

Influenza Surveillance in Ireland – Weekly Report

Influenza Week 41 2020 (5th – 11th October 2020)



 **Intensive Care Society of Ireland**

Summary

There was no evidence of influenza virus circulation in Ireland during week 41 2020 (week ending 11/10/2020) or for the 2020/21 season to date. Limited influenza testing at this time should be considered when interpreting these data. Increased rhinovirus and enterovirus detections were reported in September and early October 2020. COVID-19 epidemiology reports are published on www.hpsc.ie.

- **Influenza-like illness (ILI):** The sentinel GP influenza-like illness (ILI) consultation rate was 36.1 per 100,000 population in week 41 2020, an increase compared to the updated rate of 23.2 per 100,000 during week 40 2020.
 - Sentinel GP ILI consultation rates have been above the Irish baseline threshold (18.1/100,000 population) for seven consecutive weeks, reflecting COVID-19, rather than influenza activity.
 - Sentinel GP ILI age specific consultation rates increased in those aged 0-4, 5-14 and 15-64-years during week 41 2020, compared to the previous week, with a small decline noted for those ≥65 years.
- **GP Out of Hours:** The proportion of self-reported cough calls to GP Out-of-Hours services increased significantly in all age groups during week 41 2020, with the highest proportions in the 0-4 and 5-14-year age groups.
- **National Virus Reference Laboratory (NVRL):**
 - No confirmed influenza positive specimens were reported from the NVRL during weeks 40-41 2020.
 - Virological surveillance with the Irish sentinel GP network will resume in the coming weeks.
 - Of 70 non-sentinel specimens tested during week 41 2020, all were negative for influenza and respiratory syncytial virus (RSV).
 - Rhinovirus/enterovirus positive detections increased in September and continue to be detected in October 2020. Sporadic detections of adenovirus, human metapneumovirus and bocavirus were reported during weeks 40-41 2020, with some rhinovirus/enterovirus coinfections.
- **Influenza and RSV notifications:** No confirmed influenza or RSV cases were notified for the 2020/2021 season to date.
- **Hospitalisations and Critical care admissions:** No confirmed influenza hospitalised or critical care cases were notified to HPSC for the 2020/2021 season to date.
- **Mortality:** There were no reports of deaths occurring in notified influenza cases during the 2020/2021 season to date. There have been no excess deaths reported in Ireland since May 2020.
- **Outbreaks:** No influenza, RSV or acute respiratory infection (ARI - excluding COVID-19) outbreaks were reported to HPSC for the 2020/2021 season to date.
- **International:** Globally, influenza activity was reported at lower levels than expected for this time of year, although increased influenza detections were reported in South East Asia (Cambodia and Lao People's Democratic Republic). In the temperate zone of the northern hemisphere, influenza activity remained below inter-seasonal levels.

1. GP sentinel surveillance system - Clinical Data

- During week 41 2020, 97 influenza-like illness (ILI) cases were reported from the Irish sentinel GP network, corresponding to an ILI consultation rate of 36.1 per 100,000 population, an increase compared to the updated rate of 23.2 per 100,000 reported during week 40 2020 (Figure 1). On the 09/03/2020, GP ILI consultations changed from face to face consultations to phone consultations.
- The sentinel GP ILI consultation rate has been above the Irish sentinel GP ILI baseline threshold (18.1/100,000 population) for seven consecutive weeks, reflecting circulation of SARS-CoV-2 in the community, rather than influenza viruses.
- Sentinel GP ILI age specific consultation rates in those aged 0-4 (37.4/100,000), 5-14 (21.0/100,000) and 15-64 (43.2/100,000) years increased during week 41 2020, compared to week 40 (Figure 2). Sentinel GP ILI age specific consultation rates in those aged ≥ 65 years were 16.7/100,000 during week 41 2020, a slight decrease from 20.5/100,000 in week 40.
- HPSC in consultation with the European Centre for Disease Prevention and Control (ECDC) have reviewed the Irish sentinel baseline ILI threshold for the 2020/2021 influenza season, which will remain at 18.1 per 100,000 population. ILI rates above this baseline threshold combined with sentinel GP influenza positivity $>10\%$ indicates the likelihood that influenza is circulating in the community. The Moving Epidemic Method (MEM) is used to calculate thresholds for GP ILI consultations in a standardised approach across Europe. The baseline ILI threshold (18.1/100,000 population), medium (57.5/100,000 population) and high (86.5/100,000 population) intensity ILI thresholds are shown in figure 1. Age specific MEM threshold levels are shown in Table 1.

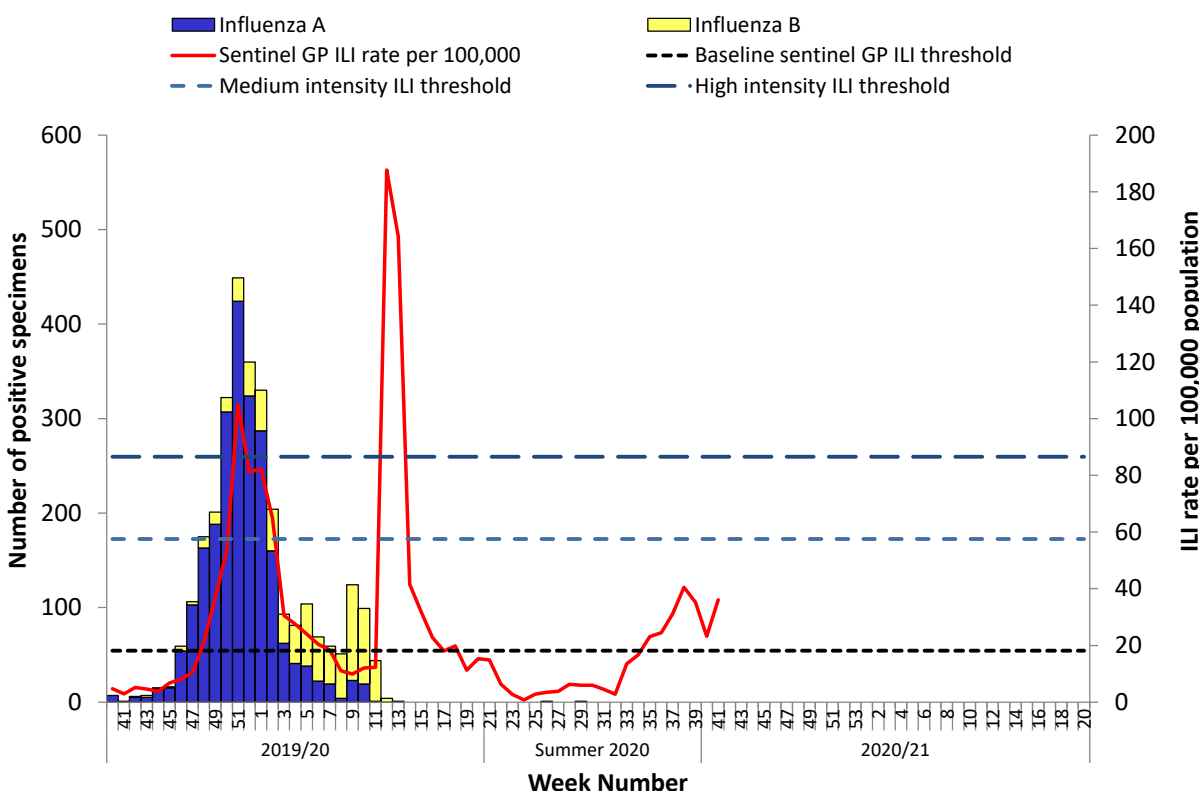


Figure 1: Sentinel GP Influenza-like illness (ILI) consultation rates per 100,000 population, baseline ILI threshold, medium and high intensity ILI thresholds and number of positive influenza A and B specimens tested by the NVRL, by influenza week and season. *Source: ICGP and NVRL**

* Influenza testing has been minimal since March 2020 due to the COVID pandemic and caution is advised interpreting laboratory influenza detections from March-September 2020

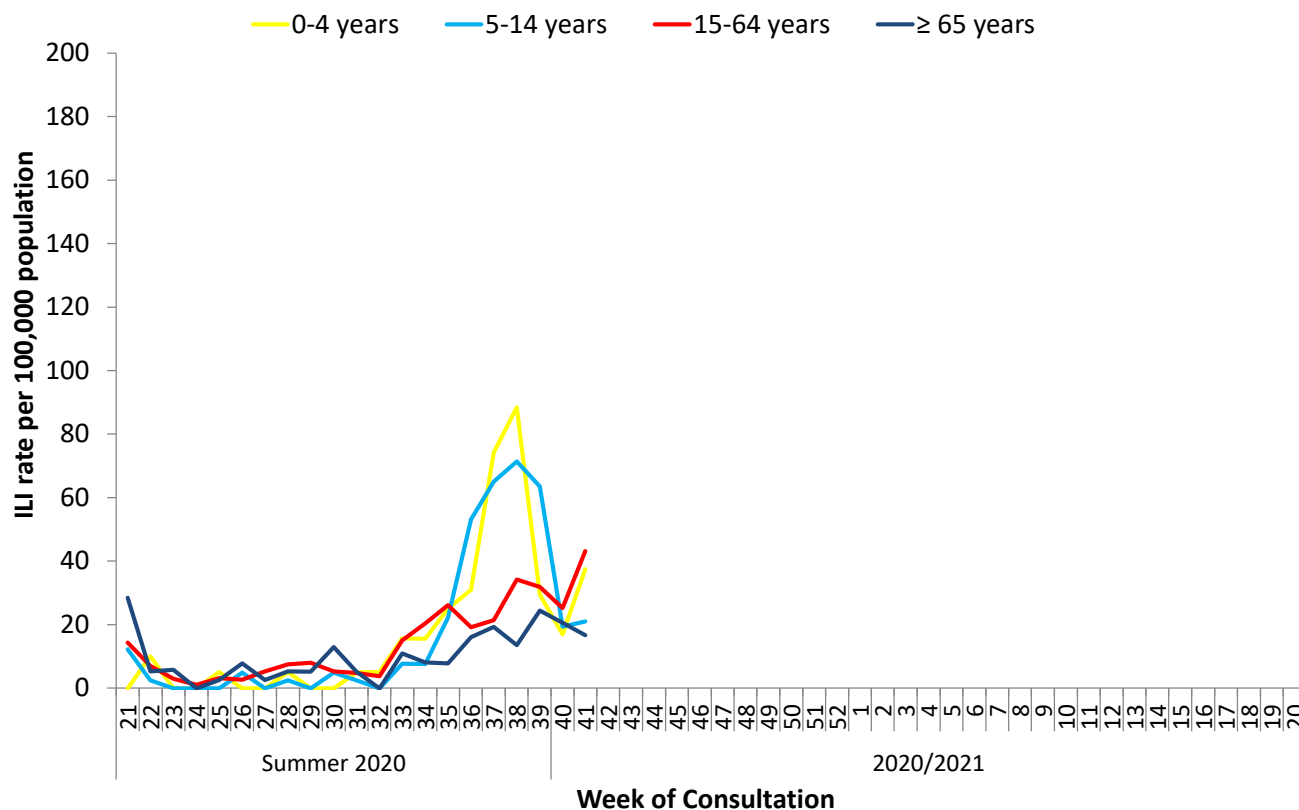


Figure 2: Age specific sentinel GP ILI consultation rate per 100,000 population by week of phone consultation during the summer of 2020 and the 2020/2021 influenza season to date. *Source: ICGP.*

Sentinel GP ILI Threshold Levels	Below Baseline	Low	Moderate	High	Extraordinary
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Sentinel GP ILI consultation/100,000 pop.	Week of GP Phone Consultation										
	31	32	33	34	35	36	37	38	39	40	41
All Ages	4.5	2.8	13.5	16.6	23.1	24.4	31.0	40.5	35.2	23.2	36.1
<15 yrs	3.3	1.7	10.3	10.2	23.1	45.9	68.0	77.0	52.3	18.6	26.4
15-64 yrs	4.8	3.7	15.0	20.4	26.1	19.2	21.4	34.3	31.9	25.2	43.2
≥65 yrs	5.2	0.0	10.9	8.1	7.8	16.1	19.3	13.5	24.5	20.5	16.7
Number of reporting practices (N=58)	58	57	57	56	57	56	54	55	51	51	54

Table 1: Age specific sentinel GP ILI consultation rate per 100,000 population by week (weeks 31-41 2020), colour coded by sentinel GP ILI age specific Moving Epidemic Method (MEM) threshold levels. *Source: ICGP.*

2. Influenza and Other Respiratory Virus Detections - NVRL

The data reported in this section for the 2020/2021 influenza season refers to sentinel and non-sentinel respiratory specimens routinely tested for influenza, respiratory syncytial virus (RSV), adenovirus, parainfluenza virus types 1-4 (PIV-1-4), human metapneumovirus (hMPV) and rhino/enteroviruses by the National Virus Reference Laboratory (NVRL) (tables 2 & 3).

- No confirmed influenza positive specimens were reported from the NVRL during weeks 40 and 41 2020.
- The COVID-19 pandemic caused disruption to sentinel GP influenza networks across the globe. In Ireland, virological surveillance for influenza and respiratory syncytial virus (RSV), with the Irish sentinel GP network is being integrated into current testing structures for COVID-19 referrals and will resume in the coming weeks.
- Of 70 non-sentinel specimens tested during week 41 2020, all were negative for influenza and RSV, Tables 2 and 3.
- Rhinovirus and enterovirus positive detections increased in September and continue to be detected in October 2020. Sporadic detections of adenovirus, human metapneumovirus and bocavirus were reported during weeks 40 and 41 2020 (Table 3). Rhinovirus/enterovirus coinfections with adenovirus and hMPV were reported during weeks 40 and 41 2020.

Table 2: Number of sentinel and non-sentinel[†] respiratory specimens tested by the NVRL and positive influenza and RSV results, for week 41 2020 and the 2020/21 season to date. *Source: NVRL*

Week	Specimen type	Total tested	Number influenza positive	% Influenza positive	Number RSV positive	% RSV positive
41 2020	Sentinel GP	Testing to resume following integration into COVID-19 referral pathways				
	Non-sentinel	70	0	0.0	0	0.0
	Total	70	0	0.0	0	0.0
2020/2021	Sentinel GP					
	Non-sentinel	195	0	0.0	0	0.0
	Total	195	0	0.0	0	0.0

Table 3: Number of non-sentinel specimens tested by the NVRL for other respiratory viruses and positive results, for week 41 2020 and the 2020/21 season to date. *Source: NVRL*

Week	Total tested	Adenovirus	% Adenovirus	Rhino/enterovirus	% Rhino/enterovirus	Bocavirus	% Bocavirus	hMPV	% hMPV
41 2020	70	2	2.9	12	17.1	1	1.4	1	1.4
2020/2021	195	5	2.6	53	27.2	1	0.5	1	0.5

[†] Please note that non-sentinel specimens relate to specimens referred to the NVRL (other than sentinel specimens) and may include more than one specimen from each case.

3. Regional Influenza Activity by HSE-Area

Regional influenza activity levels will be based on laboratory confirmed influenza cases and/or outbreaks.

No confirmed influenza viruses have been detected in Ireland during weeks 40 and 41 2020, and therefore **no confirmed influenza activity was reported for all HSE-Areas during this period**. Geographic spread of influenza viruses is based on laboratory confirmed influenza case/outbreak data.

4. GP Out-Of-Hours services surveillance

The Department of Public Health in HSE-NE is collating national data on calls to nine of thirteen GP Out-of-Hours services in Ireland. Records with clinical symptoms self-reported as flu/influenza or cough are extracted for analysis. This information may act as an early indicator of circulation of influenza, SARS-CoV-2 or other respiratory viruses. Data are self-reported by callers and are not based on coded diagnoses.

Data on self-reported influenza-like illness (ILI)-related calls to GP Out-of-Hours services for week 41 2020 were not available at the time of report production. The proportion of ILI-related calls to GP Out-of-Hours services was at low levels during week 40 2020 at 1.5% (120/7831), remaining stable compared to 1.4% (159/11303) for week 39 2020. Increases in the proportion of ILI-related calls to GP Out-of-Hours services occurred throughout September; this increase is usually observed each September when schools return from the summer break (Figure 3).

The proportion of self-reported cough calls to GP Out-of-Hours services increased to 40.7% (3691/9067) during week 41 2020, compared to 33.4% (4095/12265) during week 40 2020 (Figure 4). Data are continuously updated as more retrospective GP OOHs data are reported.

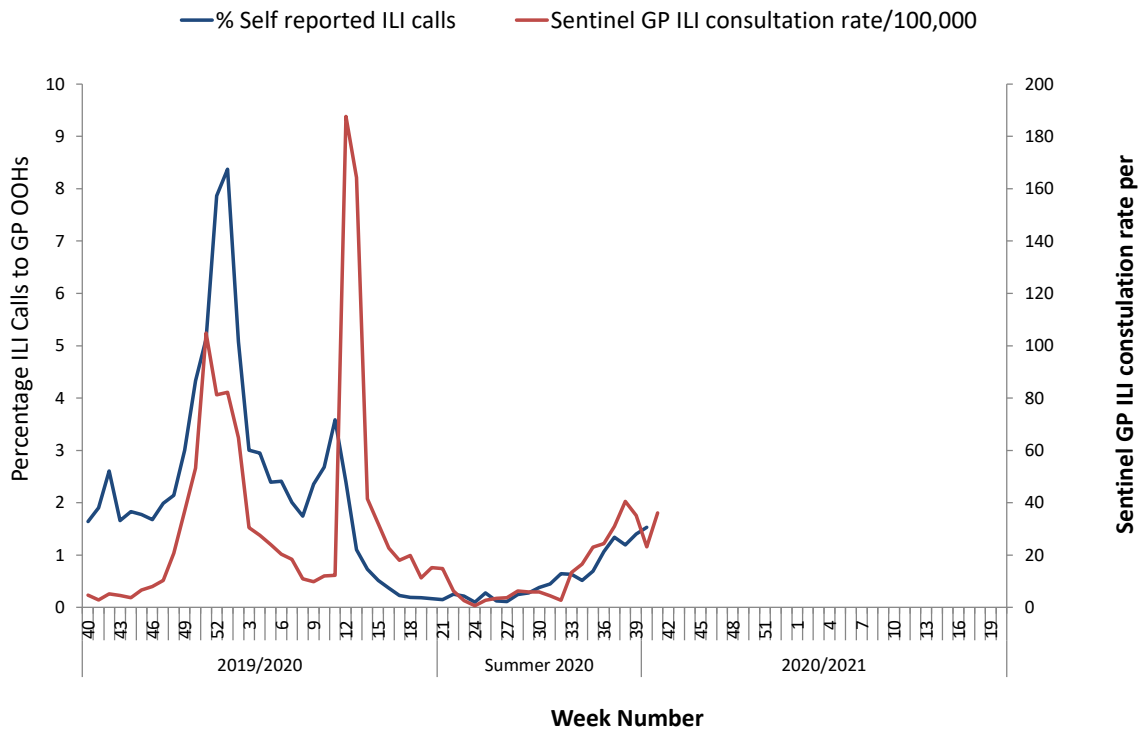


Figure 3: Self-reported ILI-related calls as a proportion of total calls to Out-of-Hours GP Co-ops and sentinel GP ILI consultation rate per 100,000 population by week and season. *Source: GP Out-Of-Hours services in Ireland (collated by HSE-NE) & ICGP.*

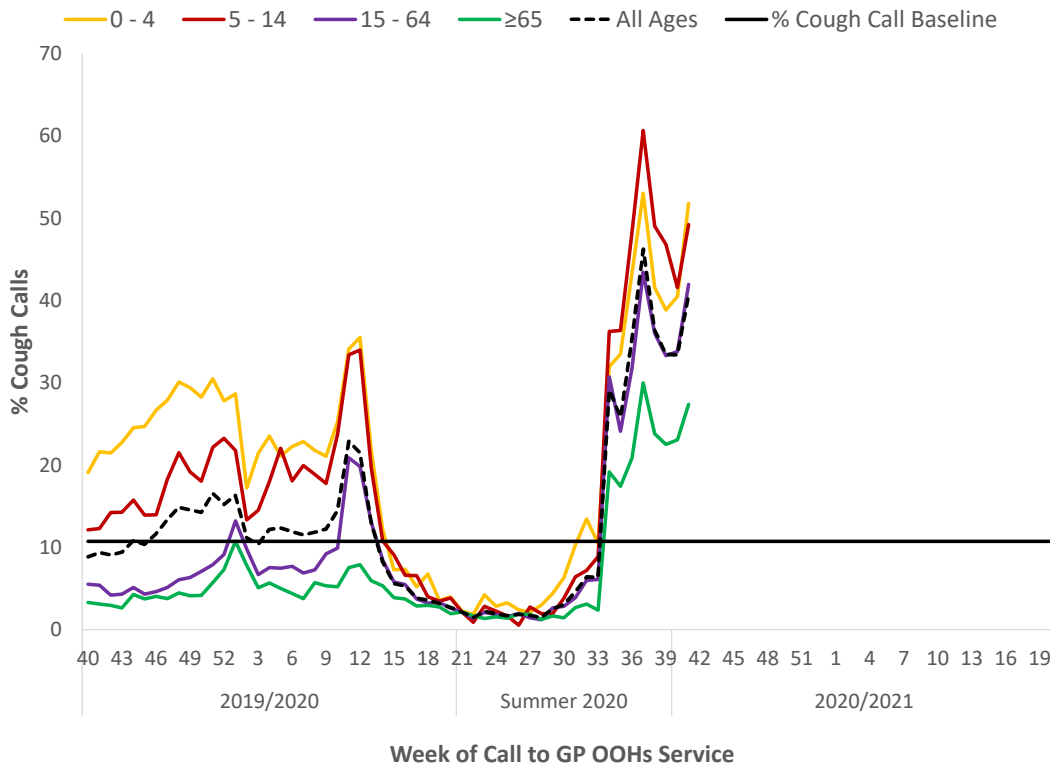


Figure 4: Percentage of self-reported COUGH calls for all ages and by age group as a proportion of total calls to Out-of-Hours GP Co-ops by week and season. The % cough calls baseline for all ages calculated using the MEM method on historic data is shown. *Source: GP Out-Of-Hours services in Ireland (collated by HSE-NE) & ICGP.*

5. Influenza & RSV notifications

Influenza and RSV cases notifications are reported on Ireland's Computerised Infectious Disease Reporting System (CIDR), including all positive influenza /RSV specimens reported from all laboratories testing for influenza/RSV and reporting to CIDR.

Influenza and RSV notifications are reported in the [Weekly Infectious Disease Report for Ireland](#). No confirmed influenza or RSV notifications were reported during weeks 40-41 2020.

6. Influenza Hospitalisations

No confirmed influenza hospitalised cases were notified to HPSC during weeks 40-41 2020.

7. Critical Care Surveillance

The Intensive Care Society of Ireland (ICSI) and the HSE Critical Care Programme are continuing with the enhanced surveillance system set up during the 2009 pandemic, on all critical care patients with confirmed influenza. HPSC processes and reports on this information on behalf of the regional Directors of Public Health/Medical Officers of Health.

No confirmed influenza cases were admitted to critical care and reported to HPSC during weeks 40- 41 2020.

8. Mortality Surveillance

Influenza-associated deaths include all deaths where influenza is reported as the primary/main cause of death by the physician or if influenza is listed anywhere on the death certificate as the cause of death. HPSC receives daily mortality data from the General Register Office (GRO) on all deaths from all causes registered in Ireland. These data have been used to monitor excess all-cause and influenza and pneumonia deaths as part of the influenza surveillance system and the European Mortality Monitoring Project. These data are provisional due to the time delay in deaths' registration in Ireland. <http://www.euromomo.eu/>

- There were no reports of any deaths occurring in notified influenza cases occurring during weeks 40-41 2020.
- During week 41 2020, no excess all-cause mortality was reported in Ireland after correcting GRO data for reporting delays with the standardised EuroMOMO algorithm. There have been no excess deaths reported in Ireland since May 2020.

9. Outbreak Surveillance

COVID-19 outbreaks are not included in this report; surveillance data on COVID-19 outbreaks are detailed on the HPSC website. <https://www.hpsc.ie/a-z/respiratory/coronavirus/novelcoronavirus/casesinireland/>

No influenza, RSV or acute respiratory infection (ARI - excluding COVID-19) outbreaks were notified to HPSC during weeks 40 and 41 2020.

10. International Summary

Since the start of the COVID-19 pandemic, influenza activity globally has remained at low levels. The World Health Organization (WHO) have advised that current influenza surveillance data should be interpreted with caution as the ongoing COVID-19 pandemic has influenced health seeking behaviours, surveillance and reporting in sentinel sites, as well as testing priorities and capacities in Member States. The various hygiene and physical distancing measures implemented by Member States to reduce SARS-CoV-2 virus transmission have likely played a role in reducing influenza virus transmission.

As of 12 October 2020, WHO reported that globally, influenza activity remained at lower levels than expected for this time of the year, though increased detections were reported in some countries. In the temperate zones of the southern hemisphere, the influenza season remained low or below baseline. Despite continued or even increased testing for influenza in some countries in the southern hemisphere, very few influenza detections were reported. In the temperate zone of the northern hemisphere, influenza activity remained below inter-seasonal levels. In South East Asia, increased influenza detections were reported in Cambodia and Lao People's Democratic Republic.

In the European region, of 163 specimens from sentinel primary health care settings tested for influenza viruses in week 40 2020, all were negative for influenza. Of 5714 non-sentinel specimens tested for influenza viruses, one (0.02%) tested positive for influenza (one influenza B/no lineage ascribed). See [ECDC](#) and [WHO](#) influenza surveillance reports for further information.

- Further information on influenza is available on the following websites:
 - Europe – ECDC <http://ecdc.europa.eu/>
 - Public Health England <https://www.gov.uk/government/collections/weekly-national-flu-reports>
 - United States CDC <http://www.cdc.gov/flu/weekly/fluactivitysurv.htm>
 - Public Health Agency of Canada <http://www.phac-aspc.gc.ca/fluwatch/index-eng.php>
- Influenza case definition in Ireland <https://www.hpsc.ie/a-z/respiratory/influenza/casedefinitions/>
- COVID-19 case definition in Ireland <https://www.hpsc.ie/a-z/respiratory/coronavirus/novelcoronavirus/casedefinitions/>
- Avian influenza overview May – August 2020 <https://www.ecdc.europa.eu/en/publications-data/avian-influenza-overview-may-august-2020>
- Avian influenza: EU on alert for new outbreaks <https://www.ecdc.europa.eu/en/news-events/avian-influenza-eu-alert-new-outbreaks>
- Information on COVID-19 in Ireland is available on the HPSC website <https://www.hpsc.ie/a-z/respiratory/coronavirus/novelcoronavirus/>
- The WHO categorised COVID-19 as a pandemic on 11 March 2020. For more information about the situation in the WHO European Region visit:
 - WHO website: <https://www.who.int/emergencies/diseases/novel-coronavirus-2019>
 - ECDC website: <https://www.ecdc.europa.eu/en/novel-coronavirus-china>

11. WHO recommendations on the composition of influenza virus vaccines

The WHO vaccine strain selection committee recommend that quadrivalent egg-based vaccines for use in the 2020/2021 northern hemisphere influenza season contain the following:

- an A/Guangdong-Maonan/SWL1536/2019 (H1N1)pdm09-like virus;
- an A/Hong Kong/2671/2019 (H3N2)-like virus;
- a B/Washington/02/2019 (B/Victoria lineage)-like virus; and
- a B/Phuket/3073/2013 (B/Yamagata lineage)-like virus.

https://www.who.int/influenza/vaccines/virus/recommendations/2020-21_north/en/

Further information on influenza in Ireland is available at www.hpsc.ie

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