRPs, HNOs (annual) • Humanitarian Dashboards (~monthly)
	Conflict	Conflict incidence and intensity, # of fatalities, # of conflict-related deaths, attacks on education, attacks on schools	• ACLED (~monthly) • UCDP (annual) • Humanitarian Dashboards (~monthly) • *GCPEA (~annual)*
	Population movement and displacement	# of refugees, # of IDPs/IDP families, # of returnees, occasionally # of refugee children	• UNHCR Population Statistics Database (annual) • IOM DTM (~monthly) • Humanitarian Dashboards (~monthly)
HUMANITARIAN RESPONSE	School access, retention, and completion	# of children accessing formal, non-formal, accelerated or early childhood education	• Humanitarian Dashboards (~monthly)
	Educational resources	School infrastructure, provision of school supplies, teachers trained	• Humanitarian Dashboards (~monthly)

	Program beneficiaries	# of children enrolled in educational programs or supported with PSS	• Humanitarian Dashboards (~monthly)
	Donor response and funding	Funding received (USD), funding requirements (USD)	• 3/4W reports (~monthly) • Financial Tracking Service
NEEDS &GAPS	Population in need	School-age children in need of education assistance, school-age children who are out of school, population in need by age group and subnational level	• HRPs, HNOs (annual) • Humanitarian Dashboards (~monthly)

In addition to data published on humanitarian portals, we have also identified numerous forms of data that are used in various development-oriented, academic and advocacy contexts. This includes Ministry Data on Educational Systems (EMIS), academic datasets on conflict incidence, data on school feeding programs, and advocacy data on attacks on schools that have not been integrated into data portals on the humanitarian response to education in conflict.

We also found that data on education, including basic indicators such as the number of out of school children in a given country, can be hard to find within larger humanitarian portals that focus on number of displaced individuals, child protection, and other forms of humanitarian responses. Access to data is complicated by the fact that for the most part, unless consolidated under a regional umbrella, each country has its own humanitarian portal, and the URLs to each humanitarian data portal are not systematized, so unless a user knows the specific URL, it is not easy to find.

Additionally, the frequency of dashboard publication varies significantly depending on the reporting organization, conflict, and country. Some data dashboards are published monthly, while humanitarian needs overviews are typically set annually or biannually. Other forms of data are published sporadically or with large gaps in reporting. Relatedly, data dashboards are typically published as monthly reports or single snapshots with no history or option of looking at change over time.

Similarly, we found that there are several data publishers. UN OCHA, UNICEF and UNHCR are all involved in collecting and publishing data on various aspects of the effects of conflict and the educational response. However, each organization publishes different types of information, often in different formats. UNHCR publishes data on the number of refugees, UN OCHA and the IOM publish data on the number of IDPs, and UNICEF publishes educational data. Moreover, because data on IDPs and data on refugees are often available on different websites and portals, it is difficult to gain a holistic view of how each conflict has affected access to education overall.

In summary, the data mapping process revealed that while there is a lot of publicly available data on education in the conflict-affected regions of the Middle East, there is a need for better curation of existing data, organizing it into more accessible and user-friendly formats. Sporadic and inconsistent publishing of data dashboards makes it difficult to understand how educational needs and responses have changed over time as the conflicts themselves have evolved.

The Humanitarian-Development Divide is Reflected in Data

A key finding from the data mapping and stakeholder consultations is that differences in data systems reflect organizations' different mandates and the nature of their work, creating a widely recognized "data gap" in EiE. One reason for this "data gap" is a lack of coherence across humanitarian-development programming across all sectors, including education. Humanitarian and development institutions have very different mandates, which results in a lack of common conceptual ground about their purpose. In part due to these different mandates, distinct institutional structures, cultures, and programming are oriented to different objectives and time frames. Humanitarian actors are oriented to life-saving interventions and their time frames are often officially short-term, guided by immediate needs

and constantly changing conflict dynamics, even when they receive renewed funding or work in protracted conflict settings. In the humanitarian sector, data are oriented towards coordinating the humanitarian response and assessing needs. In contrast, development actors' interventions are focused on supporting the long-term capacity of national education systems.

In the humanitarian sector, there is an extensive global network of organizations supporting data collection and strong partnerships among various actors working in education in emergencies in the region. For the humanitarian response, UN agencies have systematized data collection and dissemination by partners through an online platform called Activity Info. In this system, data on the humanitarian response is collected and reported directly by partners related to their own programming and beneficiaries. The 4Ws system is used to collect standardized indicators on education including: total number of beneficiaries receiving programs; children receiving education grants; children enrolled in formal or non-formal education; youth and adolescents receiving higher education scholarships; teachers trained and children receiving textbooks and learning materials. Humanitarian data, as demonstrated in **Error! Reference source not found.**, is generally frequent (weekly or monthly), does not have the advantage of a stable reference population, focuses on education services provided (often outside the system) rather than on the system itself or on demand for education services, and there is generally a lack of clear agreement or understanding on what is meant by data coverage, reliability and quality.

Table II Differences Between Educational Development and Humanitarian Education Data

Dimensions	Development Data	Humanitarian Data
Frequency	Infrequent (annual)	Frequent (weekly, monthly)
Reference population	Relatively stable	Not stable (lots of population movement, displacement)
Main focus	Overall education system	Education services provided (supply), often outside of the education system
Definitions of data coverage, reliability, and quality	Relatively clear/ shared understanding	No clear/ shared understanding

In the development sector, educational programming, and resultant data collection and dissemination relies on government partners. However, in conflict or crisis-affected settings, there is often a lack of capacity to maintain strong educational data systems. In all three of the conflict-affected countries, EMIS either do not exist or do not cover the entire country. However, when development education data does exist, it is traditionally infrequent (i.e. annual), has the advantage of a stable reference, population, focuses on the health of the overall education system, and benefits from fairly clear agreement or understanding on what is meant by data coverage, reliability, and quality.

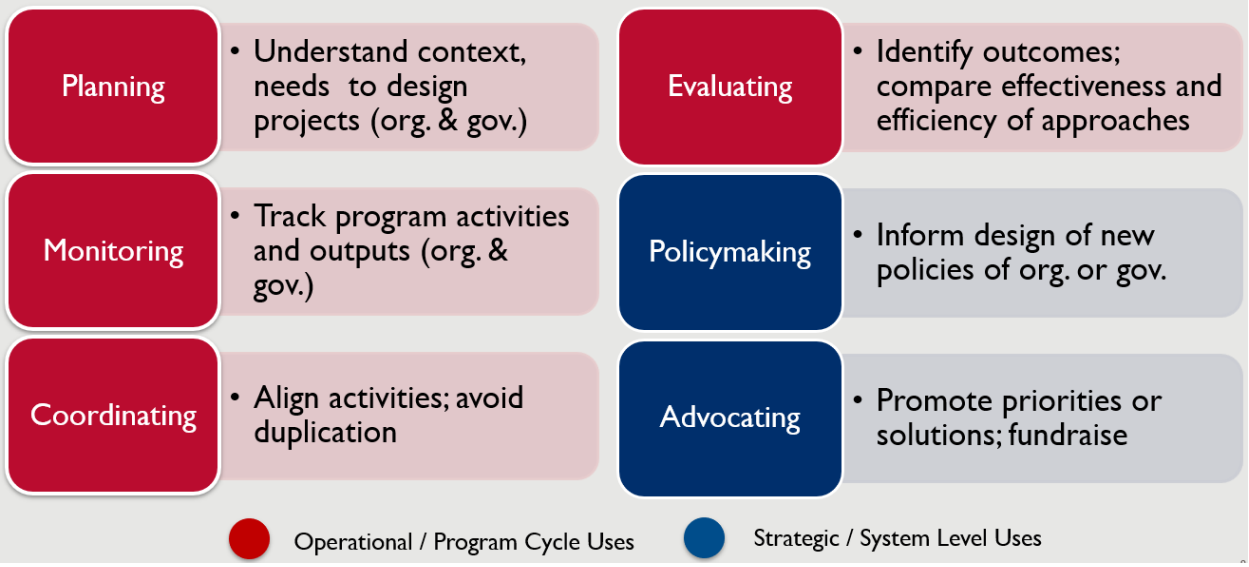
There are Operational and Strategic Uses for EiE Data

Drawing from the literature and the analysis of interviews in Year 1, we developed an initial data usage framework identifying six primary ways in which data is used in EiE: planning, coordinating, monitoring, evaluating, policymaking, and advocating. The six uses in the framework were confirmed during the Year 2 stakeholder consultations. Respondents note that it covered the ways in which they use data and reflected on how it relates to other frameworks, such as the humanitarian program cycle. In addition, the interviews revealed that these six uses can be grouped into two families: the first encompasses planning, coordinating, monitoring, and evaluating. This family is associated more with operational and

administrative concerns. The second family includes policymaking and advocating and is more closely tied to strategic and systemic concerns.

Error! Reference source not found. shows these six data usage categories, organized by the two overarching categories of operational uses (in red) and strategic/systemic uses (in blue).

Figure I MEERS' Revised and Validated Data Use Framework



Each of these six categories can be described as follows:

Planning is the use of data to inform specific actions that will be taken to reach a goal. This often includes the use of data on the current needs, the resources that could be drawn on to meet those needs, and data on the barriers and facilitators of reaching the goal that the plan aims at. For example, data from the Humanitarian Needs Overviews (HNOs) is used to develop the Humanitarian Response Plans (HRPs).

Coordinating is the use of data to help multiple entities work together toward a common goal. This often includes avoiding conflicts or duplication, identifying opportunities for collaboration, and optimizing the distribution of activities. An institutionalization of this within EiE is the use of data to coordinate educational activities through the education cluster, using the so-called 3/4/5Ws (who does what, where, when, and for whom).

Monitoring is the use of data to track what is happening for management purposes, accountability (including financial), and for providing feedback. This often includes using data to determine if and how a plan is actually implemented (and how much is spent). An example of this would be the monthly (or quarterly) education cluster dashboards that use data on the number of children reached compared to the target and the need.

Evaluating is the use of data to track the emergence or non-emergence of outcomes in order to assess the 'quality' of an intervention or policy and to identify 'good practices'. In the case of EiE, this may include the use of data on academic attainment or learning outcomes. An example of this would be the use of the ASER early grade reading and numeracy assessment tool by the International Rescue Committee with learners within an educational intervention.

Policymaking refers to the use of data to inform the design of organizational or governmental policies. This often involves using data to determine priority areas, funding allocations, and thresholds. An

example of this would be the use of data to develop Education Sector Plans that are conflict sensitive or the use of data to determine the thresholds (such as age) for participation in certain education programs.

Advocating refers to the use of data to exert pressure on actors to change their ideas or practices. This usually involves using data to persuade or pressure individuals (often policymakers) to prioritize a problem or solution, to allocate funding to a set of actions, or to change an official organizational or governmental policy. An example of this would be the use of data in HRPs, regional response plans (RRPs), flash appeals, and the Global Humanitarian Overview to advocate for funding for EiE.

Operational Uses for EiE Data are Prioritized

Respondents representing organizations with different mandates and various levels of experience all spoke about operational uses as the central use for data in EiE, pointing to a shared assumption that data should be used to inform operations, even if there are challenges with regards to accuracy. In terms of how data is used, planning, coordinating, monitoring, and evaluating were the most common responses to open-ended questions about the purpose of data for respondents' work in EiE generally. Content analysis confirmed that these were also the most frequently mentioned uses, especially planning and monitoring.

While many respondents mentioned the use of data for evaluating within this broader family of uses, they often lamented that this was an area in need of improvement, in contrast to monitoring, indicating the important distinction between these two uses not only conceptually but in practice. This is a common finding in the EiE literature (cf. Burde, Kapit, Wahl, Guven, & Skarpeteig, 2016). Respondents noted a lack of data for evaluation as common to both governments and humanitarian organizations. In short, while respondents think it is important to use data to evaluate operations, they also recognize that this is rarely happening in practice.

We also noted some sectoral differences: humanitarian actors stated that data is used for coordinating substantially more than development actors did. Humanitarian actors readily discussed both the importance of using data to coordinate, particularly through the educational cluster, as well as the challenges of doing so. This use of data for coordinating was less salient among development actors, although they still mentioned it.

Despite designing the research to identify differences between humanitarian and development actors in the use of data, we found few such differences apart from differential emphasis on coordination noted above. Indeed, the heightened salience of coordination was noteworthy in part because it was one of the only differences that emerged, and even so, it was not a dramatic difference. That said, we also found an interesting difference in how humanitarian and development actors framed the importance of data. For humanitarian actors working in global organizations, the common point of reference is the Grand Bargain (IASC 2016) and the New Way of Working (NWoW) (OCHA 2017). These global agreements call upon humanitarian actors to be more transparent and inclusive, with data playing an important role. Meanwhile, development actors focused on the Sustainable Development Goals (SDGs), and specifically SDG4 which commits all nations to ensuring access to quality education for all. A number of respondents explained that data systems for SDG4 were not well equipped to account for learners affected by conflict and displacement.

Despite these differences, our analysis indicated that professionals working in EiE tend to use data in similar ways, regardless of sector. Instead, the more noteworthy difference that emerged was between actors operating at a global—or cross-national level—compared to those working at a national level, the point we discuss below.

The Biggest Differences in Data Usage are Between Global and Local Level Actors

We found that actors who are working at a transnational (global or regional) level discussed the use of data with different emphases than actors whose work focused on a national (or local) level. For brevity we refer to these two groups as global and national respectively. In particular, global actors discussed policy and advocacy more frequently than those at the national level. These global actors often talked about the role of data within a 'system' and the use of data to inform the policies of 'systems' or to advocate for changes to them. Such system-level discourse referenced the use of data directed at both policy and advocacy globally and nationally. This duality was in part because global respondents often saw the country governments as their primary stakeholders. Although the global level shares the focus on operations, we found this is combined with a more consistent focus on strategic data use for systems strengthening.

In this section, respondents are pointing to the importance of users' ability to make sense of data, which asks not only how data is used, but what makes it useful to those using it. In the next section, we turn our focus to the question of data usefulness.

Data Usefulness Depends on Context and Use

During the stakeholder consultations we also asked what makes data useful to respondents. As prior literature has found, respondents mentioned many limitations to existing data, including a lack of timely, accurate, or relevant data. That said, in this section, we point out that what makes data useful to professionals in EiE depends does not only depend on availability or accuracy of data. Rather the usefulness of data depends on multiple factors in addition to the technical characteristics of the data, including the context, the intended use, and individual and organizational capacity. Importantly, respondents noted that the type of data that is most useful in EiE depends on the nature and of the emergency as well as the type of use to which the data are put.

Respondents overwhelmingly indicated that frequency of data collection should be closely related to how volatile the situation was, and how rapidly data could become out-of-date. For example, when emergencies are most acute and population movements are most volatile, timely data, up to biweekly or even daily reports, was deemed most useful. However, in protracted crises in which populations are relatively stable, a lower frequency is sufficient.

In addition to the usefulness of more or less frequent data being dependent upon the context, it also depends on the use. Often respondents reflected that less frequent data was needed for more strategic uses such as policymaking and advocacy while more frequent data might be needed for more operational uses. The patterns of responses were similar when respondents were asked about what level of data granularity was more useful. While respondents once again said this depends on the context and the use—there was a preference for more detailed data. The most important reflection for the purposes of our use framework is that operational uses required more granularity than the strategic uses.

Similarly, many respondents preferred raw data so that it could be linked to other data sources and analyzed to address additional questions and other uses. However, this preference was accompanied by a frequent caveat: that the organization needed to have the capacity to analyze the raw data. The lack of this capacity within an organization was noted as a frequent shortcoming.

Despite a general preference for higher frequency and more specificity for operational uses, there was also agreement that actors often cannot collect more data than they are currently. For example, one participant who worked in the humanitarian sector seemed to point to logistical and resource challenges in collecting more data. However, other participants noted the same constraints regarding data analysis and use. For example, one participant explained that data that is too frequent can be problematic in that it presents staff with too much information when they don't have the capacity or time to analyze it. In the first two sections, we ask how data is used, and what makes it useful to those working in EiE. What

emerged was a complicated landscape that defied simplification: context, purpose, and capacity were all important factors. In the next section, we elaborate on the social and political dimensions of data in EiE.

EiE Data is Often Politicized

Throughout both rounds of interviews, respondents regularly expressed that the availability and quality of data for education in emergency settings does not involve only technical considerations of data systems and platforms. Rather, data use and usability are influenced by political considerations, personal and institutional relationships that facilitate data sharing, and organizational structures that determine individuals' scope of work and mandate. In this section, we point out how considerations of data usage and usability cannot be separated from the context in which EiE professionals are operating and as a result, requires a consideration of the social and political aspects of data collection and usage.

The political sensitivities of conflict settings, coupled with the humanitarian imperative of neutrality during a conflict create unique political barriers to data collection, sharing, and use. Respondents highlighted the fact that data availability reflected concerns over the power of numbers as tools of judgement. Particularly in conflict settings, or contexts where there is pressure on governments and organizations to be accountable to donors, there was concern that numbers were manipulated, and this affected the perceived validity and reliability of data. Some respondents explained that they simply did not trust the data coming out of governments, or, in some cases, UN agencies. For example, one respondent noted concern over the validity of refugee data as it can be highly politicized and susceptible to manipulation. Additionally, a respondent from a donor agency noted that a Ministry would change data before funding to make their situation look more dire to receive more funds.

Data sharing is complicated by competing demands on organizations working in EiE. Data users simultaneously need to maintain positive working relationships with organizations that collect and disseminate data, while also recognizing that their dependence can limit the external verification and validation of data. One participant noted that UNICEF is politically hindered to provide data as they have a bilateral relationship with governments. Thus, it is not in the interest of governments to make certain information available as it may make the adequacy and effectiveness of their response look worse. Another respondent expressed concern over the various financial and political incentives to manipulate data, especially for UN agencies like UNOCHA that need to maintain relationships with governments.

In other cases, respondents explained that a primary concern was that data would draw attention to an issue or group that some would prefer to not be noticed. One participant, who worked in a donor agency that was part of the EiE response to the Syrian refugee crisis, highlighted that there are specific reasons that data is missing. They explained that some data is deliberately not collected because organizations or governments do not want it to be used in certain ways—for example, believing that education provision was sufficient, and those efforts should not be evaluated.

Additionally, respondents said political dynamics limited their ability to share data, because it could be used to identify program locations or organizations. Moreover, respondents suggested that political and conflict dynamics made it even more important to protect data. One respondent, who worked at a donor agency supporting the Syrian response explained that data sources, such as 4Ws, are not shared due to certain political sensitivities, which leads to an incomplete picture and subsequent duplication of efforts.

In short, our participants pointed to various ways in which data does not serve a neutral reporting function of objective fact, but that the use of data is linked to political and financial interests of governments, UN agencies, non-governmental organizations, and beneficiaries.

Recognizing the many ways in which data are used politically, our participants also highlighted the importance of relationships as critical to information-sharing. We found that generating, sharing, and using data were all facilitated by personal and institutional relationships that generated trust. Some

respondents explained that their relationships with other organizations has facilitated data sharing and collaboration.

On the one hand, our findings shed light on how the field of EiE already relies on professional and organizational relationships to share data. One respondent, who works at a UN agency, explained how governments and UN agencies are dependent on one another for data collection and sharing in the countries where they work. One respondent, who worked in the humanitarian sector, explained in that personal relationships facilitate data sharing between Ministries and agencies such as UNICEF.

In addition to needing information, respondents also pointed to the ways that data facilitated relationship-building among those working in the humanitarian response. Data was framed as helping to facilitate more general relationship building within the field, especially within the humanitarian cluster system.

Institutions Often Lack the Capacity to Effectively use EiE Data

The ability to generate, share, and use data is also determined by both institutional and individual capacity. In general, respondents mentioned the need to strengthen capacity, but perspectives on what types of capacity were needed varied. First, we found that capacity building did not always imply a generalized training; rather, for many respondents, capacity implied ensuring that organizations had access to specialized technical capacity. In particular, we found that there is a need to have someone within each entity that knows how to find, generate, and use data. For example, one respondent explained that their organization always publishes cleaned and aggregated data along with the raw data but finds that with household surveys, it is unlikely to be used as clusters often do not have the analytical capacity. One important example of this in EiE is the information manager that is supposed to be one of the two staff within every education cluster. Unfortunately, approximately one third of clusters (31%) had an information manager in 2018, a slight decrease from 35% in 2017 (ECW, 2019, p. 125).

Additionally, while many respondents highlighted the need for capacity building for data creation, sharing, and use—the types of capacities needed differ by actor. For example, development actors cited the need to develop their staff capacity to navigate and use humanitarian data. A recurrent theme was that many actors working within educational development do not understand the complexities of the humanitarian sector or how to navigate their data systems. We also found differences across levels: global actors tended to frame the need for capacity building in terms of the ability to use and analyze data. Meanwhile, national actors tended to focus on building capacity to collect data. They highlighted the need for tools and individuals with capacity to collect reliable data. A recurring idea was the need for tools that were "validated" and "responsive" to the conflict setting.

V. DISCUSSION AND CONCLUSION

Through the MEERS Stakeholder Consultation process, we were able to map EiE data in the Middle East, gain understanding into the overall EiE data ecosystem including the ways that the humanitarian-development divide is reflected in data, and finally examine how professionals in EiE use data in their work. Our findings pointed to six primary ways that EiE actors use data: planning, monitoring, coordinating, evaluating, policymaking, and advocating. That said, we recognize that data use is not linear and that these uses are not exclusive; the same data can be applied to varied uses and the uses can interact with each other. A key finding throughout our interviews was that professionals working in EiE wanted data to inform their decisions about educational programming and policy. As one of our respondents explained, their ultimate goal was to put data in the hands of decision-makers. At the same time, our interviews shine a light on the important roles that inter-governmental organizations and donors are playing as a support role. Similarly, respondents talked about the importance of EiE

operations being "evidence-based" and how data was an important part of that. This assumption was held alongside concerns about data accuracy, timeliness, and untoward political motivations.

One striking finding was that aside from the minor nuances above, humanitarian and development actors discussed the use of data in similar ways, despite our initial expectation that there would be a substantial divide between how these two sectors thought about data use for informing their EIE work. These commonalities point to a shared starting point regarding data use and a shared set of challenges that can provide the foundation for increasing coherence between humanitarian and development actors. However, findings also point to the need to be specific about data use; it suggests the field does not only need more data but needs to understand how we move from the collection of data to the use of it. One promising development in this arena is the recent creation of a Long-Term Vision and Action Agenda for EiE Data that emerged out of the June 2019 EiE Data Summit organized by INEE, NORRAG and USAID (MEERS).

The more notable difference that emerged from the data was that respondents' proximity to EiE implementation changed the way they thought about data in predictable ways. Individuals working on a specific country or crisis focused on the use of data for operational purposes and only mentioned policymaking or advocating in passing as important uses, but not as common uses of data for themselves. Meanwhile, respondents working at the global level often spoke at length about the importance of using data to inform policy and advocacy in order to strengthen systems and develop global public goods. This finding is important as it highlights the need to ensure that EiE actors who are closer to implementation consider both their own data uses and the eventual ways that global actors will also need to use the data they are collecting. This provides a productive starting point for the much-discussed need for 'standardization' or for methods of 'linking' datasets because it highlights that the need is to be able to link, aggregate, and compare data that will be useful for policymaking and advocating cross-nationally.

Finally, we explored what factors may make data more or less useful (or usable). While we found that frequency, timeliness, specificity, and aggregation mattered, what mattered most was context, use, politics, relationships, and organizational capacity. The findings indicate that improving data and evidence for EiE does not depend solely on 'technical' aspects of data, but also on institutional and relational factors that enhance data collection, data sharing, and data use. In addition to conversations about 'standard indicators,' our findings suggest the field also needs regular fora to strengthen relationships, safer ways to share politically sensitive data such as more sophisticated masking procedures, and more institutional capacity, such as ensuring that every education cluster has an information manager to support the use of data. In short, we argue that conversations about improving data for EiE must not focus on tools or techniques without also attending to the people, institutions, and contexts that determine data creation and use.

REFERENCES

Anselme, Marina, Youmna Ghosn, and Inge van de Brug. (2019). "Data and Evidence Gaps in Addressing the Educational Needs of Vulnerable Adolescents and Youth in Situations of Crisis." *NORRAG Special Issue 03* Data collection and Evidence Building to Support Education in Emergencies. Geneva, Switzerland: NORRAG.

Bach-Mortensen, A. M., Lange, B. C. L., & Montgomery, P. (2018). Barriers and facilitators to implementing evidence-based interventions among third sector organisations: a systematic review. Implementation Science, 13(1), 103. doi: https://doi.org/10.1186/s13012-018-0789-7

Buckner, E., Smiley, A. and Cremin, S. (2019). A New Way of Thinking About Education in Emergencies Data. NORRAG Special Issue 03 Data collection and Evidence Building to Support Education in Emergencies. Geneva, Switzerland: NORRAG.

Burde, D., Kapit, A., Wahl, R. L., Guven, O., & Skarpeteig, M. I. (2016). Education in Emergencies: A Review of Theory and Research. Review of Educational Research, 87(3), 619-658. doi: https://doi.org/10.3102/0034654316671594

Dawes, S. S., & Pardo, T. A. (2002). Building collaborative digital government systems. In Advances in Digital Government (pp. 259-273). Springer, Boston, MA.

Donnelly, C. A., & Searle, M. (2017). Optimizing Use in the Field of Program Evaluation by Integrating Learning from the Knowledge Field. The Canadian Journal of Program Evaluation, 31(3), 305-327. doi: https://doi.org/10.3138/cjpe.366

Education Cannot Wait (ECW). (2019). Annual Report 2018.

Gil-Garcia, J. R., & Sayogo, D. S. (2016). Government inter-organizational information sharing initiatives: Understanding the main determinants of success. Government Information Quarterly, 33(3), 572-582. doi: https://doi.org/10.1016/j.giq.2016.01.006

Hayes, B. (2017). Migration and data protection: Doing no harm in an age of mass displacement, mass surveillance and "big data". International Review of the Red Cross, 99(904), 179-209. doi: https://doi.org/10.1017/S1816383117000637

Henning, F. (2018). A theoretical framework on the determinants of organisational adoption of interoperability standards in Government Information Networks. Government Information Quarterly, 35(4, Supplement), S61-S67. doi: https://doi.org/10.1016/j.giq.2015.11.008

Inter-agency Standing Committee (IASC). 2016. "Too important to fail – addressing the humanitarian financing gap." High-Level Panel on Humanitarian Financing Report to the Secretary-General.

Levin, B. (2013). To know is not enough: research knowledge and its use. Review of Education, 1(1), 2-31. doi: https://doi.org/10.1002/rev3.3001

Liket, K. C., Rey-Garcia, M., & Maas, K. E. (2014). Why aren't evaluations working and what to do about it: A framework for negotiating meaningful evaluation in nonprofits. American Journal of Evaluation, 35(2), 171-188. Doi: https://doi.org/10.1177/1098214013517736

Maxwell, N. L., Rotz, D., & Garcia, C. (2016). Data and Decision Making: Same Organization, Different Perceptions; Different Organizations, Different Perceptions. American Journal of Evaluation, 37(4), 463-485. doi: https://doi.org/10.1177/1098214015623634

OCHA. (2017). New Way of Working. In Development and Studies Branch (Ed.). New York: OCHA.

Patton, M. Q. (2008). Utilization-focused evaluation (4th ed.). Thousand Oaks, CA: Sage Publications.

Ramirez, R., Kora, G., & Shephard, D. (2015). Utilization Focused Developmental Evaluation: Learning Through Practice. Journal of Multi-Disciplinary Evaluation, 11(24), 37-53.