



THE LIBYA CASE STUDY



HARVARD MEDICAL SCHOOL
DEPARTMENT OF GLOBAL HEALTH
AND SOCIAL MEDICINE

Working Paper of the collaborative NATO-Harvard project:

TOWARDS A COMPREHENSIVE RESPONSE TO HEALTH SYSTEM STRENGTHENING IN CRISIS-AFFECTED FRAGILE STATES



NATO JOINT ANALYSIS AND
LESSONS LEARNED CENTRE



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This project was conducted jointly by researchers from Harvard University School –Department of Global Health and Social Medicine and analysts from NATO’s Joint Analysis and Lessons Learned Centre under the sponsorship of NATO’s Allied Command Transformation. Additional funding for this case study was provided by the Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ) GmbH.

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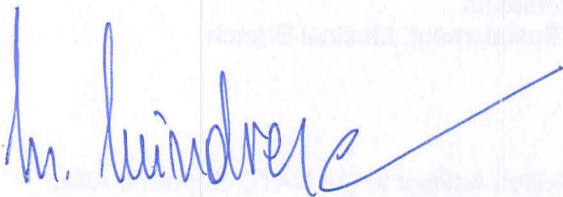
FOREWORD

A joint study team from NATO's Joint Analysis and Lessons Learned Centre, Harvard Medical School, and Harvard Humanitarian Initiative has been engaged in an ongoing study project to infer elements of a strategic framework for health system strengthening in crisis-affected fragile states. The joint study team has adopted a multi-case study approach, and it is with great pleasure that we release this working paper documenting the findings from the subject of the case study: Libya, during and after the 2011 conflict.

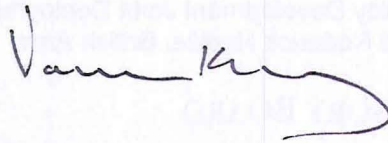
The paper addresses four key themes: the impact of the conflict; the security community's participation in health system recovery and reconstruction; the coordination mechanisms that facilitated or directed the security community's involvement; and the information generating and sharing mechanisms that allowed the security community to best participate in health system strengthening.

Investigations into these four themes were focused through the use of the narratives given in the Annexes to this paper.

The outcome of this case study is a number of key takeaways and food for thought which highlight the possible involvement of the security community in health system strengthening in crisis-affected fragile states.



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EXECUTIVE SUMMARY

A team from NATO's Joint Analysis and Lessons Learned Centre and Harvard Medical School engaged in a project with the overarching aim to infer elements of a strategic framework for health system strengthening in crisis-affected fragile states focusing on optimal use of all global contributions. The approach adopted by the team to meet this aim relies predominantly on research using four case studies.

This report documents the results of the Libya case study. Libya's health system was threatened by an 8-month civil war during which the international military community intervened under a UN mandate to protect civilians. During and after the conflict, the international community contributed to strengthening the Libyan health system. However, the difference between this case study and the other three case studies supporting this project—Haiti, Kosovo, and Afghanistan—is that no multinational military force with a peace-keeping/building or stabilization mandate was present during the international community's military intervention, and the present UN support mission does not include any international military force.

Four key issues were investigated during this study: the impact of the conflict on Libya's health system; security community participation in health system recovery and reconstruction; the coordination mechanisms that facilitated or directed the security community's involvement; and the information generating and sharing mechanisms that allowed the security community to best participate in health system strengthening. Investigations were focussed through the use of two narratives given in the Annexes to this report.

FINDINGS

From a long-term perspective, the Libyan conflict in 2011 did not significantly impact the health system compared with the effects of the years of poor management under the Gadhafi administration. Some significant assets such as health system personnel and certain infrastructure was lost but for only a limited period of time.

The security community had a major and positive impact on preserving the Libyan health system and infrastructures during the intervention in Libya, principally through avoiding collateral damage and facilitating humanitarian operations. The involvement of the security community in Libya after the conflict has been minimal.

The humanitarian community, coordinated by UN agencies, was able to provide robust support to meet the needs of displaced populations. As a consequence, direct military aid to the population was very limited, with an example being the treatment of war wounded in Libya's neighbouring countries.

The sharing of information between humanitarian and security communities, including the health situation, mainly focused on deconfliction of military and humanitarian operations. This information sharing was limited but reportedly good; the cooperation between the UN Office for the Coordination of Humanitarian Affairs (OCHA) and NATO's SHAPE being notably successful.

Two years after the end of the conflict, a comprehensive post-conflict assessment of the health system has not yet been finalized. Little tangible progress has been made to strengthen the Libyan health system despite an economic recovery. The Libyan government has ownership of the process to rebuild and strengthen the health system but the country remains fragile and is facing growing instability, and has not yet been able to define a new political and social framework.

An effective comprehensive response to health system strengthening in crisis-affected fragile states demands coherent action by all participating actors. A particularly complex challenge is coordinating the desired outcomes and the required actions of the humanitarian, development and security communities.

TAKEAWAYS

This case study has identified three key takeaways worthy of consideration by global crisis responders to develop future frameworks for strengthening state health systems:

- In a crisis situation, the security community can be an appropriate contributor to mitigate health threats or to strengthen some elements of the health system.
- Interaction—at a minimum awareness leading to deconfliction and, at best, coordination leading to coherence—is essential among the key health sector actors from both civilian and military communities. In Libya, UN OCHA was one of the principal coordinators of the humanitarian response. NATO was proactive in establishing humanitarian-military coordination during the Libyan conflict. Mutual understanding between the security and humanitarian communities was facilitated by effective dialogue during the initial phases of the conflict coupled with the transparent exchange of information with SHAPE staff. UN OCHA took part in lessons learned activities with NATO and some other humanitarian actors involved in the Libya crisis to outline what worked well, what did not, and what could be improved in a future emergency.
- No commonly shared health information picture exists that can enable timely service delivery, early detection of health threats, and support to the military planning process. A virtual network of volunteers successfully provided a comprehensive Libyan health picture by creating a live map prior to, during, and after the conflict. While the use of such a collaborative, volunteer-based mapping effort during a disaster response seems to be well accepted, its use during a conflict raises a number security and ethical issues.

FOOD FOR THOUGHT

Health System Strengthening as part of an All Systems Approach

As in Afghanistan and Kosovo, the majority of the actors agree that a pre-condition for providing a robust health system is a safe and secure environment. In Libya, the level of violence continues to impact not only public health but also the health system in a direct or indirect manner. Insecurity is eroding the trust of the population in the government, preventing the Libyan diaspora and the foreign health workforce from entering Libya, and hampering reconstruction and cooperation programmes. Through training of Libyan security officials and forces, the security community could contribute in an indirect manner to the establishment of the safe and secure environment needed for the development of an effective health system. In addition, the security community could contribute to nation building by supporting the Libyan government in its efforts to weaken the hold of patronage networks, to fight corruption and fraud, and to establish, promote, and uphold the rule of law.

Military as a Contributor to the Humanitarian Crisis Response

In Libya, because the humanitarian community was able to address nearly all of the needs, few military assets were devoted to contributing to the humanitarian operations. But it is generally recognized that the dialogue and the coordination mechanisms set up between military and humanitarian communities proved effective at facilitating the response to humanitarian issues. Coordination with the humanitarian sphere benefitted from NATO's

incorporating extant humanitarian guidelines into its standing guidance. However, the EU's concept for a "military humanitarian operation"—planned but not executed—was seen to pose a risk of blurring the lines between military and humanitarian spheres.

Health System Recovery and Strengthening – Short-term Versus Long-term Approach

International actors intervening in the health sector assumed that because the Libyan state had the necessary resources, the health system would be well structured. In reality, Libya's health system was in poor shape prior to the conflict and did not offer a sufficiently strong foundation for building an effective health system afterwards.

It is clear from the lessons drawn from many conflicts that a nation needs an evidence-based national health policy framework at the very beginning of post-conflict reconstruction. In the case of Libya, a comprehensive post-conflict assessment of the health system was not quickly executed: the Libyan authorities did not have the capability to conduct such an assessment and international organizations did not have the mandate.

Regarding the contribution of the security community to healthcare, engaging in the promotion of health is very different from engaging in the promotion of a health system. While health needs are often short term and can be met through the employment of military assets, strengthening an entire health system needs long-term solutions and strategies that are not always clear and are often beyond the mandate, and maybe the capability, of the security community.

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1. This report is one in a series of four case studies being undertaken by a joint study team from NATO's Joint Analysis and Lessons Learned Centre and Harvard Medical School. The scope of the overarching project is to examine the relationship between health system strengthening in crisis-affected fragile states and the activities of the security community, particularly through the employment of military assets in those states. The corresponding overarching report will seek to infer elements of a strategic framework for health system strengthening in crisis-affected fragile states. The intended audiences for the project's products are policy and decision-makers in the humanitarian, development and security communities who are interested in achieving a comprehensive response to health system strengthening in crisis-affected fragile states.
2. Three criteria were established for case study selection¹:
 - a. First, a fragile state's health system was threatened by a human security crisis: in the case of Libya, the health system was threatened by a major short duration intra-state conflict and a military intervention carried out by the international community.
 - b. Second, there was a global crisis response directed towards health system strengthening: in the case of Libya, nations and international organizations (IO) have sought to strengthen the health system by providing expertise and assistance.
 - c. Third, a multinational military force with a peace-keeping/building or stabilization mandate was present: in the case of Libya, no NATO troops were deployed on the ground during the international community's military intervention, and the present UN support mission with a stabilization mandate does not include any international military force.
3. It is recognized that Libya meets only two of the three criteria established for case study selection. However, Libya was kept as a case study because the complex emergency and resulting challenges to the health system provide an opportunity to draw important enduring lessons.

METHODOLOGY

4. The research was carried out from September 2012 to August 2013. The interdisciplinary study team from Harvard and NATO progressed through four phases of data collection and iterative analysis: background research, background interviews, field-based data collection and data analysis, and report writing. The joint civilian-military nature of the study team allowed unparalleled access to both military and civilian actors and perspectives.
5. The team used the WHO's Health System "Building Blocks" Framework as a guide for considering how the security community may have impacted aspects of Libya's health system. The framework, shown in Figure 1, describes health systems as consisting of six building blocks: service delivery, health workforce, information, medical products, vaccines & technologies, financing and leadership/ governance. These building blocks contribute to improved health of the population, improved responsiveness to the population's health needs, increased social and financial risk protection, and improved efficiency.

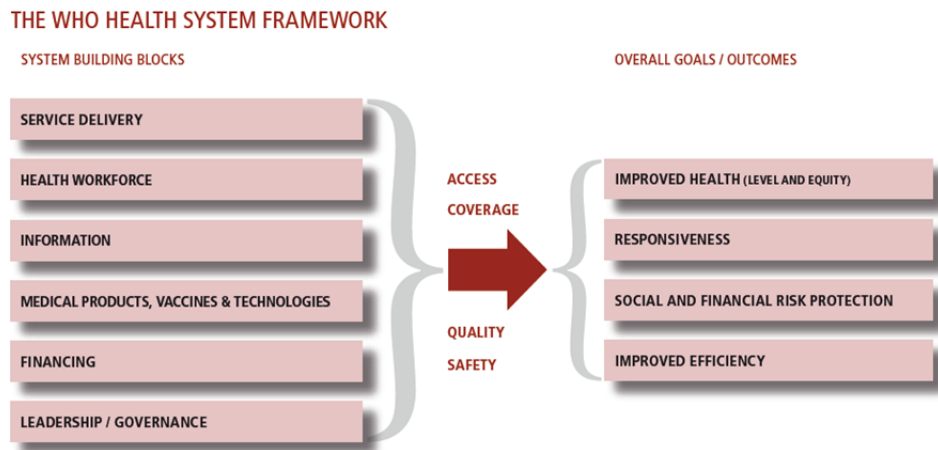


Figure 1: The WHO Health System Framework

6. Four questions for this case were also formulated to guide the research within the context of the chosen health system framework and with the final project aim in mind. These questions were grouped as follows:

- a. How did the crisis impact the Libyan health system? How has this situation changed since the fall of Gaddafi?
- b. How did the security community participate in health system recovery and reconstruction?
- c. What were the coordination mechanisms, both formal and informal, that facilitated or directed the security community's involvement?
- d. What information generating and sharing mechanisms allowed the security community to best participate in health system strengthening?

Phase one: Background Research

7. The study team conducted a comprehensive review of scholarly articles, written interviews, after action reviews, lectures, websites, relevant NATO and National doctrines, and newspaper and magazine reports about the international response in Libya. Particular focus was given to where Libyan and international military assets made direct contributions in health sector response and reconstruction, and how these assets coordinated with other responders during participation. This phase took place from September 2012 to January 2013.

Phase two: Background Interviews

8. The study team held discussions with key personnel who were knowledgeable about Libya's health sector, governance, and history. Based on information from these background interviews, the study team generated a data collection plan that included specific questions and an initial list of stakeholders to be interviewed. To encourage participants to share their candid views and protect them from political or social liability, we agreed comments would not be attributed nor would we disclose the identity of the participants or the specific organization for which they worked. This phase took place from December 2012 to February 2013.

Phase three: Field-Based Data Collection

9. Due to security reasons, the study team was not able to travel to Libya. Until late May 2013 the team attended meetings, organized interviews and conference calls with officials

known to have been involved in the international efforts in Libya, including key representatives from the Libya public and private health sectors, NGOs, donor agencies, national development agencies, UN agencies, military response organizations and foreign diplomatic representations.

10. The interviews were semi-structured; having a framework of themes to be explored, but allowing new ideas to be brought up during the interview as a result of what the interviewee said. The common framework of themes included:

- a. The participant's role and involvement in health system protection or recovery in Libya;
- b. The participant's understanding of the major challenges faced in addressing Libyans' health needs;
- c. The participant's perspective on the security community's impact on health system protection and recovery;
- d. The information and coordination mechanisms the participant used to interact with the global response and/or security community;
- e. The participant's perceptions of what went well and what could have been improved in terms of recovering and strengthening the health system in the aftermath of the February 2011 uprising and resulting military operations in Libya.

11. Interview notes were compiled into interview transcripts which were then reviewed by the study team and extracted the salient issues and recurrent themes. This phase concluded in late May 2013.

Phase four: Data Analysis and Report Writing

12. The data collected in the previous phases was reviewed and further investigated through targeted research—including additional interviews—which refined and deepened the team's understanding of the salient findings. With this deeper understanding, the team identified the key themes and issues and selected the major stories to develop into narratives that would best illustrate these themes. Narratives were built around instances of when the security community impacted one or more aspects of Libyan's health system.

13. A draft report was written and circulated for comments and feedback to informal advisors familiar with health system strengthening issues, military policy, and civilian military interactions. Based on the feedback the final draft of the case study report was prepared. Final review and editing of this report took place in November 2013.

LIMITATIONS

14. The Libyan conflict is relatively recent and entering the country remains difficult. The literature produced examining the Libyan conflict—and the international response to it—is also somewhat limited. For that reason, the team was forced to focus their research on the most accessible parts of the story. They attempted to strike a balance, with the issues presented in this report representing those most salient and notable to developing elements of a strategic framework for health system strengthening in crisis affected fragile states.

15. Following the Arab Spring in Tunisia and Egypt, protests began in Benghazi, Libya in mid-February 2011 and quickly escalated into a rebellion, which led to an eight-month civil war. The international community operating under the mandate of UN Security Council Resolution (UNSCR) 1973 commenced military operations to protect civilians on 19 March 2011; these were brought to conclusion seven months later on 31 October 2011. Of note is that NATO did not deploy combat troops on the ground during the conflict and international actors have not deployed post-conflict peacekeeping forces. The international community has adopted a much lighter post-war footprint than in the interventions in the Balkans, Iraq, and Afghanistan.

16. This chapter aims to provide the reader with sufficient background information and context to be able to understand the efforts to prevent the Libyan health system from collapsing discussed in Chapter 3. It does not intend to provide a full overview of the history of Libya and the Libya health system.

A CRISIS-AFFECTED FRAGILE STATE

Libya – A Middle Income Economy

17. The discovery of oil reserves in Libya in the late 1950s transformed the country from being poor to being one of Africa's richest. The World Bank now defines Libya as an 'Upper Middle Income Economy'². Libya used to have the highest Human Development Index (HDI) in Africa. The HDI topped 0.773 in 2010, ranking 64 in the world, far above Arab states' mean³. High oil revenues and a small population would have allowed the Libyan Arab Jamahiriya state* to provide a comprehensive social security system. But even though Libya has seen a low level of both absolute and relative poverty, the reality has been that Libya was never able to achieve sustainable successes in housing, transportation, energy, sanitation, protection of environment or education, which the WHO considers major social determinants of health.

42 Years of Gaddafi's – Undermining Libya's Health System

18. Gaddafi's regime, beginning in 1969, was characterized by bad governance and growing corruption. Over 42 years, the Jamahiriya system—Libya's governance system—produced a divisive *"system containing a plethora of congresses and committees, often with overlapping powers that have contributed to a sense of orchestrated and perpetual chaos"* among the 140 tribes and governmental structures⁴. As such, the formal bodies associated with more traditional states simply did not exist. Gaddafi reinforced his authoritarian rule by granting economic privileges and access to health services to various tribes or by threatening punishment. This situation worsened in the last five years of Gaddafi's regime⁵. Corruption was institutionalized at all levels of the society, including the health sector. For instance, the first Libyan Ministry of Health (MOH)—WHO survey of healthcare facilities, completed soon after the conflict, showed that two hospitals and 68 primary healthcare units that were funded for years by the MOH simply did not exist⁶.

* The official name of Libya from 1977 to 1986 was "Socialist People's Libyan Arab Jamahiriya" and "Great Socialist People's Libyan Arab Jamahiriya" from 1986 to 2011.

19. The foreign relations of the Libyan Arab Jamahiriya were marked by severe tension with the West that led to diplomatic and economic sanctions imposed by the UN, EU, and others between 1978 and 2006⁷. As a result Libya's health sector directly suffered. During the air embargo (from 1992 to 1999), for example, medical evacuation of the chronically ill was limited, as were immunization and other health supplies⁸. The Bulgarian nurses' affair also prevented cooperation with foreign countries prior to 2006^{†9}.

THE HEALTH SYSTEM

20. Although health services in Libya were provided under Gaddafi's rule to every citizen free of charge and many health indicators were strong, when analysed through the prism of WHO building blocks, the Libyan health system was suffering from major structural weaknesses¹⁰. The health sector under Gaddafi faced rampant and growing endemic corruption and the absence of ethics.

Leadership/Governance

21. According to WHO, the capacity of the General Peoples' Committee for Health and Environment—one of the bodies responsible for health under Gaddafi's regime—to run the health system was poor and the Committee lacked planning capability. There was no motivation or means for managers to improve or change the system. It, along with many other systems in the country, was constantly subject to shifts in its empowerment; the central government was frequently vacillating between centralized versus decentralized governance approaches.

Financing

22. Reliable information about the financing of the health system was limited. As a percentage of GDP, total expenditure on health was reportedly low (3.9%) but spending in absolute terms was greater than in neighbouring countries. Private spending—largely out-of-pocket and spent abroad—was growing rapidly due to mistrust of the Libyan system, and reached 34% of the total expenditure on health in 2009.

Service Delivery/Infrastructure

23. Libya's basic policy for healthcare delivery was founded on primary healthcare services, which were well developed (one centre per 5,000–10,000 citizens and a network of 45 polyclinics). However, in practice, primary healthcare suffered from poor maintenance and manning. Almost all primary healthcare centres were reportedly "under maintenance" for years prior to the revolution. The burden for primary healthcare fell on secondary and tertiary healthcare centres, which were overloaded and also often under maintenance. Secondary and tertiary healthcare officially had an adequate number of beds (more than 37 per 10,000 citizens), but not all the beds were functional. Public facilities also lacked the equipment necessary to service many basic were usable in practice. The private sector contributed 103 hospitals and clinics (2,088 beds) mostly located in urban areas. Health services were weak and did not meet the needs of the population, resulting in distrust of the system despite some achievements. Many Libyans sought treatment abroad, mainly in Tunisia. In 2007, the total amount of money Libyans spent on medical tourism was estimated to be US\$100–200 million per year, although exact figures are unknown¹¹.

† The Bulgarian nurses' affair concerns the trials, appeals and release of six foreign medical workers charged with conspiring to cause in 1998 a HIV epidemic at El-Fatih Children's Hospital in Benghazi, Libya by deliberately infecting over 400 children.

Health Workforce

24. The Libyan health care workforce in 2010 was approximately 110,000 strong, with about 13 physicians, 2.5 dentists, 2 pharmacists, 48 nurses and 23 paramedical staff per 10,000 population, but was characterized by poor human resource management, severe attrition, outdated education and training programs, misapplied skills, absenteeism, poor support and lack of supervision. Libya had trained too many health care workers, whom the country was then obligated to hire and had instituted a practice by which some workers held multiple positions, and were thus paid twice. Both of these phenomena drained financial resources. The health workforce, especially nursing, was heavily reliant on expatriate staff; most of the qualified nurses were not Libyan. Quality control and continuing education programmes were limited and morale was reportedly poor.

Medical Products, Vaccines & Technologies

25. The selection, supply, quality control, regulation and use of medicines were serious challenges, which led to waste as large stockpiles of expired medicines were disposed of, to the development of a pharmaceutical black market, and to the rise of multi-resistant bacteria.

Health Information

26. Bodies such as the Health Information and Documentation Centre and the General Authority for Information and Documentation were in place, but information and communication technology activities were isolated and uncoordinated. Most healthcare bodies had not computerized their operations. The National Centre for Infectious Diseases Control, through its surveillance and monitoring systems, was able to provide data on communicable diseases within the country. However, statistics were not always accurately reported: the incidence of HIV, for example, was underreported in an attempt to protect the country's reputation.

27. Basic health indicators in Libya were mixed, with some good and some bad, but all were based on unreliable data. Life expectancy (73 years) was among the best in the Middle-East and North Africa region, but below the average of other upper-middle income countries. There was almost universal coverage of childhood immunizations, and some communicable diseases, such as polio, had been eradicated. On the other hand, according to a combined study of the Libyan National Centre of Infectious Diseases Control and the Liverpool School of Tropical Medicine in 2010, the prevalence of HIV among people injecting drugs was reported to be at an alarming 87% compared to under 10% in Western Europe.[‡]

Emergency Response Structures

28. There was no existing emergency crisis response structure in place at state level. Neither the Libyan security forces, nor the Libyan armed forces possessed any significant medical resources/units to respond a disaster or a crisis.

THE LIBYAN HEALTH SYSTEM DURING THE 2011 CONFLICT

29. From a long-term perspective, the Libyan conflict in 2011 had a minimal impact on health system compared to the effects of years of poor management. However, significant investments in health were made related to the crisis that could have potentially given the Libyan health system the boost it required.

[‡] Because of the apparent sudden rise of Intravenous Drug Use post-revolution, the statistics are anticipated to be far worse than the results reported in 2010 (Dr Hamroush).

Violence against the Health Sector

30. Gaddafi's forces have been blamed for initiating the majority of the recorded attacks on health infrastructure, activities or workforce. Amnesty International reported that Gaddafi forces violated international conventions, including using ambulances in their attacks, denying injured demonstrators access to hospitals and ambulance transport, and banning blood transfusions to people involved in the demonstrations¹². Security forces, including members of Gaddafi's Revolutionary Committees, stormed hospitals. Injured protesters were either summarily executed or had their oxygen masks, IV drips, and monitoring wires removed¹³. Doctors were prevented from documenting the numbers of dead and wounded¹⁴.

31. Because of the conflict, most of the expatriate staff working in the Libyan healthcare system fled the country in 2011. Only a few had returned as of July 2012, as summarized in Table 1¹⁵.

Table 1: Summary of Expatriate Staff in the Libyan Healthcare System

Country	Agreement	Working in Libya in July 2012
Philippines	3,160 nurses	816 nurses
Bangladesh	1,558 medical assistants 285 doctors	None
India	780 nurses 35 doctors	20
Jordan	80 doctors 249 medical assistants	15 doctors 42 assistants
Sudan	310 medical assistants 300 medical doctors	17 doctors
Tunisia	150 medical assistants	45

32. The impact of the war on infrastructure was relatively limited. Approximately 57% of the health infrastructure was impacted by the conflict but quickly recovered: by mid-2012 78.1% of health facilities were working with the same efficiency as before the conflict, with 97.3% of health facilities having electricity, and 78.4% having water¹⁶. By the end of 2012, 600 out of 750 major projects stopped during the revolution were again underway¹⁷. As reported by the former Libyan minister of health, foreign companies were somewhat reluctant to return to Libya because of insecurity, and insurance premiums have sometimes tripled project costs¹⁸.

Conflict-Related Casualties

33. An exact number of casualties caused by the conflict has never been determined. Estimates made towards the end of the conflict (in September 2011) range from 25,000 to 30,000 killed and around 50,000 wounded¹⁹. More recent estimates are around half that number²⁰. The issue of treating the wounded after the conflict became a saga in its own right and is the subject of Narrative B in this Case Study.

34. One aspect of the impact on health by the crisis that is often overlooked is that of mental health. The toll of the conflict in this regard is difficult to assess but there was concern that up to 120,000 people may have suffered from severe post-traumatic stress disorder in 2012 with more than 220,000 cases of severe depression²¹. The Libyan health system is simply not equipped to deal with the psychological impact of the fighting to this magnitude.

Intervention of the Humanitarian Community

35. The UN Office for the Coordination of Humanitarian Affairs (OCHA) was the primary coordinator for the humanitarian response, first from Cairo and Tunisia and later from

Benghazi and Tripoli. It provided essential information and secured access to conflict-affected areas through coordination with the government, opposition forces and NATO²². Other UN organizations such as the International Office for Migration (IOM), the World Food Programme (WFP) and the UNHCR were also involved with the coordination of the humanitarian effort.

36. On 07 March 2011, the UN released an initial regional flash appeal in order to fund the actions of 17 major aid organizations: ACF-Spain, CARE International, FAO, Handicap International, IMC, IOM, IRC, Islamic Relief Worldwide, UN OCHA, Save the Children, UN Department of Safety and Security, UNFPA, UNHCR, UNICEF, the UN Institute of Technology and Research's Operational Satellite Applications Programme, WFP, and WHO²³. In the end, UN OCHA managed to raise US\$279 million (83%) of the requested total of US\$336 million²⁴.

37. Humanitarian relief efforts in Libya during the crisis focused on four priorities:²⁵

- Procurement of essential drugs and equipment.
- Assistance to Internally Displaced People, including the management of temporary transit facilities.
- Assistance to over 500,000 displaced persons.
- Emergency water and sanitation support.

38. In addition, a coalition of 45 mostly self-funded Libyan NGOs emerged in the National Transitional Council[§] (NTC)-controlled areas during the conflict²⁶. Throughout the conflict, Libyan local councils and volunteer groups were well mobilized and resourced, and were the primary delivery mechanism for international assistance, with effective NTC support. In addition, the expatriate Libyan community abroad was very active in providing financial and other support to the NTC²⁷.

39. Libyan civil society organizations noted some difficulties interacting with international humanitarian agencies due to language restrictions and problems accessing or "being heard" by the international system²⁸.

LIBYA TODAY – FACING GROWING INSECURITY

40. Libya's economy grew by more than 100% in 2012 thanks to oil production, which had come to a standstill during the country's 2011 revolution. Consequently, Libya is able to fund its recovery with little economic support from the international community and does not rely on donors from the international community. However, Libya remains socially, politically and physically insecure.

41. The US Atlantic Council's North Africa Task Force stated that the current government is characterized by a *"general incapacity to perform basic governance. This lack of capacity is the result of many factors, but has led to near paralysis in which the government is not only inadequately prepared to perform essential functions, but also unclear on what type of specific assistance to request."* The state lacks a strong, centralized security apparatus and is not able to address the disarmament, demobilization and reintegration process of independent militias²⁹. Many Libyan cities, like Misrata, function as "de facto city-states", run by tribes backed by armed militias that actively defy the central government, making it difficult to implement any state-level strategy³⁰.

[§] The National Transitional Council of Libya was the de facto government of Libya for a period during and after the country's 2011 revolution.

42. Finally, Libya is not able to control its borders or its remote areas effectively, especially in the south of the country, which are being used as safe havens by Islamic terrorist groups.

43. The security community is now considering increasing its support to Libya. The EU approved sending border security advisers in May 2013³¹, and NATO is currently considering the training of Libyan security forces³². So far, training support to or development of a Libyan military medical capability has not been considered.

Summary: The Libyan Health System

- Libya is defined as an Upper Middle Income Economy with the highest Human Development Index in Africa prior and post conflict. Health services in Libya are provided free of charge to every citizen.
- However, years of mismanagement have rendered Libyan governance structures ineffective. Disputes and corruption represent also a major cause of disruption. Therefore, the population distrusts the Libyan health system. Most Libyans who can seek to be treated abroad.
- From a long-term perspective, the Libyan conflict in 2011 did not significantly impact the health system compared to the effects of years of poor management. One of the more significant impacts has been that most expatriate staff fled the country, and only a few have returned.
- The health toll of the conflict is difficult to assess accurately, and it took time for the Libyan government to assess what the real needs are.
- The political transition is not easy, and Libya is still struggling to form a centralized state. It faces many structural problems including a lack of institutions, weak governance and a high level of corruption, which is affecting the development of the health system.
- Libya is able to fund its recovery with little economic support from the international community and does not rely on donors.
- The major risk for Libya is a continued low intensity conflict that would slowly erode the existing national architecture.

LIBYA DURING THE CRISIS AND BEYOND

44. On 17 March 2011, the UN Security Council adopted Resolution 1973 (2011) authorizing member states “*to take all necessary measures, notwithstanding paragraph 9 of resolution 1970 (2011), to protect civilians and civilian populated areas under threat of attack in the Libyan Arab Jamahiriya, including Benghazi, while excluding a foreign occupation force of any form on any part of Libyan territory.*”³³ Multinational military operations in Libya, initially under the coalition Operation ODYSSEY DAWN and subsequently under NATO Operation UNIFIED PROTECTOR (OUP), were carried out under this UN mandate to protect civilians under the “responsibility to protect” principle.

45. In September 2011, the UN Security Council established the United Nations Support Mission in Libya to assist the Libyan authorities in defining national needs and priorities throughout Libya, and to match these with offers of strategic and technical advice³⁴.

46. This chapter outlines some of the initiatives and actions of the international community with respect to the Libyan health system and considers in particular how the security community impacted it. This chapter is divided into four sections covering: the planning for the intervention; military operations; recovery and rebuilding; and finally a review of the contribution of the security community.

PLANNING

NATO

47. NATO responded to the situation in Libya using the NATO Crisis Response System and the NATO Crisis Management Process. As the crisis unfolded in March 2011, a total of four strategic-level operation plans (OPLAN) were developed using this process. These OPLANs, in temporal order, were: humanitarian assistance; arms embargo; no fly zone; and no fly zone including the protection of civilians and civilian populated areas under threat of attack in Libya—informally known as “no fly zone+”^{**}. OUP was the execution of the arms embargo and “no fly zone+” OPLANs, as directed by the North Atlantic Council (NAC) to the Supreme Allied Commander Europe.

48. In the early phases of the NATO Crisis Management Process for Libya, NATO engaged in consultations for humanitarian issues with many stakeholders—UN, other IOs and NGOs. Such consultations were conducted both formally and informally by the NATO International Staff (IS) and the SHAPE Civilian Advisor.

49. At the NATO strategic military level, formal structures for cooperation were limited and under development. However, dialogue with IOs and NGOs was opened quickly due in part to the personal relationships and trust individuals within NATO had built with key international and humanitarian communities' representatives prior to the conflict. Indeed, when the authorization was given by the political level for the strategic and operational military commands to establish a direct liaison with IOs and NGOs, stakeholders were already prepared to cooperate³⁵. Coordination was facilitated by the clear political guidance from the NAC that NATO actions would be tailored to specific requests to respond to demonstrable humanitarian needs and should deliver “added value”. Additionally, the December 2012 Independent Evaluation of OCHA’s Role in Humanitarian Civil-Military Coordination Final Report – Volume I recognizes that the creation of a Civilian Advisor at SHAPE played a

^{**} The “no fly zone+” OPLAN was a revision of the no fly zone OPLAN.

significant role in the coordination of civil and military actors and is seen as a best practice coordination tool.³⁶

50. The military authorities in NATO HQ in Brussels were well aware of the generic UN OCHA guidelines before the launch of military operations³⁷ and the internal NATO Allied Command Operations' guidance³⁸ for military medical services involvement with Humanitarian Assistance (HA) and support to governance, reconstruction and development was in line with both the Oslo guidelines and the use of military and civil defence assets (MCDA) guidelines for complex emergencies. NATO also took account of the Libya crisis specific "Guidance on the use of military air/sea craft to support the evacuation of third country nationals" issued by UN OCHA on 03 March 2011.

51. The SHAPE Civilian Advisor was an integral part of the SHAPE Strategic Operations Planning Group with the benefit that the OUP OPLAN was drafted from both a military and civilian perspective with a focus on what the interaction would be with other international community actors. The OUP OPLAN specifically identifies the development and maintenance of effective military relationships with non-military partners as being "*critical to the success of the operation*" and contains a liaison and coordination matrix³⁹ drafted by the Civilian Advisor detailing the actors with whom engagement was deemed necessary at the various political and command levels in order to execute the mission. The Civilian Advisor benefitted from direct access to the NATO IS Civil-Military Planning and Support section for higher-level direction and guidance when necessary⁴⁰.

52. The OPLAN for the NATO support to humanitarian efforts was predicated on there being a humanitarian need that could not be covered by the humanitarian community. This OPLAN was sufficiently developed that NATO, on request from the humanitarian community, could have put it rapidly into action. However, it was not actually executed because such a request was never made.

53. The interviews carried out by the project team revealed that during the planning for the intervention, NATO and national headquarters at strategic, operational and tactical levels knew little about health systems in Libya and neighbouring countries. Available knowledge was based predominantly on open sources such as the crisis mapping initiative discussed in Narrative A. This lack of baseline information made the potential impact of operations on the health system difficult to assess⁴¹.

European Union

54. The EU has the capability to activate a complete set of instruments (political, diplomatic, economic, military, consular, judicial, humanitarian and development aid related) when responding to an emerging or ongoing crisis. For Libya, the EU Commission's and the EU Member States' response consisted mainly of providing humanitarian aid and transportation capacity. But the EU also planned a military operation in parallel with OUP. Although this operation did not go beyond the planning stage, mainly for political reasons, it is possible to reflect on some lessons for the future.

55. The European External Action Service (EEAS) was established after the EU's Lisbon Summit in July 2010 and is headed by the High Representative of the European Union for Foreign Affairs & Security Policy. The Libyan crisis erupted six weeks after the creation of the EEAS and presented a first test for both the EEAS and the EU Crisis Platform.

56. The European Council decided on 01 April 2011 (Decision 011/210/CFSP⁴²) on a European Union military operation in support of humanitarian assistance operations in response to the crisis situation in Libya called "Operation EUFOR Libya". The mission was to, upon request from UN OCHA, conduct a military operation to support humanitarian assistance in the region, in the framework of the EU's Common Security and Defence Policy (CSDP). Through another UN resolution, the operation would have been under the

coordinating role of the UN, and was planned to respect fully the UN guidelines on the use of MCDA.

57. EUFOR Libya was conceived as a mission to support humanitarian assistance⁴³. More specifically, EUFOR Libya, if requested by UN OCHA, would have:

- Contributed to the safe movement and evacuation of displaced persons,
- Supported, with specific capabilities, the humanitarian agencies in their activities.

58. The EUFOR Libya Concept of Operations (CONOPS) envisaged the deployment of up to 1000 ground troops from an EU rapid reaction battle group to secure the delivery of aid supplies. EUFOR Libya ground troops would not have been engaged in a combat role but would have been authorized to fight if they or their humanitarian wards were threatened⁴⁴. It was reported that the CONOPS addressed potential tasks in and around Libya, such as: securing port areas and aid delivery corridors; loading and unloading ships; providing naval escorts; and clearing, repairing and running a harbour or airport for aid access and the deployment of military medical assets⁴⁵.

59. In addition to deploying its military rapid reaction force, it is reported that the EU considered mobilizing its civilian rapid response instrument: Civilian Response Teams, multifunctional (rule of law, security sector reform, etc.) civilian crisis management packages consisting of carefully pre-selected and deployable civilian experts. Such civilian teams would have been used to assess potential options for post-conflict Libya⁴⁶.

60. As already stated, EUFOR Libya did not go beyond the planning stage. From both a diplomatic and a military perspective, the EUFOR Libya CONOPs was assessed to be high risk because ground troops could have been targeted by Gaddafi troops and/or prevented from leaving by NTC troops. Even the most constrained course of action would have run the risk of turning a humanitarian support operation into a war-fighting operation⁴⁷. Additionally, the EUFOR Libya concept seems to be fundamentally flawed. The main rationale for EUFOR Libya was to protect humanitarian operations within Libya. But if the risk to humanitarian actors in Libya became too high, such operations would be curtailed, therefore obviating the need for protection.

61. On 08 April 2011, Lady Ashton, head of EEAS, wrote to the UN Secretary General confirming that the EU had decided "to mobilize all necessary assets, including military assets to support the provision of humanitarian assistance to civilian populations in Libya", and that the EU "stands ready to act, if the United Nations asks us to"⁴⁸.

62. Ms. Valerie Amos, UN Under-Secretary-General for Humanitarian Affairs and Emergency Relief Coordinator, answered on 11 April 2011 that "it is important that we make every effort to preserve the core humanitarian principles of impartiality, neutrality and independence and follow the guidance on the use of foreign military and civilian defence assets in Libya". She indicated that the UN's ability to deliver humanitarian assistance to all people in need must not be compromised by being perceived to be associated with the ongoing military operations; and so, before requesting foreign military support, civilian alternatives would be fully explored and exhausted. Ms. Amos effectively articulated UN OCHA's deep concern that a military operation such as EUFOR Libya, although intended to support humanitarian assistance, would be immediately perceived as being part of the ongoing NATO military intervention in Libya, and would therefore deeply and negatively impact humanitarian operations⁴⁹.

63. One of the general and enduring lessons of the Libyan crisis is the importance of taking forward the so-called comprehensive approach to crisis management, by integrating the full set of instruments (military, political, economic, etc.). Undoubtedly, the EU possesses a wide spectrum of capabilities applicable to crisis management. But the ability to integrate these

instruments into a coherent approach during the operations design and planning process remains a challenge. The European Council has revised and improved its crisis management procedures and associated planning processes for civilian and military CSDP operations to enhance synergies between civilian and military planning from the early stages⁵⁰, but EU nations have not been able to reach consensus on how to do so.

OPERATIONS

64. The international community operating under the mandate of UN Security Council Resolution 1973 commenced military operations to protect civilians on 19 March 2011: Operation ODYSSEY DAWN. NATO assumed sole command and control of all international community military operations in Libya from coalition forces on 31 March 2011 under OUP. OUP was brought to a successful conclusion seven months later on 31 October 2011. NATO did not deploy ground troops into Libya during the conflict.

65. During the execution of military operations, the security community had an impact on health in at least four ways: minimizing direct and indirect collateral damage to healthcare infrastructure; facilitating humanitarian response to prevent a large-scale humanitarian crisis; facilitating humanitarian response to care for the war wounded; and facilitating the humanitarian response to keep the medical supply chain open.

66. Deconfliction was a key to success in each of these areas and was carefully managed. Specifically, NATO, at SHAPE and later at Combined Joint Task Force UNIFIED PROTECTOR (CJTF), maintained a dialogue with organizations such as UN OCHA, International Committee of the Red Cross (ICRC), and Médecins sans Frontières (MSF). The development of a clear and flexible NATO Standard Operating Procedure (SOP) reinforced the effectiveness of the coordination and ultimately, the efficiency of OCHA's role in UN Civil-Military Coordination. The SOPs detailed the steps to be taken by NATO military forces during the crisis in Libya, including involvement of the humanitarian community and the request for assistance from UN OCHA to military forces in situations of last resort⁵¹.

67. The humanitarian community only marginally and indirectly influenced the SOPs for the deconfliction process, which were drafted by the SHAPE and CJTF UP. The humanitarian community, however, was generally satisfied as the SOPs were based on past practices.⁵²

68. A civil-military interaction (CMI) team was established at SHAPE and manned 24/7 by personnel specifically trained in interacting with humanitarian organizations. By letter to the capitals via the NATO Permanent Representatives, the NATO Secretary General directed this SHAPE CMI team to be the only point of contact to receive and deconflict all requests from humanitarian actors.⁵³

69. The CMI coordinated 3,958 humanitarian and diplomatic movements by land, sea and air during the conflict. From a NATO perspective, the importance of monitoring interaction, dialogue and cooperation with civilian actors during a conflict was reaffirmed because it allowed the trust with other organizations to be built, managed and maintained. Indeed, NATO has identified this positive experience as one of the enduring lessons from OUP.

70. With UN OCHA, the cooperation went further and NATO established a connection at SHAPE with a UN OCHA liaison team. This team was given access to certain sensitive NATO-owned information. The benefit that this close cooperation engendered was to provide NATO with a clear picture of relevant humanitarian issues; e.g. the health situation in Libya, initially focused on health information regarding migrants and refugees. Later in the crisis, the collaboration between SHAPE and UN OCHA developed to assess safe areas and areas to avoid for humanitarian actors.

Preventing and Avoiding Damage

Direct Collateral Damage to Healthcare Infrastructure

71. NATO was careful to minimize the impact of its actions on Libya's health infrastructures during OUP. According to reports, NATO managed to avoid causing direct collateral damage to the health system or humanitarian activities during the conflict and through a robust targeting process with strict rules of engagement and the improved precision of the ordnance used. Compared to Operation ALLIED FORCE—NATO's air campaign against the Former Republic of Yugoslavia and its forces deployed in Kosovo—in 1999, OUP was a great improvement in the conduct of precision air-strike operations.

Indirect Collateral Damage to Health

72. There was some indirect impact on the health infrastructure through disruption of the water supply network. Although throughout OUP NATO did not target health or water facilities, including at military sites, the water supply network suffered light structural damage during the fighting. In addition, because of the interconnectedness of the fuel, electric and water systems, a problem in one system impacted other systems.⁵⁴ For example, the supply of diesel fuel was impacted by the NATO embargo, by damage to refinery stations as a result of fighting, and by other factors such as smuggling. Libya used diesel fuel to generate electrical power. The lack of fuel and electricity for water desalination plants and to power water pumps led to disruptions in the water supply that, at one point, left four million inhabitants in Tripoli without water. The international humanitarian community, including ICRC, UNICEF and nations, responded by distributing clean water in Tripoli.⁵⁵

Preventing a Large-Scale Humanitarian Crisis

73. During the conflict, the security community assisted in preventing a large-scale humanitarian crisis by addressing the issue of internally displaced persons, refugees, and third-country nationals, and by providing direct healthcare.

Displaced Populations⁵⁶

74. Because of the fighting from February to November 2011, nearly 800,000 people fled Libya to neighbouring countries. Of these, 45% were third-country nationals who had been living in Libya prior to the conflict. After consultations among states, NATO, UNHCR and the IOM, it was decided that the humanitarian urgency and the suitability of the capabilities and resources offered by military assets warranted their use for the evacuation of migrants caught in the conflict⁵⁷. As a consequence, some nations provided the IOM military air assets, which evacuated third-country nationals from life-threatening situations and conducted voluntary repatriation operations, and other military assets provided transitory third-country national assistance and care. By the end of November 2011, the IOM had arranged for the repatriation of about 220,000 third-country nationals to their home countries. The collaboration with NATO and the integration of national military assets in the evacuations were judged a success by the IOM; nonetheless IOM indicates that they will only request use of military assets in an evacuation operation on a case-by-case basis and understands it to be a measure of "last resort".⁵⁸

75. At the beginning of March 2011, the IOM and the UNHCR joined forces to coordinate evacuation efforts and set up the Humanitarian Evacuation Cell (HEC). The HEC supported the coordination of resources and in-kind contributions from 19 countries. The HEC benefited from the support of the EU Monitoring and Information Centre (MIC), which assisted in transmitting requests for assets and in collecting offers from EU Member States.

76. Support to evacuating displaced persons extended even to those caught in the line of fire. By the end of September 2011, the IOM evacuated 40,000 people attempting to escape

fighting and trapped in Misrata, Sebha, Gatroun, Tripoli and Benghazi, through a variety of means of transportation (sea, land, and air). In July 2011, after obtaining clearance from all actors involved (including the military authorities in Niger and Libya, rebel forces in Libya, and NATO), the IOM was able to reach the cities of Sebha and Gatroun in southern Libya.

77. The IOM was also able to coordinate with military and customs authorities of neighbouring countries in order to ease their crossing at border points, to provide security at transit camps or to provide military escort for convoys crossing dangerous zones. The IOM also maintained a close link with NATO to coordinate airspace movements within the no-fly zone and to ensure that its evacuation operations in Libya were deconflicted.

78. The IOM stresses that coordination with relevant authorities such as NATO is a central component of its response to humanitarian emergencies.⁵⁹

Military Provision of Direct Healthcare

79. Neighbouring countries' militaries provided direct care to refugees and others. On the Tunisian border, the Tunisian army deployed a field hospital with 20 surgeons and several medical outposts, and Morocco deployed a 30-bed military field hospital close to the Choucha camp⁶⁰. Qatar deployed an advanced field hospital in the Al-Zahabiyah area in Tunisia to treat people injured in attacks conducted by pro-Gaddafi forces⁶¹. The Egyptian government also deployed two military field hospitals on the border in February 2011⁶².

Medicine and Medical Equipment Supply

80. Because of the fighting, drug procurement was a challenge for the NGOs and WHO in specific areas at various periods of time. In some cases, military assets were used for logistics; for example, on 02 March 2011, the UK Royal Navy Type 42 destroyer HMS YORK brought medical supplies and other humanitarian aid to Benghazi⁶³.

81. In June 2011, Mr. Nagi Barakat, the Minister of the Health of the NTC at the time, reported that hospitals in Benghazi were running short of supplies⁶⁴. In July 2011, the WHO reported medication shortages, with antiretroviral drugs and laboratory consumables being out of stock in most places, and all other special supplies were expected to be out of stock by September.⁶⁵ Libyan authorities on both sides of the conflict requested WHO's support in procuring essential medicines, vaccines and supplies. In response to this growing health crisis in Libya, the United Nations Sanctions Committee approved the Netherlands' releasing €100 million to the WHO from the frozen Libyan assets in the Netherlands to ensure the provision of essential medicines, vaccines and medical supplies for distribution across all of the territory of Libya⁶⁶.

82. The WHO was in charge of implementing the procurement plan, to deliver and to oversee the distribution of supplies in coordination with the Libyan health authorities. The WHO reported that it was able to obtain the full support of the security community. The first shipment of supplies reached the Libyan territory on 19 September⁶⁷. However, Mr. Nagi Barakat believes the response was too slow and that the NTC procured the medications quicker through local private companies using credit⁶⁸.

Treatment of War-wounded Patients

83. NGOs were evacuating war-wounded from the very beginning of the conflict. For instance, in April 2011, MSF organized two medical evacuations to Tunisia by sea for 135 patients from Misrata, who were treated in Tunisian medical facilities.

84. Some nations also took unilateral initiatives, such as Turkey, which evacuated by sea 300 seriously wounded people from the besieged Libyan towns of Misrata and Benghazi on 03 April 2011 for medical assistance⁶⁹.

85. The NTC Ministry of Health coordinated the evacuation of war-wounded patients requiring specialized, advanced procedures (such as reconstructive surgery and complex nerve repairs) in cooperation with several countries, including NATO and partner nations participating in OUP (United States⁷⁰, United Kingdom⁷¹, France⁷², Italy and Qatar⁷³).

86. The Temporary Financing Mechanism (TFM, an arm of the NTC), which was funded using unfrozen Libyan assets, set up a Global Health Plan in late August 2011 to cover the costs of hospital and medical care in several countries through contracted third party administrators—usually a medical insurance company⁷⁴. The TFM's Global Health Plan covered the hospital treatment and medical expenses of over 4,000 war wounded Libyan patients in Tunisia, Germany, the Netherlands, Denmark and Sweden and over \$100 million dollars was allocated *“to ensure global treatment continues unhindered”*⁷⁵.

87. Prime Minister Mahmoud Jibril announced in September 2011 that the NTC would set aside \$400 million to fund medical care for wounded fighters in overseas hospitals⁷⁶: Narrative B discusses this programme in more detail.

THE RECOVERY/REBUILDING PHASES

88. At the end of the conflict, the health sector faced the same systemic problems it had faced prior to the war. The conflict's impact was relatively small. There remained urgent needs to reform and strengthen capacity for effective and efficient health service delivery; to ensure effective planning, financing and management of health services; to correct glaring inefficiencies in workforce production, development and management; and, not least, to address the burden of disease arising from the conflict.

89. However, the MOH was able to develop an Emergency Crisis Response Team in 2012 in order to manage the emergency care for those injured in the events of that year. The MOH also liaised with the Head of State and the Ministry of Defence to form a network to facilitate emergency services for such events on a national and international level, including the provision of emergency medical treatment abroad⁷⁷.

90. The new Libyan government, now in charge of rebuilding the health system, is also faced with new expectations and demands for rapid improvement of the deteriorated public services. The new parliament has not issued the new constitutional framework, and the turnover among government officials is reportedly quite high⁷⁸.

91. The MOH is struggling with a slow and bureaucratic budgeting process which reduces efficiency. It has continued to focus its efforts primarily on dealing with issues emerging from the unstable security situation, particularly in the more remote rural areas.

Diminishing Engagement

92. From the very beginning of its engagement, NATO clearly stated that its post-OUP role would be very limited and it would only engage upon request from the Libyan authorities⁷⁹. NATO did, however, directly contribute to the demining of the country by unofficially releasing relevant information about unexploded ordnance resulting from OUP missions.^{††} On 06 November 2011, the NATO Secretary General announced: *“we have terminated our operations and I don't foresee any major NATO role in the post-conflict period. Of course, individual allies and individual nations can assist the National Transitional Council if the*

^{††} Thirteen years after NATO operations in Kosovo, the humanitarian community is still struggling to find out exactly where weapons were dropped during the air operations. During OUP, all weapon releases were carefully recorded from day one and the information was handed over shortly after the end of the crisis through a close coordination between SHAPE Civilian Advisor and the UN Mine Action Service.

*council requests their assistance*⁸⁰. This statement obviously applied to the health sector as well.

93. Most NATO nations clearly stated that they would not take the lead in post-conflict stabilization, but would rather support the efforts of the interim Government of Libya, the UN and other IOs such as the EU. Although donor support in the form of in-kind contributions and humanitarian aid was considerable during the crisis, donor involvement in the health sector is currently limited⁸¹.

94. Libya is now able to fund its own reconstruction and, coupled with the limited absorption capability of the Libyan public administration, the World Bank and the IMF have a very limited role.

Mapping the Health Situation

95. At the time of preparing this report, neither the MOH nor the WHO has released any general document to accurately assess the status of the Libyan health system as a whole. Such an assessment is essential for mapping the way forward for the health system.

96. In March 2012, the UNFPA, the Benghazi Medical Centre and the League of Arab States, with the contribution of the Government of Norway, released a Libyan Health and Humanitarian Needs Assessment Survey. This report documents the results from a survey questionnaire completed by a sample of 4357 households and therefore provides an overview of needs and not a comprehensive picture⁸².

97. In February 2013, the MOH in partnership with the WHO released a 2012 post-conflict health facility assessment report and a post-conflict assessment of hospitals report⁸³. The main objective of this report was to assess the current status of health system infrastructure, organizational structure and management of hospitals, health workforce, financial resources, pharmaceutical sector and drugs, service delivery and utilization, and effect of conflict.

International Community Efforts to Strengthen the Libyan Health Sector

98. Since the end of the conflict, many IOs, NGOs, individual nations have been involved in strengthening the Libyan health system. At present, the EU seems to have de facto leadership because of the limited engagement of other donors. However, many nations are cooperating bilaterally with the Libyan authorities to build longer-term, mutually beneficial partnerships to support the development of a health system in Libya and promote opportunities for their respective nations. What follows is a brief overview of some of the more important efforts currently being made:

- **The EU:** Through the European Network of Implementing Development Agencies (EUNIDA), the EU is currently running a €8.5 million Libya health system strengthening programme. The overall objective of this programme is *“to improve efficiency, effectiveness and quality of health service delivery in Libya”* with the specific objective *“to strengthen strategic planning, financing as well as management and quality of health service delivery through targeted reforms and pilot interventions”*. The programme provides technical assistance to central-level official organizations involved in the health sector. EUNIDA partners involved in the project include Belgian Technical Cooperation, the German *Gesellschaft für Internationale Zusammenarbeit*, Crown Agents, and France Expertise Internationale⁸⁴. The EU has also engaged with the Ministry of Health and Libyan healthcare leaders in dialogue concerning the objectives of the Libya health systems strengthening programme through regular meetings.
- **The UN:** In its Resolution 2040 (12 March 2012), Article 6, the UN Security Council tasked the UN Support Mission in Libya (UNSMIL), in full accordance with the principles of national ownership, to assist the Libyan authorities to define national

needs and priorities throughout Libya, and to match these with offers of strategic and technical advice where appropriate, and to support Libyan efforts in five main areas, including the coordination of international assistance and the building of government capacities⁸⁵. For all matters related to healthcare, the UNSMIL is backed by several agencies, such as the WHO, UNAIDS, UNODC, UNHCR and IOM. The WHO's role is to support the Ministry of Health to re-engineer the national health system and structures, through supporting the development and implementation of a National Health Strategic Plan.

- **WHO:** WHO provided some expertise in facilitating the MOH-sponsored National Health Systems Conference held in August 2012 in Tripoli. The aim of this conference was to identify the problems within the health system and to propose potential solutions. A draft report, known as LH500, was released in October 2012⁸⁶.
- **Finland:** From January to September 2012, the Ministries of Health and Social Affairs of Libya and the Finnish National Institute for Health Welfare cooperated to develop a concept paper on the core definition and ingredients of primary health care and a draft Master Plan for Mental Health⁸⁷. Subsequently, in February 2013, THL, the MOH and the National Centre for Disease Control of Libya negotiated continuing cooperation. The MOH proposed that a pilot primary care health centre be established in Libya based on the Finnish expert team's primary health care concept paper. This pilot project would be implemented in line with the WHO health sector reform and in coordination with the ongoing EU projects in Libya⁸⁸.
- **The United Kingdom:** The UK Department of Health carried out several missions to Libya that led to a Memorandum of Understanding (MOU) signed by the Libyan Minister of Health during the World Health Assembly meeting in Geneva in May 2012. This MOU includes comprehensive technical assistance to be made available to support reforms in the health sector and is to be financed by the Government of Libya in its entirety. There is no clear indication at the time of preparing this report that the Government of Libya will mobilize funding towards the MOU⁸⁹.

99. According to all involved stakeholders, the Libyans do have the ownership of the ongoing reforms⁹⁰. Cooperation between the IOs and the MOH is reported to be running well⁹¹. Principal challenges are the fragmentation of the numerous ongoing reforms in all the sectors of the Libyan society; a high turn-over among officials due to the political instability, and a relatively high level of violence within the country that inhibits the recruitment of the necessary skilled and experienced personnel.

Use of Military Medical Resources

100. In some very specific cases, military medical resources have been used subsequent to the conclusion of OUP:

- a. The French military trained Libyan nurses to use hyperbaric chambers so that they could effectively support the work of the Libyan divers in demining harbours⁹².
- b. A Jordanian military field hospital was deployed in Benghazi on 29 October 2011 and remained in place until November 2012. It treated more than 55,000 patients and performed more than 2,600 minor and major surgeries⁹³.

THE SECURITY COMMUNITY AND THE HEALTH SYSTEM

How did the security community participate in health system recovery and reconstruction when responding to the disasters?

101. Most interviewees, information sources and participants agree that in general the military contribution to the overall effort of the international community in responding to the crisis in Libya did not make a significant impact on the Libyan health system. In particular, the meticulous targeting procedures adopted by NATO coupled with the employment of precision strike munitions successfully prevented direct damage to the Libyan health infrastructure.

102. The coordination established by NATO with the international humanitarian community were considered essential and it is debatable whether the humanitarian relief effort could have succeeded without such coordination.

103. Regarding the post-conflict rebuilding of the Libyan health system, there appears to be limited opportunity for the security community to be involved. Moreover, such a long-term involvement would raise concerns among the development community, which considers engagement to be inappropriate for the military⁹⁴.

104. Figure 2 illustrates the impact on the WHO Health System Building Blocks of the security community contributions.

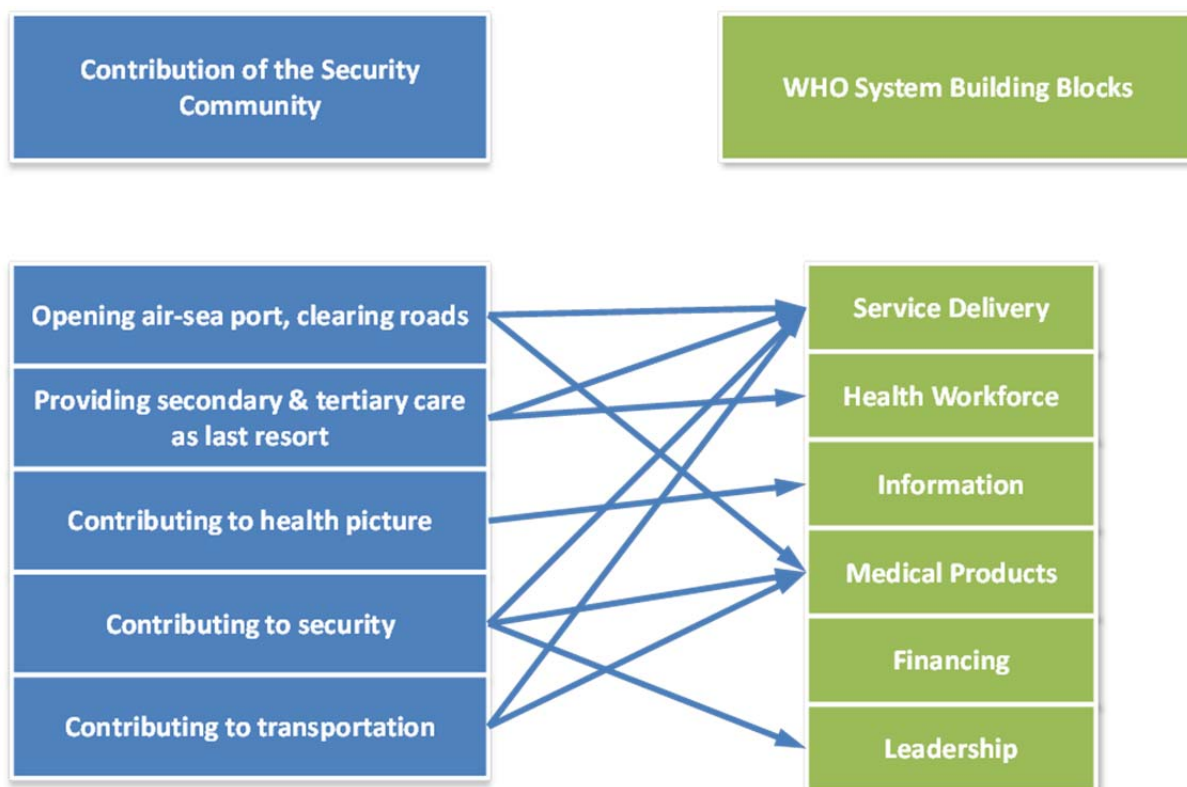


Figure 2: Contributions of security community linked to WHO Health System Building Blocks

Summary:

During the Conflict

- NATO established constant dialogue with IOs and NGOs that reportedly proved effective during the Libya crisis, including setting up ad-hoc structures at SHAPE to interface with IOs and NGOs and maintaining an open line between UN OCHA and SHAPE.
- NATO developed specific strategic-level contingency plans for military operations to support humanitarian assistance, with full respect of the Oslo Guidelines and UN OCHA specific guidance.
- NATO managed to avoid direct collateral damage to healthcare activities/infrastructures and minimized as much as possible the impact of the operations on determinants of health (handling of refugees, water supply, etc.).
- The non-execution of the EUFOR-Libya mission and the NATO HA OPLAN may indicate that direct military support to humanitarian operations is a concept that has to be more clearly defined and further explored.
- In some very specific cases and in accordance with international guidelines, there was some limited provision of direct military aid to the population and to the war wounded.

After the conflict

- The engagement of the security community in rebuilding the Libyan health system is minimal. The new Libyan government has ownership of the process.
- A comprehensive post-conflict assessment of the health system was not developed in a timely manner; the Libyan authorities did not have the capability to conduct such as assessment and IOs did not have the mandate.

IDEAS TO TAKE FORWARD

105. Compared with the effects of years of poor management by the Gaddafi administration, the Libyan conflict in 2011 did not significantly impact the health system from a long-term perspective.

106. The security community had a major and positive impact on preserving the Libyan health system and infrastructures during the conflict mainly through avoiding direct collateral damage and facilitating the humanitarian operations. The involvement of the security community in Libya after the conflict has been minimal for political reasons and the desire of the Libyan government.

107. The humanitarian community, coordinated by UN agencies, was able to provide robust support to displaced populations.

108. Little tangible progress has been made to strengthen the Libyan health system during the last two years, despite an economic recovery. Indeed, the country remains fragile and is facing growing instability, and has not been able to define a new political and social framework. It is likely that the next steps will only happen after the government elections due to take place at the end of 2013.

FOOD FOR THOUGHT – A DISCUSSION OF OUR KEY TAKEAWAYS

109. A review of the responses to the health threats in this case study has identified three key takeaways worthy of consideration by global crisis responders to develop future frameworks for strengthening state health systems:

a. In a crisis situation, the security community can be an appropriate contributor to mitigate health threats or to strengthen some elements of the health system:

- By avoiding direct collateral damage to health system infrastructures and minimizing as much as possible the impact of the operations on determinants of health such as the water supply;
- By enabling and securing the medical supply chain;
- By supporting displaced populations, when requested;
- By providing, when requested, direct health services in support of the humanitarian community in accordance with international guidelines.

b. This Libya case study demonstrates once again that interaction—at a minimum awareness leading to deconfliction and at best coordination leading to coherence—is essential among the key health sector actors from both civilian and military communities:

- In Libya, the UN OCHA was one of the principal coordinators of the humanitarian response. NATO was proactive in establishing humanitarian-military coordination during the Libyan conflict. Mutual understanding between the security and humanitarian communities was facilitated by effective dialogue during the initial phases of the conflict coupled with the transparent exchange of information with SHAPE staff and the development of a SOPs. The security and humanitarian communities had different approaches to achieving their common goal of protecting civilians, but at the tactical level their actions were well coordinated and complementary.
- The ad-hoc coordination system established during the Libya crisis between the security and humanitarian communities has now been institutionalized at the strategic

level of the NATO command structure with the creation of a civilian-military cell within the Comprehensive Crisis and Operations Management Centre (CCOMC)^{‡‡} at SHAPE. Moreover, UN OCHA took part in lessons learned activities with NATO and some other humanitarian actors involved in the Libya crisis to outline what worked well, what did not, and what could be improved in a future emergency.

c. In general, the deconfliction system that was set in place for the Libya crisis is considered a success by both NATO and the humanitarian community. No commonly shared health information picture exists that can enable timely service delivery, early detection of health threats, and support the military planning process. Narrative A describes how a virtual network of volunteers—volunteer technical communities—successfully provided a comprehensive Libyan health picture by creating a live map prior to and during the conflict, and later mapping of the health system after the crisis ended. The health system maps themselves were hosted on geographic information systems. The information presented came from crowd-sourced social media and other internet data. While the use of such a collaborative, volunteer-based mapping effort during a disaster response seems to be well accepted, its use during a conflict raises a number security and ethical issues.

110. The following three sections provide some food for thought regarding the security community elements that need to be put into place to provide a future framework to strengthen state health systems.

A Holistic Approach – Health System Strengthening as part of an all systems approach

111. As in Afghanistan and Kosovo, the majority of the actors agree that a pre-condition for providing a robust health system is a safe and secure environment. In Libya, the level of violence continues to impact not only public health but also the health system in a direct or indirect manner. Insecurity is eroding the trust of the population in the government, preventing the Libyan diaspora and the foreign health workforce from entering Libya, and hampering reconstruction and cooperation programmes.

112. With a deteriorating security situation in Libya, access to health care is becoming a concern. By training Libyan security officials and forces, the security community could contribute in an indirect manner to the establishment of the safe and secure environment needed for the development of an effective health system.

113. Libya is in the process of reconsidering the management of its administration and economy. The security community could contribute to nation building by supporting the Libyan government in its efforts to weaken the hold of patronage networks, to fight corruption and fraud, and to establish, promote, and uphold the rule of law.

Involvement of Military Forces – Military as a Contributor to the Humanitarian Crisis Response

114. In Libya, because the humanitarian community was able to address nearly all of the needs, few military assets needed to be devoted to contributing to the humanitarian crisis. The provision of direct health care by military forces remained limited. But it is generally recognized that the coordination mechanisms set up between military and humanitarian communities proved effective at facilitating the response to humanitarian issues.

115. Coordination with the humanitarian sphere was eased by the fact that NATO had incorporated existing humanitarian guidelines into its standing guidance which also helped ensure NATO's compliance with Libya specific guidance from UN OCHA.

^{‡‡} The SHAPE CCOMC is a new organization established in 2012, which is divided in five task groups focusing on Crisis Identification, Current Operations, Estimations and Options, Response Direction and Crisis Review.

116. The EU concept for a military humanitarian operation to assist in responding to the crisis was seen to pose a risk of blurring the lines between military and humanitarian spheres. Certainly, the EU possesses the necessary budget, and civilian and military capabilities, to have implemented such an operation, and indeed, the EU is now present in Libya and is providing a limited but significant contribution to the rebuilding of the Libyan health system through its development agencies through its political, diplomatic and economic instruments.

Health System Recovery and Strengthening – Short-term Versus Long-term Approach

117. Libya's health system was in poor shape prior to the conflict and, in reality, it did not even offer a sufficiently strong foundation for building an effective health system afterwards. Those intervening in the health sector did not really grasp this fact. Stakeholders assumed that because the Libyan state had the necessary resources, the health system would be well structured. Because Libya is not dependent on funding from the World Bank, the International Monetary Fund, etc., these bodies have little influence on how Libya builds its health system and Libya does not appear to be a priority for them.

118. Some short-term health strategies proved to be counter-productive. For example, the outsourcing of treatment for war wounded had three goals: attain treatment for the war wounded who otherwise could not have received it because the Libyan health system was not capable of providing it; relieve a burden on that health system; and build trust in the new Libyan government by caring about those injured in its establishment. However, although many received needed treatment they could not have gotten otherwise, the poor implementation of the programme resulted in diverting a huge amount of financial resources, engendering fraud and corruption, and overall proved ineffective for the second and third goals. In the end, the programme fed the distrust of the population towards the Libyan health system and government and may even have been harmful to the health system.

119. It is clear from the lessons drawn from many conflicts that a nation needs an evidence-based national health policy framework at the very beginning of post-conflict reconstruction. In the case of Libya, assessing the impact of the conflict on the Libyan health system is a very slow process. The public health risk assessment and interventions study published by the WHO in March 2011⁹⁵ was insufficient in scope and detail to deliver the necessary health systems knowledge required for effective post-conflict reconstruction⁹⁶. After the conflict, the engagement of the international community in the Libyan health system rebuilding was minimal as the Libyan Government took the ownership of the process. Therefore, a comprehensive post-conflict assessment of the health system was not quickly executed: the Libyan authorities did not have the capability to conduct such an assessment while IOs did not have the mandate.

120. Regarding the contribution of the military to healthcare, engaging in the promotion of health is very different from engaging in the promotion of a health system. While health needs are often short term and can be met through the employment of military assets, strengthening an entire health system needs long-term solutions and strategies that are not always clear and are often beyond the mandate, and maybe the capability, of the security community.

THE NARRATIVES

NARRATIVE A: LIBYA CRISIS MAPPING AND MEDICAL “INTELLIGENCE”: CAN CRISIS MAPPING HELP INTERNATIONAL ACTORS PROTECT HEALTH SECTOR ASSETS DURING CONFLICT?

Mrs. Julie Talbot – Harvard

INTRODUCTION

121. Understanding the health situation, including health assets, is essential to protecting and developing those assets—to making informed decisions throughout an emergency.⁹⁷ The Internet has rapidly changed the ability to gather and use information. The first time a crisis was mapped online was in Haiti in 2010 after the earthquake. Volunteers and community members created a live map that first responders, including US military, used to plan their efforts and allocate resources. With this event, humanitarian and other organizations realized the value of crowd-sourced data and geographic information technologies.⁹⁸ People from all over the world could aid in data collection and management, no matter where they were located, by using social media outlets, peer-to-peer networks, Skype, web searches, and other online means. During the crisis in Libya, volunteer technical communities (VTC) united to create a live map and to later map the health system after the crisis ended. This narrative explores how crisis mapping may help protect health sector assets during conflict and guide the response. Readers should gain an understanding of the crisis mapping process to assess whether any cooperation could be established between the military and the crisis mapping community.

HEALTH ASSET AWARENESS PRIOR TO CONFLICT

122. In February 2009, the MOH released a report stating Libya had 96 hospitals with 20,289 beds, 25 specialized units with 5,970 beds, 1,355 primary health centres, 37 polyclinics and 17 quarantine units. Officially, 100% of the population had access to health care services.⁹⁹

123. In March 2011, the WHO published a public health risk assessment and interventions study.¹⁰⁰ The study was primarily desk-based and did not contain detailed health care systems intelligence, which would be essential for post-conflict reconstruction.¹⁰¹

TRACKING ASSETS DURING CONFLICT

124. With the escalation of the emerging humanitarian crisis in Libya, the UN OCHA needed a sound understanding of what was happening on the ground to coordinate crisis mitigation efforts. UN OCHA had limited information sources: it had no Information Management Officers in country and no capacity to gather, verify and process the enormous amount of available online information;¹⁰² there were virtually no independent media groups or journalists on the ground; and the security situation made collecting information difficult.

125. On 28 February 2011, several VTCs—self-organizing groups of global volunteers such as Crisis Commons, the Stand By Task Force (SBTF) and the *Humanitarian OpenStreetMap* Team (HOT)—received a request to create a live map from Brendan McDonald, the head of UN OCHA’s Information Services Section and Chair of the Inter-Agency Standing

Committee's Information Management Task Force. On 01 March 2011, UN OCHA brought several major VTCs together to discuss the needs and initiate collaboration. The SBTF team was activated within an hour, and an initial crisis map was deployed within the next four hours.¹⁰³

126. The map was live and access was limited by password protection. Two days later, UN OCHA requested the SBTF make the map public. SBTF declined, citing security and privacy issues. One informant explained, *"It was surprising that it took us, the volunteers, to design a threat and risk mitigation strategy for the UN to sign off on and not the other way around. Our aim is to provide situational awareness to disaster responders so that they can make informed decisions. If you have a detailed real map available on the net it may be accessed by anyone—including Gaddafi supporters and other armed groups."* Following discussions and the realization of the significance of the information in the public domain, the SBTF launched a highly redacted public version on a 24-hour time lag, with data anonymized to prevent information being traced back to the source. The SBTF also drafted a threat mitigation strategy to identify the risks of creating this public version.

127. The 250 volunteers who joined the deployment mainly coordinated via Skype chats and emails.

MAPPING PROCESS

128. There was a considerable amount of information being shared from within Libya via social media channels including Twitter, Facebook, Flickr and YouTube. The SBTF collected this information and that from trusted sources—ReliefWeb, NGOs, and increasing amounts of traditional media—and would then enter all the information in a spread sheet. It monitored, categorized, mapped, analysed and (to the extent possible) verified information about the evolving situation on the ground. UN OCHA would review it and further verify the sources. On 04 March 2011, the SBTF (upon UN OCHA's request) also began putting the data into an official Who's Doing What Where—3Ws—database. UN OCHA would incorporate the data into standard infographics distributed in local and global meetings.

129. The mapping effort (depicted in Appendix 1) took much longer than the SBTF expected and was repeatedly extended. One SBTF informant explained, *"SBTF is designed for a rapid response to live mapping and support—for 3-10 days, not more. But given the seriousness of the situation, we ended up being online for four weeks, which was recipe for a burnout. The exit strategy we suggested was to get UN volunteers we could train and who could then take over."* The SBTF collaborated with UN Volunteers—the UN's online volunteer service—to train a hundred new volunteers. UN OCHA assumed responsibility for the mapping effort on 28 March 2011, by which date it had established a field presence in the country. Many of the 250 VTC members chose to stay on beyond the official SBTF deployment.

130. Precise location mapping took a lot of time because the names of places could vary drastically, with numerous languages and spellings for each single place. For example, one informant explained, *"In Libya we find five different spellings of the same name, plus local names and people giving you place locations, rather than names, so we have geo-location teams who spend a lot of time finding locations."*

SECURITY ISSUES IN CRISIS MAPPING

131. Confidentiality is a key principle in humanitarian information management. The security of the Libya crisis map data sources was a very serious concern to the SBTF and other volunteers. The SBTF recognized in its Lessons Learned report¹⁰⁴ that it is best neither to solicit nor store any information which could put people in danger. Only for internal requests,

governed with clear rules and procedures, should identities of contributors be shared with anyone. Confidentiality of the information sources was paramount.

132. The use of a public and private site worked well to protect information yet provided operational partners access to all data elements. Besides UN OCHA, eight humanitarian agencies and NGOs requested access to the password protected version of the Libya Crisis Map: UNHCR, WFP, Save the Children, IOM, Service Availability and Readiness Assessment (SARA), ICRC, and American Red Cross.

133. Some crowd-sourced information met the minimum requirements to be considered tactical military intelligence during the Libyan Civil War, whether those producing the data knew it or not. Many of the maps containing information relevant to military commanders could be as reliable as those created by military intelligence professionals.

HEALTH SYSTEM MAPPING EFFORT

134. After the conflict ended, it was essential to understand the status of the health system to leverage the support of WHO and health partners for recovery. Collecting health facility location information over such a large geographic area and with restricted access to insecure areas was difficult, however, given the limited resources. The WHO needed to locate as many health facility locations as possible, which would require a lot of people to gather information and specialists to analyse and translate the information into accessible maps. Aware of the Libya Crisis Map, the WHO partnered with members of the crisis mapping community.

135. The WHO convened local health and Libyan actors with three volunteer crisis mapping organizations: GISCorps, SBTF, and HOT. A researcher assisted to convene the group and provide strategic advice. Each member brought unique skills to the project (see Appendix 2 for more on each group). As one mapper blogged, *“For this phase, WHO was not as concerned about data licensing, just trying to get everything out there collected. This did mean a lot of careful discussions about how to handle data with different licensing, what the implications were ... a useful time to educate on what can be arcane, especially in the heat of a humanitarian response.”*¹⁰⁵

136. In four weeks, by mid-January, SBTF and HOT members identified over 683 health facilities. (See Appendix 3 for maps.) Approximately 90% of identified facilities (n= 245) were public. Over half (57%) of these facilities (n=575) were hospitals, and 25% were clinics. Fifty per cent (n=683) of all health facilities had confirmed geo-coordinates. (See Appendix 4 for stages of mapping process.) GISCorps provided volunteers to conduct quality control on the data collected.¹⁰⁶

137. This collaborative was created to provide information to assist the planning phases of an in-depth country-wide health facility assessment, theSARA, that would be done by people on the ground.

138. The Ministry of Health Libya and the World Health Organization Regional Office for the Eastern Mediterranean conducted the 2012 SARA for Libya and provided the project financing and technical support. The Health Information Centre at the Libyan Ministry of Health supervised the implementation of the survey and provided the preliminary list of facilities to guide where and how teams would deploy to field sites. The WHO maps are not referenced in the SARA. The SARA aimed to gain insight into the operational capacity and performance of the health system to re-build, reconstruct, and/or enhance facilities where necessary and to establish a baseline to enable monitoring over time. It was carried out by eight people who were trained in March 2012.

139. A total of 1402 facilities were identified and contacted for the SARA survey by 2012. (See Appendix 5 for results.) Overall 16% of hospitals were moderately/severely damaged

due to the conflict. Of the nine districts that saw damage to health facilities, the most affected district was Misrata, where 75% of facilities were severely damaged; while in Al-Gebal Elgharbi, 43% were. The service availability pre- and post-conflict index was 52.77% pre-conflict and 54.58% post conflict.¹⁰⁷

DISCUSSION

140. It is unclear whether more detailed pre-crisis mapping and planning could have been used to protect health sector assets during the crisis. A lack of pre-crisis knowledge can not only contribute to collateral damage, but it can slow recovery and make it much more difficult and expensive.¹⁰⁸ Despite the assistance of multiple groups, there was not an accurate picture of the health sector in Libya for many months after the crisis.

141. There is great potential for multiple stakeholders, including the security community, to come together in the area of routine mapping, in scaling up modern technology and using information from crowdsourcing. Google and the World Bank, for example—along with World Bank partners and UN agencies—have joined together to produce publicly available maps. They hope the maps will enable improved development coordination, including aiding in service delivery, fighting corruption and tracking resources. The security community is certainly capable of supporting these efforts and could benefit from the information produced in targeting its health sector response. As such efforts take place, it will be important to evaluate their impact and determine ways to tailor them to the needs and potential uses.

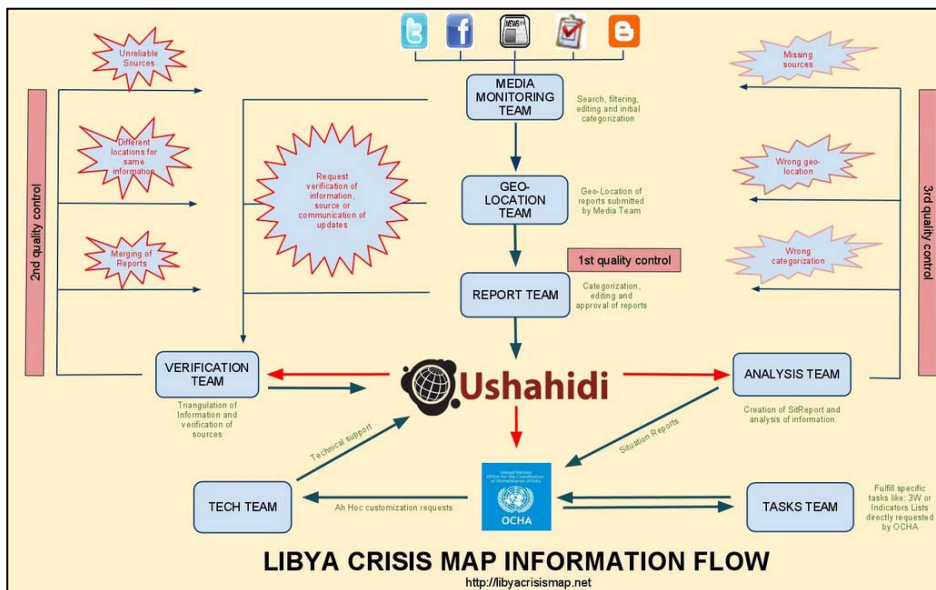
LESSONS LEARNED

142. Learning how to use and leverage new technologies in the field takes both trust as well as a willingness to change and be open to innovation. It requires engaging with new groups, learning about their efforts, and considering their potential impact. One informant explained some groups' reactions to the VTCs, saying *"They are scared, sceptical of it, and think the volunteers don't know what they are doing and don't trust them. There was the typical pushback in dealing with change ... People want to do business as usual."* Organizations couldn't understand the VTC structure or how to collaborate because they were accustomed to "traditional military-style organizations."

143. Though operating over a distributed peer-to-peer network proved to be effective, in response to scepticism and lack of coordinated uptake of the information produced, the Digital Humanitarian Network was created. The Network aims to assist development and humanitarian organizations in interfacing with the vast amounts of information and volunteers involved in the technological community.

144. Despite the potential held by their innovation, virtual responses and volunteer groups are not without risks. Digital volunteers can be subject to tort liability if they fail to use reasonable care in making their responses. Problems could arise from disseminating false information, developing software in a sloppy manner, failing to act in a matter commensurate with similarly situated professionals, or failing to properly vet and supervise volunteers. As mentioned, some have also questioned the line between mapping and spying, especially when image analysis is involved. Those involved must ensure all data focuses on humanitarian issues and not military reconnaissance. While basic data on where conflict events occur is permissible, data on the movement of troops or other data which could be utilized by belligerents must be avoided by the current VTC.

APPENDIX 1 LIBYA CRISIS MAPPING INFORMATION FLOW CHART

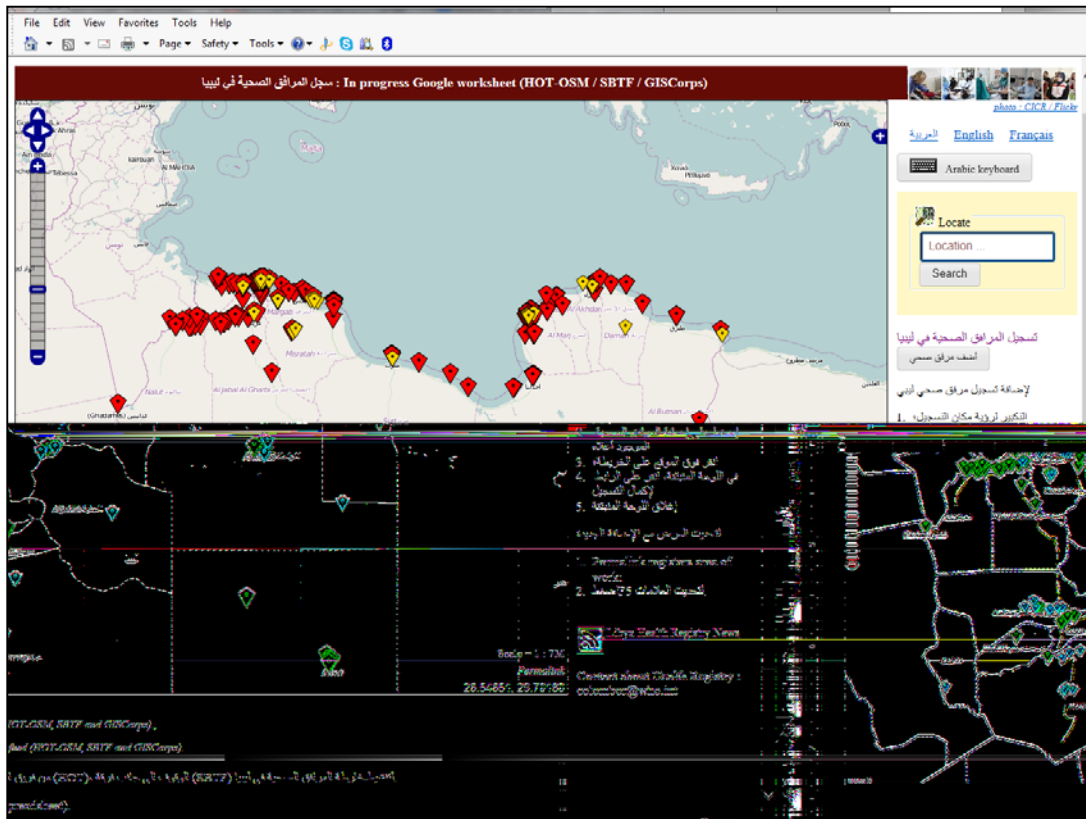


Source: <http://standbytaskforce.wordpress.com/2011/03/16/the-libya-crisis-map-workflow/>
 [Chart created by Anahi Ayala Iacucci and Sentil Prakash Chinnachamy for the SBTF]

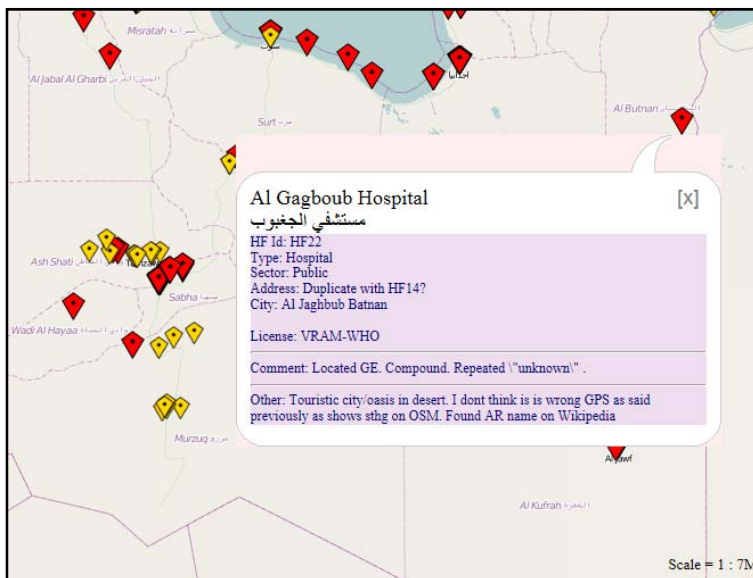
APPENDIX 2 PARTIES INVOLVED IN LIBYA CRISIS MAPPING EFFORT

- GISCorps coordinates short-term volunteer GIS services to under-served communities and has over 2,500 volunteers from 93 countries. To date it has deployed 272 volunteers to 88 missions in response to disasters around the world.
- The HOT bridges mapping between traditional response communities and the OpenStreetMap community. Efforts are done both remotely and through fieldwork for disaster response and disaster risk reduction.
- The SBTF with over 600 members from 62 countries has been involved in crisis mapping deployments for Haiti, Chile, Pakistan and Sudan and partnered with UN OCHA to create the Libya Crisis Map.
- A researcher and co-author of the Disaster 2.0 report, affiliated with the Harvard Humanitarian Initiative and Northwestern University also partnered with the above groups. (Harvard Humanitarian Initiative, 2011) ¹

APPENDIX 3 EXAMPLES OF MAPS CREATED FOR HEALTH FACILITY MAPPING PROJECT



Clicking on a mapped facility shows known details about the facility:



Source : OpenStreetMap in progress Google worksheet
http://pierzen.dev.openstreetmap.org/hot/openlayers/libya_health.php

APPENDIX 4 STAGES OF HEALTH FACILITY MAPPING EFFORT

Stage 1 – The WHO GIS specialist compiles and cleans available geographic health facility data from operational organizations.

Stage 2 – The SBTF and HOT volunteers collect and curate information primarily from the World Wide Web (Web). Coordinators facilitate these efforts and GISCorps volunteers observe the growing dataset.

Stage 3 – GISCorps volunteers standardize the dataset, further geo-code information, and help provide quality control measures. The researcher analyses the dataset and provides a quick view of what types of information have been collected.

Stage 4 – Volunteers and the WHO GIS specialist transform data into static and live maps in order to share with the broader network of decision-makers. Communication pathways will be further developed to share information with the wider community. Networks of health providers update the live maps with new health

APPENDIX 5 EFFECT OF CONFLICT ON HOSPITAL INFRASTRUCTURE, LIBYA 2012

Background characteristic	Hospitals that were moderately damage	Hospitals that were severely damage	Hospitals that were moderately and severely damage	Number of hospitals
	No.	No.	%	
Type of hospital				
Teaching tertiary	3	2	15.2	33
Secondary hospital	0	2	10.0	20
Rural hospital	3	3	19.4	31
Other	1	0	50.0	2

	Fully functioning	Partially functioning	Not-functioning	Under rehabilitation	Number of facilities
Completed	449	592	125	42	1208
Partially completed	3	6	0	0	9
Respondent not available	0	1	6	1	8
Refused	0	1	5	9	15
Facility is closed	0	0	105	6	111
Other	1	4	16	7	28
Total	453	604	257	65	1379

Source: WHO and Libya MOH Post-Conflict Report

NARRATIVE B: OUTSOURCING THE TREATMENT OF WAR WOUNDED

LTC Laurent Zych – JALLC

145. As the 2011 conflict came to an end, Libya's hospitals were overburdened, a result both of the number of casualties and of a shortage of staff. Some patients with serious injuries could not be treated, and there was a public call for action to ameliorate this situation. Consequently, one of the first announcements made by Libya's National Transitional Council (NTC) after the fall of Tripoli in August 2011 was a promise to assist all those injured in the fight against former leader Muammar Gaddafi. The NTC was under significant political pressure, and the proper handling of injured fighters (also referred to as war wounded) was perceived as a major test for the new administration.

TREATMENT OF WAR-WOUNDED – A PROGRAMME OUT OF CONTROL

146. Prime Minister Mahmoud Jibril announced in September 2011 that the NTC would set aside US\$ 400 million¹⁰⁹ to fund medical care for injured fighters in overseas hospitals. To manage the programme, the Ministry of War Wounded (MoWW) was created on 16 September 2011 and acted as a focal point and manage the evacuation, treatment, rehabilitation and repatriation of war-wounded patients. However, the MoWW was subsequently dissolved and the NTC approved the creation of a "Committee for the Care of the Injured" on 11 December 2011. This committee was a management body independent from the MOH, had a separate budget, and reported to and was under the direct supervision of the Prime Minister's Office¹¹⁰.

147. The programme quickly spiralled out of control. By February 2012, according to former Deputy Prime Minister Mustafa Abu Shagur, the estimated cost had risen to US\$800 million and concerned 40,000 patients, only 10 to 15% of whom were actually war-wounded¹¹¹. In April 2012, health minister Dr Fatima Hamroush estimated that Libya had paid out over US\$3 billion for the programme based on reports from the Committee for the Care of the Injured and the invoices received from different countries to the Ministry of Finance and the MOH¹¹².

148. The principal reasons why this programme of outsourcing the treatment of war-wounded in foreign countries went out of control are:

- The pressure of high expectations placed on the NTC, which resulted in unrealistic promises to provide healthcare.
- The lack of an accurate assessment on the real needs regarding the war-wounded patients: even now, the number of persons who legitimately should qualify for the programme is not known precisely.
- The distrust of Libyans in their health system: there is a perceived and indeed evidence-based notion that medical treatment abroad is of a higher quality.
- An unclear definition of roles and responsibilities within the administration. The "Committee for the Care of the Injured" was not subordinated to the MOH. The coordination between the MOH and the Ministry of Social Affairs was not well established.

- The endemic corruption inherited from the former regime, coupled with a poor financial control process and a decentralized decision making process, made large scale fraud not only possible but relatively easy.

149. Because of the numerous abuses reported and the spiralling costs, Dr Hamroush asked the NTC for the Committee for the Care of the Injured to be disbanded and for the MOH to take control of the process. Hand-over of the files started in March 2012 and was finalized by the end of June 2012. All those whose treatment could be dealt with in Libya were notified to return or continue the treatment outside of Libya at their own expense. Subsequently, the number of people treated abroad decreased dramatically: for example, the number of Libyans being looked after in Jordan dropped from 40,000 to less than 3,000.¹¹³ Similar effects were reported in other countries where Libyans were being treated, such as Egypt and Tunisia.

CONSEQUENCES

150. The implementation of the programme for medical care of injured fighters in overseas hospitals without the appropriate and necessary controls made it open to fraudulence and syphoned off a significant part of the budget of the MOH for 2012, which has hampered and continues to hamper efforts to rebuild the health system. Hospitals continue to be poorly staffed and to suffer from a lack of equipment and expertise.

151. Although dictated by significant internal political pressure—such a short-term policy whereby the government spent millions of dollars to send people overseas for even the simplest treatment—has contributed to the continued lack of confidence and trust in the Libyan health system by the Libyan populace. The Libyan population perceives that the Libyan MOH failed to address the treatment of war-wounded adequately, even though the MOH was not completely involved in the process until July 2012.

152. From a purely human perspective, and in some specific cases, it has been reported that some Libyan war-wounded already overseas were struggling to get the care they needed as Libyan and host nation authorities disputed costs¹¹⁴.

153. There is also evidence that many countries were perceived by the Libyan authorities as being somewhat complaisant and may have profited from the sharp rise in Libyan patients, through exaggerating the billing of the treatments and/or through not ensuring that the type of treatment provided was consistent with a war-injury. For instance, the German firm Almeda was reported to have charged the Libyan government up to 2.5 times the standard rate for some treatments¹¹⁵; in Jordan, it is reported that only 8,000 of the 48,000 patients treated were wounded fighters¹¹⁶. Furthermore, tensions arose between the new Libyan administration and service providers in some of the countries where war wounded were treated—e.g. Jordan¹¹⁷, Tunisia¹¹⁸ and Greece¹¹⁹—mainly because Libya has not yet paid the bills. Tunisia and Jordan threatened to cut off medical services to Libya several times in 2012 unless bills were paid¹²⁰.

154. From a Libyan perspective, this programme for the treatment of the war-wounded resulted in some significant security problems. Because of her decision in 2012 to reduce the number of patients authorized for treatment under the programme, then Minister of Health Dr Hamroush received death threats, was placed under armed guard and had to move her office into the Defence Ministry's compound. On several occasions, the parliament was raided by armed *Thwars* (wounded revolutionaries) demanding a compensation plan¹²¹.

155. Finally, from a global health perspective, the outsourcing of Libyan patients to foreign countries helped spread multi-drug resistant bacteria within areas which are normally not affected. In Germany, such bacteria were recovered from 17 Libyan injured patients¹²². Another 45 patients admitted to Danish hospitals were found to be carriers of *K. pneumonia*

bacteria¹²³. Similarly, the first case of multi-drug resistant bacteria to be documented in Slovenia¹²⁴ was obtained from an injured Libyan combatant. The UK¹²⁵ and France¹²⁶ have also reported several isolations of bacteria from patients transferred for treatment following combat injuries in Libya. The European Centre for Disease Prevention and Control circulated a rapid risk assessment on 31 October 2011, stating that the provision of healthcare to patients transferred from Libya to the European Union was presenting a high risk of introducing multi-drug resistant bacteria¹²⁷.

DISCUSSION

156. On reflection, those involved in the war wounded programme should have handled the treatment of Libyan war injured more sensitively. It seems as though some countries may have been a little too accommodating in accepting patients and treating them without assuring their eligibility.

157. However, there were success stories: the scheme used to treat Libyan war-wounded in Canada proved very successful, with no reported issues, not only because the number of patients was relatively small (55), but also because they were carefully selected. Patients were chosen on the basis that their needs, and their expectations, could be met¹²⁸.

158. Alternative approaches may be more effective and permit capacity to be built. For instance, French authorities were reluctant to treat war-wounded in France¹²⁹—principally because of the multi-drug resistant bacteria risk—and preferred, when security permitted, to deploy medical teams embedded in Libyan hospitals in order not only to treat patients but also to train Libyan medical teams in the fields of medical supply logistics, hygiene procedures and human resources management¹³⁰.

159. Finally, Dr. Hamroush stated when interviewed that Libya would have liked NATO Allies to deploy medical capabilities such as hospital ships in order to save Libyan lives¹³¹. Such an action would have reduced or removed the necessity to send war-wounded for treatment abroad. Such a response option was considered by NATO during the initial phases of its crisis management process¹³²; it was not selected because:

- The humanitarian community may have perceived such an action as interference by NATO in the humanitarian sphere and may have hampered the coordination between NATO and some key agencies like UN OCHA.
- Treated patients would probably have been transferred at some time to neighbouring countries for recovery.

CLOSING REMARKS

160. The programme for the medical care of injured Libyan fighters in overseas hospitals was well intentioned, in that it sought to provide appropriate healthcare for the wounded and to reduce burden on the Libyan health system. But it had several largely unforeseen, unintended and undesired effects: its spiralling cost precluded vital investment in the Libya's struggling health system; it fuelled corruption and fraud within Libya and therefore may have weakened the new government of Libya; and it led to the spread of multi-drug resistant bacteria.

- ¹ Harvard Medical School & NATO JALLC; Towards a Comprehensive Response to Health System Strengthening (2012); pg. 3.
- ² The World Bank; Libya Data: <http://data.worldbank.org/about/country-classifications/country-and-lending-groups>
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Annex A

GLOSSARY OF ACRONYMS

CJTF UP	Combined Joint Task Force UNIFIED PROTECTOR
CMI	Civil Military Interaction
CONOPS	Concept of Operations
CSDP	EU Common Security and Defence Policy
EEAS	European External Action Service
EUFOR	European Union Force
EUNIDA	European Network of Implementing Development Agencies
HA	Humanitarian Assistance
HDI	Humanitarian Development Index
HEC	Humanitarian Evacuation Cell
HIV	Human Immunodeficiency Virus
HOT	Humanitarian <i>OpenStreetMap</i> Team
ICRC	International Committee of the Red Cross
IMC	International Medical Corps
IO	International Organization
IOM	International Office for Migration
MCDA	Military and Civil Defence Assets
MIC	EU Monitoring and Information Centre
MOH	(Libyan) Ministry of Health
MOU	Memorandum of Understanding
MoWW	Ministry of the War Wounded
MSF	Médecins sans Frontières
NAC	North Atlantic Council
NTC	National Transitional Council
OCHA	Office for the Coordination of Humanitarian Affairs
OPLAN	Operations Plan
OUP	Operation UNIFIED PROTECTOR
SARA	Service Availability and Readiness Assessment
SBTF	Stand-By Task Force
SOP	Standard Operating Procedure
TFM	Temporary Financing Mechanism
UNICEF	UN Children's Fund
UNSMIL	UN Support Mission in Libya
VTC	Volunteer Technical Communities
WFP	World Food Programme