



חטיבת טכנולוגיות רפואיות, מידע ומחקר  
המרכז הלאומי לבקרת מחלות  
ICDC – Israel Center for Disease Control

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## Surveillance of influenza-like illness in Israel

### Weekly update report for Week 52, ending 28/12/2019

**Summary:** Increase in respiratory morbidity, as expected for the season. The dominant influence strain in Israel so far is A / H1N1 09.

**Clinically:** Continued increase in rates of referral to the clinics due to influenza-like illness and pneumonia. **In hospitals:** An increase in the percentage of visits to the pediatric emergency department and the internal medicine emergency department due to pneumonia; The increase in the percentage of visits of 0-2 year old babies to the pediatric emergency room for bronchiolitis is continued; an increase in bed occupancy in pediatric wards. In the internal medicine wards - there is no significant change.

**Laboratory:** 38 of 73 samples (52%) collected from the Sentinel clinics were found positive for influenza: 32 samples tested positive for sub - type A/N1H1 09 influenza and 6 samples were found positive for type B influenza. 11 additional samples were found positive for RSV.

### **Morbidity**

- **Influenza-like illness (Figure 1-3): In the community:** Continued increase in raw rate of referrals to Maccabi Health Services clinics due to influenza-like illness. The increase is reflected in all age groups and all over the different regions in the country. For the first time this season - the raw referral rate to the clinics had crossed the intermediate activity threshold. A similar situation is shown by the data of Clalit Health Services.

Fig. 1: Weekly rate of visits due to influenza like illness, 2017-2020, compared to multi-annual average

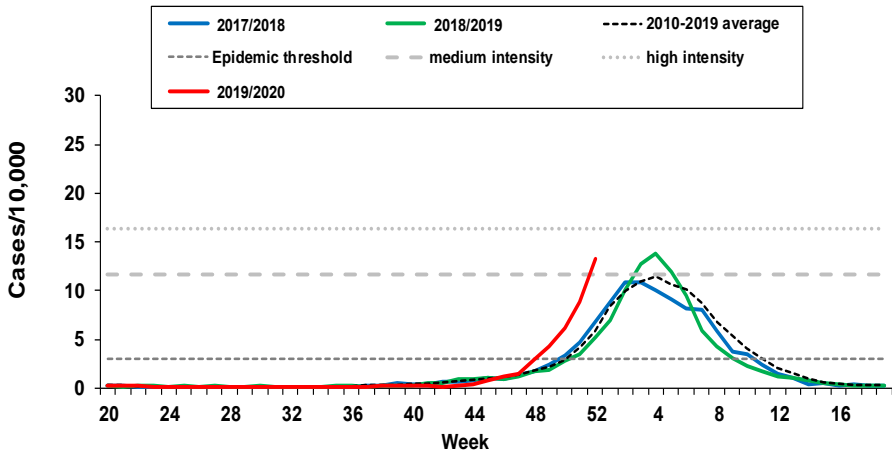


Fig.2: Weekly rate of visits due to influenza-like illness, by age and year, 2017-2020

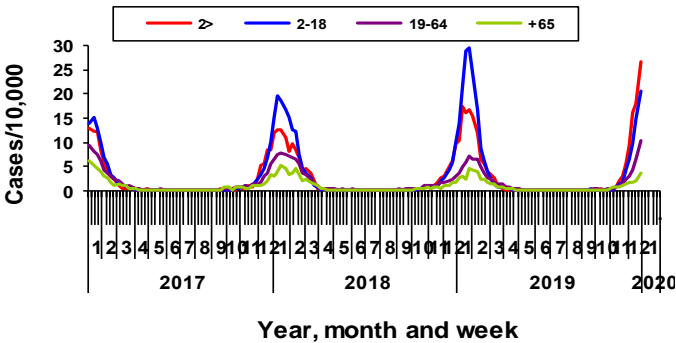
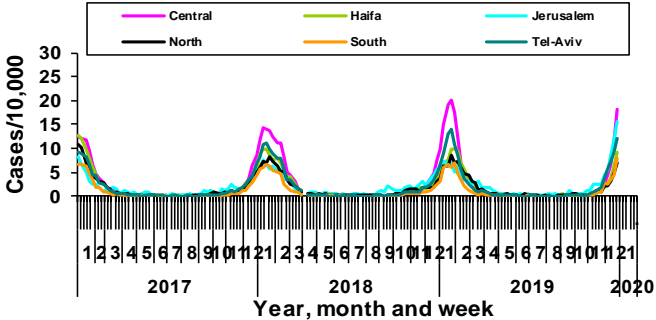


Fig. 3: Weekly rate of visits due to influenza-like illness, by district of residence, 2017-2020



\* The baseline level and the influenza activity intensities were calculated using an algorithm that was developed in the framework of the European influenza surveillance project (EuroFlu), based on past data accumulated at the ICDC regarding visits to "Maccabi Healthcare Services" clinics due to influenza-like illness.

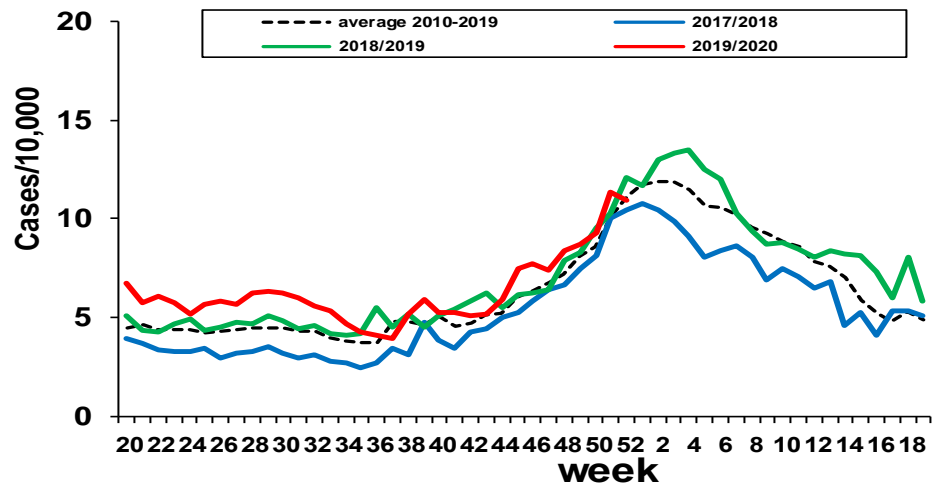
- **Pneumonia Morbidity (Figures 4-5): In the Community:** In the past week, no significant change in the rate of referrals to clinics was due to pneumonia were observed at the Maccabi Health Services clinics. However, the rate of referrals for adults aged 19-64 is continuing to rise. A similar situation is shown by the data of Clalit Health Services.



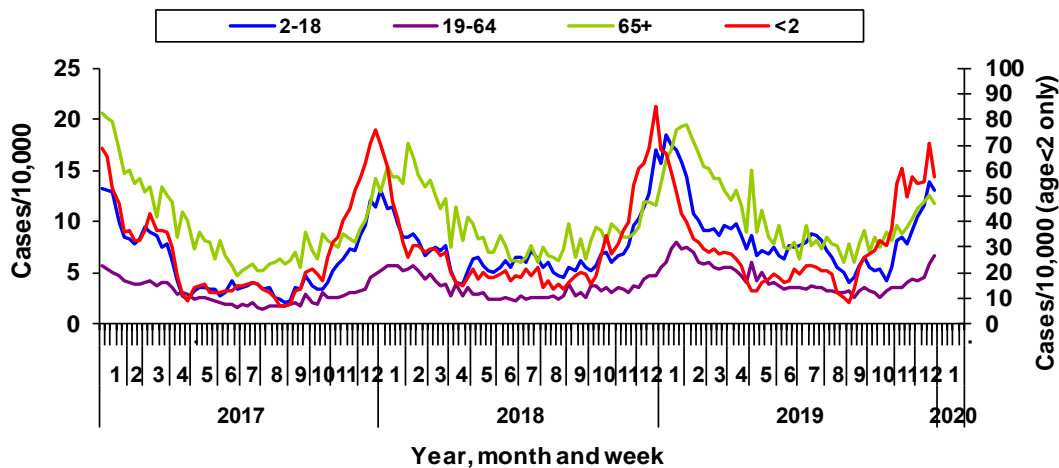
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**Fig. 4: Weekly rate of visits due to pneumonia, , 2017-2020, compared to multi-annual average**



**Fig. 5: Weekly rate of visits due to pneumonia, by age and year, 2017-2020**



**In hospitals** (based on the Ministry of Health's data base managed by the Information Division)  
**pneumonia (Figures 6-7):** In the past week there was an increase in the percentage of visits to the pediatrics emergency room and internal medicine emergency room due to pneumonia. The percentage of visits to the internal medicine emergency room is now above the multi-annual average, however, the percentage of visits to the pediatric emergency is now similar to the multi-annual average.

Fig. 6: Percentage of visits to internal medicine ERs due to pneumonia ,Clalit hospitals, 2016-2019, compared to multi-annual average

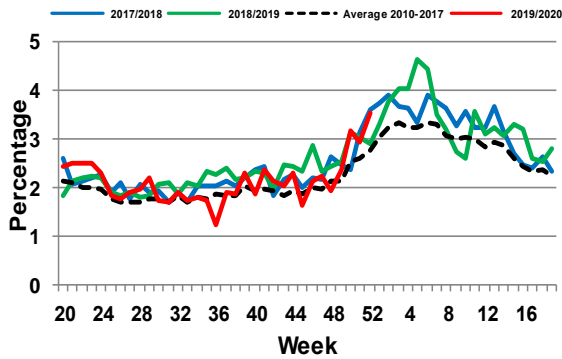
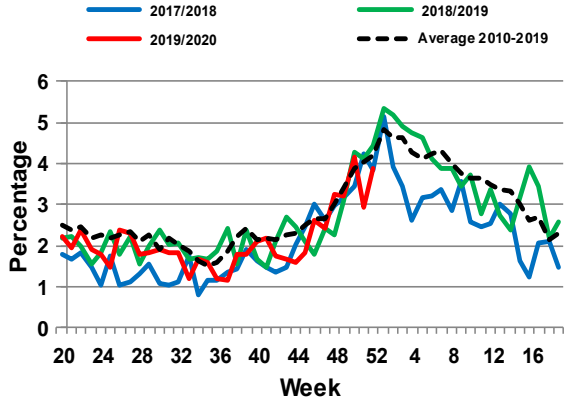
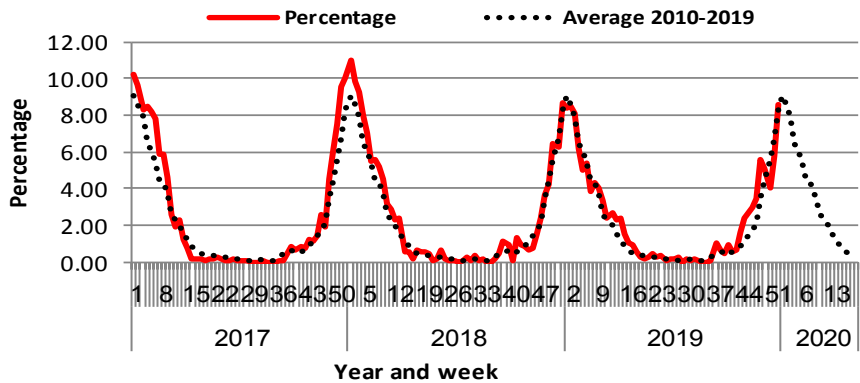


Fig. 7: Percentage of visits to pediatric ERs due to pneumonia , Clalit hospitals 2017-2020, compared to multi-annual average



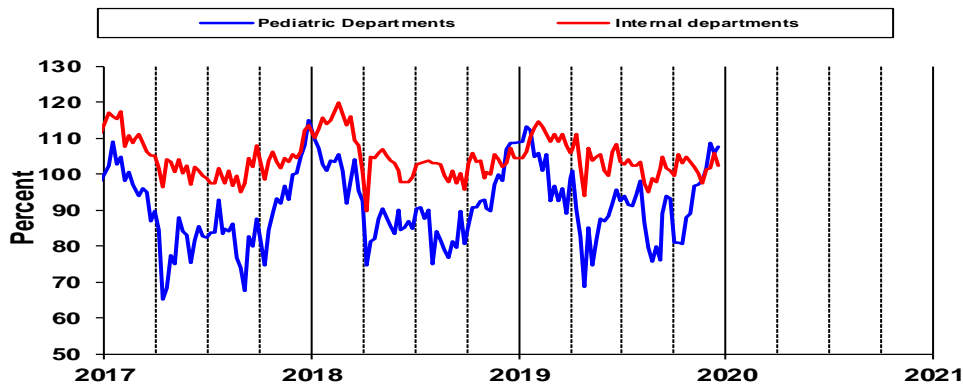
**Bronchiolitis (Figure 8):** Continued increase in the percentage of visits of 0-2 year olds to pediatric emergency room due to bronchiolitis, as expected for the season.

Fig. 8: Percentage of visits of ages 0-2 year old infants to pediatric ERs in Clalit hospitals due to bronchiolitis, 2017-2020



- Hospitalization (Figure 9):** In the past week, bed occupancy in the internal medicine wards has increased (about 108% compared to 102% last week). pediatric wards - no significant change was observed (about 107%).

**Fig. 9: Weekly average bed occupancy rate, internal and pediatric departments, all hospitals 2017-2020**



**Mortality**

- Figure 10-11:** Figure 10 shows the overall national mortality rate, as compared to the multi-annual average (updated for Week 48, ending 30/11/19). It arises from this figure that recently, that the total number of deaths is low and ranges around the multi-annual average. It arises from Figure 11, based on data from the Epidemiology Division updated until Week 49 (ending 7/12/19), that the percentage of mortality due to pneumonia is within the seasonally expected range.

Fig. 10: Overall national mortality rate, 2016-2020, compared to multi-annual average

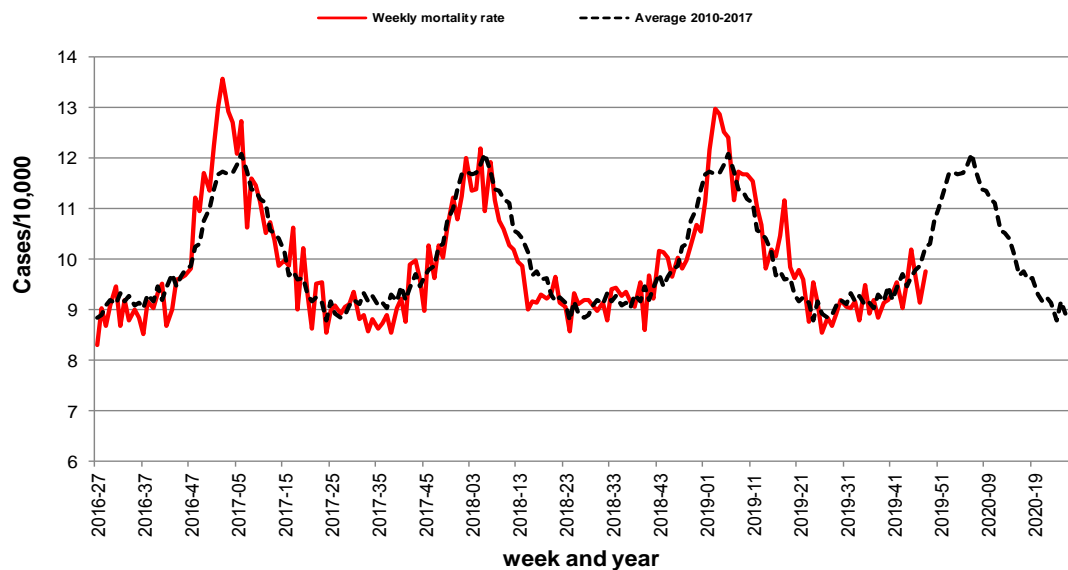
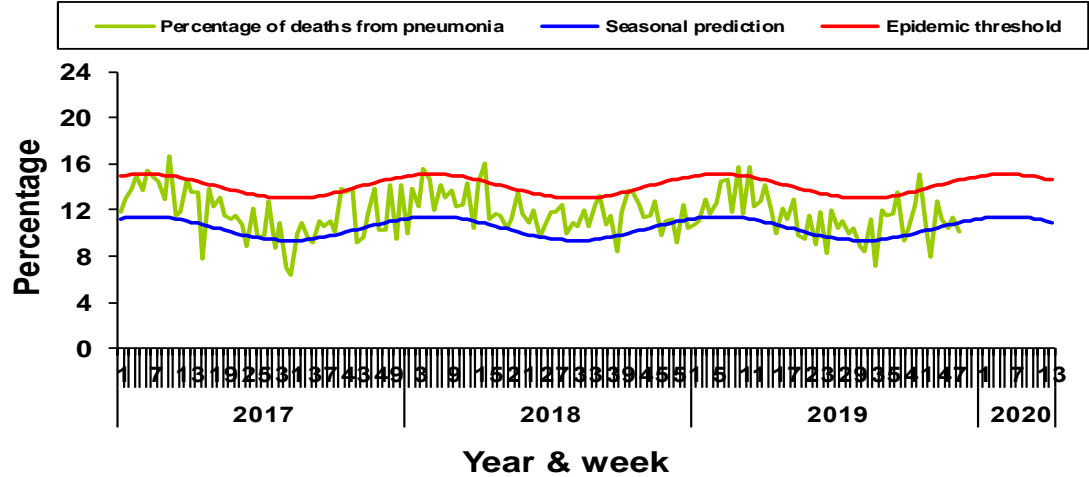


Fig. 11: Deaths from pneumonia as a percentage of all deaths , 2017-2020, compared to multi-annual seasonal prediction





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### Laboratory

**Sentinel Community Clinic Network Findings: Findings of the Sentinel Community Clinic Network (Figures 12+13):** Results of tests by the Central Virology Laboratory for the current week are summarized in the following table:

Number of Samples	Week 52 (22/12/19-28/12/19)	Accumulated Data from Week 40 (29/9/19-5/10/19)
Number of Samples	73	837
Number of RSV positive	11 (15)	118 (14.1)
Number of samples positive for Influenza*	38 (52)	326 (39)

### Number of samples positive for Influenza by type/ sub type

type of Influenza	Week 52 (22/12/19-28/12/19)	Accumulated Data from Week 40 (29/9/19-5/10/19)
Type A influenza	32 (84.2)	286 (87.7)
– A (H1N1)pdm 09	32 (100)	282 (98.6)
– *A/unsubtyped*	0	0
– A/H3	0	4 (1.4)
– A/H1	0	0
Type B influenza	6 (15.8)	40 (12.3)

\* In the past week, 2 samples were found positive for type A / H1N1 09 + RSV.

\* \*Samples found positive for influenza A, but cannot be classified into a sub-type.

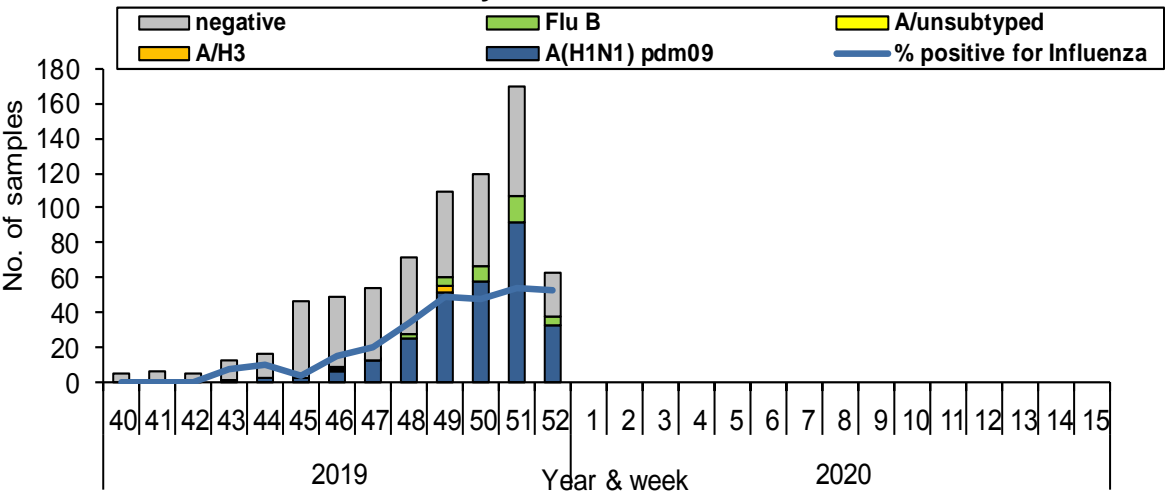




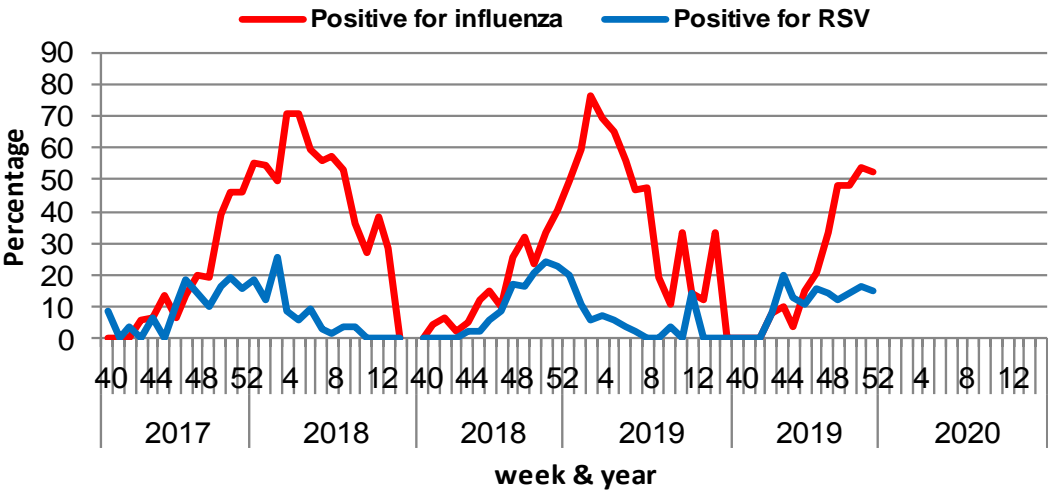
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**Fig. 12: Specimens positive for influenza out of total specimens collected by sentinel network, 2019/2020**



**Fig. 13: Percentage of specimens positive for influenza and RSV in the sentinel network, 2017-2020**

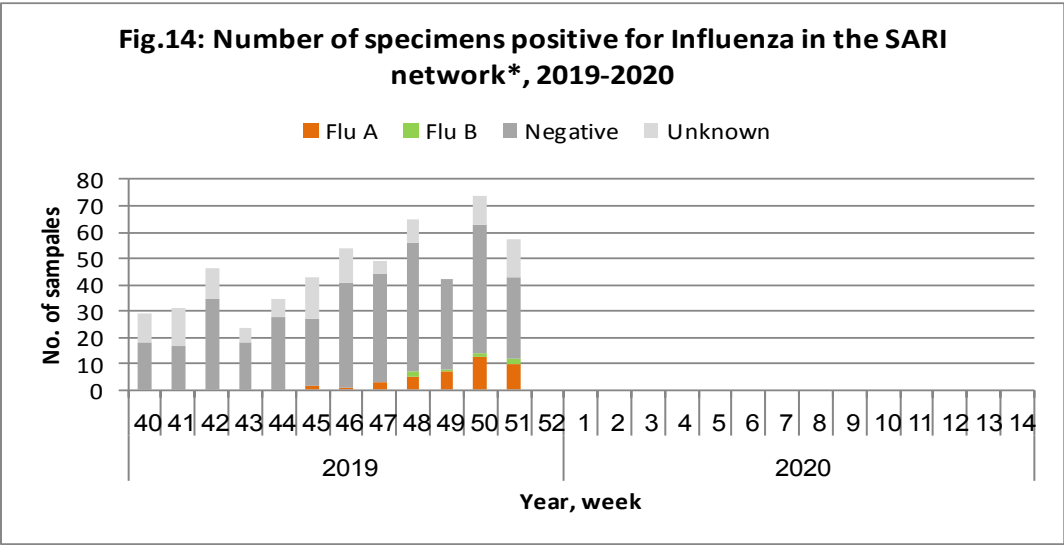




**Data from inpatients meeting the Severe Acute Respiratory Infection (SARI) case definition in the influenza monitoring network in hospitalized patients\* (Figure 14)**

The SARI case definition was determined by the World Health Organization. As part of this monitoring, samples are taken from inpatients exhibiting a temperature of 38.0 and above (or reported fever) and cough within 10 days of onset.

As of week no. 51 (ending on 21/12/19), 10 samples were found positive for type A influenza and 2 samples were found positive for Type B influenza among SARI patients, it appears that the increase in influenza activity among these patients is continued.

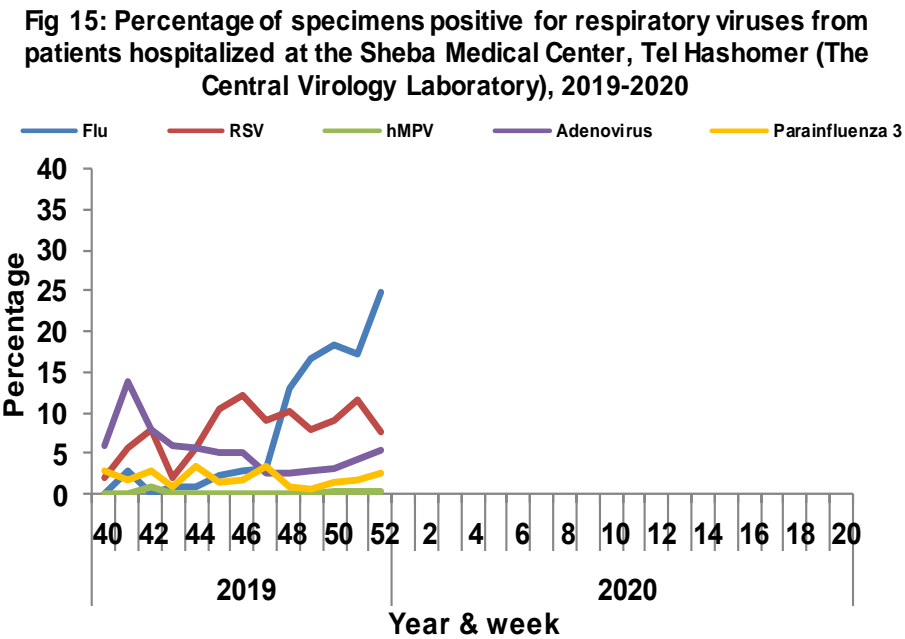


\*On the network are selected departments from 2 medical centers (Shiba and Rambam).



**Data from inpatients diagnosed in the Central Virus Laboratory at Sheba Medical Center, Tel Hashomer (Figure 15)**

During the past week, 110 (25%) samples were found positive for influenza out of the 444 samples collected from inpatients: 85 samples were positive for A/H1N1 09, 8 samples were found positive for Type A influenza, and 17 samples were found positive for Type B influenza. About 8% were found to be positive for RSV. About 5% of the samples were found positive for Adenovirus viruses and about 3% were positive for Parainfluenza-3.





### **Vaccination against seasonal influenza in the HMOs**

Up to December 29, 2019, about 1,800,000 people have vaccinated against seasonal influenza (about 20% of Israel's population, compared to about 18% in the same period of last year). Immune coverage in the elderly group aged 65 and over, reaches about 56% (similar to the vaccination coverage observed at the same period of last year). Immune coverage of infants and children 6-59 months of age reached approximately 19% (compared to 16% in the same period of last year).

### **International Influenza Activity**

**Europe (fluNewsEurope):** From week 51 (ending 23/12/19), continued increase in influenza activity.

The Sentinel Clinic Network reported about 41% of the samples as positive for A/H3 influenza, about 26% of the samples as positive for A/H1 influenza, and about 30% of the samples as positive for type B influenza.

**USA (CDC):** As of week 51 (ending 21/12/19), there is a continued increase in influenza activity. The percentage of visits to clinics due to influenza-like illness is now below the baseline. Out of 1,848 samples, 1,074 (about 58%) were found positive for influenza. Of these, 443 (approximately 41%) were positive for type A influenza: 386 (95%) were positive for influenza A/H1N1 2009, 21 samples (5.2%) were positive for influenza A/H3 and 36 samples (8%) were not yet classified. 631 (approximately 59%) additional samples were found to be positive for type B influenza.

**England:** As of week 51 (ending 27/12/19), continued increase in influenza activity, ILI morbidity rates are higher than the baseline. In terms of virology - 26 samples positive for A/H3 influenza, 2 samples were positive for type-A influenza not yet broken into sub-types, 1 positive for A/H1N1 09 influenza.

**Canada:** Due to the holidays, no update report was produced for week 51.



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Hong-Kong: In week 51 (ending 21/12/19), an increase in influenza activity was reported. In addition, it was reported that out of 5,974 samples, 276 (4.6%) were found positive for influenza: 160 samples (58%) were tested positive for A/H1 influenza, 99 (36%) of the samples were tested positive for A/H3 influenza, 17 (6%) of the samples tested positive for type B influenza.

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