

Influenza Like Illness (ILI) sentinel surveillance: (<http://www.iss.it/ifu/>)



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Completeness of reporting in epiweek 49 was 95% (20/21 regions reporting).

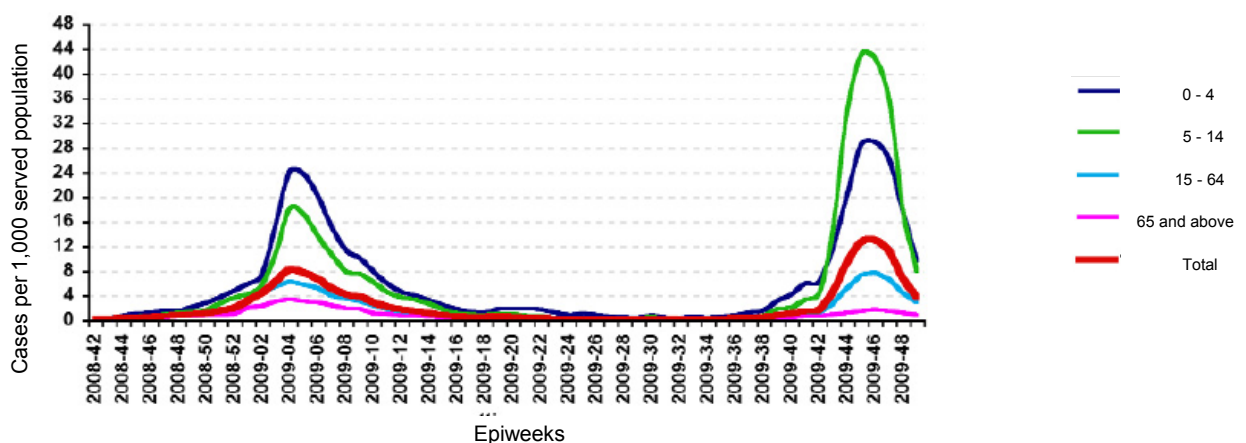
The incidence of ILI, as detected through sentinel surveillance, was 3.73 cases per 1,000, almost half the incidence reported in the last epiweek. In the age group 0-4 years the incidence was 9.63‰. Among patients aged 5-14 years the incidence was 7.94‰, among those aged 15-64 years it was 2.88‰, while the incidence among patients 65 years or more, was 0.84‰.

After having peaked in epiweek 46 with an incidence of 12.89‰, the ILI epicurve is clearly descending.

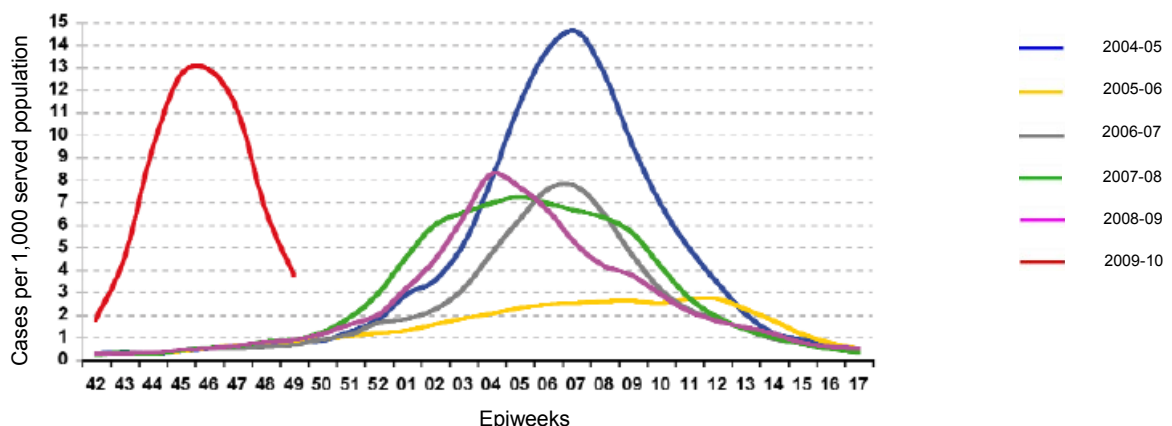
HIGHLIGHTS:

- ⇒ The epidemic curve for ILI cases in Italy is decreasing sharply.
- ⇒ The emergency room admissions for ARS are still decreasing.
- ⇒ Purchase of pain killers, antibiotics and antivirals was decreasing in epiweek 48.

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/ifu/> (in Italian).

Estimated cases of ILI in Italy

Estimated cases of ILI in Italy

Epiweek 2009	Estimated cases
43	270,000
44	558,000
45	758,000
46	774,000
47	665,000
48	401,000
49	224,000
Total	3,650,000

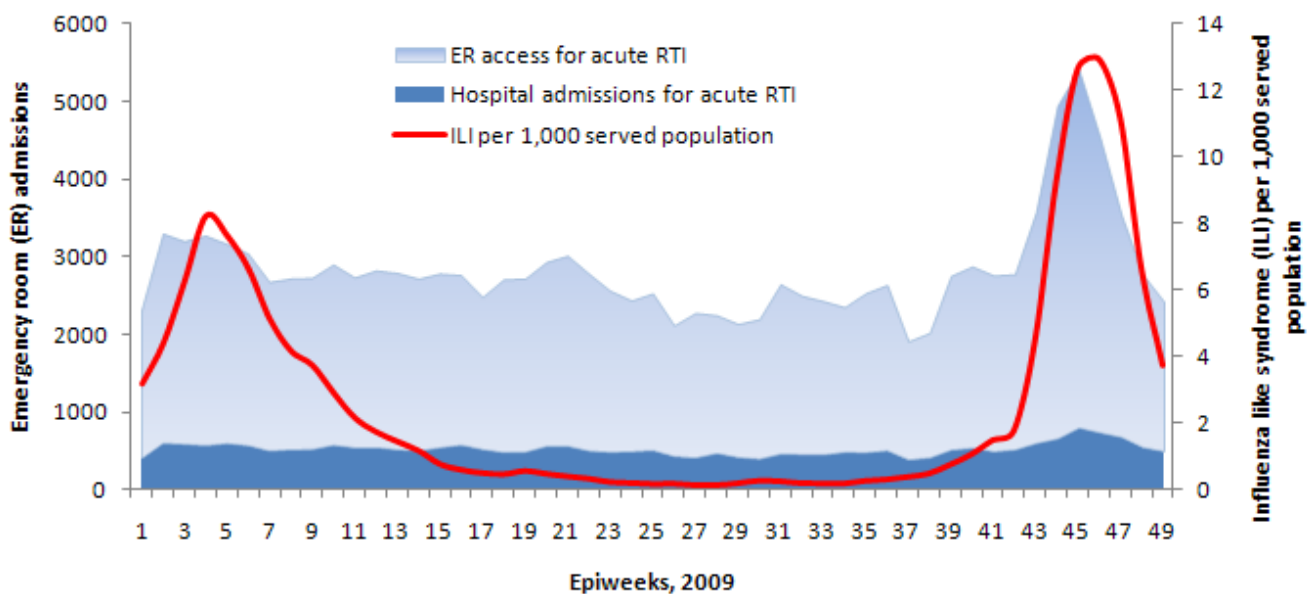
Data is constantly updated as reporting completeness increases. Therefore figures for previous epiweeks will vary among FluNews bulletins, with the latest being the most reliable.

Estimation of the number of cases:

In epiweek 49, the estimated number of cases in Italy of ILI is 224,000. This number is estimated by relating the served population incidence as reported by the sentinel surveillance system to the entire Italian population.

The sharp decline reported in epiweek 49, should be viewed with slight caution. The national holiday of the 8th of December and the fact that many Italians left for a long weekend vacation may have altered the access pattern of patients. Moreover it has led to a decrease in the sentinel medical doctors who reported (approximately 30% less than in epiweek 48).

ILI incidence and emergency admissions for acute RTIs



Emergency room admission trends

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

Completeness of reporting in epiweek 49 was 100% (13/13 regions presently reporting). See the methods box below for further details.

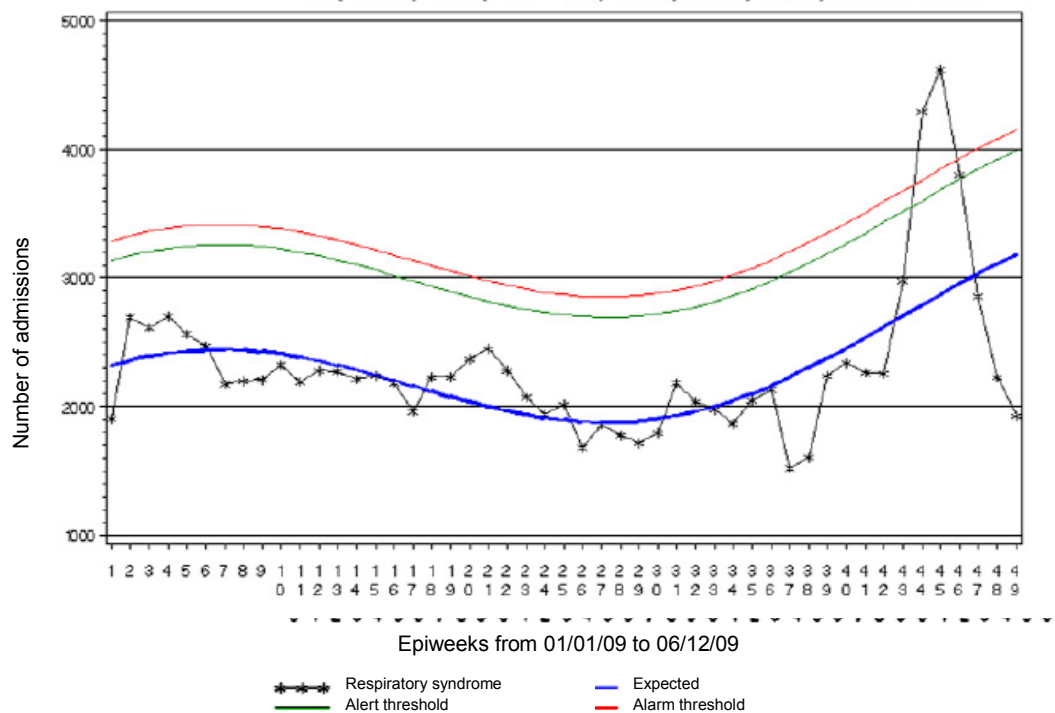
In the 49th epiweek, 5.4% of all people who accessed the sentinel ERs were diagnosed with acute respiratory syndrome, of those 26% were admitted to hospital.

Compared with the previous epiweeks, the number of ER admissions has decreased and 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 stationary (from 6% to 5.4%).

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



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.



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. 15 of the 21 Italian regions adhered (71.4%). Of these 13 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

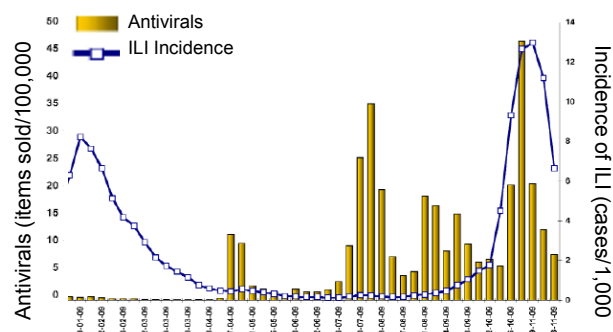
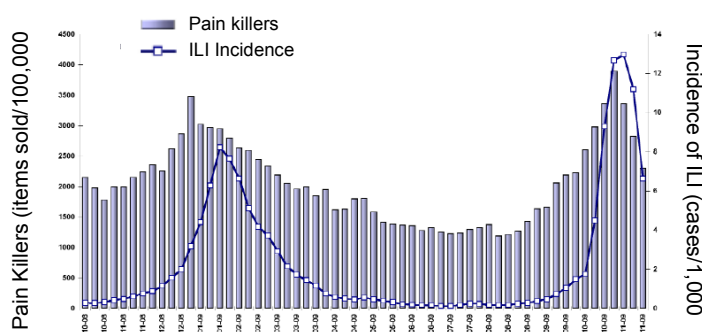
Drug purchase trends on a representative sample of 2,500 pharmacies (epiweek 48)

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 23rd and 29th of November, the purchase of antibiotics and pain killers increased by 8% and 3% respectively compared with the same period last year. However when compared with the previous epiweek, both decreased (by 9% and 18% respectively).

Antiviral purchase was 8 items/100,000 inhabitants, a 35% decrease compared with the previous epiweek, consistently with the decrease in the incidence of ILI. The Southern and Central regions of Italy still report the highest purchase rates of antivirals but are both decreasing consistently with national data (in the last epiweek a 38% decrease in the Central and 43% in the Southern regions of the Country was recorded).

Weekly trends in the purchase of painkillers and antivirals



Drug purchase monitoring methodology:

Drug purchase data is always reported one week later than 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.

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

Acknowledgements

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