Emergency Trauma Response to the Mosul Offensive, 2016-2017:

A Review of Issues and Challenges

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Acknowledgements

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Acronyms

CMCoord	Civil-Military Coordination, UN OCHA
DOH	Department of Health
EMT	Emergency Medical Team
FH	field hospital
FSU	field surgical unit
GOI	Government of Iraq
HC	Humanitarian Coordinator
HCT	Humanitarian Country Team
KRG	Kurdistan Regional Government
ICRC	International Committee of the Red Cross
IDP	Internally Displaced Persons
IHL	International Humanitarian Law
ISF	Iraqi Security Forces
ISIS	Islamic State in Iraq and Syria
INSO	International NGO Safety Organisation
MSF	Médecins Sans Frontières/Doctors Without Borders
NFI	Non-Food Item
OCA	Operational Centre Amsterdam, MSF
OCB	Operational Centre Brussels, MSF
OCBA	Operational Centre Barcelona-Athens, MSF
OCG	Operational Centre Geneva, MSF
OCHA	Office for the Coordination of Humanitarian Affairs
OCP	Operational Centre Paris, MSF
PHCC	Primary Health Care Centre
PGF	pro-government forces
PMF	Popular Mobilization Forces
TSP	Trauma Stabilization Point
TWG	Trauma Working Group
WHO	World Health Organization

Executive summary

Background and approach of review

In October 2016, a coalition of Iraqi and international forces launched military operations to re-take the city of Mosul from ISIS. In response to the ensuing humanitarian crisis, the international community planned and executed a large-scale assistance operation for the inhabitants of Mosul and those fleeing the city. Under International Humanitarian Law (IHL), the responsibility for collecting and treating the war-wounded lies with the parties involved in combat. Despite initial plans that correctly placed the responsibility for trauma care with the pro-government forces, both the Iraqi and international forces ultimately abdicated this responsibility, leaving humanitarian actors to fill the void.

The UN-led, multi-sector response included a trauma response coordinated by the World Health Organization (WHO) to address the high number of complex trauma injuries associated with urban warfare. Because WHO's traditional health partners were unable and/or unwilling to provide medical services close to the front line, which required 'co-locating' or embedding with military units, WHO contracted a range of medical NGOs and private medical actors willing to operate in this manner. The medical referral system, based on established military trauma practice, was set up in close cooperation with various pro-government forces, who provided the logistical platform and security cover in an unusually close frontline collaboration between conflict parties and humanitarian medical providers. At the same time, Médecins Sans Frontières/Doctors Without Borders (MSF) independently implemented a health response that also focused on trauma services but operated at a distance from the frontline, avoided close association with conflict parties and focused on providing a range of services to patients.

Several aspects of the trauma response posed unique challenges and raised important questions for principled humanitarian action. The way the response unfolded also underscored longstanding dilemmas and tensions between the need for rapid and effective access and the responsibility to maintain humanitarian independence, neutrality and impartiality.

Recognising the ongoing nature of similar military operations in the region and seeking to learn from the Mosul experience, MSF commissioned Humanitarian Outcomes to conduct an independent review of the trauma response to facilitate reflection within MSF and externally within the sector. Recognizing there are no easy answers to the complex problems facing humanitarians in conflicts, the review presents the available evidence and provides analysis aimed to inform difficult decisions over how to provide impartial medical assistance in conflict zones. In doing so, it does not seek to reconcile the conflicting narratives, but rather to represent the varied perspectives from within organisations and across the complex ecosystem of actors.

Summary findings

The challenges faced by the humanitarian actors in the Mosul response were created in the first instance by political and military actors failing to fully meet their legally mandated responsibilities to evacuate and treat wounded combatants and civilians.

In the face of this failure, the humanitarian community missed important humanitarian advocacy and operational planning opportunities. Given their respective positions vis-à-vis the Government of Iraq (GOI), the UN and the International Committee of the Red Cross (ICRC) had a particular role to play in calling for the pro-government forces to meet their responsibilities. While efforts were made, they ultimately failed, leaving the humanitarian community to fill the gap left by parties to the conflict.

Additionally, humanitarian actors operating in Iraq failed to apply valuable lessons learned in similar military operations in Fallujah. Despite an exceptionally long planning period, humanitarian actors were unprepared to meet the needs that resulted from the Mosul military operations.

The Mosul response took place in a highly politicised environment, and was shaped by a unique set of factors: limited 'neutral space' in which to operate independently; the 'asymmetrical' access negotiation environment, wherein humanitarians could not negotiate access with both sides of the conflict; operational decisions taken by MSF and ICRC; the roles of individuals in key positions; the particularly pro-active role of ECHO; the exceptional operational role of WHO as provider of last resort and the unique level of alignment between government and humanitarian planning. The review found that the counter-terrorism agenda created structural and situational constraints that diminished the impartiality, neutrality and independence of operations throughout the humanitarian response.

The UN humanitarian leadership's statements and actions also served to undercut the independence and neutrality of humanitarian actors, contributing to limited participation by organisations that viewed the UN presence as inherently compromised and/or co-opted by political and military interests. The way the UN managed its relationships with both the Iraq government and the military forces was a key factor in MSF's and other organisations' assessment that operating neutrally, independently or impartially would be untenable.

The reluctance of existing WHO health partners to participate led WHO to 'outsource' the provider role to a diversity of actors with a wide range of medical practice and experience. The review found that while some of these non-traditional partners delivered high quality medical services, this was not the case across the board. While several medical NGOs made valuable contributions to the trauma response, medical volunteer organisations – often comprised of insufficiently trained and inexperienced volunteer staff – were generally unable to operate to a consistent standard. Their performance raised concerns over the quality of medical care and respect for basic humanitarian principles.

It is difficult to fully substantiate claims that medical units 'co-located' or embedded with military units necessarily compromised their impartiality, independence and neutrality. The review did find first-hand accounts of violations of these core principles, but also found examples of principled action by medical staff adhering to medical ethics – for example, by refusing to give priority to Iraqi soldiers, and insisting that all wounded fighters be treated, regardless of affiliation.

Iraqis from Mosul surveyed for this study indicated that around half of those needing urgent health care at the time of the offensive did not receive it, primarily because it was not available in their area. In areas where care was available, 23 per cent of respondents said it was being provided by the military and 25 per cent said it was provided by the government. Just over 10 per cent reported they chose not to use the health services that were available, citing fears for their safety as the primary reason. This could indicate that people avoided health care facilities because they were perceived as being run by the military, but it could also indicate a generalised mistrust of government and military entities in an area with a long history of inter-communal conflict. Only one-third of respondents believed that care was provided 'to whomever needed it the most'.

Despite certain weaknesses and limitations, the WHO-coordinated response succeeded in implementing a large-scale, military-style referral chain system in highly difficult conditions and unquestionably saved lives. An independent analysis of the data performed by a research team at John Hopkins Centre for Humanitarian Health estimates that the WHO-coordinated trauma referral pathway saved between 1,500 and 1,800 lives – approximately 600-1,330 civilians and the remaining majority combatants.[1]

The total number of people treated is impossible to independently verify. WHO reporting cites that as of 7 August 2017, 'some 20,449 people from Mosul city were referred through the established trauma pathways'.[2] But these figures include patients being counted multiple times as they passed through the referral pathway. The Iraqi Department of Health estimated that 10,000 to 12,000 'medical activities' were performed.

[1]   P. Spiegel, K. Garber, A. Kushner, P. Wise, February 2018. *The Mosul Trauma Response: A Case Study.* John Hopkins Centre for Humanitarian Health. Pages 36-37. http://www.hopkinshumanitarianhealth.org/empower/resources/reports/

While the WHO-coordinated trauma response had a positive impact for patients and served a humanitarian purpose, it was marked by weaknesses: It had a limited impact compared to the needs; it was susceptible to providing partial medical services; it accepted a high level of risk for both aid workers and the affected population; and it was the result of several layers of failure within the international community to hold military actors to their legal duty. While the number of patients treated is of inherent value, the Mosul trauma response is not a lesson in good practice for humanitarian action in similar future scenarios. Its replication is both unlikely and undesirable.

At the same time, traditional humanitarian medical actors, including MSF, ICRC and most of WHO's implementing partners, would benefit from reflecting on the weaknesses of their respective responses in the face of the Mosul experience. Humanitarian actors allowed their operations to be impeded by failing to execute routine administrative responsibilities such as registration with authorities, and struggled to adapt in response to operational challenges specific to counter-terrorism, urban warfare and asymmetrical negotiation contexts.

Regarding the collective MSF response, while views varied greatly within the organisation, the study identified several consistent themes. Mosul operations were constrained by intersectional coordination and communication problems that failed to ensure a minimum level of coherence across MSF's intersectional presence. Human resource challenges – specifically, the lack of staff profiles appropriate for the context and an extremely high rate of turnover – also hindered operations. Finally, low contextual awareness led to activities that were at times out of sync with the humanitarian needs. These constraints led to a response that was slow to find its feet.

Despite these constraints, between October 2016 and November 2018, MSF performed 20,334 emergency room consultations (of which 4,135 were 'war trauma'[3] cases and 1,594 were 'red' cases[4]) and 31,242 primary health care consultations. These emergency room and primary health consultations resulted in 3,601 surgical interventions, 1,178 deliveries and 2,647 inpatient admissions.

For the humanitarian community at large, Mosul is one of several recent examples that illustrate the dilemmas for humanitarian action in contexts marked by asymmetrical negotiation conditions and a retreat from international obligations by member states and conflict parties. Ultimately, responsibility for and legal obligation toward injured civilians and combatants must be placed squarely with those causing the injuries, and humanitarian leaders are increasingly challenged to find ways to raise the political price that states must pay for breaches of humanitarian law. However, where humanitarian law and principles are trumped by geopolitical realities, and political and military actors refuse to fulfil their responsibilities, humanitarians must decide if they are willing and/or able to step in, despite the considerable near- and long-term risks. When they do, avoiding being instrumentalised by military and political actors is the challenge. When they do not – for reasons of security or principle – the likely solutions will be extra-humanitarian.

How those extra-humanitarian solutions are found and implemented will also have implications for the future of military operations and humanitarian action amid war. The Mosul case should serve as important lesson-learning material for dealing directly and openly with the dilemma and preparing for future difficult decisions.

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[2]   OCHA, Iraq: Mosul Humanitarian Response Situation Report No. 41 (27 July to 8 August 2017)
       https://reliefweb.int/report/iraq/iraq-mosul-humanitarian-response-situation-report-no-41-27-july-8-august-2017

[3]   Refers to the cause of the injury and indicates that it is the result of gunshot, direct bomb blast, burns and/or other forms of trauma
       that the medical staff consider to be a result of war related violence).

[4]   The medical triage system classifies 'red' cases as those patients who cannot survive without immediate treatment but who have
       a chance of survival.

1. Introduction

1.1 Purpose of the review

The response to the humanitarian crisis resulting from military operations to retake Mosul that took place from October 2016 to July 2017 posed unique challenges and raised important questions for the humanitarian sector. The way the humanitarian response unfolded underscored longstanding dilemmas between the need for rapid and effective access on the one hand and for maintaining humanitarian independence, neutrality and impartiality on the other.

Given the unprecedented nature of the WHO response and its implications for future responses, Médecins Sans Frontières/Doctors Without Borders (MSF) commissioned Humanitarian Outcomes to conduct an independent review of the trauma response, with the aim of fuelling reflection within MSF and externally within the sector.

1.2 Approach and scope

The review considers key factors that affected health actors' decision-making on how to respond, including external environmental conditions and internal organisational aspects. It also assesses the strengths and weaknesses of the WHO-coordinated response and the independent MSF response.

The research team compiled and analysed the available evidence in order to inform current debates and future decisions on how to implement a humanitarian response in conflict zones that is both effective and principled. The objective was not to conduct a technical programme evaluation but rather to examine the key decisions and outcomes from the varying perspectives of the actors involved.

The review looked at the planning and preparation stages as well as the implementation stage of the response, from early 2016 through late July 2017. It focused on the trauma response specifically, which took place within the broader health response.

1.3 Methodology

The review was conducted from August through October 2017. It included a ten-day field trip to Erbil, 37 interviews with key interlocutors from across the humanitarian community (see **Annex I: People Interviewed**), a remote survey to elicit the perspectives of the affected population in and around Mosul, and a document review encompassing accounts of humanitarian operations, IHL resources and internal MSF minutes and memoranda.

The telephone survey of the affected population targeted current and former Mosul residents who were present between October 2016 and July 2017 and screened respondents for those who either needed urgent medical care at the time, or knew someone who did. Using interactive voice response technology, 427 eligible respondents were surveyed (74 per cent male, 26 per cent female) on their experience with the medical services that were available.

This review refers to MSF 'operational sections', which are the MSF units comprised of multiple MSF country branches that deploy staff to the field and oversee operations. The study does not represent a single MSF view. Responses varied greatly across MSF; the report seeks to represent the full range of voices rather than a unified MSF position. Similarly, there were divergent – and sometimes conflicting views – with UN agencies, which the study attempts to present in a balanced manner.

1.4   Limitations

While every effort was made to interview a wide range of actors and review materials relevant to the health response, the following limitations should be noted:

- The lead researcher was not able to travel outside of Erbil due to security restrictions

- Detailed medical data regarding medical activities from WHO and the Health Cluster were not made available for independent analysis despite multiple requests

- MSF medical data was provided in a consolidated form, not as raw data.

- Some MSF meeting minutes were redacted due to confidentiality concerns.

- Some health actors who were approached for consultations either declined or were not available. As a result, important perspectives are not represented in the report.

2. Background: Context and operational overview

2.1   General overview

Mosul is Iraq's second largest city after Baghdad, with a pre-conflict population of about 2.5 million. While the city is majority Sunni Arab, the population also includes Assyrian, Turkmen, Yazidi, Armenian, and Shabak communities.[5]

Following two years of control by the armed group Islamic State in Iraq and Syria (ISIS), on October 16, 2016, Iraqi forces supported by a US-led coalition commenced military operations to reinstate Iraqi control, and victory over ISIS was declared on July 9, 2017. Military operations concentrated first on retaking East Mosul, with these operations lasting from November 1, 2016, to January 24, 2017. After a one-month tactical break, operations began to retake West Mosul on February 19, 2017, and lasted through the beginning of July 2017.

As elaborated below, the impact of military operations on civilians was extensive. Between October 2016 and June 2017, nearly 900,000 civilians fled Mosul, of which 705,000 fled from West Mosul, according to UN OCHA statistics.[6]

2.2   Military operations in Mosul

Ground-level military operations were conducted by a coalition of armed groups led by the Iraqi Security Forces (ISF), comprised of 30,000 fighters from the ISF, Shi'a militias known collectively as the People's Mobilization Forces (PMF) and Kurdish Peshmerga forces. The US-led Combined Joint Task Force Operation Inherent Resolve (CJTF-OIR) provided air support and served in a training and advisory capacity to ISF.[7] Together these elements comprised the 'pro-government forces'[8] allied against ISIS.

While US involvement was publicised as a primarily supportive role, with a team of US advisors present in Iraq, the US deployed 1700 additional forces in January 2017 to provide additional group support to ISF,[9] with a total number of in-country troops at 6,000 in July 2017.[10]

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[5]   Nabih Bulos, 2 October, 2016. 'The Battle in Iraq that Could Turn the Tide against Islamic State: The Fight for Mosul is about to Begin', *Los Angeles Times*. http://www.latimes.com/world/middleeast/la-fg-iraq-mosul-20161002-snap-story.html.

[6]   UN OCHA, 24 June 2017. 'Hundreds of Civilians Are Being Killed and Injured as Fighting Intensifies in Mosul's Old City'. ReliefWeb.int, http://reliefweb.int/report/iraq/hundreds-civilians-are-being-killed-and-injured-fighting-intensifies-mosuls-old-city.

[7]   Members of the coalition active in the Mosul battle include the USA, Australia, Belgium, Canada, Denmark, France, the Netherlands and the United Kingdom. For a full list of coalition members, see the Operation Inherent Resolve website: www.inherentresolve.mil/About-Us/Coalition/

See also: Paul Torpey, Pablo Gutiérrez, and Paul Scruton, 'The Battle for Mosul in Maps', *The Guardian,* February 23, 2017. https://www.theguardian.com/world/2016/nov/04/battle-for-mosul-maps-visual-guide-fighting-iraq-isis.

[8]   This report uses the term 'pro-government forces' to refer to the various branches of the Iraqi armed forces and security forces and forces representing the US-led international coalition.

[9]   Douglas Ernst, 4 November 2016. "Back to Iraq: Army deploying 1,700 paratroopers from 82nd Airborne Division", *The Washington Times.* https://www.washingtontimes.com/news/2016/nov/4/army-deploying-1700-paratroopers-from-82nd-airborn/

[10]   Susannah George, 1 July 2017. "In Final Stages of Mosul Fight, U.S. Troops Take On Expanded Role", *The Chicago Tribune.* http://www.chicagotribune.com/news/nationworld/ct-islamic-state-mosul-20170701-story.html

2.3 Humanitarian operations

Iraq has hosted a long-time humanitarian presence, with the International Committee of the Red Cross (ICRC) operational in the country since 1980 and many other humanitarian actors arriving in the early 1990s during the US-led military operations in Kuwait and again in 2003 when US-led military operations removed Saddam Hussein from power. The humanitarian presence between 2003 and 2017, however, was very limited due to security concerns. This meant that the UN and NGOs lacked an operational presence before the military operations began in October 2016 and were faced with the challenge of re-establishing a presence while also trying to respond to large-scale humanitarian needs.

With more than 1 million people displaced between October 2016 and July 2017, the UN-led Mosul humanitarian response was necessarily a large and complex operation. At the peak of the displacement, half of the displaced population was living in 19 camps and emergency sites, while the other half was living with families and in host communities.[11]

As of early August 2017, the UN-led response had distributed nearly 1.9 million emergency kits and nearly 900,000 NFI kits and had reached over 2 million people with in- and out-of-camp WASH support.

The humanitarian contingency planning for Mosul was carried out under the leadership of the Humanitarian Country Team (HCT) and the Humanitarian Coordinator (HC) in tandem with the government's own military and emergency planning. The objective of the government plan, jointly produced by the Government of Iraq and the Kurdistan Regional Government with UN and NGO participation via the Ministry of Interior's Joint Crisis Coordination Centre (the government-humanitarian coordination platform), was to 'prepare and guide the government and humanitarian partners for a well-coordinated, effective and timely response to the predicted large new waves of population displacement and movement to the Kurdistan Region of Iraq (KRI) from Mosul and neighbouring districts besieged by ISIS'.[12] The corresponding Humanitarian Concept of Operations (Humanitarian ConOps)[13] was designed to complement the government's planning and was therefore based on the same planning assumption, which included a single scenario of mass displacement from Mosul at the beginning of military operations.

The 36-member Health Cluster, led by WHO with an NGO co-lead, planned, coordinated and implemented the UN's humanitarian health response in coordination with the larger Humanitarian ConOps. The health response was based on the findings of the 2014 Public Health Risk Assessment conducted by WHO[14] and focused on five areas: primary health care, reproductive health, vaccinations, supply of essential medicines and the referral system. This response ended up meeting large-scale needs, with 1.5 million people receiving consultations between October 2016 and August 2017.[15]

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[11]   UNHCR, 2 July 2017. Mosul Response Dashboard,
       https://www.humanitarianresponse.info/en/operations/iraq/infographic/unhcr-iraq-mosul-response-dashboard-2-july-2017.

[12]   Government of Iraq Ministry of Interior, Kurdistan Regional Government, June 2016. 'Joint Humanitarian Contingency Plan: IDP Support for the Ninevah Liberation Operation'.

[13]   Iraq HCT, September 2016. 'Humanitarian Concept of Operations'.

[14]   WHO conducted a public health risk assessment in 2014, which provided technical guidance to health sector actors on the major public health threats faced by affected populations in Iraq. It identified weaknesses within the public health system, including staff shortages, infrastructure damage and supply shortages in provinces affected by conflict. WHO identified the following populations at the most risk: children under five years of age, women who are pregnant or of childbearing age, people vulnerable to violence and sexual or gender-based violence (SGBV) and the elderly. The top three health sector priorities identified in the report were (1) restoring emergency and essential primary and secondary health services; (2) addressing trauma and emergency surgical conditions (abdominal and others) and (3) providing reproductive health care, especially safe deliveries.

[15]   UN OCHA, 8 August 2017. 'Iraq: Mosul Humanitarian Response Situation Report No. 41 (27 July to 8 August 2017)'.
       https://reliefweb.int/report/iraq/iraq-mosul-humanitarian-response-situation-report-no-41-27-july-8-august-2017.

Trauma response

While a trauma response was not initially included in the Health Cluster planning in early 2016, it was added in the weeks leading up to the beginning of military operations when, according to WHO interviewees, it became clear that this was a planning gap within the UN-led response.

Trauma casualties (e.g., acute injuries from bullets, mortars and building collapses) caused by fighting were anticipated to be severe and planning was based on the estimate that one out of every five people fleeing Mosul would require trauma care.[16] The Humanitarian ConOps estimated that up to 1 million people would be displaced, so trauma response planning would have been based on roughly 200,000 people needing trauma care.

Within the larger health response, a specific focus on meeting trauma needs developed in the early weeks of the military operations in Mosul. When trauma needs clearly were surging and required dedicated coordination capacity, the Trauma Working Group (TWG) was created and run by New York City Medics[17] under the direction of WHO.

In parallel and with varying degrees of coordination with the UN lead health response, MSF planned for and implemented an independent health response that focused on trauma, but also offered a range of other primary and secondary health services.

The WHO-coordinated health response and the MSF health response used fundamentally different approaches that were mostly consistent with each agency's respective mandate. The WHO response, however, was notable in that it saw an unusually operational role for WHO, included non-traditional health actors as partners, and resulted in a precedent-setting trauma response that included a frontline-to-tertiary level trauma chain of referral. Notably, WHO's increased 'operational' role meant that it planned for and coordinated activities that were then implemented by WHO partner organisations. It was not providing medical services directly.

One of the key challenges for all health actors was managing security, and this challenge shaped the response. The effectiveness and relevance of trauma activities are directly correlated with proximity to the front lines, and as proximity increases so too does the potential need for increased protection.

Despite a very long emergency preparedness phase, health actors, including MSF, seemed unprepared for the start of military operations in East Mosul. This is illustrated by the seemingly slow and at times poorly adapted response to the humanitarian needs during East Mosul military operations and the significantly improved response during West Mosul military operations. Indicators are that the learning curve was steep and that lessons learned in East Mosul were applied in West Mosul – for example humanitarians were clearly operationally positioned to respond more quickly in East Mosul, the WHO revised its medical activities to broaden the scope of care, a greater emphasis was put on field hospital capacity, referral pathways were adapted to be more flexible as the front line moved and greater emphasis was put on post-operative and rehabilitation care.

The WHO and MSF trauma responses are covered in more detail in Section 4 and Section 5, respectively.

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[16]   Information provided by a participant present in the planning meetings.

[17]   New York City Medics is a non-profit medical assistance organisation considered a 'non-traditional medical actor' given its lack of previous experience operating as part of humanitarian operations in a conflict zone.

2.4   The legal framework

The conflict in Mosul is considered a non-international armed conflict (NIAC). Under International Humanitarian Law (IHL), every party to a NIAC is obliged, at a minimum, to collect and care for the wounded and sick on an impartial basis.[18] Care must be provided to all wounded and sick *hors de combat* (whether combatants or civilians), from each relevant party to the conflict to the fullest extent practicable and with the least possible delay. Parties to the conflict are obliged to make no distinction among the wounded and sick other than medical ones. In the case of the conflict in Mosul, any states that were on the ground or in the air as part of the conflict are considered a 'party' to the NIAC and had obligations under IHL. While the obligation is therefore clear and applicable to the Government of Iraq (and the ISF as a sub-organ) and to the parties to the conflict that were either on the ground or providing air support, the question becomes what constitutes feasible ('*to the fullest extent practicable*') at the time of the planning for, and during, the offensive, with least possible delay.

According to the ICRC, 'The obligation to protect and care for the wounded, sick and shipwrecked is an obligation of means. Each party to the conflict *must use its best efforts to provide protection and care for the wounded, sick and shipwrecked,* including permitting humanitarian organisations to provide for their protection and care'[19] (emphasis added).

Alongside other (non-involved) states, civil society actors can call upon all parties to provide all feasible medical care on an impartial basis – as those parties are obliged to do under IHL. That said, the obligation is one of means, not of results.

In interviews conducted for this study it was noted that the UN humanitarian leadership, a number of donors, and some humanitarian agencies called for the ISF to prepare for and to treat the war-wounded. And early UN planning documents were based on this arrangement. A related study also documents that this occurred,[20] but that for reasons unclear to the research team, it was determined there was no capacity for the ISF to provide care other than for their own troops, and no additional medical support was forthcoming from the broader coalition of pro-government forces, including the US.[21]

The lack of capacity within the ISF and the lack of support from the pro-government forces are particularly significant given that (1) the ISF is a military force that arguably has access to significant resources, especially from its coalition partners; (2) the ISF and coalition partners knew it was going to be an extremely intense offensive; (3) Government of Iraq (GOI) military planning anticipated high casualties (including those wounded by other forces) and (4) the coalition's leading member state, the US, had a considerable operational footprint on the ground, including medical infrastructure dedicated to treating US and Iraqi forces. It is therefore hard to understand why the parties to the conflict were so unprepared or unwilling to assume their obligations under IHL.

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[18]   This section draws from a confidential note provided to the research team by the Harvard Law School Program on International Law and Armed Conflict.

[19]   See the ICRC Customary IHL database at https://ihl-databases.icrc.org/customary-ihl/eng/docs/v1_rul_rule110.

[20]   See E. Schenkenberg and K. Wendt, 2016, 'Principled Humanitarian Assistance of ECHO Partners in Iraq' (HERE, Geneva), which highlights that 'one interviewee noted that his organisation had particularly advocated for the duty of the military medical forces to treat the war-wounded, but that both the military and authorities quickly turned to the humanitarian organisations when they lack the capacity'.

[21]   There is considerable research on the issues of the obligations of partners/or obligations emanating from support in armed conflict (see for example, Tristan Ferraro, 13 August 2015 'The Applicability and Application of International Humanitarian Law to Multinational Forces,' *International Review of the Red Cross* 95 (891/892): 561,) and Cordula Droege and David Tuck, 2017 'Fighting Together and International Humanitarian Law: Ensuring Respect for IHL, Humanitarian Law and Policy' ICRC, Geneva.

3. Key factors: A brief overview of the issues affecting humanitarian operations in northern Iraq

The review identified certain factors particularly relevant to the planning and implementation of the humanitarian health response in Mosul. Most of these apply to humanitarian operations in Iraq generally.

3.1 The impact of the political environment on humanitarian operations

Humanitarian operations in Iraq take place within a historically fraught, politicised atmosphere. The problem of blurred lines between humanitarian presence and foreign military intervention has been consistent since the 1990s, with an equally persistent tension around politicization of humanitarian modalities and instrumentalisation of humanitarian aid.[22]

The high level of collaboration between the UN and the Government of Iraq has impacted humanitarian neutrality in ways consistent with integrated missions generally, but it seems to have reached a level of close political and operational alignment that is unique to this context.

The Humanitarian Concept of Operations has been lauded by the UN for how seamlessly it complemented GOI planning, but the process demonstrates a lack of distinction between humanitarian and non-humanitarian objectives. For some interviewees, this effectively meant that the 'humanitarian response was embedded in the military response'. This is also illustrated by the fact that the UN's planning was based on a single-scenario contingency plan that only considered the mass-displacement scenario that framed the government's emergency planning.

This view of the UN's response as inherently politicised is reinforced by interviewees' perceptions that the Humanitarian Coordinator's (HC) role was overtly political and seamlessly aligned with US political and military objectives. They described the HC's priority as 'pushing the US agenda via UN activities'. Others described the UN as the 'accessories to the conflict', the 'implementing arm of US foreign policy', the 'broader front' of the counter-terrorism efforts and as being 'totally immersed in the us vs. them' narrative'.

Interviewees described UN OCHA's Civil Military Coordination (CMCoord) unit as extending the UN's political role. A robustly empowered CMCoord played a central role in the response, under a unique set up whereby the unit reported directly to the HC rather than to the OCHA Head of Office, as is usually the case. The CMCoord unit and the HC were seen as the 'main drivers' of the humanitarian response, and CMCoord unit members as the primary information holders, as they were 'first in' to areas re-taken by pro-government forces, often the day after fighting stopped.

Based on study participant accounts, the particularly political environment seems to have shaped humanitarian operations in several significant ways:

- **A general reduction in humanitarian neutrality.** A widespread adoption of the 'liberation' narrative by many actors within the humanitarian community was evident. The tacit assumption seemed to be that humanitarians were participating, to various degrees, in the battle to liberate Iraq from ISIS, representing themselves as being on the side of the 'good guys'. One senior UN representative referred to humanitarian actors as a 'coalition of the willing', and the phrase 'battle for Mosul' or similar was commonly heard among UN and NGO personnel. This seems to have translated into an implicit justification in cases where neutrality was at stake. Interviewees described ISIS as being the 'perfect enemy' that 'excused any behaviour' giving humanitarians a 'blank check to compromise' on principles.

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[22] Both the 1991 and 2003 invasions of Iraq were framed to varying extents by the US-led military coalitions as 'humanitarian interventions' and the topic of politicization and instrumentalisation of aid has been widely discussed within the sector. For example, see Eric A. Heinze, 2006. 'Humanitarian Intervention and the War in Iraq: Norms, Discourse, and State Practice', Homeland Security Digital Library: https://www.hsdl.org/?view&did=460747

- **Reduction in the level of operational independence and impartiality.** Humanitarian independence was inherently compromised by humanitarian response planners coordinating so closely with the government (a party to the conflict), and impartiality was threatened by civilians fleeing from Mosul having to pass through screening and mustering points controlled by pro-government forces before they came into contact with humanitarians. Interviewees described this as giving military actors a 'wide margin' when it came to extra security measures seen as necessary to address the threat of terrorism, and believed this resulted in an anaemic protection response. Examples cited included the lack of humanitarian presence at the mustering points until well into the response, transport of patients under humanitarian care by medical actors and a lack of protection measures at check points. Other interviewees went further to say that protection issues for patients is a known issue 'no one is talking about ' and that the influence of the anti-ISIS bias had 'subtly informed' the programming choices of humanitarian actors in ways that were visible in the geographic distribution of humanitarian presence. Both NGO and non-NGO interviewees felt that the NGO reticence to work in IS areas – often initially based on genuine concerns regarding a lack of security guarantees – had turned into a blanket assumption that it wasn't possible and that this had in time turned into 'a reticence to work with certain populations generally'.

To a much lesser degree, organisations like MSF and ICRC, working outside the UN-lead response, were also influenced by the political environment. For MSF and ICRC interviewees, the non-neutral position of the UN was one factor that led to operational constraints for both organisations. The overtly political agenda of the UN contributed to a failure of a principled approach to humanitarian operations, leaving little confidence on the part of 'Dunantist' actors[23] to scale up and somehow remain untainted by the politics of the response.

WHO was perceived by both UN and NGO interviewees as having been particularly instrumentalised, who said, for example, 'WHO allows too much political influence, but this is the nature of the UN.' They would have preferred WHO to be 'setting impartial medical priorities' for the health response, but instead perceived it as having failed at 'insisting on a principled approach' due to intense pressure from the HC. Many MSF interviewees expressed concern that WHO might become the 'preferred partner' of governments, which could therefore lead to systematically less principled responses in the future.

3.2 The impact of the counter-terrorism context on the humanitarian response

The constraints affecting humanitarians operating in counter-terrorism contexts in Iraq and other countries have been documented in humanitarian literature. For instance, while NGOs are not explicitly prevented from conducting activities in areas where proscribed terrorist organisations are present, a range of counter-terrorism laws, policies and administrative restrictions on humanitarian funding have been shown to have a 'chilling effect' on the activities of humanitarian actors.[24]

The recently published three-year **Secure Access in Volatile Environments (SAVE)** research found similarly that humanitarian organisations hesitate to engage with designated terrorist organisations for the purpose of negotiating access and that this is fuelled in part by confusion about (1) what types of action may constitute 'financial or material support' (under counter-terror legislation) and (2) whether individual aid staff are at risk of prosecution.[25]

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[23] 'Dunantist' actors refer to NGOs that seek to distance themselves from politics by upholding the traditional four principles, particularly vis-à-vis states' interests. For more on this topic, please see Abby Stoddard, 2003, 'Humanitarian NGOs: Challenges and Trends', HPG Briefing No. 12, ODI.org, https://www.odi.org/resources/docs/349.pdf.

[24] Kate Mackintosh and Ingrid Macdonald, August 2013, 'Counter-Terrorism and Humanitarian Action,' Humanitarian Practice Network, http://odihpn.org/magazine/counter-terrorism-and-humanitarian-action/; and NRC, December 2015, 'Risk Management Toolkit in Relation to Counter-Terrorism Measures', Norwegian Refugee Council, https://www.nrc.no/resources/reports/nrc-risk-management-toolkit-2015/.

[25] K. Haver and W. Carter, 2016, 'What It Takes: Principled Pragmatism to Enable Access and Quality Humanitarian Aid in Insecure Environments', Humanitarian Outcomes report, SAVEresearch.net, https://www.humanitarianoutcomes.org/file/112/download?token=qQbVKV35.

Interviewees in this review mentioned the structural constraints of providing humanitarian aid in a counter-terrorism context, referring to the 'double legal framework of IHL and counter-terrorism measures'. Being obligated to comply with both frameworks made it hard to maintain humanitarian principles and medical ethics, they said, citing the security screening by pro-government forces of civilians fleeing Mosul and the widespread presence of various forms of security at medical facilities, including some MSF facilities. These forms of security included robust deterrence measures such as placing ISF military and private security forces at the Samaritans Purse Bartalla hospital or adding protective local police presence at some MSF facilities.

For example, WHO staffers report having adapted their 2017 funding proposals to OFDA due to US government restrictions to prevent USAID funding from being used to treat or support ISIS fighters or their dependents. These restrictions are new for 2017 as a result of US Senate legislation, so while they didn't affect Mosul, they apply to subsequent responses in Anbar, Hawija and other locations. While WHO used other funding sources to assure impartial access to care, this type of policy puts organisations under pressure to not comply with IHL obligations in order to receive funding. This has grave implications for populations living behind frontlines, who in effect risk being excluded from care.

3.3 The challenges of security management in an asymmetrical negotiation context

Asymmetrical negotiation contexts, in which humanitarians are not able to establish or maintain contact with all conflict parties, continue to challenge humanitarian operations and have a significant effect on secure access and delivery for both staff and people seeking assistance. This theme is very closely linked to the above discussion on providing humanitarian aid in politicised counter-terrorism contexts.

From purely a security management perspective, humanitarian and other actors face additional considerations in managing risk close to the front line, citing aerial drones, vehicle and person-born IEDs, and chemical weapons as additional threats. For patients, trying to access care in these areas can lead to them either to being too afraid to seek healthcare or to put themselves at potential risk of harm from an attack on or near the facility.

NGO and UN agency representatives reported feeling that they had 'no choice' but to work closely with pro-government forces given a lack of secure access on both sides of the front line and that the 'only risk mitigation measures' when providing medical services close to the front line were to embed or co-locate with military actors. Others questioned whether humanitarians had an out-dated view of battlefields, given that front lines in asymmetrical negotiation contexts were treated more like un-crossable borders than traditional front lines across which access can be negotiated. Still others drew a direct equivalence between compromising principles and saving lives, stating that if NGOs want to be closer to the front lines, they must accept military protection, so the decision is simply whether that choice is worth the lives saved.

Several interviewees questioned the extent to which NGOs had tested their ability to negotiate access to the front line, particularly at the programme site level. Here they tended to cite increased sector-wide risk aversion, an over-reliance on the CMCoord unit, and self-reinforcing collective wisdom that negotiated access was hard or impossible. A minority of interviewees suggested that operating close to the front line was safer than many humanitarian actors perceive. Some donor representatives felt that operations in Iraq reflected the macro trend of increasing risk aversion, viewing NGOs as 'corporate', 'boxed-in' and having a reduced capacity to provide 'resilient and rugged' delivery. NGO staff expressed a corollary frustration with donors who pushed NGOs to take greater risks, which put them in the position of having to choose between staff safety and opportunities to expand their presence in hard-to-reach, high-need areas.

A direct correlation exists in medical aid operations, particularly for trauma actors, between proximity and effectiveness. For trauma services to be relevant, providers must be close to the front line. The asymmetrical negotiation context created difficult choices between relevance of programming and safety of staff that constrained the effectiveness of the humanitarian response.

Even for organisations with a strong commitment to and capacity for negotiated access, such as ICRC, working in ISIS territories has proven difficult to impossible. MSF interviewees consistently referenced the ISIS attacks in 2014 on their staff in Syria as a collective trauma that had institutionally spooked the organisation and resulted in a systematically lower profile and reduced coverage across the region. In addition, it produced an organisational shift in how MSF engaged with ISIS that precluded on-the-ground negotiations and required high-level ISIS engagement as a precondition to operating in or near ISIS territories. This was consistent with the broader humanitarian community's presence in Syria at the time and, as a result, the SAVE research found the lowest levels of coverage in Syria as compared with three other highly insecure contexts (Afghanistan, Somalia and South Sudan).[26]

3.4 The unfamiliar operational environment of an urban warfare context

Urban warfare contexts continue to present humanitarians with a unique set of challenges to which established humanitarian practice is not always well suited. The fact that Mosul was a densely populated area created particular challenges for military and humanitarian actors alike.

The large-scale impacts on civilians and civilian infrastructure of the Mosul military operations are consistent with the worldwide trend of high civilian casualties associated with urban warfare. By some estimates, civilian casualties account for 92 per cent of the deaths and injuries from explosive weapons in populated areas, compared to 34 per cent when these are used in other areas.[27] And for humanitarians, these circumstances bring a set of unique challenges.

Review interviewees generally described feeling underprepared to deal with the specific challenges of urban warfare. With large populations choosing to stay in Mosul or stuck in siege conditions and unable to flee, humanitarians found it immensely difficult to access people in need. When civilians were finally able to flee, they were often in dire shape, having been subjected to harrowing security and living conditions under ISIS control.

Urban warfare affects the necessary level of trauma care, as densely populated areas and urban structures exacerbate the impact of large-scale munitions. Patients more often present with blast-related injuries and compound fractures, including multiple penetrating injuries and polytraumas (injuries to multiple body parts or organs), compared to those coming from less populated areas. They are also more likely to have crush injuries from building collapses and burns from powerful explosives. As a result, emergency surgical interventions are often more complex and take longer, and post-operative and/or rehabilitation care is often necessary.[28]

Many MSF interviewees cited this factor when talking about perceptions of underperformance, describing MSF modalities not being well suited to urban contexts. This was especially relevant to the distribution of activities across MSF sections. Several MSF interviewees pointed out that MSF's default way of dividing up intersectional territories made more sense in contexts where needs were spread out over large geographic areas. In urban settings, however, the needs are consolidated in a small area, so dividing sectional territories by geography is less efficient than dividing sectional responsibilities by activity.

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[26]   See Abby Stoddard and Shoaib Jillani with John Caccavale, Peyton Cooke, David Guillemois, and Vassily Klimentov, 2016, 'The Effects of Insecurity on Humanitarian Coverage', report from the Secure Access in Volatile Environments (SAVE) research programme, www.SAVEresearch.net.

[27]   Action on Armed Violence (AOAV), 22 June 2015, 'Explosive States: Explosive Violence in Populated Areas in 2014', AOAV.org, https://aoav.org. uk/2015/explosive-states-explosive-violence- populated-areas-2014/.

[28]   Amnesty International, July 2017. 'At Any Cost: The Civilian Catastrophe in West Mosul, Iraq', Amnesty.org, https://www.amnesty.org/download/Documents/MDE1466102017ENGLISH.PDF.

3.5 Challenges present by operating across political-admininstrative territories

Humanitarian actors working in northern Iraq must interface with two sets of authorities – the Kurdistan Regional Government (KRG), based in Erbil, which governs the autonomous region in the north, and the Government of Iraq, based in Baghdad, which governs the rest of the country, including Ninewah province, where Mosul is located.

Dealing with multiple sets of authorities is a common occurrence in humanitarian contexts, but not being registered and fully operational in both territories seems to have been a serious operational constraint for many humanitarian actors based in Erbil. While some agencies have both an operational presence in Erbil and a representation presence in Baghdad, at the time of the Mosul operations, many aid agencies were not registered to operate in federal Iraq territory. This lack of registration status turned out to be an impediment to providing timely aid in Mosul, as was consistently mentioned by interviewees. Although some organisations cited unreasonable bureaucratic delays when applying for registration in federal Iraq territory, interviewees across actor groups suggested that it had more to do with operational inertia, an 'unwillingness' to adapt to changes in the context and a view of the registration process as a 'bureaucratic burden' rather than due diligence necessary to secure operational space. They contrasted humanitarians' quick operational response to set up in camps with their slower steps to be operationally prepared to respond in Mosul.

Several NGO and donor representatives suggested that NGOs relied too much on the International NGO Security Organisation (INSO) for their security information and on the CMCoord unit for access negotiations, instead of independently forging their own situational awareness and operational space. As one respondent pointed out, even well after Mosul operations had finished and Hawija operations were about to begin, many organisations still did not have their federal registration in place.

The intersectional MSF presence seems to have also been affected by the same operational inertia, with sections distributed between Kurdish and Iraqi territory, but with no section ready to operate in Mosul at the beginning of the humanitarian response, despite having tried unsuccessfully to gain access to Mosul in the past. Several MSF interviewees attributed this to an insufficient contact network in the Mosul area and insufficient engagement with federal Iraqi actors by the sections based in northern Iraq. This was a challenge shared by all operational actors due to the limited humanitarian presence in Mosul in the years leading up to the military operations.

Across the humanitarian community, there seems to have been insufficient cross-border engagement with the civil and military actors necessary to negotiate operational space for a timely response in Mosul. This is hard to understand given the long planning period leading up to the beginning of military operations.

3.6   The presence of non-traditional medical actors

Another controversial aspect of the UN-led trauma response was that services were provided largely by 'non-traditional' actors, i.e., medical groups that lacked humanitarian experience, profile and operational approach.

This review uses the term 'non-traditional medical actors' to refer to a range of entities including non-profit medical actors, private medical actors, volunteer medical actors and those described as 'paramilitary medical actors'. Importantly, both medical and humanitarian practice varies across this range of actors. Non-profit and private medical actors are generally from professionalised medical groups with little or no previous experience in humanitarian contexts. Volunteer medical actors have a range of medical expertise. These groups can have close ties with military groups, often employing former military personnel. Finally, a very small group of paramilitary actors were present in Mosul. These actors were seen as being the closest to military, with reports of them carrying arms or conducting medical activities in uniform. While concerning, these events seem to have been very isolated and as such are not considered relevant to the review.

Respondents expressed a range of concerns regarding the presence of these actors, primarily focused on the four following areas:

1. **The extent to which actors were complying with established medical standards.** Private medical actors and non-profit medical actors were generally seen as providing acceptable or high-quality medical care, whereas volunteer medical actors were viewed as struggling to meet basic medical standards. The more positive evaluations tended to come from respondents in the field with first-hand knowledge of these medical programmes, and they tended to take a pragmatic approach to this set of non-traditional medical actors, stating that the focus should be on treating patients, that private medical actors should not be 'systematically opposed', and that they could be 'efficient' and provide good quality medical care.

   Volunteer medical groups tended to be viewed less favourably, being criticised for having insufficiently trained medical staff, for using primarily former military staff and for providing a reportedly low level of medical care, according to some interviewees. Consultations with these groups indicated that they struggled with accountability measures, such as keeping medical records, and had limited knowledge of humanitarian principles and acceptance-based security management strategies. When asked to evaluate the strengths and weaknesses of their responses, interviewees from these groups acknowledged weak organisation, a lack of experience and poor data collection, but felt that the agility of their operations resulted in overall value, because they weren't tied down by the 'red tape' of other organisations. These actors expressed frustration at the relative slowness of humanitarian actors and what they perceived as 'excuses' for not responding quickly enough. They also expressed frustration at WHO's 'unreasonable' training and certification for medical staff, reporting that it resulted having to let staff go. Another cause of frustration was WHO's requirement to have an MD present at the TSPs.

   Finally, concerns about quality of medical care were often tied to WHO's poor management of TSPs, which was judged to result in sub-par care in some instances. Other concerns were based on these actors' lack of experience in conflict zones, which were perceived as manifesting in poorly managed facilities that were not well adapted to the context.

2. **The extent to which they were complying with humanitarian principles, particularly impartiality.** Despite concerns about whether 'non-humanitarian' medical actors would provide sufficiently impartial medical services, many respondents reported that non-traditional actors running medical facilities exercised an acceptable level of impartiality, indicating that hors de combat ISIS fighters were treated at TSPs and hospitals run by these actors. Moreover, some interviewees recounted examples of how these groups in fact increased the level of impartiality by being present as witnesses and actively defending medical impartiality vis-à-vis their military counterparts.

3. **The presence of these actors creating a lack of distinction between humanitarian and non-humanitarian actors and activities.** While many humanitarians interviewed, particularly those from MSF, raised the concern that non-traditional medical actors working in close proximity to armed forces could present operational risk through association, no consistent evidence was found that activities of non-traditional actors led to tangibly compromised humanitarian operations. However, 'the absence of evidence is not evidence of absence', and it is a reasonable concern, given anecdotal accounts and the potential for setting precedents for future responses.

   Interestingly, both UN and non-UN respondents expressed that WHO's reputation had been impacted by a lack of distinction within the integrated UN-mission environment, particularly regarding its association with non-traditional medical actors. Interviewees verified that one of the volunteer medical organisations informally received medical supplies and training support from at least one UN body. While feedback indicates that this was done in an attempt to 'contain and inform' their medical actions and their civil-military coordination activities, it seems to have contributed to the perception that the WHO-coordinated response was linked with non-humanitarian medical actors more than was actually the case.

4. **The relationship between these actors with WHO, particularly regarding the possibility that non-humanitarian organisations received humanitarian funding.** The review found widespread misperception about the arrangement between WHO and non-traditional medical actors. Because not all non-traditional medical actors met WHO's due diligence requirements, they were still subcontracted by another non-traditional medical actor who did meet the requirements. This subcontracting arrangement included supervision provisions to ensure that the subcontracting actor met the WHO criteria for partnering, including medical reporting, medical staffing requirements and other minimum standards. While this contractually removed WHO from being legally associated with certain non-traditional medical actors, it seems to have been an administrative fix that did not avoid the general perception that WHO worked with partners considered to be non-humanitarian.

WHO subjected non-traditional medical actors to the standard vetting procedures for partners, and took additional precautions to limit reputational risk associated with non-traditional actors. WHO respondents confirmed that OFDA required that non-traditional actors meet additional criteria in order to receive USAID funding, including certification of SEA and IHL training. ECHO also confirmed that volunteer medical actors never received humanitarian funding from them.

It is worth noting the de facto definition of 'humanitarian' that emerged from interviewees' feedback. Clearly for many in the humanitarian community, having a medical identity or an NGO identity is not a synonymous with a humanitarian identity, which requires an institutional commitment and operational adherence to humanitarian principles. This position takes for granted a fixed definition of who can assume a humanitarian identity and leads to exclusionism based on a set of unspecified criteria. For many respondents, membership in the humanitarian community is based on adherence to principles, but at the same time these principles are demonstrably not universally adhered to by actors widely considered to be humanitarian.

Finally, some interview responses revealed a respected tradition of internal grappling with questions of principles. These humanitarians suggested that if and when compromises happen, it should be marked by internal tension and reflection, a sign of having made a difficult choice. Some of their criticism of the choices made by non-traditional actors was linked to resentment that these actors had no appreciation of what they were sacrificing by accepting such close association with armed actors.

For their part, interviewees from non-traditional medical groups unsurprisingly argued in favour of an 'expanded' definition of what humanitarian activities are, citing what they saw as an unreasonable attachment to 'civilian ways' of doing things. In this view, 'the more collaboration the better'.

Humanitarian interviewees, however, questioned not only the short-term implications of these actors on the humanitarian space, but also the sustainability of the model and the long-term impacts of their presence. In this view, while these actors may have provided a short-term good of saving lives in Mosul, they may have cost the humanitarian community in credibility and damaged perceptions of actors that have invested in a longer-term presence in the country.

3.7 The influence of donors on the response

Donors had a significant effect on the shape of the humanitarian health response in Mosul. Several relevant themes emerged from respondent feedback: The operational profile of ECHO in northern Iraq, ECHO's role in shaping the WHO-coordinated response and ECHO's informal and/or bilateral pressure on MSF.

Donors' operational profile in Iraq

ECHO took a uniquely operational role among donors in northern Iraq. ECHO interviewees tended to express a high degree of ownership over their partners' operations and described taking an active role in filling perceived gaps, at times expressing frustration over partners' perceived inability to do so. Several MSF interviewees noted that, in some cases, ECHO staff had better access than they did and that they were 'very hands on' with a 'strong vision' of what they wanted to see in the response. In several cases, ECHO pro-actively facilitated programming to 'expand civilian access to trauma care'. One example of an ECHO-driven initiative is the creation of a volunteer rescue unit modelled after White Helmets in Syria, designed to search for and extract patients inside areas of West Mosul and to bring them to TSPs. A second example is an ECHO-funded emergency ambulance system, run by a consortium of national Red Cross/Cresecent societies, to shuttle patients to TSPs. In both cases, ECHO identified a gap in trauma services and found partners willing to do what their traditional partners were not.

Operational interviewees (including ECHO partners) noted that the highly operational approach came at a cost, including that contract administration issues went unattended. Agency personnel indicated that ECHO exerted considerable pressure on their partners to be more operationally risk-resilient. Interviewees described an 'activist' and 'aggressive' ECHO stance that pushed NGO partners to take risks they weren't comfortable with in ways that were perceived as endangering both NGO staff and beneficiaries.

OFDA was perceived to have taken a strong line with NGO partners they identified as under-performing, particularly around the issue of NGOs not being registered to operate in Ninewah province, which they considered an unacceptable self-created constraint on operations.

Donor influence on WHO's operational role

The 'forward-leaning' or 'interventionist' posture of ECHO, described by some actors, seems to have resulted in ECHO playing a significant role in the development of the WHO-coordinated trauma response and the more operational role that WHO would eventually play.

In addition to providing significant funding, interviewees said ECHO played a strong facilitation role for WHO, creating the political space for WHO to take a more operational role. This followed from ECHO's unsuccessful attempts to get MSF and ICRC to play stronger roles in the trauma response and a desire to find alternative actors to fill this perceived gap. ECHO respondents described supporting the WHO-coordinated trauma response model as the 'least worst' option: 'We decided that between compromising principles and delivering, we would choose delivering.'

Perceptions of ECHO's role were mixed across the sector. Some saw ECHO's role in pushing WHO to be more operational as the only possible solution to the problem of insufficient trauma capacity. Other interviewees described ECHO as being unwilling to acknowledge the compromises that were made to achieve a more operational WHO, and said these should have been more transparently discussed.

Donor influence on MSF's response

In a review of MSF's decision-making, the review team found that addition to the official contact between ECHO and MSF, three points of informal contact between ECHO and certain sections of MSF played a role in those sections' operational decision making. In all three cases, the contacts were either former MSF staff or MSF board members, all of whom worked for ECHO at the time of the Mosul response. In informal communication, each of these contacts encouraged MSF to take a bigger role in the response, and this may have contributed to OCBA's decision to revisit the possibility of becoming operational on Mosul.

4. WHO-coordinated trauma response

4.1 Inception of WHO's trauma response

WHO's planning for the Mosul health response began through the Health Cluster in early 2016 as part of the overall humanitarian response planning led by UN OCHA under the leadership of the HC. According to WHO interviewees, the WHO plan initially did not include trauma response planning, as this was not considered within WHO's purview. UN interviewees said that the GOI had made commitments to fulfil its legal obligations to evacuate civilians from the front line and so the UN's planning was done based on this commitment. Interviewees also mentioned that the assumption within the UN was that MSF and ICRC would step into this role when the time came.

The foundations for WHO's emergency planning and the implementation of the Emergency Medical Teams (EMT) (at that time the Foreign Medical Teams) system had been established in 2015, during the contingency planning for a possible failure of the Mosul Dam. During this planning process, key vulnerabilities were identified. The planning process was also informed by recent experiences in Fallujah, with the assessment being the Mosul operations would create large-scale needs, resulting in 'a clear sense that trauma care and referral pathways needed to be set up'. WHO representatives indicated that while MSF and ICRC did not make any commitments at this time, they were aware of the planning assumptions.

Once the trauma planning gap became apparent, WHO, in coordination with the Iraqi Department of Health (DOH), developed a trauma plan as part of the overall UN Humanitarian Concept of Operations. The plan laid out the basic concept of trauma 'echelons' of care, whereby patients could be evacuated from front lines, stabilised and moved along established trauma pathways to secondary and tertiary medical facilities. It identified facilities that could be used as hospitals, medical actors that were positioned to participate (including MSF and ICRC) and various scenarios for the following weeks.

Notably, the first draft of the trauma plan, developed in October 2016, envisioned the first line of response being 'ISF medics' and referenced an existing system for 'coalition combatants and possibly for civilians'. It also referenced the use of military assets, including planes and ambulances for evacuating patients. This indicates that early planning did include the possibility that both the GOI and international coalition forces would fulfil their obligations to evacuate civilians from the front line. And indeed, UN and donor interviewees describe requesting donor countries and coalition member states – once the scale of the needs became apparent – to 'provide civilian and military medical teams to take the pressure off'. International coalition partners were unable or unwilling to support the humanitarian response. The humanitarian community saw that although conflict parties had the primary responsibility to evacuate wounded from the frontlines, this task would be left largely to humanitarian actors.

It also became clear to WHO staff that the necessary capacity and/or willingness to participate in a large-scale trauma response did not exist among their current partners. Interviewees attributed this to a lack of medical expertise, a lack of human resources, the risks associated with operating close to the front line and an unwillingness to work side by side with armed actors in a conflict where access to both sides of the conflict was not possible. There was acknowledged global gap in secondary care among humanitarian medical actors, with most WHO partners focusing on primary care but often unable to scale up to sufficiently address other needs.

While MSF attended coordination meetings during the planning phase, when the WHO plan was presented to MSF sections at the end of October, they declined to participate in the UN-coordinated trauma response for reasons elaborated elsewhere in this report. ICRC was also not planning to participate in the UN-led response. While both organisations had their own response planning underway, neither felt that their appropriate place was within a UN-coordinated response. These organisations have mandates that rely on independent humanitarian action, distinct from the UN, and humanitarian operations in Iraq were generally perceived as being particularly co-opted by the UN.

When the first waves of civilian casualties started coming out of Mosul in late October, it quickly became clear that DOH and pro-government forces were overwhelmed with casualties and that humanitarian capacity would be necessary. The issue was increasingly a topic of discussion at the HCT, with ECHO taking a 'very forceful' stance, pushing the HCT to engage more on trauma.

From WHO's perspective, once it was clear that the scale of the needs was massive, that there were no existing partners to meet the needs, that MSF and ICRC were not going to work as part of the UN-coordinated response, the only choice was to step into its role as 'provider of last resort' – its obligation as cluster lead – and search for medical actors outside WHO's traditional scope of partners. It was also at this point that ECHO scaled up its support of a WHO-coordinated trauma response.

The overall impact of the WHO-coordinated medical activities is difficult to establish given that patient numbers are impossible to verify. WHO and the Health Cluster declined to make data available to this study for independent review and responses from interviewees as well as publicly available data and independent analysis varies widely.

While UN and WHO representatives tended to refer to between 19,000 and 21,000 individual patients treated, DOH representatives estimated the number to be more realistically between 10,000 and 12,000 'activities performed'. The DOH estimate is based on the inevitable double- or triple-counting of patients as they moved between facilities down the referral pathway or visited multiple facilities for their medical needs.

WHO-published reporting cites that as of 7 August 2017, 'some 20,449 people from Mosul city were referred through the established trauma pathways.'[29] Other WHO sources use even higher numbers, stating that 'partners treated more than 25,000 trauma patients in hospitals and more than 17,000 were treated in trauma stabilization points.'[30] An independent analysis of the data performed by a research team at John Hopkins Centre for Humanitarian Health estimates that the WHO-coordinated trauma referral pathway saved between 1,500 and 1,800 lives, of whom approximately 600-1,330 were civilian and with the remaining majority being combatants.[31] This is based on data submitted to the Health Cluster and would have included patients reported in the MSF data as well.

Lastly, the John Hopkins Centre for Humanitarian Health report (referencing a WHO Independent Oversight and Advisory Committee report) found that for the budget year 2016-2017, WHO Iraq dedicated $20 million USD on field hospitals and TSPs, which represented 25 per cent of WHO's $80.8 million USD budget for Iraq.[32]

4.2 Lessons learned from the UN-led planning process

Many interviewees were frustrated that despite a very long lead-up time to the beginning of military operations, for which the needs and scale were clearly anticipated, there were insufficient plans in place for a trauma response by October 2016. This is substantiated by the fact that WHO, MSF and ICRC all reacted to the escalation of trauma needs starting in late October and early November, but no actor was ready to respond when the needs materialised.

Several UN interviewees expressed reservations about the pressure the HC and the CMCoord unit exerted on WHO during the planning process to make sure trauma needs were covered at any cost. Given how streamlined the UN's planning was with the GOI's humanitarian and military planning, concerns came from within the UN

[29]   OCHA, Iraq: Mosul Humanitarian Response Situation Report No. 41 (27 July to 8 August 2017)
        https://reliefweb.int/report/iraq/iraq-mosul-humanitarian-response-situation-report-no-41-27-july-8-august-2017

[30]   WHO, 29 October 2017. 'WHO-supported field hospitals respond to injured patients as danger for war related trauma remains',
        Emro.who.int/ http://www.emro.who.int/irq/iraq-news/who-supported-field-hospitals-respond-to-injured-patients-as-danger-for-war-related-trauma-remains.html

[31]   Spiegel, P; Garber, K., Kushner, A., Wise, P., February 2018. *The Mosul Trauma Response: A Case Study.* John Hopkins Centre for Humanitarian Health. Pages 36-37. http://www.hopkinshumanitarianhealth.org/empower/resources/reports/

[32]   Spiegel, P; Garber, K., Kushner, A., Wise, P., February 2018. *The Mosul Trauma Response:* A Case Study. John Hopkins Centre for Humanitarian Health. Page 40. http://www.hopkinshumanitarianhealth.org/empower/resources/reports/

that the pressure passing directly from the GOI through the HC functions to WHO distorted the health response planning process.

Interviewees also mentioned that NGO input into the planning generally was limited, and that the HC's strong leadership style tended to create a 'quiet NGO community' where 'no one wanted to speak out'. This is consistent with accounts of HCT discussions over using non-traditional medical actors, where 'divisions and tensions' were significant. Those advocating for the UN maintaining a more principled response felt those concerns were difficult to pursue within the UN-coordination mechanism.

Observers from inside and outside the UN identified one of the plan's primary weaknesses: It did not consider central Mosul. Based on the assumptions of the larger Humanitarian ConOps, the trauma plan envisioned mass outfluxes of civilians from Mosul. In reality, many civilians either chose to stay or were trapped in ISIS territory, unable to flee. Interviewees said that Mosul was excluded from trauma planning as an omission, because 'there was no access and no understanding of the scale of the response that would be needed'.

Despite an attempt to apply their experiences during Fallujah to the Mosul planning, humanitarian actors struggled to apply these lessons. Respondents describe being 'caught off guard' by the scale of Fallujah and that there was a 'steep learning curve'. Fallujah was 'a wakeup call' because 'planning was insufficient and the response wasn't timely'. And yet these conditions seem to have reproduced themselves during the Mosul response, despite a very long planning period.

Overview of WHO-coordinated trauma response

The WHO-coordinated trauma response took a range of factors, including operational challenges, into consideration in the design of the 'echelon' of care system. These included:

- The hospitals in Erbil were overloaded with patients and located four hours from Mosul Reaching them required crossing checkpoints between Kurdish territory and federal Iraq territory, causing delays in medical care.

- Adequate trauma coverage close to front line was non-existent. DOH was unable to provide the necessary care without external support and requested assistance from WHO.

- The capacity for trauma response within their traditional pool of partners was insufficient.

- MSF and ICRC were unwilling to participate in a UN-coordinated response that depended on force protection to conduct medical activities.

- The number of ambulances to transport patients from the front line to medical facilities was insufficient.

- ECHO and other key donors offered to facilitate WHO's expanded operational role to implement the trauma plan.

- The TWG was designed as a central focal point for information sharing, coordination and problem solving.

- The TWG designed a system based on U.S. military practice that would provide three levels of trauma care along a medical referral pathway:
  1) Trauma Stabilisation Points (TSPs) within 10 minutes of the front line for life-saving intervention
  2) Transport to secondary level field hospitals for further treatment, including surgery
  3) Referral to tertiary facilities for post-operative, rehabilitation and longer-term care

4.3 Strengths and weaknesses

It is beyond the scope of this study to conduct a programme review, and data was not available as part of this review. However, based on respondent feedback, certain strengths and weaknesses of the response were consistently identified.

Strengths

The trauma response saved lives. Interviewees across actor groups unanimously cite the number of patients treated and lives saved as the strength of the WHO-coordinated response. While activity volume is impossible to independently verify for the reasons mentioned above, it was widely agreed by respondents inside and outside the WHO-coordinated response that lives would not have been saved without a frontline presence.

The humanitarian trauma chain of referral was innovative. Interviewees also acknowledge WHO for mounting a trauma chain of referral that had not been done on a similar scale before. The review team could find no similar case of a trauma chain of referral in a similar context of mass displacement from a front line.

The TWG played a critical role in coordinating the trauma referral pathway. The TWG, run by New York City Medics, was seen as operating in an effective way to share information and transparently make decisions.

Medical impartiality was largely maintained in militarised environments. While concerns regarding independence and neutrality seem well founded, multiple interviewees reported that hors de combat IS fighters were treated at TSPs, often at the insistence of the medical staff. Moreover, indications are that in certain cases, the presence of non-traditional medical actors increased the level of impartiality in militarized environments.

UNFPA's response was of a high quality. UNFPA was regularly cited as one of the highest performing WHO partners. Interviewees expressed appreciation for the following aspects of their response: They were able to negotiate access effectively; they were operational relatively early in the response compared to other actors; they set up the 'fastest' response for primary health care; and the quality of their programmes was consistently good despite limited funding.

Private hospitals provided a high level of care. By some reports, the quality of care offered at private medical facilities introduced world-class care into conflict zones. This is offset by other feedback that questions the wisdom of bringing private medical facilities into humanitarian contexts and questions the cost effectiveness. The quality and quantity of care are both impossible to evaluate without data from these programmes.

The Samaritan's Purse (SP) hospital became operational with appropriate speed. While the SP hospital in Bartalla was criticised on other grounds, it was credited with a very short setup period that was more adapted to the emergency setting, mounting a field hospital in less than two weeks. This is offset by feedback that this was accomplished via high-level political contacts between the organisation and the US government, which for some respondents substantiates the concerns about impartiality, neutrality and independence being unacceptably compromised at this facility.

The response adapted to improve as the humanitarian operations progressed. Several of the key weaknesses identified by both WHO and non-WHO respondents were corrected as the response progressed. All actors experienced a very steep learning curve during the East Mosul military operations, and like other actors, WHO adapted to improve certain aspects of the response during the West Mosul operations.

Weaknesses

Quality of care was uneven across partners and sometimes substandard. Both WHO and non-WHO interviewees described insufficient supervision of partners by WHO, resulting in an unacceptably low level of medical care in some cases. Some reported WHO-supported facilities that were unable to provide the level of services they were reporting, leaving an effective gap in the referral pathway. DOH representatives cited protocols and supply kits that were inappropriate for resource-poor settings.

The scope was focused too narrowly on trauma services in the initial stages of the response. Interviewees, including those from WHO, found the narrow focus at trauma field hospitals problematic. For TSPs, one respondent from a non-traditional medical group explained the narrow focus was 'by design' because TSPs aren't meant to be 'a health-seeking choice' but rather an immediate stabilization point and the first stop on the referral pathway.

Secondary facilities, on the other hand, should have focused on providing a greater range of services. Under the WHO response design, secondary facilities were EMT-2 facilities capable of providing, 'inpatient acute care, general and obstetric surgery for trauma and other major conditions.'[33] But in the implementation stage of the response, some facilities functioned primarily as field hospitals, unable to treat the full range of patients that presented. One of the constraints was that the front line moved so quickly: maintaining relevant services at facilities was a challenge. A second constraint was the services that NGOs were capable of providing: 'There were plenty of resources, partners just weren't stepping up.' In at least one instance, this created perception problems in the local community, when non-trauma patients were turned away from a hospital run by a private medical actor.

After criticism over the narrow range of services at the SP hospital in Bartalla, WHO 're-oriented' part way through the response, so that subsequently the hospital provided a greater range of services: 'The focus was on accepting all patients that needed hospital-level care.' The list of treatable conditions and admissions criteria was revised by secondary facilities and distributed to the TWG.

Partnership with DOH wasn't always perceived as successful or supportive. Feedback from DOH indicated that collaboration with the DOH didn't always benefit the national system as much as WHO has suggested: 'WHO appropriates the response and acts like the boss of DOH' and 'WHO just shows the money, but doesn't show up in person.' Interviewees also cited low quality of care from WHO partners that communities complained about, problems with administration, including that WHO did not follow through on commitments on trainings, incentives and supplies. Some also felt that WHO didn't handle DOH relationships appropriately, often 'strong-arming' DOH staff into doing things they didn't want to do and more often playing the role of 'supervisor' than partner.

Humanitarian medical care at the Samaritan's Purse hospital in Bartalla was militarised. The field hospital at Bartalla was widely cited as an example of the inherently 'unprincipled' approach of the UN system, and a particularly problematic example of how their response was implemented.

The research team was unable to interview a representative from Samaritan's Purse, but UN, NGO and donor representatives recounted that the Bartalla hospital was staffed by American medical staff and guarded by multiple layers of force protection and private security. The entrance was secured against explosive blasts, resulting in a bunkerised appearance. Caretakers were not allowed to enter the hospital and patients were taken into a waiting area for security screening. This resulted in unaccompanied minors being subjected to security screening and admitted to the hospital alone.

WHO interviewees confirmed that early in SP's operations, patients were being separated into 'combatant' and 'non-combatant' wards, although WHO also used this as an example of how they enforced a more principled approach, resulting in SP ending this practice.

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33   WHO, September 2013, 'Classification and Minimum Standards for Foreign Medical Teams in Sudden Onset Disasters', WHO.int, http://www.who.int/entity/hac/global_health_cluster/fmt_guidelines_september2013.pdf?ua=1.

Several MSF interviewees pointed to patients who were afraid to be referred to the SP hospital because it was considered the 'American hospital', because caretakers couldn't enter, because military personnel were present and because they knew they would be subject to security screening. MSF patients also recounted patient information being handed over to military actors.

Internal organisational or institutional issues seemed exacerbated. Finally, while not unique to Iraq the same operational issues that humanitarian actors struggle with in all challenging environments seem exacerbated in Iraq and affected the capacity of health actors to respond to needs. Health actors struggled with high rates of turnover (often linked to burnout and stress), sub-optimal levels both of expertise in the necessary health services and of risk-resilience needed for the context, and the usual logistical and administrative difficulties of working in conflict zones and/or environments with weak state structures.

The quality of the response is not independently or transparently verifiable. While aggregated Health Cluster data is publicly available, there has been no independent evaluation conducted on the response.

5. MSF trauma response

For MSF, the programmatic priorities in Mosul included meeting humanitarian needs independently of a UN-led response that they viewed as fundamentally co-opted and protecting its programmes from the effects of operating in a high-risk environment. Additionally, the collective MSF response seems to have been impeded by internal operational limitations, including poor human resource management, intersectional coordination constraints and at times insufficient context analysis.

Many interviewees, both internal and external to MSF, viewed aspects of the response as relatively late and at times poorly adapted to the context, particularly at the beginning of the response in late 2016. Like many humanitarian actors, access to the Mosul region was affected by the asymmetrical negotiation context and the inability to negotiate with all conflict parties and this had a considerable impact on its operational footprint.

The study also showed that for MSF operational managers in Iraq, the operationalisation of humanitarian principles is intimately and inextricably related to the security of MSF staff and their patients. This concern for security was central in assuming a principled humanitarian position for its Mosul operations. Support for this position was widespread among MSF interviewees, even if some questioned whether a less doctrinal approach to armed protection should have been more subtly considered.

Finally, while exact numbers from the health response are difficult to verify, data provided by MSF shows a significant operational footprint within the overall humanitarian response. October 2016 and November 2018, MSF performed 20,334 emergency room consultations (of which 4,135 were 'war trauma'[34] cases and 1,594 were 'red' cases[35]) and 31,242 primary health care consultations. These emergency room and primary health consultations resulted in 3,601 surgical interventions, 1,178 deliveries and 2,647 inpatient admissions.

5.1 Inception of MSF's health response

MSF's analysis across sections in Mosul appears to have been 'operationally similar' to that of other actors in that they expected to need 'a certain number of hospitals in certain areas' and recognised that 'no one had the expertise' to cover all the needs. MSF's choice by August 2016 was 'to have stabilization points and mobile trauma capacity' independent of whatever response the UN would coordinate.

MSF, perhaps influenced by the wider humanitarian community's focus on trauma planning, may have initially focused on providing emergency services in Mosul to the exclusion of other services. This was believed by some MSF interviewees to be justified as the priority for a conflict that had been characterised by extremely high civilian casualties. Others expressed frustration at the overt focus on trauma among health actors generally when there was clearly need for other services. While over the course of the response, MSF provided a greater range of services more consistently than other actors, services such as paediatrics and obstetrics were not available until several months into the response.

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[34]   Refers to the cause of the injury and indicates that it is the result of gunshot, direct bomb blast, burn and/or other forms of trauma that the medical staff consider to be a result of war related violence).

[35]   The medical triage system classifies 'red' cases, as those patients who cannot survive without immediate treatment but who have a chance of survival.

5.2 Overview of MSF's intersectional response

The following operational overview is organised by MSF's operational centre. OCA is not included, as it did not have programmes linked to the Mosul response.

OCG operations

OCG staff opened a facility in Hatara, north of Mosul in KRG territory, in October 2016; a hospital in Muharabeen in January 2017; and a hospital in the Nablus area of West Mosul in June 2017. Both hospitals supported TSP[36] activities in al-Hadthba and al-Hekma.

A chemical weapons scare in al-Hekma in early April led the team to evacuate the TSP and subsequently put al-Hekma on stand-by. Resources were moved closer to a new TSP in al-Mawsil al-Jadidah in West Mosul, which opened in late April. As the fighting shifted to West Mosul and the emergency medical needs in East Mosul decreased, al-Hadthba was no longer of relevance and was closed. Al-Mawsil al-Jadidah was closed in April because it was too close to other TSPs and the hospital in Muharabeen was handed over to the DOH at the end of May.

Although the quality of services rendered by the FSU in Hatara was commended by interviewees, nearly all agreed that it was 'in the wrong place' for the East Mosul response, citing that it was difficult for patients to reach. Some actors were surprised that MSF had expected more patients in that location. 'It made no sense they had the field hospital there,' said one interviewee. MSF was 'positioned according to the old context' from before December 2016 and OCG was perceived as 'setting up where the Kurds told them to, not where they would be relevant'. MSF interviewees widely stated that at the beginning of the military operations, anticipating which way civilians would flee from Mosul was impossible. Once it became clear that Hatara was not a strategic location, it was close and resources were redirected to the Muharabeen FH, which ended up being much more strategically relevant.

While OCG had a defined strategy, it experienced challenges in locating the best position to provide services in West Mosul due to the scale of IS destruction and the internal assessment that 'the risk was too high'. They set up a TSP inside West Mosul in April but withdrew after two mortar rounds landed within 50 feet of it. As TSPs run by other actors were already operational, OCG decided to focus on hospital care, saying 'The gap was not in TSPs, which was a WHO strategy, and the level of risk exposure was not appropriate.' OCG assessed seventeen facilities in West Mosul and although programmes there figured into the longer-term OCG plan, given the proximity to its base in Dohuk it 'struggled to find a viable project'.

After delays in finding a location, OCG opened in a field hospital in West Mosul in al-Nablus, approximately two kilometres from the front line, so in theory less vulnerable to stray bullets and mortars. They were then additionally delayed by four or five weeks due to a lack of human resources, a poorly managed evacuation following the chemical weapons scare in al-Hekma in April, and delays associated with the opening of the OCP hospital. After bringing in a consultant to train its teams on chemical weapons, OCG was able to respond to the last phase of the West Mosul crisis but this was widely deemed 'too little, too late.' The hospital in al-Nablus continued programmes after the end of the Mosul military operations, treating patients arriving from Tal Afar.

OCP operations

OCP launched operations in Qayyarah Hospital in December 2016 to receive war-wounded coming from East Mosul. OCP provided a range of medical services, including to the resident population, in addition to war-wounded coming from Mosul. As they expected to advance toward Mosul to follow the movement of the frontline and continue receiving war-wounded, OCP believed the challenge was to avoid general security risks as well as perceptions of proximity to ISF. Other actors, however, did not always understand MSF's strategy behind operational decisions,

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[36]   MSF does not use the term 'Trauma Stabilization Point', preferring 'Advanced Medical Post' instead. For the sake of consistency within this review, TSP is used to indicate any mobile, trauma stabilization capacity meant to receive war-wounded evacuated from the front line.

saying 'Their analysis and activities seemed out of sync with what was needed.' According to MSF interviewees, anticipated needs were higher than what was initially seen, due to civilians being trapped in Mosul, in some cases injured and unable to escape. This is consistent with the fact that the large out flux of civilians fleeing Mosul anticipated in the ConOps did not materialise and the displaced often arrived in waves. OCP opened a TSP in Gogjali in late December 2016 that closed at the end of March (after the front line moved and East Mosul was under the control of pro-government forces). The external perception was that the TSPs in Gogjali and al-Rabiya (along with the OCG FSU in Muharabeen) were struggling with placement and relevance, not always targeting the right needs, and even 'getting the wrong patients'. In February, OCP opened a hospital in Hammam al-Alil as a joint project with OCB and then opened a hospital in Karama in mid-March for maternity services that closed at the end of July. The TSP at al-Taheel was handed over to the DOH in July.

OCP opened an FSU in Jawsaq, West Mosul, in a neighbourhood retaken by pro-government forces in late May that was suspended in mid-June and then closed at the end of July due to two security incidents. The first involved a minibus that was struck by gunfire as it travelled the road toward Mosul. According to several familiar with the incident, this was interpreted as a targeted attack. The second incident involved what was believed to be gunfire on the MSF guesthouse and was also interpreted as a targeted attack. In retrospect, however, and according to a weapons expert brought in by OCG, the second incident was likely shrapnel from a mortar, which should perhaps not have been a surprise as the project was approximately one kilometre from the front line. Attacks from IS and ISF on close-by targets meant there were contextual reasons for artillery to hit the MSF building. One MSF interviewee blamed the closure on 'a lack of experience' and 'bad security management', describing MSF as 'too close to the front line, traveling on the same road day after day, and not familiar with the weapons being used' resulting in an 'inappropriate' level of risk.

OCB operations

OCB conducted an initial needs assessment in October 2016, which showed that while many actors were present in the IDP camps, the biggest gap was access to health care for war-wounded. Another weakness in the trauma referral system being set up was a lack of postoperative care. OCB decided to focus on these two areas.

Another key operational challenge was that the front lines were moving all the time and in such a way that the distance between the TSPs and the referral facilities in Erbil was increasing as military operations advanced. OCB felt that its greatest added value would be to have a flexible and mobile approach to complement the other MSF sections already present.

Their plan was to deploy their newly developed mobile-response capacity, the Mobile Unit Surgical Truck (MUST). The trucks were built quickly, within two weeks of the decision to deploy them, and arrived in Erbil in November 2016. Significant delays ensued, however, in deploying the trucks in time for the East Mosul response, due to entry delays, supply delays and lack of clarity over where to send them vis-à-vis the presence of other MSF sections and other external actors. In mid-January 2017, the decision was taken to station the trucks at the Hamam al-Alil project, given its strategic location on the trauma referral pathway. The MUSTs were deployed in mid-February, under the umbrella of OCP, which was already present in the area. The MUSTs were positioned 15 kilometres from the frontline and were in place by 18 February, in time for the beginning of West Mosul military operations the next day.

OCB took over the Hamam al-Alil facility from OCP and also started supporting a DOH clinic to provide services to the local community alongside the trauma and emergency services provided at the MUST. This project was widely considered to have been relevant and well managed.

For the first six weeks of the West Mosul offensive, OCB's trauma facilities were the closest referral point for wounded being evacuated from the frontline and received the majority of the trauma cases during this time. The Hamam al-Alil project reported that 3,498 cases were seen in the ER, of which 2,599 were surgical cases. Of these cases, 1,212 were referred for follow-up after the ER visit. 667 operations were performed, many of which were referred for follow-up surgery and/or post-operative rehabilitation care.

In March, OCB started supporting the hospital in al-Hamdaniya in coordination with Handicap International for post-operative services and rehabilitative care.

The MUST was dismantled at the end of July once the needs no longer justified its presence. The clinic operations were handed over to ICRC during the same time.

OCBA operations

OCBA initially decided in 2016 not to be involved in the Mosul response as its resources were dedicated to programming in Yemen and Syria but, following two exploratory missions in January and April of 2017, OCBA felt that OCP and OCG were too narrowly focused on surgical care and that post-operative services, among others, were needed. Following additional field visits by the OCB general director and the OCP operational director, who raised questions about the level of MSF coverage in Mosul, OCBA opened in July in al-Khansaa Teaching Hospital and in Qayyarah camps with a malnutrition programme.

The visits by the OCG and OCP directors, as well as a press release by OCP in April, highlighted the gaps in services. It was understood that trauma was covered but that other medical needs such as therapeutic nutrition and paediatric emergencies were not being met. At the time of the exploratory visit in April, OCBA arranged with the other sections to limit its activities to IDPs. By May, however, OCBA assessed that the greatest needs were in East Mosul, due in part to civilians from West Mosul fleeing military operations there. As the fighting moved and patients were a mix of West Mosul IDPs and East Mosul residents who had stayed through the offensive or were returning to their homes, OCBA adapted its analysis and decided to support an existing DOH paediatric hospital.

5.3 Strengths and weaknesses

Strengths

Quality of care was consistently high. Interviewees widely agreed that MSF provided a high level of medical care at its facilities.

A wider range of services was offered. Interviewees appreciated that MSF's services were not exclusively focused on trauma. MSF facilities offered the 'MSF core package'. This included providing non-emergency services and also making sure that local residential communities had sufficient access to healthcare.

Community acceptance and security management modalities made hospitals more accessible. MSF hospitals were described as 'family hospitals' and 'open to everyone'. MSF was described as being 'closer to patients'. The absence of hard protective measures avoided the accessibility and perception issues of other hospitals.

MSF's partnership style was highly valued by the DOH. DOH respondents praised MSF for being collaborative and supportive: 'The way MSF works with DOH is different – it's a negotiation and a partnership.'

Despite institutional disagreements, MSF's response and the UN-led response were complementary. Despite the ongoing discussion between MSF and WHO over how to approach the response in Mosul, there was a relatively high level of coordination between field staff of both institutions and MSF managed to complement the UN-led response.

Operational agility was of added value in the second phase of the response. Despite an initial slowness to respond and/or adapt to the demands of the context, once MSF had its feet underneath it, it benefited from its characteristic operational agility. Independently and as a whole, MSF was able to identify needs, open operations and adapt operations as needed. This derived partially from MSF's approach of treating observed needs rather than anticipated needs, meaning their care was more likely to be adapted to the specific needs of each location.

Weaknesses

This section explores in more depth the identified weaknesses in an attempt to shed light on some of the dynamics internal to MSF that constrained their initial response in Mosul

Intersectional coordination was poor at first. There was widespread agreement across both MSF and non-MSF interviewees that MSF intersectional coordination was poor at the beginning of the response. Even among external actors with some visibility on the topic who assessed MSF's overall performance in Mosul as appropriate admit that 'there were too many cooks in the kitchen' and that 'the intersectional coordination was definitely a problem'. They suspect that it impeded MSF's ability to respond in a timely and coherent matter. Poor coordination seems to have stemmed from both human resource factors and, at times, an unhealthy sense of competition between sections. Within MSF, there are multiple views on how sections should coordinate generally, and this was apparent in the feedback from MSF interviewees on the Mosul response coordination. While some interviewees thought too little coordination happened and that greater coherence should be an intersectional goal, others thought too much coordination occurred and tended to eschew coherence as a priority, seeing it as detrimental to an agile response.

For external observers, MSF was often incoherent in interactions, resulting in poor communication and coordination with external actors. Communication and commitments by one section was not necessarily consistent with other sections in a way that exposed external actors to MSF's internal 'house' business and made them appear unreliable to some interviewees.

Risk and security management. For many MSF staff interviewed, MSF's risk management strategy for Iraq takes a long-term approach to its presence there: 'We can't compromise in the short term and secure our presence in the long term.' This commitment to making compromises in the short term to secure long-term presence is where MSF departs significantly from the approaches of other humanitarian actors, who argue that short-term needs are paramount and that longer-term issues can be mitigated or negotiated. For MSF, who ensures its operational security through the acceptance of its activities by a civilian population, postponing its concern for acceptance is not possible.

However, interviewees indicated that MSF could have negotiated more with pro-government forces as part of a principled 'but not dogmatic' approach that could have resulted in working with the military to improve humanitarian outcomes. It is difficult to tell from the available evidence to what extent this was considered.

Like many humanitarian actors in Mosul, MSF struggled with how to ensure operational continuity in an unpredictable and fluid context where fully negotiated access was not an option. MSF's analysis of the Mosul context in terms of security was in line with that of other humanitarian actors: There was no way to operate in some areas without armed presence. The sole armed presence that MSF accepted was that of civilian Iraqi police assigned to civilian structures. In one MSF structure, for example, Federal Police Forces, who have been a party to the conflict, were at first present until MSF negotiated for them to leave. In this sense, the armed 'protection' accepted by MSF were not guards but police who kept order and were in fact imposed on all structures by the government of Iraq. There was one account of MSF national staff insisting on the civilian police presence to feel safe working in their health facility. More than one MSF interviewee accepted this as a reasonable position: to refuse the civilian police would have 'compromised negotiation and access'. Another factor seems to have been that not all MSF sections share a common risk tolerance, even when at times this was assumed. The range of views within MSF on whether security and/or principles should have been a constraining factor illustrates the tension that exists.

When considering perception of its activities, MSF took into account the perceptions of all possible actors – including the diverse population of Mosul, some of whom may have been sympathetic to the IS cause, viewing the pro-government forces and the US coalition as occupying forces. Being too closely associated, or asymmetrically associated, with any one military actor, would have created a risk to operations in both the short and long term. Most MSF interviewees indicated that they thought MSF globally had taken the right amount of risk and that there were plenty of places to operate where it was not necessary to take unacceptable risk.

For non-MSF interviewees, however, the key risk mitigation strategy in such a context is closer proximity to armed protection which, depending on how coordination with armed actors is established (and how one interprets humanitarian principles), may or may not be principled. Although MSF interviewees were nearly unanimous that such co-location is not MSF's role, more than one believed that a less-traditional approach to providing medical services should have been more thoroughly considered.

Human resources factors: Both MSF and non-MSF interviewees consistently cited various issues with human resources as a constraining factor in MSF Mosul operations.

From an internal perspective, MSF staff are acutely aware of the movement's significant HR demands given global expansion in recent years and that high turnover 'reduces contextual knowledge and the continuity of operations', particularly as it relates to intersectional coordination and risk management. As any crisis wears on, there is little capitalization of whatever experience has been gained. Also, some in MSF acknowledged that staff profiles that were suitable for the context were not in place, particularly at the start of the Mosul response. This also included feedback on the influence of personalities on intersectional coordination (and thus the response), with some individuals more inclined and/or skilled at intersectional coordination than others.

From the perspective of external actors, the profile of MSF managers and what many felt to be an extremely high turnover rate were cited as factors in the weak aspects of MSF's response. External actors felt that MSF did not at times have 'the right people' in charge of programmes for Mosul and that this led directly to poor analysis that lead to mounting operations that were not relevant or timely. MSF heads of mission were perceived to have changed 'every three weeks' and one interviewee estimated that 20–30 MSF Heads of Mission had been present since the beginning of military operations in October. Between turnover and not having the right staff on the ground, the impression was that, 'the complexity of the situation was missed . . . and there was a lack of leadership in their field staff. They were just not talking about any of the key issues . . . there was no awareness of what needed to be planned.' This weakness in senior management is cited as a factor in MSF's inability to sufficiently negotiate access closer to the front lines with both civil and military authorities.

This lack of HR capacity also was perceived as resulting in MSF's lack of engagement with the UN-coordinated response in ways it often does on key issues. Interviewees cited MSF's lack of engagement at critical moments in the response, on the use of armed escorts, for example, and other questions of principle. While not MSF's primary role, other actors often benefit from MSF's leadership and independence when MSF participates in coordination mechanisms. Conversely, as mentioned above, MSF's analysis may have benefitted from increased exchange of ideas and information with the coordination mechanisms.

6. Operationalising humanitarian principles in the Mosul response

6.1 Implementation of principles: Two approaches

As in all contexts, how to operationalise principles varied greatly between humanitarian actors taking part in the Mosul response, depending on their mandate and operational modalities. Differences in applying humanitarian principles often break down along the lines of an established sector-wide debate: Are principles indivisible or does an implied hierarchy exist, creating a need to compromise one to achieve another? The operational approach for the UN-led response, and more specifically the WHO-coordinated trauma response, was decided largely on the basis of prioritizing the principle of humanity over the principles of neutrality and independence. This is not an uncommon trade-off faced by humanitarian actors. General agreement exists across the sector that compromises are necessary (at times according to an explicit hierarchy: 'The humanitarian imperative comes first'[37]) and that an inherent tension can exist between the principles.[38] But the compromise was especially striking in the Mosul case, as the response relied completely upon, and was a component of, the military operations. For some humanitarian actors, this also meant necessary and acceptable compromises to impartiality. For others, the short-term benefits of upholding the humanitarian imperative were outweighed by the longer-term consequences that would hurt the organisation's access to far greater numbers of people in need.

The MSF perspective

Arguably, the UN and WHO posture vis-à-vis the GOI and pro-government forces may have influenced MSF's position not to co-locate with armed actors (which MSF is perceived to have done elsewhere). MSF interviewees consistently viewed the UN response as systematically politicised and in lockstep with the military agenda, leaving very little room for independent humanitarian action. For them, this necessarily complicated coordination with the UN and its partners, as it is fundamentally incompatible with MSF's approach. Additionally, not being able to engage with both sides of the conflict created unfortunate but inevitable operational constraints on programmes that rely on negotiated access to operate safely.

MSF interviewees highlighted the fact that MSF's role is not – nor ever has been – to operate on the front line of conflicts, citing the primary obligation of conflict parties to provide this aid to the wounded. In this way, one person argued, the UN-coordinated response might be interpreted as ISF outsourcing its obligations to treat civilians in the form of 'paramilitary medical corps'. The main criticism, then, is that the UN should have advocated far more strongly for the conflict parties to assume their rightful responsibilities, and WHO should not have been the coordinator of a partially militarised response but should have instead worked to ensure the operational space existed for a more principled response to take place. For some interviewees, this should have included ensuring that war-wounded 'were not pre-screened and minimum medical ethics are followed'. From this perspective, it was the UN's response that was not principled because it appeared not to have evaluated the costs of including private and non-humanitarian medical actors working under force protection in its response. Instead of taking an honest look at how principles were operationalized, one person commented, the UN-coordinated response was 'being framed as a glowing success that should be replicated elsewhere. It's part of the whole victory narrative.'

If MSF makes an independent decision according to its standard operating procedures, based on humanitarian principles and concerns for the long-term viability of its operations, that takes into consideration the intensely political nature of the aid environment in Iraq, there is no wrongdoing or weakness or inability on the part of MSF. There is simply the decision not to intervene. The La Mancha Agreement, a founding document of the MSF movement, states: 'MSF intervenes by choice – not obligation or conscription – and may decide not to be present

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[37]   IFRC, 1994. 'Code of Conduct for the International Red Cross and Red Crescent Movement and NGOs in Disaster Relief', http://media.ifrc.org/ifrc/who-we-are/the-movement/code-of-conduct/.

[38]   United Nations Evaluation Group, April 2016, 'Reflecting Humanitarian Principles in Evaluation' (Working Paper), www.alnap.org/resource/23148.

in all crises, especially when targeted threats against aid workers exist.'[39] Or in the words of one MSF interviewee: 'MSF is not the answer to all the problems in the world, there will be places we cannot work.'

Ultimately, MSF's position was not that they don't tolerate making compromises, but rather that they want to make considered compromises on their own terms and according to their own assessment of the needs, the context, internal capacities and evaluation of where they can bring added value.

Some MSF and non-MSF interviewees questioned what they consider a selective reasoning. As one non-MSF interviewee said: 'MSF's position wasn't necessarily principled. It depends on the principles you are defending. You compromise principles if you don't deliver, so that's not necessarily a principled position.' For a minority of MSF and non-MSF representatives alike, the discussion about principles was seen to be a distraction or smokescreen obfuscating a poor performance that was mainly determined by internal issues – such as weak analysis, HR constraints and poor intersectional coordination.

It is also clear from interviews that the conversation about principles is also influenced by institutional politics and agendas, particularly at the field level. UN and WHO representatives tended to convey a seamless narrative about MSF declining to play its established role, based on an interpretation of implementing the principles that is not shared universally. UN interviewees described MSF as casting itself as 'guardian of principles' and WHO as 'showing up' MSF by taking an operational role in the trauma response it thought MSF should be filling. For MSF's part, many interviewees acknowledged struggling with operational decisions, but most of them portrayed the decision not to operate on the front line as a routine decision consistent with its mandate: 'MSF was never going to fill the role that WHO was expecting and WHO should have known this.'

The UN perspective

According to UN representatives, the question of how to operationalize the principles came up early in the trauma response, when it became clear that MSF and ICRC would not be filling the role that WHO had anticipated. Within individual institutions and at the HCT, 'There was a lot of discussion about how to get it right,' and all the clusters, particularly the health cluster, 'grappled with these questions'. Not all actors involved in the UN-led response agreed with the decision but, ultimately, the 'UN took a stance that humanity would be privileged over neutrality and independence'. In the words of one interviewee, the reasoning was, 'If you have the capacity to provide life-saving services to a particular population, and you don't do it, is that morally acceptable? There was a discussion about how many people we were prepared to let die in order to maintain distinction from military operations.'

Many MSF interviewees believe the UN is so inherently compromised that it shouldn't be leading health responses in a conflict zone at all: 'Any UN actor is going to be a problem in conflicts.' Nevertheless they generally conceded that ultimately saving lives, even given the compromises made, was not the wrong decision: 'In absolute terms, WHO is doing the right thing to provide medical care to victims of conflict.' For many of these, it came down to the terms of the compromise rather than the compromise itself, particularly regarding WHO as a health actor: WHO 'should have fought more for their own space, for their own distinction within the conflict space'. Indeed, for many MSF personnel, this was the crux of the debate – not whether to compromise, but how to compromise and on what terms: 'WHO makes it seem like we would have left people die to preserve principles. This is not our argument, even if it's an easier one. Our argument is that they could have worked to uphold the principles more and they didn't even try.'

WHO interviewees at both HQ and field level argued that having humanitarians on the front line actually boosted the uptake of impartiality and other IHL principles because they were able to negotiate with armed actors for better practice in treating patients: 'The TSPs are one of the best ways I've ever found that Daesh fighters were protected as they should be under IHL. IS fighters would come to TSPs and be treated and those staffing the TSPs really defended this principle.' This view seems to be substantiated by feedback from actors operating TSPs, but is impossible to confirm.

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[39]   MSF, 2006, 'La Mancha Agreement', MSF.fr,
        https://www.msf.fr/sites/www.msf.fr/files/2006_06_24_FINAL_La_Mancha_Agreement_EN.pdf.

6.2 Medical ethics as a last resort guardrail

Both MSF and non-MSF interviewees made a noteworthy suggestion about how to find middle ground between the UN perspective and the MSF perspective. Medical humanitarian action has two layers of ethics that guide activities: humanitarian principles and medical ethics. When humanitarian principles of neutrality and independence are compromised, impartiality remains intact as a core tenant of medical ethics. From this view, even if other short-term and long-term consequences derive from an unprincipled response, in the immediate, patients can be shielded from the worst consequences of a compromised response.

Embedded versus co-located: An important difference

An additional disagreement that had a direct impact on the implementation of humanitarian principles was whether or not health actors operating on the front line were 'embedded' or 'co-located' with pro-government forces. MSF staff uniformly described these actors as 'embedded' whereas WHO, other UN representatives and non-traditional medical actors use the term 'co-located'. In both cases, the choice of phrase reflects the dominant narrative of each group.

The term 'embedded' has a history specific to Iraq. The term came into popular use in Iraq in 2003, when it became increasingly commonplace for journalists to 'embed' with military forces.[40] Embedded journalists are considered to be under the control and protection of those forces and/or attached to a military unit[41] – a relationship that is fundamentally contrary to the principles of neutrality and independence and one that necessarily has implications for impartiality.

While non-traditional actors and UN agencies did indeed take precautions to mitigate the effects of their relationship on the health activities – discussed elsewhere – these actors and their activities are described by themselves and others in terms that fit the definition of embedded – they operated under the protection of and sometimes supervision of the military units to which they were attached. They shared accommodation and food services. They often worked in close coordination with or even integrated with the respective military medical corps.

Representatives from non-traditional medical groups described the living and security arrangements as 'cohabitating': 'We would sleep and stay with them, so we had the same security as they did. We knew they would protect us as they would themselves.'

Feedback from this group illustrates some of the negative consequences of compromising independence and neutrality. 'When you're co-located with the military, even if you bring in your own ambulance, it will get commandeered by the military at some point.' They also described how it impacted medical activities such as keeping medical records, due to the military not wanting any data collected: 'We would have to hide the sheets.' Others described having to negotiate with their military counterparts to reduce the level of 'supervision' the military was providing.

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[40]   For more on the history of the term 'embedded', please see Bonnie A. Powell, 15 March 2004, 'Reporters, Commentators Visit Berkeley to Conduct In-depth Postmortem of Iraq War Coverage', UC Berkeley News Center Web Feature, http://www.berkeley.edu/news/media/releases/2004/03/15_mediatwar.shtml.

[41]   For a definition and commonly accepted description of the term, please see https://www.britannica.com/topic/embedded-journalism.

7. Public perspectives: Reactions from Iraqis on the medical response

Iraqis who survived the ISIS occupation and the retaking of Mosul by pro-government forces reported significant gaps in medical services, as well as fears about accessing it.

Because so few post-action analyses include the voices of the civilians affected, the review arranged a remote telephone survey to elicit the perspectives of Iraqis who had first-hand experience with the medical care situation during the retaking of Mosul. The survey reached a random sample of 427 people[42] who were in Mosul at the time of the battles and who needed medical care, or knew someone who did. Respondents were asked about the medical care that was available in their area and whether the patients or their friends/family received (or refused) it.

The survey showed that respondents were aware of different providers of medical care. The military was most frequently cited as a provider, followed by government clinics, international aid groups and local aid groups (Figure 1).

FIGURE 1

Who was providing the medical aid in your area?
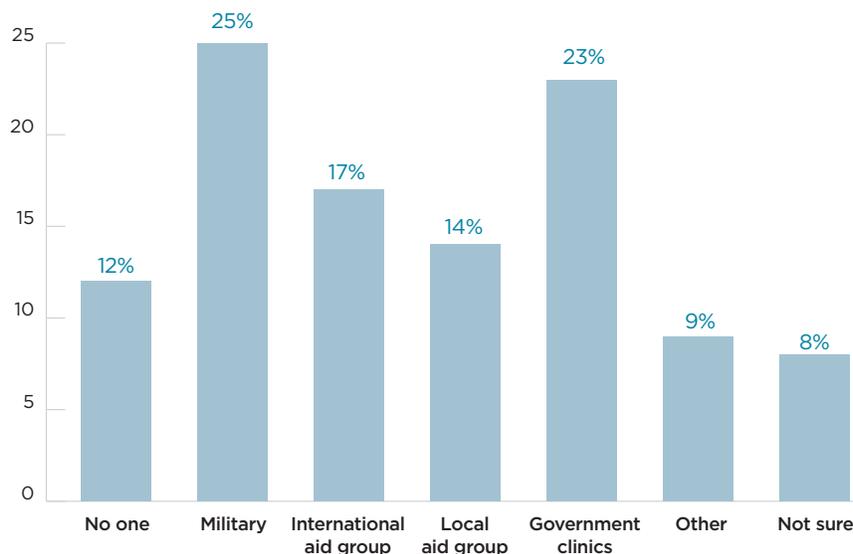
Just under half of those who reported needing medical care did not receive it at the time, compared to 51 per cent who did (Figure 2). Most of those who did not receive the needed medical care said it was because no one was providing it in their area. 11 per cent said they actively chose to stay away (Figure 3).

FIGURE 2

Did you or the person you know need receive medical care at that time?
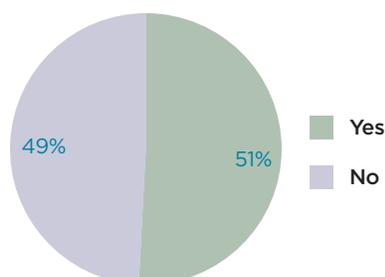
FIGURE 3

What was the reason you didn't receive medical services?
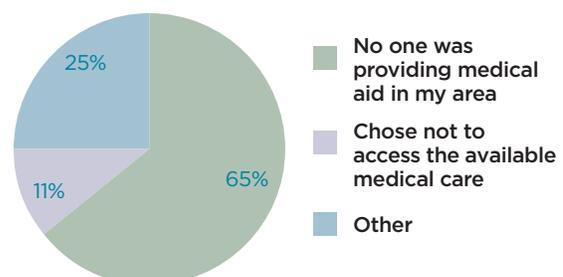
Of those patients who stayed away, most gave the primary reason as being they did not feel safe. A significant number also cited concerns with the poor quality of the services provided (Figure 4). Even among those who did receive care, a large percentage (44 per cent) reported having concerns about healthcare providers (Figure 5).

FIGURE 4

Why was the decision made not to access medical care?
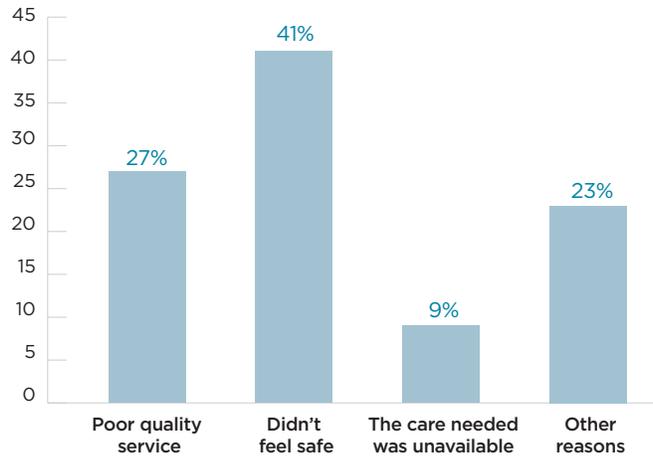
FIGURE 5

Did you have concerns about receiving medical care from these providers?
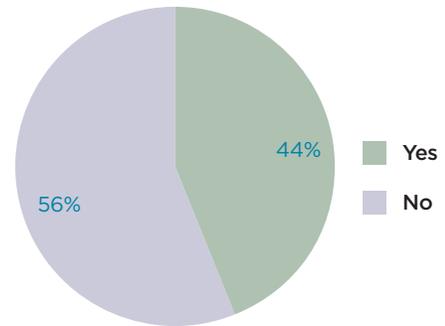
Most of those who received medical aid identified the military as the provider, but a large number of respondents did not identify or were not sure who provided their care. Government clinics were the second largest named provider, followed by international aid groups and, lastly, local aid groups (Figure 6). Patients of local aid groups were the most likely to answer yes to the question, 'did you have concerns about receiving medical care from these providers?' while people who received care from international aid groups reported the fewest concerns.

FIGURE 6

Source of care and level of concern
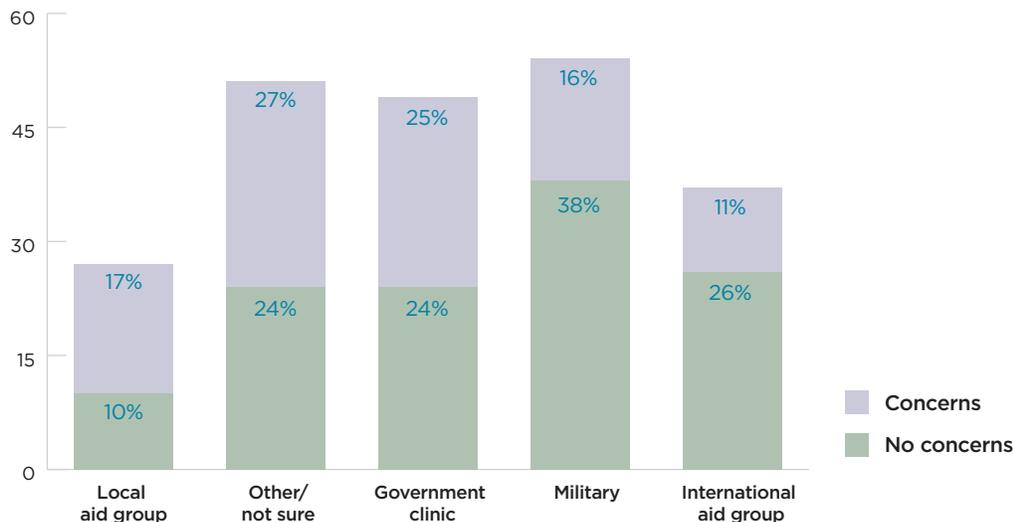
Among people reporting concerns about who was providing their care, 'safety of patients and their families' predominated no matter the type of provider (Figure 7). 'Fear of what others in the community might think' was also reported as a significant source of concern for patients of local aid groups, suggesting that these providers were likely highly identified with particular factions or conflict parties (Figure 8).

FIGURE 7

Type of concern
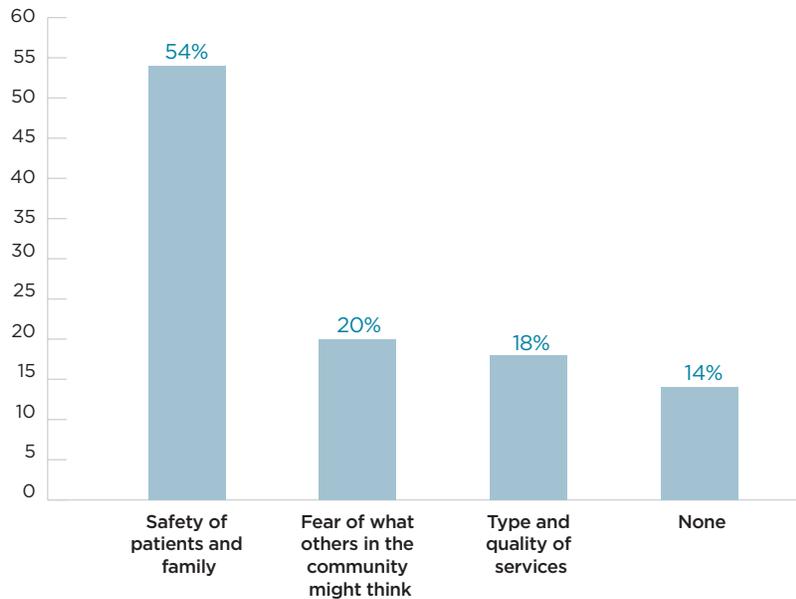
FIGURE 8

Type of concern, by provider
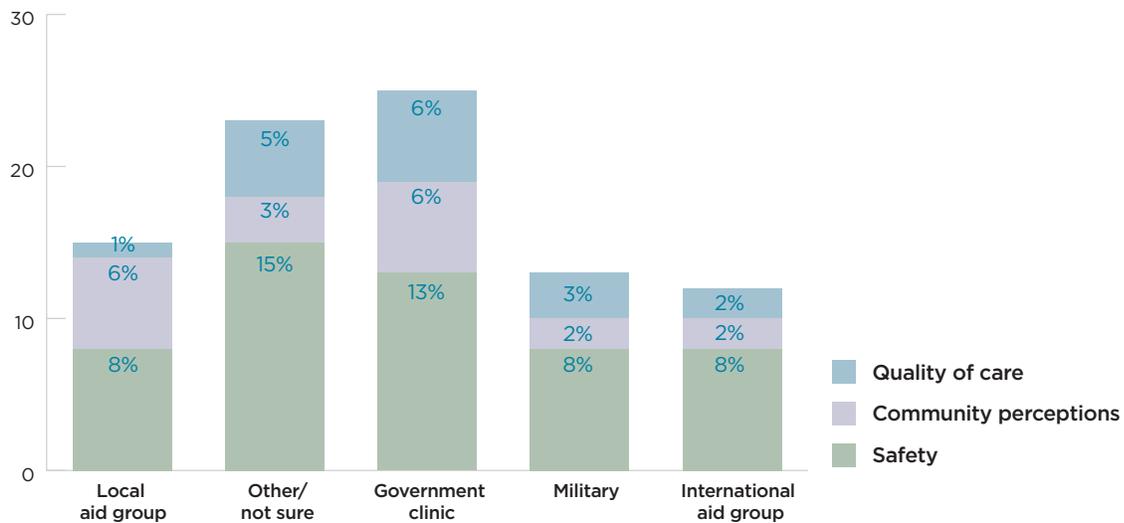
Although a plurality of respondents believed that the medical care was provided impartially, close to a third did not — a significant percentage (Figure 9). Significantly, a majority of those who chose not to access available medical care responded 'no' or 'not sure' to the impartiality question.

FIGURE 9

Do you think the medical care was provided impartially, to whomever needed it the most?

- 37% — Yes
- 29% — No
- 34% — Not sure
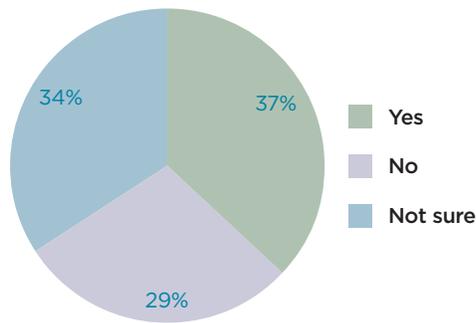
When asked how the emergency medical response could have been improved, most respondents focused on the practical aspects of the response, such as speed, accessibility and quality. Only 10 per cent said the most important thing would have been 'not to involve the military' (Figure 10). This makes sense, given that a large proportion of respondents who needed medical care found it unavailable in their areas, and the military was cited as the most common provider of these services in places where it was available. However, these responses to the impartiality question do not include those who chose not to access available care, many of whom cited safety as the reason. Given this, it is possible that the involvement of the military is possibly understated as a problem with the response, and it is reasonable to speculate that those respondents who chose not to access care for safety reasons may have been associated with ISIS or had reason to fear that they would be perceived as such. Even so it stands to reason that the public would perceive the military as the entity having the capacity to provide medical care during the offensive, and not seeing a viable alternative.

FIGURE 10

What would have made emergency medical response better?

Quicker arrival	More accessible	Not to involve military	Better quality care	More services
27%	27%	10%	18%	26%
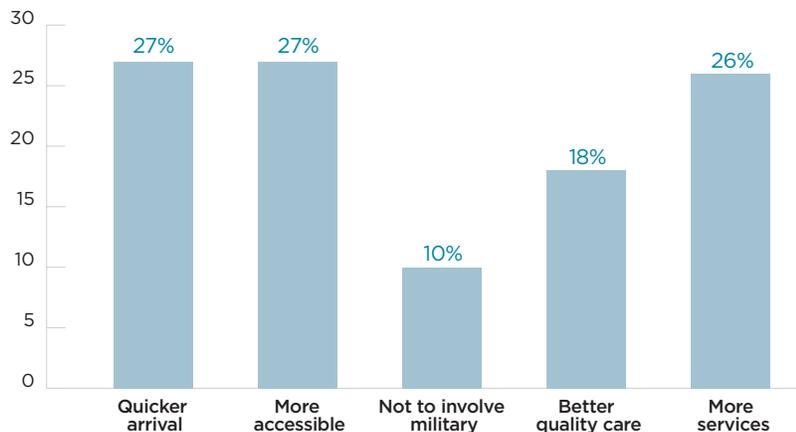
Overall, the results of the survey point to large gaps in coverage of the medical needs, significant safety concerns with the care that was available, and questionable impartiality on the part of providers.

8. MSF-WHO coordination and communication

As is routinely the case in health emergency settings, MSF and WHO had many points of contact from the field level to the headquarters level throughout the Mosul response. These included engagement on many aspects of the response, from points of technical/medical coordination within the health response to representation-level engagement over inter-agency dynamics in Geneva. While at times this engagement included visible tension over modalities, the daily collaboration and coordination between the two institutions was less visible, but very present. From these various levels of engagement, several key points emerge.

Most MSF interviewees felt that they were very clear from the beginning that they would not participate in the UN-led response and that the UN's response was disingenuously outraged. At both the HQ and Erbil levels, MSF didn't appreciate the increasingly public criticism of its response in Mosul, notably by ECHO and the Humanitarian Coordinator, that seemed based on a fundamental ignorance of how MSF functions.

A majority of MSF interviewees also expressed frustration that UN actors had built a narrative about MSF's 'failure to respond' on the false assumptions that MSF typically filled the trauma gap and was failing to do so in Mosul and that MSF's decision to not participate in the UN-led respond was a 'failure to respond' rather than a decision to respond independently. They said that MSF has never been a frontline medical organisation, nor does it typically participate in UN-coordinated responses and operational choices in Mosul were consistent with MSF's global operational posture. These interviewees felt that the UN fabricated a narrative that was politically expedient, but somewhat disingenuous.

For its part, WHO was frustrated at what it saw as MSF and ICRC's 'failure to engage' during the planning process. WHO wanted feedback on the trauma plan and commitments from both agencies on what their response capacity and plan was. Here, there seems to be a discrepancy between those engaged in the field and in Geneva. WHO interviewees had the impression that MSF made commitments early on that it didn't keep. This is likely due to the low level of intersectional coordination during this period and some apparent communications gaps in the operational lines within sections. The international MSF office was frustrated with a lack of communication from WHO in Geneva, but WHO in the field maintains that the trauma plans were shared with MSF in Erbil in late October.

Interviewees also had the impression that MSF-WHO tensions during the Mosul response seemed to have been informed as much by the Ebola response as the Mosul response itself. MSF and some UN representatives felt that WHO was conscientious of recovering its reputation after criticism of its Ebola response and that becoming operational in Mosul was a way of doing this. A few MSF staffers recounted UN counterparts bringing up MSF's Ebola-related criticism of WHO during planning meetings for Mosul, giving attendees the impression of lingering resentment toward MSF that was fuelling some of the WHO criticism of MSF's Mosul response.

Two differentials in the MSF perception of the WHO response stand out: interviewees closer to the field held more nuanced and favourable views of it; likewise, respondents farther from the field held more critical and less-nuanced views.

Also, views within the UN and MSF communities ranged widely. Some MSF interviewees thought WHO did the right thing and the only thing by hiring non-traditional actors to implement the trauma response, and some UN interviewees said they agreed with 'every word of [MSF's] Jonathan Whittall's blog [criticising the WHO approach], but could have never made this position known within the UN'.

Despite the tension of the situation, however, MSF and WHO seem to have preserved their capacity for operational collaboration. As one MSF interviewee concluded: 'MSF is very present – we were participating in the overall response, but just on our own terms. So, on the operational and medical level, there was a concrete collaboration between the two organisations – as is almost always the case.'

9. Perspectives on lessons learned

Interviewees from all actor groups were asked what in hindsight they would have done differently; the following points represent the most common responses.

- **The humanitarian community should have insisted on a stronger medical response from coalition military actors.** Interviewees would have like to see stronger and more public advocacy in calling on coalition partners to support the trauma response with member state capacity. This was seen as a key factor in creating the vacuum that was ultimately filled by non-traditional medical actors. Given their respective positions vis-à-vis the GOI, the UN and ICRC had a particular role to play in humanitarian advocacy.

- **WHO and other UN actors should have insisted on a more principled response.** WHO should have used opportunities to negotiate a stronger, more principled response, rather than bending under pressure from UN senior leadership. Interviewee felt ample opportunities existed in the long planning phase to negotiate for more distinction between medical and military actors to ensure more distinctive roles between humanitarian and non-humanitarian partners. Some suggested that even once the decision to compromise on fundamental principles was taken, more risk mitigation measures could have been considered to reduce the impact of the compromises on both aid workers and patients. Finally, with military and political actors, they could have insisted on more protection of patients.

- **Greater use should have been made of the prolonged planning period for the response.** Despite an unusually long preparation time, contingency planning and organisational capacity limitations were not adequately addressed during the preparedness phase.

- **The response should have been less exclusively focused on trauma.** Acknowledgement was widespread that the response too narrowly focused on providing trauma services to the exclusion of other emergency and non-emergency services, particularly early on, during the East Mosul response. This would have also led to better integration of surgical, post-operative and rehabilitation services. These were separated in this response, which resulted in patients not being sufficiently monitored after surgery and not being offered rehabilitation services.

- **The response was not adequately mobile.** Humanitarian actors struggled to follow the front line as it moved in order to maintain the relevance of trauma services. More mobile capacity should have been considered.

- **Patient protection measures were often insufficient.** Patient protection in a humanitarian response limited by the political environment proved to be a challenge across sectors. Given the military and humanitarian planning agreements, all those seeking humanitarian assistance were pre-screened by pro-government forces at screening sites. Trauma patients being brought from the front line were almost exclusively brought by pro-government forces, reducing the chances that ISIS fighters would arrive at the TSPs. Therefore, while a basic level of protection was achieved in that patients that reached health facilities were treated, the structure of the response meant protection was inherently compromised. Additionally, specific issues reduced patient protection: Patient data collection was limited in some cases by the presence of the military; specific measures for elderly and unaccompanied minors were insufficient; and follow up for patients being released into government custody was also insufficient.

- **The identity and modalities of non-traditional medical actors should have been clarified.** Again, for those interviewees that accept the value of using non-traditional medical actors, a key condition would be to clarify who these actors are, how they operate and how to interface with them.

- **Humanitarian training for non-traditional medical actors should have happened sooner and more systematically.** For those interviewees that accept the presence of non-traditional medical actors, a key factor in this acceptance would be to require humanitarian training for non-traditional medical actors. While this was done to some extent, interviewees wanted it to be done as a pre-condition to operating and required for all actors equally.

- **MSF should have reconciled its approach to intersectional coordination sooner.** While the goal of intersectional coordination may not be absolute coherence across the MSF response, a minimum level of coordination and communication should be a standard modality for any similar emergency response.

- **MSF's response suffered from poor situational analysis.** Individually and as a movement, MSF's context analysis was insufficient and led to poor operational decisions early in the response.

- **The MSF response also suffered from inadequate human resources management.** While turnover is a sector-wide issue – and a necessity in highly insecure contexts – the level of turnover, particularly early on in the response, was unusually high and impeded the progress of the response in some cases. Additionally, unaddressed communications issues within operational lines impacted the efficiency of the response.

- **All actors, including MSF, need to be better prepared for considered compromises.** Where compromises are necessary, humanitarian actors need to be ready to make these decisions quickly and with full consideration of the short and long-term consequences.

10. Summary of key points and considerations

This section aims to synthesise the review's findings and provide an overview of key points of interest to both individual organisations and the humanitarian community.

While the WHO-coordinated trauma response had a positive impact and served a humanitarian purpose, it was ultimately made necessary by failures on the part of political actors and the humanitarian community. This makes it problematic to hold up as best or even good practice. While the treatment of patients is of inherent value, promoting the response as an unmitigated success is counterproductive and undermines efforts to learn from and improve humanitarian practice in similar future operations.

Furthermore, it is impossible to assess the value of the response in objective terms, as the extent to which the WHO patient numbers are inflated through double-counting and cannot be verified. This makes it difficult to compare the value of the response against other possible scenarios that may have been more medically and cost-effective. The affected population survey suggests that nearly half of those requiring health care may have been unable to access it, indicating that whatever the actual number of patients treated by the WHO-coordinated response, it was proportionally small compared to the needs. While this is typical of humanitarian responses, it bears consideration in any evaluation.

The population survey results also indicated that some civilians didn't seek health care because they were concerned for their safety. This, combined with the fact that the military was reported as the primary medical provider, leads to the plausible conclusion that those civilians were ISIS fighters and/or their families. If this is the case, then health care would have been more accessible to certain populations than others due to its militarised nature.

Additionally, the response model accepted a high level of risk for both aid workers and aid recipients. This could have led to harm to the affected population if a security incident had occurred that had resulted in a withdrawal of UN presence. It is worth noting, however, that some population survey interviewees were also unable to identify who provided the medical care they received, indicating that perception issues may not have prevented some civilians from seeking medical care or that in some cases military-provided care was not a deterrent. One possible explanation for this that the survey questions did not take into consideration is that, given the urgency of the needs, civilians seeking health care are less likely to care who the provider is – or to even notice who it is – in cases of acute trauma.

The UN generally, and WHO specifically, missed opportunities to avoid a situation where they found themselves without any other option than to contract non-traditional medical actors. The UN and WHO should have strongly and publicly condemned the lack of capacity and willingness on the part of the PGF to fulfil its duties under IHL, and advocated more strongly to secure a more principled response. In this situation, the UN risked having both its neutrality and effectiveness as a humanitarian advocate co-opted by its co-dependent relationship with the Iraqi government. Compared to contexts such as Aleppo, the humanitarian community has taken a relatively uncritical stance toward the indiscriminate warfare waged in Mosul by coalition and Iraqi forces and seems to have focused instead solely on tending to the effects of the conflict. In addition, ICRC had a critical role to play in humanitarian diplomacy that reportedly was not strongly exercised. Finally, the NGO community could have taken a stronger stance in calling for increased accountability.

The inability to dialogue and receive security guarantees from all parties to the conflict, combined with the UN's perceived alignment with the Iraqi authorities, played a role in reducing the amount of 'neutral space' available for independent actors to operate in, which limited these actors' participation in the response. While the UN narrative tends to focus on the fact that independent medical actors like MSF and ICRC didn't sufficiently engage in the response, it neglects to consider that the way the UN managed both its government and military relationships as a key factor in these two organisations' assessment that space to operate neutrally or independently was insufficient.

While the trauma response in Mosul was indeed unprecedented for a humanitarian operation,[43] replication is both unlikely and undesirable. The response was based on a unique set of factors: The individuals in key positions, the limited 'neutral space' in which to operate independently, the operational decisions taken by MSF and ICRC, the particularly pro-active role of ECHO, the unprecedented operational role of WHO as provider of last resort and the unique level of alignment between government – as a party to the conflict – and humanitarian planning. The compromises made resulted from not having better options, something that should be avoided, not replicated.

WHO legitimately exercised its 'provider of last resort' role – it only turned to non-traditional actors when it had exhausted all other means and clearly understood that coalition partners, partner NGOs and non-partner organisations were either unwilling or unable to respond. Nevertheless, following on the points above, this should be seen in the appropriate framework of systems failure to be avoided in the future, rather than a successful outcome to be replicated in future operations. The fact that the WHO-subcontracted partners were not properly trained, regulated and equipped raised the potential for serious accountability issues regarding increased risk for patients and other humanitarian organisations. As such, and combined with the considerable compromises on key operational principles, this type of response should be considered the exception rather than the rule.

WHO's role in the Mosul response should also be considered in the context of global humanitarian operations. Its role has traditionally been non-operational and has focused on advising and working with UN member-state governments. It is not innately positioned as an operational humanitarian actor, due to both its traditional modalities and its close relationship with governments. This is particularly the case in conflict zones where the government is one of the parties to the conflict, where WHO will necessarily be subject to political pressure in ways that affect its ability to ensure operations that are independent, neutral and impartial. For example, the trauma evacuation model implemented by WHO, including the emphasis on providing trauma services within 'the golden hour'[44] is based on established US military practice.[45] In implementing military style trauma response operations, WHO risks being instrumentalised by governments and militaries, allowing them to outsource their responsibilities to WHO.

The participation of non-traditional medical actors in aspects of the humanitarian response, and their proximity to military forces, has raised important issues about distinction and shared operational space:

- Where the presence of non-traditional medical actors is unavoidable, preservation of a distinct humanitarian identity is critical. While humanitarians cannot dictate whether non-traditional medical actors are present, they can and should insist that they are correctly identified and that measures are taken to distinguish between humanitarian and non-humanitarian activities.

- Based on the Mosul response, medical ethics seem to preserve a rudimentary form of impartiality to ensure the protection and equal treatment of all patients, irrespective of identity or affiliation. In certain cases, this may serve as an acceptable minimum standard for operating in sub-optimal conditions to save lives. In these cases, reinforcing the implementation of medical ethics might be a more productive route with non-traditional medical actors.

- Proximity to armed actors is not inherently a compromise. The basic tenets of civil-military coordination provide a framework for mutual respect of mandates and coordination, but this framework also relies on distinction. The more compact the shared space, the more distinction becomes a tangible form of protection for humanitarians.

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43   The WHO-lead trauma evacuation pathway system was based on the model that is commonly used by the US military. To the researchers knowledge, this is the first time it has been reproduced in a humanitarian setting.

44   The 'golden hour' in trauma treatment is the first hour after the occurrence of a traumatic injury, considered the most critical for successful emergency treatment, after which time the risk of mortality increases significantly.

45   For more information, please see: Todd E. Rassmussen, January 2016, 'The Power of Advanced Capability and Informed Policy', *Jama Surgery,* 151(1): 25, on JamaNetwork.com: https://jamanetwork.com/journals/jamasurgery/article-abstract/2446839 and Russ Kotwal, Jeffrey Howard, Jean Orman, Bruce Tarpey, Jeffrey Bailey, Howard Champion, Robert Mabry, John Holcomb, Kirby Gross, January 2016, 'The Effect of a Golden Hour Policy on the Morbidity and Mortality of Combat Casualties', *Jama Surgery* 151(1): 15–24, on JamaNetwork.com: https://jamanetwork.com/journals/jamasurgery/fullarticle/2446845.

Humanitarian presence and operational continuity in volatile, asymmetrical negotiation contexts is a sector-wide issue that is not unique to Mosul, but the Mosul experience highlights how these contexts are disrupting the way the humanitarian ecosystem functions. MSF and ICRC, traditionally more institutionally resilient in volatile environments, risk losing their added value in contexts where (a) they have no additional means to negotiate with all conflict parties and (b) the humanitarian landscape has been so influenced by a politicised UN that the ability to operate independently is critically reduced. Similarly, in these contexts, the lack of humanitarian coverage creates a vacuum that non-traditional actors may continue to fill.

MSF and WHO have two fundamentally different approaches that reflect their mandates and their chosen modalities. Functionally, however, they share a common goal of providing those most in need with quality health care. The disagreements derive from how to accomplish this. Much of the debate around the role of principles in the respective responses seems to derive from the demonstration, by both MSF and UN actors, of a limited understanding or tolerance for each other's institutional identities. The price for that was a weaker and less principled response than might have been.

The debate on principles is not one that can be won; efforts should focus on how the debate can drive humanitarian operations forward despite disagreements, not on arriving at a common understanding of how to implement the principles. Creating an absolute dichotomy between the humanity-first approach and the Dunantist approach is a political-theoretical exercise of little use to practitioners on the ground. Real-time debates should focus on providing field practitioners with the tools to make the informed, considered compromises that include mitigation strategies.

When making compromises on the principles, how matters. While arguments for a humanity-first approach are compelling in certain circumstances, this approach risks leading to a blanket compromise, where humanity becomes the rallying cry for a new default modality, rather than series of compromises, each one being thought through, rationalized and mitigated. In this regard, how one arrives at the compromise is a critical factor in whether the compromise is justified.

It is also worth noting that where the humanitarian community's approach differs between contexts, the reasons for this should be interrogated. Interviewees rightly questioned the differences between Mosul and comparable contexts such as Aleppo. Where a humanity-first approach is used as an exceptional last resort to meet exceptional needs, those needs should be humanitarian, not political.

The role of individuals played a notable role in the response. Senior UN leadership exerted a significant level of empowered leadership in both the design and implementation of the response within a context where the UN functions in lock step with the national government. Similarly, key roles within the CMCoord unit, WHO and donor offices also significantly influenced outcomes in ways that surpassed their function or institutional role. This resulted in a narrative that was in sync across actors and at times aggressively sought to present the trauma response as a success, disconnected from qualifying factors.

Within the MSF movement, the Mosul experience offers several key points for further reflection:

- The internal tension between operational autonomy and intersectional consistency should continue to be openly addressed. Even where coherence between sections is not possible, or even desirable, from some MSF perspectives, many interviewees felt that a minimum level of communication and coordination would have led to a better response. Others felt that competition under the guise of coordination was actually what constrained the response. Intersectional politics, while unavoidable, risk reducing the added value of an intersectional presence. Without this, MSF risks being left with the worst of intersectional presence rather than its benefits: Competition in place of complementarity.

- Human resources continue to represent an operational constraint to such an extent that in some cases, MSF's added value is put into question.

- Despite a high capacity for contextual awareness generally, MSF needs to ensure that other constraints do not lead to a reduced capacity to (a) accurately evaluate the context in a timely matter and (b) launch programmes that are in sync with the operational environment.

- Core and cherished aspects of MSF's identity are strong traditions of speaking out and internal reflection. The Mosul experience offers plenty of material for both. MSF feedback indicated an internal reticence to look at some of the more difficult internal issues. At times this bordered on cognitive dissonance. To avoid the hypocrisy associated with being willing to speak out in the absence of corollary internal reflection, the Mosul experience should be exploited as an opportunity to understand the mechanics of MSF when it's not operating at its best. In the words of one interviewee, MSF should be asking, 'Where were we?'

Medical actors generally – including MSF, ICRC and the majority of WHO's implementing partners – need to reflect and act on factors that are both routine and new to the humanitarian landscape:

- **Neglecting routine administrative due diligence,** such as being properly registered in the territory where humanitarian needs are anticipated, should not be an acceptable excuse for not responding to humanitarian needs. Donors should continue to remove and/or deny funding to implementing partners that demonstrate this type of operational negligence.

- Focus should be sharpened on actively seeking to **adapt to operational challenges, especially in counter-terrorism, urban warfare and asymmetrical negotiation contexts.** While these trends represent tangible challenges, NGOs should take individual and collective responsibility to ensure that these challenges spark innovation rather than becoming excuses to allow humanitarian needs to go unmet. Additionally, these challenges should be evaluated in the context of the global trend toward insufficient humanitarian coverage that has been documented and discussed in recent research[46] and literature.[47]

- **Acknowledge the role that security played in the response.** This includes internalising the reality that issues other than principles and potential future consequences played a role in their decision-making, hindering assertive and timely action and innovative problem solving. Operational decision-making was impacted by the reality of increased and immediate risk to personnel, particularly in light of serious incidents having affected organisations operating in ISIS territory in recent years. This increased risk awareness – and the resulting risk reduction decision – is not the same as increased risk aversion. It is natural for organisations to become more risk *aware* and to reassess their risk status and tolerance after major events.

- **A review of the effectiveness of any humanitarian programme, but particularly medical activities, is incomplete without data.** The UN's claims that the trauma response was a success is purely subjective if it relies solely on self-reporting and medical data is not made transparently available for reviews such as this one.

Principled humanitarian action is facing a new set of challenges to which it must adapt: Where political and military actors fail to meet their legal obligations to assist those wounded in war despite strong humanitarian advocacy efforts, and where operational space for a principled response is limited or non-existent, humanitarians need to carefully consider the range of options. If they are not willing to step into the vacuum left by political and military actors for fear of risking the integrity and security of their operations, any remaining solutions will necessarily be found outside of the humanitarian sector. This has resulted – and will continue to result – in serious implications for humanitarian action in war that need to be individually and collectively debated. While there is no single correct answer, the Mosul case provides an important opportunity for reflection.

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[46]   For example, please see SAVE's research on the effects of insecurity on humanitarian coverage at www.SAVEresearch.net.

[47]   Pete Buth, January 2017, 'Insecurity – Always an Insurmountable Obstacle?', MSF Emergency Gap, Series 5, http://www.msf.org/en/article/report-emergency-gap-series-05-insecurity-always-insurmountable-obstacle.

11. Annex I: Key informant interviews

Thirty-seven people were interviewed for the review – 35 listed below and an additional two who opted to not be listed.

1	Dr Aws	Ninewah MOH	DOH
2	Raquel Ayora	Director of Operations	MSF-OCBA
3	Pablo Marco Blanco	Operations Manager Middle East	MSF-OCBA
4	Scott Bohlinger	Country Director	INSO
5	Rick Brennan	Director of Emergency Operations	WHO
6	Heidi Carruba	Humanitarian Advisor	DFID
7	Emily Dakin	Team Leader, DART	OFDA
8	Brice de le Vingne	Director of Operations	MSF-OCB
9	Isabelle Defourny	Director of Operations	MSF-OCP
10	Linda Doull	Global Health Cluster Coordinator	WHO
11	Marie-Christine Ferir	Operations Manager	MSF-OCB
12	Javier Fernandez	Regional Security Advisor	ECHO
13	Colette Gadenne	HOM, Iraq	MSF-OCBA
14	Lise Grande	Humanitarian Coordinator	OCHA-IRQ
15	Sylvain Groulx	HOM, Iraq	MSF-OCBA
16	Xavier Guinotte	MSF Consultant	MSF-INTERNATIONAL
17	Patrick Hamilton	Deputy Regional Director, Near and Middle East	ICRC
18	Jonathan Henry	Deputy Operations Manager	MSF-OCG
19	Dr. Fawad Khan	Health Cluster Coordinator	WHO
20	Andrea King	Programme Support Specialist	WHO
21	Marcel Langenbach	Director of Operations	MSF-OCA
22	Themba Linden	HAO, CMCoord Unit	OCHA-IRQ
23	Olivier Maizoue	Operational Manager	MSF-OCG
24	Altaf Musani	Country Representative	WHO
25	Ian Norton	Manager, Humanitarian Medical Team Initiative	WHO
26	Heather Pagano	Humanitarian Affairs Advisor	MSF-OCB
27	Luigi Pandolfi	Former MSF, now with ECHO/IRQ	ECHO

28	Alex Potter	Nurse and Communications Director	GRM
29	Stephanie Remion	Head of Mission, Iraq	MSF-OCG
30	Flavio Salio	Trauma Working Group Leader	WHO
31	Gabriel Sanchez	Head of the Emergency Unit	MSF-OCBA
32	Tim Tan	Medical Director	NYM
33	Jonathan Whittal	Director of the Analysis Department	MSF-OCB
34	Paul Wise	Richard E. Behrman Professor of Child Health and Society	Stanford University
35	Ania Zolkiewska	Head of Mission, Northern Iraq	MSF-OCP

Annex II: Timeline of key events

UN-led health response	
MSF ops (facilities/activities open/closed)	
Military operations	
Humanitarian situation	

MSF-OCP: Exploratory mission team sent to assess situation in Makhmur, Haj Ali, and Qayyara district in Ninewa Governorate. Negotiations take place for access to Ninewa Governorate from Erbil/KRG without Iraqi visa, for importation process, DOH agreement, etc.
— **August/Sept 2016**

WHO: Identifies problem of lack of trauma care in the lead up to planned operations in Mosul.
— **Early September 2016**

MSF-OCP: First emergency coordination team sent to Erbil to set up the emergency response plan to Mosul crisis.
— **1 October 2016**

MSF-OCP: Arrival of the first medical and logistic cargo at Erbil airport and arrival of the first team to open Qayyarah project (back-up base of the project set up in Makhmur).
— **16 October 2016**

MSF-OCG: Opens an FSU (Field Surgical Unit) to treat red trauma cases 18 miles north of Mosul on Dohok/Mosul axis. Few patients received. Internal and external respondents state that they were not ideally positioned.
— **25 October 2016**

MSF-OCB: Exploratory decision that a flexible and mobile approach would add value and complement the other sections already present. Plan to deploy trucks (OT, 1 ICU and recovery room, 1 sterilisation, 1 drugs, 1 logistics, ER, triage and inpatient).
— **End of October 2016**

OCHA:
- As many as 1.2-1.5 million people could be affected by military operations in Mosul.
- 200,000 people are expected to be displaced in the first weeks.
- In a worst-case scenario, up to 1 million people could be displaced and 700,000 may need to be accommodated in emergency shelters.
- As many as 100,000 people may cross the border into Syria seeking safety.
— **14 October 2016**

Iraqi forces and US-led coalition begin military campaign to retake East Mosul.
— **17 October 2016**

OCHA: Civilians in Mosul could face multiple threats from cross-fire, sniper attacks, booby traps and explosive remnants of war (ERW). Responders fear that tens of thousands of Iraqi girls, boys, women and men may be forcibly expelled, trapped between conflict lines, held under siege or used as human shields.
— **17 October 2016**

WHO: Identifies problem of lack of trauma care in the lead up to planned operations in Mosul.	**19 October 2016**
Coalition forces enter East Mosul.	**1 November 2016**
MSF-OCP: Opening of 3 DOH clinics and 3 PHC/NCD clinics in the IDP camps located in Hassansham and Khaysir.	November 2016
WHO: Trauma Working Group convened by the Health Cluster.	Early November 2016
IOM: 16,992 displaced.	1 November 2016
MSF-OCP: First emergency coordination team sent to Erbil to set up the emergency response plan to Mosul crisis.	6 November 2016
MSF-OCP: Sends exploratory mission team to assess the needs/situation along the eastern axis of Mosul	X November 2016
MSF-OCP: Creates proposal to open TSP in Gogjali in East Mosul	X November 2016
WHO: Attempts to identify response partners.	3 November 2016
WHO: Receives a 4.35 million Euro ECHO grant in late 2016 for Mosul trauma care.	4 November 2016
UN Central Emergency Response Fund (CERF) adds $9 million to efforts to set up field hospitals.	5 November 2016
MSF-OCG: Opens maternity clinic in Tal Maraq.	5 November 2016
OCHA/IOM: More than 54,000 displaced.	7 November 2016
Coalition forces capture Nimrud.	13 November 2016
IOM: 77,046 displaced; 8,460 returnees.	1 December 2016
MSF: Intersectional delegation meet in Geneva with WHO and ECHO regarding the deployment of EMTs and concerns about humanitarian principles.	1 December 2016

█ UN-led health response   █ MSF ops (facilities/activities open/closed)   █ Military operations   █ Humanitarian situation

MSF-OCP: Opens hospital in Qayyara, which includes Emergency Room, Operating Theatre, Inpatient Department, Intensive Care Unit and emergency medical care capacity. (Mental healthcare and a Therapeutic Feeding Centre are subsequently added).	**1 December 2016**
Coalition forces begin assault from northern Mosul, retaking al-Qirawan and al-Hadia districts and, from south, retaking Wahda neighbourhood.	**6 December 2016**
MSF-OCG: Opens a TSP in Baybokhet	**14 December 2016**
MSF-OCG: Takes decision to close FSU in Dohok.	**28 December 2016**
Second phase of East Mosul campaign begins. New push on three fronts into the eastern districts.	**29 December 2016**
MSF-OCP: TSP opens in Gogjali.	**29 December 2016**
IOM: 123,846 displaced; 14,556 returnees.	**1 January 2017**
MSF-OCG and MSF-OCP: Conduct exploratory visit to three PHCCs in northeast neighbourhoods of East Mosul. MSF-OCG subsequently decides open a hospital in Muharabeen.	**6 January 2017**
MSF-OCG: Opens AMP in Tel Eskuf north of Mosul.	**9 January 2017**
Samaritan's Purse opens hospital in Bartalla as the first WHO-supported field hospital in the UN-coordinated response.	**12 January 2017**
MSF-OCP: Exploratory visit to Al-Shiffa hospital in southeast East Mosul.	**14 January 2017**
Mosul city centre declared under Iraqi government control.	**19 January 2017**
MSF-OCB takes decision to open a stabilisation unit in Hamam al Halil with MSF-OCP and to open post-op and rehabilitation care in Hamdaniya.	**21 January 2017**
The Joint Operations Command declares East Mosul 'liberated' and now 'controlled' by coalition forces. Public health facilities still highly dysfunctional.	**24 January 2017**

■ UN-led health response   ■ MSF ops (facilities/activities open/closed)   ■ Military operations   ■ Humanitarian situation

Prime Minister Al-Abadi declares eastern Mosul 'fully liberated'.	**25 January 2017**
MSF-OCG opens Muhareebeen hospital first with ER and delivery then OT two weeks later.	**27 January 2017**
IOM: 164,178 displaced and 33,576 returnees.	**1 February 2017**
Following the East Mosul offensive, the population in IDP camps east of Mosul has increased in areas controlled by the Kurdish Regional Government.	**1 February 2017**
MSF-OCP: 'In preparation for the West Mosul offensive, MSF-OCP and MSF-OCB decide to coordinate a TSP and a surgical facility in Hamam al-Alil.	**1 February 2017**
MSF-OCG: Paediatrics added to the clinic in Tal Maraq. Mobile clinics are also run in surrounding villages offering general consultations, mental health follow up and treatment for NCD (non-communicable disease) patients.	**1 February 2017**
MSF-OCG: Closes TSP in Tel Eskuf.	**6 February 2017**
MSF-OCP and MSF-OCB: Open field hospital in Hammam al-Alil, with a 22-bed emergency room, 2 operating theatres, a 7-bed intensive care unit and recovery room, as well as 32-bed in-patient ward and mental health services.	**18 February 2017**
MSF-OCB: Starts supporting MOH PHCC in Hammam al-Alil, near the hospital, to provide consultations, dressing changes and ATFC services.	**late February 17**
Second phase of offensive to take West Mosul begins.	**19 February 2017**
Coalition forces take Mosul airport and enter West Mosul.	**24 February 2017**
MSF-OCG: TSP in al-Hadthba opens.	**27 February 2017**
MSF-OCP: MUAC screening started in Hamam al Alil and Jeddah camps (where IDPs from West Mosul are arriving), and opening of the ITFC within its Qayyara hospital.	**End February 2017**
MSF-OCG: Expands service at Muharabeen hospital to 24 hours/day, seven days a week with ER, OT, maternity and IPD services.	**1 March 2017**

■ UN-led health response   ■ MSF ops (facilities/activities open/closed)   ■ Military operations   ■ Humanitarian situation

Event	Date
IOM: 191,814 displaced: 63,882 returnees.	**2 March 2017**
MSF-OCG: Closes Baybokhet TSP.	**3 March 2017**
WHO: UNFPA-supported DOH Qarayyah General Hospital reopens, with WAHA as health provider. Services include maternity and obstetric surgery.	**7 March 2017**
Iraqi ambassador to the UN denies reports by medical workers and WHO that IS had likely used chemical weapons in Mosul, saying there is 'really no evidence'.	**10 March 2017**
Coalition forces said have retaken 17 of 40 districts in western half of Mosul from IS and have surrounded the remainder.	**12 March 2017**
MSF-OCP: Closes TSP in Gogjali; opens al Taheel facility, with OT capacity and a 32-bed ward; opens maternity facility in Karama.	**15 March 2017**
MSF-OCB: Adds a 43-bed post-operative care with rehabilitation unit and psychosocial support in al-Hamdaniya Hospital, in collaboration with Handicap International.	**15 March 2017**
As many as 200 civilians were killed by US-led coalition airstrikes inside their homes or in places where they sought refuge in Jadida, following Iraqi government advice not to leave.	**17 March 2017**
MSF-OCP and MSF-OCG: Send exploration mission in the southern neighbourhoods of West Mosul in coordination with MSF-OCG. MSF-OCG decides to launch TSP activities and MSF-OCP decides to establish a field hospital with surgical capacity.	**18 March 2017**
MSF-OCP: Opens maternal health hospital in Karama, East Mosul. Adds ER in Al-Taheel.	**19 March 2017**
WHO: Opens its second field hospital, Athba Hospital, run by Aspen Medical.	**21 March 2017**
MSF-OCG: Opens TSP in al-Hekma, West Mosul.	**25 March 2017**
MSF-OCP: Hands over TSP in Hamam al Alil to MSF-OCB. Emergency team arrives for project in West Mosul; identifies location of an additional field hospital in Jawsuq, West Mosul, with an OT, ER and ward.	**28 March 2017**
IOM: 302,430 displaced; 80,628 returnees.	**2 April 2017**

■ UN-led health response   ■ MSF ops (facilities/activities open/closed)   ■ Military operations   ■ Humanitarian situation

MSF-OCG: Puts the TSP in al-Adthba on standby due to low patient numbers. Will reactivate again as needed.	**4 April 2017**
MSF-OCG: Suspected chemical weapons explosion close to the MSF-OCG AMP in Al-Hekma, triggering a critical incident response. Decision taken to put operations temporarily on standby while security management is reviewed. Expats and delocalized staff evacuated.	**9 April 2017**
Press release on the situation in Mosul, including a growing malnutrition concern by MSF-OCP in Qayyarah.	**11 April 2017**
MSF-OCBA: Exploratory visit to Mosul town, following RIOD decision to allow MSF-OCBA to intervene; evaluation of secondary healthcare needs and displaced populations.	**21 April 2017**
MSF-OCG: Opens TSP closer to frontline patients in al-Mawsil, al-Jadidah. Al-Hekma put on stand-by.	**22 April 2017**
MSF-OCG: Closes TSOP in al-Mawsil, al-Jadidah.	**28 April 2017**
MSF-OCP: Launch the Epicentre nutritional survey in Jeddah camps.	**May 2017**
MSF-OCP: Increases bed capacity in Qayyarah project from 32 to 58 beds and adds a second OT; increases bed capacity in Al-Taheel hospital from 18 to 32 beds.	**May 2017**
MSF-OCG: Following the closure of the hospital in Muharabeen, to open a hospital in al-Nablus, West Mosul.	**1-May-2017**
IOM: 358,410 displaced and 112,620 returnees.	**2-May-2017**
Coalition forces launch additional front in north-western Mosul.	**4-May-2017**
OCHA: 320,000 displaced from Mosul; 91,000 returnees to East Mosul. Dynamic situation with daily movements of thousands of people.	**11-May-2017**
MSF-OCP: Field trauma hospital opened in Jawsaq, West Mosul with ER, OT, IPD.	**28-May-2017**
MSF-OCG: Hands over Muhareeben hospital to the DOH.	**31 May 2017**

■ UN-led health response   ■ MSF ops (facilities/activities open/closed)   ■ Military operations   ■ Humanitarian situation

WHO and IFRC: Launch a regulatory framework for the management and governance of EMTs, 'The Regulation and Management of International Emergency Medical Teams'. There is no mention of EMT deployment or regulation in conflict.	**1 June 2017**
IOM: 378,120 displaced; 139,530 returnees.	**1 June 2017**
MSF-OCB: Adds Therapeutic Feeding Services to Hammam al Alil Hospital.	**1 June 2017**
MSF-OCP: Two security incidents take place: Shooting at minibus and a shot fired on the field hospital in Jawsuq, West Mosul.	**June 2017??**
MSF-OCP: Suspends services at the field hospital in Jawsaq due to security concerns.	**15 June 2017**
NRC publication, 'Principled Humanitarian Assistance of ECHO Partners in Iraq', released, looking at whether ECHO partners in Iraq, including Mosul, have incorporated humanitarian principles into their operations.	**16 June 2017**
MSF-OCG: Opens activities in the Nablus PHCC, West Mosul, for war-wounded and other medical emergencies.	**23 June 2017**
MSF-OCBA: Starts supporting the DOH in Al-Khansaa Teaching Hospital in East Mosul with an emergency room, ICU, medical paediatrics and mental health services. A nutrition programme is later added.	**1 July 2017**
MSF-OCP: Expands TFC in Qayyarrah Hospital to meet growing demand, particularly for children under six months old.	**1 July 2017**
IOM: 821,178 displaced; 202,632 returnees.	**2 July 2017**
PM Abadi announces victory over IS in Mosul (although clashes continue in the city).	**10 July 2017**
MSF-OCB: Closes Hammam al-Alil due to decreased patients and increase in health actors. Decides to hand over PHCC to DOH with support from ICRC.	**end July 2017**
MSF-OCP: Closes field hospital in Jawsaq, West Mosul after the mid-June suspension due to the security context.	**end July 2017**

█ UN-led health response   █ MSF ops (facilities/activities open/closed)   █ Military operations   █ Humanitarian situation

MSF-OCBA: Starts ambulatory feeding programme in Qayyarrah camps with an initial cohort of 310 children, including referrals from MSF-OCP's Qayyarah ITFC programme. Two clinics are opened in Jeddah 6 and Airstrip Camps and a third one is under construction. The programme also provides services supporting breastfeeding and mental health.	**end July 2017**
IOM: 838,044 displaced; 239,250 returnees.	**1 August 2017**
MSF: Internal Briefing Paper sent around on WHO EMTs Engagement and MSF's position.	**1 August 2017**
Lise Grande, Deputy Special Representative of the Secretary-General for Iraq, briefs UN Member States. As the issue of the UN/WHO deployment in Mosul and humanitarian principles had been escalated to the SG, Grande mentions that other actors, including MSF and ICRC, were not able or willing to intervene. She states that the principle 'humanity' was prioritised over impartiality and independence.	**7 August 2017**
MSF-OCB: Closes Hamdaniya post op and rehabilitation care, as UNDP starts to rehabilitate hospital	**15 August 2017**
MSF-OCP: Hands over Al Taheel hospital and Karama maternity in East Mosul to the DOH.	**End of August 2017**

▮ UN-led health response ▮ MSF ops (facilities/activities open/closed) ▮ Military operations ▮ Humanitarian situation

# 13. Annex III: References

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