The continued 18 to 20-hour power cuts are placing an increasing burden on health facilities in Gaza. With funding from the Central Emergency Relief Fund and other donors, life-saving services have been maintained. However, these funds are only enough to sustain the health services until end of February 2018.

The electricity fluctuations are resulting in damaged medical equipment, with over 150 medical machines currently out of order. The electricity crisis is also impacting the ability to collect, store and transport blood at acceptable standards.

Out of the 516 medications on the essential drug list, 223 drug items (43%) were at zero stock levels in November, out of which 198 drug items are completely depleted. Drugs used in the emergency departments and intensive care units were at 48% zero stock at the end of November.

In October, 45% of patient applications to access health care outside of Gaza were unsuccessful. 2017 is likely to see the lowest approval rate for patient applications to exit Gaza since WHO began documenting this in 2006, with an average of only 54% of patient applications accepted from January to October 2017.

WHO is currently procuring over $1 million USD worth of medical equipment and over $1.2 million USD worth of drugs and disposables, with a specific focus on drugs used in emergency departments, intensive care units and operational theatres.
Impact of the electricity crisis on health

- The health sector in Gaza is facing a severe fuel and electricity crisis since April 2017. Funding released from the humanitarian community, most recently from the Central Emergency Relief Fund (CERF) in September, has helped to sustain the life-saving services. This has directly reduced the mortality risk of 452 new-borns, 400 intensive care patients and 658 patients requiring hemodialysis twice or three times a week.

- Currently, the hospitals are using approximately 500,000 litres of fuel every month to run emergency generators to sustain critical services. The donations will only be enough to cover the hospital needs until the end of February 2018.

- Key services such as elective surgery, sterilisation and diagnostic services are working at reduced capacity. Since the beginning of 2017, WHO has been following the waiting list for elective surgery\(^1\). Noticeably, the waiting period for elective surgery drastically increased to 56 weeks in July and August; this coincided with the lowest point of main electricity supply from the grid, at only 2-4 hours per day.

- In November, the waiting time for elective surgery was 42 weeks. Whilst there has been some improvement, this is still well beyond the Ministry of Health (MoH) threshold of 24 weeks. Delays of necessary surgical interventions may involve a prolonged period of decreased health and affects the psychological and social life of the patient. In some cases, this can lead to further medical complications. Figure 1 below shows the trend in the waiting period for patients.

![Figure 1: Waiting Period for Elective Surgery](image)

- The extended power cuts mean that hospitals rely on generators, which are becoming increasingly overused. The more generators are used, the more quickly they will degrade and need to be repaired or replaced. Currently, six additional generators are needed in order to sustain the health services.

---

\(^1\) WHO has been monitoring the waiting time for elective surgery in ENT (ear, nose and throat surgery) as a key indicator
• The heavy use of generators has increased the maintenance required, which is difficult to provide, as spare parts are on the ‘dual-use list’ and restricted from entry to Gaza. According to the MoH, in addition to the on-going support provided by the ICRC, a further $100,000 USD is required to repair generators that have stopped functioning.

Dr Shireen Abed, consultant neonatologist and head of the Neonatal Department in Gaza, explains that on one occasion, during a night shift at 10:00 pm, the power suddenly went and the backup generator system did not start working. Her colleague, Dr Jadallah describes it as “one of the most devastating times ever…we were rushing between the babies and alternating manual ventilation to take over the ventilating equipment for about 8 minutes. We were afraid to lose them”.

Photo right: one of the neonates in need of ventilation and affected by the electricity shortages in Gaza.

• Essential life-saving medical equipment has stopped functioning due to the constant fluctuation in the current of electricity. Whilst WHO is in the process of replacing key medical equipment damaged by the electricity crisis, an additional 150 essential medical machines are currently out of order and awaiting repair or replacement.

• Blood collection, storage and transportation is also affected by the unstable electricity. Blood is used to treat a number of medical conditions including blood disorders. It is also essential for surgery, such as cardiac and emergency surgery; and sometimes it is used to treat blood loss after childbirth. However, the electricity situation has had a direct impact on the ability to store higher quantities of donated blood at acceptable standards. This poses a severe risk, particularly if there is a high influx of casualties. In Gaza, 35-40,000 units of blood are needed annually, however during periods of high casualties, the needs increase by 20%, which currently cannot be met.

Photo right: Prepositioning sufficient quantities of blood is becoming increasingly difficult with the electricity crisis.

WHO’s emergency team meet with the head of the Central Blood Bank Unit in Gaza.

---

2 Israel restricts the entry of a large number of materials, particularly machinery and related equipment, on the grounds that these serve dual-purposes (i.e. civilian and military) and are misused by the Hamas authorities and armed groups in Gaza. As such, every import of a good or material on the dual-use list must be individually approved by the relevant Israeli authorities.
• The lack of electricity has a grave impact on the supply of safe drinking water and on the treatment and management of sewage. 72 water wells operating in Gaza are dependent on electricity to supply safe drinking water, as are 10 waste pump stations. However, without electricity to sustain these services, 300,000 cubic meters of poorly treated sewage is being directly discharged everyday into the sea and drinking water is only accessible for up to 5 hours per-day. As a result, there is an increased risk of waterborne diseases, including acute diarrhoea and parasite infections.

• WHO has been monitoring the prevalence of diarrhoeal disease amongst children less than 3 years of age. The prevalence of diarrhoea is significantly lower overall in 2017 compared to 2016 and 2015, however there was a noticeable increase in the number of diarrheal cases in June and July, when the electricity decreased to only 2-4 hours per day. Figure 2 illustrates the prevalence of diarrheal diseases amongst children compared to the same months in 2016 and 2017.

![Figure 2](image_url)

Method of collection involves passive recording of cases at the hospital and primary healthcare level for MOH, UNRWA and NGO facilities across the whole of the Gaza Strip.

Source: OCHA

---

3 Method of collection involves passive recording of cases at the hospital and primary healthcare level for MOH, UNRWA and NGO facilities across the whole of the Gaza Strip.
**Impact of the electricity cuts on mental health patients:** Dr. Sami Awedeh, the only child psychiatrist in Gaza, explains how the electricity crisis has impacted mental health: “As psychiatrists, we can see that the electricity situation is provoking patients, worsening their symptoms and delaying their recovery. Many people suffering from depression or post-traumatic stress disorder (PTSD) find it difficult to sleep in complete darkness. It triggers deep anxiety and this can have a knock-on impact on their health. There are some patients, particularly those suffering from *Obsessive–compulsive disorder (OCD)*, who need to wash their hands excessively. But without electricity, they have no access to water. This means that basic activities, such as washing hands and flushing the toilet is not possible. As a result, OCD patients are suffering extreme relapses”.

---

**Situation Update**

- **Shortages in drugs and disposables**
  
  The Central Drugs Store in Gaza supplies all 14 MoH hospitals (2,243 beds) and 49 MoH primary healthcare clinics in Gaza. These health facilities provide 40% of Gaza’s primary healthcare covering approximately 600,000 people and 90% of all hospital care services.

- On the 9th November, the Ministry of Health (MoH) released drugs from the MoH warehouse in the West Bank to Gaza’s Central Drugs Store. This shipment included a total of 160 essential drugs and 204 essential medical disposables items, in addition to other items related to laboratory services.

- In October, out of the essential 516 drugs on the essential drugs list, 230 drugs (45%) were at zero stock⁴. After the bulk delivery from the MoH in November, this decreased to 223 drugs (43%) at zero stock. However, the number of completely depleted drugs continued to steadily increase from 191 drugs out of the 516 essential drugs (37%) in October to 198 drugs (38%) in November. Figure 3 illustrates the number of essential drugs at zero stock and completely depleted since the start of 2017 in Gaza.

---

**Figure 3**

**DRUGS AT ZERO STOCK AND DRUGS COMPLETELY DEPLETED AT THE CENTRAL DRUGS STORE IN GAZA**

---

⁴ “Zero level stock” designates critical supplies that will be totally depleted in less than one month at the Central Drug Store (CDS).
- A number of key health services benefited from the MoH delivery:
  - Primary healthcare drugs at zero stock decreased from 71% to 63%
  - Cancer drugs at zero stock decreased from 43% to 37%
  - Kidney dialysis drugs at zero stock decreased from 6% to 4%
  - Ophthalmology drugs at zero stock decreased from 10% to 9%
  - X-ray and diagnostic imaging drugs remained at 3% zero stock

- However, some of the most critically vulnerable patients remain without drugs, even after the MoH delivery:
  - Drugs for emergency departments and the intensive care units were at 46% zero stock in October and increased to 48% in November
  - Essential drugs for mental health patients were at 14% zero stock in October and increased to 17% in November
  - Essential drugs for blood disorders were at 26% zero stock in October and increased to 27% in November

**Shortages in disposables**

- There are 853 items on the essential medical disposables list considered by the Palestinian MoH as necessary for the provision of essential health care. Disposables include a wide variety of essential items such as syringes, line tubes, filters for dialysis and dressing materials.

- In October, out of the 853 medical disposables on the essential disposables list, 260 (30%) were reported at zero stock levels in the CDS in Gaza; in November 231 (27%) were reported at zero stock. Figure 4 below illustrates the level of essential disposables at zero stock since the start of the year.
Access to patients referred outside of Gaza

- Each month, patients in the Gaza Strip are referred to hospitals outside of Gaza in order to access necessary, often life-saving medical services that are unavailable locally. Before applying for an Israeli permit to exit Gaza from Erez, patients must first obtain approval from the Palestinian MoH for a decision regarding support. If the referral is granted, this implies MoH will cover the cost of the patient’s treatment at the facility they have been referred to.

- In the month of October, a total of 1661 referrals were approved by the MoH. The number of referrals approved in October still represents less than 80% of the average monthly referrals of the first quarter of 2017. Furthermore, only a third (33%) of application are being processed within one week, whereas from January to May 2017, 99% of the applications were processed within one week. Figure 5 illustrates the financial approvals of medical referrals.

- All patients with approval from the MoH, must then apply for a permit from the Israeli authorities to leave Gaza from Erez crossing. In October, 45% of patient applications to access health care outside of Gaza were unsuccessful. 2017 is on track to see the lowest approval rate for patient applications to exit Gaza since WHO began documenting this in 2006, with an average of only 53.7% of patient applications accepted from January to October 2017. Figure 6 illustrates the trend.
The reasons for referral include: lack of medical equipment (37%), lack of needed drugs (23%), lack of diagnostic service (14%), and lack of multi-disciplinary care and skilled staff (16%)

**Health needs & priorities**

- Provision of life-saving drugs, disposables, medical equipment and generators for health facilities
- Provision of spare parts for generators and medical equipment
- Equip hospitals and health facilities with fuel or solar energy system units in order to meet the basic energy requirements
- Provision of resources to support the collection, storage and transport of blood across the Gaza Strip
- Build local capacity within Gaza to conduct lifesaving surgeries and treatment, in order to reduce the need for referrals outside
- Preposition drugs, disposables and medical equipment in order to strengthen emergency preparedness
- Enhance coordination and health information amongst key emergency players within Gaza and with West Bank counterparts
- Ensure access for patients to their referral destination and advocate for the right to health

**WHO Response**

- WHO is procuring over $1 million USD worth of medical equipment to replace some of the life-saving machines in Gaza’s hospitals
- WHO is disseminating emergency life-saving drugs to Gaza’s hospitals worth over $1.2 million USD. These drugs will be distributed to the emergency departments to serve some of the most vulnerable patients
- $362,000 USD was released from WHO’s headquarters to respond to urgent health needs, mainly through supplying fuel to sustain critical services in hospitals. The fuel distributed was used to sustain key emergency departments for a period of four weeks
- WHO has requested $5 million as part of the Humanitarian Response Plan (HRP) for 2018, which includes humanitarian support to address non-communicable diseases, in addition to installation of solar panels, and pre-positioning and disseminating lifesaving medical supplies. To date, no funding for WHO’s HRP request has been received
- WHO released monthly updates on the access to healthcare for patients being referred outside of Gaza and is monitoring and reporting attacks on healthcare
- In October, WHO supported a Disaster Management Conference. WHO as the Cluster lead agency also conducted sessions during the Conference on coordination and emergency management
- WHO mobilized Norway funded emergency health supplies (three Surgical Supply Kits, and pharmaceutical supplies from two Inter-Agency Emergency Health Kits); two Inter-Agency Emergency Health Kits were received as in-kind donation from the Swiss Development Cooperation
- WHO has enhanced the health monitoring in Gaza with the aim to rapidly and continuously assess, map and monitor health service availability, response readiness and the health impact
- WHO initiated a number of key health assessments, including malnutrition in Area C, and on the use of illicit drugs in Gaza and the West Bank.
WHO, as Health Cluster lead agency, coordinated with Health Cluster partners the Humanitarian Programme Cycle for 2018-2020, and developed the Humanitarian Needs Overview (HNO) and the Humanitarian Response Plan (HRP) for the health sector. A total of $26 million USD is requested to respond to the humanitarian health needs.

In October, the Health Cluster trained a cohort of 20 health staff and managers from key NGO partners and international organisations on analysing the disruption to the health sector.

The Health Cluster has established a Health Emergency Technical Working Group, comprising of key emergency partners including, WHO as the Health Cluster lead agency, UNICEF, MAP-UK, Medecins Du Monde, UNRWA, UNFPA and the MoH. The objective of the Health Emergency Technical Working Group is to enhance emergency response planning, preparedness, and technical capabilities to respond to the crisis.

ICRC is continuing to support the maintenance of generators and the supply of spare parts to the MoH and delivered supplies of reproductive health drugs.

MDM France have procured and delivered large quantities of 3 specific essential drugs to be used in the emergency departments across Gaza

UNICEF is in the process of prepositioning 38 types of drugs and disposables worth over $460,000 USD and procuring additional drugs and disposables worth over $500,000 USD for the emergency units in Gaza

MAP-UK has implemented 8 blood donation campaigns to enhance the preparedness for emergencies at Shifa Hospital; procured and released 7 types of emergency drugs and 3 types of medical disposables; conducted one neonatal life support training targeting MoH neonatal and obstetric health professionals; and supplied the MoH laboratories with 3 types of infection control items.

Palestine Medical Society Relief (PMRS) is supplying medication for patients suffering from cystic fibrosis for a period of three months

On the 10th-11th and the 13th-14th December WHO will conduct a 2-day training course on Emergency Medical Teams in West Bank and Gaza, respectfully. Over 60 participants across the occupied Palestinian territory will be trained.

Contacts:
1. Gerald Rockenschaub, Head of oPt, WHO email: rockenschaubg@who.int
2. Mahmoud Daher, Head of Gaza sub-office, WHO email: daherm@who.int
3. Sara Halimah, Technical Officer Health Cluster & Emergencies, WHO email: halimahs@who.int
4. Abdelnaser Soboh, National Officer Health Cluster Gaza, WHO email: soboha@who.int