Dear Colleagues,

During weeks thirty two to thirty five, the local epidemiological situation in the Gaza Strip as reported from UNRWA reporting units was relatively uneventful with no evidence of outbreaks.

Concerning the influenza A (H1N1) pandemic; the regional situation according to the last update issued by EMRO states that as of 5 September 2009; there were 9,844 laboratory confirmed cases of influenza A (H1N1) with 51 deaths giving 0.5% case fatality rate. 562 of these cases were locally transmitted.

There were no reported cases from the Gaza Strip, while in the West Bank there were 128 confirmed cases with one death (according to the latest EMRO update issued on 7 September). All areas in which UNRWA is operating reported confirmed cases of influenza A (H1N1) except the Gaza Strip.

Dr. Ali El-Jaish

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### Patient consultations

- During epi-weeks 32-35 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 per week shows a more or less a stationary trend with minor fluctuations.

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### Highlights

**Epidemiological weeks 32-35 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 epi-weeks 32-35 of 2009 was 100%;

- The number of consultations in the period 32-35 weeks shows a stationary trend with minor fluctuations.

- Watery diarrhoea as well as acute bloody diarrhoea and viral hepatitis remain the major causes of morbidity among reportable infectious diseases in the refugee population of the Gaza Strip. During weeks thirty two-thirty five, the overall morbidity trend of all major diseases was fluctuating with a noticeable decrease in week thirty three. These diseases will be described individually in page three of this bulletin.

- Alarm thresholds were not breached for any of the monitored diseases in the reporting period, the alert threshold was breached only for typhoid fever, however the trend is not suggestive of an outbreak.
Notifiable diseases

During weeks thirty two to thirty five; the epidemiology of watery diarrhoea, acute bloody diarrhoea, viral hepatitis and typhoid fever was fluctuating with a considerable decrease in week thirty three. Alarm thresholds were not breached for any of the monitored diseases in the reporting period, the alert threshold was breached only for typhoid fever, however the trend is not suggestive of an outbreak.

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 reporting period, two cases of viral meningitis were reported. Both of them were from Maghazi HC (middle). No epidemiological links were found between the reported cases. All needed public health measures (isolation of cases and health education) were taken.

Class-B Diseases

During the reporting period, seven cases of mumps were reported, two cases came from B/Hanoun health center (north). Another two cases was reported from Bureij health center (middle) and three cases from Rafah health center (South). The ages of affected cases ranged from 3-13 years (all were immunized at 15 months). The cases reported from the three HCs were not geographically clustered and no epidemiological links could be traced. All needed management and public health measures (isolation of cases was carried out and health education on disease transmission was provided to contacts).

The majority of non vaccine preventable Class B diseases (52%), were attributed to watery diarrhoea among children under three years of age. Other leading causes of morbidity were watery diarrhoea in the refugee population above three years (33%) followed by acute bloody diarrhoea (13%). Cases of acute hepatitis (acquired through syndromic surveillance) accounted for 2% 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.
Epidemic diseases

The incidence rates 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, incidence of acute bloody diarrhea showed a fluctuating trend with a considerable decrease in week thirty three followed by a moderate increase in week thirty four and a slight decrease in week thirty five.

**Watery diarrhoea <3yrs**

The reported incidence of acute watery diarrhoea in the below three year group showed a considerable decrease in week thirty three followed by a stationary course till week thirty five. No alert/alarm thresholds were breached during the reporting period.

**Watery diarrhoea >3yrs**

Incidence of watery diarrhoea in the above three years age group showed a very noticeable decrease in week thirty three followed by a symmetric increase in weeks thirty four and thirty five. The reported trend is not suggestive of any epidemiological significance as the incidence is going up and down. As a precautionary measure, the trend will be followed closely in coming weeks as the incidence is slightly higher that the one reported in 2008.

**Acute Hepatitis**

The incidence of acute hepatitis in the reporting period showed a clear increase in week thirty three followed by a similar decrease in weeks thirty four and thirty five. Alert/alarm thresholds were not breached.
Epidemic diseases

Typhoid Fever

The incidence of typhoid fever showed a decreasing trend throughout the reporting period. In spite of that, we observed a breach of the alert (but not of the alarm) threshold in week thirty five. The trend is not suggestive of an outbreak and the incidence is only slightly higher that what observed in 2008. Nonetheless, the trend will be followed closely in coming weeks.

The Gaza Strip in numbers

<table>
<thead>
<tr>
<th>Metric</th>
<th>Value</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>
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<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 sewage networks (2008)</td>
<td>63.0</td>
</tr>
<tr>
<td>UNRWA Health Facilities in the Gaza Strip</td>
<td>17 HC + 3 SC</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</td>
<td>81</td>
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</tbody>
</table>

Taking home points

During weeks thirty two to thirty five the local epidemiological situation in the Gaza Strip as reported by UNRWA reporting units was relatively uneventful with no evidence of epidemics. No alarm thresholds were breached, the alert threshold was breached only for typhoid fever, however the trend is not suggestive of an outbreak.

Concerning influenza A (H1N1) pandemic according to the WHO update issued 6 September 2009, there were over 277,607 laboratory confirmed cases reported with 3,205 deaths. Given that countries are no longer required to test and report individual cases; the number of cases reported actually underestates the real number of cases. On a regional level, the last update issued by EMRO on the 7th of September reported 9,844 laboratory confirmed cases of influenza A (H1N1) with 51 deaths, giving 0.5% case fatality rate. 562 of these cases were locally transmitted.

Locally, there were no reported cases from the Gaza Strip, while in the West Bank there were 128 confirmed cases reported with one death according to the last EMRO update. All areas in which UNRWA is operating reported confirmed cases of influenza A (H1N1) except the Gaza Strip.

Epi intelligence

- **Egypt:** As of 1st September, 2009; The cumulative number of confirmed cases of avian influenza (influenza A H5N1) is 85. 27 of those have been fatal (ProMED-mail). 727 confirmed cases of influenza A (H1N1) have been reported with one death**;
- **Israel:** More than 2,670 confirmed cases of influenza A (H1N1) were reported to WHO by Israel; but actual number is estimated to be much more larger. There are 22 deaths till 13 September 2009.
- **Syria:** 29 cases of influenza A (H1N1) were reported with two deaths**;
- **Jordan:** 164 confirmed cases of H1N1 influenza A were reported with no deaths**;
- **Iraq:** 172 cases of influenza A (H1N1) were reported; one death**.

** Latest EMRO update issued on 7 September 2009.

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.

For further information and feed-back

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