

Epidemiological Reports

Influenza and influenza-like illness in Poland

National Institute of Public Health - National Institute of Hygiene • Department of Epidemiology and Department of Influenza Research. National Influenza Center
Chief Sanitary Inspectorate • Department for Communicable Disease and Infection Prevention and Control

Year: **2016**

Month: **May**

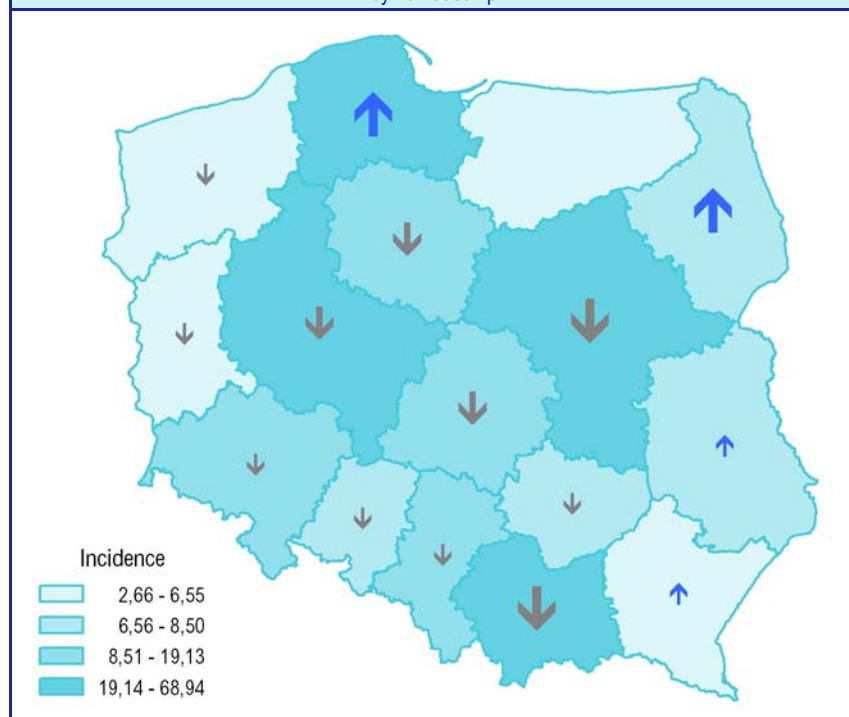
Number: **5D (20)**

Period: **23 – 31 May**

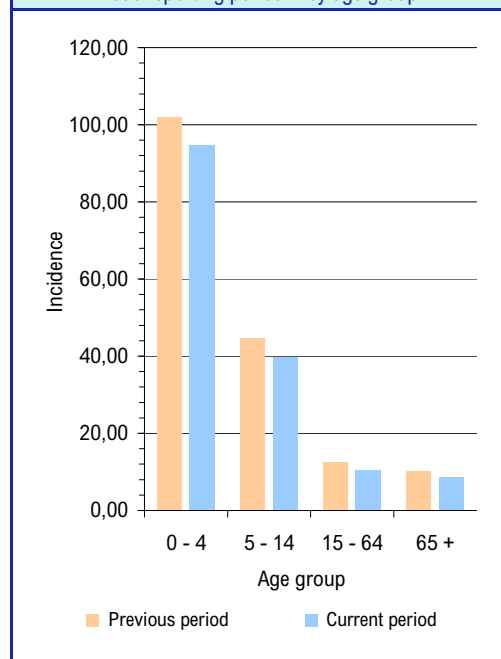
Cases of influenza and influenza-like illness between 23 and 31 May 2016 by age group and voivodeship

Voivodeship	Total number of cases and incidence			Age (completed years)							
				0 – 4		5 – 14		15 – 64		65+	
	number	incidence ¹⁾	change in incidence ^{2,3)}	number	incidence ¹⁾	number	incidence ¹⁾	number	incidence ¹⁾	number	incidence ¹⁾
POLAND	60008	17,34	-2,50	16315	94,85	13796	39,85	25261	10,50	4636	8,63
Dolnośląskie	2378	9,09	-0,87	551	45,06	446	18,28	1124	6,13	257	6,20
Kujawsko-Pomorskie	3594	19,13	-4,71	1009	110,36	980	51,01	1368	10,41	237	8,41
Lubelskie	1417	7,35	0,41	332	36,31	283	14,65	674	5,05	128	4,12
Lubuskie	601	6,55	-0,81	222	48,77	194	20,74	164	2,54	21	1,59
Łódzkie	2353	10,47	-4,48	620	59,23	586	27,88	958	6,21	189	4,85
Małopolskie	6108	20,13	-5,43	1480	92,73	1452	45,71	2718	12,95	458	10,03
Mazowieckie	12234	25,45	-7,30	3287	126,93	2888	58,45	5035	15,33	1024	13,31
Opolskie	592	6,59	-2,74	137	35,38	107	13,43	272	4,28	76	5,24
Podkarpackie	510	2,66	0,13	121	13,01	139	6,98	212	1,58	38	1,35
Podlaskie	911	8,50	4,86	237	47,74	209	19,96	394	5,28	71	4,17
Pomorskie	14300	68,94	4,83	4525	400,90	3056	135,82	5760	40,05	959	32,16
Śląskie	3895	9,45	-2,20	932	47,35	953	24,96	1722	6,00	288	4,28
Świętokrzyskie	832	7,34	-1,51	201	40,09	174	16,26	375	4,77	82	4,29
Warmińsko-Mazurskie	842	6,49	-0,03	201	31,33	222	16,32	356	3,87	63	3,54
Wielkopolskie	8749	27,98	-4,73	2250	132,92	1986	59,74	3827	17,58	686	15,30
Zachodniopomorskie	692	4,49	-0,81	210	29,33	121	8,00	302	2,78	59	2,55

Incidence ¹⁾ between 23 and 31 May 2016 in comparison to the previous reporting period ³⁾ by voivodeship



Incidence ¹⁾ between 23 and 31 May 2016 and in the previous reporting period ³⁾ by age group

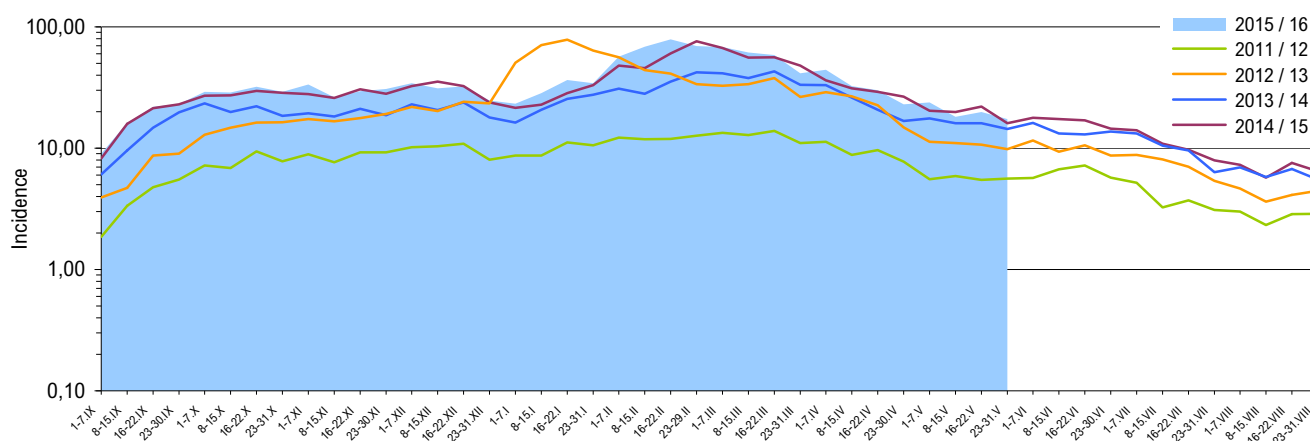


Notes:

- 1) Mean daily incidence per 100 000 population (as of 30 June 2015).
- 2) In comparison with the previous reporting period.
- 3) Previous reporting period: 16 - 22 May 2016.

Symbols used in tables and figures: Dash (-) event did not occur ("zero"); Zero (0,0) event occurred, but in numbers that could not be expressed in digits demonstrated in the table; Dot (.) complete lack of information or lack of credible information; Letter x (x) considering a layout of the table, filling in of the cell is not possible or inadvisable ("not applicable"); Comma (,) represents the decimal point.

Influenza and influenza-like illness incidence ¹⁾ in the epidemic season 2015/2016 when compared with the previous seasons according to the periodical reports



Vaccination against influenza

Vaccination is the most effective way to prevent infection and severe outcomes caused by influenza viruses.

Vaccination is especially important for people at higher risk of serious influenza complications, and for people who live with or care for high risk individuals.

WHO recommends seasonal influenza vaccination for:

- Highest priority:
 - Pregnant women
- Priority (in no particular order):
 - Children aged 6-59 months
 - Elderly
 - Individuals with specific chronic medical conditions
 - Health-care workers

Source: <http://www.who.int/influenza/vaccines/use/en>

Persons referred to hospitals due to influenza or suspicion of influenza between 23 and 31 May 2016 by reason and voivodeship

Voivodeship	Total		Reasons for hospital referrals ²⁾					
			cardiovascular symptoms		respiratory symptoms		other reasons	
	number	% ³⁾	number	% ⁴⁾	number	% ⁴⁾	number	% ⁴⁾
POLAND	182	0,30	17	9,3	148	81,3	29	15,9
Dolnośląskie	10	0,42	-	-	10	100,0	-	-
Kujawsko-Pomorskie	5	0,14	-	-	5	100,0	-	-
Lubelskie	1	0,07	-	-	1	100,0	-	-
Lubuskie	-	-	x	x	x	x	x	x
Łódzkie	-	-	x	x	x	x	x	x
Małopolskie	37	0,61	6	16,2	10	27,0	21	56,8
Mazowieckie	19	0,16	2	10,5	17	89,5	-	-
Opolskie	-	-	x	x	x	x	x	x
Podkarpackie	1	0,20	-	-	-	-	1	100,0
Podlaskie	22	2,41	-	-	22	100,0	-	-
Pomorskie	44	0,31	5	11,4	44	100,0	7	15,9
Śląskie	-	-	x	x	x	x	x	x
Świętokrzyskie	1	0,12	-	-	1	100,0	-	-
Warmińsko-Mazurskie	8	0,95	-	-	8	100,0	-	-
Wielkopolskie	34	0,39	4	11,8	30	88,2	-	-
Zachodniopomorskie	-	-	x	x	x	x	x	x

Deaths due to influenza between 23 and 31 May 2016 by age group and voivodeship

Voivodeship	Total	Age (completed years)			
		0 – 4	5 – 14	15 – 64	65 +
POLAND	-	-	-	-	-
Dolnośląskie	-	-	-	-	-
Kujawsko-Pomorskie	-	-	-	-	-
Lubelskie	-	-	-	-	-
Lubuskie	-	-	-	-	-
Łódzkie	-	-	-	-	-
Małopolskie	-	-	-	-	-
Mazowieckie	-	-	-	-	-
Opolskie	-	-	-	-	-
Podkarpackie	-	-	-	-	-
Podlaskie	-	-	-	-	-
Pomorskie	-	-	-	-	-
Śląskie	-	-	-	-	-
Świętokrzyskie	-	-	-	-	-
Warmińsko-Mazurskie	-	-	-	-	-
Wielkopolskie	-	-	-	-	-
Zachodniopomorskie	-	-	-	-	-

Notes:

1) Mean daily incidence per 100 000 population as of 30 June of a given year (in 2016 population as of 30 June 2015 was used for calculations).

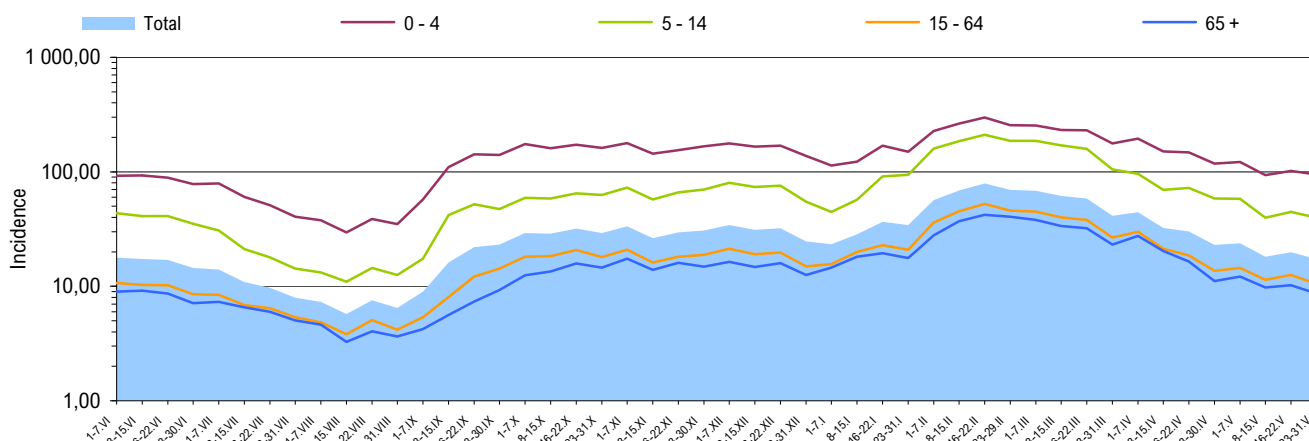
2) One person may be included in more than one column.

3) With reference to the total number of registered influenza cases and suspected cases of influenza.

4) With reference to the total number of persons referred to hospitals due to influenza or suspicion of influenza.

Data sources (1)

Numbers of cases, suspected cases and deaths: Data from the periodical, cumulative "Reports on influenza and suspected of influenza cases" sent to the Poviats Sanitary-Epidemiological Stations by all health care units visited by patients as well as data from death reports sent to the Poviats and/or Voivodeship Sanitary-Epidemiological Stations by physicians, that are then sent by Voivodeship Sanitary-Epidemiological Stations in the aggregated form to the Department of Epidemiology, NIPH-NIH. In "Reports" - according to definition of influenza applied for the surveillance of communicable diseases in the European Union (OJ L 262, 27.9.2012) - is reported influenza (diagnosed clinically and/or laboratory) and all clinically diagnosed influenza-like illness and acute respiratory infections which meet the definition criteria.

Influenza and influenza-like illness Incidence ¹⁾ between 1 June 2015 and 31 May 2016 by age group and according to the periodical reports

Specimens collected from patients with influenza symptoms or influenza-like symptoms tested in the epidemic season 2015/2016 according to voivodships

Voivodship	Specimens collected between 31.08.2015 and 29.05.2016 r. (weeks 36/2015 - 21/2016) ²⁾				Of which specimens collected between 23 and 29 May 2016 (week 21/2016) ²⁾			
	total		positive ³⁾		total		positive ³⁾	
	number	frequency of sampl. ⁴⁾	number	%	number	frequency of sampl. ⁴⁾	number	%
POLAND	1630	0,4	668	41,0	-	-	x	x
Dolnośląskie	74	0,4	40	54,1	-	-	x	x
Kujawsko-Pomorskie	231	1,0	69	29,9	-	-	x	x
Lubelskie	31	0,4	16	51,6	-	-	x	x
Lubuskie	85	1,9	25	29,4	-	-	x	x
Łódzkie	60	0,3	26	43,3	-	-	x	x
Małopolskie	14	0,0	6	42,9	-	-	x	x
Mazowieckie	51	0,1	35	68,6	-	-	x	x
Opolskie	37	0,8	3	8,1	-	-	x	x
Podkarpackie	162	2,6	94	58,0	-	-	x	x
Podlaskie	77	0,8	25	32,5	-	-	x	x
Pomorskie	13	0,0	9	69,2	-	-	x	x
Śląskie	132	0,5	94	71,2	-	-	x	x
Świętokrzyskie	13	0,2	8	61,5	-	-	x	x
Warmińsko-Mazurskie	83	1,2	32	38,6	-	-	x	x
Wielkopolskie	177	0,3	64	36,2	-	-	x	x
Zachodniopomorskie	390	6,0	122	31,3	-	-	x	x

Data sources (2)

Numbers of specimens and results of testing: Data from weekly reports sent to the National Influenza Center, NIPH-NIH by Voivodship Sanitary-Epidemiological Stations, which received specimens for testing from family physicians participating in the selective influenza surveillance Sentinel. Specimens are collected from certain patients suspected to be infected with influenza virus or other respiratory viruses (RSV, parainfluenza, adenovirus).

SENTINEL

Influenza Sentinel is a selective system of integrated epidemiological and virological surveillance of influenza that exists in Poland since the epidemic season 2004/2005. The following institutions participate in the system: a representative number of family physicians, sanitary-epidemiological stations and the National Influenza Center, NIPH-NIH as a coordinator.

Notes:

- 1) Mean daily incidence per 100,000 population (as of 30 June 2015).
- 2) Reporting periods used in the Sentinel influenza surveillance system – calendar numbering of weeks (Monday - Sunday).
- 3) Tests for confirmation of infections with the following viruses: influenza A, influenza B, RSV (Respiratory Syncytial Virus), parainfluenza type 1, parainfluenza type 2, parainfluenza type 3 and adenovirus. Testing to diagnose infections with respiratory viruses other than influenza is not performed routinely.
- 4) Number of the collected specimens per 1000 influenza and influenza-like cases registered in the reporting period.

Specimens collected from the patients presenting influenza or influenza-like symptoms tested in the epidemic season 2015/2016 by age group

Age (in years)	Specimens collected between 31.08.2015 and 29.05.2016 (weeks 36/2015 - 21/2016) ²⁾				Of which specimens collected between 23 and 29 May 2016 (week 21/2016) ²⁾			
	total		positive ³⁾		total		positive ³⁾	
	number	frequency of sampl. ⁴⁾	number	%	number	frequency of sampl. ⁴⁾	number	%
0-4	183	0,2	86	47,0	-	-	x	x
5-14	375	0,4	183	48,8	-	-	x	x
15-64	984	0,6	367	37,3	-	-	x	x
65+	72	0,2	25	34,7	-	-	x	x
No data	16	x	7	43,8	-	-	x	x
TOTAL	1630	0,4	668	41,0	-	-	x	x

Number of laboratory confirmed ¹⁾ infections with influenza virus or other respiratory viruses ²⁾ in the epidemic season 2015/2016 by pathogen and voivodeship

Voivodeship	Specimens collected between 31.08.2015 and 29.05.2016 (weeks 36/2015 - 21/2016) ³⁾								
	influenza				RSV	parainfluenza			adeno- virus
	A	A/H1	A/H3	B		type 1	type 2	type 3	
POLAND	43	272	2	328	11	3	2	7	3
Dolnośląskie	1	13	-	28	-	-	-	-	-
Kujawsko-Pomorskie	3	29	1	36	-	1	-	-	-
Lubelskie	3	9	-	4	-	-	-	-	-
Lubuskie	-	14	-	11	-	-	-	-	-
Łódzkie	2	17	-	5	1	-	-	1	-
Małopolskie	2	3	-	2	-	-	-	-	-
Mazowieckie	1	21	-	13	-	-	-	-	-
Opolskie	1	-	-	-	-	-	-	1	1
Podkarpackie	20	62	1	10	-	-	-	-	1
Podlaskie	1	13	-	9	-	1	-	1	-
Pomorskie	-	-	-	7	2	-	-	-	-
Śląskie	-	32	-	55	2	1	2	2	-
Świętokrzyskie	-	-	-	3	1	-	-	2	1
Warmińsko-Mazurskie	2	17	-	11	2	-	-	-	-
Wielkopolskie	2	28	-	31	3	-	-	-	-
Zachodniopomorskie	5	14	-	103	-	-	-	-	-

Influenza websites

www.ecdc.europa.eu/en/healthtopics/influenza
ECDC: Influenza

www.who.int/topics/influenza/en
WHO: Influenza

www.who.int/influenza/en
WHO: Global Influenza Programme (GIP)

www.euro.who.int/flu
WHO: Influenza and avian influenza

www.cdc.gov/flu/
CDC: Seasonal Influenza (Flu)

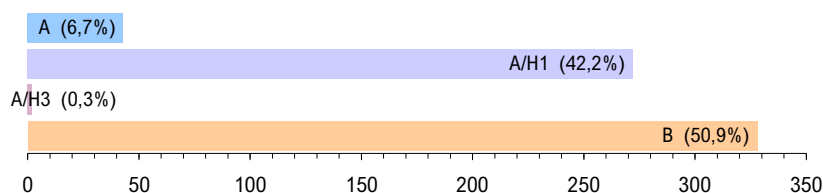
www.flu.gov
U.S. Government flu information

Explanations:

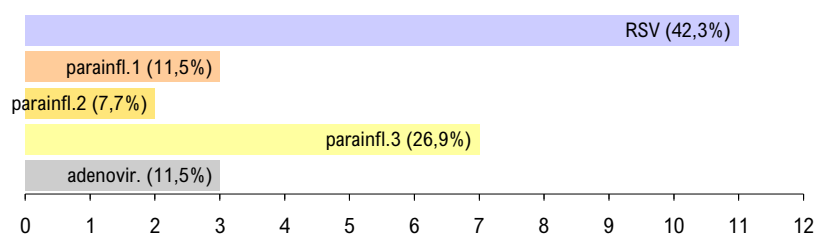
- 1) Isolation of virus, detection of virus antigen by immunofluorescence test (IF), detection of RNA/DNA specific for a given virus by molecular methods (PCR, real-time PCR).
- 2) Testing for infections with respiratory viruses other than influenza is not performed routinely.
- 3) Reporting periods used in the SENTINEL influenza surveillance system – calendar numbering of weeks (Monday - Sunday).
- 4) Identification of the isolated influenza virus strains is performed in the National Influenza Center, NIPH-NIH.

Laboratory confirmed ¹⁾ infections with influenza virus or other respiratory viruses ²⁾ and strains of influenza virus isolated ⁴⁾ in the epidemic season 2015/2016 by pathogen

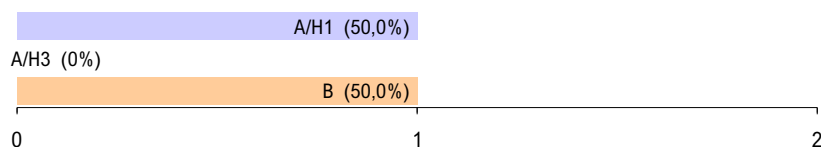
Influenza: number and percentage of laboratory confirmations by type of the virus



Other respiratory viruses: number and percentage of laboratory confirmations by pathogen



Influenza: number and percentage of the isolated influenza virus strains by type/subtype ⁵⁾



Number of influenza virus strains isolated ⁵⁾ in the epidemic season 2015/2016 by type and voivodeship

Voivodeship	Specimens collected between 31.08.2015 and 29.05.2016		
	A/H1	A/H3	B
POLAND	1	-	1
Dolnośląskie	-	-	-
Kujawsko-Pomorskie	-	-	-
Lubelskie	-	-	-
Lubuskie	-	-	-
Łódzkie	-	-	-
Małopolskie	-	-	-
Mazowieckie	1	-	1
Opolskie	-	-	-
Podkarpackie	-	-	-
Podlaskie	-	-	-
Pomorskie	-	-	-
Śląskie	-	-	-
Świętokrzyskie	-	-	-
Warmińsko-Mazurskie	-	-	-
Wielkopolskie	-	-	-
Zachodniopomorskie	-	-	-

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