

Health Sector Surveillance Indicators

Monitoring the Health Sector in the oPt

This report presents findings of two sets of indicators for April to May:

- A set of indicators on **health status, health services and system** collected by the MOH for the West Bank and Gaza Strip analyzed on a quarterly basis;
- Indicators collected by WHO from '**sentinel sites**' (hospitals and PHC District Health Directorates) from all districts in Gaza and specific areas in the West Bank.

Highlights

Gaza:

- There has been no discernable change in this period in the available indicators of the health of the population of Gaza;
- There are growing indications of deterioration in the quality and availability of health services in Gaza. There is a marked reduction in the number of out-patient appointments in April, cancellations of elective surgery and fewer in-patient admissions and PHC consultations at MoH clinics. Staff absences have been running at a high level and there are on-going drug shortages;
- More patients are being referred for treatment outside Gaza. However, while the number allowed out for treatment has remained at about the same level, the numbers unable to exit because they have been denied permits or are still waiting for them has increased considerably;
- Sea water pollution from the effluence of untreated sewage is a growing concern. 4 out of the 13 areas tested were found to be polluted with human and animal faeces (*Faecal Coliform* and *Faecal Streptococcus*); and another three areas were polluted with human faeces. In one area bacteria that cause infections in humans (*Pseudomonas Aeruginosa*, *faecal streptococcus*) were detected.

West Bank:

- Chronic difficulties of access to health facilities for patients and staff, equipment breakdowns, staff and drug shortages continue to affect the delivery of adequate health care in the West Bank. But there have been no important changes in indicators of health status or health services;
- Access restrictions to health care including for pregnant women and urgent cases and especially during curfew hours have been documented through field visits to Azzun Atmeh / Qalqiliya district and Barta Sharqiya / Jenin district



Issue No. 24
Apr- May 2008

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- Sewage pollution;
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- Low Birth Weight in Gaza Strip and the West Bank
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- MOH PHC consultations
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- Table: Neonatal deaths at Gaza hospitals;

1. General Health Indicators- West Bank and Gaza Strip

1.1. Health Status

1.1.1 Neonatal deaths at hospitals - information were collected on neonates (first 28 days of life) admitted to neonatal units at seven hospitals in Gaza Strip¹ between January 1 to December 31 in 2006 and 2007. The results show a small increase of 1.4% in the proportion of neonatal deaths in 2007 as compared to 2006:

Table 1: Proportion of deaths among neonates admitted in all neonatal units in Gaza strip

Month	2006			2007		
	Admissions	deaths	(%)	Admissions	deaths	(%)
January	349	33	10	334	43	13
February	432	28	6	396	37	9
March	429	43	10	340	44	13
April	356	27	8	328	38	12
May	344	46	13	353	40	11
June	379	43	11	358	34	9
July	462	45	10	425	51	12
August	443	58	13	473	36	8
September	415	45	11	422	56	13
October	401	68	17	353	45	13
November	324	55	17	348	37	11
December	328	39	12	337	54	16
Total	4,662	530	11	4467	515	12

At hospital level, the results show the following:

- Shifa Hospital: no change was detected in the number of neonatal deaths among hospitalized neonates in 2007 as compared to 2006.
- Paediatrics Hospital: neonatal deaths in 2007 were **18 % higher** than in 2006.
- Al-Quds Hospital: neonatal deaths in 2007 were **25% higher** than in 2006.
- Aqsa Martyres Hospital- Mid Zone: neonatal deaths mortality in 2007 was **15 % lower** than the neonatal mortality in 2006.
- Naseer Hospital- Khan Younis: neonatal deaths in 2007 were **6 % higher** than in 2006.
- Gaza European Hospital- Khan Younis: neonatal deaths in 2007 were **34 % higher** than the in 2006.
- Tal Sultan Hospital- Rafah: neonatal deaths in 2007 were **25% higher** than the in 2006². (*See Annex II for the disaggregated data by hospital*)

Because this data relates only to neonates admitted to hospitals, it does not assess levels of overall neonatal mortality which requires a more complex set of epidemiological techniques. WHO however will obtain more information on the causes of neonatal deaths at MoH hospitals.

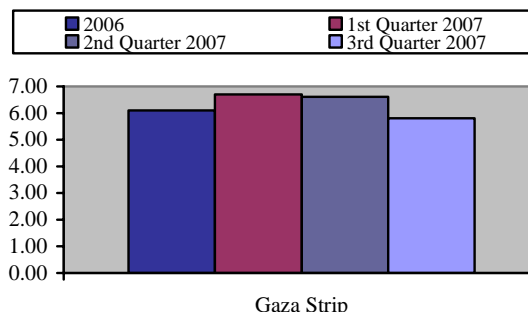
¹ Shifa, Pediatrics and Al- Quds hospitals serve Gaza and North Gaza districts population; Aqsa martyrs hospital serves Mid Zone district population; and Nasser, Tal Sultan and Gaza European hospital serve Khan Younis and Rafah districts population. Neonatal units are available in these hospitals only in Gaza strip.

² Gaza European hospital started to hospitalize the critical cases after the Tal Sultan hospitals has started to function in October 2006. As a result the proportion of neonatal mortality in 2007 is higher than 2006 in the two hospitals.

1.1.2 Low Birth Weight (LBW)³ – figures from the 2006 MICS⁴ survey show that 7.3% of newborns in WB and GS are underweight with no important difference between WB and GS. 80.9% are at average weight, while 11.8% are over weight. Almost all newborns were measured (99.5%) and recorded.

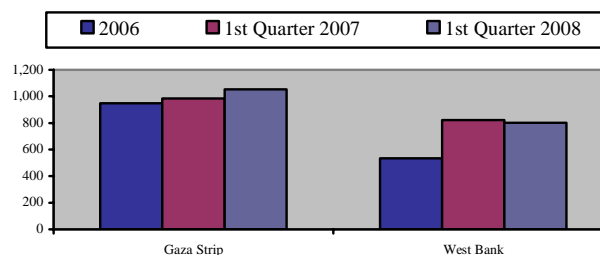
Data from the MoH showed that during the year 2007, the LBW rate was 5.8%. It is assumed that recent figures are underreported; however, compiled figures are within the average range and there is no large difference between 2006 and 2007. In Gaza, data is only available until September 2007, showing a LBW rate of 5.8%.

Figure 5: Proportion of LBW among live births in 2007 in GS



1.1.3 Watery Diarrhoea – during the first quarter of 2008, the monthly average number of children between 1 to 3 years who attended UNWRA PHC facilities in Gaza Strip diagnosed with watery diarrhoea was around 7% higher than during the same period in 2007 and around 11% higher than in 2006. In the West Bank the same indicator during the first quarter of 2008 was 3% lower than during the corresponding period in 2007 but 48% higher than in 2006.

Figure 6: Monthly Average number of watery diarrhoea cases among children 0-3 years, UNRWA facilities

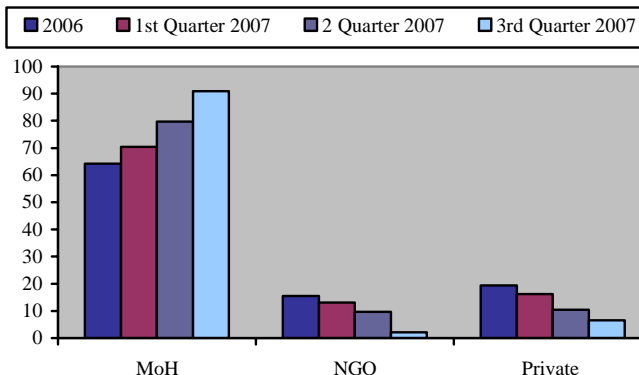


1.2. Health Services and System

1.2.1. Institutional deliveries in Gaza Strip

- The proportion of deliveries at MoH facilities in Gaza has continued to rise from 64% in 2006 to 91% in the third quarter of 2007;
- The proportion of deliveries at NGOs facilities has fallen from 10% to 2% in the same period;
- The proportion of deliveries at private facilities has also fallen in the same period from 19% to 6%.

Figure 7: Proportion of deliveries per provider in Gaza Strip



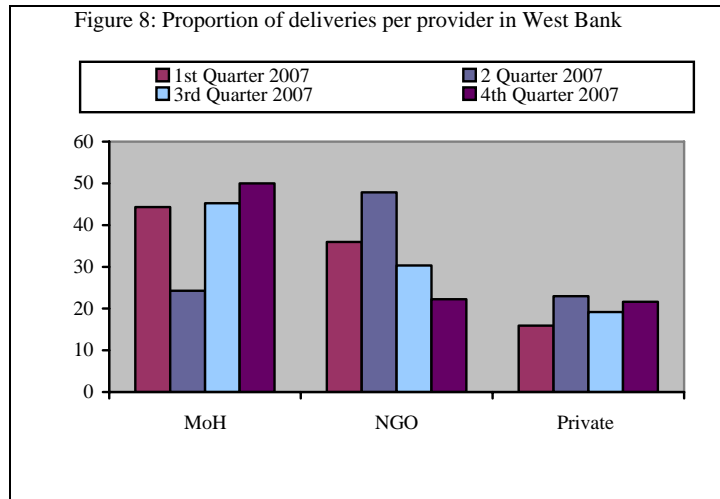
³ Birth weight or Low Birth: Weight (LBW) is a strong indicator about mothers' health and nutritional status during pregnancy. A new born is considered to have low birth weight if the new born weight is less than 2.5 kg. The normal (average) birth weight is between 2.5 up to 4.0 kg, anything above 4.0 is considered to be overweight.

⁴ Multiple Indicators Cluster Survey

1.2.2. Institutional deliveries in the West Bank:

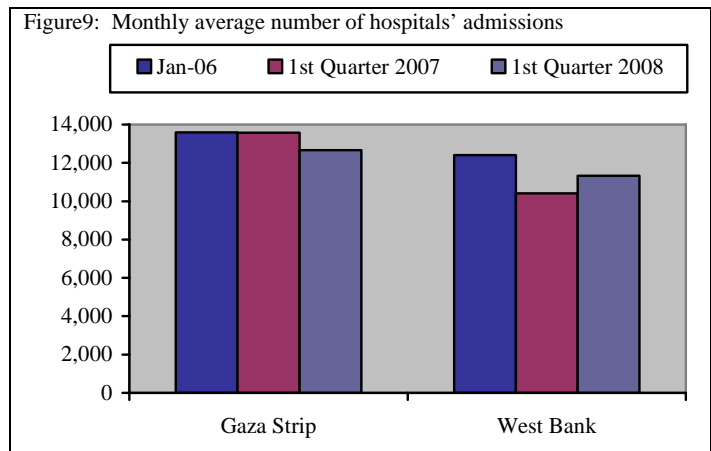
- The proportion of deliveries at MoH facilities in the West Bank has remained fairly constant over the period apart from a sharp drop to 24% in the second quarter as a result of the health workers' strike;
- The proportion of deliveries in NGO hospitals has fallen steadily over the period from 35% to 22% apart from an increase to 48% during the period of the MoH strike;
- The proportion of deliveries in private facilities has remained unchanged at around 20% after a 5% increase the second quarter.

Figure 8: Proportion of deliveries per provider in West Bank



1.2.3. Hospital admissions- patients' admissions at MoH hospitals in the *West Bank* increased by 9% during the first quarter of 2008 compared to the corresponding period in 2007. In *Gaza Strip*, patients' admissions during the first quarter of 2008 were 7% lower than during the corresponding period in 2007. The number of out-patient attendances in MoH hospitals in Gaza fell by nearly 30% in April as compared to prior to the fuel crisis (started April 10). 412 patients with kidney failure faced problems in attending kidney dialysis sessions because of transportation difficulties. Most hospitals suspended elective surgical operations during this period and reduced services like laundry and sterilisation

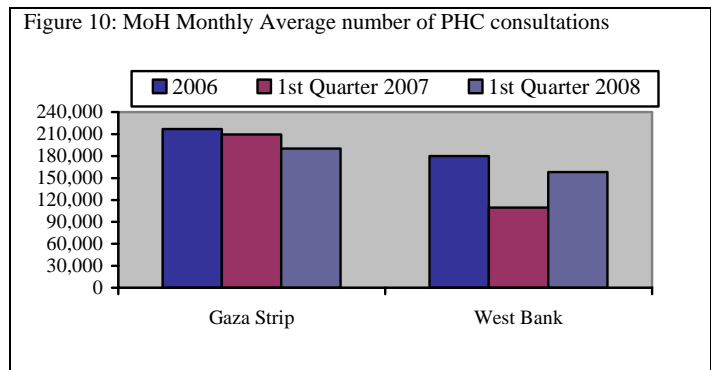
Figure9: Monthly average number of hospitals' admissions



1.2.4. PHC consultations- the monthly average number of PHC consultations at MoH facilities in the *West Bank* during the first quarter of 2008 was around 45% higher⁵ than during the corresponding period in 2007 but around 12% lower than 2006.

In *Gaza Strip*, the monthly average number of PHC consultations during the first quarter of 2008 at MoH facilities was 9.% lower than during the corresponding period in 2007 and 12% lower than 2006

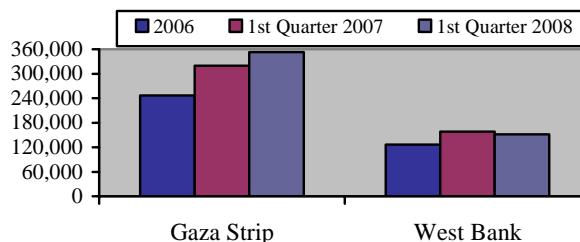
Figure 10: MoH Monthly Average number of PHC consultations



⁵ The main reason behind the drop in the PHC consultations in the West Bank during the first quarter of 2007 is related to the health workers strike.

1.2.5. UNRWA PHC Consultations- the number of UNRWA PHC consultations in the *West Bank* during the first quarter of 2008 was 8% lower than during the same period in 2007 but 20% higher than in 2006. In *Gaza Strip* PHC consultations during the first quarter of 2008 were 10 % higher than during same period in 2007 and 43% higher than in 2006.

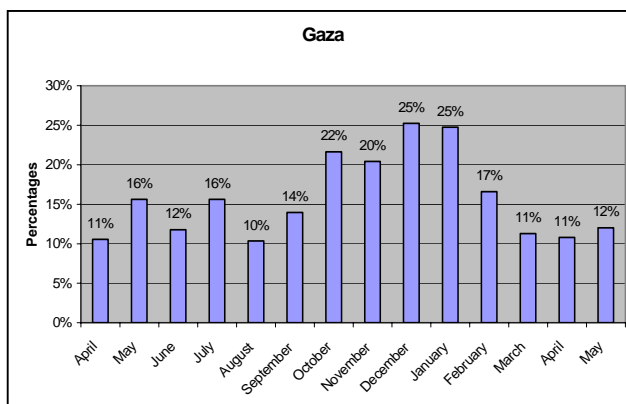
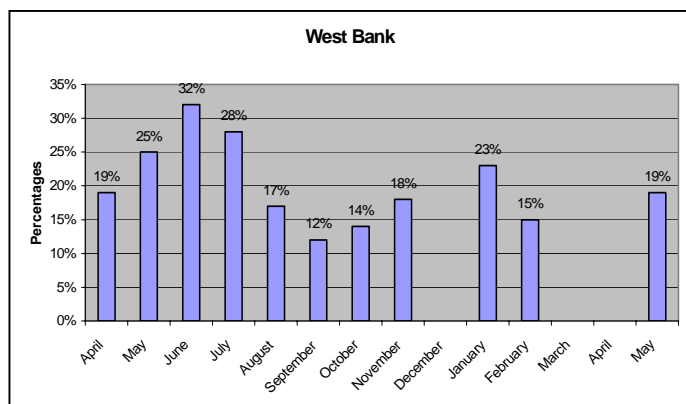
Figure 11: UNRWA, Monthly Average Number of PHC consultations



1.2.6. Pharmaceuticals – data on shortages of drugs at central level have been collected monthly, both in West Bank and Gaza (some reports are missing for WB Dec 07 and March and April 08).

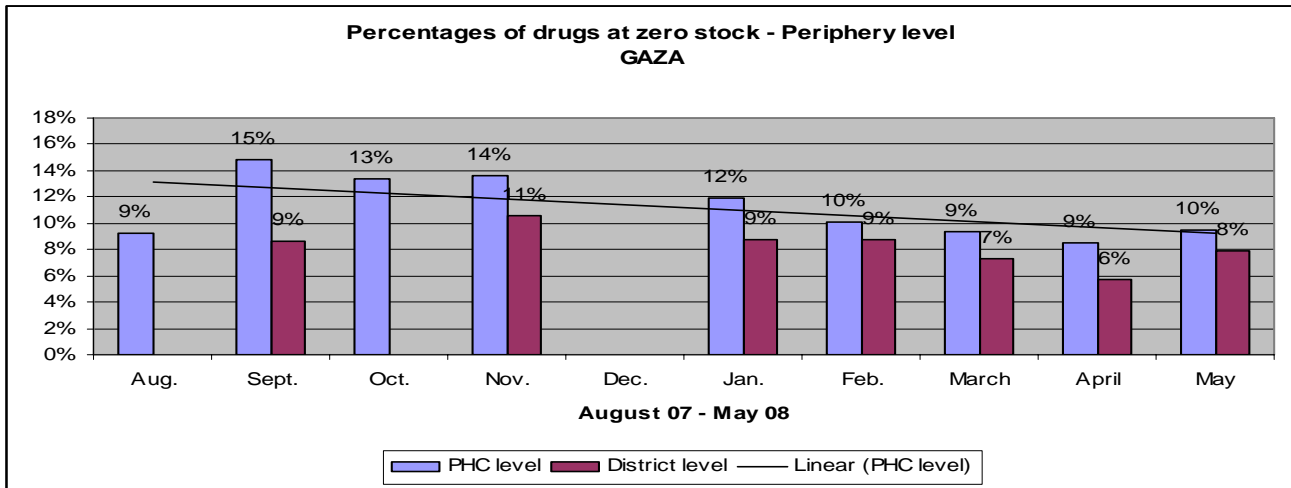
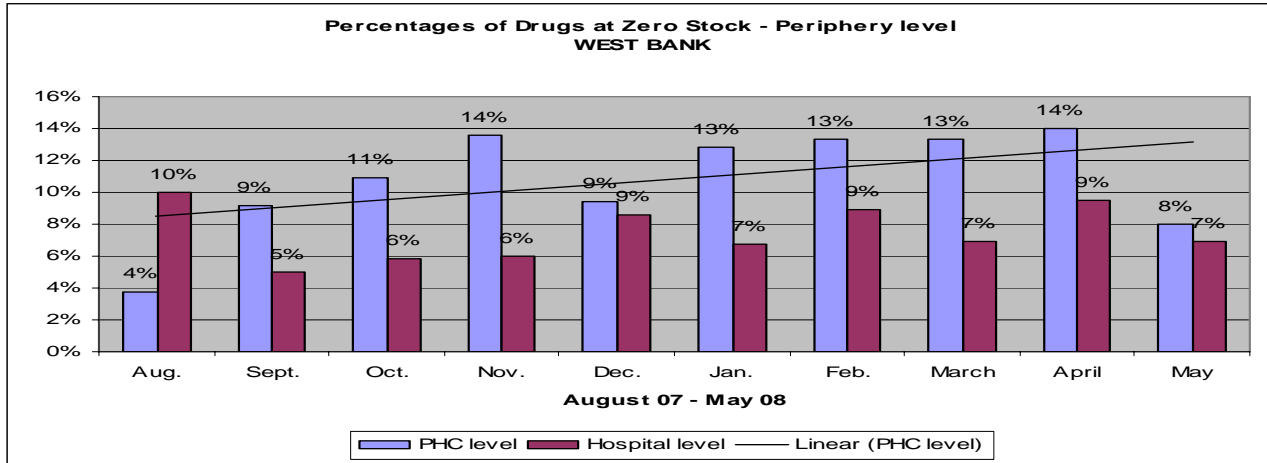
Regarding percentages of drugs at zero level: the trend shows fewer shortages since beginning of 2008 in Gaza with stabilization at around 11%, i.e. a significant decrease compared with the period October 07-February 08. As for the West Bank, shortages remain higher at around 20% although there is an overall decrease by more than 10 % compared to May-July 07.

**Percentage of Drugs at Zero Stock per month (April 2007 - May 2008)
Central level**



Factors which contribute to these on-going shortages include inadequate systems for assessing needs, uncertainty about delivery dates from partners and suppliers, and weaknesses in the system for storage, distribution and supply

At periphery level, WHO has been collecting data on drug availability in hospital and PHC pharmacies since August 2007 for WB and Gaza. The charts below show recurrent shortages, declining slightly in PHCs in Gaza and increasing slightly in PHCs in WB. There is no clear trend in hospital pharmacies.



2. Sentinel Indicators- West Bank and Gaza

2.1. Sentinel Indicators in Gaza

2.1.1 Fuel Shortages - fuel shortages have caused periodic power cuts and restrictions on fuel needed to operate the emergency generators and vehicles⁶. 10 out of the 44 MoH ambulances were not functioning on April 29, 2008. One mobile clinic that provides primary health care services to 13 different areas in Gaza Strip for two weeks was not functioning.

All districts health directorates reported shortages of staff, especially of physicians and nurses. An average of 676 out of 4,743 health staff working at MoH hospitals reported late to duty during the last two weeks of April and 223 of the health personnel took annual leave apparently because of transport difficulties.

The decision made by Hamas to suspend the work of volunteers working in the health sector, with the exception of finance administrative staff, took effect in April and May. This has further complicated the problem of staff shortages and increased the workload on health professionals especially doctors and nurses. The number of the health personnel that are not paid by the PA for April has increased as compared to the previous month (how many were not paid last month).

All districts reported shortages of SOLK vaccine. MMR vaccines were distributed during the second half of March and all children who had not received MMR vaccine at that time were vaccinated.

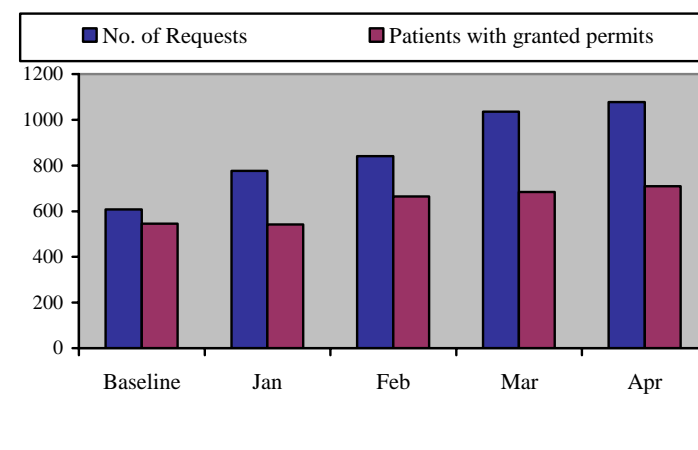
None of the hospitals has received any fresh vegetables since May 1, after the end of the 2 months support by UNRWA in March and April. Some hospitals managed to cover part of the vegetables shortage through local donors, others by using petty cash money.

2.1.2 Referral abroad - between June 2007 and April 2008, the Referral Abroad Department (RAD) of the MoH approved 1,241 referrals documents to Egyptian hospitals for patients in need for specialized treatment. Of these, only 417 were allowed to leave through the Rafah or Erez crossings to obtain treatment in Egypt.

⁶ The MoH emergency generators were filled with around one third of their fuel capacity.

In April, 709 patients (66%) out of 1,077 patients who applied for permits to cross Erez for treatment were granted permits as compared to an average of 90% granted permits during the period Jan - May 2007. Out of these 709 patients, 622⁷ patients crossed Erez to access specialized health services in Israel and the West Bank including East Jerusalem (58%); 16 (1.5%) were denied permits to cross; 75 (7%) requests are still being processed; 385 (35%) are awaiting answers; 28 (2.5%) were to be interviewed by the Israeli General security Services (GSS) before permits would be granted; and 15 (1%) had their applications returned as incomplete.

Figure 4: Monthly number of patients requesting and granted permits through Erez check point



2.1.3 Sewage pumped into the Mediterranean Sea - since January 24, the sanitation authorities in Gaza Strip have been pumping a daily 60,000 cubic meters of sewage (20,000 cubic meters of raw sewage and 40,000 cubic meters of partially treated sewage) into the Mediterranean Sea as a result to shortages of fuel and electricity to avoid flooding of residential areas with sewage.

WHO facilitated the collection of sea water samples during April for microbiology testing. Test results revealed that 4 (31%) out of the 13 tested areas were polluted with human and animal faeces (*Faecal Coliform* and *Faecal Streptococcus*) and three other areas (23%) are polluted with human faeces. An additional sample was collected from 15 areas in Gaza during May. Microbiological tests showed the presence of bacteria that cause infections in humans (*Pseudomonas Aeruginosa*, *faecal streptococcus*) in one out of 15 of the areas. Potential public health risks through bathing and consumption of fish are being further investigated by a team of experts at local and international level.

2. Sentinel Indicators in the West Bank

2.1 General- No new difficulties have been identified in relation to the on-going provision of health services in the West Bank. Key chronic problems are maintenance of equipment, staff shortages and problems of access to health facilities for staff and patients, especially in area C. Access restrictions for the villages of Azzoun Atmeh in Qalqiliya and Barta Sharqiya in Jenin are reported on below.

2.2 Health Service provision in Azzun and Azzun Atmeh villages in Qalqilya District

- The presence of the barrier and gate around Azzun Atmeh is restricting patients' access to secondary health services especially during closing hours of the gate (after 10:00 pm until 6:00 am), increasing health risks for patients and pregnant women.
- Human Rights Organizations documented that deliveries have taken place at the checkpoint due to delay in opening the gate.

⁷ According to the Palestinian liaison officer at Erez Crossing,

- The risk of unattended deliveries is high in Azzun Atmeh due to the presence of the barrier and the lack of midwives residing in the village.
- MoH staff needs a permit from the Civil Administration to provide health services at the village and are sometimes denied access to the village. Provision of school health services was delayed for two days due to denial of access for MoH staff in May.
- Services in the village of Azzun were disrupted during April 2008 due to the curfew and the closure of the northern entrance of the village by road blocks and earth mounds. An estimated total of 10,671 persons from Azzun, Isla, Kafr Laqif and Khirbet Sir were affected as they were unable to receive services from the MoH level III clinic in Azzun.

2.3 Health service provision in Barta' Al Sharqiya village in Jenin district- West Bank

- The presence of the barrier and gate at Barta Al Sharqiya is restricting patients' access to secondary health services especially during the hours in which the gate is closed (after 9:00 pm until 5:00 am).
- MoH ambulances are denied entry to the village. Other ambulances are subject to process of security checks that involve both the patient and the ambulance.
- MoH staff need a permit from the Civil Administration to provide services in the village and are sometimes delayed and denied access. Providing school health services is suspended in the village due to that reason.
- The Village Council coordinates the entry of medications and drugs, the entry and exit of ambulances as well as the urgent passage of patients when the Gate is closed
- Drugs and vaccinations, which should be kept within the cold chain, are also subject to search at the entrance and are exposed to heat which negatively impacts its effectiveness.

- Annex I: Details about health service provision in Azzun and Azzun Atmeh villages in Qalqilya village in the West Bank:

1. “Azzun Atmeh” Village

1.1 Background Information:

Azzun Atmeh is a village with around 1,700 residents (PCBS data) situated to the south east of Qalqilya district in the West Bank. The separation barrier was completed in the year 2003 to allow territorial contiguity to be maintained between four Israeli settlements - Etz Efrayim, Elqana, Sha’are Tikva, and Oranit - and between these settlements and Israel.(OCHA).

For residents to leave or enter the village, they have to enter through a gate that is guarded by the Israelis and are subject to physical checkup. Vehicles are checked as well. Non-residents of Azzun Atmeh including medical staff need a Civil Administration permit to access the village. The Gate is open from six in the morning till ten at night.

1.2. Health Service Provision

The Ministry of Health runs a level II clinic in the village that provides curative services two days per week and preventive services five days per week. A physician from the MoH provides curative services every Wednesday. Merlin provides pediatric and gynecology services one day per week. Palestinian Medical Relief Society (PMRS) provide services through a mobile clinic in cooperation with the Village Council. No laboratory is available in the village and no mid-wives reside in the village. Secondary health services are not available in the village.

1.3 Access Restrictions to Health Services

The main obstacle impeding access to quality healthcare and affecting the regular provision of health services is the presence of the separation barrier and the checkup procedures which the residents, including patients are subject to upon entering and leaving the village. **Accessing secondary health services especially while the Gate is closed is putting an added risk on the deterioration of the health status for urgent cases and pregnant women.⁸ The risk of unattended delivery is also compounded by the fact that no midwife is available in the village.**

During the month of May, delay in providing school health services was also reported by the Ministry of Health due to denial of entry by the Israeli’s to MoH staff.. Given the already existing shortage in health staff in MoH, any denial of entry to provide health services implies that the services will be cancelled and will only be provided when the next scheduled visit takes place if entry is permitted.

⁸ B’tselem reported that a young man seriously injured when a tractor overturned had to wait for one hour and a half before the soldiers opened the Gate.

On December 2007, a pregnant woman about to deliver approached the Gate at 2:00 am and had to wait for one hour and a half without the guards opening the gate. the woman delivered in the car and was assisted by her daughter who was a nurse.

Another woman approached the gate around 2:50 am and was delayed for more than an hour and a half. After that delay the woman began to deliver and the gate opened, as it usually does to enable farmers to pass, and the woman was taken to the nearby village of Habla where a midwife assisted her in the delivery.

2. “Azzun” Village

2.1 Background Information

The village of Azzun is located about 9 km south east of the district of Qalqiliya. The northern entrance that links the village of Azzun with the main bypass road number 55 has been closed by the Israeli's with concrete blocks and earth mounds since the 9th of February up till now. Although another entrance is available, this entrance is longer (40 km away) and more tiresome. In addition, during the month of April the total number of curfew hours in Qalqiliya district was 493 (OCHA-Protection of Civilian Database)

2.2 Health Service Provision

In the village, MoH runs a level III clinic that provides curative and preventive services to the population of Azzun (total population 8262) and the neighboring villages of Isla (887), Kafr Laqif (984) and Khirbet Sir (538).

Access Restrictions to Health Services during April 2008:

During the hours of curfew, the population in these areas (total of 10671) was denied access to health services during the hours in which the clinic was closed. Under normal circumstances the clinic opens five days/week. During the curfew the clinic was only open 2 days per week and not all services were provided. In addition, the closure of the northern entrance is a burden on the population since they have to travel a longer distance to access health services outside the village.

3. Other Key Issues Noted during the Field Visit

- Shortage in health and administrative staff exist in the PHC Directorate.
- There is a need for cell counters in the level III clinics in Azzun and Habla.

4. Recommendations for Future Actions

- The international community should support the efforts of human rights organizations in their efforts to advocate for:
 - The smooth and easy access of the patients to secondary health services outside Azzun Atmeh especially when the gate is closed.
 - Access of MoH staff to provide services in the villages
 - Smooth access of ambulances to enter and leave the villages of Azzun and Azzun Atmeh.
- Qualified and trained midwives residing in the villages should be available to minimize the risk of unattended home deliveries.
- Ensure that MoH puts a documentation system in place to document any possible home delivery or delivery at a checkpoint.
- Provide psychosocial support to the community, especially children, in the village.

Annex II: Details about health service provision in Barta' Al Sharqiya village in Jenin district- West Bank

1. “Barta’ Al Sharqiya” Village

1.1 Background Information:

Barta Al Sharqiya is a totally enclosed enclave in the district of Jenin in the West Bank with a population of around 3603 (PCBS 2006 data) with entry and exit to other districts in the West Bank controlled through two gates at Barta’ and at Shaked.

Barta Al Sharqiya and Barta’ Al Gharbiya (located on the Israeli side on the green line) were divided since 1948. However, communities in both villages still have strong economic and social ties. Although there is no barrier between Barta’ Sharqiya and Barta Gharbiya and accordingly population in Barta Sharqiya can reach to the population in Barta’ Gharbiya; however, crossing over from Barta Sharqiya to Barta Gharbiya places an added risk of imprisonment or fine by the Israelis.

1.2 Health Service Provision

The Ministry of Health runs a Level II clinic in the village that provides curative and preventive services. A nurse that resides in the village provides maternal and child health care services. The MoH general practitioner resides in the neighboring village of Yabad and needs a permit from the Israeli Civil Administration to enter the village.

Recently the Palestinian Medical Relief Society (PMRS) are providing services to the community every Thursday including gynecology and orthopedic services. A dentist and a general practitioner reside and provide services in the village, however, no gynecologist resides in the village. There are three private pharmacies and a private laboratory.

UNRWA used to provide services in the village through a mobile clinic but have been facing problems in entering the village due to Israeli soldiers’ checkup procedures at the entrance gate.

1.3 Access Restrictions to Health Services

Accessing secondary health care services, especially after the gate is closed (after 9:00 pm) is a complicated process. This can be a life threatening risk for urgent patients who need lifesaving treatment. For patients to exit the village after the gate is closed, they need special coordination with the Israeli soldier in charge at the gate. Both the patient and the vehicle are subject to a tedious and heavy process of security checkup. The Ministry of Health reported that a woman who had undergone a Cesarean Section in one of the hospitals outside the village fainted at the gate while waiting for permission to enter the village and was transported after that with an ambulance to the village.

Ambulances transporting patients cannot enter or exit the village without prior coordination with the soldiers at the gate. This causes delay in transporting the patients and might lead to health complications.

Health education services are not provided in the village. MoH health education team was denied entry to the village and no permits were issued for them. Accordingly, school health services are suspended in the village.

No drugs or vaccinations are allowed into the village without prior coordination with the Israeli soldiers present at the Gate at the entrance of the village. The soldiers are provided with a list of medications by the village council. Medications are opened at the entrance and matched with lists provided. Even

vaccinations, which should be kept within the cold chain, are also subject to search at the entrance and are exposed to heat which negatively impacts its effectiveness.

3. Other Key Issues Noted during the Field Visit

- At the time of the field visit, two drug items needed for kidney patients were out of stock for three days in the district.
- Intra- district communication is partially functional due to lack of communication devices.
- A vehicle is needed by the MoH for supervision purposes.
- There is staff shortage in the PHC directorate especially after some of the staff will be transferred to the new directorate to be opened in Tubas.
- Staff shortage was also reported in Jenin Governmental Hospital
- Shortage in hematology and kidney medications was reported in the hospital

4. Recommendations for Future Actions

- The international community should advocate for:
 - Facilitating the movement of patients to access health services outside the village, especially secondary and tertiary health services, during all hours of the day and even after the gate is closed.
 - Facilitating the movement of ambulances into and out of the village especially MoH ambulances
 - Facilitating the movement of MoH staff into the villages, especially MoH health education staff and discuss with other international agencies the possibility of providing these services in the meantime.
 - Prohibiting the checkup of vaccinations before entering the village
- Proper documentation of all cases that suffered from health complications due to either delay or denial of access at the gate.
- Provide psychosocial support to the community, especially children, in the village.

Annex III: Districts' Key Findings Gaza

The following annex shows a summary of the main findings of the field visits to hospitals and PHCs in Gaza during the month of May 2008.

1. North Gaza District

1.1. PHC facilities

- The provision of the ante-natal care service has been reduced during the second half of May in Jabalia clinic due to the breaking down of the ultrasound machine.
- Shortage in the first line paediatrics' antibiotics in the PHC clinics as the district received a smaller than the required amount.
- The Cell Blood Count (CBC) machine in Jabalia clinic is out of order for five months in a row. The clinic relies on the manual haemoglobin testing machine. Reagent for this machine is available. Patients need other blood functions tests are referred to Kamal Edwan Hospital.
- The x-ray machine in Jabalia clinic is functioning; however its processor is out of order.
- No change has been reported in the clinics' working hours except for: Jabalia and Shaimma clinics which are currently working 2 shifts instead of the three shifts; and Beit Hanun clinic which is working one shift instead of the three shifts.
- Availability of drinking water started to be a problem after the end of the UNICEF project that supplies drinking water to the clinics at the end of April.
- Lack of IUD devices for the family planning. Other family planning methods are available.
- Health workers attendance to work has improved during the second half of May as the majority of them had to report late to duty due to transportation difficulties.
- Five clinics out of the 10 MOH clinics available in the district have emergency generators that are used during the electricity outage hours.

1.2 Beit Hanun Hospital

- In April, around 20% of health personnel were reporting late to duty. The hospital had to secure a bus to transport the workers, which is still in place.
- The hospital did not declare the "state of emergency" during April and May even during the Israeli attack on the district. However the directors had to suspend the elective surgical operations for two days during April due to an internal health workers strike protesting against the work load as the hospital is suffering from a shortage in staff.
- 18 personnel have been newly hired as compared to the needed 47 personnel.
- As the UNDP has suspended its project of constructing a new story for the hospital, Hamas regimen in Gaza Strip has promised to continue this work, which is pending upon the availability of the construction material.
- The Blood gas analyser machine needed for laboratory testing is not available in the hospitals. Patients are referred to Kamal Edwan or Dorah hospitals.
- The general wastes are collected regularly with no reported problem and the medical wastes are managed by Shifa hospital.
- The hospital lacks a one month strategic stock of pharmaceuticals.

1.3 Kamal Edwan Hospital

- The hospital had to declare the state of emergency during the Israeli attacks on northern Gaza in April and May. All services have been suspended except emergency services.

- The bed occupancy rate exceeded 100% at the paediatrics unit in the hospital during April due to the shortage in beds. As a result, two children had to occupy one bed.
- The incidence of *Bronchitis* among children is higher than the normal average. Data is not available to confirm this observation.
- Shortage in some lab reagents was reported and facilities for microbiology tests are not available. Patients are referred to Dorah hospital.
- All endoscopy surgeries have been suspended due to the lack of *Endoclips* needed for the surgery.
- Bone cement is not available in the hospital. Patients are referred to Shifa hospitals.
- The x-ray machine is not functioning properly. The portable x ray is out of order; and 2 out of the 3 ventilators available in the ICU are not functioning.
- Some health personnel are still reporting late to duty due to transportation difficulties. Around 10% in May as compared to 30% in April.

2. Gaza District

2.1. Shifa Hospital

- This hospital is the largest in Gaza with 584 beds. 1,480 employees work at the hospital at all times despite the constraints of electricity failure (on average 2 hours daily).
- In response to fuel shortage and transportation difficulties, and to facilitate access of employees to hospital, MoH secured 2 buses to transport them to and from the hospital. This has decreased the number of late reporting employees from 20% to 5%.
- Although the incinerator of this hospital is crucial to other hospitals, districts and NGOs beside the hospital itself, as it is the only means of managing medical waste for Gaza and North Gaza areas, **it is out of order for a week**. The municipality is taking care of both medical and non-medical in the meantime.
- Similar to other hospitals, this one received a petty cash of NIS 5,000 every month from Hamas regime in Gaza.
- The Central Blood Bank (CBB) covers Shifa hospital and shortages of other hospitals within Gaza Strip. Under normal circumstances, CBB is required to secure 1,200 blood units each month to function effectively. Each unit processing costs about USD 70. During Israeli incursions, this amount increases. For example, during the last 3 days IDF invasion (28th Feb. to 2nd March, 2008), CBB used 240 units.
- The CBB have shortages of 7 technicians and 3 administrative employees after this number of employees stopped reporting to work since July 2007.
- The CBB is also suffering shortages of some reagents required for chemistry tests (LDH, CPK, Uric Acid, T.G., and Total Protein); Virology tests (HBsAg); and PT. In addition there are out of order machines such as Alcyon; Nova 10; Blood Bank Center Fug, Freezer and Refrigerator.

3. Mid - Zone District

3.1 PHC Facilities

- Due to human resources shortage, one (Al Birka) out of the 16 Clinics that belong to this district has been closed, and three decreased their shifts to 2 instead of 3. However, 2 Clinics are still working 24hours/day. A new clinic has been opened recently at Al Mosaddar area.
- There are 220 employees and 32 volunteers working at the District Clinics. As a result of fuel shortage and transportation difficulties, about 40 employees reported late more than one hour to duty daily, and about 10 employees were deployed to other work places because they could not reach their original work place. The current human resources are coping to deliver the services but not to develop it.

- The District has 3 ambulances at Al Zahra, Nusirat and Burajj Clinics from which 2 are working but the third at Al Zahra stopped due to fuel shortage.
- Electricity failure has been reported to be about 2 hours/day during April, and 1 hour daily in May. The District has 1,860 litres of fuel out of 4,700 litres fuel storage capacity.
- Collection of general wastes is done regularly at this district, while transferring medical waste to be managed at Shifa Hospital.
- Drinking water is not available at the District Clinics after UNICEF stopped its activity of supplying water since the beginning of April.
- This District has working refrigerators and enough vaccines, and covers the immunization program effectively.

3.2 Aqsa Martyrs Hospital

- This hospital has 105 beds and employs 405 staff and 30 volunteers. There are 44 newly hired employees to cover 40 employees that have stopped working since July, 2007.
- Due to fuel shortage and transportation difficulties, about 50 employees reported late more than one hour daily, and 5 requested annual leave because of inability to reach the hospital.
- Electricity fails daily for 5 hours on average, and electric generator uses 35 litres/ hour to maintain it. **The hospital had to stop the elective surgeries for 2 weeks during April as precautionary measure, where they have done 37 major operations only compared with 143 operations the month before.**
- There are 54 patients who receive haemodialysis sessions and the hospital decided not to receive any more, as there is no space to manage any more patients. Furthermore, there are 7 dialysis machines out of order out of the available 15. The hospital manages 21 haemodialysis sessions daily.
- Hospital laundry is out of order for the last 6 months, and they rely on Shifa hospital on their laundry work. Similarly, their central sterilizer is continuously breaking down. Accordingly the hospital depends on Nasser hospital for the sterilization purposes.
- The Maintenance dept. is not functioning as efficient as it used to be after 7 employees out of 13 used to manage the dept. and the unavailability of spare parts added to the problem.
- After UNRWA program of supplying hospitals with vegetables ended at the end of April 2008, the hospital secured the needed vegetables using the petty cash money till the 25th of May, where Hamas regime started to secure it. The last time the hospital received petty cash was last March 2008; a sum of NIS 2,000.

4. Khan Younis District

4.1. PHC Facilities

- This District covers 10 clinics; two of them work 2 shifts per day, and the rest for one shift.
- Human resources have been reported to be enough to manage the work. The District is run by 43 doctors, 63 nurses, 62 technicians, and 49 administrative employees.
- The District has no ambulances, and relies on the PRCS for transferring their patients to other health facilities.
- The District experienced electricity failure for 4 hours daily. Only 5 clinics have electric generators, and 3 of these generators are out of order, where the other two have no fuel to operate them. The last time the District received fuel was last September, 2007.

- There is no drinking water at any of the District clinics after the UNICEF program for supplying them with drinking water has been stopped last April, 2008.
- Similar to other Districts, they have enough vaccines to deliver a successful immunization program, and provide vitamin supplementation. Furthermore, deliver normal and regular mother and child services.
- Laboratory services are available at 5 clinics. These Labs suffer shortages of reagents and spare parts to some machines, and as a result, CBC and Chemistry investigations are not available, and clients are referred to Shifa and Nasser hospitals to do these investigations.
- There are 4 Dental clinics within this District, all are working partially due to unavailability of some accessories and x-ray films.

4.2. Nasser Hospital

- This 301 bedded hospital is run and managed by 861 employees. However, shortages of 5 anaesthesia technicians and 20 nurses have been reported.
- MoH secured a bus for the transportation of employees early this month as a response to transportation difficulties, and this has led to significant improvement in employees' punctuality.
- Recent changes at the top management personnel has been done this week, where a new Executive Director has been appointed, the administrative Director has been transferred to work at the Ministry HQ, and his deputy has been promoted to be the new Director, in addition to other internal movements have been done.
- As this hospital reported continuous break down of their laundry boiler and drier, the ICRC has sponsored and started their repair along with one out of order water pump early this week.
- The other maintenance activities are managed by 17 employees, and shortage of spare parts is representing the only challenge for them. Out of order machines include PO2, PCO2, and Na Sensors at the Intensive Care Unit.
- Most of the refrigerators at the hospital are very old and needs renewal, particularly those at kitchen, AKU, Nursery ICU, Operation Theatre, Pharmacy and Blood Bank and Laboratory. A total number of 15 refrigerators are needed.
- Electricity failure has been experienced 3 hours daily in average, and risky shortage of fuel has been reported twice during May, where WHO had to intervene in facilitating fuel supply for them.
- There are 65 patients who receive haemodialysis care due to kidney failure. 29 sessions are delivered daily. The Artificial Kidney Unit (AKU) has 11 working haemodialysis machines, and no problems have been reported in this unit.
- The hospital is managing both general and medical waste without problems.

4.3. European Gaza Hospital

- This 200 bedded hospital is run and managed by 767 employees, and reported shortages in human resources (10 Doctors, 10 Nurses, 10 Administrative Assistants and 5 Porters).
- After MoH secured a bus for the transportation of employees early this month as a response to transportation difficulties, the number of late reporting employees dropped from 200 to 30 per day, and no employees have requested annual leave because of inability to reach hospital.
- The hospital faces daily electricity failure of 2 hours in average, and relies on the emergency generator, which has only 17,000 litres of fuel lift, enough to secure electricity for 2 weeks in case of continuous electricity failure.
- The hospital is performing 50% of the elective surgeries since the beginning of May, 2008, as a precautionary measure.

- The CT machine is out of order for more than 5 weeks, as it needs 2 electronic spare parts, and the maintenance company is trying to secure them. Also the CBC machine is out of order, and the Blood Gas Analysis machine is not working efficiently due to shortage of kits.
- Special Care Baby Unit (SCBU) which has 20 beds suffers shortages of 8 cardiac monitors, 8 Oxygen Hoods, 2 Ventilators and one Blood Gas Analysis machine.
- Adult ICU reported their out of order machines such as, 8 Infusion Pumps, 3 Syringe Pumps, and the only Blood Gas Analysis machine.
- The hospital manages their general and medical waste effectively.
- The Maintenance department faces the challenge of spare parts scarcity from the time of the Israeli closure to borders, and always seeks the help of the International Organizations to secure the needed spare parts.

5. Rafah District

5.1. PHC Facilities

- Experienced electricity failure for a weekly average of 30 hours since the beginning of May and shortage of fuel in most of the district PHCs; e.g Tal Al Sultan clinic has no fuel at all for the last 7 months, similarly Al Mawasy clinic⁹, whilst Rafah clinic has only 500 litres (half of their storage capacity). The other two clinics Al Shouka and Al Shaboura have no electric generators. Although Al Mawasy clinic is situated in a far and isolated area, its only ambulance has no fuel most of the time.
- The provision of Laboratory, Dental, and X – Ray have been stopped during the electricity failure hours in Tal Al Sultan clinic. Some lab. Reagents are not available in Rafah MoH Clinics such as Triglyceride and Uric Acid. Also Drobkin (Reagent for Hb) is not available.
- IUDs are not available within the family planning sections at the District.
- Tal Al Sultan clinic has no water supply since April, and the only means to secure water is done by using mobile water tanks.
- 20 professional employees from Rafah District have stopped working since July, 2007, and have been replaced by 9 newly hired and two volunteers.
- The District used to manage their maintenance problems through the maintenance department at Abu Yousif Al Najjar Hospital, but recently MoH suggested to refer their maintenance problems to Gaza European Hosp., and since no official letter has been issued so far to regulate the process, a problem in managing out of order items has existed.

5.2. Yousif Al Najjar Hospital

- The elective surgical operations have been suspended as a precautionary measure for two times during April and May 2008, due to IDF incursion to the nearby area and shortage of fuel. Each time lasted for about 10 days.
- The hospital provide haemodialysis services for 52 patients (16 patients daily), although 2 Artificial Kidney Machines out of 8 are still out of order and a waiting repair. The maintenance department is run by only 4 employees instead of the 28 professionals who used to run it, which added another burden to the delivery of timely services.
- 167 employees have stopped working since July, 2007, 95 Volunteers used to cover their work as a replacement.
- The decision of Hamas regimen in Gaza to stop all volunteers except administrative ones and to hire new employees to deliver the service instead, has resulted in shortage of 15 nurses.

⁹ Al Mawasy clinic used to be managed by Medical Services for Police as level 2 clinics, and started to be managed and run by MoH since the beginning of May, 2008.

- Electricity in this hospital fails 2 hours daily in average. Three generators are available in the hospital, which consume 40 litres of fuel/hour when working during electricity failure.
- The hospital has 7 ambulances and 2 administrative cars that operate with half of their fuel capacity, which requires a very rational use of these vehicles.
- The hospital has 3 autoclaves, two of them are out of order and one has been repaired recently.
- The hospital uses the laundry of the European Gaza Hospital for their laundry needs.
- The Rafah municipality's workers went on strike at the beginning of April which led to accumulation of garbage for days in front of the hospital, till it was removed by Al Shouka municipality.

Annex IV: Table Health Status and Services Indicators

Indicators	Baseline 2006	1st Quarter 2007	4th Quarter 2007	1st Quarter 2008
Underweight				
<i>West Bank</i> (0-2 years)	5.20%	5.50%	2.4%	NA
<i>Gaza Strip</i> (9-12 months)	5.15%	2.60%	2.73%	NA
Low Birth Weight				
<i>West Bank</i>				NA
<i>Gaza Strip</i>	6.1%	6.7%		NA
Anaemia among Children				
<i>West Bank</i>	49.90%	49.48%	44.7%	NA
<i>Gaza Strip</i>	67.90%	69.1%	68.16%	NA
Anaemia/Pregnant Women				
<i>West Bank</i>	29.70%	26.5%	29.6%	NA
<i>Gaza Strip</i>	39.80%	29.3%	31.26%	NA
Number of children with diarrhoea (0-3 years) at UNRWA clinics				
<i>West Bank</i>	534	822		801
<i>Gaza Strip</i>	949	986	1243	1,053
Place of delivery by service provider				
<i>West Bank/MoH</i>	52%	44%	50%	NA
<i>West Bank/NGOs</i>	29%	36%	22%	NA
<i>West Bank/Private</i>	16%	16%	22%	NA
<i>Gaza/ MoH</i>	64%	70%		NA
<i>Gaza/NGOs</i>	16%	13%		NA
<i>Gaza/ Private</i>	19%	16%		NA
<i>Gaza UNRWA</i>	1%	0%		NA
Non-institutional delivery(N/ total birth)				
<i>West Bank</i>	4%	4%	6%	NA
<i>Gaza Strip</i>	0.30%	0.23%		NA
In-patient admissions				
<i>West Bank</i>	12,415	10,418	10768	11,321
<i>Gaza</i>	13,592	13,576		12,668
<i>oPt</i>	26,007	23,990		23,989
MoH PHC consultations				
<i>West Bank</i>	174,891	109,343	162477	120,246
<i>Gaza</i>	241,321	209,357	181277	164,927
<i>oPt</i>	416,212	318,700	231567	285,173
UNRWA PHC consultations				
<i>West Bank</i>	126,747	158,203		151,797
<i>Gaza</i>	246,533	319,784	343962	332,193
<i>oPt</i>	373,280	477,987		483,990
Contracting out (including referral abroad)				
<i>West Bank</i>	1,230	1,216		NA
<i>Gaza</i>	323	655	891	865
<i>oPt</i>	1,553	1,871		NA

Annex V: Neo-natal deaths at neonatal units at Gaza MoH hospitals

Month	2006			2007		
	Admissions	deaths	(%)	Admissions	deaths	(%)
1. Shifa hospital - Gaza						
January	90	18	20.00%	98	24	24.49%
February	87	14	16.09%	84	18	21.43%
March	95	21	22.11%	80	23	28.75%
April	91	16	17.58%	85	19	22.35%
May	101	24	23.76%	95	21	22.11%
June	108	21	19.44%	89	18	20.22%
July	116	22	18.97%	100	21	21.00%
August	115	28	24.35%	108	17	15.74%
September	89	24	26.97%	102	30	29.41%
October	97	32	32.99%	83	25	30.12%
November	89	31	34.83%	98	19	19.39%
December	87	23	26.44%	92	27	29.35%
Total	1,165	274	23.52%	1,114	262	23.52%
2. Paediatrics' Hospital- Gaza						
January	100	7	7.00%	85	5	5.88%
February	175	5	2.86%	128	8	6.25%
March	171	9	5.26%	113	9	7.96%
April	110	3	2.73%	71	4	5.63%
May	95	1	1.05%	66	4	6.06%
June	106	6	5.66%	102	4	3.92%
July	129	9	6.98%	111	11	9.91%
August	129	7	5.43%	133	7	5.26%
September	135	9	6.67%	118	11	9.32%
October	119	15	12.61%	89	7	7.87%
November	83	9	10.84%	94	7	7.87%
December	77	8	10.39%	88	10	11.36%
Total	1,429	88	6.16%	1,198	87	7.26%
3. Al- Quds- Gaza						
January	9	0	0.00%	5	0	0.00%
February	8	0	0.00%	6	1	16.67%
March	8	0	0.00%	3	1	33.33%
April	5	0	0.00%	13	1	7.69%
May	8	1	12.5%	8	3	37.5%
June	9	0	0.00%	3	0	0.00%
July	10	1	10.0%	6	0	0.00%
August	4	1	25.0%	6	0	0.00%
September	4	0	0.00%	8	0	0.00%
October	14	3	21.4%	4	0	0.00%
November	12	0	0.00%	7	0	0.00%
December	4	0	0.00%	7	0	0.00%
Total	95	6	6.32%	76	6	7.89%
4. Aqsa Martyrs- Mid Zone						
January	40	0	0.00%	43	2	4.65%
February	37	0	0.00%	45	0	0.00%
March	51	0	0.00%	30	0	0.00%
April	37	0	0.00%	37	1	2.70%
May	39	1	2.56%	34	1	2.94%
June	36	0	0.00%	39	1	2.56%
July	39	1	2.56%	51	1	1.96%
August	47	2	4.26%	54	1	1.85%

September	56	1	1.79%	53	0	0.00%
October	57	2	3.51%	52	1	1.92%
November	27	1	3.70%	40	0	0.00%
December	27	1	3.70%	39	0	0.00%
Total	493	9	1.83%	517	8	1.55%
5. Nasser Hospital - Khan Younis						
January	41	2	4.88%	41	7	17.07%
February	62	5	8.06%	65	7	10.77%
March	50	7	14.00%	46	5	10.87%
April	57	5	8.77%	48	4	8.33%
May	53	13	24.53%	59	4	6.78%
June	60	10	16.67%	47	7	14.89%
July	88	5	5.68%	77	14	18.18%
August	88	14	15.91%	71	6	8.45%
September	52	6	11.54%	61	8	13.11%
October	51	11	21.57%	43	8	18.60%
November	60	9	15.00%	41	5	12.20%
December	31	3	9.68%	58	10	17.24%
Total	693	90	12.99%	657	85	13.71%
6. Gaza European Hospital- Khan Younis						
January	69	6	8.70%	41	5	12.20%
February	63	4	6.35%	47	3	6.38%
March	54	6	11.11%	43	6	13.95%
April	56	3	5.36%	42	9	21.43%
May	48	6	12.50%	56	7	12.50%
June	60	6	10.00%	46	4	8.70%
July	80	7	8.75%	46	4	8.70%
August	60	6	10.00%	69	5	7.25%
September	79	5	6.33%	50	7	14.00%
October	62	5	8.06%	54	4	7.41%
November	44	5	11.36%	44	6	13.64%
December	42	4	9.52%	30	7	23.33%
Total	717	63	8.79%	568	67	11.80%
7. Tal Sultan Hospital- Rafah						
January	0	0	0.00%	21	0	0.00%
February	0	0	0.00%	21	0	0.00%
March	0	0	0.00%	25	0	0.00%
April	0	0	0.00%	32	0	0.00%
May	0	0	0.00%	35	0	0.00%
June	0	0	0.00%	32	0	0.00%
July	0	0	0.00%	34	0	0.00%
August	0	0	0.00%	32	0	0.00%
September	0	0	0.00%	30	0	0.00%
October	1	0	0.00%	28	0	0.00%
November	9	0	0.00%	24	0	0.00%
December	60	0	0.00%	23	0	0.00%
Total	70	0	0.00%	337	0	0.00%