

### Sentinel Severe Acute Respiratory Infection Surveillance

Sentinel Surveillance relies on selection of limited number of hospital sites from both public and private sectors. In each site, one focal person is designated to follow up on case detection, case investigation, specimen collection and data management.

The target case is acute respiratory infection with fever or history of fever ( $\geq 38^{\circ}\text{C}$ ), cough, ill within 10 days, and requiring hospitalization. For each detected case, specimens are taken from cases using nasopharyngeal swabs and are sent to the National Influenza Center at Rafic Hariri University Hospital, where PCR testing is performed.

In Lebanon, 8 hospitals are included in sentinel surveillance.

For the season 2018/2019, 867 cases were reported, 74% were tested from which 30% were Influenza positive. Circulating viruses were mainly: AH3N2 (50%) and AH1N1pdm (40%).

For the season 2019/2020 (up to 2019W07), 371 cases were reported, 50% were tested from which 44% were Influenza positive. Circulating viruses were mainly: B Victoria (74%), AH1N1pdm (11%) or A mixte (9%).

Table 1: Cumulative results from 2018W30 to 2020W07

8 sentinel sites	Season 2018/2019 (2018W30-2019W29)		Season 2019/2020 (2019W30-2020W29)	
	N	%	N	%
<b>SARI cases</b>	867		371	
<b>Tested cases</b>	641	74%	185	50%
<b>Influenza cases</b>	192	30%	82	44%
<b>* Influenza A</b>	183	95%	17	21%
Influenza A(H1N1)pdm	76	40%	9	11%
Influenza A(H3N2)	96	50%	1	1%
Influenza A mixed	11	6%	7	9%
Influenza A (other)	0	0%	0	0%
<b>* Influenza B</b>	9	5%	61	74%
Victoria	7	1%	61	74%
Yamagata	2	4%	0	0%

Fig 1: Distribution of all SARI patients and % of positive influenza test by week of admission, 2018W30-2020W07

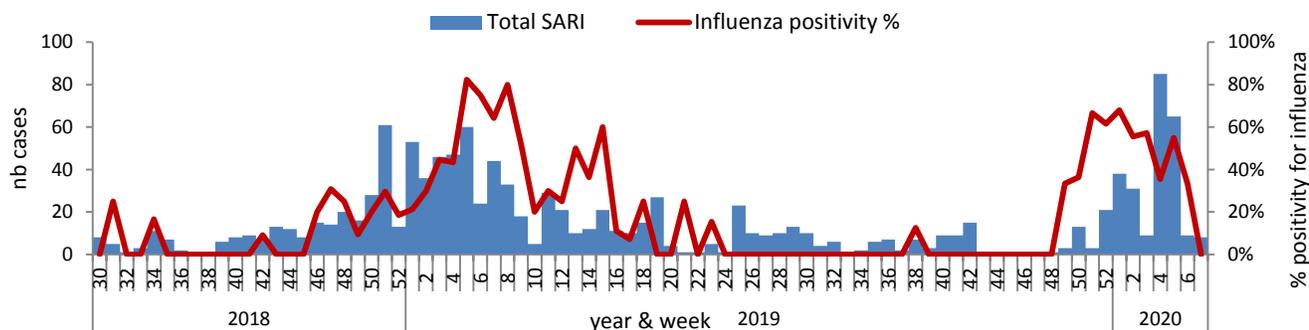
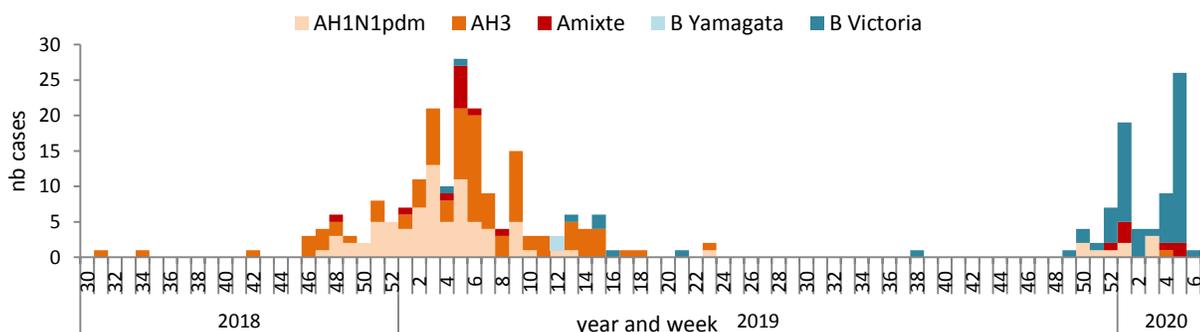


Fig 2: Distribution of Influenza positive patients by week of admission, 2018W30-2020W07



Acknowledgements (Alphabetical order): Ain wa Zein hospital, American University of Beirut Medical Center, Elias Hraoui/Zahleh gov hospital, Hammoud hospital, Khoury Hospital (Zahleh), Notre Dame de Secours hospital, Rafic Hariri University hospital, Saida gov hospital, with support of the World Health Organization.

# Severity Influenza Indicators

## Summary

The Influenza season 2019/2020, at the week 6 of year 2020, is of moderate transmissibility, and very high impact.

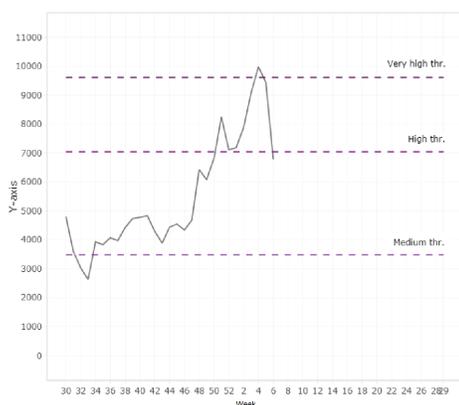
## Methodology

PISA refers to Pandemic Influenza Severity Assessment. It aims to assess Influenza severity for both seasonal and pandemic influenza. It is a tool using evidence-based method to compare current Influenza activity to previous Influenza seasons. Three groups of indicators are used: transmissibility (human-to-human transmission), seriousness (severe and mortality), and impact (on society, school or healthcare system). Various sources of surveillance systems are used using the method Moving Epidemic Method (MEM) Web Application. The thresholds are set based on past years findings.

### Transmissibility

Source: Health centers (average=670)

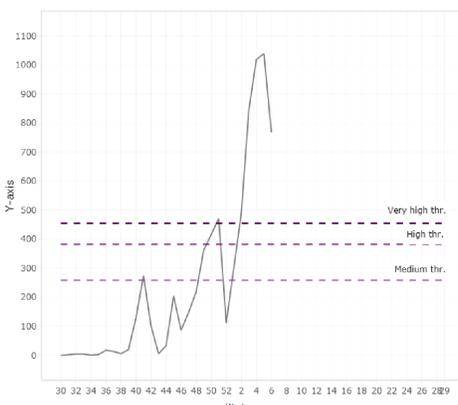
Fig 3: Counts of reported cases with Acute Respiratory Infection, by week, Lebanon, starting 2019W30



### Impact

Source: Schools (average=731)

Fig 4: Counts of received medical reports for acute respiratory infection, by week, Lebanon, starting 2019W30



### Seriousness

Source: Hospital (average=124)

Fig 5: Counts of deaths with acute respiratory infection among causes of deaths, by week, Lebanon, starting 2019W30

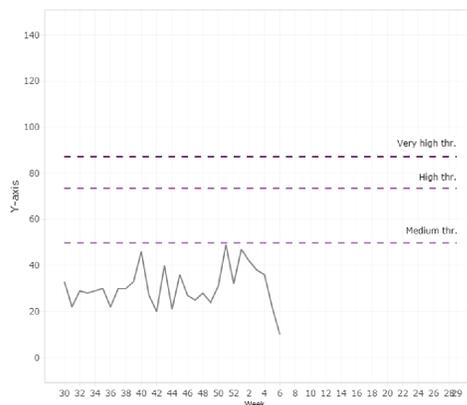


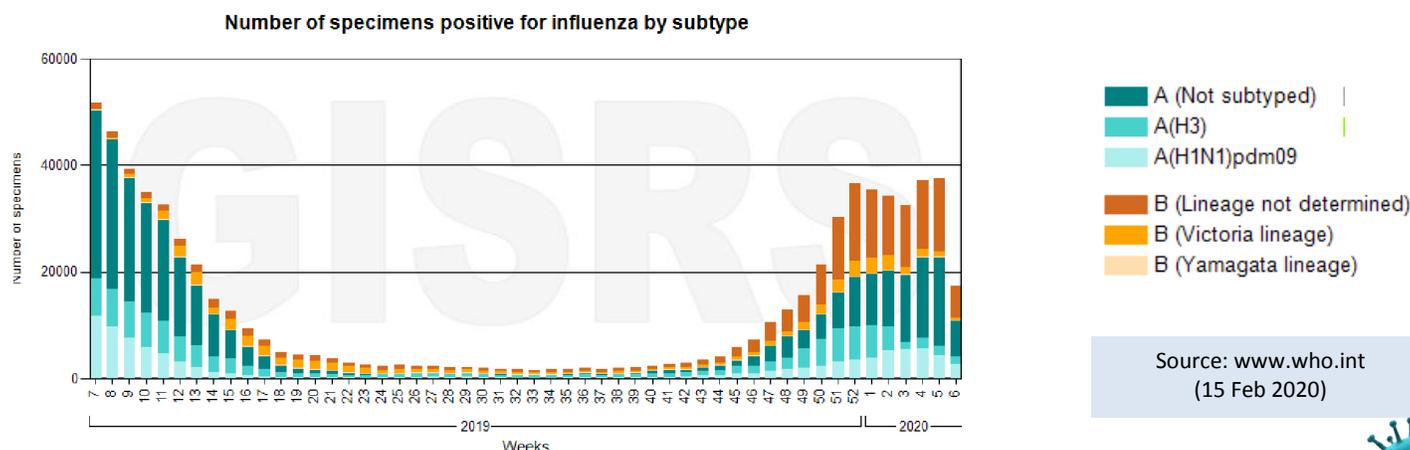
Fig 6: Influenza severity indicator by week, Lebanon, 2019W30-2020W06

Flu season	2019												2020																	
	w30	w31	w32	w33	w34	w35	w36	w37	w38	w39	w40	w41	w42	w43	w44	w45	w46	w47		w48	w49	w50	w51	w52	w1	w2	w3	w4	w5	w6
Transmissibility	Low	Low	Low	Low	Low	Low	Low	Low	Low	Low	Low	Low	Low	Low	Low	Low	Low	Low	Low	Low	Low	Low	Low	Low	Low	Low	Low	Low	Low	Low
Impact	Low	Low	Low	Low	Low	Low	Low	Low	Low	Low	Low	Low	Low	Low	Low	Low	Low	Low	Low	Low	Low	Low	Low	Low	Low	Low	Low	Low	Low	Low
Seriousness	Low	Low	Low	Low	Low	Low	Low	Low	Low	Low	Low	Low	Low	Low	Low	Low	Low	Low	Low	Low	Low	Low	Low	Low	Low	Low	Low	Low	Low	Low

## Seasonal Influenza in northern hemisphere

In the northern hemisphere the circulating seasonal influenza for 2019/2020 include: A, AH1N1pdm, AH3, B, and B Victoria.

Fig 7: Distribution of Influenza positive patients by week of admission, 2019W07-2020W06



Source: [www.who.int](http://www.who.int)  
(15 Feb 2020)

