Health situation in Libya

The conflict that started last February has substantially changed the country’s health status and system. In addition to noncommunicable diseases, that have traditionally been the main cause of morbidity and mortality, war-related traumas now dominate the health panorama, especially in urban areas.

The closure of primary health care centres (because of damage caused by fighting, acute shortages of funds, medicines and supplies or lack of health workers) compels people to seek health care in overburdened hospitals. Disrupted immunization and disease prevention programmes combined with weak disease surveillance and outbreak control systems have greatly increased the risk of communicable disease outbreaks.

Replenishing stocks of essential medicines and medical supplies is the main health priority for Libya. So far, the health system has managed to prevent disease outbreaks and to maintain a high level of immunization. However, these achievements are at risk if shortages of staff, supplies and funds continue.

Injuries

According to official statistics, more than 11 000 people in central and western Libya had been wounded as of 1 June. Since the beginning of the uprising, hospitals have been overwhelmed by the number of casualties. These are concentrated in Misrata, along the Ajdabia-Brega road, Elzawia, in the Nafusa mountains and in and around Tripoli. Even if the conflict abates from time to time, around 65 people per day are still being wounded in Misrata. More than 630 people have been killed and around 6000 wounded in Misrata since 17 February. Although no systematic data collection system is in place to back these numbers, the figures appear to be credible.

For comparison purposes, 17 790 cases of influenza and 14 747 cases of diarrhoea were reported in 20101, which means that for the first half of 2011 injuries statistically exceed either of these priority diseases.

1GPCHE: Annual Statistical and Health Report, MOH/HIS, 2010
Death due to injuries is either immediate, within several hours (usually due to lack of staff and supplies to treat non-fatal wounds) or within a few days (due to complications such as infections or multi-organ failure). For survivors, physical injuries can be accompanied by mental trauma and permanent disabilities that place an additional burden on society and infrastructures. Despite the excellent work of nongovernmental organizations (NGOs) in Misrata, the gaps in mental health services are still enormous.

**Communicable diseases**

Official statistics show that communicable diseases were not a major problem in Libya before the conflict, since water and sanitation systems are good and vaccination coverage is near-universal. However, this could change if no prevention and control system is put in place.

Apart from tuberculosis, both HIV and hepatitis C could become a major problem because of deteriorating practices in terms of blood safety, injection and treatment in health care services, and of the increased incidence of rape and gender-based violence as a result of the breakdown in the social fabric.

In times of crisis, many communicable disease outbreaks are caused by common, easily preventable and treatable diseases such as acute watery diarrhoea, dysentery and measles. These diseases can become major killers if malnutrition is added to the picture.

The 15 diseases most reported in 2010\(^2\) were influenza (17 790 cases), diarrhoea (14 747), hepatitis B (2437), amoebic dysentery (1600), hepatitis C (1437), chicken pox (1236), mumps (1027), food poisoning (904), leishmaniasis (893), typhoid and paratyphoid fevers (829), pulmonary TB (792), extra/pulmonary tuberculosis (730), amoebiasis (725), Malta fever (387) and H1N1 flu (304). Leishmaniasis is endemic in the western mountains and along the north/west coast, with Nalut as the epicentre, with 331 reported cases.

Cyclical (almost once a decade) outbreaks of plague are reported from Tobruk. The last outbreak (diagnosed in Benghazi) was in 2009.

No cases of polio, neonatal tetanus, cholera and yellow fever were reported. There were 26 malaria cases, all from patients infected abroad. There were 321 new cases of HIV, bringing the total number to 10 475 cases since 1989.

**Chronic diseases**

The main causes of death reported by national authorities in 2010 were cardiovascular diseases (37%), cancer (13%), and diabetes (5%). Road traffic injuries accounted for 11% of all deaths.

As a result of drug shortages, supply cuts and the urgent needs of wounded patients, the provision of cancer treatment and kidney dialysis were severely cut back. There is no data on the number of deaths brought about by lack of access to essential obstetric and ante/postnatal care and to treatment for chronic diseases, but more information can be uncovered through surveys and by putting health information systems in place.

**Limited access to essential life-saving services**

Before the conflict, the population had reasonable access to the country’s extensive health care network. However, the health care system’s gradual deterioration in recent years has been exacerbated by the conflict.

**Shrinking health system**

According to a Ministry of Health report, there were 10 230 doctors (17/10 000 population) in February 2009, of which 84% were nationals. Libya had 96 hospitals (20 289 beds), 25 specialized units (5970 beds), 1355 basic health centres, 37 policlinics and 17 quarantine units.

Anecdotal information reports that the primary health care system had begun deteriorating prior to the conflict, with hospitals gradually taking over the provision of primary health care services. This is attributed to major health care rehabilitation projects that were started but never completed, mismanagement, negligence and Libyans’ preference for going directly to hospitals. However, one of the striking phenomena of the Libyan conflict is the dramatic shrinkage/collapse of the primary health care health system in some areas. This was confirmed in three WHO assessment missions to eastern Libya in May-June.

**Health workforce**

According to reports, out of a total workforce of 113 000, around 20 000 expatriate health care workers, many of them nurses, are thought to have left the health care system. Many of them have been replaced by medical student volunteers.

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\(^2\)Annual statistical and health report, MOH/HIS, 2010
Since many in the country’s extensive network of primary health care centres have shut down, many patients are obliged to travel long distances to reach a hospital.

**Fuel shortages**

Because of the country’s size, the health system depends on fuel to run its transport system. However, at end of July, the Al Zawia Refinery near Tripoli was producing only 5% of the country’s fuel needs. All four of the other refineries were not functioning. Eventually, Al Zawia refinery will be unable to produce even that limited amount, since no crude oil is being pumped from the oil fields in the south. In the east, Brega has also ceased production.

Benghazi depends on fuel imported by sea and on the ability to make direct payment to the oil tankers in its port. Libya’s man-made river which pumps underground water from the south to the north is also heavily dependent on fuel: more than 5 million litres per day are needed to pump drinking water to Benghazi.

Assessments showed that fuel shortages were a major factor limiting patients’ access to hospitals. They also lead to increased absenteeism among health workers, who are unable to get to work. (Although no data has been provided, the interagency mission noticed long queues for fuel in many areas of west Libya.) Lastly, it limits Libyans’ possibilities of going abroad.

Shortages are hampering medical evacuation by land or air. In 2010, the Ministry of Health ambulance services handled 8225 referrals within districts, 5378 referrals outside districts, and 575 aerial ambulance evacuations using nine planes. It also evacuated 2246 road traffic victims using 602 ambulances.

**Population movements**

UNHCR estimates that 732,000 people have left Libya due to the conflict, including over 100,000 Libyans. In addition, UNHCR estimates that there are around 218,000 internally displaced people (IDPs) inside Libya, including around 69,000 in opposition-controlled areas, 49,000 in and around Tripoli and 100,000 in the Nafusa Mountains. These estimates have not been confirmed and are subject to change due to frequent population movements.

Many IDPs and refugees are moving back and forth in areas that fluctuate between conflict and peace. These uncoordinated population movements are a major public health challenge, since people have only sporadic access to preventive or curative health care. At the peak of the crisis in Misrata, between March and May, around 100,000 persons fled the city and went to the coast, where many remained for two months. At the same time, health care services were disrupted for those who remained in the city.

**Shortages of essential drugs, supplies and consumables**

Before the conflict, the Ministry of Health spent approximately US$ 500-700 million on imported drugs and supplies for the public sector. Around 30% of the drugs went to Benghazi, while Tripoli supplied the rest of the country.

Since the start of the crisis, supply lines have been cut between Libya and European suppliers and, within Libya, between Tripoli and the east. Around 40% of the last national tender was frozen at the supplier stage. This did not immediately affect health care facilities, which were able to draw upon strategic stockpiles with suppliers, at the central warehouse and at peripheral warehouses in Tripoli, Benghazi, Sabha and Misrata. Tripoli was the least affected, as it was able to utilize stockpiles in both the central and Tripoli warehouses.

The international community’s inability to provide Libya’s National Transitional Council in Benghazi with resources means the Council has no money to procure drugs and supplies, pay the salaries of health staff, or cover the running costs of health care services for almost 30% of Libya’s population. The National Transitional Council have appealed to humanitarian agencies for help with procuring supplies. Supplies are procured nationally and internationally. The Government of Libya is the only importer of 10 specific items including insulin, vaccines, chemotherapy and immunosuppressant drugs, psychotropics, dialysis drugs, HIV drugs, hypnotics, laboratory consumables and blood products. All other items are imported through local tendering with companies representing multinational companies outside the country.

With the interruption of this pipeline, some items, especially vaccines, laboratory consumables and HIV drugs, have been in short supply. In Tripoli, vaccination activities were

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3 Six-month stockpiles with suppliers and in all warehouses.
4 Note for the record of the May-June Health Cluster Coordinator’s meeting in Benghazi.
stopped for over six weeks because of shortages. A measles outbreak in Sabha in early June was attributed to this gap.

The depletion of the central warehouse is indicative of the ongoing crisis in the hospitals and to a lesser extent in primary health care facilities. The table below was updated during the inter-agency assessment mission 16-23 July. These categories of drugs are imported and distributed solely by the MoH through international tendering:

<table>
<thead>
<tr>
<th>Item</th>
<th>Stocks</th>
<th>Stock out</th>
</tr>
</thead>
<tbody>
<tr>
<td>Insulin</td>
<td>-</td>
<td>Early September</td>
</tr>
<tr>
<td>Vaccines</td>
<td>-</td>
<td>August</td>
</tr>
<tr>
<td>Hypnotics</td>
<td>Some are out</td>
<td>Early September</td>
</tr>
<tr>
<td>HIV drugs</td>
<td>Out of stock</td>
<td>Out of stock</td>
</tr>
<tr>
<td>Dialysis</td>
<td>-</td>
<td>Mid August</td>
</tr>
<tr>
<td>Blood products</td>
<td>Partially not available</td>
<td>Early September</td>
</tr>
<tr>
<td>Chemotherapy drugs</td>
<td>-</td>
<td>Early September</td>
</tr>
<tr>
<td>Immuno-suppressants</td>
<td>Only 40% available</td>
<td>Early September</td>
</tr>
<tr>
<td>Psychiatric drugs</td>
<td>Only 30% available</td>
<td>Early September</td>
</tr>
<tr>
<td>Lab consumables</td>
<td>Out of stock</td>
<td>Out of Stock</td>
</tr>
</tbody>
</table>

Listed below are priorities of the Health Cluster.

- Support the management of war-related injuries, mental health and disabilities;
- Sustain equitable access to immunization, and services for non-communicable diseases, reproductive health and child care at all levels of the system including emergency reproductive health services;
- Provide drugs and medical supplies;
- Detect and promptly respond to communicable disease outbreaks;
- Provide coordination, health information and assessments.

**WHO field operations**

In the Flash Appeal launched on 5 March 2011, WHO had appealed for US$ 12.1 million to respond to the health aspects of the crisis, of which 51% had been funded as of 11 August.

The donors were Australia (2 267 500), Norway (1 400 000), USAID/OFDA (1 000 000), DFID (652 258), the CERF (400 000) and Islamic Relief-USA (250 000).

This funding support is enabling WHO to provide support for the activities described below.

1. **Support the management of war-related injuries, mental health and disabilities**

In Misrata, WHO is supporting the treatment of war injuries through the deployment of Arab Medical Union medical teams to the Al Hekma Hospital. The teams consist of four doctors on constant rotation to support trauma and emergency care for as long as the crisis persists. Specialists include anaesthesiologists and cardiovascular, trauma, neuro- and orthopaedic surgeons.

The departure of many of the expatriate medical staff, especially nurses, left a gap in health care provision. This gap has been largely filled by medical student volunteers. To respond to the large numbers of casualties, WHO supported trainings in:

- basic life support;
- first-aid and mass casualty management for ambulance workers, first responders, emergency room personnel and medical students;
- advanced training on life support for ambulance and emergency room doctors; and,
- personal safety training for health workers during mass casualty management events.

Through a partnership with the Arab Scout Organization, WHO is establishing a community-level entry point that supports community mobilization for first responders’ training courses on first aid and patient transportation skills.

Regarding supplies, WHO has sent 45 surgical and trauma kits, with drugs and supplies to treat 4500 people.

2. **Sustain equitable access to immunization, and services for non-communicable diseases, reproductive health and child care at all levels of the system**

Besides procuring drugs and medical supplies, WHO is supporting the rehabilitation of damaged
hospitals and other health care centres such as the Misrata polyclinic through the provision of laboratory supplies and equipment (spectrophotometers, autosamplers, distillation units, protein digesters, scrubber units, gas chromatographs, counting chambers, etc.).

3. Provide drugs and medical supplies
At the onset of the conflict, WHO set up a Logistics Supply System (LSS) to improve the management of incoming medical donations. It was first set up at the Egyptian border and later moved to the Medical Supply Organization in Benghazi. Volunteers were trained to use this system in Benghazi, Selloum, Tobruk, Mesaeed, Misrata and Ajdabia. The LSS combines procedures, human resources, equipment and telecommunication to better monitor stocks, shortages and expiry dates.

So far, WHO has provided approximately US$ 1.4 million worth of drugs and supplies to health facilities within Libya and for Libyan refugees in Tunisia. The supplies include insulin, chemotherapy and dialysis drugs, HIV drugs, antivenom for snakes and scorpions as well as vaccines (tetanus, measles, pentavalent, OPV, BCG, Hep.B, MMR, DPT). In addition, emergency health kits were sent with enough drugs, laboratory supplies and equipment to cover the needs of 155 000 people for three months.

Around 60% of these supplies were sent to National Transitional Council areas, where 40% of the population is living and almost half of the health care delivery network is located.

Combined with the appropriate training and coordination, these supplies contribute to reduce morbidity and mortality caused by injuries and to expand access to essential life-saving services such as obstetric care, child health, vaccination, and treatment for chronic diseases or HIV.

WHO is upgrading the Central Medical Store in Benghazi to ensure that goods are properly stored and that receipt, inventory and dispatch are done speedily and efficiently. Forklifts and hand lifters as well as strapping and wrapping machines and shelving will be procured to facilitate transportation of goods and ensure that they are properly stored and protected.

4. Detect and promptly respond to communicable disease outbreaks
WHO conducted an assessment of the disease surveillance system within the country starting in the east. The system, which was already ineffectual prior to the conflict, was further weakened by the fighting.

An expert in communicable disease surveillance and early warning is currently working with health authorities from the National Transitional Council to upgrade the disease surveillance system.

5. Provide coordination, health information and assessments
As Health Cluster lead, WHO established hubs in Benghazi and along the Egyptian (hub now closed) and Tunisian borders with additional support staff in its Regional Office in Cairo. In Tunisia, the hubs in Zarzis and Tataouine are used to backup UNHCR’s refugee health system, to conduct missions to the Nafusa Mountains and establish a technical presence there. From these hubs, WHO carries out assessments, manages information, provides technical assistance to health authorities and disseminates guidelines to ensure interventions meet national and international standards.

So far, WHO has carried out three assessment missions to Misrata, three to Tripoli, two to Ajdabia and two to the Nafusa Mountains. A mission to Benghazi and the east is ongoing. Various missions were also organized to provide technical assistance for hospital biomedical support (such as waste management), essential drugs, the Logistics Supply System (LSS), disease surveillance and early warning and outbreak response.

Update on the procurement of essential supplies on behalf of the Libyan Government
In response to the growing health crisis in Libya, the United Nations Sanctions Committee has approved the release of €100 million, from the Central Bank of Libya to WHO to ensure the provision of essential medicines, vaccines and medical supplies for the whole of the country.

While awaiting the receipt of these funds from the Bank which is handling the transfer, a list of priority items has been developed by WHO in collaboration with national authorities including the Ministry of Health in Tripoli and the
Transitional National Council health authorities in Benghazi. It is expected that the first tranche of supplies will cover 8 weeks of consumption. According to suppliers, there will be a three-month lead time for many of the items included in this list despite advance work done by WHO to prepare for this operation.

With the initial €100 million funding, WHO will undertake the following activities:

- Procure essential medicines and medical supplies as listed by the Libyan authorities and validated by WHO.
- Work closely with current health authorities in Libya to draw up drug distribution plans and put systems in place to ensure that all medicines and medical supplies are received, stored, inventoried and distributed according to needs.
- Establish an operational hub (in Malta and/or Brindisi), where WHO will work closely with WFP to optimize available logistic capacity.
- Use all available transport options to distribute medical supplies to different areas within Libya.
- With local health authorities, conduct regular joint inspections of health care facilities to monitor the availability and use of the drugs and medical supplies.
- Work closely with Health Cluster partners to determine and respond to further medical supplies and transport needs.

An internal and external audit is planned after each phase of the project. The existing WHO team of experts is already being supplemented to review and rationalize the procurement process. WHO has prepared a Concept of Operation to guide the practical aspects of the procurement and distribution. One of the main challenges will be to ensure that the medical supplies are reaching the population in need, particularly considering the current fuel crisis.

WHO will continue to assess the situation and work with partners to provide support to the Libyan health sector.

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