

Highlights

Epidemiological weeks no 1-52 of 2008

Reporting Units 20/20

Population under surveillance 869 375

- The number of people under surveillance for this reporting period is 869 375 out of 1 073 303 (81%) Palestine refugees registered with UNRWA in the Gaza Strip. This number corresponds to beneficiaries effectively accessing UNRWA Health services in 2008;
- The reporting completeness is 100%, this is not surprising as the data is retrospective;
- 3.8 million consultations were carried out in UNRWA health facilities in 2008;
- Watery diarrhoea as well as acute bloody diarrhoea remain the major causes of morbidity among reportable infectious diseases in the refugee population of the Gaza Strip;
- No outbreak alerts were raised for the communicable diseases currently under surveillance in the refugee population during 2008;
- Surveillance efforts have been intensified in the Gaza Strip since the recent conflict for early detection of events with potential public health concern.

Why an overview of 2008?

The first issue of the UNRWA Epidemiological Bulletin for Gaza is dedicated to providing data on the infectious disease trends from week 1 to week 52 of 2008.

This choice has been made to share UNRWA historical data with all stake holders as it is crucial to have an understanding on the epidemiological profile of the Gazan population in order to infer on changes and new priorities induced by the conflict.

Communicable diseases under surveillance

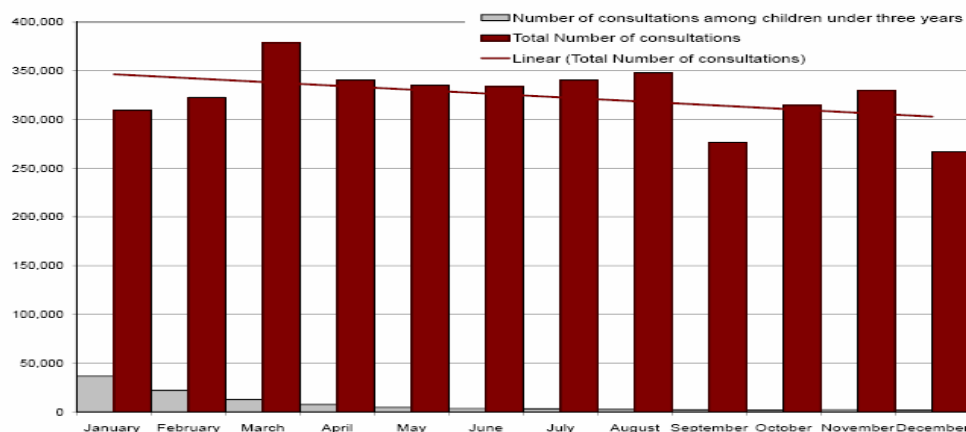
Class-A	Class-B	
	Vaccine Preventable	Other
Acute flaccid paralysis (Non-polio and poliomyelitis)		
Cholera	Diphtheria	Brucellosis
Meningitis (meningococcal/viral/other)	Measles	Acute bloody diarrhoea
	Mumps	Watery diarrhoea
	Pertussis	Gonorrhoea
	Rubella	HIV/AIDS
	<i>Tetanus neonatorum</i>	Viral hepatitis
		Typhoid fevers
		Leishmaniasis
	Tuberculosis (Pulmonary/extra-pulmonary)	

Class-A diseases are to be notified within 24 hours Class-B diseases to be notified weekly

Patient consultations

During the current year (week 1-52 of 2008), surveillance data on infectious diseases has been received from the totality of the 20 surveillance sites. The total number of consultations conducted in 2008 was 3.8 million with a slightly decreasing trend from January to December 2008. On average four consultations for each served refugee were recorded.

Patient consultations per month. UNRWA health facilities, Gaza 2008



Epi intelligence

- **Egypt:** In 2008 eight cases of Influenza A/H5N1 with four deaths were confirmed (CFR 50%);
- **Israel:** No reported event;
- **Syria:** No reported event;
- **Jordan:** No reported event;
- **Iraq:** An outbreak of cholera took place in Iraq in 2008. 918 cases were laboratory confirmed with 11 deaths (CFR 1.2%).

Notifiable diseases

Priority Class-A Diseases

During 2008, no case of acute flaccid paralysis or cholera was reported. Of the 22 reported cases of meningitis, 16 (73%) were viral. Only two cases of meningococcal meningitis were reported throughout the year.

Each case was investigated through a Case Investigation Form and were appropriate, public health actions were taken.

Following the protracted conflict in the Gaza Strip, the surveillance efforts in all health centers of Gaza Strip have been reinforced so as to detect any suspected cases of diseases listed in the priority class-A diseases. Reporting of these conditions within 24 hours is required in order to produce a rapid alert and initiate necessary actions to confirm or discard the potential outbreak.

Class-B Diseases

Mumps was the most common vaccine preventable disease reported from the Gaza Strip during 2008. It accounted for 88% of all reported vaccine preventable diseases. Among other Class-B diseases, one suspected case of measles and one suspected case of rubella were reported. Five cases of tuberculosis were identified in 2008, four of which pulmonary smear positive.

During 2008, the majority of non vaccine preventable Class B diseases (53%), were attributed to watery diarrhea (WD) among children under three years of age. Other leading causes of morbidity were watery diarrhea in the refugee population above three years age (32%) followed by cases of acute bloody diarrhea (13%).

Yearly trends for diarrheas show an increase in the number of reported cases between epi-week 20-33. This coincides with the summer months and could be an expression of seasonality.

Alert/alarm thresholds

UNRWA calculates alert and alarm thresholds using two and three standard deviations of a historical mean calculated on five preceding non epidemic years. Also a C-SUM method for threshold calculation, using a moving average, is integrated in the early warning system. The present bulletin reports on alert/alarm signals of epidemic prone diseases in the Gaza Strip.

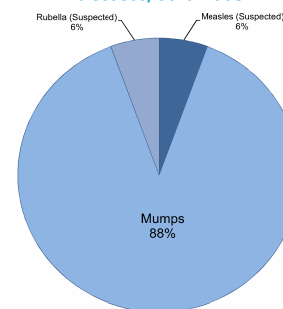
Reporting of Class-A Diseases, UNRWA Gaza Strip 2008

Class-A Diseases	Case count
Acute flaccid paralysis	0
Non polio	0
Poliomyelitis	0
Cholera	0
Suspected	0
Confirmed	0
Meningitis	22
Meningococcal	2
Viral	16
Other	4

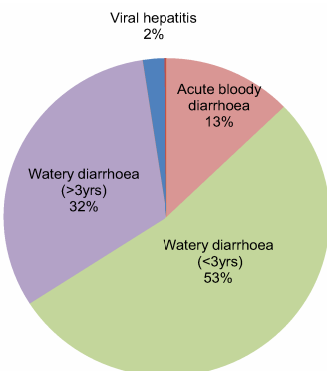
Reporting of Class-B Diseases, UNRWA Gaza Strip 2008

Class B diseases	Case count
Diphtheria	0
Measles (Suspected)	1
Measles (Confirmed)	0
Mumps	16
Pertussis	0
Rubella (Suspected)	1
Rubella (Confirmed)	0
Tetanus neonatorum	0
Brucellosis	2
Acute bloody diarrhoea	4272
Watery diarrhoea (children below 3 yrs)	17754
Watery diarrhoea (population > 3 yrs)	10612
Gonorrhoea	0
HIV/AIDS	0
Viral hepatitis	704
Typhoid fevers	92
Leishmaniasis	0
TB (Smear positive)	4
TB (Smear negative)	0
TB (Extra-pulmonary)	1

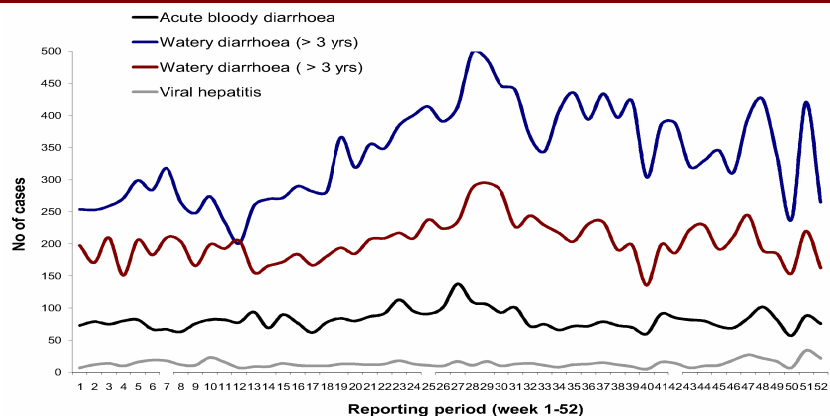
Proportional morbidity-vaccine preventable class B diseases, Gaza 2008



Proportional morbidity-other class B diseases, Gaza 2008



Weekly Reporting of four major diseases, UNRWA Gaza Strip 2008



Epidemic diseases

In view of the ongoing conflict in the Gaza Strip, major diseases with epidemic potential to monitor, have been chosen in order to detect any unusual trend in a timely fashion.

The incidence rate of acute bloody diarrhoea, watery diarrhoea (below and above three years age group), viral hepatitis and typhoid fever are being calculated regularly and compared with the previous historical data. Any perceptible change due to seasonality is therefore also being detected.

2008 surveillance data of all of these endemic diseases in the Gaza strip, reported weekly, are compared with the data of corresponding weeks of 2007 in the graphs reported on the right.

Acute bloody diarrhoea

We observed a decrease in incidence of acute bloody diarrhoea in 2008 especially in the first half of the year. The yearly trends for 2007 and 2008 are similar, with a seasonal increase in the number of cases during the summer months.

No breach in alert and alarm thresholds was recorded throughout the year.

Watery diarrhoea <3yrs

The 2007 and 2008 trends for watery diarrhoea among children under three years of age tend to overlap.

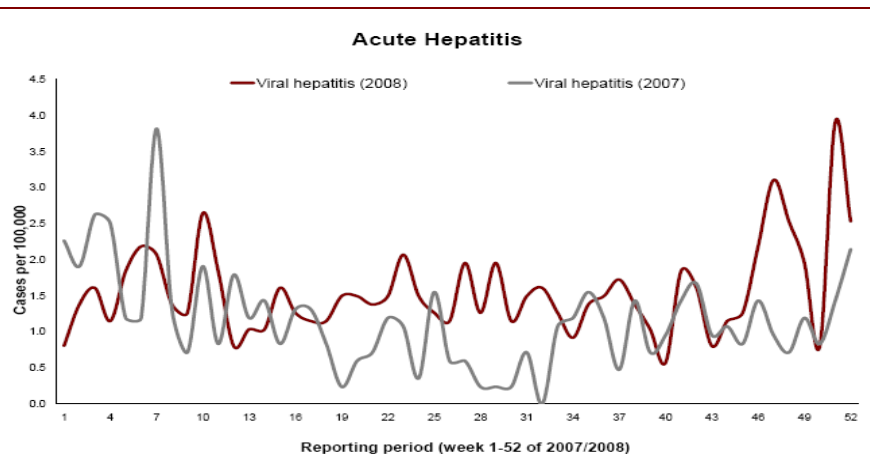
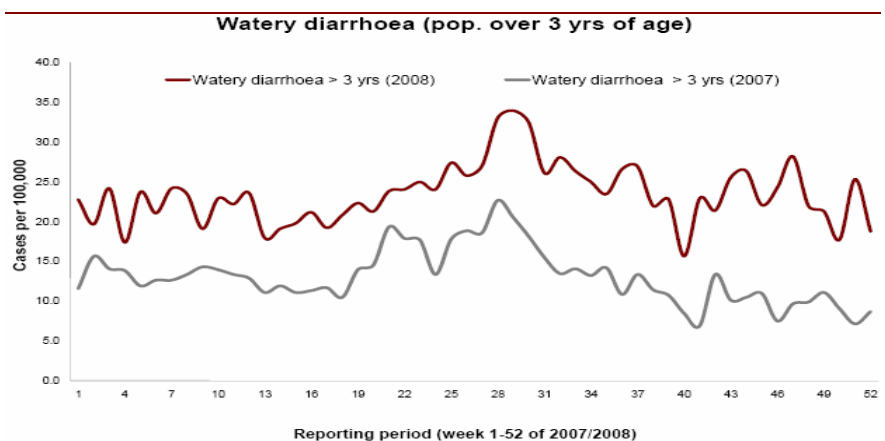
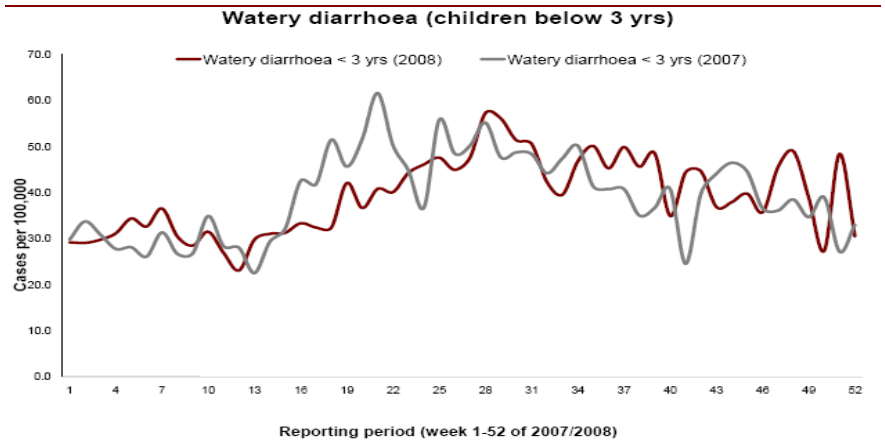
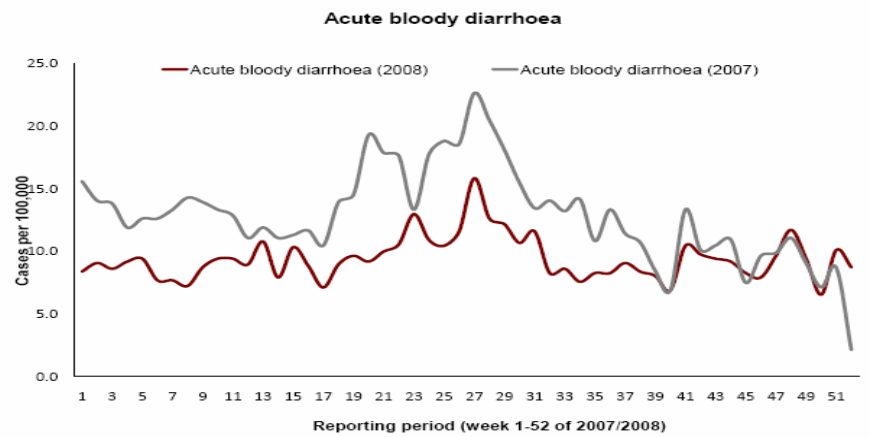
Notwithstanding the seasonal spike during the summer months, the cases reported from the Gaza Strip have never exceeded the alert thresholds set for the disease.

Watery diarrhoea >3yrs

Although the incidence of watery diarrhoea in the above three years age group increased in 2008, the trend pattern is overall similar to 2007 with a summer spike. Monitoring of this condition is based on incidence rates, work on the identification of alert/alarm thresholds is ongoing.

Acute Hepatitis

There is no major rise in the incidence of acute hepatitis in 2008 compared with corresponding epi-weeks of 2007. The incidence trend increases interestingly in winter months in both years in the Gaza Strip.



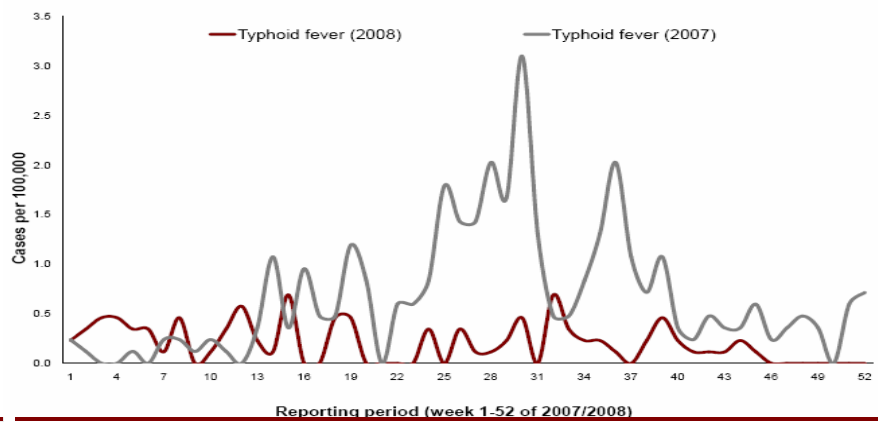
Epidemic diseases

Typhoid Fever

No major spike was observed in the incidence trend of typhoid fever in the Gaza Strip in 2008, conversely a cluster of cases had been reported in the summer of 2007.

No epidemic alerts were issued in 2008 for this disease.

Typhoid fever (suspected and confirmed cases)



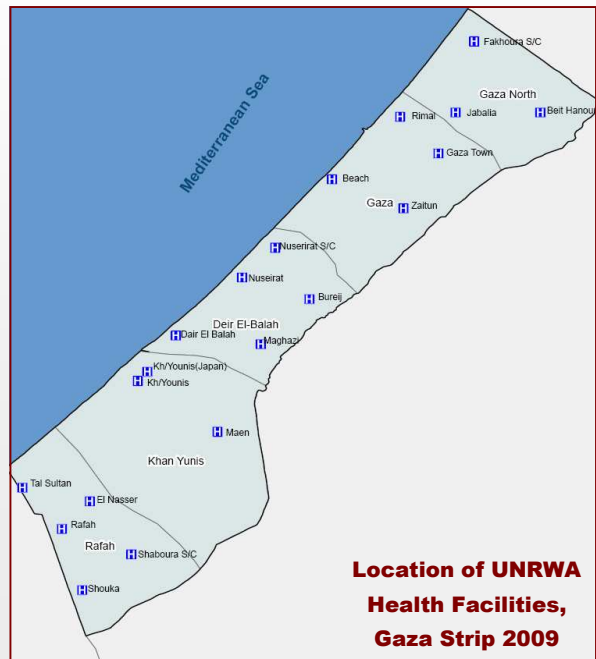
The Gaza Strip in numbers

Total Population*	1 500 202
Registered Palestine Refugees (IV quarter 2008)	1 073 820
Proportion (%) of Palestine refugees in the Gaza Strip	71.6
Life expectancy*	73.2
Proportion (%) of the refugee population aged 0-14 years(2008)	38.5
Fertility Rate (2005)	4.6
Infant Mortality Rate per 1000 live births (2004)	25.2
Anaemia prevalence (%) children 3-36 months (2006)	57.5
Anaemia prevalence (%) among pregnant women (2006)	44.9
Number of UNRWA Refugee Camps in the Gaza Strip (2008)	8
Proportion (%) of refugees living in refugee camps (2008)	46.1
% Refugee camps connected to water networks (2008)	100.0
% Refugee camps connected to sewerage networks (2008)	63.0
UNRWA Health Facilities in the Gaza Strip	20
UNRWA Health Staff in the Gaza Strip	1239
Proportion (%) of refugees accessing UNRWA health services in 2008	81

Unless stated otherwise, figures refer to UNRWA data sources: UNRWA Registration Statistical Bulletin IV Q 2008, UNRWA Annual Report of the Department of Health 2007, G.Sabatinelli, S. Pace-Shanklin, F.Riccardo, A.Khader Facing socio-economic decline: delivering health to Palestine Refugees. Babylon No 1, 2008) * CIA World Fact-book (<https://www.cia.gov/library/publications/the-world-factbook/index.html> last accessed on the 9th of February 2009).

Taking home points

- Infectious diseases in the Palestine refugee population residing in the Gaza Strip were under control in 2008. No epidemic cluster was identified by the UNRWA epidemiological surveillance system.
- The risk of decreasing levels of hygiene, consequent to the infrastructure damage brought upon by the recent conflict, puts the Gazan population at risk of epidemics of food and water borne diseases.
- Access to safe water and to sanitation should be ensured in the Gaza Strip to reduce the risk of outbreaks, and
- Considering the epidemiological profile of the Palestine refugee population (about 70% of the population) in the Gaza Strip, watery diarrhoea, acute bloody diarrhoea, typhoid fever and acute hepatitis should be closely monitored by an EWAR system.



Location of UNRWA Health Facilities, Gaza Strip 2009

Disclaimer

The objective of this weekly epidemiological bulletin is to report on health events occurring within the Gaza Strip. It is built upon the weekly epidemiological surveillance data for infectious diseases generated passively from 20 UNRWA health facilities assisting Palestine refugees in the Gaza Strip. This bulletin, therefore, provides a snapshot of the reported infectious disease morbidity profile of this population. UNRWA beneficiaries are over 70% of the population in the Gaza Strip. Although, the focus of this bulletin is on the Gaza Strip, relevant epi-intelligence data for neighbouring and close countries is also provided. No data on mortality is currently collected by the UNRWA surveillance system.

For further information and feed-back

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