FLUNEWS

ITALY

IN THIS ISSUE:

Influenza Like Illness (ILI) sentinel surveillance:
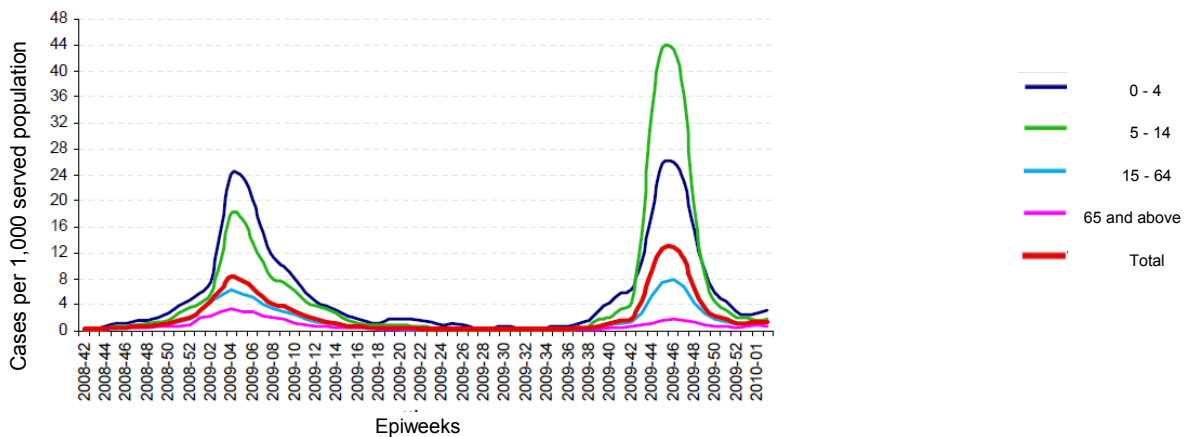**(http://www.iss.it/iflu/)**

Completeness of reporting in the first epiweek of 2010 was 95% (20/21 regions reporting).

The incidence of ILI, as detected through sentinel surveillance, was 1.36 cases per 1,000 served population, stable if compared with the previous epiweek. In the age group 0-4 years the incidence was 3.15‰. Among patients aged 5-14 years the incidence was 1.82‰, among those aged 15-64 years it was 1.29‰, while the incidence among patients 65 years or more, was 0.62‰. After having peaked in epiweek 46 (incidence 12.9‰), the ILI epicurve has declined and then stabilized.
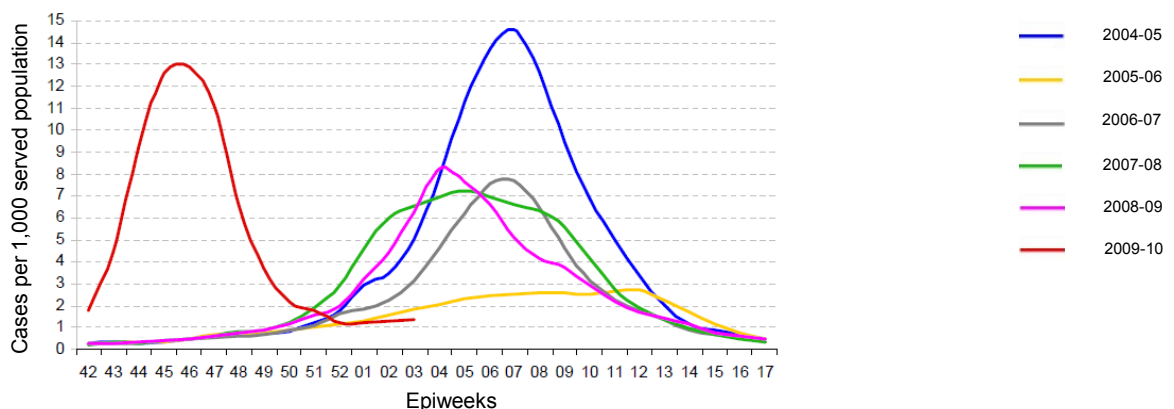
HIGHLIGHTS:

⇒ The epidemic curve for ILI cases in Italy is stable.

⇒ 1 death due to A/H1N1v was reported in epiweek 2.

⇒ Emergency room admissions for ARS are stable and not breaching alarm/alert thresholds.

⇒ Purchase of pain killers, antibiotics and antivirals was decreasing in epiweek 1.

Incidence of ILI by age group, seasons 2008-09 and 2009-10

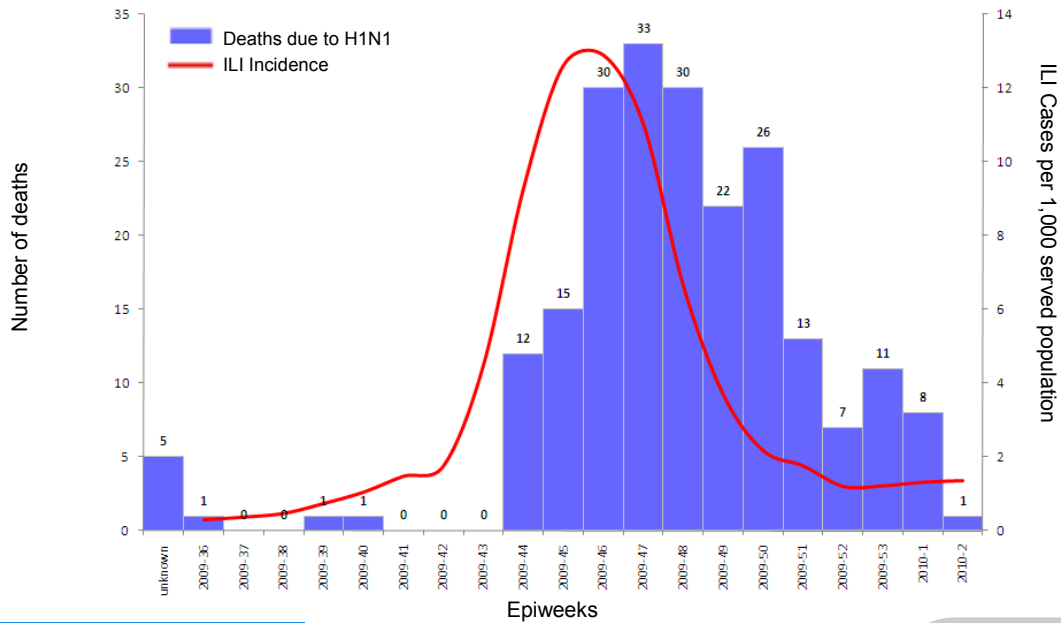## Incidence of ILI in Italy, seasons 2004-05 to 2009-2010

ILI surveillance methodology:
The Italian surveillance system for influenza is based on a network of sentinel community based physicians in the 21 regions and autonomous provinces of the country. Incidence rates are therefore not based on consultations but on the served population of each reporting physician each week. Incidence data per 1,000 patients is provided globally and by age group. For more information on the Influnet surveillance system consult the website http://www.iss.it/iflu/ (in Italian).

Estimated cases of ILI and Influenza A/H1N1v related deaths

Influenza A/H1N1v related deaths per epiweek, by date of death

Estimated cases of ILI in Italy

Epiweeks	Estimated cases
43/2009	270,000
44/2009	557,000
45/2009	757,000
46/2009	773,000
47/2009	661,000
48/2009	399,000
49/2009	222,000
50/2009	130,000
51/2009	106,000
52/2009	72,000
53/2009	73,000
1/2010	79,000
2/2010	81,000
Total	**4,180,000**

Data is constantly updated as reporting completeness increases. Therefore figures for previous epiweeks will vary among FluNews bulletins, with the latest being the most reliable.

Surveillance of A/H1N1v mortality:

In epiweek 2 of 2010, 1 death was reported.

40% of deaths were among women. 5% were among children under the age of 14 and 27% among adults aged 65 and over. The most affected age groups were 15-44 yrs and the 45-64 yrs (33% and 35% respectively).

The most affected Italian region was Campania where 24% of all A/H1N1v deaths have occurred, followed by Puglia (15%), and Sicilia (10%).

83% of the people who died had one or more pre-existing risk factors.

Mortality Data:
Since the 19th of November 2009, a special surveillance for hospitalized and severe cases as well as fatalities due to Influenza A/H1N1v was activated in Italy.

Each region compiles online individual case forms as severe cases and deaths occur and aggregate data weekly.

With the decrease in ILI incidence the number of deaths has also decreased. In Epiweek 2 of 2010, 1 death was reported. 216 people have died due to influenza A/H1N1v in Italy since the beginning of the pandemic.

This bulletin is a translation of FluNews, the official report combining the information of all the epidemiological surveillance systems monitoring the influenza pandemic in Italy. The original version in Italian is produced by the National Centre of Epidemiology (CNESPS) of the Italian National Institute of Health (http://www.epicentro.iss.it/focus/h1n1/archivioflunews.asp)

2

Emergency room admission trends

Admission to Emergency Rooms (ERs) for acute respiratory syndromes (ARS) sentinel surveillance

Completeness of reporting in epiweek 2 of 2010 was 100% (14/14 regions presently reporting). See the methods box below for further details.

In the 2nd epiweek, 5.3% of all people who accessed the sentinel ERs were diagnosed with acute respiratory syndrome, 26.8% of those were admitted to hospital.
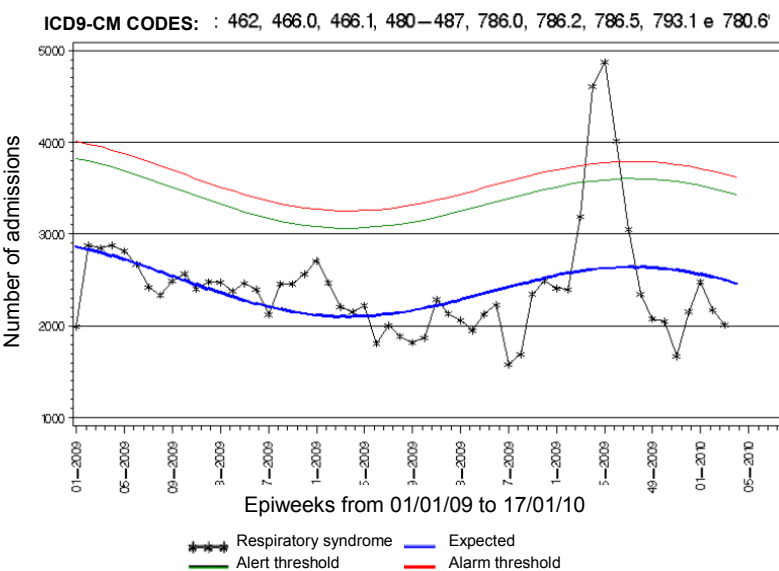
Compared with the previous epiweek, the number of ER admissions is stable. No epidemic threshold was breached both globally and by age group.

Compared with the previous reporting period, the proportion of ER admissions for ARS is stable (from 5.4% to 5.3%).

LIMITS:

The system is influenced by the different ways of accessing emergency services in the country. However it captures in a timely fashion the increase in admissions for acute respiratory syndromes that is an indirect indicator of increased activity of influenza viruses.
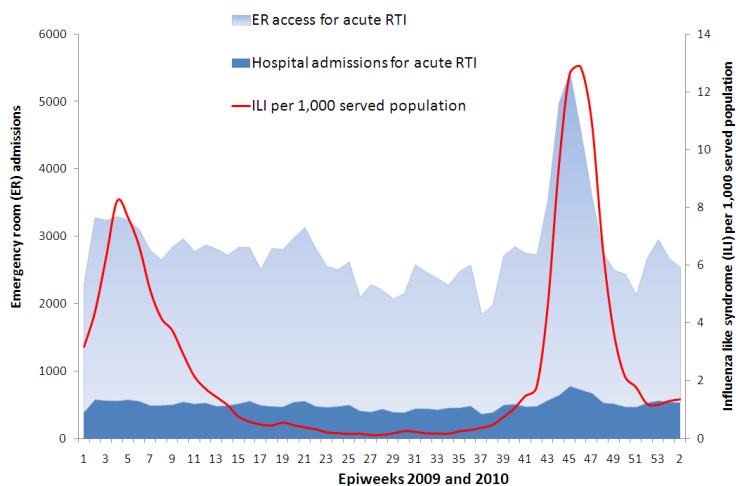
Admissions for acute respiratory syndromes in sentinel ERs, all age groups

ICD9-CM CODES: : 462, 466.0, 466.1, 480–487, 786.0, 786.2, 786.5, 793.1 e 780.6

Epiweeks from 01/01/09 to 17/01/10

- ✱ Respiratory syndrome
- ━ Expected
- ━ Alert threshold
- ━ Alarm threshold

ILI incidence and emergency admissions for acute RTIs

- ER access for acute RTI
- Hospital admissions for acute RTI
- ILI per 1,000 served population

Epiweeks 2009 and 2010

ER admission surveillance methodology:

A surveillance network was established among Italian emergency services that had an automatic recording system for admissions with immediate regional updates as of August 2009. 16 of the 21 Italian regions adhered (76.2%). Of these, 14 identified at least one emergency service that would send data for surveillance and constitute to date the reporting units of the system.

The surveillance system is based on the weekly transmission of the total number of ER admission to the regional health institutions. They select those whose main diagnosis is coded as an acute respiratory syndrome based on the ICD9-CM coding system. One year historical data, when available, was received by the adhering regions and the estimated number of weekly admission, alert and alarm epidemic thresholds were calculated using a time series model (cyclic regression analysis) that takes into account the seasonality of the disease. Each week the actual number of admissions is compared with the estimated one and any threshold breach documented.
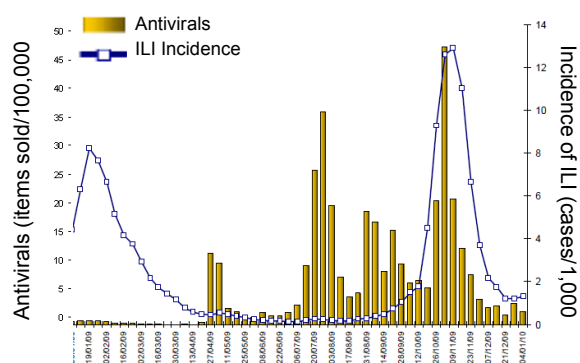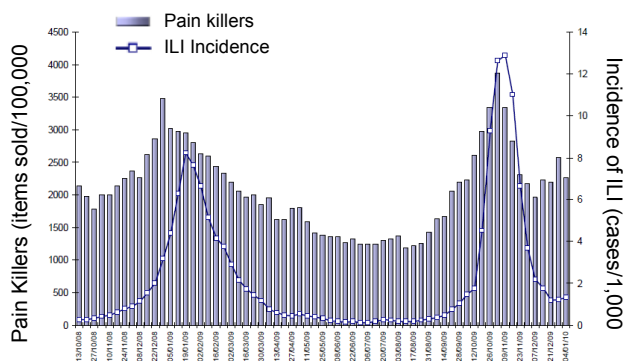
Drug purchase trends

Drug purchase trends on a representative sample of 2,500 pharmacies (epiweek 1)

Drug purchase data is always reported one week after the current epiweek, therefore all comparisons with the ILI surveillance data reflect the epiweek before the reporting period of this bulletin.

Between the 4th and the 10th of January, the purchase of both antibiotics and pain killers had a 21% and 25% decrease compared with the same period last year, respectively. When compared with the previous epiweek, purchase of antibiotics increased by 7% while purchase of pain killers decreased by 12%.

Antiviral purchase was below 2.1 items/100,000 inhabitants (a 41% decrease compared with the previous epiweek). The regional situation is extremely diverse with some regions increasing purchase (for example Trentino-Alto Adige reported a 770% increase in the last epiweek) and others decreasing (in Abruzzo purchase decreased by 90%).

Weekly trends in the purchase of painkillers and antivirals

Drug purchase monitoring methodology:

Drug purchase data is always reported one week later that the surveillance week. Data reports the drugs classified by the Italian system as class A (reimbursable by the Italian MoH), class C (non-reimbursable) and self medication drugs purchased from a representative sample of 2,500 public and private pharmacies in Italy. Regional purchases for each drug item by ATC code is estimated based on these observations. For surveillance purposes, the drugs monitored are antibiotics (ATC J01), pain killers (ATC N02B), and antivirals (ATC J05AH). Analysis calculates items sold per 100,000 inhabitants, this indicator calculates the intensity of use of a specific class of drugs. Denominators are based on population estimates as of January 2009 (source ISTAT).

The trend in drug consumption is based on the Compound Annual Growth Rate: where n is the number of months in the reporting period, item$_{t+n}$ and item$_t$ the number of items/100,000 inhabitants purchased in the first and last month. Analysis is conducted by the drug epidemiology department of the Italian National Institute of Health (Iss-Cnesps) on OsMed data.

$$\left(\sqrt[n]{\frac{item_{t+n}}{item_t}} - 1 \right) * 100$$

This bulletin is a translation of FluNews, the official report combining the information of all the epidemiological surveillance systems monitoring the influenza pandemic in Italy. The original version in Italian is produced by the National Centre of Epidemiology (CNESPS) of the Italian National Institute of Health (http://www.epicentro.iss.it/focus/h1n1/archivioflunews.asp)

4