Strengthening Global Capacity for Emergency Health Action

- Study Report -

April 2019

Conducted by Avenir Analytics for the Global Health Cluster

Michelle Niescierenko, Hanna-Tina Fischer, Gabrielle Prager, Eric Nilles

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1. Abbreviations

AHA	Africa Humanitarian Action
ALIMA	The Alliance for International Medical Action
APHLN	African Public Health Laboratory Network
CDC	U.S. Centers for Disease Control and Prevention
DFID	Department for International Development
ECHO	European Commission's Humanitarian Aid Office
EDCARN	WHO Emerging Diseases Clinical Assessment and Response Network
EDPLN	Emerging and Dangerous Pathogens Laboratory Network
EMT	Emergency Medical Teams
EOC	Emergency Operations Center
EWARN	Early Warning and Response Network
GHC	Global Health Cluster
GIZ	Deutsche Gesellschaft für Internationale Zusammenarbeit
GOARN	Global Outbreak Alert and Response Network
HCC	Health Cluster Coordinator
HDN	Humanitarian-Development Nexus
HR	Human Resources
IASC	Inter-Agency Standing Committee
ICDDRB	International Centre for Diarrhoeal Disease Research, Bangladesh
ICVA	International Council of Voluntary Agencies
IFRC	International Federation of the Red Cross and Red Crescent Societies
IMC	International Medical Corps
IMNCI	Integrated Management of Neonatal and Childhood Illnesses
IMS	Incident Management System
INGO	International Non-Governmental Organization
IRC	International Rescue Committee
KI	Key Informant
MSF	Médecins Sans Frontières
NCD	Non-Communicable Disease
NNGO	National Non-Governmental Organization
NRC	Norwegian Refugee Council
OFDA	Office of Foreign Disaster Assistance
SEARO	South East Asian Regional Office
SIDA	Swedish International Development Cooperation Agency
UN	United Nations
UNHCR	United Nations High Commissioner for Refugees
UOSSM	Union of Medical Care and Relief Organizations
WASH	Water, sanitation and hygiene
WFP	World Food Programme
WHE	WHO Health Emergencies Programme
WHO	World Health Organization

2. Introduction

Globally, the number, scale and severity of humanitarian crises exceed the current capacity of the international humanitarian system to deliver. There have been well-documented failures of the humanitarian health sector's response to recent crises. These can be categorised by four types of failings including; (1) distant where crises become forgotten such as northern Uganda (2) contextual where service delivery is disrupted by political or security constraints such as Syria (3)cultural or value-laden where services are negatively affected by users perceptions like Ebola in West Africa and (4) technical/operational constraints where agencies work without the needed competencies such as Haiti.[1,2] The Global Health Cluster (GHC) commissioned this study to strengthen the evidence base on how to more effectively and creatively identify, develop and leverage global capacities for emergency health response, with a particular focus on the acute phase of emergencies - both new and when there are shocks during protracted crises.

Study Objective: Clarify critical emergency health gaps and actions being taken by international and national health actors, specialised agencies and training institutes to address the current imbalance between response capacity supply and demand.

The 2019 Global Humanitarian Overview identified over 132 million people in need but only an ability to target 94 million.[3] These needs are perpetuated by the long-lasting crises in conflict settings as the average duration of a humanitarian emergency nearly doubled from five to nine years between 2012 and 2018.[3] In 2018, $3.3 billion in health needs were identified with only 49% funded. This left many needs unmet, but also forced the health sector to assess how to deliver assistance more efficiently.[4]

The West Africa Ebola outbreak (2014-2016) and contemporary protracted crises with significant health impact on affected populations have highlighted critical gaps beyond funding levels in the existing global capacity to prepare for and respond to emergencies in an effective and timely manner. Many of these challenges for global health response capacity have been widely reported and debated by key health actors and policy makers, including Médecins Sans Frontières (MSF)[5,6], the United Nations Secretary General's High-Level Panel on the Global Response to Health Crises[7], and the WHO Director General's report to the 68th World Health Assembly on the concept of a Global Health Emergency Workforce.[8,9]

The 2016 World Humanitarian Summit focused on committing to the agenda for humanity through six key areas to more effectively respond to humanitarian challenges globally. Financial reform through the grand bargain, emphasis on the humanitarian-development nexus (HDN) and localization were identified as three priority areas of focus. These are summarised in the New Way of Working, an approach that incorporates working long term over multiple years, based on the comparative advantage of a diverse range of actors, including those outside the cluster system.

In this approach all actors are working towards collective outcomes and wherever possible reinforcing and strengthening the capacities that already exist at national and local levels.[10] This concept of and focus on localization recognises that local actors are both the first responders in a crisis and the providers of long-term support especially in protracted emergencies.[11] Efforts to work in partnership with and strengthen local and national capacities to prevent, prepare for and respond to crises have become a priority. At country levels, this New Way of Working has been identified as requiring improved systemic collaboration between humanitarian and development organizations to reduce need, risk and vulnerability while meeting essential needs.[3]

To ensure tangible and targeted recommendations from this study to aid in meeting the humanitarian health needs, three specific research questions were developed from the study objective. These were developed during the inception phase of the project that included a directed literature review and critical input by a ten-member study reference group (Appendix 1: Reference Group and Appendix 2: Full Methodology). The three components of response capacity addressed in this study are workforce, programme delivery and collaboration between organizations. Workforce is defined as qualified human resources with sufficient skills and knowledge which also includes the availability of training options. Programme delivery relies on the organizational capacity defined as the infrastructural ability of organizations to deliver humanitarian health programmes. Collaboration is defined as the formal and informal coordination between actors to deliver and partner for health responses.[12]

Study Research Questions:

1. How can the evolving demand for humanitarian health workers be more effectively met?
2. How can organizations better meet the demand for humanitarian health delivery?
3. How can health responses be better coordinated to ensure timely, appropriate and effective addressing of emergency health needs?

This study report aims to inform a broad range of humanitarian actors - United Nations (UN) agencies, non-governmental organizations (NGOs), donors, governments, academics and private sector to take steps to improve and strengthen response to humanitarian health emergencies. There are cross-cutting topics related to the broader multi-sectorial humanitarian architecture that cannot be addressed in this study while providing tangible, actionable recommendations and thus the study remains focused on the three components defined above. Given that the areas of humanitarian financing and leadership are the focus of ongoing and intensive study by other initiatives, including a mapping of response capacity currently being undertaken by the Global Health Cluster, these were not directly addressed in this study. The study scope also does not include an assessment of healthcare services to be rendered, mapping of humanitarian health response activities, inventorying of educational programmes or a systematic review of the literature.

3. Methodology

This study utilised a qualitative approach and was conducted between July 2018 and January 2019. The study had four phases: the inception, data collection, analysis, and country case Study (Figure 1). The methods are summarised here with the full detail available in Appendix 2: Full Methodology.

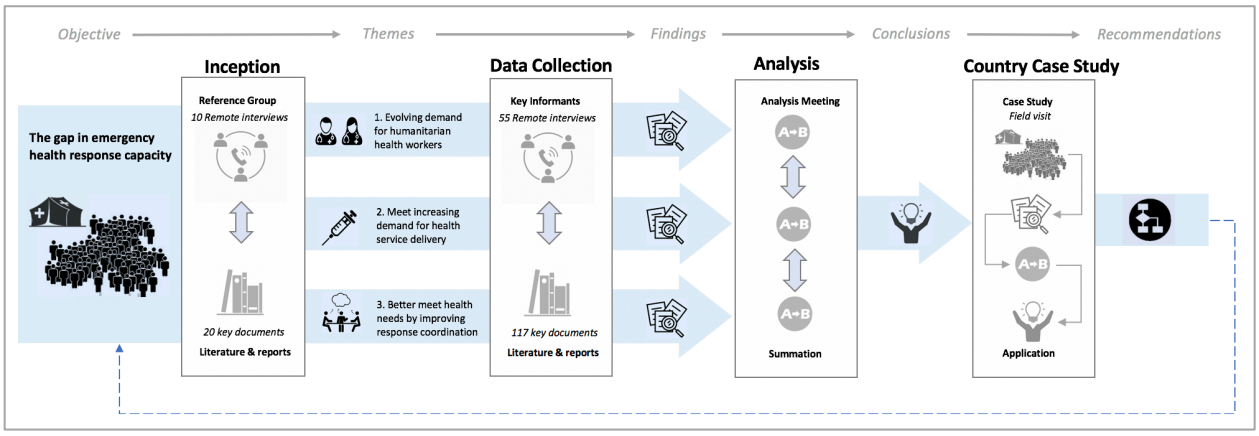

Figure 1: Study Methodology

Inception Phase: Identified the three main components of the study and the specific research questions, focusing the study objective, utilising qualitative data from the ten-study reference group member interviews and a review of relevant literature. During this phase the study analysis framework was developed as displayed in Appendix 2.

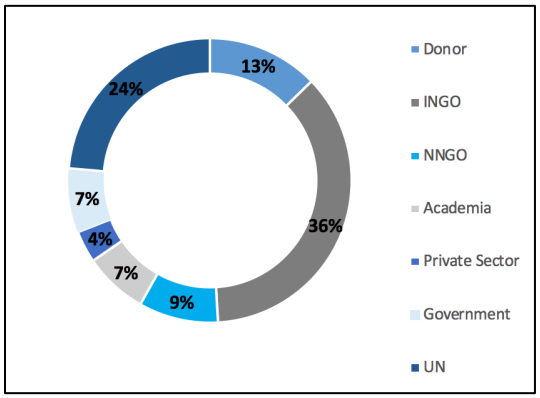

Figure 2: Key informant stakeholder group distribution

Data Collection Phase: Primary data was collected through interviews with key informants and secondary data through a literature review. The peer reviewed and grey literature was searched using a predefined search strategy (Appendix 2). The literature was summarised by research question. Key informants who met study eligibility were identified by the study reference group and then purposive snow ball sampling was done across stakeholder groups including UN agencies, international non-governmental organizations (INGO) and national non-governmental organizations (NNGO), donors, academics, governments and private sector (Figure 2). Fifty-five key informants participated in a one-hour remote semi-structured interview with two study staff members, one devoted to note taking (Appendix 3: Key Informants). Interview notes were de-identified, uploaded into the online Dedoose platform and analysed to generate the study findings.[13]

Analysis Phase: The literature was reviewed, and findings summarised by research question. The key informant interview data was coded according to the study research question components, and themes were identified across stakeholder groups. This data analysis was conducted prior to a country field mission to Iraq. After the field mission an analysis meeting of the study research team was held to synthesise data from all sources to identify the gaps and their causes from the data, solutions cited by key informants and the relationships between these in order to draw conclusions.

Country Case Study Phase: The humanitarian health response in Iraq was used as an example to establish how the response capacity challenges identified through the global stakeholder interviews align with the realities on the ground and to find examples of ways in which challenges were being addressed. Thirty-seven key informant interviews were conducted. During thirty of the interviews with implementers, prioritisation exercises based on the analysed global key informant data were conducted and later stratified across stakeholder groups. These aimed to discover additional gaps in health response but also to assess prioritisation of the remotely identified challenges. Illustrative examples were collected during the prioritisation exercise. Cluster coordination meetings were observed and field site visits to example organizations and programmes were made.

Study Limitations: From the outset of the study there were acknowledged design limitations based on the parameters provided by the GHC as the commissioning body including:

- The sample size was relatively small for the number of stakeholder groups risking that saturation might not be achieved in all stakeholder groups
- The study was commissioned in English; only English language literature was reviewed, and all key informants participated in interviews in English
- Sampling of national and local actors remotely was limited not just by language but also access to communication technology to participate in remote interviews
- Non-traditional actors[1], such as those from the private sector, were harder to identify and represent a smaller portion of the sample
- Study recommendations are based on the literature reviewed and the stakeholders interviewed. Due to practical limitations, the literature review was focused, not exhaustive, and some relevant literature may not have been included. Similarly, stakeholders' interviews may not capture all perspectives, particularly those of non-traditional actors

[1] Non-traditional actors include but are not limited to private sector, civil society organizations and religious organizations

4. Findings

During key informant interviews the participants identified gaps and challenges they face to meet future humanitarian health response needs. They also mentioned current efforts by their own and other organisations to address these gaps. The literature reviewed similarly described gaps and challenges and often issued a call for action, but little was written about current efforts underway to address the gaps.

This section presents the gaps and challenges in workforce, programme delivery and coordination found as well as what key informants reported was being done to address these challenges. Where there were specific differences between findings of the literature review and key informant interviews or between different stakeholder key informant groups, these are noted. Supporting quotes from the key informant interviews are provided in Appendix 4.

4.1 Workforce

The workforce-related gaps and challenges to more effectively meet future needs are summarised below and fall into two broad categories: Expertise and availability. The gaps in humanitarian health workforce are summarised in Figure 3.

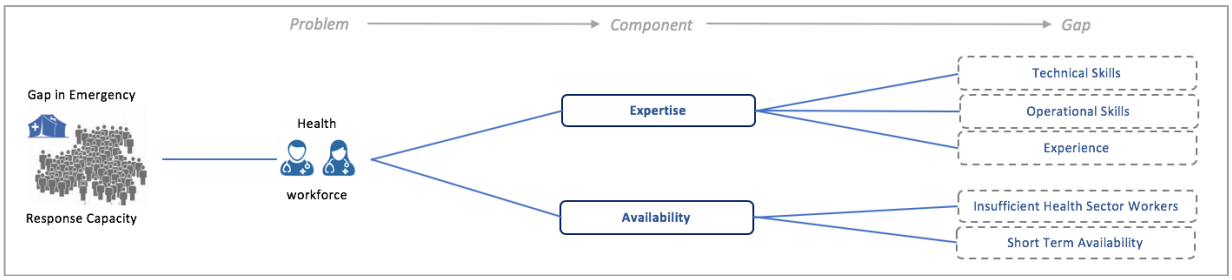

Figure 3: Gaps in humanitarian health workforce

Expertise of health responders

The gaps in expertise which apply to both national and international staff can be summarised as a lack of (i) technical skills including knowledge of specific public health functions, such as disease outbreaks and surveillance, specific medical care areas and the humanitarian principles and architecture, (ii) operational skills including management and leadership as well as knowledge of how to transition between routine to emergency response, and (iii) experience.

Expertise for this study is defined as the broad competencies required to effectively meet the position's functions. Specific competencies are dependent on position requirements, but include theoretical, practical and technical knowledge with the ability to apply knowledge in a range of settings and conditions. The study findings suggest that many humanitarian responders, both national and international, either lack specific skills that are important in humanitarian settings or are unable to effectively translate their skills to the humanitarian context. Examples of when staff were lacking in flexibility included public health/surveillance of reportable diseases and adapting to new practice environments like mobile clinics that occur in crises.

Understanding the humanitarian principles and the international humanitarian architecture was highlighted as a limitation amongst both national and international health responders. Aspects of clinical practice in the humanitarian context that were identified as challenges across stakeholders included variable quality of baseline clinical practice of national healthcare workers, and a limited ability of both national and international healthcare workers to effectively transition from routine care to emergency response. Both national and international staff experience challenges translating clinical or policy guidelines into contextually appropriate programmes. Ensuring adequate knowledge and experience would increase the confidence and ability of responders to successfully adapt and contextualise guidance. In some organizations there was little focus on staff expertise; it was assumed that staff with a medical degree were ready to be deployed to humanitarian settings. Ensuring the correct support staff was also emphasised with recruitment of staff with expertise in pharmaceutical and medical logistics cited as not readily available in organizations.

Gaps in leadership and management skills are common with most organizations across stakeholder groups prioritising technical over management skills in their recruitment processes; this was particularly highlighted by the UN agencies. A few organizations and networks including MSF and GOARN are addressing these gaps through specific leadership and management training programmes. Ensuring appropriate experience was also highlighted as critical to developing leadership capacity.

In order to address the gap in expertise, the study team explored why this gap exists. Several key challenges drive this gap including a lack of access to adequate competency-based training and insufficient structured opportunities to gain field experience. A small number of organizations conduct specific trainings, such as MSF which has a long history and extensive list of training courses, but most organizations do not have these capacities and study findings suggested that training capacities are limited. A number of NGOs and UN agencies have leveraged the educational expertise of academic institutions to develop and/or deliver training, including Save the Children's and WHO's partnership with the London School of Hygiene and Tropical Medicine, Mercy Malaysia's partnership with Deakin University and International Federation of the Red Cross/Crescent's (IFRC) partnership with the University of Manchester to deliver focused training programmes. A private company, Aspen Medical, described requiring that their staff pass a training on humanitarian principles and humanitarian law with 100% score and setting up special training facilities, such as the one in Australia to train staff prior to deployment to the West Africa Ebola response. Numerous other academic and non-academic institutions are exploring the role of simulation-based learning in humanitarian education, a potentially important avenue given the benefit of experiential learning over traditional classroom-based curricula.

A second key point relates to the ability of the humanitarian health workers to access relevant and quality education and trainings. Most training is offered by academic institutions and international NGOs in the global north[14–16] and access is limited primarily by a lack of funding to support the trainings, fees, and/or travel. National or regional-level trainings would reduce cost to participants or local organizations, increasing accessibility for country-based staff.[17]

Increased collaboration between universities in the global north and the global south on the establishment of trainings, including simulation-based trainings, was highlighted as a way to address these obstacles.

A number of initiatives aim to better prepare national healthcare workers for working in humanitarian contexts. These include government-academic partnerships to send government health staff abroad to obtain advanced academic degrees, and NGOs establishing training facilities for medical staff to train clinical officers in humanitarian crises, including in South Sudan and Syria. In-person and e-learning courses (such as Building a Better Response) are being used to train new staff on the humanitarian principles and the international humanitarian response architecture. These appear to be well received, but in-person training is preferred though poses financial and travel-related (e.g. visa) challenges.

Mentoring, which provides either remote or in-person one-on-one relationship between an experienced mentor and the mentee, has been identified as a potentially important tool to advance experiential learning for those new to humanitarian response. Yet few organizations report well-developed, well-resourced or well-structured programmes. IMC, Oxfam, World Vision, MSF and the CDC all describe mentoring programmes for staff without field experience, but these differ widely in model and degree of formality. Some schemes were described as informal and having grown organically, whilst others were more formal programmes involving global, regional and national levels. Organizations without current programmes said they are looking into deploying newer staff in shadowing or tag team responses together with more experienced responders.

Overall, the views of key informants aligned with the literature review and highlighted the need for professionalisation of the field of humanitarian healthcare including the development of core competencies, training standardisation, accreditation and certification.[14,15,17–20] There was similarly consensus from the literature that there is (i) an over-reliance on degrees as surrogates for specific competencies and (ii) a lack of standardised training modules to support preparation for work in complex emergencies.[18] The literature outlines steps to address these including the establishment of training standards, core competencies and to "increase participation and training of national staff."[18] It was also suggested that there be a move to include more structured mentorship and professional development initiatives.[18]

Availability of health workers

The gaps in health sector workers' availability can be summarised as (i) insufficient health sector workers and (ii) a lack of long-term availability for health responses.

The lack of health sector workers was primarily noted to be for national health workers who provide frontline response in most humanitarian settings. This is common in many if not most acute humanitarian emergencies and is a frequently identified challenge by operational health organizations, with important implications for scaling-up or establishing response programmes. The reasons for this gap are evident. There are insufficient healthcare workers in most low-income countries, such as Liberia, Somalia and South Sudan, concurrent with or preceding humanitarian emergencies.

Conversely, in countries with strong pre-emergency health systems and sufficient healthcare workers such as Syria, many leave the country to escape conflict and instability, particularly specialised medical and public health personnel (e.g. doctors and epidemiologists). Efforts to increase the national health workforce were described by INGO key informants and included increasing salaries to keep health workers in-country or at least close to the border and utilising pre-approved lists with doctors' names at border crossings to facilitate access to be able to provide healthcare with organizations in the field where needed.

Challenges related to long-term availability primarily affected international health workers. Difficulties getting medical and public health experts released from their clinical jobs and other professional commitments for longer periods of time was identified as a reason for the short-term deployments and high staff turn-over causing multiple operational implications. Insecure work environments pose additional challenges for recruitment of international staff.

4.2 Programme Delivery

The operational structures of humanitarian health agencies should have the surge capacity necessary to meet population needs during the acute phase of a health emergency. Gaps in operational response capacity included many of the core operational functions including human resources (HR), operations and logistics, and security. The gaps in programme delivery are summarised in Figure 4.

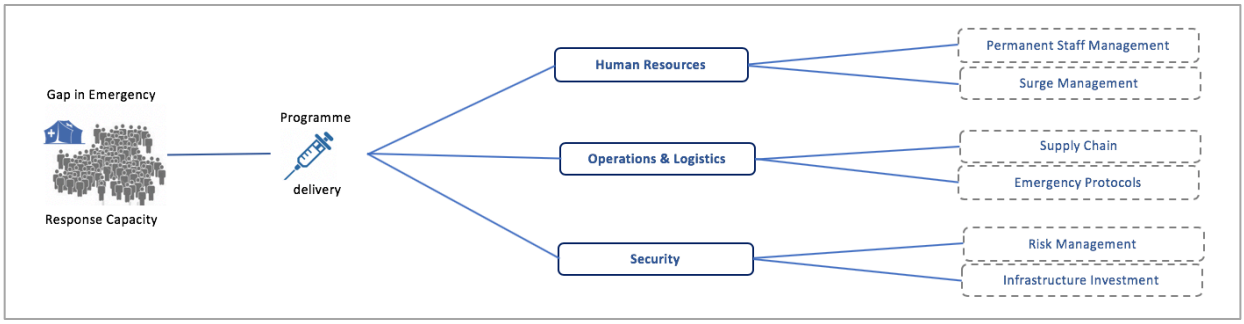

Figure 4: The gaps in programme delivery

Human Resources

The gaps in human resources can be summarised as (i) recruiting, maintaining and deploying permanent staff and (ii) the management of surge staff for a response.

Insufficient funding to cover and maintain positions within organizations was a frequently cited reason for challenges in maintaining permanent staff. National NGOs highlighted funding shortfalls they face for non-technical positions, including administrative roles, since they face challenges getting overhead costs covered. They also highlighted a lack of funding to develop national surge rosters and to build local response capacity. Donors acknowledged that the insufficient contributions to the core funding of national NGOs was due in part to their own policies which restrict the type of funding that can be provided to national organizations. They also identified the lack of quick access to funding for all actors for the rapid deployment of staff along with the high expense of keeping specialised medical staff on standby rosters as difficulties.

Organizations that have quick access to funding for rapid deployments, such as MSF, have this ability as they have funds to recruit in advance, keep people on standby and deploy them quickly in response to emergencies. Save the Children and IRC were also described as being able to secure funding for response teams; members of Save the Children's humanitarian surge team are on full-time contracts and can deploy in 48 hours, while IRC have developed country emergency teams for the 20 countries on their watch list, improving the speed at which they can respond to crises and their ability to respond to multiple emergencies concurrently. Many international NGOs, however, do not have this kind of institutional funding available and are grant dependent to fund staff salaries. In an effort to address this, the IRC preparedness unit has worked to build a rapid response mechanism that has a private donor driven emergency fund that allows them to fund staff and set up programmes they might previously have struggled to fund quickly through grants. In addition to rapid access to funding, international NGOs described difficulties in getting longer term funding to staff projects, particularly for protracted crises, and insufficient funding available to invest in standby capacity. For UN organizations that work in a number of sectors (e.g. WASH, health, protection), challenges raised included overall lack of funding for required positions which often meant a prioritisation of which sectoral experts to send to a humanitarian response.

Beyond funding, bureaucracy within organizations was identified as a major challenge to the timely recruitment of humanitarian health workers, particularly amongst UN stakeholders. Steps in human resources are described as overly procedural and administrative instead of facilitative. Examples were shared where it took six or more months to recruit staff for emergency positions. Efforts have been made to address this within WHO, in particular for Level 3 emergencies, where staff across the organization can be relocated from other countries and regions to support the response. UN stakeholders highlighted difficulties among different levels of the organization on reaching consensus on candidate approval for emergency deployment, sometimes leading to lengthy delay in providing surge staff. This was mentioned in relation to the lack of emergency focus within WHO specifically to get people hired, noting the different perceptions in urgency between country and regional offices. There are ongoing WHO efforts, however, to develop and implement emergency administrative procedures to expedite deployment. Although less focused on bureaucracy per se, INGOs cited organizational safeguarding (background check) requirements for recruitment as being cumbersome and time-consuming, although there was recognition of their importance. It was suggested that conducting these as part of roster readiness would be helpful. INGOs and UN stakeholders also cited affected country government bureaucracy as a bottleneck for timely recruitment of staff. In addition to long visa processing times, resistance from governments to international surge deployments was noted in some contexts such as South Sudan. Donors, such as OFDA, cited advocacy efforts that they conduct with governments in different contexts on labour laws when these act as bottlenecks to timely recruitment and deployment of humanitarian staff.

When surge rosters function effectively, they are an important mechanism for the deployment of pre-screened staff in a timely and predictable manner. In terms of organizational surge rosters, a number of challenges in meeting the demand for humanitarian health workers were identified including those related to the profiles of surge roster members, the maintenance of surge rosters and the optimal functioning of rosters.

Starting with the profiles of surge roster members, even though key informants described international health responders as technically strong, diversity in nationality and language capabilities is limited. Many surge roster members are anglophones and finding sufficient staff, particularly francophones, for large-scale emergencies can be challenging. The vast majority of surge roster members are from western countries, predominantly from the US and Europe, which may not be appropriate for deployment to some humanitarian contexts. WHO is including more Africans in their deployment rosters to take into account political contexts and visa constraints. The Africa CDC established the Africa Volunteer Health Core, a roster for emergency deployments across Africa backed by a mandate from the African Union in order to increase the diversity of responders. Beyond linguistic skills and nationalities, the gaps in the profiles of current surge roster members also include specific areas of clinical expertise and in public health, expertise in hospital level care, trauma care, mental health, sexual and reproductive health, and certain communicable diseases such as Ebola and hepatitis. The specific gaps in public health skills that key informants described include epidemiology, infection control, communication, risk communication and community engagement. In addition to the gaps in expertise mentioned, key informants stated that international health workers had limited knowledge of the local context and culture which was problematic for the response.

> "You have to understand how countries view the world and foreign relations and their history to understand who can be deployed [to certain regions]" (UN005)

Challenges related to the maintenance and optimal functioning of surge rosters were identified as reasons for untimely or inappropriate deployment of surge staff. Some surge rosters lack details regarding skillsets and past performances of the roster members, primarily with regards to standby partner rosters. NRC and MSF mentioned having regular performance evaluations for surge roster members. Organizational surge rosters were also described as being insufficiently maintained in that roster members are not regularly informed about new guidance related to humanitarian health and that their details, such as availability and other requisites were not kept up to date. Lack of updated relevant information on required visas, vaccination and trainings such as anti-terrorist training was specifically highlighted as a problem. This resulted in either the repeated deployment of a small group of individuals as opposed to identifying available capacities across the roster or having staff deployed who were not up to date and under-prepared. For staff that were ineffectively prepared for deployment this included not having completed security training and not having received an orientation on the humanitarian crisis, the deploying organization (in the case of standby partner surge deployments), or their role prior to deployment. Key informants cited having insufficient time to orient staff deploying to acute crises and insufficient funding for pre-deployment trainings as reasons for the ineffective preparation of roster members. Partnerships have been leveraged to address this including an academic INGO partnership between Brown University, IMC and IRC to create a roster of preselected and pre-tested individuals who can be deployed if needed.

> "Agencies are not willing to spend time to train workers. There is a lack of funds for doing a pre-training and keeping training up-to-date to keep workers ready" (UN004).

The GHC currently delivers joint Health Cluster Coordination training for Health Cluster Coordinators and Information Management Officers, which is being adapted to meet specific WHO regional needs and requests. There are plans to support regional delivery of multi-partner health cluster training to enhance coordination skills and strengthen surge capacity.

A last challenge related to staffing humanitarian responses raised is that of staff burnout. Reasons for staff burnout included insufficient focus on, and prioritisation of, the psychological wellbeing of staff within organizations and the lack of funding to establish support to staff to address this need. This was identified as a challenge for both international and national staff. An example of an organization that dedicates resources to staff wellbeing was Aspen Medical which has a full-time psychologist who travels and provides mental support to staff when on deployment. This is followed by organizational mental health and employee support. Most organizations did not, however, have adequate structures to support the wellbeing of staff.

Operations and Logistics

The gaps in operations and logistics can be summarised as (i) weak supply chain and logistic systems and (ii) lack of emergency protocols to ensure efficient and effective organizational action, with a crosscutting theme on the role of funding.

Insufficient timely, flexible funding for humanitarian health programme delivery was cited as a key operational challenge facing the delivery of humanitarian health programmes. Key informants raised the lack of fast funding streams for acute responses in particular as problematic. This lack of timeliness and flexibility is a critical issue for humanitarian funding and was also raised in the literature review.[21] In the absence of access to fast funding, key informants said organizations either need institutional funding to back a response or they need to be ready to take financial risks proceeding with response activities before confirmation of their funding. Efforts to address this lack of funding include the establishment of WHO's Contingency Fund in Emergencies, the UN Central Emergency Response Fund, both of which provide start-up funding in emergency responses.[2] The START Network was highlighted as an innovative initiative to provide response funding to organizations within 72 hours. Agencies are exploring alternatives to institutional funding; to identify non-traditional funding sources and discuss risk as 'brave philanthropy' to try to build a risk tolerance amongst donors. Africa CDC is building a structured public-private philanthropic initiative to engage more private institutions to support response needs.

Another funding related issue raised by key informants was that the prioritisation by donors of what aspects of the programme they will fund often led to a siloed response, limiting the ability to integrate programming to meet multiple needs or provide packages of interventions for maximum effectiveness and efficiency. Donors were described as having interests in specific areas of programming and specific contexts, leading to challenges identifying funding for protracted, less visible crises, even when needs were critical.

[2] WHO Contingency Fund in Emergencies is primarily to enable WHO to initiate response action but can be used to fund partners until their donors' funds are secured (as per the current Ebola response). UN CERF funds are dispersed directly to UN agencies only who can then sub-grant to partners.

Two specific examples of this included gender-based violence programs in Iraq and the Ebola only focus in DRC while there were emergency levels of malnutrition co-occurring. In practice, operational independence - the ability to make and execute decisions - is greatly facilitated by unearmarked or softly earmarked funding that gives agencies vital flexibility in programming to meet the identified needs.[21] Some government donors, such as the Norwegian and Swedish governments, described the importance of upholding their commitments to the Principles and Good Practice of Humanitarian Donorship by providing as much unearmarked funding as possible for responses but this is not the case for most donors. It was noted that donors who uphold these principles were not recognised for this publicly and in the reporting of activities done with pooled or un-earmarked funds.

Humanitarian decision making needs to emphasise the speed of response during the acute phase of an emergency when no-regrets policies should be considered.[22] The literature called for realignment away from organizational or donor focused response priorities to data driven response programming. Common systems are described as being needed for health response data, financial data and reporting to reduce effort and increase efficiency. [23] On post intervention reporting, most studies are able to show changes in health outcomes, but most are unable to attribute these changes to the intervention because of the assessment design used. Where logistically and ethically possible, greater use of experimental and quasi-experimental assessment designs can be used.[24] An example of this is the Ebola Data platform that brings together all the data collected in the Ebola Epidemic and is an open, free resource that let academics and others learn from the experiences during the outbreak.

A critical operational challenge related to funding raised by national NGOs, is the lack of overhead funds being provided to NNGOs and the indirect nature of the funding they receive, treated more as contractors by other organizations (INGOs and/or UN agencies). This was also highlighted in the literature where future requirements for financing models were identified including the need to redirect funds to national and local organizations reducing funding chains. It is recognised that organizations must add value at every step and have transparency about money movement. This mismatch between the core recipients of funding and the frontline deliverers of aid is not only a major technical challenge for the rapid and cost-efficient transfer of money, but also represents a fundamental design flaw for support to the necessary structural and operational investments that are critical for the ability to stay and deliver in acute crises.[21] It was identified that this autonomy should be balanced with anti-corruption practices. There has been a call for a common overhead and cost structure to remedy this challenge.[23] Lack of overheads or unpredictable funding also hinder the ability to build organizational operational capabilities in areas of insecurity.[21] One example where this support was provided was ECHO funding ALIMA to build local capacity of NGOs.

> "[For typhoon Haiyan] the donors sent in 95% of the money needed and we hit the top of 95% of the indicators. If you look at CAR at the same time, less money… that response was only funded 5% but everyone is still meeting 95% of the targets" (NET002)

A challenge not raised by key informants, but highlighted in the literature review, is that of organizations over inflating budgets to get what is 'needed' organizationally. Since needs assessments conducted reflect not the total need but the need assessed by a particular agency, this generates an accountability and credibility gap where transparency is in short supply.[23]

In some settings, the combined responses from non-humanitarian sources (e.g. private donors, foundations or others) exceed the traditionally funded humanitarian aid response. In these examples, formal or informal actors are presented as other opportunities for funding by foreign donors (governments or private sector) who are interested in boosting the effectiveness and sustainability of the health services they support by working with these non-traditional actors.[2,25,26] The private sector has been recognized as innovating for delivery of aid and identifying funding solutions.[27] Examples of this include Mastercard working with humanitarian cash programs, Deutsche Post / DHL and Fed-Ex supporting humanitarian supply chains and Jordan's advocacy with the World Bank for loan funding to support refugee development activities.[27] Civil-military coordination has also increased with military coordinating with the humanitarian systems in recent examples of the West African Ebola Outbreak and the Iraq trauma response.[28]

Weak supply systems and logistics were frequently mentioned as a key operational challenge by UN, INGOs and NNGO stakeholders. In efforts to address this, IMC for example has explored various solutions to improve logistics including front loading supply deliveries. Leveraging partnerships that link organizations with limited capacities with logistically strong organizations is a model that has been successful. For example, WHO and other organizations link with the World Food Programme for logistical support. WHO's traditional focus as a normative and standard setting rather than operational agency is shifting following widespread criticism after the West Africa Ebola outbreak.[29] Emergency kits were noted too often having drugs/materials that were not context appropriate or donors having drug/supply lists that did not meet the identified needs of the population. The reporting on use of drugs was also noted to be burdensome with different donors requiring different reports forcing organizations to use the strictest reporting policy to ensure compliance.

Similar to the bureaucratic challenges raised with regards to recruitment, internal bureaucracy was highlighted as a challenge to timely programme delivery by all stakeholder groups except for government and private sector. One aspect of organizational bureaucracy and politics raised was the lack of delegation authority to field-level staff, particularly around budget and procurement approvals. Frequently, those who write proposals are based in headquarters with limited direct understanding of the needs on the ground and capacity of the field team to deliver the programming, particularly during rapid onset emergencies.

Operational challenges related to transitioning programmes between emergency and development phases were common, attributed to a disconnect between humanitarian and development actors. The disconnect was further specified as differences in coordination mechanisms and language used in humanitarian versus development work. These challenges are exacerbated by silos within operational organizations and funding streams within donor organizations.

NGO key informants identified that development programs and humanitarian programs within the agencies were at times not coordinating or collaborating for synergy. The consistent use of multi-year donor funds to programmes to allow for continuity and efficiency in scale are proposed as a solution to this, which were launched in 12 countries in 2019.[3] ECHO, for example, suggested that it is looking at expanding the duration of their contracts in line with discussions about multi-annual funding at the World Humanitarian Summit. Swedish SIDA, identified that they have funding dedicated to resilience in the humanitarian department to use for longer term strategies.

A last operational challenge raised was the actions of humanitarian responders as a whole often go unaccounted for in their effectiveness and double standards are perpetuated in humanitarian health response. The government stakeholders cited the cholera outbreak in Haiti and the literature referenced polio vaccination in Pakistan and famine response in Somalia among different examples.[2]

Security

The gaps in security can be summarised as (i) limited risk management and (ii) lack of investment in security infrastructure.

Security considerations, in particular low organizational risk thresholds, were brought up as a challenge by UN, INGO and NNGO stakeholders as well as in the literature review. A disregard for international humanitarian law and attacks on healthcare workers severely limit the ability of organizations to work in many settings. Working remotely and restricting access were organizational approaches described for dealing with issues of insecurity. Key informants suggested the development of a standardised approach to risk assessment that can be used to better assess risk within countries to support deployments.

> "when we think of security it is reputational as well, not just security and this is a lot to do with applying western standard in this situation and we can't do that. If you don't want to get dirty, you do remote control and then don't have much impact and that is having a massive impact" (INGO010)

The experience of frontline responders such as MSF and the International Committee of the Red Cross (ICRC) shows that effective emergency response in conflict relies on the ability to react in a timely and meaningful way. The ability to work in these locations also requires an adherence and emphasis on maintaining humanitarian principles and being seen outside of the conflict. This depends on heavy structural investments in security management, robust logistics and specialised standby technical expertise.[21] Only a small fraction of the total international humanitarian organizations regularly respond to the most violent, conflict-driven emergencies. The countries with the highest number of aid worker attacks host the lowest number of aid organizations per dollar in funding. Countries with no attacks attract over four times the number of organizations, relative to funding.[30] The greater the level of violence in an area, the fewer the aid projects that run there even though the suffering may be much greater. The SAVE project was able to demonstrate this relationship between aid presence and security through rigorous quantitative analysis. [30]

Confirming this finding in agency after agency, interviewed senior staff affirmed that security was their primary concern when making decisions about where to go, more so than the needs of people or the funding available for the mission.[30] In the face of elevated insecurity, aid agencies frequently withdraw from affected areas to provincial or national capitals, or in regions perceived to be safer. Response organizations typically maintain a country presence, but frequently far from the effected populations where impact is often limited. This has been called the 'capital city paradox.'[30] Given increasing challenge of access due to insecurity, organizations continue to look towards partnership as a way to mitigate these challenges with some describing more 'remote control' and subcontracting partnerships and others describing more bilateral partnerships. None of the key informants raised the issue of using armed security to facilitate response despite recent emergencies that included use of armed security.[28]

Ensuring core funding of agencies in a stable and predictable way has been identified as a way to plan and scale up security infrastructure to be able to meet health needs given the increase in insecure response contexts. Risk management of this insecurity is linked to funding but also unrealistic accountability and compliance norms that restrict organizations' ability to accept risk. As a result, organizations go for the 'low-hanging fruit' by responding where needs are evident and access is straightforward, rather than moving beyond their areas of regular operations and taking on more risk. Instead of risk management, the sector is increasingly intent on risk devolution where each actor pushes risk as far away from itself as it can.[21] Risk aversion is widespread among humanitarian actors and the future of health response will require a need to mitigate and manage risk to ensure delivery of aid where it is most needed.

4.3 Collaboration

In order to more effectively meet the demand for humanitarian health workers in the future and ensure timely and effective programme delivery, the current challenges organizations face with regards to collaborating for health responses are presented here. The main gaps identified by key informants in collaboration were (i) coordination and (ii) partnership. The gaps are summarised in Figure 5.

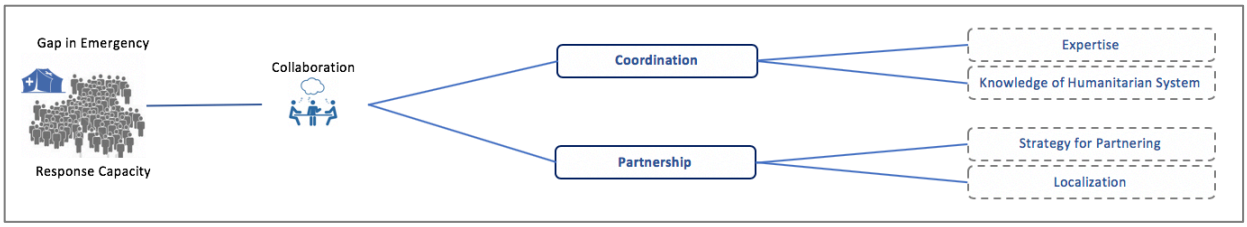

Figure 5: The gaps in collaboration for humanitarian response

Coordination

Coordination of response activities to avoid duplication, ensure coverage and improve services has been part of humanitarian response since the implementation of the cluster system. There has been and continues to be investment in improving the formal coordination mechanism through the health cluster.[31] The main gaps identified as part of coordination were (i) expertise of personnel and (ii) knowledge of the humanitarian system.

Expertise
The gaps identified in expertise include (i) expertise of the cluster coordinator (ii) management skills of the cluster coordinator and (iii) integration of humanitarian and development activities in coordination mechanisms

The importance of strong health cluster leadership, and particularly health cluster coordinators, was regularly identified as critical to an effective response. Without health cluster coordinators that have the necessary technical, leadership and soft skills, health clusters cannot be ineffective, impacting on the broader response. Management of health clusters by existing WHO country office staff without specific health cluster coordinator knowledge and skills has resulted in weak cluster leadership, although this has previously been identified as an important gap to be prioritised by the WHO Emergencies Programme.[31] Whilst WHO has invested in creating a pool of skilled health cluster coordinators, this needs to be sustained through strong performance management and additional recruitment to address gaps.

The traditional health cluster coordination system was developed 15 years ago, there are mixed opinions among key informants and the literature whether the cluster system is still fit for purpose given the changing humanitarian environment.[32] Each active health cluster has a coordinator, but the model is to have cluster coordination teams with a health cluster coordinator (HCC), a public health officer, and an information management officer as well as a cluster co-lead from an NGO or MOH. Currently, WHO is often only able to directly fund the HCC, given frequent funding limitations. This is an area WHO needs to support in order to fulfil its role as cluster lead agency. In settings where the team is not complete, or HCC is positioned as the decision maker there is a heavy reliance on that person's skills as opposed to the whole coordination team as the decision-making body. It was identified that HCCs have limited access to mentoring and support with the limited size of the GHC team at the global level supporting them. This could improve with more support coming regionally, but what this support could be has not yet been defined.[33,34]

Alternative models of coordination are being explored and used in different settings. The CORE group is exploring opportunities to use its secretariat model beyond polio for other outbreaks. The CORE group is also trying to encourage the integration of the development and humanitarian infrastructures in a coordination mechanism to better share tools, knowledge and avoid silos. No other agencies brought up alternative methods of coordinating which may have been biased by the origin of this study from the GHC. The literature referenced coordination across sectors through the IASC, UNHCRs refugee coordination model and field based interagency coordination described by the Sphere Project. Key informants identified practical tools for coordination such as the 4Ws as well as the use of technical working groups to coordinate specific areas of a response with examples as mental health and sexual and reproductive health technical working groups.

Knowledge of the humanitarian System
The gaps identified in understanding the humanitarian system include (i) inclusion of non-traditional actors and (ii) ensuring contextually appropriate needed support to governments in responses.

Key changes in the humanitarian context as applies to coordination have widely been discussed in the literature. There has been a dramatic increase in the number of non-traditional emergency response organizations including local NGOs, NNGOs, religious organizations and development organizations.[25,32,35] Widespread (but not universal) agreement has been reached that the international community (UN/INGOs/etc.) should build local humanitarian response capacities as per the New Way of Working and humanitarian-development nexus. Details of how this should be done are less clear. Some argue that localization is not appropriate in some settings, particularly conflict environments where local staff can be overly influenced by belligerent parties.[32] National governments', organizations' and worker's capacities are increasing along with their expectations of participation in response. National governments are increasingly leading the emergency response including the health cluster.

An important change identified related to coordinator positions is the increasing leadership and autonomy of national governments in emergency coordination.[36,37] The introduction of the IMS/EOC[3] structure has provided expanded opportunity for governments to 'own' the coordination or play key roles. Key informants described the increasing use of the IMS structure in a positive light. WHO SEARO[4], for example, are strengthening the regional use of the EOC to make it the physical or virtual base of operations for responses. The balance between respect for national sovereignty and assuring adherence to core humanitarian principles was mentioned as a significant challenge in many settings. Although government support is critical, leaving health coordination entirely to governments may result in political interference and less effective response in some contexts.[6]

These changes are predicted to continue or accelerate. While this is broadly acknowledged to be a positive change and is widely supported, issues of efficiency, effectiveness, and adherence to accepted humanitarian principles persist in some settings. Given the substantial increase in non-traditional actors the coordination system regardless of who leads it needs strategies to better engage with these actors. Existing operational actors express concern that rigid and overly-formal coordination, particularly in an acute emergency phase, limits flexibility and timeliness of response - more time talking than doing.6 The dissonance between the views on coordination present a challenge to engaging actors in one coordination mechanism.

Partnerships

The gaps identified in partnerships for humanitarian health response include (i) varied partnership structures and (ii) development of national partner capacity.

Strategies for Partnering

Different types of partnerships were identified but not well defined (Figure 6). Networks were described as different partners working in similar thematic areas sharing resources and collectively meeting needs. Participation in the cluster was noted to be a form of partnership to ensure coverage of needs and communication usually through a central

[3] Incident Management System and Emergency Operations Center
[4] Southeast Asia Regional Office of WHO

focal person, the cluster coordinator. Hierarchal partnerships were typically an INGO or UN agency partnering with a national or local organization for a specific response activity in what was actually a subcontracting arrangement.
This meant that the local/national partner often was not involved in developing the work or given autonomy to make changes during the response work but rather contracted to carry out a specific service. Bilateral or more equal partnerships usually between INGOs were identified as a way to scale up interventions or provide complementary needed services.

A frequently mentioned challenge to partnering was the lack of systems to support partnerships and networks. INGOs mentioned the time-consuming nature of partnership building and the need for dedicated human and organizational resources. The requirement for a clear engagement strategy with partners was also identified, with examples cited of inter-agency networks not keeping members engaged and up to date with the latest information. There are a number of networks that focus on specific aspects of health programme delivery, particularly those focused on outbreaks and emerging diseases, including the African Public Health Laboratory Network (APHLN), Emerging and Dangerous Pathogens Laboratory Network (EDPLN), the WHO Emerging Diseases Clinical Assessment and Response Network (EDCARN) that, if leveraged, can effectively play an important response role.[38,39]

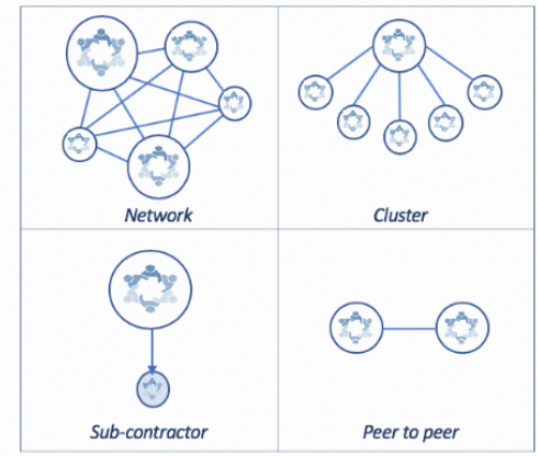

Figure 6: Partnership configurations described

National Partner Development
The literature review highlighted that partnerships are anticipated to be increasingly more important, particularly between NGOs in the future.[25,40] Probably the most important of these will be between national or local NGOs and other stakeholders. The current transactional and power dynamic is likely to change with increased direct funding to local/national NGOs.[41] Implications of this shift for the early/first phase response to acute humanitarian emergencies are unclear. Development of new partnerships during acute emergencies is likely unrealistic. As such, these relationships typically will need to be developed prior to an acute emergency and have been established as a strategy to absorb sudden shocks in chronic crises. Key informants identified a lack of strong partners on the ground as a key challenge to partnering in health delivery, with weak capacity of local partners due to their lack of experience in humanitarian response, writing of donor or project proposals and monitoring of projects. It is more difficult to maintain the quality of medical care and health programmes delivered through partnerships in areas where capacity of local organizations is weak. NNGO, INGO and UN stakeholders cited insufficient levels of trust and a lack of accountability between partners as challenges to partnering in humanitarian responses. Insufficient support and monitoring provided to NNGOs in particular was noted, with INGOs not focused on capacity building for the NNGO. Broadly across stakeholders there is a lack of financial transparency. Even though localization is

being widely endorsed, there are contexts where the approach should be considered carefully.[40]

5. Discussion

This study aimed to identify opportunities for strengthening and improving the humanitarian sector's ability to respond more quickly and effectively to health emergencies. To achieve this, the report focuses on gaps in the three priority thematic areas of workforce, programme delivery and collaboration, summarised in Figure 7. This section highlights challenges associated with each of these areas and discusses meaningful and realistic solutions. Although the report addresses a broad range of topics and challenges, it is primarily focused on identifying tangible and practical solutions that can be addressed by the humanitarian health sector.

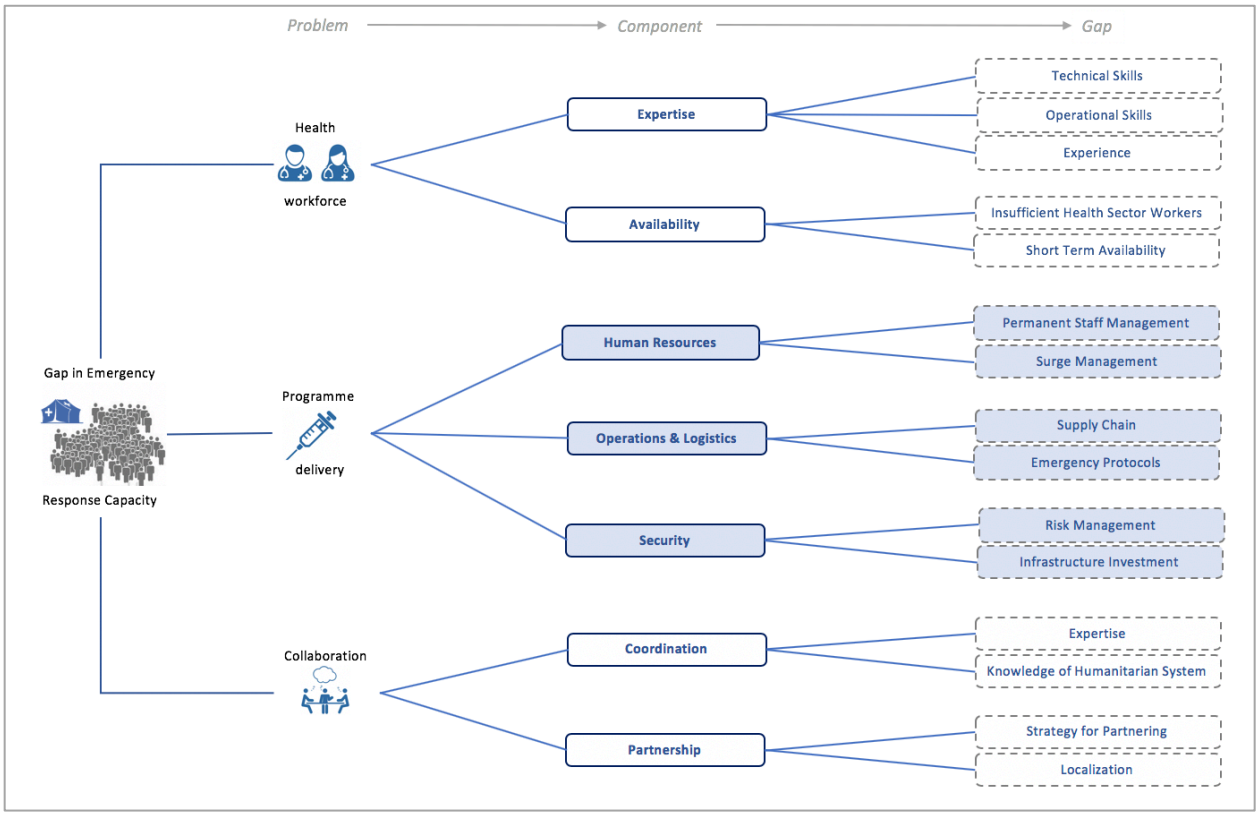

Figure 7: Summary of the gaps identified

Workforce

A qualified workforce is a core requirement to deliver high quality humanitarian health. Key informants and the literature identified a range of technical, operational and managerial gaps among both national and international staff that if addressed would ensure more effective emergency response.

Solutions to address these gaps include (i) development of standardised competency framework to provide a framework for training and education and (ii) better understanding of which educational and training modalities are most effective for humanitarian workers.

Lack of competency-based definitions of the necessary knowledge and skills for specific types of humanitarian health workers has led to inconsistent and poorly defined priorities for education and training. Development of standardised competencies and trainings tailored to them would ensure the necessary skills are prioritised in training and educational programmes. Different skills and different workforce categories require different learning approaches including classroom based, simulation based, self-study including e-learning, coaching and mentorship. Building on knowledge from other sectors and leveraging instructional design theory and frameworks can and should inform humanitarian learning strategies. Equitable access to training opportunities is necessary to ensure those who most need the educational programmes and training, often humanitarian workers in affected countries and/or the global south, receive it.

Strong technical skills alone do not guarantee high quality and consistent programme delivery. Addressing the lack of knowledge of the context and humanitarian principles in clinically strong staff will further facilitate their effectiveness. Leadership and management skills and the ability to rapidly adapt to new operational challenges were consistently identified as human resource gaps to target in capacity development. Strong support staff competencies, particularly in the areas of health supply chain, managing clinics/health facilities or WASH in health facilities were additional areas requiring strengthening. Cross training of technical staff who are in leadership or management roles on operations may also improve response operations. Experience is a recognised prerequisite for the successful application of knowledge and skills in complex humanitarian environments, but opportunities for gaining experience are limited. Systematic approaches to facilitate experiential learning through remote simulation or in-country coaching and mentoring can be important for field staff lacking experience.

Partnerships have and will continue to be important for ensuring high quality and appropriate training and educational programmes. Close partnerships between academic and operational organizations combine the educational expertise of universities with broad understanding of workplace competency gaps of NGOs and other response organizations. Other successful partnerships have included interagency partnership with WFP for logistics training. The Emergency Medical Teams (EMT) programme uses a certification-based approach to ensure partners (i.e. foreign medical teams) have specific standards and capabilities. But the highly structured and focused nature of the EMT model makes generalisation to most other less-structured settings challenging.

Programme Delivery

HR systems are defined as the systems to ensure the organization have the right people in the right place at the right time to meet the need. This includes the identification, recruitment, placement and retention of staff. If training and experience needs are addressed in isolation of the HR systems, skilled and qualified people will go unused. A well-functioning surge roster is an important element of an effective human resource system for emergency response organizations. Most report using surge rosters, but the majority are limited by systemic problems related to the administration, management and funding of the rosters, undermining effectiveness. Systemic management approaches informed by best-practices and other sectors can address many of these problems, but dedicated and sustainable funding to support the needed staff to administer the rosters is essential.

To deliver high quality health services in highly insecure environments is complex and requires a certain risk tolerance and investment in risk mitigation infrastructure. Many organizations maintain a light or superficial presence in the affected areas due to a gap in risk management, but these rarely deliver meaningful services. Partnership across stakeholder groups, specifically to local or national organizations, may address this problem but then is part of the larger localization discussion particularly in regard to upholding humanitarian principles.

Organizational bureaucracy is an important barrier to the rapid implementation of programmes in acute emergencies. Efficient and timely emergency response requires dedicated emergency organizational procedures and SOPs that facilitate rapid recruitment, procurement, management of risk and streamlined delegation of authority and other administrative steps, during the early phase of acute emergencies. Criteria for activation and deactivation of emergency organizational procedures and SOPs need to be clearly defined. Advanced negotiation and agreement with donor organizations may be required to ensure agreement about flexible funding, simplified reporting and streamlined financial management.

Collaboration

Although the importance of partnerships in future humanitarian action is frequently cited, many aspects of partnerships remain poorly defined, including most importantly what constitutes a partnership.[25,40] The study team characterised a number of relationships that are commonly considered partnerships (Figure 6). These range from NGOs collaborating as equal partners to achieve a certain objective to hierarchal partnerships between an INGO or UN agency subcontracting with a national or local organization for specific response activities. Recent calls to increase direct funding to local/national NGOs would, if implemented, shift financial control and independence to local organizations.[41] This may have substantial implications on INGO funding and on the existing INGO-NNGO partnership model, ultimately leading to more in-country partnerships between local and national organizations. While effective partnerships between international and national organizations may be an important mechanism for programme implementation, particularly in complex emergencies, key challenges exist including ensuring high quality health programmes and financial accountability, particularly in settings where partner capacities are weak. Ultimately, improved clarification of what constitutes partnerships in this setting is required, and better understanding of how, when and where different models of partnerships are most effective remains to be determined.

Although this study was not an assessment of health cluster and formal coordination mechanisms in humanitarian emergencies, certain themes were commonly raised related to the lack of engagement of non-traditional humanitarian actors in health cluster. However, there are over 400 NNGOs in 28 countries who identify themselves as part of the health cluster in an assessment of health cluster partners conducted in 2018-2019. It is likely that there are still non-traditional actors that organizations work with who have limited cluster engagement and it is also possible that non-traditional actors while part of the cluster may not understand how to engage in decision making processes facilitated through the cluster.

Many of the non-traditional actors including national NGOs, other national organizations, and development organizations lack an understanding of how the humanitarian coordination mechanism functions. Given an evolving appreciation of the importance and value of non-traditional health actors in emergencies, ensuring strategies to encourage these organizations to participate is necessary to leverage their resources, local knowledge and expertise in a coordinated and coherent approach.

National health workers are the core of the humanitarian health response. The localization agenda aims to build and sustain strong national capacities, empower national governments to lead response activities, and reduce the need for international support. This is a long-term vision in many settings. But in certain areas such as humanitarian response coordination, strengthening in-country health coordination capacities can empower the government to more effectively guide response operations. Training and capacity building for national responders and NNGO can increase national capacity and is particularly important in disaster-prone countries or protracted crises where long-term humanitarian response by international organizations can be challenging to sustain. Other priority areas to increase NNGOs' capacities to compete for donor funding, addressing common gaps such as grant proposal writing, financial management, and donor reporting, can increase NNGO autonomy and local leadership. Some limitations to a pure localization agenda are important and need to be considered in certain settings. Most importantly, local staff and organizations may be more easily influenced than international staff by local or national politics, undermining and compromising core humanitarian principles.

6. Recommendations

In summary the following are the key study recommendations with the relevant stakeholder groups they pertain to identified.

Workforce

- Define standardised competencies for specific categories of humanitarian health workers, both technical and non-technical operations staff (UN, NGO, donor, government)
- Based on best evidence, build education and training curricula, including simulation-based and e-learning, around standardised competencies, that are accessible to both global south and north (academia, NGO, donor)
- Invest in rigorous research on the most effective methods for educating and training national and international humanitarian workers, focusing on experiential learning and simulation including e-simulation (academia, donor)
- Develop structured systems for gaining experience, through experiential learning, mentorship and coaching programmes (UN, NGO, donor)

Programme Delivery

- Develop surge rosters management guidance documents based on best practice (UN, NGO, donor)
- Develop and implement emergency protocols and SOPs to ensure expedited operational response capacities during the acute phase of emergencies, including HR protocols and delegation of procurement authority to country and field offices (UN, NGO)
- Make efforts to regionalise response to both increase the diversity of responders and increase the efficiency of the response (UN, NGO, donor)
- Assess organization's operational effectiveness and identify solutions and innovations to improve it (NGO, UN)
- Advocate for greater flexibility of donor funding to allow rapid repurposing of funds to respond to acute humanitarian needs (UN, NGO, donor)

Collaboration

- Conduct a comprehensive study to better define how, when, and where humanitarian partnerships can enhance humanitarian response, including limitations and challenges (UN, academia, donor, private sector)
- Invest in and build at-risk countries' emergency health coordination capacity to ensure strong national government leadership (UN, governments)
- Develop strategies to engage and support non-traditional actors, including national NGOs and development actors, in all emergency response coordination activities (INGO, UN, donor)
- Define tangible definitions and approaches to the HDN that promote the implementation of response activities to meet this need (NGO, UN, donors, academia)

7. Iraq Country Case Study

Introduction

The study team undertook a country mission to Iraq from the 12th to the 25th of January 2019. The objective of the mission was to gain a field perspective on the gaps in humanitarian health response capacity identified by global key informants and see how the recommendations may be interpreted in a specific response context. As such, Iraq serves as a country example for this study.

During the field visit, thirty-eight key informant interviews were conducted across stakeholder groups using a semi-structured interview guide to identify key challenges faced by humanitarian health responders (Figure 9). A prioritisation exercise was also conducted following the interview to explore the relevance and pertinence of gaps raised by global key informants in the global interviews conducted during the main study. Key informants were asked to provide their perspectives on gaps in humanitarian health response as it pertained to the response from 2016 to present. The research team also directly observed health cluster meetings in Baghdad and Erbil and conducted an unannounced field visit to the West Mosul field hospital that is being supported as part of the emergency response. Prior to the mission to Iraq, a review of literature relevant to the current situation in Iraq was conducted.

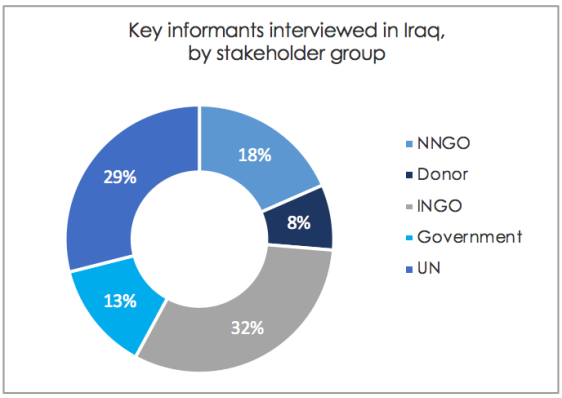

Figure 9: Iraq key informants by stakeholder group

Background

The recent occupation of Iraq by the Islamic State of Iraq and the Levant (ISIL) was declared a Level 3 emergency in 2014 and ended in September 2018 with the last liberation operations. The occupation came after years of war and sanctions which left the Iraqi population especially vulnerable. Currently, an estimated 6.7 million people are in need of humanitarian assistance in Iraq, of which 2 million are internally displaced (0.5 million in camps and 1.5 million out of camps) and 4 million are returnees.[42] The humanitarian crisis is now entering into a new post-conflict transition phase where the focus of the response is more on responding to the needs of those displaced and those returning to their areas of origin and less focused on acute needs.[43]

The impact of the years of fighting has been considerable and regions in the northwest were particularly hard hit. In the governorate of Ninewa, for example, only half of health facilities are fully functional and in Salah al-Din over a third of health centres were damaged or destroyed. In addition, unpredictable volatile dynamics are expected to continue throughout the country even though the military offensives have formally ended.

Of those currently in need of humanitarian assistance, the 2019 Iraq health cluster response plan targets 1.7 million people, focusing on newly accessible and high-risk areas. The health cluster has defined three objectives for its 2019 response: (i) continuing to provide essential healthcare services with a particular focus on mental health, psychosocial support, gender-based violence and physical rehabilitation; (ii) strengthening the national capacity in crisis-affected areas and continuing to advocate for handover of humanitarian health service delivery and; (iii) monitoring, mitigating and managing common communicable diseases through ensuring the continuity of an effective Early Warning and Response Network (EWARN) and continuing public health awareness.[42] It is in the context of the recent Level 3 emergency and current transition towards stabilisation that the country mission was undertaken.

Findings

All the gaps identified by the global pool of key informants resonated amongst the humanitarian health responders in Iraq. What differed, however, between the respondent groups was the importance attributed to individual gaps in terms of their direct relevance to the Iraq health response. Displayed in each section is the relevance of each gap to the Iraq context as specified by key informants; the dark colour signalling that the gap is also of significant concern in Iraq, grey signalling that the issue is of moderate concern, and white that the issue was of low priority or not of much concern, relatively speaking, for the response in Iraq.

Workforce

Iraq key informants identified the highest priority and most relevant gaps in workforce for the Iraq context to be operational skills and insufficient health sector workers. They noted that technical skills, experience and short-term availability of international health responders were of moderate concern (Figure 10).

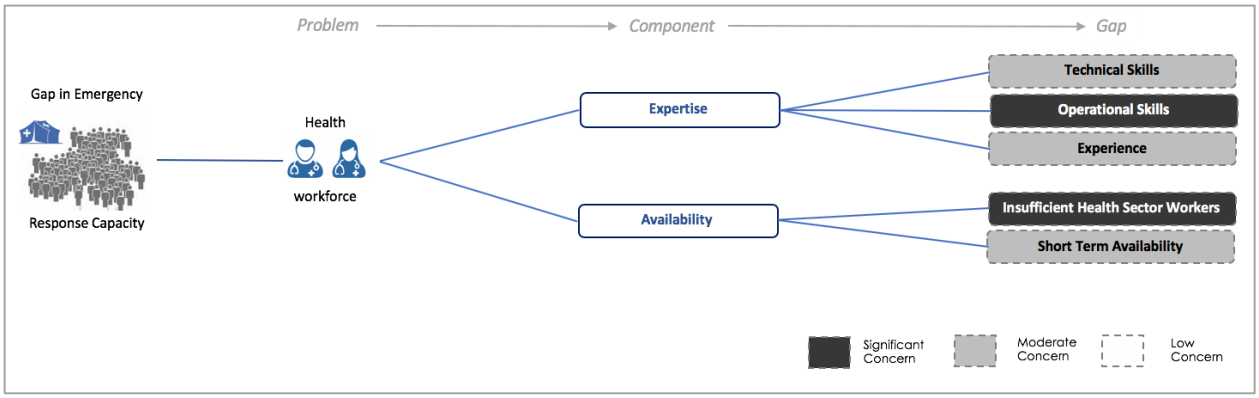

Figure 10: Relevance of the identified workforce gaps to the Iraq context

Expertise

Medical education for physicians, nurses and other allied health professions continue to run in Iraq despite the conflicts. The quality of instruction is said to have deteriorated over the last decades.[44]

As a result, knowledge of specific features of providing medical care in humanitarian settings was identified as a gap by key informants. During the Mosul response, for example, international organizations said they considered pulling national clinicians from local hospitals to support the response but then established that the level of trauma care training amongst especially younger clinicians in hospitals near Mosul was insufficient for them to work in the trauma stabilisation points (TSP).

> "A gap is knowledge and skills related to emergency conditions like ATLS, CLS – we don't have people certified with these trainings. In the US everyone who works in the health sector has to have at least BLS to be hired. Here they don't know that." (GOV-IRAQ-02)

The absence of sufficient public health expertise was highlighted as another gap area, although not with as much gravity as clinical areas of expertise such as trauma care. Iraq's healthcare system is predominantly hospital-based with a curative focus.[45] As such, there is little focus within the professional medical education system on preventive healthcare. Addressing these gaps in public health expertise, WHO established EWARN for disease surveillance across the country with a total of 241 reporting sites. In order to set this up, expertise was drawn upon from an international pool of experts.

> "We only had 2-3 epidemiologists to rely on. We don't have an academic specialization in public health in Iraq." (GOV-IRAQ-04)

Prosthetic and rehabilitation experts were a third recognised gap in expertise. There are currently no universities in Iraq that train prosthetic technicians. Relatedly, there are only a few physiotherapists in-country who can support conflict-affected trauma rehabilitation patients, which was also said to be due to a lack of relevant in-country professional training programmes.

> "In Iraq, we didn't have a working group for paediatric medical services. We don't have medical care for children. […] This is the biggest lesson learned from Mosul. Maybe WHO or UNICEF needs to be tasked to do this in future." (UN-IRAQ-08)

Key informants described mental health and an acute shortage of mental health experts as a gap across all stakeholder groups. It was suggested that where there are psychologists, they do not want to work full time with NGOs, as these are new to the healthcare provision landscape in Iraq, or they may be just out of university, so they do not have sufficient relevant experience to support the response. For medical management of mental health (e.g. prescribing of medications), there were said to be only three psychiatrists in the country. MSF identified a solution to fill this gap by obtaining approval from the government to have general practitioners under their supervision prescribe psychiatric medications alongside psychological services for patients.

Gaps in emergency paediatric care requirements above Integrated Management of Neonatal and Childhood Illnesses (IMNCI) were highlighted. For children with emergency medical care needs or those with acute respiratory conditions or skin diseases, there were no child-focused services to turn to for higher acuity care or specialists. Organizations providing gynaecological services and reproductive healthcare said they had to admit children alongside pregnant woman as there was no alternative.

In addition to the speciality knowledge areas, gaps in management and leaderships skills were identified, particularly amongst Ministry/Department of Health staff and INGO staff. For Iraqi clinicians, it was suggested that anything other than treating patients was regarded as lower grade work. One key informant, for example, stated that a diploma in hospital management was started a year ago in Iraq but was perceived as inferior to direct clinical work with patients. Where gaps in leadership were identified by INGOs, it was suggested that there is less support available for senior management in the form of mentorship or similar programmes than for other INGO country programme staff.

> "Doctors think that they are not managers, they are doctors. But we need doctors to run the hospitals or health centres. Is it a shame to manage a health centre? It is not, but it is somehow perceived as such. In fact, it takes more skills to manage a hospital." (GOV-IRAQ-02)

For both the national healthcare workforce engaged in the humanitarian response and select international staff who were deployed to support the response, gaps in knowledge of the international humanitarian architecture and the humanitarian response environment were said to be a limitation. National NGOs in particular said that they did not know about humanitarian principles and needed to learn how to engage with the international organizations that came to support the response. For international staff that were deployed to Iraq, not all had a background in international humanitarian response and needed to be oriented. It was noted that the humanitarian response in Iraq was unable to attract a high calibre of international staff for some positions, possibly due to the high levels of insecurity.

Availability

In addition to the limited expertise in-country in some areas, all key informants raised significant concern regarding gaps in the national healthcare workforce for the response, predominantly in remote regions such as Anbar and regions directly affected by sectarian violence such as Sinjar. Shortages of female physicians and nurses in these areas was particularly highlighted. Iraq's health workforce, once well-known in the region for its robust and well-trained personnel, diminished considerably in the years following the US-led occupation of Iraq and the fight against ISIL. Half of the 18,000 physicians registered in Iraq prior to the Iraq war were estimated to have fled the country by 2011.[46] This brain drain has continued to the present day and has resulted in the concentration of national healthcare workers in certain regions and predominantly in urban areas.

> "When I first visited district hospitals, I was surprised. You can find MRI and microscopic surgery there. Iraq uses US medical curriculum at university [… and] doctors are trained in English. […] The problem is that we have a brain drain. (UN-IRAQ-08)

Notwithstanding these shortages, the vast majority of the healthcare workforce responding to the humanitarian crisis in Iraq are Iraqi nationals. Given the advanced nature of the Iraqi healthcare system and the fact that clinical staff practicing in the country have to be registered with the Iraqi Ministry of Health, the role for international responders is limited to highly specialised clinical positions and managerial roles. As such, the limited availability of international medical professionals to support humanitarian responses was not regarded as a big challenge for the response overall. Where this was a salient issue, however, was with regards to trauma care operations in response to the Mosul offensive in 2017.

The international organisations that stepped forward to support the trauma response and establish TSPs worked with international staff that were only available for deployment for short periods of time.

Programme Delivery

Iraq key informants identified the highest priorities and most relevant gaps in programme delivery for the Iraq context to be in supply chain, emergency protocols, risk management and infrastructure investment. They noted that human resources gaps including management of permanent and surge staff were of moderate concern (Figure 11).

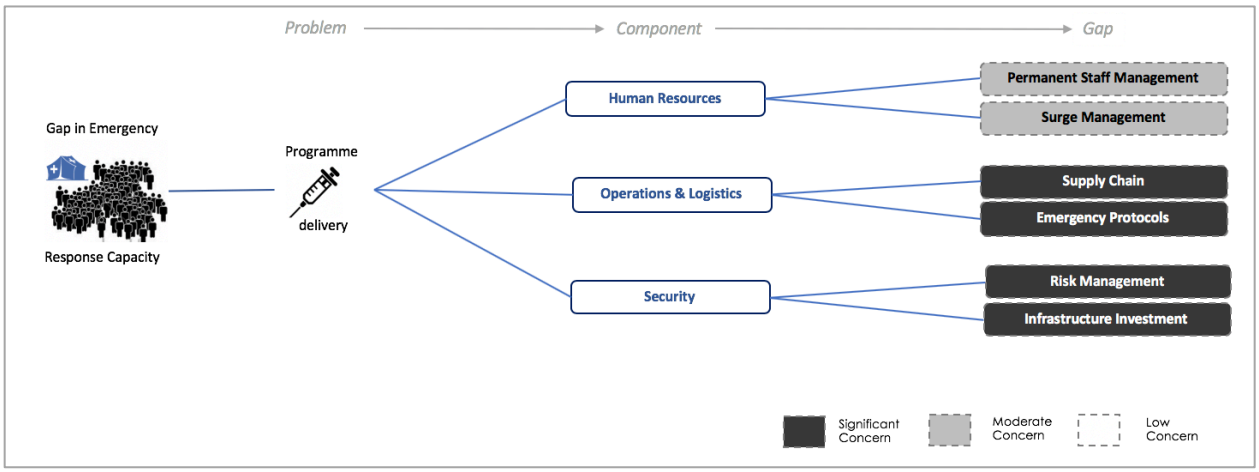

Figure 11: Relevance of the identified programme delivery gaps to the Iraq context

Human Resources

Disparities in salary payments and competition between organizations was described as a significant challenge for the recruitment of national staff. Since all national clinical staff in Iraq are formally employed by the Department of Health (DoH), organizations hiring local health workers paid national clinical staff incentives on top of their regular salaries. Differences in the incentives offered by organizations created difficulties with staff recruitment and retention particularly for national NGOs. Even though a harmonised incentive scale was developed by the health cluster to address this, not all organizations abided by the inter-agency agreed salary scale.

For international staff working with UN agencies and INGOs in Iraq, time consuming processes involving multiple levels of internal bureaucracy presented a big obstacle to timely recruitment. For some organizations, security and other checks are required to be undertaken at headquarters whilst others have layers of approvals built into recruitment processes. Devolving decision making power on recruitment closer to the country office was discussed as a way to address these challenges. Aside from organizational bureaucracy, administrative requirements on behalf of the Iraqi government also presented organizations with hurdles for recruitment. Delays getting work visas was an often-cited problem as were differences in requirements that exist between the central government in Baghdad and regional governments, such Kurdistan, where many international organizations were based.

These different registration and visa requirements caused considerable administrative strains and time delays. The few organizations who noted this to be of limited impact on their operations had devoted considerable human resources to manage these administrative processes.

Another obstacle to timely recruitment was the ongoing insecurity in Iraq which limited the pool of interested candidates. As a result, some organizations said they had unfilled positions for months. Relatedly, high turnover and short-term surge deployments were also cited as challenges experienced with international staff. As mentioned above, this was particularly noted during the trauma response. High turnover was also experienced with national DoH staff, however, in part due to competition in incentive payments between organizations as noted earlier. The high turnover was also due to relocations ordered by the DoH whose staff were frequently moved around, some as often as every six months, in an effort to address healthcare delivery gaps and provide equitable placements for all DoH staff to rural vs urban areas.

> "For a response like Mosul which went from October to the summer, and we had 9 physicians covering the same position, it was a challenge. At one point we had 4 different international mobile teams in country, and for each you have to get registration, get the facilitation letters, etc." (INGO-IRAQ-01)

The lack of sufficient funding to cover or maintain positions was not identified as an obstacle to timely recruitment by most other actors, although it was cited as a challenge by some national organizations. The 2018 Humanitarian Response Plan (HRP) for Iraq was 97% funded, making it the best-funded appeal globally in 2018.[47] Within the 2018 HRP, the health cluster requested $67.4 million, a request which was 101.5% funded.[48]

> "It was difficult for the health cluster to get donors to understand that Duhok is a priority. […] We have 300,000 people in 21 camps in Duhok. Each camp has health facilities. We need to make sure that donors understand what will happen if they stop the funding. Donors only want to support conflict affected, acute emergency situations." (NNGO-IRAQ-05)

Operations & Logistics

Even though health cluster response activities were completely funded in the 2018 HRP, concerns about diminishing response funding given the transition from Level 3 to Level 2 emergency were widespread in Iraq. During this time of transition, some humanitarian donors have said they will stop funding operations whilst other donors have shown reluctance to pledge continued support. At the same time, donors of development activities have been slow to step in. Efforts to bring the humanitarian and development communities together are currently underway in Iraq, including UNDP's Funding Facility for Stabilisation, but these were said to be mainly high level. A number of key informants said that they were unaware of coordination efforts between the two communities.

> "We started the Mosul response in November 2016. There was also an IDP movement down South. Due to the interest of donors in the Mosul crisis, everyone wrote proposals for that. This led us to ignore the situation down South. […] When donors said they are interested in Mosul, everyone followed." (INGO-IRAQ-05)

The issue of donor funding priorities, also as it relates to donors only funding certain types of operations and/or activities in certain locations, was greatly criticised by organizations in Iraq. OCHA identified that in 2018 the HRP was compiled without a Humanitarian Needs Overview (HNO), supporting the fact that there is limited analysis of operational gaps driving response funding allocation.

One way the issue of donor prioritisation was addressed was through the establishment of a pooled fund connected to the HRP. This only partially solved the problem, however, as a number of donors continue to fund organizations bilaterally outside of the pooled fund mechanism. In addition, requirements were set for organizations applying for pooled funds, including doing so through consortiums, which some said were shared with insufficient advance notice to form the needed consortiums. Monitoring and due diligence processes have been strengthened and made more robust in light of 2018 forensic audit findings with a number of national and international organizations. Although key informants generally said they understand the necessity of due diligence processes, they found the differing approaches and requirements amongst donors to present a challenge for programme delivery.

Funding related challenges aside, weak supply and logistics systems were frequently mentioned as a hindrance to the effective delivery of health programmes. Two aspects of organizational capacity for logistics were highlighted: the ability to procure and deliver medicines and supplies in a timely manner, and the ability to work with national and governorate level regulations on medicine procurement and supplies. Most organizations described challenges on both fronts. Organizations that received medical kits from WHO, for example, said that these were not fit for the context; they contained items like anti-malarials that have no use in Iraq. In terms of logistics, the maintenance of ambulances was raised as a difficulty by several organizations.

> "We brought in additional logistics teams and got lots of help from outside, but as [x] we don't have a logistics system. I've said before in a regional meeting: 'why are you bearing this pain why not hand over logistics to Alibaba?'" (UN-IRAQ-05)

> "It took us months to get drugs from WHO. There is a list of drugs they will provide, but there are gaps in terms of drugs for NCDs or MHGap [mental health drugs]. Even if things are on the list though, it doesn't mean they have it - standard drugs like zinc may not be available. Being able to import or procure locally is a challenge. To even get quality assurance for suppliers in Baghdad is a challenge." (INGO-IRAQ-10)

An innovative example of meeting the need for drugs not supplied by the response was demonstrated by a NNGO. The NNGO documented the burden and need for NCD management in its primary health facilities and approached the development donor Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ) with the data asking them to provide funding for local procurement of the required drugs to meet the need. Local procurement eliminated the importation requirements as drugs had already undergone the necessary quality checks by the drug supplier on importation. Given GIZ's due diligence processes that were in place, the donor said they trusted the NNGO to go ahead with local procurement.

The transitioning out of health programmes targeting humanitarian needs was suggested to be one of the biggest challenges facing all organizations in Iraq. Organizations expressed uncertainty about the health facilities and services they support in and around IDP camps. They were both unsure how long funding would last to continue service provision and how transitioning to the DoH would be done. Even though the 2018 HRP plan had a heavy emphasis on handing over clinics to the government, ultimately far fewer were transitioned than planned. The reason cited for this was lack of readiness for the government to absorb the operation of these facilities both in terms of supply and logistics as well as staffing.

> "We provided over 30 mobile clinics, over 60 ambulances, facilities etc. to the government – all of these items are not an inventory of the government though. So, when the government wanted to take over again, transition was a problem. We gave away our ambulances, but the problem is that if they are not on the inventory of the government PHCs, they don't have money to maintain them. Over 20 mobile units are not operational now." (UN-IRAQ-05)

A positive example of transition was identified in the handover of the Mosul field hospital. The two field or caravan hospitals for the Mosul operation were run by Aspen Medical. At the end of the offensive the caravan hospitals were relocated to West Mosul to re-start hospital services to the civilian population and the operation and management of the hospital was handed over to NNGO Dary and the DoH Ninewa for staff. This transition was described as seamless with the continued provision of high volume secondary and tertiary level of hospital services. Concern for the full transition to government management was expressed due to national issues with supply chain and infrastructure management.

Two particularly strong examples of innovative programmatic responses to humanitarian needs in Iraq are worthy of highlighting. The first is a preventive strategy expanding the age restrictions used for immunisations implemented by UNICEF. Given the protracted nature of displacement in some areas in Iraq, and the challenges reaching some displaced populations, immunisation teams used military checkpoints to vaccinate all children under the age of 6 that crossed the checkpoint. Even though immunisation protocols specify the target to be children under 5, it was recognised that there are likely 6-year olds who have not yet been immunised given the protracted nature of the conflict and isolation of the population from medical services, so it would be important to ensure they too are covered. Additionally, once in IDP camps the DoH vaccinators were identified and utilised to provide vaccines in those sites to ensure contextually appropriate delivery of services.

> "When Mosul was liberated there was no maternity facilities. We opened a mobile delivery room and mobile caravans. We started bringing women for delivery to Erbil. We had change ambulances at each checkpoint." (UN-IRAQ-08)

A second example of innovative programming relates to ensuring safe deliveries for mothers in conflict areas. In order to achieve this, mobile maternal delivery rooms were established by UNFPA and its partner organizations using the caravans as mobile clinics. This was done due to the difficulties pregnant women faced in travelling to obtain health services.

Security

The insecure nature of the response environment in Iraq had several repercussions for the response. It limited the pool of international candidates who were willing to join the humanitarian response, as well as the pool of national physicians and nurses who were willing to work in so-called 'hot spot' areas. For international organisations with low risk thresholds, it encouraged partnerships with local organizations who would work in insecure areas. Some of these partnerships faced difficulties which are discussed below.

> "We have reached the highest peak of risk aversion created by a strong sense of institutional risk related to a duty of care. INGOs are extremely risk adverse. On this I disagree with my colleagues, they don't invest in understanding the context. They don't invest in security regulations that enables action." (DON-IRAQ-03)

Collaboration

Iraq key informants identified the highest priority and most relevant gap in collaboration in the Iraq context to be strategies for partnering. They noted that knowledge of the humanitarian system and localization were of moderate concern and expertise in coordination to be of low concern (Figure 12).

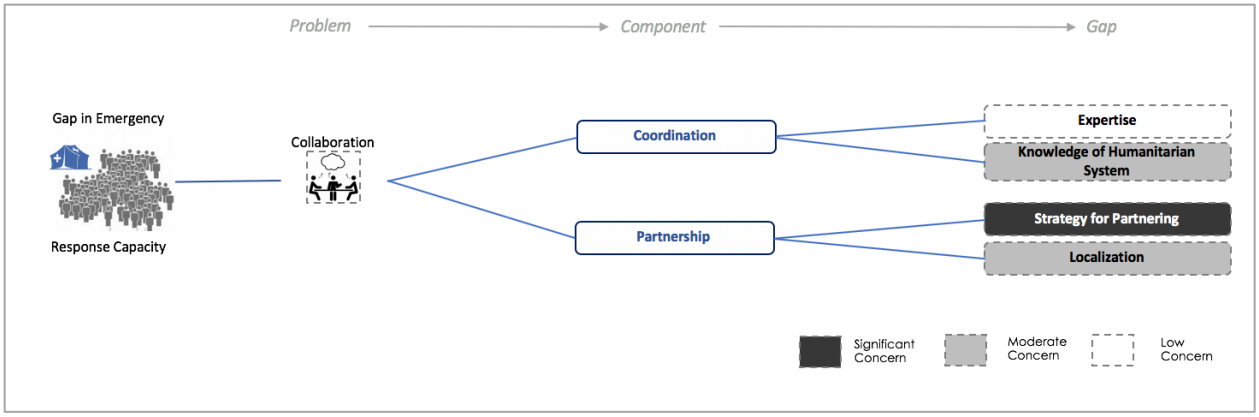

Figure 12: Relevance of the identified coordination gaps to the Iraq context

Coordination

As cluster lead agency, WHO illustrated strong leadership of the Iraq health cluster which was activated in 2014. Country office leadership was not present from the onset and came after a change in country office senior management to someone with humanitarian experience. Led by WHO and co-led by the Iraqi Ministry of Health at the national level and the Kurdish Regional Government in Kurdistan, the health cluster also has an NGO co-lead, International Medical Corps (IMC). Alongside the government leadership the cluster is staffed by a WHO full-time dedicated cluster coordinator, an IMC full-time dedicated co-coordinator, a WHO full-time national officer, a WHO full-time information management officer and a Medair full-time sub-national cluster coordinator. The health cluster established four technical working groups, covering physical rehabilitation, nutrition, mental health and psychosocial support, and reproductive health. To support both government areas the cluster has two primary meeting sites in Baghdad and Erbil. Sub-national hubs were established in Anbar, Duhok, Kirkuk, Ninewa, Salahuddin and Sulaymaniyah.

Overall, 42 organizations are members of the Iraq health cluster: 1 national authority, 15 INGOs, 12 NNGOs, 4 UN agencies, and 2 organisations with observer status.

Partnerships

> "When we are dealing with the prevalence of fraud as we do, we are facing a timing issue. Now is not the time to be expanding the role of these actors [NNGOs]. There is work to be done to work through the backlog." (UN-IRAQ-02)

The weak capacity of local partners on the ground was often cited as a challenge to the effective delivery of quality health programmes. Particularly in insecure regions where organizations extended their reach by working through sub-contracts with local organizations, capacity limitations became apparent problems. National NGOs are new to the Iraqi humanitarian healthcare landscape. As such it was described as unwise to have channelled large amounts of funding through just a few of them early on in the response. The forensic audit findings are a tribute to the fact that these organizations are fledgling and need to be supported to grow. The findings are also a tribute to the importance of organizational capacity assessments. Localization was discussed as an important agenda, but there was agreement that it must not occur at any cost to anti-corruption practices or humanitarian principles.

Discussion

This country case study aimed to assess the field perspectives on the gaps identified in humanitarian health response capacity by global key informants and to serve as an example of how the recommendations may be interpreted in a specific response country context. Overall the gaps resonated strongly with Iraq key informants although some were identified as more relevant to the Iraq context than others (Figure 13). What follows is a discussion of how the study recommendations could be interpreted in the Iraq response context.

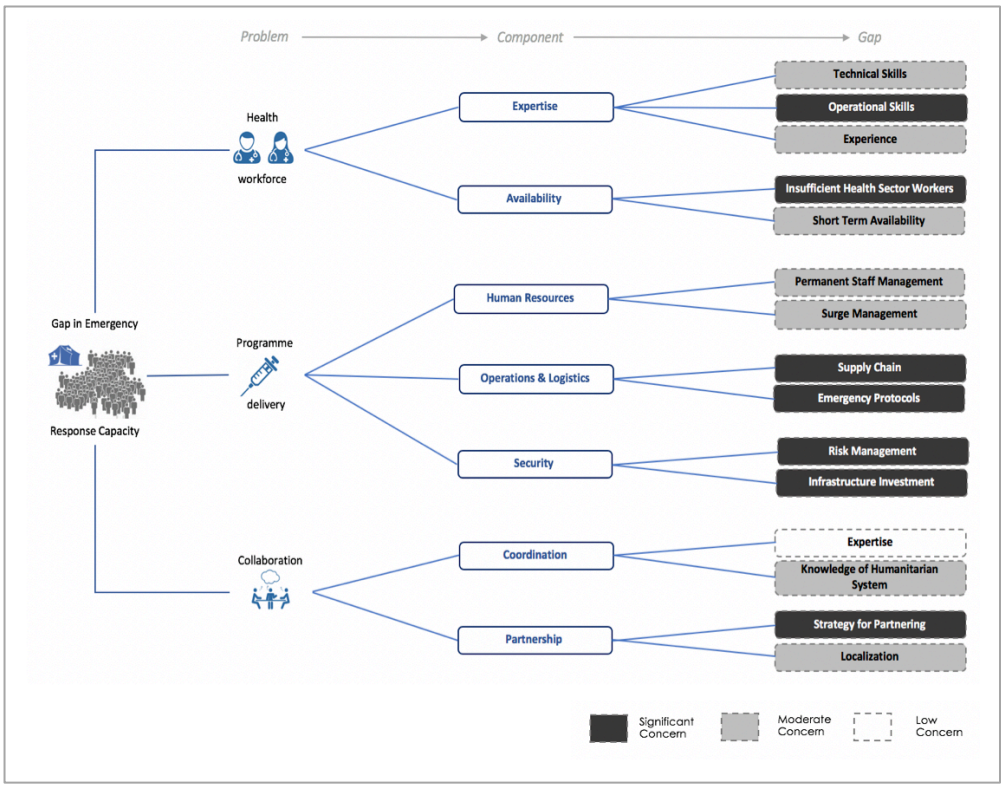

Figure 13: the relevance of the identified gaps in humanitarian health response and their identified relevance to the Iraq context.

Workforce

Operational skills were identified as the largest gap in the Iraq context with an emphasis on both management and logistics skills. For logistics, medical supply chain management was specifically emphasised as lacking in personnel. Medical supply chain management is a specialty area of supply chain management. It typically requires a formal degree of study, which limits the number of supply chain managers with expertise in this area to those who have pursued formal studies. Other opportunities to cross train supply chain managers in medical supply chain and/or mentor their engagement with medical supply chains would increase the availability of this skill set. Management skills including financial management, procurement, grant writing, grant management, programme evaluation and organizational leadership and management were identified as lacking primarily by NNGOs and within the government's DoH. They noted these to be organizational requirements and would be of benefit to their capacity development but noted limited access to trainings or educational curricula to fill these gaps. INGOs reported trying to build the operational skills of NNGOs but lacking formal curricula or training programmes to use in doing so. Development of such educational resources would strengthen NNGO personnel as well as INGO personnel who also identified gaps in management and leadership skills.

Defining standard competencies for humanitarian health workers would address challenges experienced with technical skills. Having targets for the skills required to meet needs such as mental health, trauma, prosthetics and public health would allow for the development of training programmes that target both international and national humanitarian health workers. By developing specialty capacity in both international and national workers there will be those who are ready to immediately meet beneficiaries' needs in the acute emergency (international), while simultaneously implementing locally focused solutions to develop the needed competencies in Iraqi health care workers. There would also be the ability to assess the qualifications and performance of staff against standard competencies. Similarly, systems for humanitarian health responders to gain escalating levels of experience through on-the-job mentorship as well as experiential learning such as simulation.

Programme Delivery

Development and implementation of emergency protocols and standard operating procedures (SOPs) as well as the administrative structures to support them to expedite operational response capacities during the acute phase of emergencies may have helped organizations including NGOs and UN agencies. Having emergency protocols authorising the autonomy at the country level for hiring of staff or deploying surge staff may have helped identify better suited candidates as well as get them to the field more quickly. Similarly, emergency SOPs for procurement to enhance the country level decision making ability would increase the speed of response activities and allow organizations to respond to acute needs and adapt programming according to those needs. This recommendation in isolation would not address gaps in organizations' abilities to expand to other areas of healthcare services (e.g. secondary care, trauma care, specialised paediatrics, etc) without addressing personnel challenge and expanding other organizational capacities. Organizations can look inward to other opportunities to improve their operational effectiveness including risk management. Creative solutions identified during the Iraq response can be used as examples for future adaptation.

The recommendation to develop and improve the management of surge rosters in combination with the development of humanitarian health workers with the needed competencies and experiences as noted under workforce gaps would aim to address the need for both short-term technical and operational staff. Decentralising recruitment of human resources to the regional level would have addressed gaps in language skills and knowledge of the cultural context. It is unclear if a regional response approach could have been used but the development of NNGOs and other regional organizations may provide the capacity for future response and absorb likely future shocks.

Advocating for greater flexibility of donor funding to allow rapid repurposing of funds to respond to acute humanitarian needs was relevant to the context in Iraq in that the situation was very fluid, with the health cluster noting they had developed 17 contingency plans. However, while the availability and flexibility of pooled funds for the response were highlighted positively, the limited timing to create consortiums to receive the pooled funding was cited as a problem. The challenge as highlighted by OCHA was the lack of 2018 HNO and data on health outcomes (as opposed to service delivery statistics) to inform the health response. Improving data systems to identify both service driven needs as well as outcomes to target may contribute to advocating for flexible funds.

Collaboration

Many partnerships were used during the Iraq responses between different configurations of actors. The Iraq response and current transition period serve as an opportunity to study and evaluate partnerships used to identify successes that could be replicated or adapted, and challenges to be addressed. The need of NNGOs to develop their capacities and the frequent use of partnerships to both develop and fund them aligns to the recommendation of building NNGO capacity which could be done through identifying best practices and strategies for partnering NNGOs to other actors. As organizations are developing, it is critical to continue to conduct capacity assessments to make sure they are able to deliver the scale and volume of work with sufficient quality. Activities should be monitored to ensure that individualised capacity development plans are followed. The health cluster in Iraq was able to incorporate non-traditional actors, including national organizations and the private sector.

While coordination was strong in Iraq during this response there is a high likelihood of future shocks to the transitioning and recovering of the health system there. Investing and building emergency health coordination capacity during the transition and recovery period could ensure the ability of the national government to provide strong coordination to future emergencies.

Across stakeholder groups the need to transition from the acute phase of the response to the development phase was highlighted with a need for practical and tangible approaches to the humanitarian-development nexus. Given the transitional state of the response in Iraq with the end of the level 3 emergency and the number of returnees exceeding the displaced for the first time, Iraq serves as an ideal setting to study efforts to integrate the remaining response and make smooth transitions to the development and nation building phase.

Conclusion

This country case study was intended to assess the field perspectives on the gaps identified in humanitarian health response by global key informants during the main study. In the process of doing so the relevance of particular gaps ranged from significant to moderate to low relevance for Iraq and were dependent on the context. Similarly, the study recommendations were reviewed for their relevance to the Iraq context and were noted to be varied in applicability. This is evidence of the need to take a data driven approach to contextualise and adapt the way response gaps are addressed considering the local environment, baseline health system pre-crisis, political context, funding level, security and opportunities for early transitioning.

8. Literature Cited

1. Heymann DL, Chen L, Takemi K, et al. Global health security: The wider lessons from the west African Ebola virus disease epidemic. *Lancet*. 2015;385(9980):1884-1899. doi:10.1016/S0140-6736(15)60858-3
2. Colombo S, Pavignani E. Recurrent failings of medical humanitarianism: intractable, ignored, or just exaggerated? *Lancet*. 2017;390(10109):2314-2324. doi:10.1016/S0140-6736(17)31277-1
3. United Nations/Office for the Coordination of Humanitarian Affairs. *Global Humanitarian Overview 2019*.; 2019.
4. United Nations/Office for the Coordination of Humanitarian Affairs. *World Humanitarian Data and Trends 2018*.; 2018. doi:10.1109/APMC.2012.6421834
5. Healy S, Tiller S. *Where Is Everyone? Responding to Emergencies in the Most Difficult Places*.; 2014. doi:10.1016/S0262-4079(13)60633-8
6. De Castellarnau M, Stoianova V. *BRIDGING THE EMERGENCY GAP: Reflections and a Call for Action after a Two-Year Exploration of Emergency Response in Acute Conflicts*.; 2018. https://arhp.msf.es/sites/default/files/BRIDGING-THE-EMERGENCY-GAP-FULL-REPORT.pdf.
7. Kikwete JM, Calmy-Rey M, Amorinm C, Natalegawa RMMM, Phumaphi J, Shah R. *Report of the High-Level Panel on the Global Response to Health Crises*.; 2016.
8. Chan M. WHO Director-General's speech at the Sixty-eighth World Health Assembly. https://www.who.int/dg/speeches/2015/68th-wha/en/. Published 2015.
9. Gostin LO. The Future of the World Health Organization: Lessons Learned from Ebola. *Milbank* Q. 2015;93(3):475-479. doi:10.1111/1468-0009.12134
10. (OCHA) UN for the C of HA. *New Way of Working*.; 2017.
11. World Humanitarian Summit 2016. https://www.agendaforhumanity.org/summit.
12. Aluttis C, Van den Broucke S, Chiotan C, Costongs C, Michelsen K, Brand H. Public health and health promotion capacity at national and regional level: a review of conceptual frameworks. *J Public health Res*. 2014;3(1):37-42. doi:10.4081/jphr.2014.199
13. Dedoose Version 8.0.35, web application for managing, analyzing, and presenting qualitative and mixed method research data. 2018. www.dedoose.com.
14. Burkle FM, Walls AE, Heck JP, et al. Academic affiliated training centers in humanitarian health, part i: Program characteristics and professionalization preferences of centers in North America. *Prehosp Disaster Med*. 2013;28(2):155-162. doi:10.1017/S1049023X12001690

15. Johnson K, Idzerda L, Baras R, et al. Competency-Based Standardized Training for Humanitarian Providers: Making Humanitarian Assistance a Professional Discipline. *Disaster Med Public Health Prep*. 2013;7(04):369-372. doi:10.1017/dmp.2013.10

16. Walker P, Russ C. *Professionalising the Humanitarian Sector A Scoping Study*.; 2010.

17. Russ C. Global Survey on Humanitarian Professionalisation. 2010:69.

18. Mowafi H, Nowak K, Hein K, Group HRW. Facing the challenges in human resources for humanitarian health. *Prehosp Disaster Med*. 2007;22(5):351-359. http://ovidsp.ovid.com/ovidweb.cgi?T=JS&PAGE=reference&D=med5&NEWS=N&AN=18087902.

19. Walker P, Russ C. Fit for purpose: The role of modern professionalism in evolving the humanitarian endeavour. *Int Rev Red Cross*. 2011;93(884):1193-1210.

20. Burkle FM. Future humanitarian crises: challenges for practice, policy, and public health. *Prehosp Disaster Med*. 25(3):191-199. http://www.ncbi.nlm.nih.gov/pubmed/20586007. Accessed August 13, 2018.

21. Castellarnau M De, Stoianova V. *Bridging the Emergency*.; 2018.

22. Checchi F, Warsame A, Treacy-Wong V, Polonsky J, van Ommeren M, Prudhon C. Public health information in crisis-affected populations: a review of methods and their use for advocacy and action. *Lancet*. 2017;390(10109):2297-2313. doi:10.1016/S0140-6736(17)30702-X

23. United Nations. *Too Important to Fail — Addressing the Humanitarian Financing Gap*. New York; 2015. http://www.un.org/news/WEB-1521765-E-OCHA-Report-on-Humanitarian-Financing.pdf.

24. Blanchet K, Ramesh A, Frison S, et al. Evidence on public health interventions in humanitarian crises. *Lancet*. 2017;390(10109):2287-2296. doi:10.1016/S0140-6736(16)30768-1

25. Maietta M, Kennedy E, Bourse F. *The Future of Aid: INGOs in 2030*.; 2017. doi:10.1057/9781137380326.0010

26. European Commission. Communication from the Commission to the European Parliament and the Council: Towards the World Humanitarian Summit: A global partnership for principled and effective humanitarian action. Presented at the: 2015.

27. Mathuros F. Scale of Humanitarian Crises Demands Partnerships with Private Sector to Deliver Lasting Solutions. 2017;10:10-13.

28. Spiegel PB, Garber K, Kushner A, Wise P. *The Mosul Trauma Response: A Case Study*.; 2018.

29. Wenham C. What we have learnt about the WHO from the Ebola Outbreak.

Philos Trans R Soc B. 2017;372(1721). doi:10.1098/rstb.2016.0307

30. Stoddard A, Jillani S, Caccavale WJ, Cooke P, Klimentov V. The effects of insecurity on humanitarian coverage. *Secur Access Volatile Environ*. 2016;(November):1-58. http://www.gppi.net/fileadmin/user_upload/media/pub/2016/SAVE__2016__The_effects_of_insecurity_on_humanitarian_coverage.pdf.

31. The Global Health Cluster. *The Health Cluster Capacity Development Strategy 2016 - 2019*.; 2015.

32. Spiegel PB. The humanitarian system is not just broke, but broken: Recommendations for future humanitarian action. *Lancet*. 2017;6736(17):1-8. doi:10.1016/S0140-6736(17)31278-3

33. Refugee Coordination Model. https://emergency.unhcr.org/entry/256733/refugee-coordination-model-rcm. Accessed October 9, 2018.

34. Lotfi T, Bou-Karroum L, Darzi A, et al. Coordination of health-service provision in humanitarian crises: a systematic review of suggested models. *Lancet*. 2017;390:S37. doi:10.1016/S0140-6736(17)32088-3

35. Commission E. Communication from the Commission to the European Parliament and the Council: Towards the World Humanitarian Summit: A global partnership for principled and effective humanitarian action. Presented at the: 2015.

36. Charlotta Benedek. The Changing Humanitarian Landscape and the Role of the Private Sector. https://business.un.org/en/documents/11208. Accessed August 11, 2018.

37. Olu O, Usman A, Woldetsadik S, Chamla D, Walker O. Lessons learnt from coordinating emergency health response during humanitarian crises: a case study of implementation of the health cluster in northern Uganda. *Confl Health*. 2015;9:1. doi:10.1186/1752-1505-9-1

38. Emerging and Dangerous Pathogens Laboratory Network (EDPLN). https://www.who.int/csr/bioriskreduction/laboratorynetwork/en/. Accessed February 8, 2019.

39. WHO Emerging Diseases Clinical Assessment and Response Network (EDCARN). https://www.who.int/csr/edcarn/en/. Accessed February 22, 2019.

40. Overseas Development Institute. The changing humanitarian landscape: obstacles and opportunities. https://www.odi.org/events/3052-changing-humanitarian-landscape-obstacles-and-opportunities. Published 2017. Accessed August 11, 2018.

41. Humanitarian partnerships: what do they really mean? - ODI HPN. https://odihpn.org/magazine/humanitarian-partnerships-what-do-they-really-

mean/. Accessed August 10, 2018.

42. OCHA. *Humanitarian Response Plan 2019*.; 2019.

43. OCHA. *Humanitarian Needs Overview 2019*. Geneva; 2018.

44. Mosawi AJ Al. Medical Education and the Physician Workforce of Iraq. *J Contin Educ Health Prof*. 2008;28(2):103-105. doi:10.1002/chp

45. Al Hilfi T, Lafta R, Burnham G. Health services in Iraq. *Lancet*. 2013;381(9870):939-948. doi:10.1016/S0140-6736(13)60320-7

46. Webster PC. Iraq ' s growing health crisis Thousands of Iraqis have fl ed their homes following attacks by Sunni rebels who have taken. *Lancet*. 2014;384(9938):119-120. doi:10.1016/S0140-6736(14)61148-X

47. OCHA. *Humanitarian Bulletin: Iraq*. Vol October 20.; 2018.

48. Health Cluster Iraq. *Annual Report 2018*.; 2018.

49. Ouzzani M, Hammady H, Fedorowicz Z, Ahmed E. Rayyan — a web and mobile app for systematic reviews. 2016:5-210. doi:10.1186/s13643-016-0384-4

Appendix 1: Study Reference Group Members

Role	Name	Background
WHO Study Manager	Linda Doull	GHC Coordinator
Member	Renee Van De Weerdt	Chief, Emergency Management & Support
Member	Ian Norton	Project Manager, Emergency Medical Teams
Member	Pat Drury	Manager, Global Outbreak Alert and Response Network (GOARN)
Member	Mary Pack	Vice President for Domestic and International Affairs, International Medical Corps
Member	Trina Helderman	Senior Health and Nutrition Advisor, Global emergency response, Medair; SAG co-lead
Member	Thierno Balde	Operational Partnerships, WHO Africa Region
Member	Alaa Abou Zeid	Operational Partnerships, WHO Middle Eastern Region
Member	Kathleen Meyer	Public Health and Nutrition Adviser (GHFP), USAID Office of U.S. Foreign Disaster Assistance
Member	Paul Spiegel	Director, Center for Humanitarian Health, Johns Hopkins University

Appendix 2: Full Methodology

The study was conducted in four phases as noted in the main text. The full detail of the methodology is presented here in this appendix.

Inception phase:
The objective of the inception phase was to define the specific research questions under the broad topic of assessing emergency response capacity gaps. A study reference group was constituted by the GHC comprised of experts in humanitarian health from different stakeholder groups including UN agencies, INGOs, academic institutions, governments and donors. The study qualitative process was developed as outlined in Table 1 for the inception and data collection phases. Interviews with reference group members were conducted by two members of the study team. One study team member interviewed, and the other study team member took live notes as no recording was done to protect confidentiality. The interview notes were coded and analysed to determine key themes.

A preliminary search of the peer reviewed, and grey literature was also conducted, identifying a paper by Aluttis et al (2014) that provided a framework for national and regional public health response capacity. It identified six critical domains including organizational structures, partnerships, financial resources, workforce, knowledge development, and leadership and governance.[12] This clear delineation of types of capacities needed for public health response resonated with the greater needs for humanitarian health response at the national and international level with the coded reference group interview data and other key reports identifying organizational and workforce capacities as key themes.[6,5] From these themes the study research questions with sub-thematic lines of enquiry were identified. A data analysis framework (Figure 8) was then developed showing the need to ensure as complete a triangulation of sources for each line of enquiry.

Data Collection Phase:
Literature review: The objectives of the remote data collection phase was to answer the research questions identified during the inception phase using literature review and qualitative data from key informant interviews. First a focused literature review was conducted that included peer-reviewed published scientific literature and grey literature. Grey literature included reports by relevant operational, academic, and other organizations working on humanitarian emergencies. Searches were performed during August 2018. The study team searched Medline/PubMed and Google using four sets of search terms related to three primary study themes (human resources, organizational structure and coordination) and the general humanitarian landscape (Table 2 and Table 3). The first 1,000 articles were reviewed in the PubMed search. Google hits were reviewed until the first three consecutive irrelevant hits were noted or 100 hits whichever came first. The GHC partner agency websites were individually reviewed for any additional relevant evaluations, after-action reviews, project plans, and donor reports that might not have come up during the google search for grey literature. Specific search terms were defined in advance and included MeSH terms wherever possible. Exclusion criteria for literature was (i) studies prior to 2005, (ii) non-human studies, (iii) non-English language, and (iv) not directly related to emergencies and disasters which included an international response.

Table 1: Qualitative study methods for the inception phase and KI interview phase data.

	Qualitative Analysis Process
1	Develop subjectivity memo
2	De-identify transcripts
3	Read all the transcripts to get overview
4	Reread the transcripts, making margin notes and identifying codes
5	Develop codebook
6	Begin coding transcripts
7	Refine codebook, align approach to coding
8	Test inter-coder reliability
9	Complete coding all transcripts

Figure 8: Data analysis framework identifying the lines of enquiry and showing the triangulation approach between the different data sources

Data Analysis Framework			1. Literature review	2. Key interviews	3. Initial analysis	4. Field visits	5. Final analysis
Study Questions	Themes	Line of enquiry					
1. Health Workforce	Education and training	1. Existing training programmes					
		2. Educational needs of international vs national HHW					
		3. Educational needs for different contexts					
	Experience	1. Experience levels required for HHW					
		2. Meeting experience needs (national & international)					
		3. Experience needs in different contexts					
	Availability	1. Volume of HHW					
		2. Deployability of HHW					
		3. Variability by context					
2. Programme Delivery	Operations	1. Prioritisation of responses					
		2. Resource availability for response					
		3. Operational resources for deployability					
	Staffing	1. Recruitment & robustness of roster					
		2. National vs international hiring					
		3. Roles within the organisation					
	Security	1. Adaptation to context					
		2. Risk assessment & mitigation approach					
		3. Safeguard of HHW and programmes					
3. Collaboration	Partnerships	1. Existing partnerships					
		2. Elements of success					
		3. Role of partnerships					
	Mechanisms	1. What are additional ways coordination is occurring					
		2. National vs. International organisation interactions with coordination mechanisms					
		3. National government role in coordination					
	Quality	1. Evaluation of HHW					
		2. Organisational approach to quality of programmes					
		3. Gaps in quality service delivery					

Table 2: Search terms for the literature review

	Search Terms
Workforce	((“humanitarian crisis" OR "public health emergency" OR "health crisis" OR "health emergency" OR "protracted crisis" OR "relief work" [MeSH Terms] OR "disasters" [MeSH Terms] OR “humanitarian” OR “complex emergency” OR "disease outbreak" [MeSH Terms]) AND ("health" [MeSH Terms]) AND ("training" OR "education" [MeSH Terms] OR “capacity building” [MeSH Terms] OR "human resources" [MeSH Terms] OR "in-service training" [MeSH Terms] OR “availability" OR “mentorship” [MeSH Terms] OR “experience” [MeSH Terms] OR “deployability"))
Programme Delivery	“humanitarian crisis" OR "public health emergency" OR "health crisis" OR "health emergency" OR "protracted crisis" OR "rapid onset crisis" OR “relief work” OR “disasters” OR “humanitarian” OR “complex emergency” OR “disease outbreak” OR “capacity building[MeSH]” OR “staffing” OR “professional competence” OR “standards” OR “quality” OR “efficiency” OR “risk management” OR “risk assessment” OR “security” or “Non-governmental Organization” OR “response agency” OR “operational capacity” OR “roster”
Collaboration	“humanitarian crisis" OR "public health emergency" OR "health crisis" OR "health emergency" OR "protracted crisis" OR "rapid onset crisis" OR “relief work” OR “disasters” OR “humanitarian” OR “complex emergency” OR “disease outbreak" OR "partnership" OR "coordination" OR "quality"
Humanitarian Landscape	(“humanitarian crisis" OR "public health emergency" OR "health crisis" OR "health emergency" OR "protracted crisis" OR "rapid onset crisis" OR "outbreak" OR “disasters” OR “humanitarian” OR “complex emergency” OR “outbreak”) AND ("changing humanitarian landscape" OR "changes in humanitarian landscape" OR "changes in humanitarian environment")

Table 3: Search hits and relevant literature identified

	Boolean Search Hits	Boolean Search Relevant Literature	Google Search	Google Search Relevant Literature
Workforce	781	51	6.45 million	24
Programme Delivery	1,296,276	31	7.15 million	40
Collaboration	4,467	19	8 million	8
Humanitarian Landscape	3,580	20	9.75 million	26

Identified relevant literature was uploaded into Mendeley© citation manager to allow all study team members to access it. This library was then uploaded into the Rayyan application to allow for two study reviewers to independently prioritise the relevance of the publication for each of the search areas and reach agreement on the 90 documents included in the study review.[49] The study team members reviewed documents and extracted key relevant information for each document into a standardised electronic data extraction form by study theme area. Key findings by each study theme were summarised and are included in the study findings section of this report. The literature review data was also used to refine the key informant interview guides as the interviews followed the literature review. The full list of relevant literature reviewed in addition to those cited can be found in the bibliography (Appendix 6).

Key Informant Selection: Semi-structured key informant interviews were then conducted with a sample representing different humanitarian actor stakeholder groups including United Nations agencies, INGOs, NNGOs, academic institutions, donors, governments and the private sector. Criteria for selection of key informants included:

- Knowledge and experience in humanitarian emergencies

- Understanding of the key informant's stakeholder group
- Past or current strategic or managerial role within a relevant organization
- Ability to speak to current organization's strategic or management approach
- Availability within the time bounds of the study; comfort and capacity communicating in English

Purposive snowball sampling was done with a list of key informants generated from the study reference group members followed by suggestions from successive key informants. The study team prioritised the proposed list of 111 potential key informants to ensure as adequate a representation of each stakeholder group as possible and to ensure an appropriate cross-section of organizations were represented.

Key informant interviews: Semi-structured one-hour interviews of key informants were conducted by two members of the study team via video or audio conferencing from the participants current duty station. One study team member interviewed and the second acted as the note taker, no recording was done to protect confidentiality and encourage candid responses. Key informants verbally consented for the interview at the start and were informed that the data would be de-identified and aggregated by stakeholder group for analysis and reporting. The interview covered standardised open-ended questions with associated probes on the study thematic areas. The interview questions were customised for the perspective of the stakeholder group but covered the same topic areas and example key informant interview guide for INGOs can been seen in Appendix 5.

Data coding, management and analysis: Data coding of each interview transcript was completed independently by two members of the study team using standard qualitative research methods, as described in Table 1. Inter-rater reliability tests using Cohen's kappa statistic were performed with a kappa of 0.82 - 0.93 between reviewers. A kappa above 0.8 notes strong agreement between raters (0-0.2 none, 0.2-0.2 minimal, 0.4-0.6 weak, 0.6-0.8 moderate, 0.8-1 strong correlation). The remaining transcripts were coded by two study team members. Data was analysed to identify common answers to interview questions using Dedoose software (version 8.1.8), a tool for the management, integration and analysis of qualitative and quantitative data.[13]

Analysis and Interpretation

Following completion of preliminary data analysis, a one-week study-team meeting was convened with the objective of identifying relationships between different components of the data, translating the primary data into summary findings and developing recommendations. This was considered a critical step to ensure the outputs of the analyses were coherent, interpretation of the data was logical and a meaningful model for informing policy related to improving humanitarian health response could be generated. The study team systematically reviewed gaps and drivers of the gaps identified in the key informant interview data and then as a team of experts identified underlying causes of the drivers and recommendations to address the gaps, their drivers and the underlying causes.

Country Case Study

The study included the development of two illustrative country case examples of the results from the literature review and key informant interviews. One country from the AFRO region,

Democratic Republic of Congo (DRC) and one country from the EMRO region, Iraq, were selected by the reference group. Study field missions were planned, however due to the ongoing Ebola outbreak and then the country's presidential election, the mission to the DRC could not be completed. The mission to Iraq in the EMRO region was conducted in January 2019. Data collection for the country mission included literature review, in person key informant interviews and direct observation. The key informant interviews were conducted across stakeholder groups with 1-3 people from each organization meeting the same inclusion criteria as the remote key informants. The interviews were conducted by one study team member and notes were taken by the second. The interviews had two components: (i) a semi-structured interview of four open ended questions on the study thematic areas to generate responses from the field unbiased by the remote key informant results, (ii) the participants were then shown the preliminary results of the main study and were asked if possible, to conduct a prioritisation exercise of those results from their perspective in the field. Interviews lasted from 30-180 minutes depending on the capacity of the partners and were conducted in English or with Arabic translation. Direct observation was done of cluster meetings and at the Mosul Field Hospital of humanitarian actors' interactions and programming. Data from the qualitative interviews and the prioritisation was coded and analysed for new themes or findings to identify anything new that might come from the field that was not identified in the key informant interviews. It was also analysed for the priority ranking and compared with the remote study frequency of mention. Examples of gaps and solutions implemented by actors are presented. These findings were then analysed based on the recommendations from the main study to assess both the relevance of the recommendations to the Iraq context and to identify specific recommendations for the Iraq context. The Country Case Study can be reviewed in chapter 7 of the study report.

Appendix 3: Key Informants' Organization

Academics
- Brown University
- The London School of Hygiene & Tropical Medicine
- Harvard University
- Johns Hopkins University

Governments
- Liberian Ministry of Health
- Rwanda Ministry of Health
- U.S. Centers for Disease Control and Prevention (CDC)
- Africa Centres for Disease Control and Prevention (Africa CDC)

Private Organizations
- Aspen Medical
- Philippine Disaster Recovery Foundation

Donors
- European Commission's Humanitarian Aid Office (ECHO)
- The Office of U.S. Foreign Disaster Assistance (OFDA)
- Swedish International Development Cooperation Agency (SIDA)
- Norwegian Ministry of Foreign Affairs
- Swedish Ministry for Foreign Affairs
- START Network
- UK - Department for International Development (DFID)

NNGOs
- AmRef Health Africa
- Union of Medical Care and Relief Organizations (UOSSM)
- Syria Relief
- Africa Humanitarian Action (AHA)
- International Centre for Diarrhoeal Disease Research, Bangladesh (ICDDRB)

INGOs
- The Alliance for International Medical Action (ALIMA)
- International Medical Corps (IMC)
- Save the Children
- Emergency and Relief Agency/Arab Medical Unit
- International Rescue Committee (IRC) [x2]
- Mercy Malaysia
- World Vision
- Core Group
- International Federation of Red Cross and Red Crescent Societies (IFRC) [x2]
- Médecins Sans Frontières (MSF) [x3]
- Catholic Relief Services
- Bangladesh Rural Advancement Committee (BRAC)
- Medair
- International Council of Voluntary Agencies (ICVA) [x2]
- Norwegian Refugee Council (NRC)

United Nations
- Global Health Cluster [x3]
- WHO Fragile, crises & vulnerable settings, emergency operations
- WHO Standby Partnerships
- WHO Experts Network & Interventions
- WHO Preparedness Department
- WHO EU Regional Office
- WHO Western Pacific Emergency Response
- WHO Southeast Asia Emergency Response
- Global Outbreak Alert and Response Network (GOARN)
- WHO Health Emergencies Programme (WHE)
- United Nations High Commissioner for Refugees (UNHCR)

Appendix 4: Pertinent quotes from Key Informants across identified challenges

Workforce

Expertise of health responders	Education and training of health responders	Availability of health workers
Challenge: Limited expertise in emergency health response amongst national health workers • "generally, all medical responders go through some health response, but the focus is on the provision of regular health services not emergency and outbreaks. So, there is this gap" (NNGO006). • "When we started, I struggled to explain [the concept of] neutrality to our staff and now we understand this. […] There are other national NGOs that do not have these experiences" (NNGO008) Challenge: Insufficient leadership and management skills amongst responders • "If I want to send a manger to the field it is tough, I can find technical people for cholera etc. that is easy, but I think […] disaster managers is key. […] Basic management [is a gap]. This is where the strategy gets lost" (UN008) • A driver for this lack of leadership and management skills: "we see people that don't have the necessary experience, they are recruited too early into these roles and don't have the experience for the role" (UN012) Challenge: Limited ability of responders to adapt interventions to the context • "The organization is full of lots of people with technical expertise, who develop guidance and guidelines, but what we see sitting in the emergency side of the program, […] is that the translation of the guidance into contextual programming is not always there. […] Whether this is related to a lack of knowledge on how to do it or whether people are not confident to make decisions, is unclear." (UN002)	Challenge: Insufficient opportunities for health workers to gain humanitarian experience • "Getting people with no humanitarian experience to the field is a massive challenge in the sector." (INGO010) • "[a challenge to gaining experience is] access to the experience. I think today if you look at the number of international medical NGOs that respond to acute medical needs, you can count them on one hand. There are many that do more protracted work or health system strengthening. But in terms of those that are on the ground doing this acute emergency work the pool of those is limited" (NNGO001). Challenge: Insufficient experiential, competency-based humanitarian health training programmes • "there is relatively little recognition of field experience. There is an over focus on academic qualifications [within organizations]" (NET002). • "With the exception of a few organizations that do on-boarding for mainly international personnel, most organizations simply accept that people with nursing, medical and other degrees are ready to be deployed to humanitarian settings. There is no acknowledgement of the fact that people may be treated differently in different settings. Even where there are on-boarding trainings amongst large NGOs, they usually don't tailor the training to different types of emergencies. The training is the same for responses to on-going refugee crises, cholera outbreaks and other crises" (ACAD001).	Challenge: Lack of sufficient national health workers for the health response • "we have few actual clinicians; […] some health workers -- such as midwives, assistants, lab technicians and ORC technicians and anaesthetists -- you [can] count the number on your hand" (GOV001). • "we have doctors, but they are covering 2-3 hospitals due to lack of staff on the ground. I have only 1 anaesthetist and 3 hospitals that we cover. There is only 1 psychiatrist in Syria" (NNGO005) Challenge: Limited availability of international medical specialists, in particular for high risk environments • "There's significant trepidation from the university to work in some areas" (ACAD03) • "for international staff, there are a lot of places that are not safe for us to go to" (UN012)

Programme Delivery

Human Resources	Operations and Logistics	Security
Challenge: Insufficient funding to cover and maintain positions • "We have one grant, then get another grant. Because the positions are paid through the grants, we lose people when we finish grants. We spend time and money to build up the capacity of staff and we have to release them when we finish our grants" (INGO006). Challenge: Timely recruitment of staff delayed due to bureaucracy • "We can't do quick recruitment as we have child safeguarding checks and mandatory training […] This is a massive challenge for us even with a great candidate we needed these things done" (INGO002). • "In some of the regions, the regional emergency director, and all the staff below that, have never managed an emergency how can they know how to work. For example, I was sent to [a humanitarian crisis], and it took 6 months to recruit the staff. I had to write the TOR and do a vacancy note, make the organogram etc. It took 6 months to fill the first position in an emergency. If the people in the regional office understood what I was asking and why I needed this quickly it would be different" (UN007). Challenge: Profile of surge roster members insufficiently diverse • "Language is a huge issue. […] We had a really hard time finding francophone speakers and we burnt through those quickly" (GOV003). • "[…] we were scrambling to identify expertise to deal with these things. Diphtheria we hadn't dealt with in a long time, and for hepatitis we had done this on and off" (INGO009) • "One basic thing we see is when international responders come, people are technically good, but knowing the local culture [is a gap]. One of the things we saw in the Ebola response the local population responded negatively, […], and there was a serious issue for international responders to deal with the cultural aspect" (NNGO006).	Challenge: Insufficient timely, flexible funding for humanitarian health programme delivery • "[…] often INGOs are expected to respond quickly without commitment from donors; donors will say we are working on it but can't give you in writing that the funds will come but go ahead anyway, without a guarantee of the money" (INGO015) • "It is about how risk adverse you are. We are willing to kill the organization from a financial point of view if we save lives and have impact. This is agreed at a high level and we can recoup funds. […] Many other organizations need all of this agreed before they react which delays things" (INGO017) Challenge: Weak organizational supply and logistics systems • "much like with our NGO colleagues, [logistics] is an issue. I was surprised at the limited medical logistical capacity within [the organization]" (UN002). • "[a challenge is] the provision of supplies. For some unknown reason the way supplies arrive in an area with an outbreak is curious, they often arrive after the problem has passed. The materials come and 25-35% are not relevant and resources are wasted. […] The local producers are not involved so maybe that is a problem for the donors, it comes directly from, like America." (NNGO006) Challenge: Timely health delivery hindered by internal bureaucracy and politics • "No matter which organization it is I have seen young professional people on the ground unable to work as it depends what risk framework they are headed to. There is no notion of organizational freedom, or how much room staff have to go ahead" (INGO017) • "the level of bureaucracy limits response at country level, it bottlenecks at the regional level. In particular in emergencies, to do with a timely response, we recognise a situation and raise it then it gets stuck at regional office whilst they try to approve it. It can take 3-4 weeks […] It is not so much operational, but more decision-making and paperwork. That has always been the bottleneck.	Challenge: Low organizational risk thresholds • "[…] In the place where people were dying there was [a couple organizations] but hard to access and hard to help. But in the periphery, there was a lot of access and actors. So, they had less effect and there was a partial market. So, it looked like there was enough people but in reality, not enough." (UN003)

Human Resources	Operations and Logistics	Security
Challenge: Surge rosters are often insufficiently maintained or are sub-optimally functioning • "[we] assume [that roster members] have been screened properly. But when they come, we have had issues with some of them. We have to have a better scheme of screening and matching the possible deployees to these areas" (UN009). • "You either use the same few people or you use people who are not kept up-to-date" (DON008). Challenge: Staff burnout • "Our staff need psychosocial support. The staff are very exhausted. There is no type of support for them. No one is asking us how we are doing or what challenges we are facing. Unfortunately [we] don't have funding for this" (NNGO005)	This decision-making has to be more country level, less regional level and far less HQ. […] For humanitarian response it should be country based" (UN012) Challenge: Health programmes not always responding to priority needs • "[organizations] have their working niches and that gets the focus rather than the needs […]" (DON008) • "If there is political appetite there is funds, if not there is no funds. Let's not deceive ourselves, this is not humanitarian it is political. If the will is there you have money and training etc. if there is no will it is not here. For example, it is hard for us to get money for [certain political areas], not just because of need, but also, they [donors] are more comfortable supporting these areas" (NNGO004) Challenge: Difficulty transitioning programmes between emergency and development • "just using Cox Bazar as an example, we did very well, as we always do in the first 3-6 months as we are quite good, I must say in the emergency response thing, but for the second 6 months till now, we see the situation changing" (INGO005). • "our role is direct and short and there are other funds elsewhere in the agency and there is discussion around the humanitarian-development nexus and how this comes together, but I don't know where the home for this funding is. Identifying this gap is important and understanding what the gap is." (DON002). Challenge: Lack of accountability to affected communities • "[…] International organizations face accountability problems because they don't apply the principles. When CDC said vaccination were not needed in Haiti, for example, but then gave vaccinations to international staff who entered the country, this is hypocritical. This is not principled. Humanitarian workers need to learn the lessons of Nepal, Haiti, Congo and elsewhere" (GOV002).	

Collaboration

Coordination	Localisation	Partnerships
Challenge: Weak cluster leadership • "If we look at the clusters, it depends on who is the cluster lead. […] What you often see is that if the cluster lead -- the individual who sits there and organises things and puts things on the agenda -- is not strong, it is difficult" (NNGO003). Challenge: Coordination models not always fit for purpose • "I think the cluster is outdated, it creates siloes and it doesn't bring together the right people" (INGO002). • "In rapid onset emergencies, so situations like the Nepal earthquake, Haiyan, Haiti, there are so many health actors – EMT, local NGOs, etc. The coordination tends to be just information sharing rather than enabling actors to work together" (INGO006). • "whether communicable diseases or the EMT model it is government and MoH centric and the majority of settings where we work, they are strapped for resources and in some areas party to the conflict and this affects their ability to provide healthcare in line with humanitarian principles. These can confuse who are the best interlocutors in that space" (DON002).	Challenge: Lack of respect for government sovereignty • "We encourage member states to take the driver's seat. I wish every partner would follow the same philosophy rather than going in with their own guidelines and protocols. Follow national ones and if you need to amend them advise them based on recent data. […] They may not have the capacity now, but we need to respect authority and leadership of member states and encourage them to develop the capacity, technology and knowledge, rather than go with backpacks and leave and they benefit nothing. So that philosophy of capacity building and authority is important" (GOV004). Challenge: Insufficient strong partners on the ground • "we chose [local NGOs to partner with] as they had staff and access, but they didn't have the experience of running these things. I had to review proposals, they did not have experience writing these and doing this. They didn't know how to do focused programming and didn't have a lot of experience in needs assessment etc. We didn't do good job capacity building there" (INGO001). • "I think those contexts where humanitarian health capacity is severely imitated and local health capacity is also very weak. These contexts where the capacity gap is really critical localization may not be a good way out" (DON001).	Challenge: Insufficient systems set up to support networks and partnerships • "It is very time consuming to build networks on the ground. Even if you have an MOU with another agency, they probably have MOUs with 4-5 other agencies, so they are stretched too." (INGO006) • "If partnerships are supposed to work there has to be a proper thought-out process" (INGO001) Challenge: Insufficient trust and lack of accountability between partners • "[W]hat [the UN agency] are lacking is being proactive in terms of reaching out with NGOs on the ground and partnering with them instead of duplicating the work […]. The [UN] can be a bit cagey about partnerships" (UN004) • "One partner in [x country] was a nightmare as they learned how to be fraudulent, we had many issues as they were committing fraud" (INGO001) Challenge: Differing expectations and requirements between partners • "In an emergency we deploy and treat to impact as fast as we can and put in offices and structural coordination after. [The INGO we partnered with] do this the other way around, which caused tension on the ground. (NNGO001). • "academics are used to multi-year time frames; humanitarian organizations are used to timeframes of days to weeks and wrapping it up in months" (ACAD001). Challenge: Donors influencing partner selection • "[a challenge] is donor induced partnerships. The donor says you need to work with specific partners. There you often see different things appearing. This is not necessarily always the right way" (NNGO003). • "We can contact national NGOs, but we can only contract with INGOs that have a base in Europe and that are pre-reviewed and the UN and Red Cross. We are looking at if this might be possible in the future to contract national NGOs and there has been some additional partners added, this was 2-3 Middle Eastern partners added to our list" (DON001)

Appendix 5: Key informant interview guide

Key Informant Interview Guide
Stakeholder group: UN / INGOs

I. Introduction
Thank you for agreeing to participate in the Global Health Cluster/World Health Organization Study: Strengthening Global Capacity for Emergency Health Action. The study focuses on gaps in global humanitarian health response capacity. It aims to identify what international and national health actors are currently doing to address response capacity gaps and what can be done to better leverage capacities in the future. To this end, we are interviewing key informants from a variety of stakeholder groups, including organizations such as yours. We'd like to start by introducing ourselves and providing some information about the interview.

a) Introductions
- Introduce
  - Avenir Analytics is a specialist humanitarian support company, which has been contracted to carry out this study
  - Interviewer team
- Ask interviewee to briefly introduce themselves.
  - Probe: how long have they been working for the organization?

b) Information about the interview
- Length: The interview is expected to last approximately 1 hour.
- Notes: We will be taking notes during the interview, but we will not be recording our discussion.
- Anonymity: The data collected will be de-identified prior to analysis. Nothing will be directly attributed to you without seeking your permission directly beforehand.
- Clarity: Please feel free to interrupt at any time if terms used or questions asked are unclear
- Consent: Do we have your consent to participate in this interview?
- Are there any questions prior to beginning?

II. Main Interview

Did you have time to read the brief introductory paragraph? Do you have any questions before we discuss the three areas of: workforce, organizational structure and partnerships in humanitarian health response?

If you didn't have time to review the introduction, we'll review it now. Over the past 5-10 years there has been growing recognition of changes that are occurring in the humanitarian landscape; changes have greatly influenced the capacity of humanitarian health actors to respond to humanitarian crises in a timely and effective manner.

This interview focuses on three aspects of response capacity:

1. Workforce: The availability of qualified human resources with sufficient skills and knowledge; this includes the availability of relevant educational and training options for the health workforce.
2. Organizational structure: The structures organizations require to support timely and effective programme delivery and staffing for humanitarian health responses.
3. Partnerships: The collaboration and coordination between organizations and with other stakeholder groups that is required to reduce duplication and ensure adequate coverage in humanitarian health responses.

This study will focus on these three aspects of response capacity -- Workforce, Organizational Structure, Partnerships -- aiming to better understand the gaps in these areas, identify how they are currently being addressed and what plans are in place to address them in future.

a) Workforce

Skills & knowledge

Q1: What are the main gaps in skills and knowledge that you observe in your organization for humanitarian health responses?

- Probes: Are there differences in these gaps for national v. international staff? What causes the gaps? What is being done to address them? What should be done in the future?

Education and training

Q2: What are the main gaps in education and training that you observe in your organization for humanitarian health workers? Consider gaps in accessing education/training and gaps in the availability of appropriate education/training.

- Probes: Are there differences in these for national v. international staff? What causes these gaps? What is being done to address them? What should/could be done in the future?

Experience

Q3: What are the barriers/challenges faced by health workers trying to gain experience in humanitarian response (i.e. to get started/advance in the field)?

- Probes: Are there differences in these for national v. international staff? What causes these barriers? What is your organization doing to address these? What else could be done in the future?

b) Organizational structure

Programme delivery

Q4: What are the main challenges/bottlenecks your organization faces when it comes to setting up timely, effective programme delivery structures in response to humanitarian crises?

- Probes: what causes these challenges/bottlenecks? What is being done to address them? How could they be better addressed in the future?

HR procedures

Q5: With regards to the HR processes you have in your organization, what are the main challenges faced in ensuring availability of the right staff at the right time and place in humanitarian crises? (please focus on structures and processes, not skills/knowledge)

- Probes: what causes these challenges? What is being done to address them? How could they be better addressed in future?

c) Partnerships

Partnerships

Q6: What partnerships has your organization embarked on in response to recent humanitarian health crises?

- Probes: what kind of partnerships were they (alliances, partnerships with private companies, etc)? What made it/them successful or unsuccessful? Are you aware of any partnerships your organization is planning to embark on in future?

Networks

Q7: A number of networks have been established in recent years, particularly those focused on outbreaks and emerging diseases (e.g. African Public Health Laboratory Network (APHLN), Emerging and Dangerous Pathogens Laboratory Network (EDPLN), the WHO Emerging Diseases Clinical Assessment and Response Network (EDCARN)). What has been your organizations experience with network initiatives to facilitate humanitarian health responses?

- Probes: what networks has your organization initiated? Why were the networks formed? Were they successful? Does your organization have plans to join/create networks in future?

Coordination

Q8: What are successful examples of humanitarian health coordination that you have experienced or observed?

- Probes: what/where were they? What made it/them successful? How does your organization plan to engage with/strengthen coordination in future?

III. Closing

- Ask key informant if they have recommendations for other key informants and their organizations.
- Ask key informant if they would be willing to share their organizations strategic plan.
- Ask key informant if they have any additional comments or questions.
- Thank them for their time.

Appendix 6: Full bibliography of relevant literature identified and reviewed

Akl, E. A., El-Jardali, F., Bou Karroum, L., El-Eid, J., Brax, H., Akik, C., … Oliver, S. (2015). Effectiveness of Mechanisms and Models of Coordination between Organizations, Agencies and Bodies Providing or Financing Health Services in Humanitarian Crises: A Systematic Review. PloS One, 10(9), e0137159. https://doi.org/10.1371/journal.pone.0137159

Audet, F. (2011). What future role for local organizations? A reflection on the need for humanitarian capacity-building. International Review of the Red Cross, Humanitarian debate: Law, policy, action (Vol. 93). https://doi.org/10.18356/3b446b2a-en

Austin, L., & O'Neil, G. (2018). The Future of Humanitarian Surge.

Babcock, C., Theodosis, C., Bills, C., Kim, J., Kinet, M., Turner, M., … Olopade, C. (2012). The academic health center in complex humanitarian emergencies: Lessons learned from the 2010 Haiti Earthquake. Academic Medicine, 87(11), 1609–1615. https://doi.org/10.1097/ACM.0b013e31826db6a2

Bennett, C., & Foley, M. (2016). Time to let go: Remaking humanitarian action for the modern era. Retrieved from http://www.odi.org/sites/odi.org.uk/files/resource-documents/10422.pdf

Birch, M., & Miller, S. (2005). Humanitarian assistance : standards , skills , training , and experience, 1199–1201.

Blanchet, K., Ramesh, A., Frison, S., Warren, E., Hossain, M., Smith, J., … Roberts, B. (2017). Evidence on public health interventions in humanitarian crises. The Lancet, 390(10109), 2287–2296. https://doi.org/10.1016/S0140-6736(16)30768-1

Blanchet, K., Sistenich, V., & Ramesh, A. (2013). An evidence review of research on health interventions in humanitarian crises. … Learning and Research …, (October). Retrieved from http://www.alnap.org/pool/files/evidence-review-r2hc-full-report-final-2.pdf

Bolton, P., Bass, J., Murray, L., Lee, K., Weiss, W., & McDonnell, S. M. (n.d.). Expanding the scope of humanitarian program evaluation. Prehospital and Disaster Medicine, 22(5), 390–395. Retrieved from http://www.ncbi.nlm.nih.gov/pubmed/18087907

Borton, J. (2009). Future of the Humanitarian System: Impacts of Internal Changes, (November), 1–111.

Burkle, F. M. (n.d.). Future humanitarian crises: challenges for practice, policy, and public health. Prehospital and Disaster Medicine, 25(3), 191–199. Retrieved from http://www.ncbi.nlm.nih.gov/pubmed/20586007

Burkle, F. M., Walls, A. E., Heck, J. P., Sorensen, B. S., Cranmer, H. H., Johnson, K., … Vanrooyen, M. J. (2013). Academic affiliated training centers in humanitarian health, part i: Program characteristics and professionalization preferences of centers in North America. Prehospital and Disaster Medicine, 28(2), 155–162. https://doi.org/10.1017/S1049023X12001690

Cairns, E. (2010). Crises in a New World Order: Challenging the humanitarian project, (February). Retrieved from www.oxfam.org

Carleen Maitland, & Andrea Tapia. (2007). Global Symposium +5 Information for Humanitarian Action.

Charlotta Benedek. (n.d.). The Changing Humanitarian Landscape and the Role of the Private Sector. Retrieved August 11, 2018, from https://business.un.org/en/documents/11208

Checchi, F., Warsame, A., Treacy-Wong, V., Polonsky, J., van Ommeren, M., & Prudhon, C. (2017). Public health information in crisis-affected populations: a review of methods

and their use for advocacy and action. The Lancet, 390(10109), 2297–2313. https://doi.org/10.1016/S0140-6736(17)30702-X

CHS. (2014). The Core Humanitarian Standard on Quality and Accountability. CHS Alliance, Groupe URD and the Sphere Project. https://doi.org/https://corehumanitarianstandard.org/files/files/Core%20Humanitarian%20Standard%20-%20English.pdf

CHS Alliance. (2015). On the road to Istanbul: How can the World Humanitarian Summit make humanitarian response more effective? Humanitarian Accountability Report 2015. https://doi.org/http://www.chsalliance.org/files/files/CHSAlliance-Humanitarian-Accountability-Report-2015-Chapter-5.pdf

Clarinval, C. (2016). Challenging Operations : An Ethical Framework to Assist Humanitarian Aid Workers in their Decision - making Processes, 10, 1–17. https://doi.org/10.1371/currents.dis.96bec99f13800a8059bb5b5a82028bbf.Authors

Clarke, M., Allen, C., & Kayabu, B. (2011). Helping people make well-informed decisions before, during and after disasters: The Evidence Aid initiative. The Cochrane Database of Systematic Reviews, (12), ED000036. https://doi.org/10.1002/14651858.ED000036

Colombo, S., & Pavignani, E. (2017). Recurrent failings of medical humanitarianism: intractable, ignored, or just exaggerated? The Lancet, 390(10109), 2314–2324. https://doi.org/10.1016/S0140-6736(17)31277-1

Deitchman, S. (2013). Enhancing crisis leadership in public health emergencies. Disaster Medicine and Public Health Preparedness, 7(5), 534–540. https://doi.org/10.1017/dmp.2013.81

Dunlop, A. L., Logue, K. M., Vaidyanathan, L., & Isakov, A. P. (2016). Facilitators and Barriers for Effective Academic-Community Collaboration for Disaster Preparedness and Response. Journal of Public Health Management and Practice : JPHMP, 22(3), E20-8. https://doi.org/10.1097/PHH.0b013e3182205087

Elamein, M., Bower, H., Valderrama, C., Zedan, D., Rihawi, H., Almilaji, K., … AbouZeid, A. (2017). Attacks against health care in Syria, 2015–16: results from a real-time reporting tool. The Lancet, 390(10109), 2278–2286. Retrieved from http://dx.doi.org/10.1016/S0140-6736(17)31328-4

Foran, M. P., & Williams, A. R. (2014). Global uptake of the humanitarian accountability partnership over its first ten years. Prehospital and Disaster Medicine, 29(4), 413–416. https://doi.org/10.1017/S1049023X14000673

Francois Grünewald, & Veronique De Geoffroy. (2014). The Humanitarian Sector in Evolution: Repercussions for the Health Sector. In Garrett W. Brown, G. Yamey, & Sarah Wamala (Eds.), The Handbook ofGlobal Health Policy (First, pp. 319–340). John Wiley & Sons, Ltd.

Gerdin, M., Chataigner, P., Tax, L., Kubai, A., & von Schreeb, J. (2014). Does need matter? Needs assessments and decision-making among major humanitarian health agencies. Disasters, 38(3), 451–464. https://doi.org/10.1111/disa.12065

Gulland, A. (2015a). Lack of coordination during Ebola outbreak was a "lost opportunity" to test therapies. BMJ (Clinical Research Ed.), 351, h5644. Retrieved from http://www.ncbi.nlm.nih.gov/pubmed/26494194

Gulland, A. (2015b). Lack of coordination during Ebola outbreak was a “lost opportunity” to test therapies. BMJ, h5644. https://doi.org/10.1136/bmj.h5644

Gursky, E. A. (2015). Rising to the Challenge: The Ebola Outbreak in Sierra Leone and How Insights into One Nongovernmental Organization's Response Can Inform Future Core Competencies. Disaster Medicine and Public Health Preparedness, 9(5), 554–557. https://doi.org/10.1017/dmp.2015.96

Huckel Schneider, C., & Negin, J. (2016). The for-profit sector in humanitarian response: integrating ethical considerations in public policy decision making. Medicine, Conflict and Survival, 32(3), 184–202. https://doi.org/10.1080/13623699.2016.1250200

Hunt, M., Schwartz, L., Pringle, J., Boulanger, R., Nouvet, E., O'Mathúna, D., & Forum, * Participants of the Humanitarian Healthcare Ethics. (2014). A Research Agenda for Humanitarian Health Ethics. PLOS Currents, (November 2012). https://doi.org/10.1371/currents.dis.8b3c24217d80f3975618fc9d9228a144

Janneck, L., Cooper, N., Frehywot, S., Mowafi, H., & Hein, K. (2009). Human Resources in Humanitarian Health Working Group Report. Prehospital and Disaster Medicine, 24 Suppl 2, s184-93.

Johnson, K., Idzerda, L., Baras, R., Camburn, J., Hein, K., Walker, P., & Burkle, F. M. (2013). Competency-Based Standardized Training for Humanitarian Providers: Making Humanitarian Assistance a Professional Discipline. Disaster Medicine and Public Health Preparedness, 7(04), 369–372. https://doi.org/10.1017/dmp.2013.10

Johnstone, M. J., & Turale, S. (2014). Nurses' experiences of ethical preparedness for public health emergencies and healthcare disasters: A systematic review of qualitative evidence. Nursing and Health Sciences, 16(1), 67–77. https://doi.org/10.1111/nhs.12130

Kent, R. (2016). Planning from the Future: Is the Humanitarian System Fit for Purpose?, 56(November), 421–441. Retrieved from www.planningfromthefuture.org

Kersten, R., Bosse, G., Dörner, F., Slavuckij, A., Fernandez, G., & Marx, M. (2013). Too complicated for the field? Measuring quality of care in humanitarian aid settings. Global Health Action, 6, 20311. Retrieved from http://www.ncbi.nlm.nih.gov/pubmed/23683715

Kirsch, T. D., Perrin, P., Burkle, F. M., Canny, W., Purdin, S., Lin, W., & Sauer, L. (2012). Requirements for independent community-based quality assessment and accountability practices in humanitarian assistance and disaster relief activities. Prehospital and Disaster Medicine, 27(3), 280–285. https://doi.org/10.1017/S1049023X12000842

Kirsch, T., Siddiqui, M. A., Perrin, P. C., Robinson, W. C., Sauer, L. M., & Doocy, S. (2013). Satisfaction with the humanitarian response to the 2010 Pakistan floods: a call for increased accountability to beneficiaries. Emergency Medicine Journal : EMJ, 30(7), 565–571. https://doi.org/10.1136/emermed-2012-201226

Labbé, J. (2012). Rethinking Humanitarianism: Adapting to 21st Century Challenges.

Lee, V. J., & Low, E. (n.d.). Coordination and resource maximization during disaster relief efforts. Prehospital and Disaster Medicine, 21(1), s8-12. Retrieved from http://www.ncbi.nlm.nih.gov/pubmed/16602267

Maietta, M., Kennedy, E., & Bourse, F. (2017). The Future of Aid: INGOs in 2030. https://doi.org/10.1057/9781137380326.0010

McDougal, L., & Beard, J. (2011). Revisiting sphere: new standards of service delivery for new trends in protracted displacement. Disasters, 35(1), 87–101. https://doi.org/10.1111/j.1467-7717.2010.01194.x

MoF. (2014). Development Cooperation Policy , 2014.

Mowafi, H., Nowak, K., Hein, K., & Group, H. R. W. (2007). Facing the challenges in human resources for humanitarian health. Prehospital and Disaster Medicine, 22(5), 351–359. Retrieved from http://ovidsp.ovid.com/ovidweb.cgi?T=JS&PAGE=reference&D=med5&NEWS=N&AN=18087902

Nations, U. (2016). Too important to fail — addressing the humanitarian financing gap,

(January), 1–31. Retrieved from http://www.un.org/news/WEB-1521765-E-OCHA-Report-on-Humanitarian-Financing.pdf

Nickerson, J. W., Hatcher-Roberts, J., Adams, O., Attaran, A., & Tugwell, P. (2011). Assessments of health services availability in humanitarian emergencies: a review of assessments in Haiti and Sudan using a health systems approach. https://doi.org/10.1186/s13031-015-0045-6

Norton, I., von Schreeb, J., Aitken, P., Herard, P., & Lajolo, C. (2013). Classification and Minimum Standards for Foreign Medical Teams in Sudden Onset. World Health Organization, 103. Retrieved from http://www.who.int/hac/global_health_cluster/fmt_guidelines_september2013.pdf?ua=1

Olu, O., Usman, A., Woldetsadik, S., Chamla, D., & Walker, O. (2015). Lessons learnt from coordinating emergency health response during humanitarian crises: a case study of implementation of the health cluster in northern Uganda. Conflict and Health, 9(1), 1. https://doi.org/10.1186/1752-1505-9-1

Organization, W. H., & World Health Organization. (2013). Emergency Response Framework. Geneva: World Health Organization, 51. https://doi.org/ISBN 978 92 4 150497 3

Overseas Development Institute. (2017). The changing humanitarian landscape: obstacles and opportunities. Retrieved August 11, 2018, from https://www.odi.org/events/3052-changing-humanitarian-landscape-obstacles-and-opportunities

Oyegbite, K. (n.d.). What have we learned? Coordination. Prehospital and Disaster Medicine, 20(6), 471–474. Retrieved from http://www.ncbi.nlm.nih.gov/pubmed/16496640

Parmar, P., & Greenough, G. (2017). Optimizing the Use of a Precious Resource: The Role of Emergency Physicians in a Humanitarian Crisis. Western Journal of Emergency Medicine, 18(4), 607–615. https://doi.org/10.5811/westjem.2017.3.32718

Parmar, S., Lobb, A., Purdin, S., & McDonnell, S. (2007). Enhancing collaboration during humanitarian response: An interim report from stakeholders survey. Prehospital and Disaster Medicine, 22(5), 414–417.

Perry, D. J. (2013). Effective purpose in transnational humanitarian healthcare providers. American Journal of Disaster Medicine, 8(3), 157–168. https://doi.org/10.5055/ajdm.2013.0123

Ripoll Gallardo, A., Djalali, A., Foletti, M., Ragazzoni, L., Della Corte, F., Lupescu, O., … Ingrassia, P. L. (2015). Core Competencies in Disaster Management and Humanitarian Assistance: A Systematic Review. Disaster Medicine and Public Health Preparedness, 9(4), 430–439. https://doi.org/10.1017/dmp.2015.24

Russ, C. (2010). Global Survey on Humanitarian Professionalisation, 69.

Scott, R. (2014). Imagining More Effective Humanitarian Aid A Donor Perspective. OECD Development Co-Operation Directorate, 18(October), 34.

Shi, L., & Collins, P. B. (n.d.). Public-private partnerships in community health centers: addressing the needs of underserved populations. Organizational Ethics : Healthcare, Business, and Policy : OE, 4(1), 35–42. Retrieved from http://www.ncbi.nlm.nih.gov/pubmed/18193771

Silve, B. (2008). Health logistics is a profession: improving the performance of health in developing countries. Field Actions Science Reports, 1(1). Retrieved from https://factsreports.revues.org/109

Spiegel, P. B. (2017). The humanitarian system is not just broke, but broken: Recommendations for future humanitarian action. The Lancet, 6736(17), 1–8.

https://doi.org/10.1016/S0140-6736(17)31278-3
Stoddard, A., Jillani, S., Caccavale, W. J., Cooke, P., & Klimentov, V. (2016). The effects of insecurity on humanitarian coverage. Secure Access in Volatile Environments, (November), 1–58. Retrieved from http://www.gppi.net/fileadmin/user_upload/media/pub/2016/SAVE__2016__The_effects_of_insecurity_on_humanitarian_coverage.pdf
Subbarao Matthew K; Burkle, Frederick M, I. (2010). The Elephant in the Room: collaboration and Competition among Relief Organization during high profile disasters.
Subbarao, I., Wynia, M. K., & Burkle, F. M. (2010). The elephant in the room: collaboration and competition among relief organizations during high-profile disasters. The Journal of Clinical Ethics, 21(4), 328–334. Retrieved from http://www.ncbi.nlm.nih.gov/pubmed/21313867
Tan, Y. S. A., & von Schreeb, J. (2015). Humanitarian assistance and accountability: what are we really talking about? Prehospital and Disaster Medicine, 30(3), 264–270. https://doi.org/10.1017/S1049023X15000254
The Lancet. (2013). Improving the health response to humanitarian crises. Lancet (London, England), 381(9881), 1878. https://doi.org/10.1016/S0140-6736(13)61144-7
Toner, E. S., Ravi, S., Adalja, A., Waldhorn, R. E., McGinty, M., & Schoch-Spana, M. (2015). Doing Good by Playing Well with Others: Exploring Local Collaboration for Emergency Preparedness and Response. Health Security, 13(4), 281–289. https://doi.org/10.1089/hs.2015.0003
Walker, P., Hein, K., Russ, C., Bertleff, G., & Caspersz, D. (2010). A blueprint for professionalizing humanitarian assistance. Health Affairs, 29(12), 2223–2230. https://doi.org/10.1377/hlthaff.2010.1023
Walker, P., & Russ, C. (2011). Fit for purpose: The role of modern professionalism in evolving the humanitarian endeavour. International Review of the Red Cross, 93(884), 1193–1210. https://doi.org/10.1017/S1816383112000276
Walsh, L., Altman, B. A., King, R. V., & Strauss-Riggs, K. (2014). Enhancing the translation of disaster health competencies into practice. Disaster Medicine and Public Health Preparedness, 8(1), 70–78. https://doi.org/10.1017/dmp.2014.7
World Food Programme. (2008). Preparing for tomorrow today: WFP strategy for managing and developing human resources (2008-2011).
World Health Organization. (2011). Scaling up the community-based health workforce for emergencies, 8.
World Health Organization. (2017). Health workforce coordination in emergencies with health consequences (A70/11). Seventieth World Health Assembly.
World Vision. (2013). Learning report: Adaptation and innovation:meeting humanitarian needs in fragile and conflict contexts, (march), 59.
Zoraster, R. (n.d.). Disaster coordination needs more than the "health cluster". Prehospital and Disaster Medicine, 25(4), 372–373. Retrieved from http://www.ncbi.nlm.nih.gov/pubmed/20845329
Zoraster, R. M. (n.d.). Enhancing healthcare sector coordination through infrastructure and logistics support. American Journal of Disaster Medicine, 5(4), 215–219. Retrieved from http://www.ncbi.nlm.nih.gov/pubmed/20879503