



Influenza-like illness surveillance, Israel Weekly report, updated for week 44/2009 (ending 31/10/09)

Summary

There was a sharp increase in morbidity in the community due to influenza-like illness and acute upper respiratory infection throughout the entire country, mainly among ages 2-18 years. A slight increase was observed in the rates of visits to community clinics due to pneumonia, among ages 2-18 years only. In parallel, an increase was observed in the number of visits to pediatric emergency rooms due to acute upper respiratory infection and pneumonia, and an increase in bed occupancy in pediatric departments. In adult emergency rooms, there was a decrease in the number of visits due to acute upper respiratory infection, while no significant change was observed in the number of visits due to pneumonia. There was a slight decrease in bed occupancy in internal medicine departments. During the past two weeks, an increase was observed in the number of deaths (all causes) in general hospitals, and this figure is above the seasonal predictions. The percentage of positive specimens for influenza H1N1 2009 increased (approximately 62%).

Morbidity

- **Morbidity due to influenza-like illness/ upper respiratory infection (Figures 1-3):** In the community: The increase in the overall rates of visits to "Maccabi Health services" clinics due to influenza-like illness continued. The increase was evident mainly in ages 0-18 years. It should be noted that in adults aged 65 and over, no significant change was observed. Both the overall rates and the age specific rates are higher than seasonal averages. The increase in morbidity due to influenza-like illness was observed in all geographical districts. Rates of visits due to acute upper respiratory infection continued to increase among all age groups except adults aged 65 and over (data not shown). Overall, similar trends were seen in data from Clalit Health Services. In the ERs: The increase in visits to pediatric ERs due to acute upper respiratory infection continued. This in contrast to the continuing decrease in adult ERs. In both adult and pediatric ERs, numbers of visits are higher than seasonal averages (data not shown).
- **Morbidity due to pneumonia (Figures 4-7):** In the community: The moderate increase in rates of visits to community clinics of "Maccabi Health Services" due to pneumonia continued. The increase was observed only among ages 2-18. The overall rate of visits as well as the age-specific rate for ages 19-64 are higher than annual averages for this season. Overall, similar trends were seen in data from Clalit Health Services. In the ERs: An increase was evident in visits to pediatric ERs due to pneumonia. In adult ER's, there was no significant change. Rates in both pediatric and adult ERs are higher than the seasonal predictions.



- **Hospitalizations (Figures 8-9):** The bed occupancy in pediatric departments continues to increase (90%). In internal medicine departments, there was a slight decrease (102%). Bed occupancy rates are as predicted for this season. During the past week, there was no significant change in rates of use of artificial ventilation systems, and they are similar to the annual averages for this season.

Mortality

- **Figures 10-11:** During the past two weeks, the number of deaths (all causes) in general hospitals increased. The number of deaths is now above the seasonal average.

Laboratory surveillance (Figure 12): The results of the Central Virology Laboratory (CVL) tests performed during week 44, the current week (25/10/09-31/10/09) and cumulative totals since week 25 (ending 30/6/09) until the present are summarized in the table below:

	Week 44 (25/10/09-31/10/09)	Cumulative since week 25-ending 30/10/09
No. of specimens tested	86	2159
No. of specimens positive for RSV (%)	0	0
No. of specimens positive for Influenza (%)	54 (62.8%)	801 (37.2%)
Positive specimens by type/subtype		
Influenza A	54 (100%)	861 (99.9%)
A/H1N1 2009	54 (100%)	859 (99.8%)
A (unable to subtype)	0	2 (0.2%)
A/H3	0	0
A/H1	0	0
Influenza B	0	1(0.1%)

Seasonal Influenza Vaccination

As of 1 November 2009, approximately 900,000 individuals had received the seasonal influenza vaccination (approximately 12% of the population of Israel). The vaccination coverage for ages 65 and above has now reached 49%.



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

U.S: During the week ending 24/10/09, morbidity indicators (including visits to community physicians and hospitalizations due to influenza) and mortality due to influenza increased sharply and are above seasonal predictions. Influenza has spread to all regions of the USA. A parallel increase was observed in the percentage of specimens found positive for H1N1. (All positive specimens of influenza A reported to the CDC were positive for pandemic influenza H1N1. A small number of specimens were found positive for influenza B).

Europe: During the week ending 25/10/09, 17 out of 43 countries reported increasing influenza activity or/and respiratory illness. In Iceland and Ireland particularly high rates of morbidity were reported. 37% of specimens collected by the sentinel surveillance systems in Europe were positive for influenza. All specimens which were positive for influenza were positive for pandemic influenza H1N1.

Pandemic Influenza H1N1: Worldwide, 6,021 deaths have been reported due to pandemic influenza H1N1 (as of 29/10/09). In Israel, 35 deaths related to pandemic influenza H1N1 have been reported (as of 22/10/2009).

Patient visits to community clinics

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

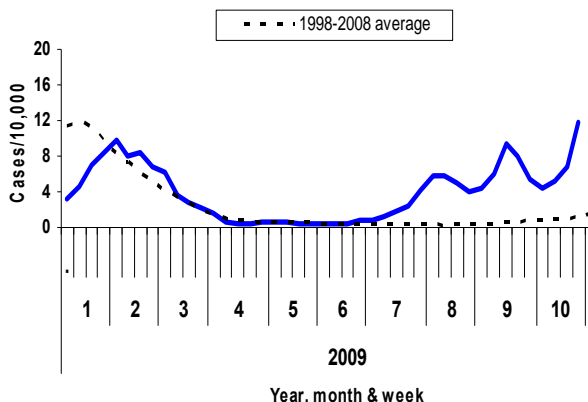


Fig. 2: Weekly visits to community clinics due to influenza-like illness, by age, 2009

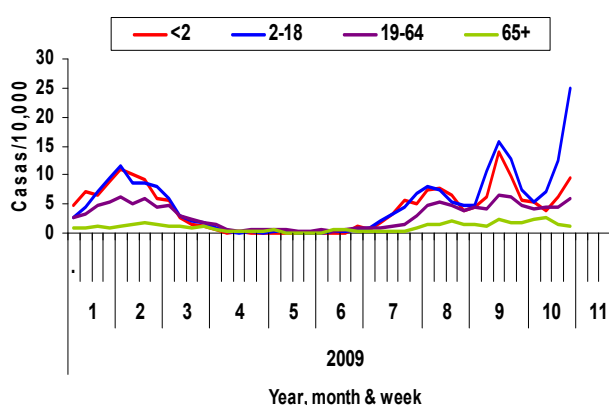


Fig. 3: Weekly visits to community clinics due to influenza-like illness, by district, 2009

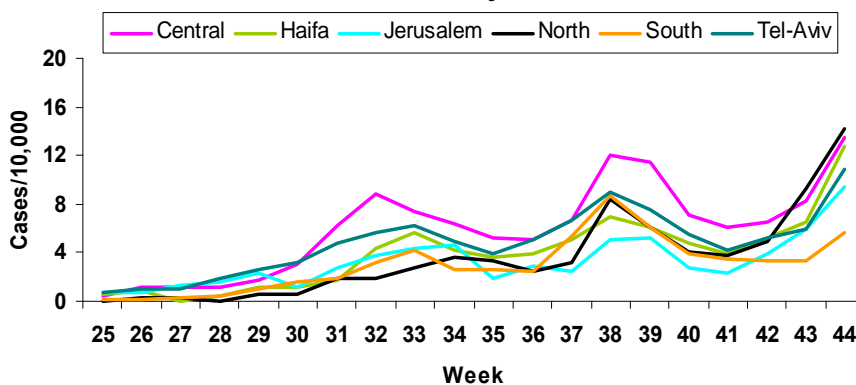


Fig. 4: Weekly visits to community clinics due to pneumonia, by year, 2006-2009, compared to annual average

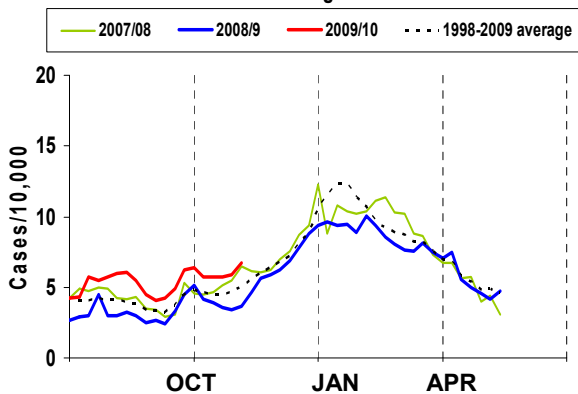
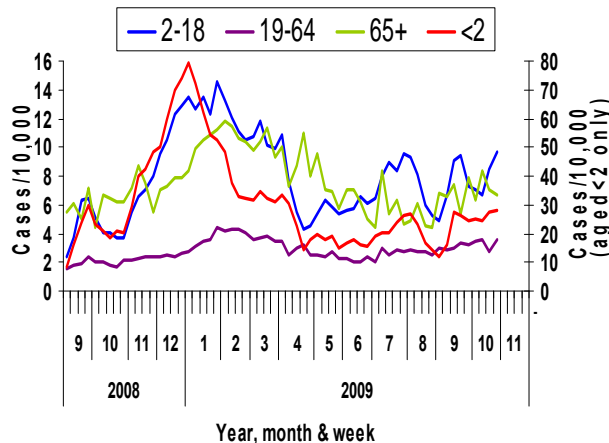


Fig. 5: Weekly visits to community clinics due to pneumonia, by age, 2008-2009



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

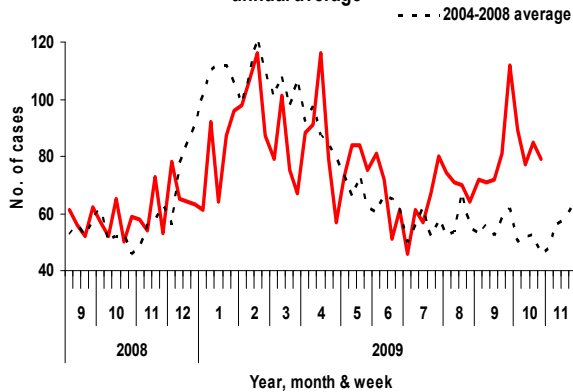
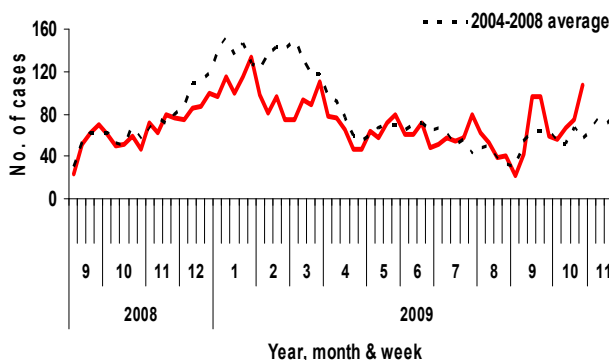


Fig. 7: Weekly visits to pediatric Emergency Rooms due to pneumonia, Clalit hospitals, 2008-2009, compared to annual average



Hospitalizations

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

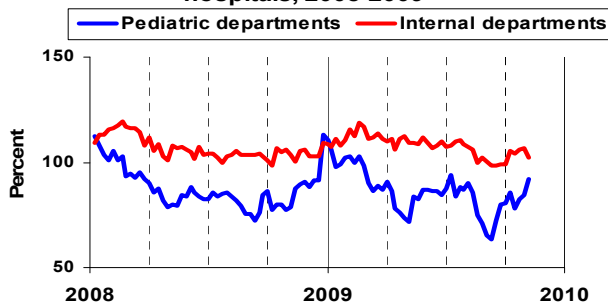
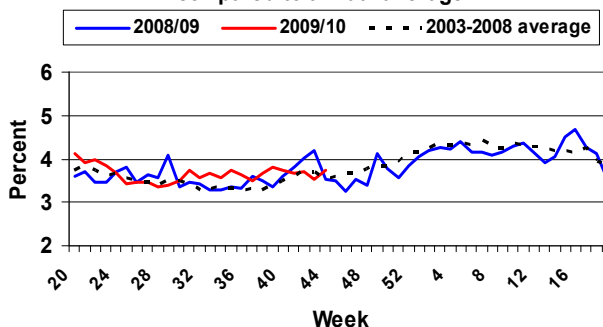


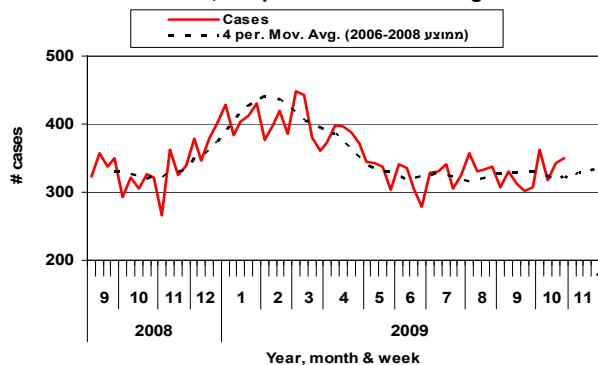
Fig. 9: Use of artificial ventilation in relation to overall bed occupancy, all hospitals, 2008-2010, compared to annual average



Mortality

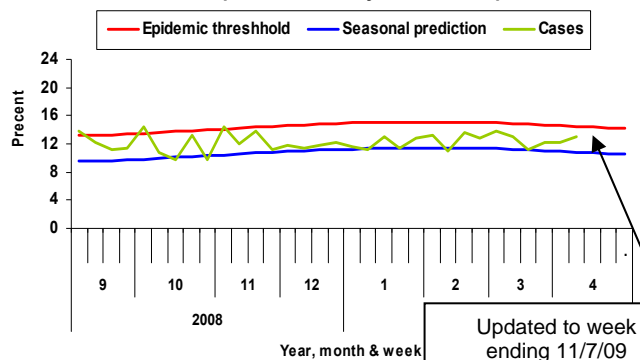
Hospital Mortality

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



Laboratory Surveillance (Central Virology Laboratory, Tel Hashomer)

Fig. 12: Positive influenza samples out of total samples collected by sentinel network, 2009-2010

