



Influenza-like illness surveillance, Israel

Weekly report, updated for week 39/2009 (ending 26/9/09)

Summary

During the past week, a slight decrease was evident in morbidity due to influenza-like illness and acute upper respiratory infection in the community, among ages 0-18 years. However, the increase in morbidity due to pneumonia continues in the same age group. The numbers of visits to emergency rooms due to acute upper respiratory infection and pneumonia are still above the multi-year averages for this season. Fifteen (37.5%) of 40 nasopharyngeal specimens collected during the past week by the sentinel clinic network were found to be positive to pandemic influenza H1N1.

Note: The presentation of morbidity rates for week 39 in figures 1-7 (data from Maccabi Health Service) is a result of extrapolation in order to compensate for the missing visits to community clinics during this week due to the Rosh Hashanah holiday. The corrected rates are highlighted with a different color in these figures.

Morbidity

- **Morbidity due to influenza-like illness/ upper respiratory infection (Figures 1-3):** In the community: During the past week, a slight decrease was evident in the crude rates of visits to "Maccabi Health services" clinics due to influenza-like illness, mainly among infants. A moderate decrease was observed in children and adolescents aged 2-18 years. In the other age groups there was no significant change. Influenza-like illness activity is declining in the northern and southern districts of the country. There was no significant change in the other districts. In parallel, a decrease was evident in the rates of visits due to acute upper respiratory infection among ages 0-18 years. However, rates increased in adults aged 19-64 years and in ages 65 and above. This information is based only on data from Maccabi Health Services. In the ERs: During the past week, a decrease was observed in number of visits to pediatric ERs due to acute upper respiratory infection. There was no significant change in number of visits to adult ERs. In adult ERs, rates are still higher than expected during this season. In pediatric ERs, rates are approaching average predictions (data not shown).
- **Morbidity due to pneumonia (Figures 4-7):** In the community: The increase in the overall rate of visits to "Maccabi Health Services" clinics due to pneumonia continued. The decrease is evident among infants, children and youth aged 0-18 years and among adults aged 19-64 years. Among adults aged 65 and above, rates decreased. The overall and age-specific rates are above the average predictions of this period (except the specific rates for infants). This information is based only on data from Maccabi Health Services. In the ERs: During the past week, an increase was evident in visits to pediatric ERs due to pneumonia. In adult ERs no significant change was noted. Rates of visits to pediatric and adult ERs are higher than the annual averages for this season.



- **Hospitalizations (Figures 8-9):** During the past week, there was no significant change in bed occupancy in pediatric departments (80%) and in internal medicine departments (100%). Bed occupancy rates are similar to the annual averages for this season. Rates of use of artificial ventilation systems are above the annual averages for this season.

Mortality

- **Figures 10-11:** During the past week, an increase was evident in the number of deaths (all causes) in general hospitals. The number of deaths is now above to the multi-year average for this season.

Laboratory surveillance (Figure 12): During the week ending 26/9/09, 40 nasopharyngeal swabs were collected by the sentinel clinics network. 15 specimens (37.5%) were found to be positive for pandemic influenza H1N1. Note: The relatively small number of specimens tested during the past week was due to the fact that the New Year holiday (Rosh Hashana) occurred during this week and consequently specimens were collected once only instead of twice.

Since the beginning of the pandemic influenza in Israel (week 18 ending 2/5/09), a total of 1,814 specimens have been collected by the sentinel clinics. 669 (37%) were found to be positive for pandemic influenza H1N1.

Influenza activity in the world (based on CDC and EISS weekly reports)

U.S: Influenza activity increased in the United States (as of week ending 19/09/09). There was an increase in rates of clinic visits due to influenza-like illness, and these rates are now above the national baseline. During this week, seasonal influenza A/H1, A/H3 and B viruses co-circulated with pandemic influenza H1N1. 99% of all positive specimens reported to the CDC were positive for pandemic influenza H1N1.

Europe: During week ending 20/09/09, Ireland reported high intensity of influenza activity and the Russian Federation reported medium intensity. All other countries reported low intensity. Sixteen countries reported pandemic influenza (H1N1) 2009 as the dominant virus.

Pandemic Influenza H1N1: As of 22/09/09, more than 394,252 cases of pandemic influenza H1N1 and 3,934 deaths have been reported worldwide. In Israel, 3,399 cases and 24 deaths have been confirmed. It is assumed that the total number of cases is far larger, and is estimated at several thousand.

Patient visits to community clinics

Fig. 1: Weekly visits to community clinics due to influenza-like illness, by year, 2008-2009, compared to annual average

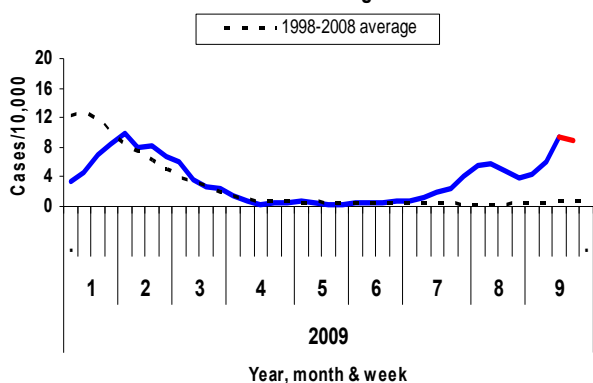


Fig. 2: Weekly visits to community clinics due to influenza-like illness, by age, 2009

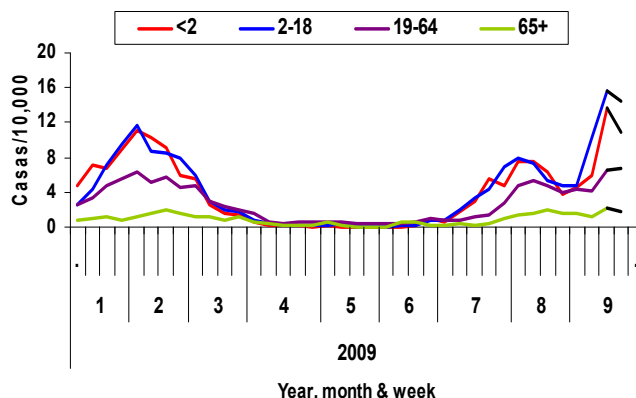


Fig. 3: Weekly visits to community clinics due to influenza-like illness, by district, 2009

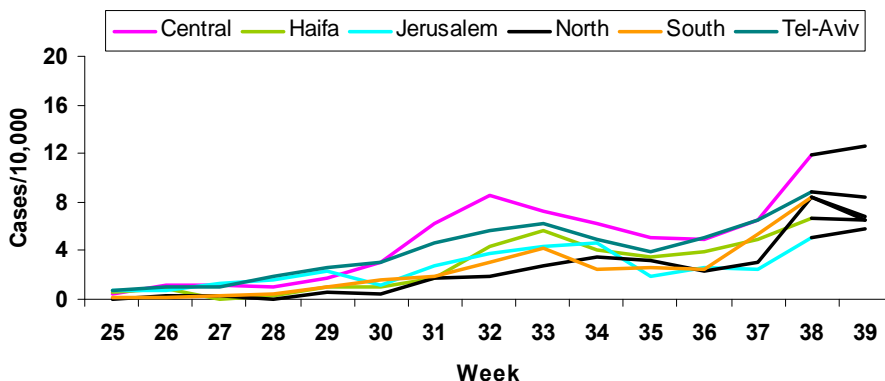


Fig. 4: Weekly visits to community clinics due to pneumonia, by year, 2008-2009, compared to annual average

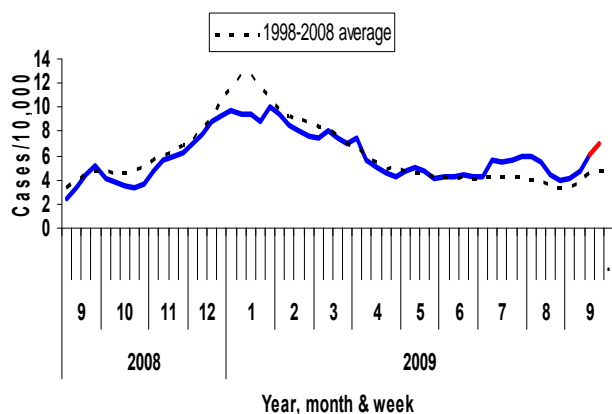
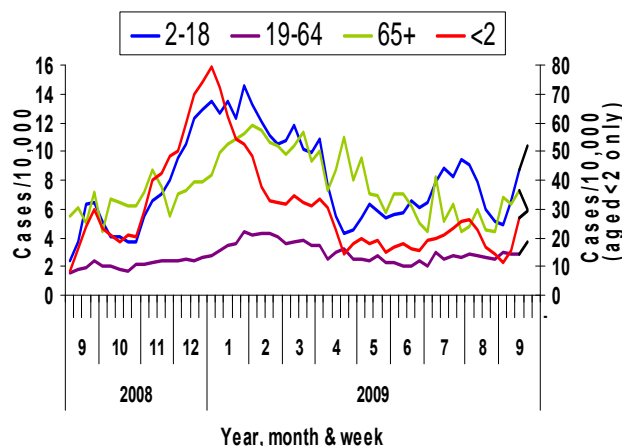


Fig. 5: Weekly visits to community clinics due to pneumonia, by age, 2008-2009





Admissions to ERs (Clalit Health Services)

Fig. 6: Weekly visits to Emergency Rooms (adults) due to pneumonia, Clalit hospitals, 2008-2009, compared to annual average

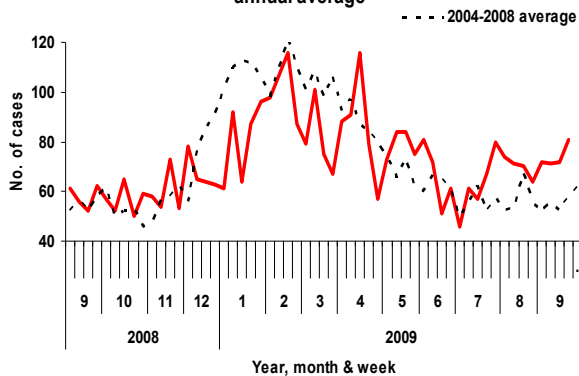
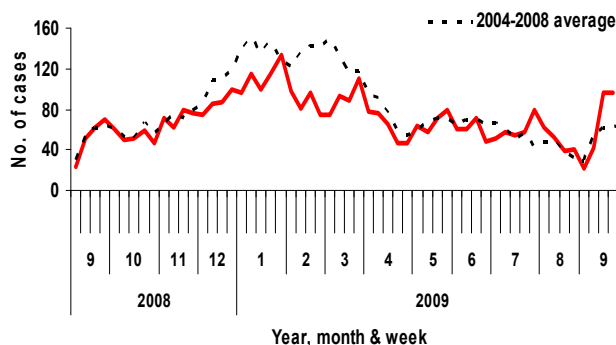


Fig. 7: Weekly visits to pediatric Emergency Rooms due to pneumonia, Clalit hospitals, 2008-2009, compared to annual average



Hospitalizations

Fig. 8: Weekly average bed occupancy, internal and pediatric departments, all hospitals, 2008-2009

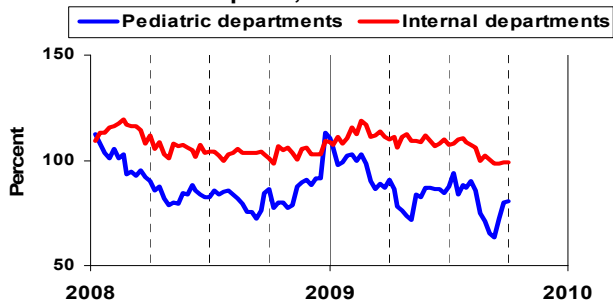
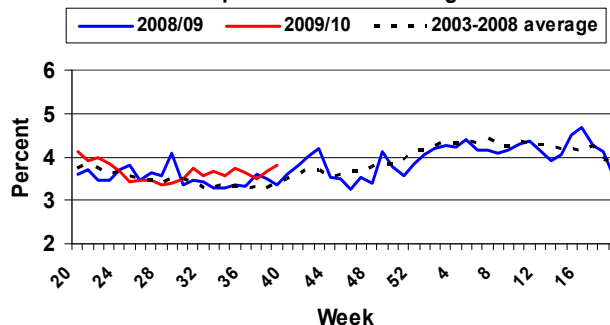


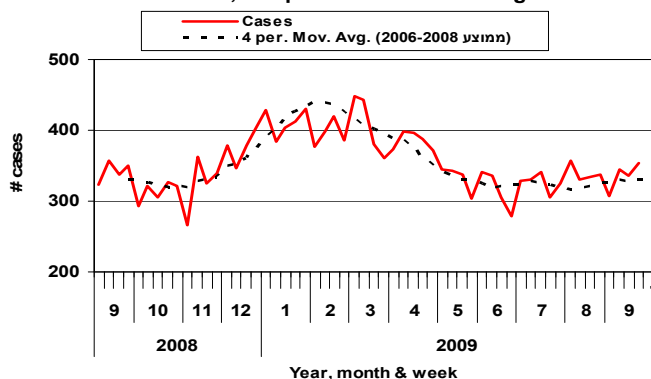
Fig. 9: Use of artificial ventilation in relation to overall bed occupancy, all hospitals, 2008-2010, compared to annual average



Mortality

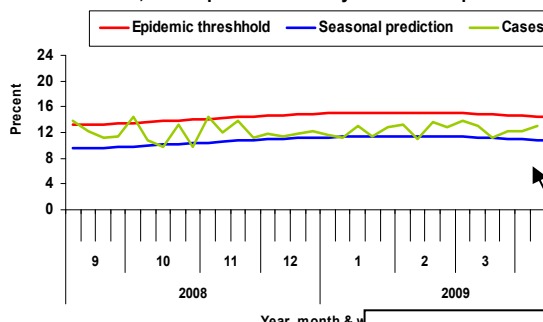
Hospital Mortality

Fig. 10: Number of hospital deaths, all causes, 2008-2009, compared to annual average



Pneumonia-Related Mortality (Epidemiology Department)

Fig. 11: Percentage of pneumonia-related deaths, 2008-2009, as compared to a multi year seasonal prediction



Updated to week ending 4/7/09

Laboratory Surveillance (Central Virology Laboratory, Tel Hashomer)

Fig. 12: Positive influenza samples out of total samples collected by sentinel network, 2009

