Brief report to UNRWA:

The Gaza Health Sector as of June 2014

Destruction and resilience: A Palestinian woman is clearing up her destroyed home following Israeli bombing, Gaza City Nov 2012
Photo: M. Gilbert

By Dr. Mads Gilbert MD PhD

Professor, University Hospital of North Norway, Tromsø, Norway

Content

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Gaza, June 2014: Deepening Crisis in Palestinian Healthcare

During my visit to Gaza from June 18th to July 3rd 2014, I visited hospitals, primary health care centres and infrastructural sites for handling waste water, solid waste and fresh water. I discussed with and interviewed health professionals, staff and patients at various levels and in different institutions; and did home visits to civilian Palestinian families with children who survived serious traumatic injuries in January 2009. I participated on call and in patient treatment at Al-Shifa Hospital and saw the work in four UNRWA clinics both in North and South of Gaza. I also had meetings with relevant authorities in Ministry of Health (MoH) and the hospital directors at Shifa Hospital and Al Quds Hospital. The content of this brief dispatch is based on multiple sources, but the report is my own full responsibility. All pictures in this report was taken by the author.

Summary and main findings

General

- Following years of socioeconomic decline, repeated attacks and Israeli closures and siege, the health sector across the Gaza Strip is lacking adequate physical infrastructure, supplies and training opportunities.
- Gaza's population continue to face devastating results of the blockade imposed by the Government of Israel. Gazans are deeply suffering with an unemployment rate of 38.5 % as of the last quarter of 2013, which is an increase of over 10 percentage points compared to six months earlier, causing widespread poverty. At least 57 % of Gaza households are food insecure and about 80 % are now aid recipients.
- Food insecurity and rising poverty also mean that most residents cannot meet their daily caloric requirements, while over 90 % of the water in Gaza has been deemed unfit for human consumption. (UNRWA).
- More than 1/3 of households in Gaza are supplied with running water for 6-8 hours only once every four days (OCHA).
- Palestinian health facilities are overstretched. Service is frequently interrupted by power cuts and insufficient supplies of drugs and disposables. This further threaten the health of the population, which is already at increasing risk.
- Physical as well as psychological trauma, poverty and environmental degradation have had a negative impact on residents' physical and mental health across the Gaza Strip. Many, including children, suffer from long terms physical effects of war trauma, many with concomitant anxiety, distress and depression.
- Despite all hardship, I have met a resilient, dignified and caring population and dedicated medical professionals at all levels.

Fiscal crisis and siege is causing a clinical crisis

- The Gaza public health sector, in particular hospitals, are currently in a deep financial crisis. Following the establishment of the reconciliation government, there is a void in local leadership

at ministerial levels and insufficient cash flow causing an imminent threat of a breakdown in key public health services. This comes on top of an already severely strained situation caused by seven years of Israeli siege on Gaza.

- The largest hospital, Al-Shifa, stopped all planned surgery from June 17th 2014 due to the crisis, and further escalated this measure to only perform life-saving emergency surgery from July 1st.
- Supplies and stocks of essential drugs, IV-fluids, disposables, spare parts, lab chemicals and instruments can no longer sustain the medical and operational needs of Shifa Hospital.
- Staff and employees have not been paid salaries from March 2014, previous to this date they received only 50 % of their normal salaries the proceeding 8 month.
- The purchase of energy and fuel to run generators, ambulances and other vehicles as well as critically needed disposables and drugs is now below the level for maintaining even the emergency medical services.
- Supplies of critically needed items for hospital functioning and patient treatment are lacking to the extent that it undoubtedly and seriously impede safe medical practice, treatment capacity and patient safety on short and long term.
- Shifa Hospital needs urgent emergency supplies and funding to serve the medical needs of the population in Gaza, also to handle increased patient flow in case of new Israeli military attacks.
- The average waiting time for some types of elective surgery at Shifa was over a year, prior to the latest development (WHO).
- Private hospitals like Al Quds Hospital in Gaza City, have better supply lines, stable staff salaries and a residual capacity possible to utilize to alleviate some of the current crisis by offering up to 10 elective surgeries daily.

Severe energy crisis is affecting public health

- Severely limited production and supply of electrical power, insufficient funding, the siege with strict control and limitations of all imports, closure of smuggling tunnels and a four-fold increase in prices of gasoline to 2 USD/L, have all led to the current grave energy crisis in Gaza.
- The energy crisis have forced municipality authorities to sharply reduce or close key public sector services such as sewage processing, water wells pumps and solid waste disposal. This pose serious threats to public health.
- More than 30 % of households in Gaza are supplied with running water for 6-8 hours only once every four days. Up to 90 million litres of partially treated sewage are discharged into the Mediterranean Sea every day (OCHA).
- By January 2014, over 300 medical machines at hospitals were out of order, including the only MRI machine at Gaza European Hospital, as of (WHO).
- The energy crisis also posed increase dangers of occupational risks and home accidents due to poorly controlled use of generators, open fire and other sources of energy for heating, cooking and lighting.

Background

Power cuts, energy crisis and economic strangulation

The blockade imposed by the Government of Israel remains the number one reason for the lack of development of Gaza's once dynamic and trade-oriented economy. The blockade is strangling whatever is left of the economy and livelihood of Gazans.

The halt of tunnel trade, which posed a necessary lifeline, has led to a renewed electricity, fuel and food crisis. Construction work in Gaza, a main economic source of growth and jobs, has been severely affected with prices skyrocketing up to 300 % since June 2013.

Food assistance is of paramount importance in Gaza, where last year, UNRWA provided food assistance to over 800,000 refugees. In 2000, when the economy was functioning smoothly, only 10 % of refugees required UNRWA food aid.

Palestinian children in Beit Lahia, June 2014. Gaza's children suffer man-made malnutrition with widespread anaemia and stunting. Photo: Mads Gilbert (MG)

Palestinian children in Gaza are suffering immensely. A large proportion are affected by he man-made malnourishment regime caused by the Israeli imposed blockage. Prevalence of anaemia in children <2yrs in Gaza is at 72.8%, while prevalence of wasting, stunting, underweight have been documented at 34.3%, 31.4%, 31.45% respectively.[1] Household socioeconomic status are important indicators of child growth.[2]

Energy crisis[3]

Lack of access to fuel imported from Egypt has aggravated the already fragile economic situation, forcing the Gaza Power Plant (GPP) to shut down for 46 days in November and December 2013. With the support of funding from Qatar, power is available, but once these Qatari-funded resources are depleted, it is expected that there will be power outages of 12-16 hours a day.

By the end of June, GPP depleted its fuel stock, including its emergency reserves, and was about to shut down completely. This followed the exhaustion of the funds contributed by the Government of Qatar to cover fuel supplies. On 25 June, however, a limited quantity of fuel was delivered to the GPP via the Kerem Shalom Crossing, thus preventing its immediate shut down. The GPP needs at least 260,000 litres of fuel per day to continue operating at the current level (two turbines). Should the GPP shut down, the scheduled power outages would increase from 12 to 18 hours per day on average. The power cuts disrupt the daily life of the entire population of 1.7 million people, as well as the provision of vital services, such as health, water and sanitation. (OCHA)

Public Health relevant consequences of Gaza's energy crisis

The financial situation of Gaza Municipality is disastrous. Due to very high, and still increasing, unemployment and a break-down in the local economy as a result of virtually zero import and export, the taxpayers are not able to pay public taxes, causing dried up funding for essential community services. The sharp four-fold increase in fuel prices has further aggravated the financial situation and driven this vicious circle downwards.

The Sewage crisis. The case of the Municipality of Gaza City (600.000 inhabitants) is illustrative: they can no longer run the generators needed to operate the electrical waste water pumping stations, nor the badly needed household water wells. Sewage pumps # 1, 2, 3 and 9 have been stopped, causing untreated raw sewage to empty directly into the sea instead of being pumped to the waste-water treatment plant. The remaining three pump stations are still operated, since raw sewage from these sites will eventually be flooding central parts of Gaza City if stopped, since these do not have outlets to the sea. Closure of these three central sewage pump-stations does remain a realistic, albeit last, alternative if the Municipality's cash-flow is not improved.

During my guided tour to one of the largest raw sewage collection and pumping stations in Gaza City, I found a well-organized, properly staffed and modern sewage processing plant, which all pumps and functions nullified. They had been stopped due to lack of funds to buy fuel to operate the two large generators, generators needed to compensate for the lack of stable and sufficient electrical power supply to Gaza. The abhorrent smell from the raw sewage now running untreated into the nearby white shores of the Mediterranean sea had left the large seaside cafeteria and playing ground for Gaza's much tested children all but empty.

June 2014: Rivers of raw sewage now flows directly into the open sea from Gaza Municipality's Pump Stations number 1, 2, 3 and 9, totalling around 65.000 cubic meters of raw sewage daily, only from Gaza City. Photo: MG

65.000 m3 of raw sewage is now running untreated to the sea in different open sewage rivers in close proximity to the residential areas, playgrounds and beach cafeterias. This is severely polluting

the environment and the sea, impeding local social life and markets, and pose a major threat to public health.

Fresh water pumping stations in Gaza City are also stopped due to lack of funding for fuel, severely impeding an already insufficient public water supply. Since 90 % of the water from the Gaza Aquifer is unsuitable, supplies of household water is essential. Bottled drinking water must be purchased by most families, adding to already strained private economy. Fifty percent of the Gaza Strip's population receive running water supply for six to eight hours once every four days only; 30 % receive water for six to eight hours once every three days only (OCHA). Water desalination units have reduced their operation levels by approximately 40 % since the beginning of 2014 (OCHA).

Children collecting fresh water from tap in Beit Lahia, June 2014. 90 % of Gaza's water still is undrinkable. Photo: MG

Also, at least 140,000 dunums of land planted with fruits and vegetables are at risk of drought due to inability to use 85 % of the agricultural wells operated with electricity (PARC). This further shrinks the self-supplied production of local food which is critically needed for population nutrition due to the siege.

Solid waste in Gaza City is now largely collected by approximately 250 open donkey carts, hired by the Municipality as an emergency project, to substitute the lack of motorized garbage collection trucks. The donkey carts are emptied in solid waste collection sites like The Yarmook plant, from where trucks carry the garbage further to the landfill site. Funding for the donkey cart-project is

Solid waste donkey carts emptying the collected city garbage at the Yarmook transfer station for later to be transport further to landfill side. Gaza Municipality, June 2014. Photo: MG

running out in November. The garbage collection workers have so far been working two shifts, but is reduced to one shift due to money and fuel constraints, severely impeding capacity.

The various consequences on population health of these constraints imposed on the Palestinian society have been studied and extensively described in the Lancet Series on Health in The Occupied Palestinian Territory.[4]

The energy crisis is a major cause for the current miserable condition affecting an array of public services in Gaza, including the health sector.[5] With very limited supply of electrical power and more than 4-fold increase in fuel prices, house-holds have been forced to find alternative resources for cooking, heating and lighting of their homes. Widespread use of private generators, often with insufficient technical security and poor electrical distribution networks; and the use of open fire have caused a marked increase in home accidents. Children are in particular vulnerable and cases of burns, scolding and electrical shocks are increasingly common. The case of a ten years boy who sustained an electrical shock is illustrative:

A case of paediatric electrically induces cardiac arrest: During use of a poorly secured generator, the boy short-circuited the power outlets of the generator causing serious inlet- and outlet burns and cardiac arrest. He was taken to Shifa hospital under resuscitation, this continued in the hospital's Emergency Room and Intensive Care Unit according to current international protocols for advanced cardiac life support (ACLS). The efforts were successful and he had return of spontaneous circulation (ROSC) after 20 minutes of intense ACLS.

The picture was taken in Shifa hospitals ICU as the young boy was slowly, but steadily recovering from cardiac arrest, tended to by a professional Palestinian ICU-nurse.

Insufficient local treatment capacity: access and referrals of patients from Gaza[6]

Access

Increased access need through Erez in 2014: The number of applications for health access through Erez checkpoint was slightly less in February than the previous month but the two months were 76% higher than in the same period in 2013, the highest demand since 2005, when WHO began monitoring. The increased demand reflects the continuing problems of access through Rafah border to Egypt and lack of drugs, especially chemotherapy and lack of medical disposables.

A drop in approval rates of permits: 86.8% of applicants received a permit in February 2014, and 3.37% of applicants (50 patients and including 7 children: 16 females, 34 males), were denied permits, the highest monthly denial rate since August 2010. In addition, 9.83% of applicants (146 patients: 44 females and 102 males) received no response to their applications, including 27 children whose medical treatment was delayed as a result.

Patients being interrogated: 13 patients (11 males, 2 females) were requested to attend interviews with Israeli security after applying for a permit to cross Erez. To date, only one patient had been granted a permit following security interviews in February.

Drops in Rafah access: Only 36 Gaza patients travelled to Egypt through Rafah in February, less than 1 % of the pre-July 2013 monthly figure.

Referrals

Increase in MoH referrals: Total MoH referrals of Gaza patients (1,868) were the highest recorded and 33 % higher than the monthly average in 2013. MoH referrals to health facilities in the West Bank and to non-MoH facilities within Gaza were the highest recorded in recent years.

Medical reasons for referrals: The top ten needed specialties were for treatment in the following specialties:

- Oncology--269 referrals (14.4%), MRI--267 (14.29%)
- Orthopaedics--139 (7.44%)
- Heart catheterization--132 (7.07%)
- Nuclear medicine--126 (6.75%)
- Paediatrics--119 (6.37%)
- Ophthalmology--107 (5.73%)
- Neurosurgery--101 (5.41%)
- Haematology--70 (3.75%)
- Heart surgery --69 (3.69%)

The remaining 25 % of referrals were to 20 other specialities.

Gender gap: There was a gender gap in referrals: 56.58 % male patients versus 43.42 % female patients. 25.5 % of all referrals were children aged 0-17 years and 17.8 % were patients aged over 60 years.

Costs: Estimated cost of referrals for February 2014 was NIS 10,000,201.

These referrals reflect pressure on public health system

MoH in Gaza referred 1,868 patients to outside hospitals in February 2014. This was 33 % higher than the monthly average for 2013. Referrals to non-MoH facilities in Gaza and to West Bank facilities were both higher than the previous month and double or more the monthly average for 2013 Referrals to Egypt remained low, reflecting the unstable border and internal situation in Egypt prevalent since July 2013. In February 9.37% (175) of referrals were to Egypt.

A hospital worker on night shift, Shifa Hospital OR: The key factor for a hospital's function is the human resource. Shifa's staff is extremely resilient and uphold duties despite lack of payment, supplies and insufficient medical equipment. Photo: MG

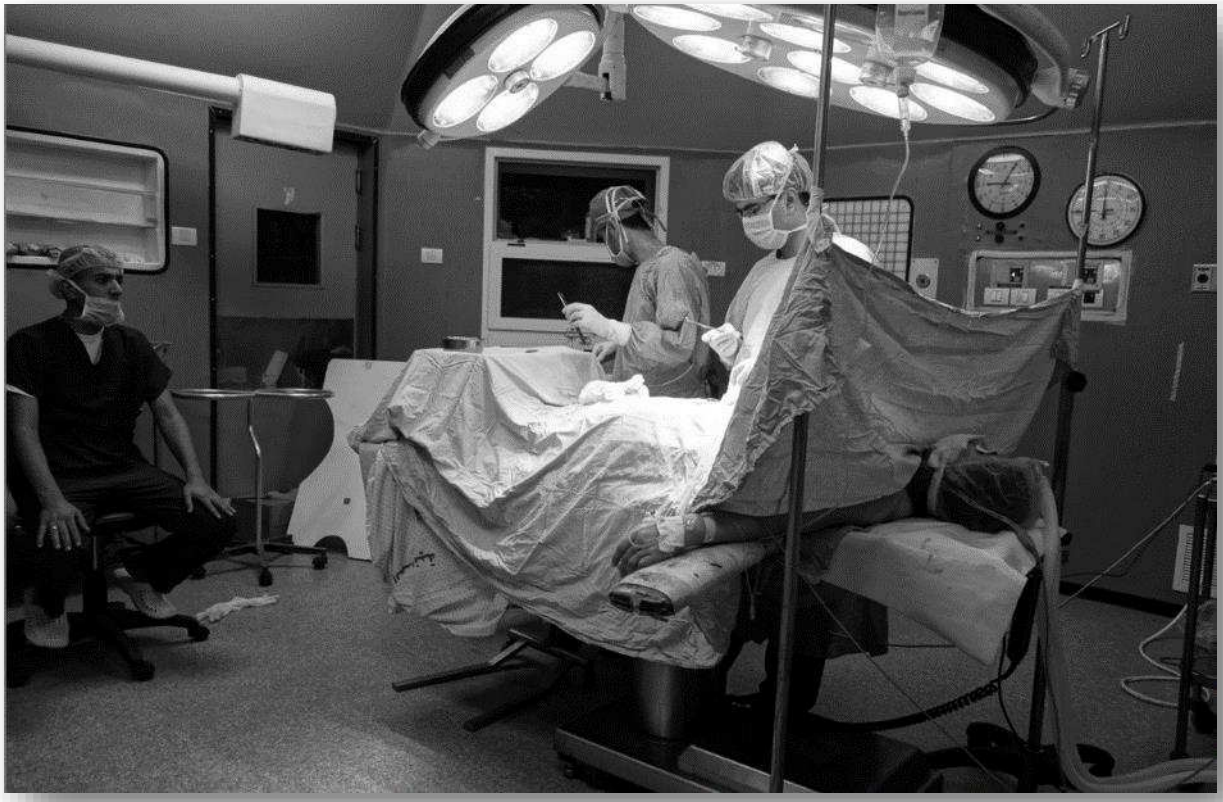
Hospital crisis: the case of Al-Shifa Hospital

The financial crisis in Gaza's health sector has deeply affected Al-Shifa Hospital – the largest and most important hospital in Gaza.

No salaries are currently paid to the staff in all Ministry of Health (MoH) hospitals, including Al-Shifa Hospital in Gaza City. The staff and hospital workers have not been paid since March 2014. Previous to that, they were paid only 50 % of their salaries for the preceding 8 months. Many of these employees are family breadwinners, facing aggravated hardship due to a dramatic loss of income. Around 50.000 individuals from various groups of public servants are currently not getting their salaries, despite working, causing a very serious domestic crisis for the about 300.000 family members depending on these breadwinners.

Staff morale is still robust, but Shifa's professionals are weary and exhausted. Many spend out-of-pocket money to pay for transportation to get to the hospital for work, others must borrow from colleagues. Some are sharing wages, since a group of employees are still receiving payment from Ramallah. This division is also causing conflict, which is expanding with the current cuts in payment.

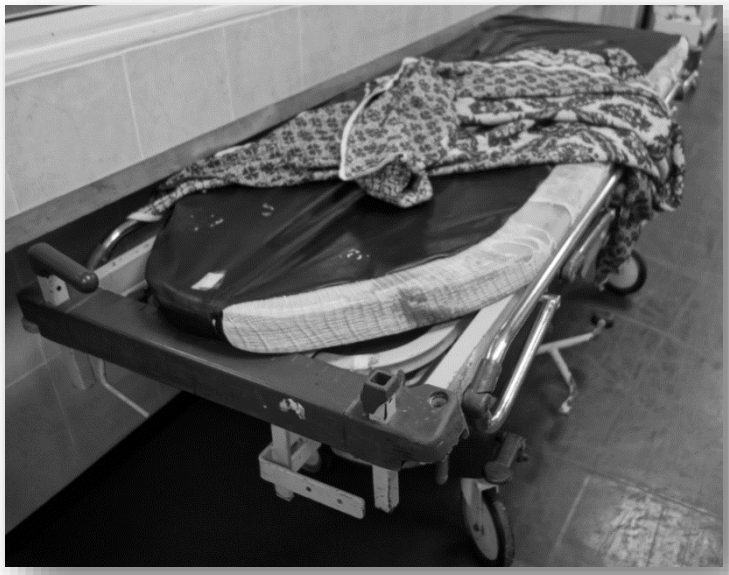
The situation is extreme, and I cannot recall a more serious condition in Shifa Hospital with regards to the staff condition since I first visited Shifa 17 years ago. Everyone I met were affected by the financial difficulties caused by no payment, even if they continue to come to work. It's difficult to say how long the staff in Shifa can endure this crisis. In addition to the financial burden put on the staff, I met widespread frustration and anger among the professionals for not being able to provide the high



Shifa Hospital, OR, night shift, June 2014: despite desperate lack of staff salaries, medical equipment, drugs and disposables, good medical work is carried out. Photo: MG

level of medical services to the people of Gaza, which they all see as their primary duty. Shifa Hospital's staff and leadership have high aspirations and wish to perform state-of-the-art medicine, evidence based practise and research, but siege and serious deficiencies deny them this right.

The Shifa Hospital staff have been through an extreme historical period. The two Intifadas, the Israeli military attacks in 2006, 2008-09 and 2012; the inter-Palestinian conflict and the siege from 2007, have together placed almost insurmountable burdens and extreme challenges on top of the daily medical work. Large flows of emergency cases and extreme war trauma have pushed the staff and the hospital's capacity to its limits. Still, they have performed well and managed to implement substantial, operational improvements with a high precision in mass casualty triage. In Nov 2012, a large influx of patients who had war trauma was managed in Al-Shifa Hospital despite the erosion of infrastructure, supplies, and general population health from the previous 5-year Israeli siege. Improved, stricter triage reduced patient admission during the 2012 Israeli military attack versus the Israeli military attacks in 2008—09. Additionally, hospital staff were better



Shifa Hospital, OR, night shift, June 2014: a totally deranged patient trolley, used to take surgical patients into the clean OR. Photo: MG

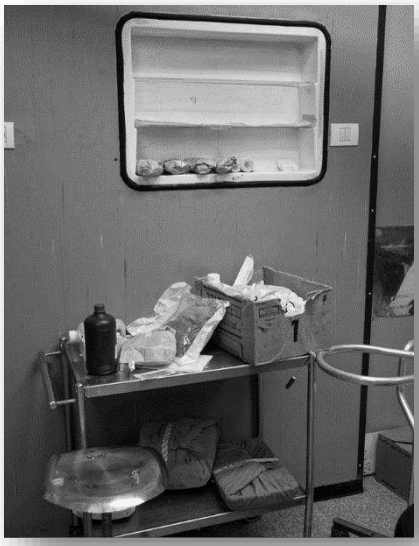
prepared and trained for the casualties of the 2012 military attack and few deaths occurred in the ICU.[7] Now it's again critical:

The lack of essential equipment, disposables and lab chemicals pose a very serious threat to patient treatment. I witnessed the lack of key anaesthetic drugs (propofol, atracurium among others), IV-fluids and sutures among many other deficient items. Expired material is used more often than not. Treatment has to be improvised, if at all given.

Outdated defibrillator, Shifa OR, June 2014. Photo: MG

The lack of drugs is striking: MoH normally provides about 480 items of drugs, but now there is a significant lack with 145 different drugs completely unavailable and 80 drugs in less than 3 months stock; totalling 225 pharmacological items either unavailable or in critically low stocks, i.e. close to a 50 % deficiency (MoH).

Other supplies I observed lacking were Surgicel®, Hamovac®, disposable surgical sutures with the needed variety of suture material and needles (pencil, cutting etc.) and surgical drains; epidural catheters for continuous epidurals, sufficient variety of epidural needles and long lasting local anaesthetics for conduction anaesthesia. Updated, modern medical electronic and monitoring equipment is also badly needed.



Outdated equipment, poor physical environment, Shifa OR, June 2014. Photo: MG

Supplies of these disposables, drugs, medical equipment and spare parts of all kinds are insufficient to keep up with demand. All public health services are suffering from the same critical shortages to run a hospital (MoH), but the current situation at Shifa Hospital may represent a dire nadir.

The physical working environment in Shifa is poor. As an example, the female medical staff in the Gynaecology Department, where 25-45 deliveries take place per 24 hours including 5-10 emergency caesarean sections, the female staff do not have decent wardrobe, shower and restrooms to maintain the needed personal hygiene and change of greens as needed.

The staff offices and resting quarters in almost all Shifa's clinical environments are in poor shape and needs upgrading and overhaul. I am all the more impressed by the staff's tolerance to cover demanding calls and long shifts with such insufficient work environment.

The operation of Al-Shifa Hospital is therefore now in a very serious situation. Despite encouraging, fresh external painting and the completion of a new building adjacent to the surgical block, the interior of the hospital is now extremely worn and torn and do not hold standards expected in a key university hospital for 1,7 million people. Almost all stationeries and physical elements are due to be replaced, from trolleys and IV-stands to defibrillators, anaesthesia machines and surgical instruments. The patients, their families and the people of Gaza deserve a valued and paid staff and a

much better standard than the actual unacceptably low standard in al-Shifa and other MoH hospitals, and the staff and hospital workers deserve of course a decent and much earned salary.

There is an urgent need for emergency funding for staff salaries and immediate emergency supply lines to prevent a collapse in Shifa Hospital and in the secondary and tertiary health care in Gaza.

UNRWA health services in Gaza

UNRWA is running a substantial part of the health services for Palestinians in Gaza.

Almost 97 % of the registered refugee population are accessing UNRWA health services, totalling more than 1,2 million people. UNRWA operates 72 primary health care (PHC) facilities with nearly 4,4 million outpatient GP-consultations annually. Around 97.000 are seen by specialists in the UNRWA clinics across Gaza.

The workload is quite high with an average of 113 daily medical consultations per doctor and could be reduced by employing more general practitioners to meet the demands for much needed primary care.

Gaza received full coverage in the media in the winter of 2008-2009 and then again in November 2012, but lately, media interest in the suffering endured by Palestinian refugees there receives minimal coverage. The health conditions of the refugee population in Gaza, constituting the majority of the population, is deteriorating, despite all the efforts of UNRWA. This is mainly due to the worsening socio-economic deterioration with increasing poverty and food insecurity combined with fragile and failing public infrastructure such as water supply and disposal of sewage and solid waste.

UNRWA is also faced with an alarming shortfall in emergency funding,[8] like the public health system (MoH), all together posing a serious threat to the provision of food assistance, protection services, water and sanitation, emergency education and shelter to those most in need; and to primary as well as hospital health care services.

Young Palestinian refugees seeking medical help in the relatively new UNRWA PHC-Clinic in Kahn Yunis, June 2014. Photo: MG

Closed for health delegations to Gaza

According to MoH, more than 63 international medical delegations came to Gaza during the first half of 2013. These delegations have played an important role in the treatment of patients and supplying special drugs and disposables needed for surgeries. The

delegations clearly have contributed to alleviating the sufferings of patients being referred abroad for treatment, reduced waiting lists and provided much needed training of health personnel.

From July 2013, however, no international medical delegations have been allowed through the Rafah crossing, obviously reducing total treatment capacity for special and urgent cases.

Private Hospitals

I also visited Al Quds Hospital in Gaza City. The hospital is operated by The Palestinian Red Crescent Society (PRCS). It has been rebuild following partial destruction during the military attacks in 2008-09. In discussions with the hospital Director, I was informed that both funding and supply lines for drugs, disposables and medical equipment were stable and sufficient. According to him, Al Quds Hospital could offer to provide capacity for around 10 elective surgeries daily at similar costs as MoH hospitals to support the backlog at Shifa Hospital.[9] There is currently a striking difference between working conditions, stability in salaries, supplies and physical environment between these two hospitals, few hundred meters apart in the same city.

Patients from Gaza are increasingly denied needed treatment abroad

The total number of patients from Gaza annually referred for treatment abroad is about 16.000 among them:

- Treatment cases (cancer, cardiac, orthopaedic and neurology)
- Diagnostic cases (MRI, hereditary diseases, advanced tests)
- Provision of needed drugs for cancer patients and patients with immune system and haematology diseases.

As mentioned above, MoH in Gaza referred 1,868 patients to outside hospitals in February 2014[10], 33 % higher than the monthly average for 2013.

In recent months, dozens of patients from the Gaza Strip have been left without any medical care as a result of Egypt's closure of Rafah Crossing and Israel's continued restrictions on entry into its own territory and the West Bank for medical treatment. Israel prevents Gaza residents from operating seaports and airports and refuses to allow them to travel abroad via Allenby Bridge – the border crossing between the West Bank and Jordan, or through Israeli airports, leaving Rafah as their only gateway abroad. But, since the beginning of 2014, not only has the crossing been opened only on a very few days, many patients were not allowed passage, leaving them with no avenue to essential medical attention. [11]

The concluding, illustrative case is the very last patient I saw, was in the early morning July 3rd 2014 in the ICU, Shifa Hospital, just before leaving Gaza. She was a 28 years old, pregnant Palestinian civilian woman who sustained "explosive injuries" during the Israeli air-ground bombing of Northern Gaza around 2 o'clock AM the same night. She was first taken to Kamal Adoane hospital for initial stabilization, before being quickly transferred to Al Shifa for life-saving

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emergency surgery. The exploding shells caused several open injuries to her flanks and to her back with life-threatening haemorrhage.

She survived the initial phase, also hopefully her baby, but the long-term result remain unknown as I am finishing this report. The picture was taken 06:21 when she was still on the ventilator, having blood transfusions as she was slowly recovering from surgery and anaesthesia.

Concluding remarks

The long-term exposure of Palestinians to serious security threats has led to a state of long-term insecurity and demoralization.[12] On the other side, social resilience is holding together Palestinian society and its economy, including the health system.[13] I experienced this resilience as palpable at all levels in Gaza's health care system, but the dire state of working conditions, supplies, emergency case-load and absence of proper payment of salaries are factors clearly undermining coping capacity. All the negative factors are man-made, politically determined and systematically executed by the occupying power.

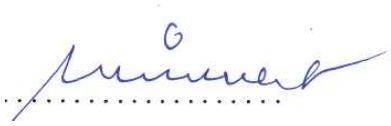
The current human conditions in Gaza are appalling. The main reason is not the insufficient health care. The seven years, and counting, separation of The Gaza Strip and the near impervious blockade of its population can only worsen health status and the ability to deliver health care.[14]

As I have pointed out in this brief observational report, the gravest threats to public health is the lack of basic determinants for healthy lives: safe water, food security, human security, housing, paid work, education – and of course also access to sufficient health care services. Only political solutions that enables improved Palestinian security will reduce the current threats to physical, mental and social health. Such measures are beyond the mandate and capacity of the health sector.[9]

However, as stated before by leading Palestinian health researchers and scientists, any hope for improving the health and quality of life of Palestinians will exist only once people recognise that the structural and political conditions that they endure in the occupied Palestinian territory are the key determinants of population health.[8]

Gaza City, Occupied Palestinian Territory, July 3rd 2014

With respect and regards,



Mads Gilbert MD PhD

Professor and Medical Director of Division of Emergency Medical Services

Division of Emergency Medical Services

University Hospital of North Norway

and

Institute of Clinical Medicine, The Arctic University of Norway

N-9038 Tromsø, Norway

Phone: +4790878740: e-mails: mads.gilbert@unn.no or mads.gilbert@gmail.com

References and sources

[1] Radi S ea. Nutritional status of Palestinian children attending primary health care centers in Gaza. The Indian J Pediatrics, 2009; 76: 163-166.

[2] Hammoudeh W, Halileh S, Hogan D. Determinants of stunting in children younger than 5 years between 2006 and 2010 in the occupied Palestinian territory: a cross-sectional study. The Lancet, 2013; 382, S16.
[3] See: OCHA: The humanitarian impact of Gaza's electricity and fuel crisis, March 2014 http://www.who.int/hac/crises/international/wbgs/sitreps/opt_monthly_report_february2014.pdf?ua=1
[4] See: http://www.thelancet.com/series/health-in-the-occupied-palestinian-territory

[6] Based on the WHO-report: Referral of Patients from The Gaza Strip. Monthly Report, February 2014. Ref: RAD 2 (March 26, 2014)
[7] Gilbert M, Skaik S. Patient flow and medical consequences of the Israeli operation Pillar of Defence: a retrospective study. The Lancet 2013; 382, S13.
[8] See: http://www.unrwa.org/newsroom/official-statements/palestine's-silent-emergency-breaking-silence
[9] Personal communication, Dr. Khalil Abu Foul, General Director, Al Quds Hospital, June 2014

[11] See: http://www.btselem.org/gaza_strip/20140601_gaza_patients
[12] Giacaman R, Khatib R, Shabaneh L et al. health status and health servicves in the occupied Palestinian territory. Lancet 2009; 373: 837–49
[13] Batniji R, Rabaia Y, Nguyen-Gillham V ea. Health as human security in the occupied Palestinian territory. Lancet, 2009;
[14] WHO. Access to health services for Palestinian people: case studies of five patients in critical condition who died while waiting to exit Gaza Strip. West Bank and Gaza: World Health Organization, 2008.

Other sources

OCHA opt
WHO
UNRWA
Gaza Municipality
MoH Gaza
PRCS