**Highlights**

**Epidemiological weeks (15-19) of 2009**

**N. of Reporting Units** 17/17

**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 accessing UNRWA Health services in 2008;

The reporting completeness for epidemiological weeks (fifteen-nineteen) of 2009 was 100%;

The number of consultations in the period 15-19 weeks shows a fluctuating pattern with noticeable decrease in consultations of week 16. This is most probably due to the two days vacation in this week (Easter and family day).

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. During weeks fifteen-nineteen, the trend in all four major disease of morbidity was fluctuating up and down.

Viral hepatitis breached the alarm threshold in the reporting period. Nevertheless, the pattern of reported cases is not consistent with an epidemic pattern as there was a steady period in weeks 15—16 followed by increase in weeks 17-18. Considerable decrease in week 19 took place. Special clustering was noticed in Beach camp in weeks 17 and 18 (7 cases in each week). Number of cases decreased again in week 19 (2 cases). Continuous monitoring by the UNRWA Health Programme will continue with special focus on Beach camp.

Other diseases showed no breaches of alarm and alert thresholds during the reporting period.

**Weekly Reporting of four major diseases, UNRWA Gaza Strip**

**Patient consultations**

During epi-weeks (fifteen-nineteen) of 2009, surveillance data on infectious diseases has been received from all 17 UNRWA surveillance sites in the Gaza Strip (100% reporting completeness). The number of consultations showed fluctuations up and down in reported epi weeks. There is noticeable decrease in consultations in weak sixteen because of the two days vacation (Easter and family day)

**Patient consultations per week, UNRWA health facilities, Gaza Strip 2009**
Notifiable diseases

During weeks fifteen-nineteen, the trend in all four major disease of morbidity is fluctuating up and down. Reported cases of viral hepatitis exceeded the alarm threshold. In spite of the increasing pattern in weeks fifteen-eighteen; number of reported cases decreased in week nineteen. This pattern is not consistent with an epidemic. Close surveillance and monitoring will continue. The other three diseases did not breach the alarm/alert thresholds during the reporting period.

Priority Class-A Diseases

Class A diseases are reported within 24 hours in order to produce a rapid alert and initiate necessary actions to confirm or not a potential outbreak.

In the reported period, there were two cases of acute viral meningitis. One of them was from Rafah HC (south); while the other was from Nusierat HC (middle). All appropriate public health measures were taken.

Class-B Diseases

During reported period, four cases of mumps were reported; one case from Gaza Town HC. Another case was reported from Rafah HC (south); while there were two cases reported from Nusierat HC (middle). Ages of affected cases ranged from 4-13 years (all were immunized at 15 months). All needed management and public health measures were taken. The majority of non vaccine preventable Class B diseases (52%), were attributed to watery diarrhea among children under three years of age. Other leading causes of morbidity were watery diarrhea in the refugee population above three years (33%) followed by acute bloody diarrhea (12%). Cases of viral hepatitis (acquired through syndromic surveillance) accounted for 3% of the proportional morbidity.

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.

Communicable diseases under surveillance

<table>
<thead>
<tr>
<th>Class-A Diseases</th>
<th>Vaccine Preventable</th>
<th>Other</th>
</tr>
</thead>
<tbody>
<tr>
<td>Acute flaccid paralysis (Non-polio and poliomyelitis)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Cholera</td>
<td>Diphtheria</td>
<td>Brucellosis</td>
</tr>
<tr>
<td>Meningitis (meningococcal/viral/other)</td>
<td>Measles</td>
<td>Acute bloody diarrhoea</td>
</tr>
<tr>
<td></td>
<td>Mumps</td>
<td>Watery diarrhoea</td>
</tr>
<tr>
<td></td>
<td>Pertussis</td>
<td>Gonorrhoea</td>
</tr>
<tr>
<td></td>
<td>Rubella</td>
<td>HIV/AIDS</td>
</tr>
<tr>
<td></td>
<td>Tetanus neonatorum</td>
<td>Viral hepatitis</td>
</tr>
</tbody>
</table>

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

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.

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The incidence rate of acute bloody diarrhoea, watery diarrhoea (below and above three years age groups), 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.

**Acute bloody diarrhea**

In the reporting period, the number of reported cases of acute bloody diarrhoea is fluctuating up and down with noticeable drop in weeks sixteen and seventeen because of vacations due to Easter and family day. No alert/alarm thresholds were breached during the reporting period.

**Watery diarrhoea <3yrs**

Reported trend of acute watery diarrhoea in the below three year group in the reporting period is fluctuating up and down, it shows considerable drop in week sixteen; this is most probably because of two days vacation during the week (Easter and family day). No alert/alarm threshold were breeched during the reporting period.

**Watery diarrhoea >3yrs**

Incidence of watery diarrhoea in the above three years age group shows also a fluctuating pattern in the reporting period. There is also some decrease in reported cases in week sixteen because of HCs vacation (Easter and family day). Alert/alarm threshold were not breeched during the reporting period.

**Acute Hepatitis**

The pattern of reported cases of viral hepatitis in the reported period was steady in weeks 15-16; then it showed increase in weeks 17-18 which was followed by considerable decrease. Special clustering was noticed in Beach camp in weeks 17 and 18 (7 cases in each week). Number of cases decreased again in week 19 (2 cases). In spite of breeching the alert threshold, this pattern is not consistent with an epidemic.
**Epidemic diseases**

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### Typhoid Fever

In the reported period, the trend is fluctuating up and down. No alert/alarm threshold were breeched during the reporting period.

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### The Gaza Strip in numbers

<table>
<thead>
<tr>
<th>Description</th>
<th>Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total Population*</td>
<td>1,500,202</td>
</tr>
<tr>
<td>Registered Palestine Refugees (IV quarter 2008)</td>
<td>1,073,820</td>
</tr>
<tr>
<td>Proportion (%) of Palestine refugees in the Gaza Strip</td>
<td>71.6</td>
</tr>
<tr>
<td>Life expectancy*</td>
<td>73.2</td>
</tr>
<tr>
<td>Proportion (%) of the refugee population aged 0-14 years (2008)</td>
<td>38.5</td>
</tr>
<tr>
<td>Fertility Rate (2005)</td>
<td>4.6</td>
</tr>
<tr>
<td>Infant Mortality Rate per 1000 live births (2004)</td>
<td>25.2</td>
</tr>
<tr>
<td>Anaemia prevalence (%) children 3-36 months (2006)</td>
<td>57.5</td>
</tr>
<tr>
<td>Anaemia prevalence (%) among pregnant women (2006)</td>
<td>44.9</td>
</tr>
<tr>
<td>Number of UNRWA Refugee Camps in the Gaza Strip (2008)</td>
<td>8</td>
</tr>
<tr>
<td>Proportion (%) of refugees living in refugee camps (2008)</td>
<td>46.1</td>
</tr>
<tr>
<td>% Refugee camps connected to water networks (2008)</td>
<td>100.0</td>
</tr>
<tr>
<td>% Refugee camps connected to sewerage networks (2008)</td>
<td>63.0</td>
</tr>
<tr>
<td>UNRWA Health Facilities in the Gaza Strip</td>
<td>17 HC</td>
</tr>
<tr>
<td>UNRWA Health Staff in the Gaza Strip</td>
<td>1239</td>
</tr>
<tr>
<td>Proportion (%) of refugees accessing UNRWA health services in 2008</td>
<td>81</td>
</tr>
</tbody>
</table>

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### Taking home points

**During weeks fifteen – nineteen, the local epidemiological situation in Gaza as reported from UNRWA reporting points was relatively uneventful with no evidence of epidemics.**

**What was the major epidemiological event during the reporting period globally (and of course locally) was the declaration of the influenza A (H1N1) pandemic alert phase 4 after the appearance of many cases in Mexico in the period after 17 April 2009.**

Influenza A (H1N1) cases continued to increase in Mexico then the United States followed many countries of the world. Phase 5 of the pandemic alert was declared by the WHO Director General on 28 April 2009. Since then, cases continue to increase every moment. According to update 33 issued on 19 May 2009; number of confirmed cases mounted to 9830 cases; the majority was in the United States (5123 cases). There are 79 deaths, the majority was in Mexico (72 deaths).

No cases were reported from the EMRO region (including UNRWA operational areas).

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### Epi intelligence

- **Egypt:** Six new cases as well as three new deaths of avian influenza were reported to WHO during the reporting period. This brings the number of cumulative confirmed cases of the disease to 69. 26 of those have been fatal (source WHO EPR). No reported cases of influenza A(H1N1).

- **Israel:** Seven confirmed cases of influenza A (H1N1) were reported since the beginning of the pandemic with no deaths.

- **Syria:** No reported event;

- **Jordan:** No reported event;

- **Iraq:** An outbreak of leishmaniasis (200 cases) was reported in Maysan governorate - 350 Km south of Baghdad (as reported by a health official on 19.5.09).

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### Disclaimer

The objective of this 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 17 UNRWA health centers assisting Palestine refugees in the Gaza Strip. This bulletin, therefore, provides a snap shot 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.

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