

RSC Communicable and Respiratory Disease Report for England

Key Statistics:

Week Number/Year..... 46/2021
 Week Starting - Ending..... 15/11/2021 - 21/11/2021
 No. of Practices..... 506
 Population..... 5,172,783

National (England)

- **Acute Bronchitis** : increased from 6.1 in week 45 to 6.2 in week 46.
- **Asthma** : decreased from 15.4 in week 45 to 15.3 in week 46.
- **Common Cold** : increased from 2.6 in week 45 to 3.0 in week 46.
- **Influenza-like illness** : decreased from 2.9 in week 45 to 2.7 in week 46.
- **Respiratory System Diseases** : increased from 266.1 in week 45 to 273.6 in week 46.
- **COVID-19** : decreased from 307.3 in week 45 to 284.4 in week 46.

Regional (North, South, London and Midlands and East)

- **Acute Bronchitis** : decreased from 3.0 in week 45 to 2.6 in week 46 in the London region, increased from 8.9 in week 45 to 10.2 in week 46 in the North region, decreased from 6.3 in week 45 to 5.9 in week 46 in the South region, and decreased from 5.0 in week 45 to 4.5 in week 46 in the Midlands And East region.
- **Asthma** : increased from 11.7 in week 45 to 14.3 in week 46 in the London region, increased from 18.6 in week 45 to 19.6 in week 46 in the North region, decreased from 15.6 in week 45 to 13.4 in week 46 in the South region, and was unchanged at 13.7 in week 45 and 13.7 in week 46 in the Midlands And East region.
- **Common Cold** : was unchanged at 3.1 in week 45 and 3.1 in week 46 in the London region, increased from 2.1 in week 45 to 3.2 in week 46 in the North region, decreased from 2.7 in week 45 to 2.6 in week 46 in the South region, and increased from 2.8 in week 45 to 3.6 in week 46 in the Midlands And East region.
- **Influenza-like illness** : decreased from 2.9 in week 45 to 2.2 in week 46 in the London region, increased from 2.6 in week 45 to 3.2 in week 46 in the North region, decreased from 3.4 in week 45 to 2.7 in week 46 in the South region, and increased from 2.3 in week 45 to 2.6 in week 46 in the Midlands And East region.
- **Respiratory System Diseases** : increased from 214.1 in week 45 to 215.2 in week 46 in the London region, increased from 339.1 in week 45 to 348.3 in week 46 in the North region, increased from 238.8 in week 45 to 252.1 in week 46 in the South region, and increased from 265.9 in week 45 to 268.2 in week 46 in the Midlands And East region.
- **COVID-19** : decreased from 176.7 in week 45 to 168.0 in week 46 in the London region, decreased from 320.8 in week 45 to 273.6 in week 46 in the North region, decreased from 363.4 in week 45 to 341.9 in week 46 in the South region, and decreased from 317.8 in week 45 to 309.9 in week 46 in the Midlands And East region.

Comment:

Overall presentations of respiratory diseases have increased this week and they are close to the seasonal levels anticipated for this time of year.

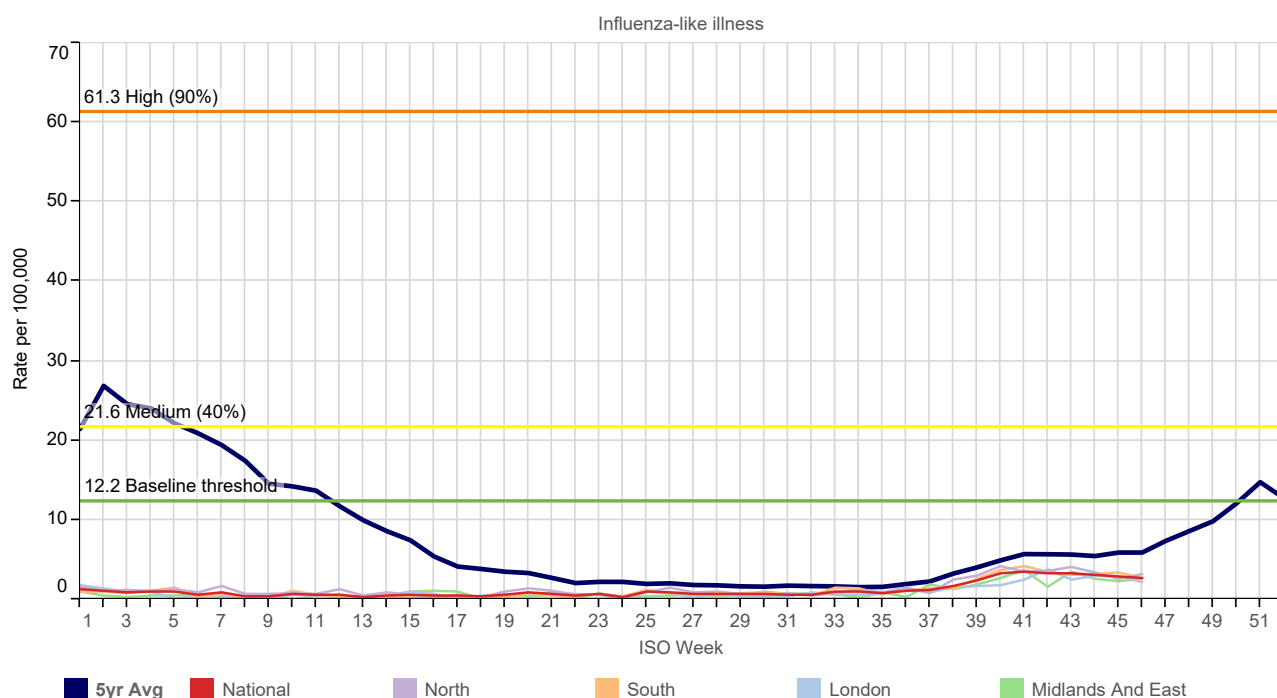
The overall rate of COVID-19 decreased though it increased in the population aged under 15 years. The number of COVID-19 cases increased a little in the Midlands and East region. COVID-19 incidence lags behind our other results, as this is a test rather than a clinical diagnosis, so this week's cases may not be complete.

This report includes a virology update. We are seeing circulating COVID-19, respiratory syncytial virus (RSV), and sporadic influenza.

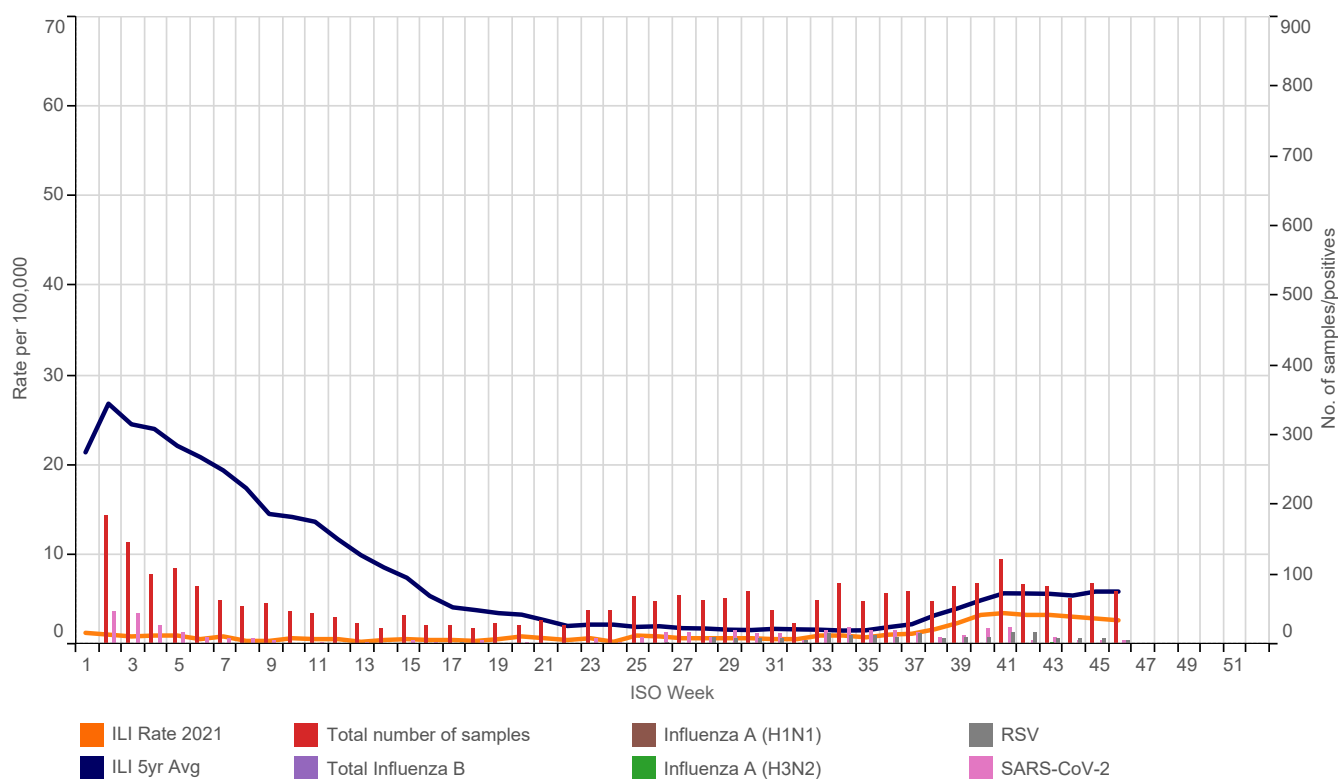
Winter Focus 2020/21

Please see page 15 for explanatory notes on the data.

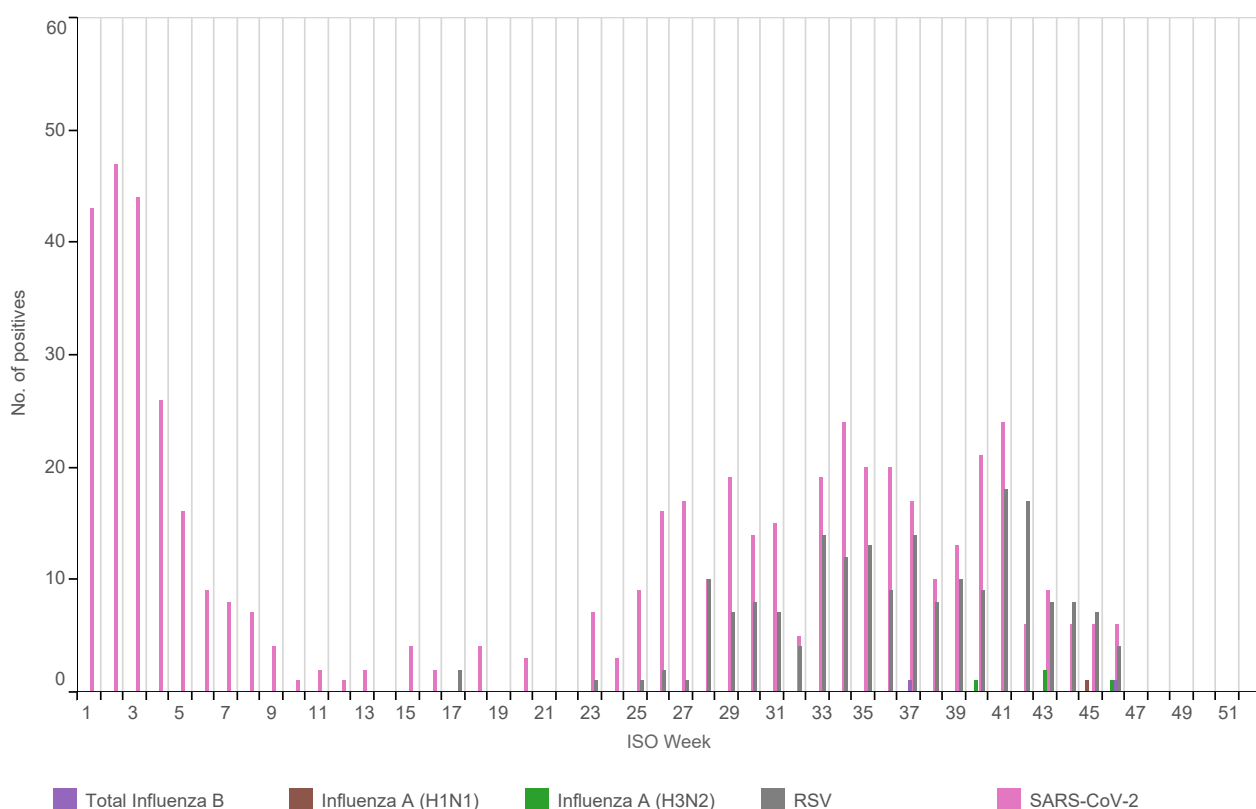
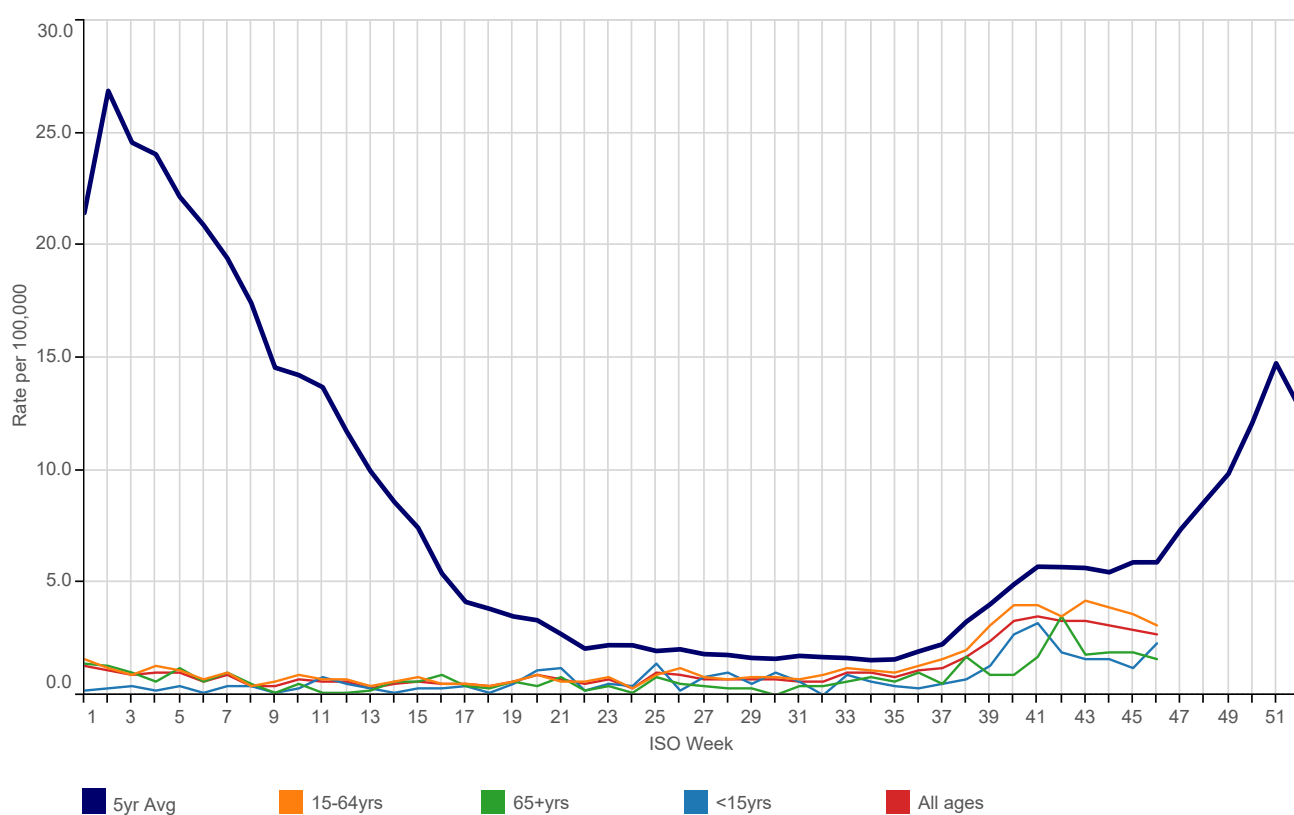
(A) Influenza-like illness: national incidence rate 2021 by region*



(B) RCGP/UKHSA RSV, Influenza and SARS-CoV-2 Virology Swab Surveillance 2021*



* The rolling average line (blue) is based on 5 year historic RCGP RSC level (Graph A). The weekly virology samples displayed are offset from the ISO Week (Graphs B & C).

(C) RCGP/UKHSA RSV, Influenza and SARS-CoV-2 Virology Swab Surveillance 2021 by viral strain***(D) Influenza-like illness: national incidence rate 2021 by age group***

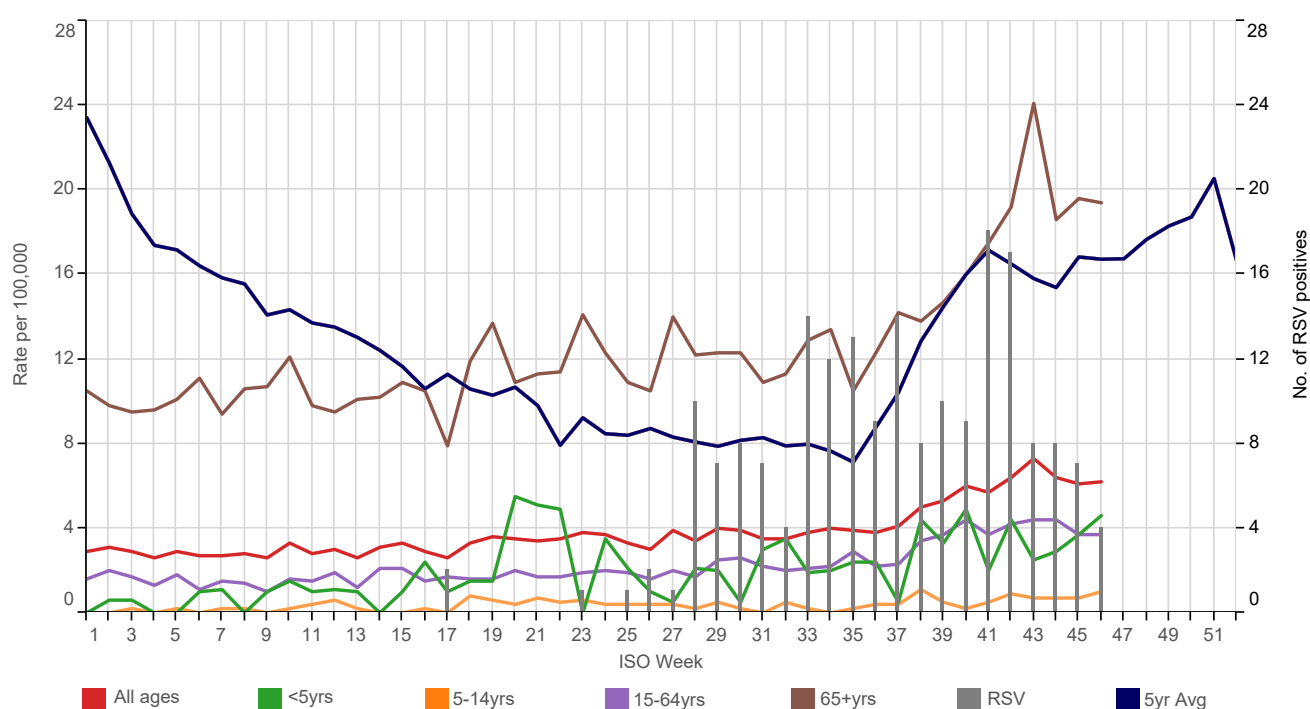
(E) Influenza-like illness: national incidence rate 2021 by age group*

This table shows the level of intensity of ILI by age band. MEM thresholds have been calculated separately for each age band - the ranges are shown in the table Threshold levels by age band.

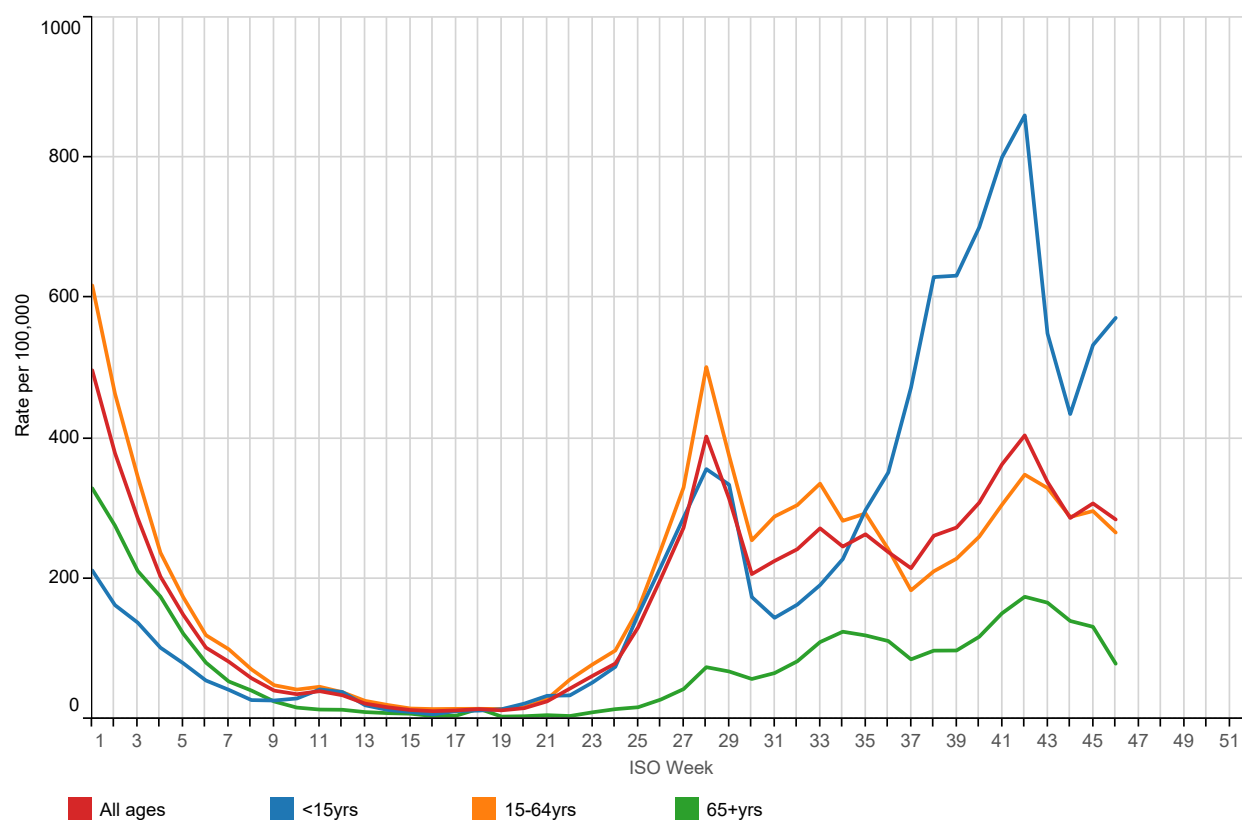
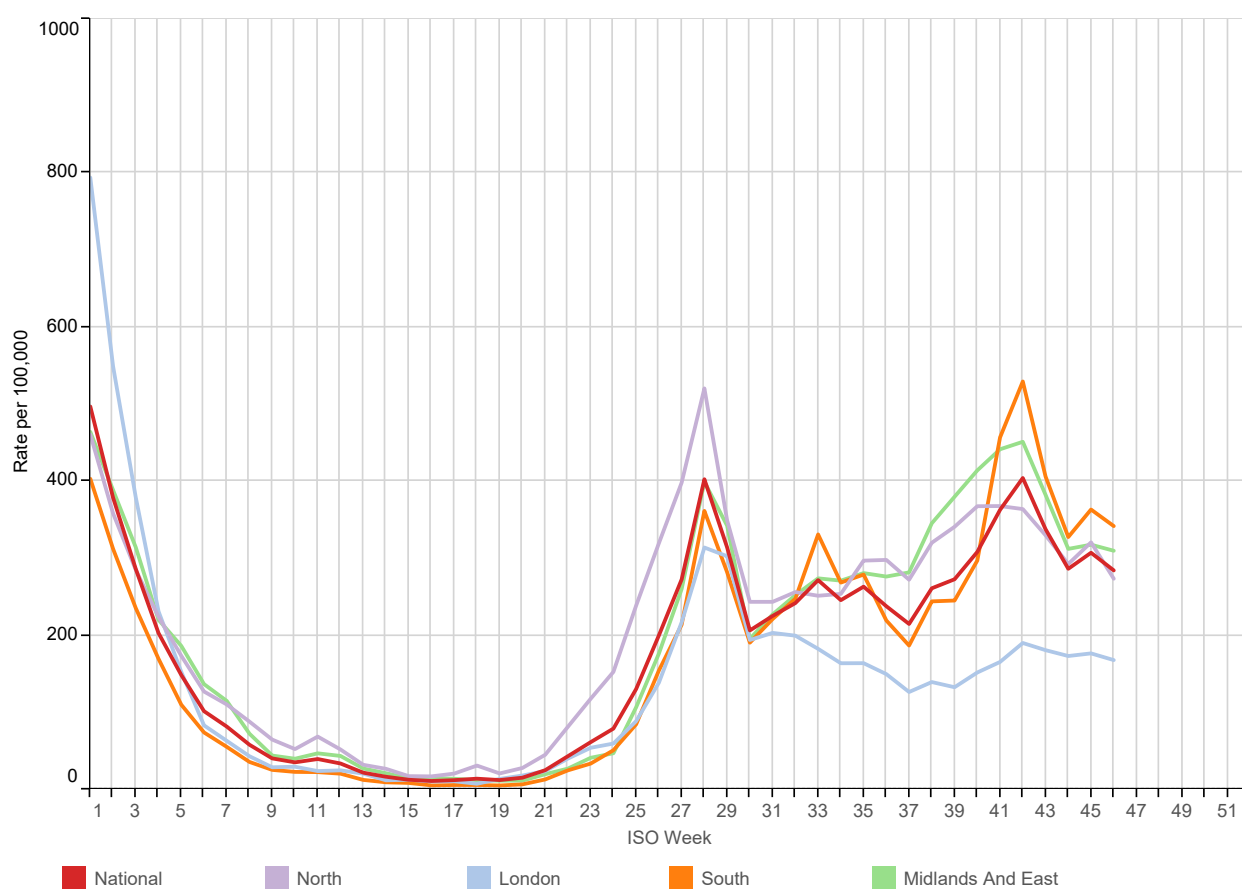
Table 1	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34
<15yrs	0.4	0.1	0.5	1.1	1.2	0.2	0.5	0.4	1.4	0.2	0.8	1.0	0.5	1.0	0.6	0.0	0.9	0.6
15-64yrs	0.5	0.4	0.6	0.9	0.6	0.6	0.8	0.3	0.9	1.2	0.8	0.7	0.8	0.8	0.7	0.9	1.2	1.1
65+yrs	0.4	0.3	0.6	0.4	0.8	0.2	0.4	0.1	0.8	0.5	0.4	0.3	0.3	0.0	0.4	0.4	0.6	0.8
All ages	0.5	0.4	0.6	0.9	0.7	0.5	0.7	0.3	1.0	0.9	0.7	0.7	0.7	0.7	0.6	0.6	1.0	1.0

	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52
<15yrs	0.4	0.3	0.5	0.7	1.3	2.7	3.2	1.9	1.6	1.6	1.2	2.3						
15-64yrs	1.0	1.3	1.6	2.0	3.1	4.0	4.0	3.5	4.2	3.9	3.6	3.1						
65+yrs	0.6	1.0	0.5	1.7	0.9	0.9	1.7	3.5	1.8	1.9	1.9	1.6						
All ages	0.8	1.1	1.2	1.7	2.4	3.3	3.5	3.3	3.3	3.1	2.9	2.7						

Table 2	Below Threshold ¹	Threshold to Medium ²	Medium to High ³	High to Very High ⁴	Above Very High ⁵
All Ages	<12.2	12.2 to <21.6	21.6 to <61.3	61.3 to <97.3	97.3+
<15yrs	<10.7	10.7 to <17.6	17.6 to <47.7	47.7 to <74.1	74.1+
15-64yrs	<15.0	15.0 to <26.1	26.1 to <63.4	63.4 to <93.8	93.8+
65+yrs	<11.5	11.5 to <16.5	16.5 to <37.8	37.8 to <54.5	54.5+

Threshold levels¹Below baseline threshold²baseline threshold breach to < 40th percentile³40th to <90th percentile⁴90th to <97.5th percentile⁵97.5th+ percentile**(F) Acute Bronchitis: national incidence rate 2021 by age group*****Weekly Influenza-like illness and Acute Bronchitis incidence rates per 100,000 persons**

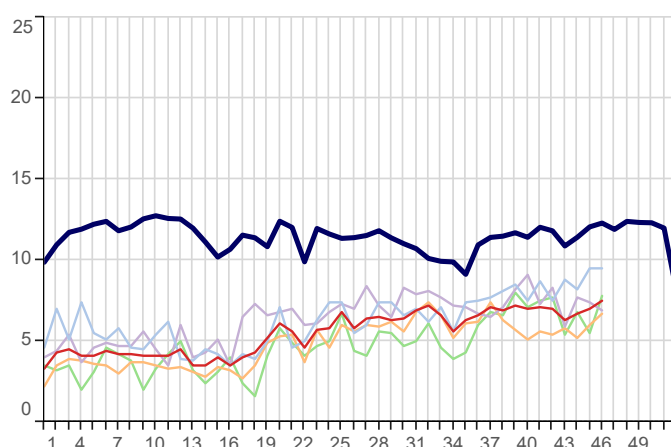
Influenza-like illness		Bronchitis		Influenza-like illness		Bronchitis	
<1yr	2.2	4.4	London	2.2	2.6		
1-4yrs	4.6	4.6	North	3.2	10.2		
5-14yrs	1.5	1.0	South	2.7	5.9		
15-24yrs	1.8	2.0	Midlands And East	2.6	4.5		
25-44yrs	3.4	1.7	National	2.7	6.2		
45-64yrs	3.5	6.8					
65-74yrs	2.3	20.6					
75-84yrs	0.7	19.9					
85+yrs	0.8	13.8					
All ages	2.7	6.2					

(G) COVID-19 : national incidence rate 2021 by age group***(H) COVID-19 : national incidence rate 2021 by region***

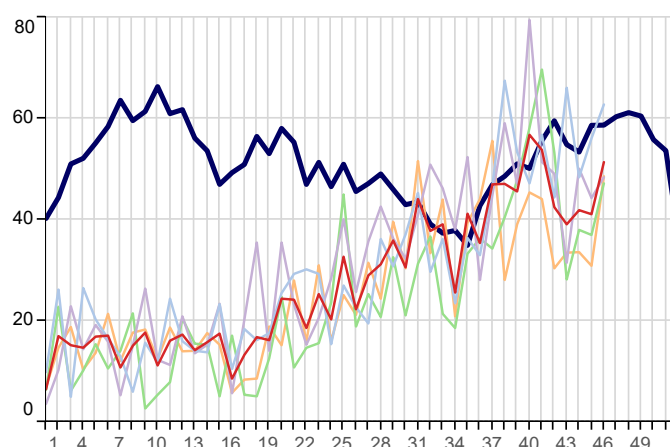
1. Water & Food Borne Disorders:

5yr Avg National London North South Midlands And East

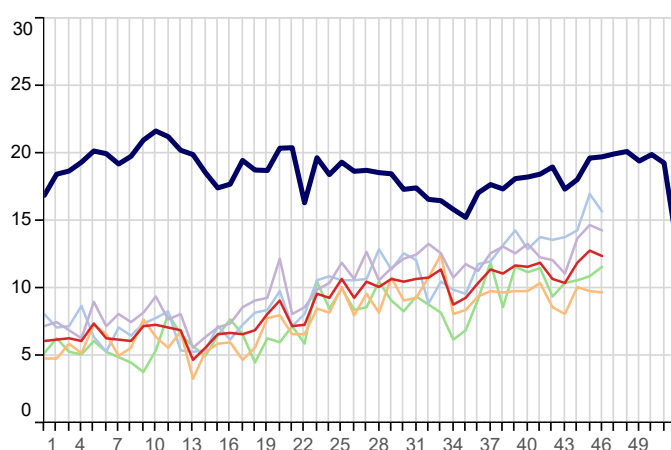
Infectious Intestinal Disease (ICD10: A00-A09)
Weekly incidence (per 100,000 **all ages**) by regions
for 2021 compared with 5 year average



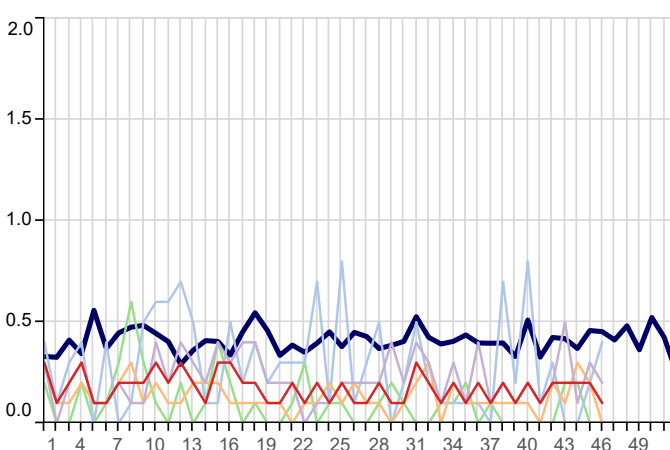
Infectious Intestinal Disease (ICD10: A00-A09)
Weekly incidence (per 100,000 **0-4 years**) by regions
for 2021 compared with 5 year average



Non-Infective Enteritis & Colitis (ICD10: K50-K52)
Weekly incidence (per 100,000 **all ages**) by region
for 2021 compared with 5 year average



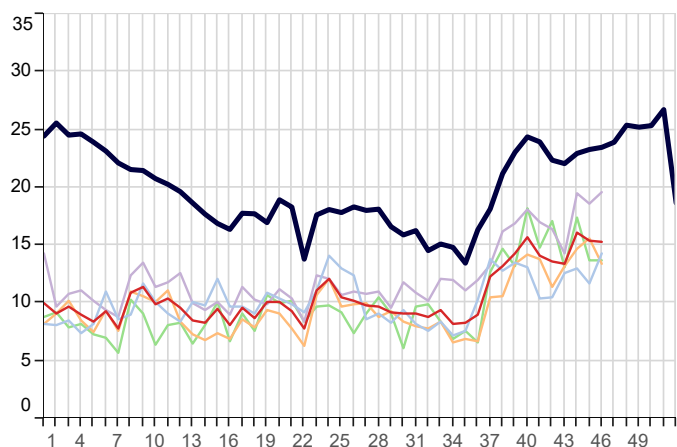
Viral Hepatitis (ICD10: B15-B19)
Weekly incidence (per 100,000 **all ages**) by region
for 2021 compared with 5 year average



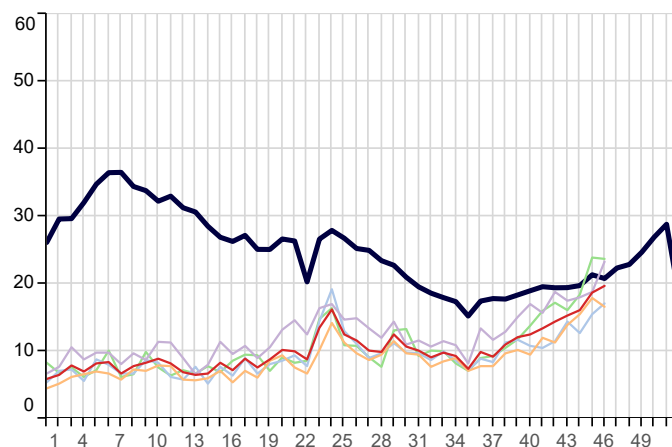
2. Environmentally Sensitive Disorders:

5yr Avg National London North South Midlands And East

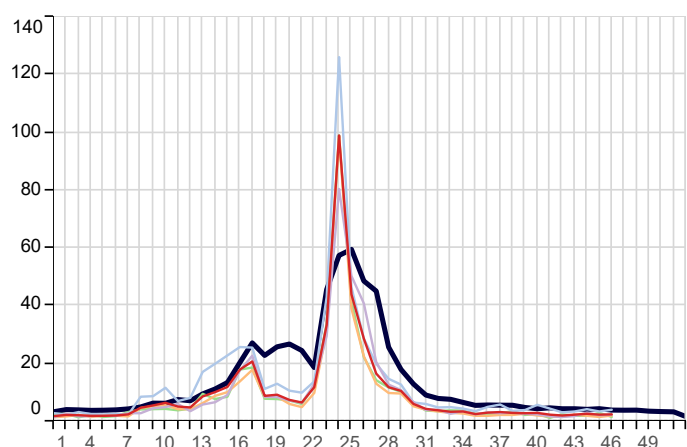
Asthma (ICD10: J45-J46)
Weekly incidence (per 100,000 all ages) by region
for 2021 compared with 5 year average



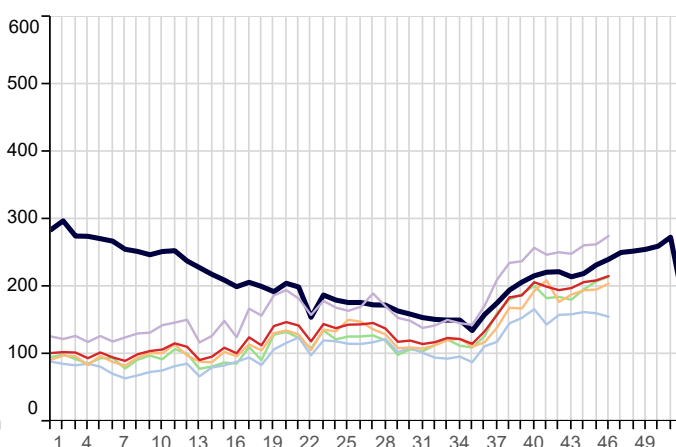
Disorders of Conjunctiva (ICD10: H10-H13)
Weekly incidence (per 100,000 all ages) by region
for 2021 compared with 5 year average



Hayfever/Allergic Rhinitis (ICD10: J30)
Weekly incidence (per 100,000 all ages) by region
for 2021 compared with 5 year average



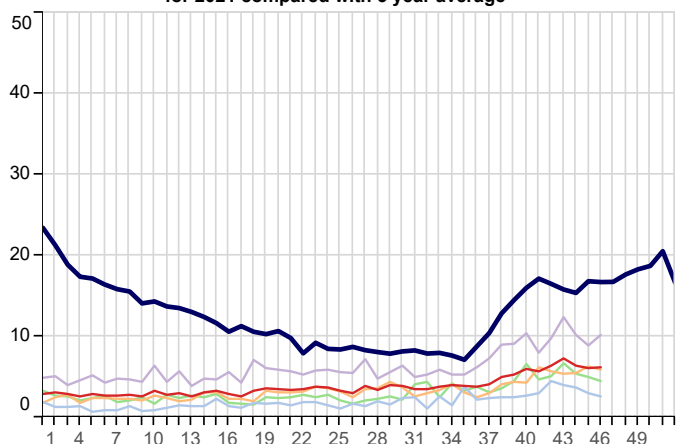
Symptoms involving Respiratory & Chest (ICD10: R05-R07,R09)
Weekly incidence (per 100,000 all ages) by region
for 2021 compared with 5 year average



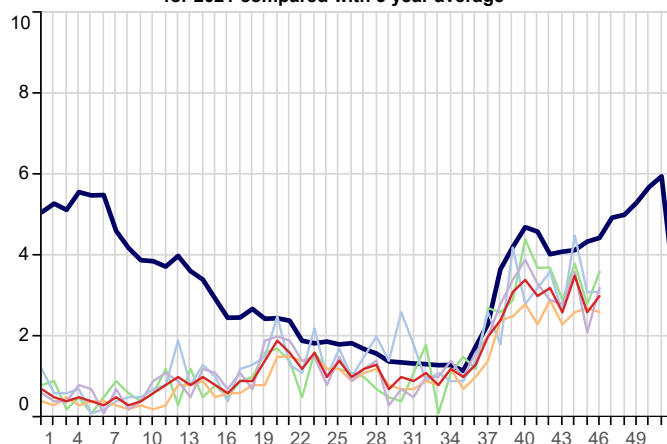
3. Respiratory Infections:

5yr Avg National London North South Midlands And East

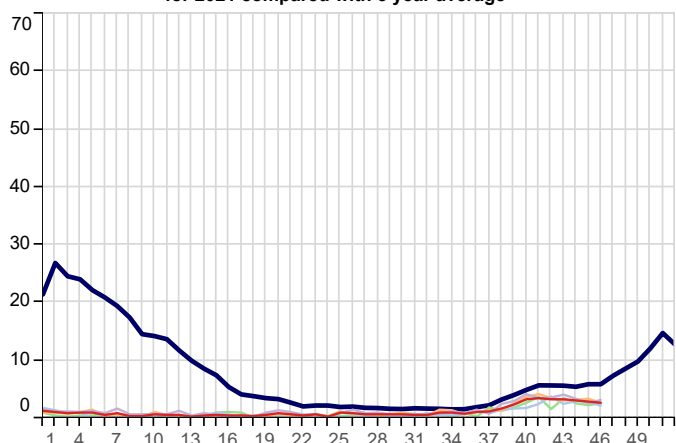
Acute Bronchitis (ICD10: J20-J21,J40)
Weekly incidence (per 100,000 all ages) by region
for 2021 compared with 5 year average



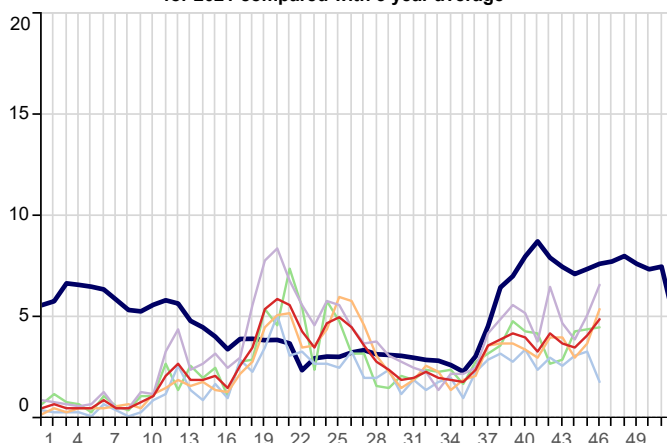
Common Cold (ICD10: J00,J06)
Weekly incidence (per 100,000 all ages) by region
for 2021 compared with 5 year average



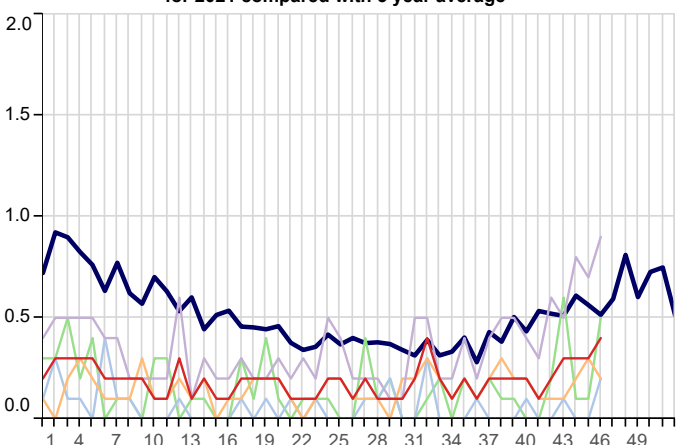
Influenza-like illness (ICD10: J09-J11)
Weekly incidence (per 100,000 all ages) by region
for 2021 compared with 5 year average



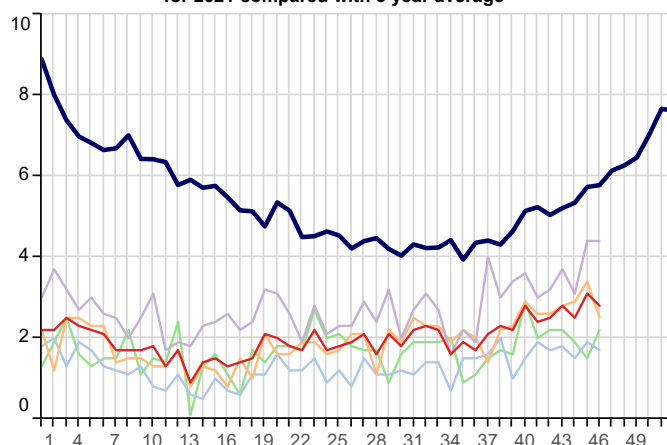
Acute Laryngitis/Tracheitis (ICD10: J04)
Weekly incidence (per 100,000 all ages) by region
for 2021 compared with 5 year average



Pleurisy (ICD10: R091)
Weekly incidence (per 100,000 all ages) by region
for 2021 compared with 5 year average



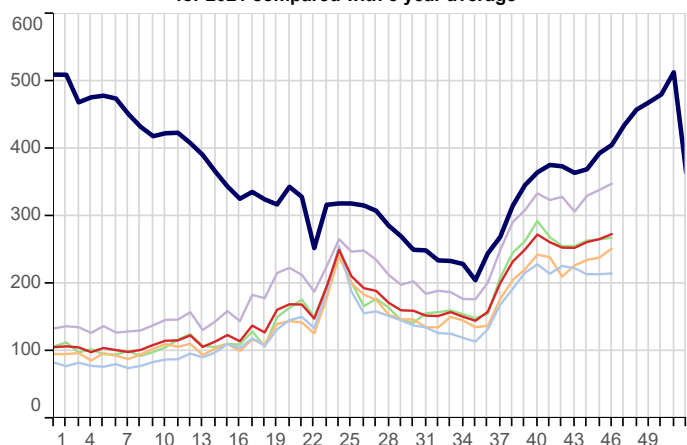
Pneumonia/Pneumonitis (ICD10: J12-J18)
Weekly incidence (per 100,000 all ages) by region
for 2021 compared with 5 year average



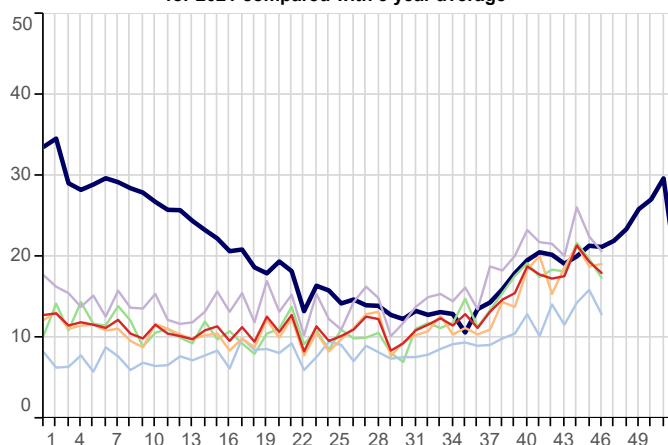
3. Respiratory Infections(Continued):

■ 5yr Avg ■ National ■ London ■ North ■ South ■ Midlands And East

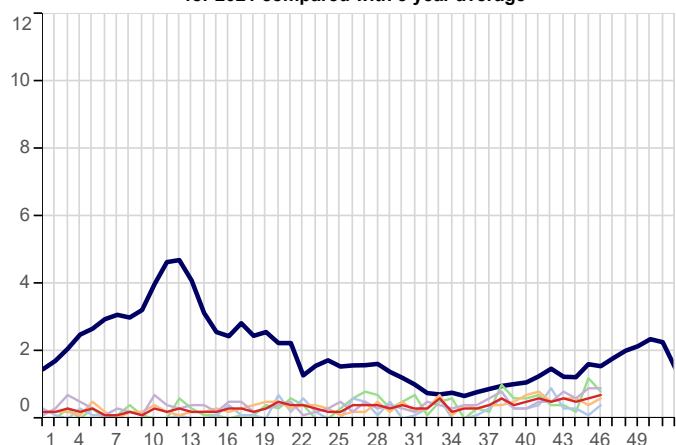
Respiratory System Diseases (ICD10: J00-J99)
Weekly incidence (per 100,000 all ages) by region
for 2021 compared with 5 year average



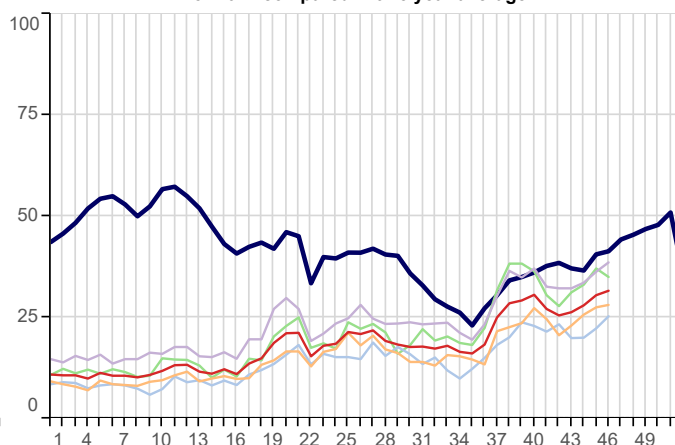
Acute Sinusitis (ICD10: J01)
Weekly incidence (per 100,000 all ages) by region
for 2021 compared with 5 year average



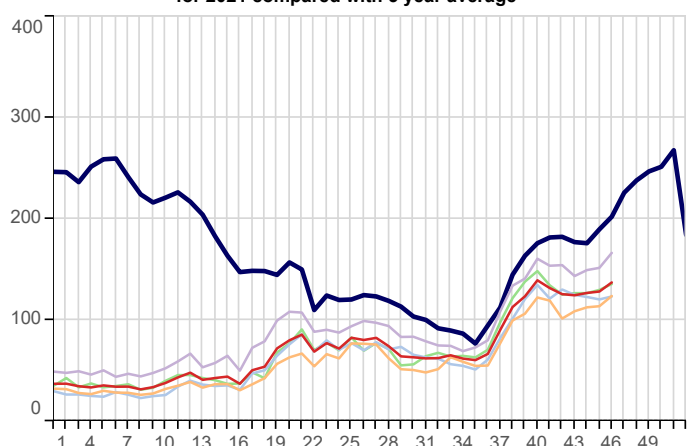
Strep Sore Throat, Scarletina and Peritonsillar Abscess (ICD10: A38,J02,J36)
Weekly incidence (per 100,000 all ages) by region
for 2021 compared with 5 year average



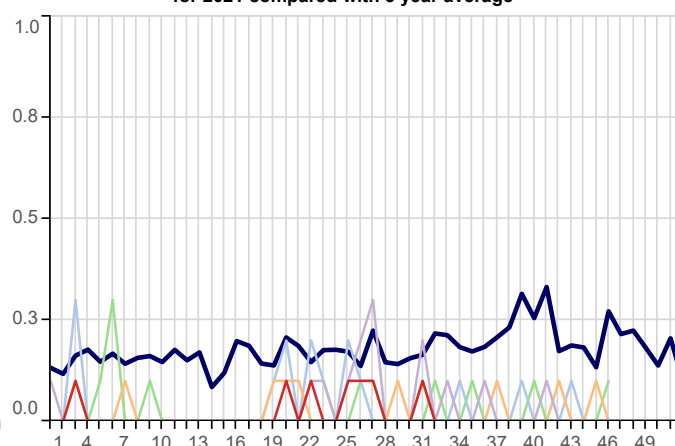
Acute Tonsillitis/Pharyngitis (ICD10: J02-J03)
Weekly incidence (per 100,000 all ages) by region
for 2021 compared with 5 year average



Upper Respiratory Tract Infections (URTI)(ICD10: J00-J06)
Weekly incidence (per 100,000 all ages) by region
for 2021 compared with 5 year average



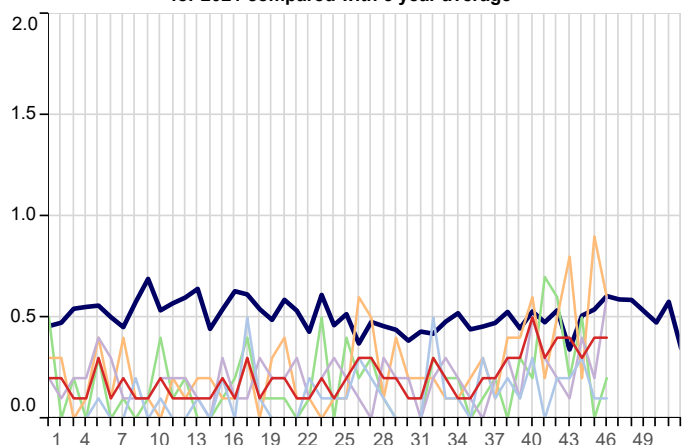
Whooping Cough (ICD10: A37)
Weekly incidence (per 100,000 all ages) by region
for 2021 compared with 5 year average



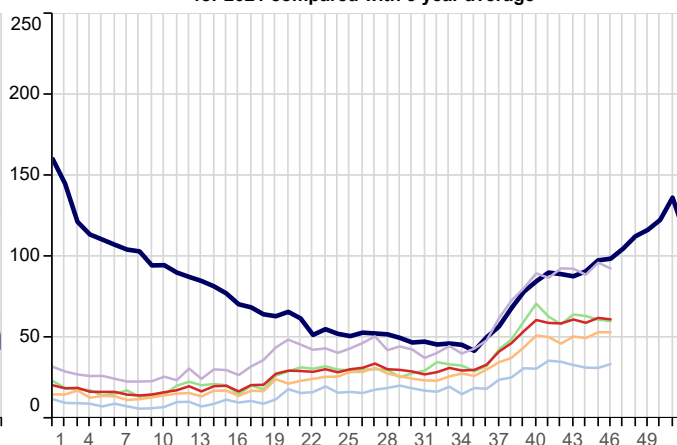
3. Respiratory Infections(Continued):

5yr Avg National London North South Midlands And East

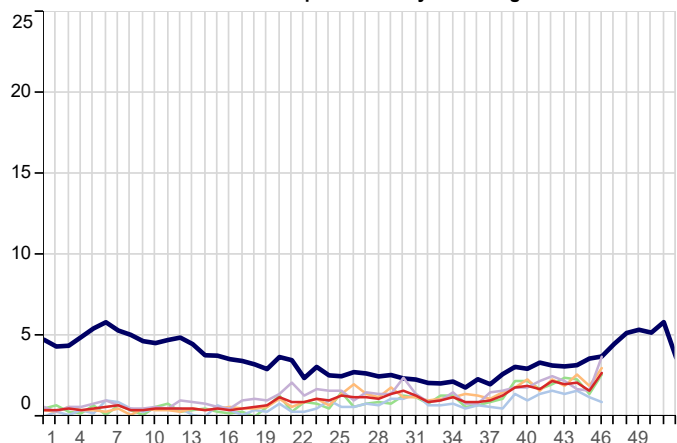
Infectious Mononucleosis (ICD10: B27)
Weekly incidence (per 100,000 all ages) by region
for 2021 compared with 5 year average



Lower Respiratory Tract Infections (LRTI)(ICD10: J20-J22)
Weekly incidence (per 100,000 all ages) by region
for 2021 compared with 5 year average



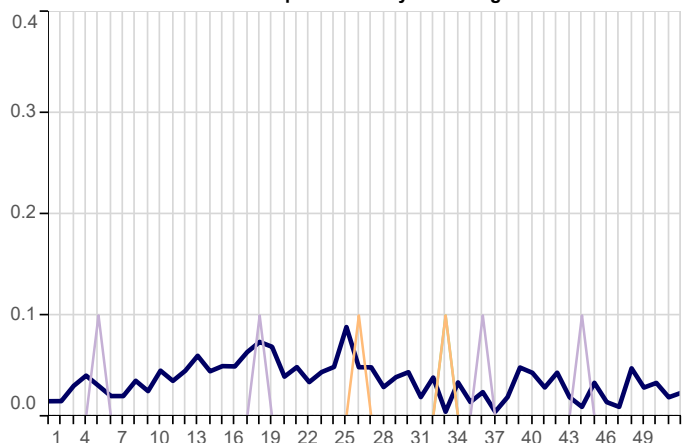
Acute Otitis Media (ICD10: H650-H651,H660,H669)
Weekly incidence (per 100,000 all ages) by region
for 2021 compared with 5 year average



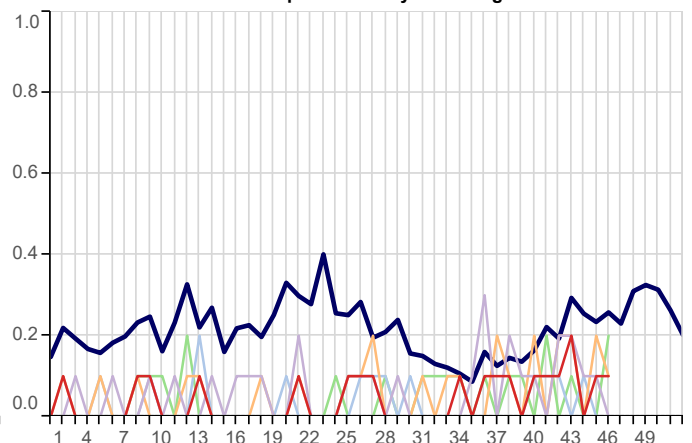
4. Vaccine Sensitive Disorders

5yr Avg National London North South Midlands And East

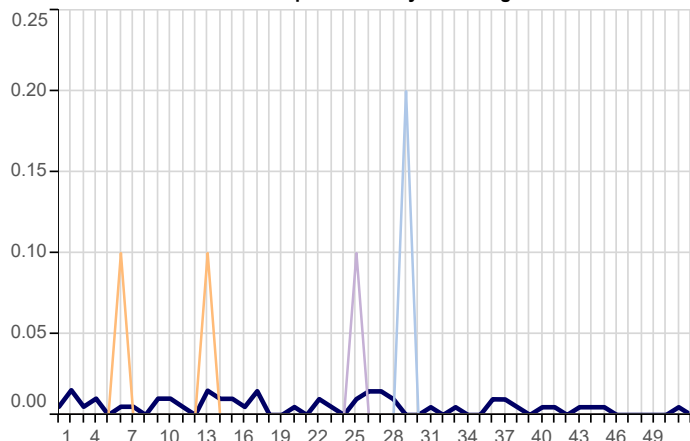
Measles (ICD10: B05)
Weekly incidence (per 100,000 all ages) by region
for 2021 compared with 5 year average



Mumps (ICD10: B26)
Weekly incidence (per 100,000 all ages) by region
for 2021 compared with 5 year average

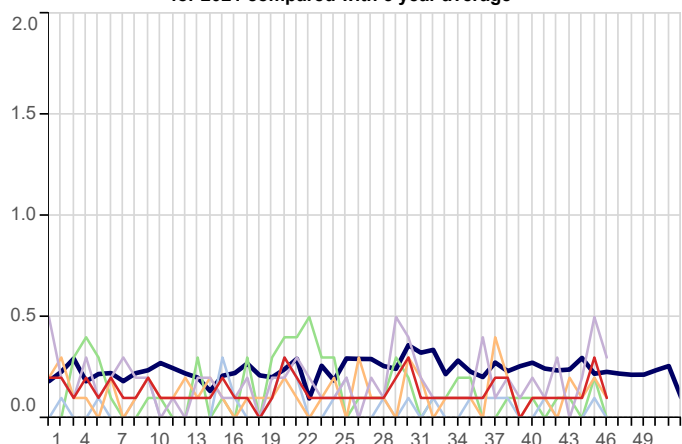


Rubella (ICD10: B06)
Weekly incidence (per 100,000 all ages) by region
for 2021 compared with 5 year average

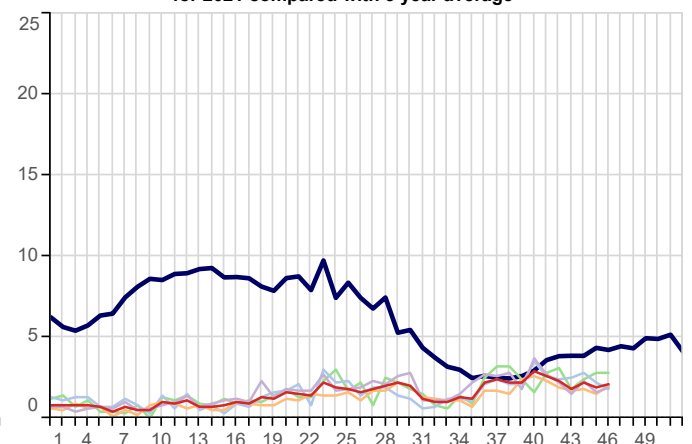


5. Skin Contagions

Bullous Dermatoses (ICD10: L10-L14)
Weekly incidence (per 100,000 all ages) by region
for 2021 compared with 5 year average



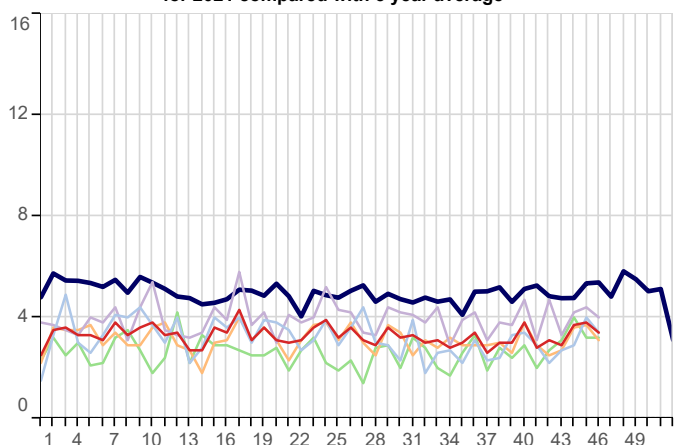
Chickenpox (ICD10: B01)
Weekly incidence (per 100,000 all ages) by region
for 2021 compared with 5 year average



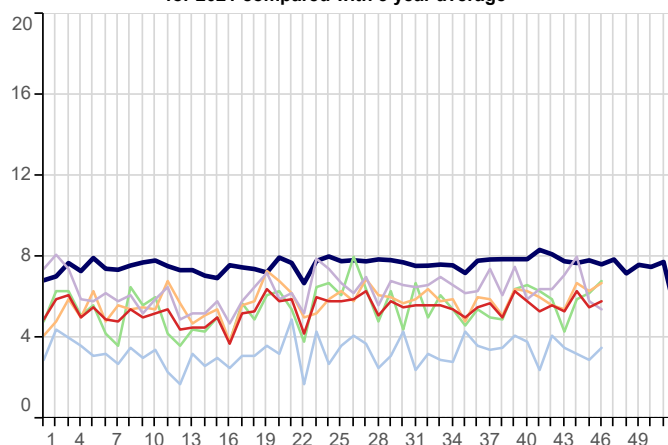
5. Skin Contagions (Continued)

5yr Avg National London North South Midlands And East

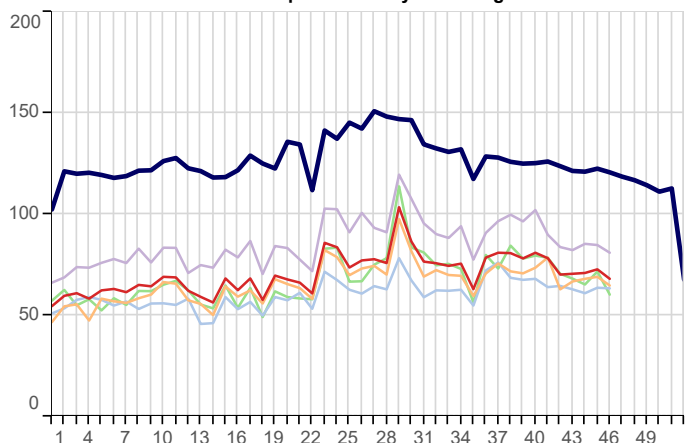
Herpes Simplex (ICD10: B00)
Weekly incidence (per 100,000 all ages) by region
for 2021 compared with 5 year average



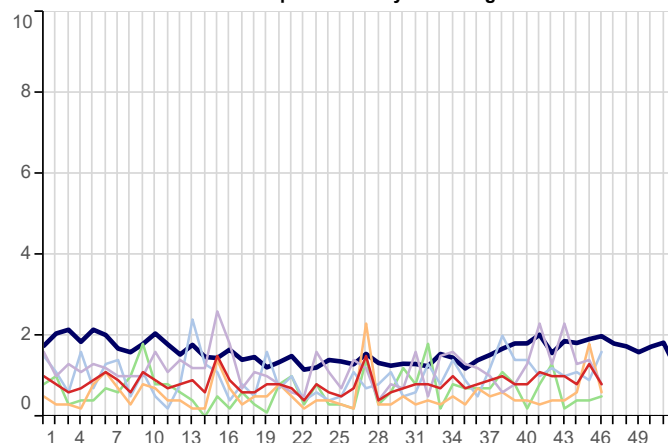
Herpes Zoster (ICD10: B02)
Weekly incidence (per 100,000 all ages) by region
for 2021 compared with 5 year average



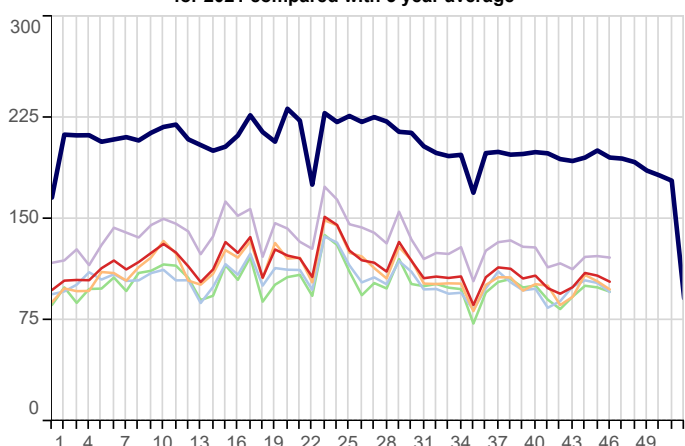
Infections of Skin & Subcutaneous Tissue (ICD10: L00-L08)
Weekly incidence (per 100,000 all ages) by region
for 2021 compared with 5 year average



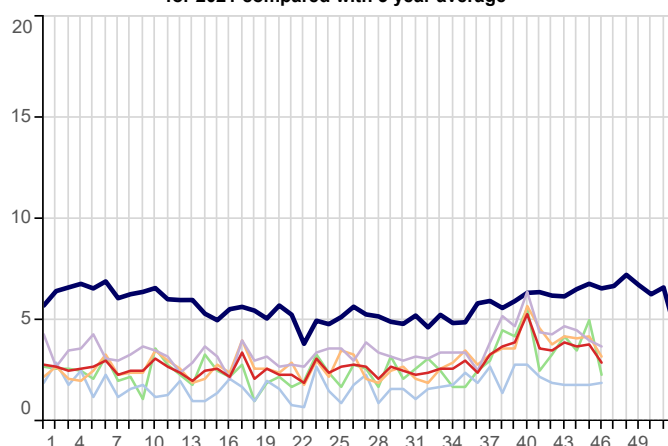
Scabies (ICD10: B86)
Weekly incidence (per 100,000 all ages) by region
for 2021 compared with 5 year average



Symptoms involving Skin & Oth Integument Tiss (ICD10: R20-R23)
Weekly incidence (per 100,000 all ages) by region
for 2021 compared with 5 year average



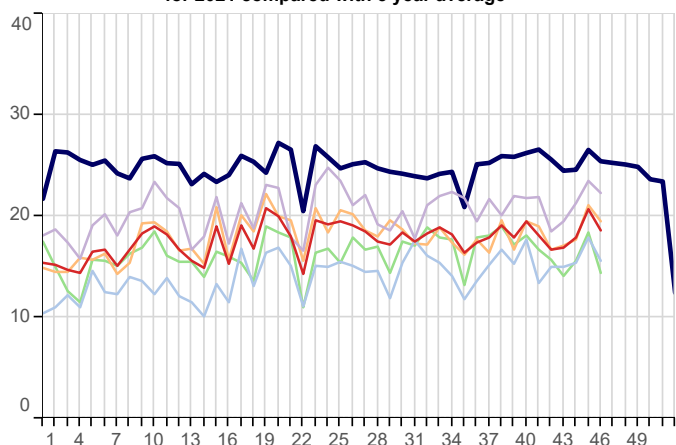
Impetigo (ICD10: L01)
Weekly incidence (per 100,000 all ages) by region
for 2021 compared with 5 year average



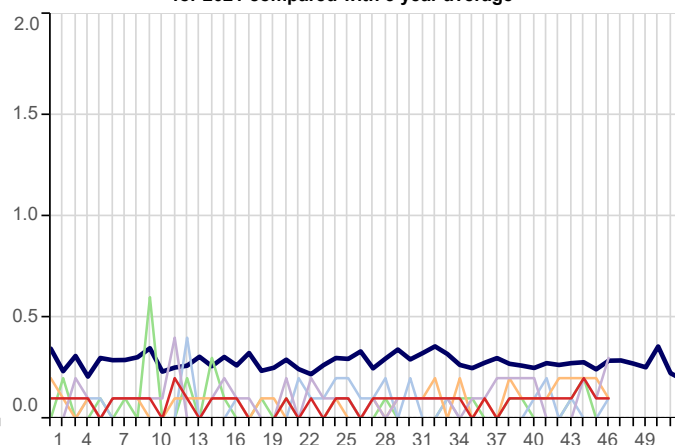
6. Disorders Affecting the Nervous System

5yr Avg National London North South Midlands And East

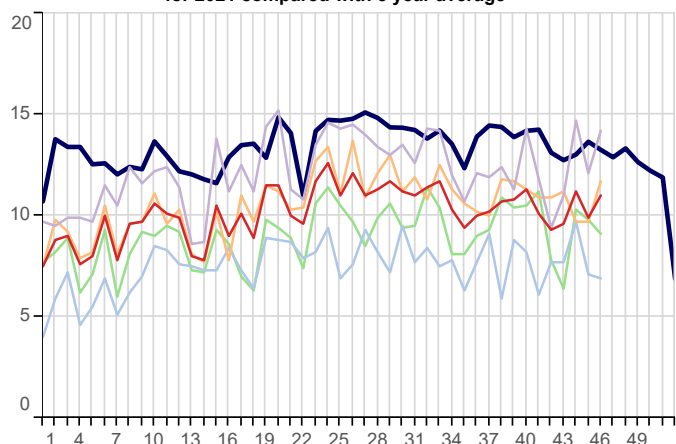
Disorders of The Peripheral Nervous System (ICD10: G50-G64,G70-G72)
Weekly incidence (per 100,000 all ages) by region
for 2021 compared with 5 year average



Meningitis/Encephalitis (ICD10: A170-A171,A390,A38-A85,A87,G00-G05)
Weekly incidence (per 100,000 all ages) by region
for 2021 compared with 5 year average

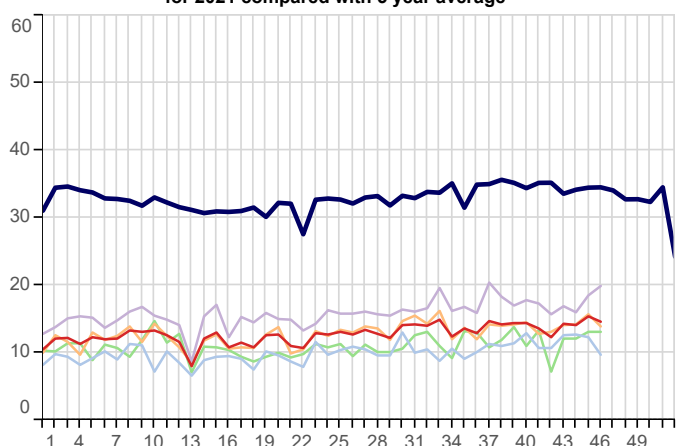


Symptoms Involving Nervous & Musculoskeletal (ICD10: R25-R29)
Weekly incidence (per 100,000 all ages) by region
for 2021 compared with 5 year average



7. Genitourinary System Disorders

Urinary Tract Infection/Cystitis (ICD10: N30,N390)
Weekly incidence (per 100,000 all ages) by region
for 2021 compared with 5 year average



8. Tabular Summary by Disease

Disease Name	Week beginning Week ending		15/11/2021 21/11/2021		08/11/2021 14/11/2021		01/11/2021 07/11/2021		25/10/2021 31/10/2021	
	Rate	Numer	Rate	Numer	Rate	Numer	Rate	Numer	Rate	Numer
Allergic Rhinitis	2.5	128	2.4	122	2.7	134	2.4	115		
Asthma	15.3	793	15.4	780	16.1	790	13.4	640		
Bronchitis	6.2	319	6.1	312	6.4	314	7.3	347		
Bullous Dermatoses	0.1	5	0.3	14	0.1	4	0.1	4		
Chickenpox	2.1	107	1.9	96	2.2	110	1.8	88		
Common Cold	3.0	156	2.6	133	3.5	170	2.6	125		
Conjunctival Disorders	19.7	1,020	18.7	949	16.1	789	15.3	734		
Herpes Simplex	3.4	176	3.8	195	3.7	181	2.9	140		
Herpes Zoster	5.8	298	5.5	279	6.3	307	5.3	253		
Impetigo	2.9	152	3.8	194	3.7	180	3.9	186		
Infectious Mononucleosis	0.4	23	0.4	20	0.3	15	0.4	18		
Influenza-like illness	2.7	141	2.9	147	3.1	154	3.3	159		
Infectious Intestinal Diseases	7.5	388	7.0	354	6.7	329	6.3	303		
Laryngitis and Tracheitis	4.9	253	4.1	210	3.5	171	3.7	179		
Lower Respiratory Tract Infections	61.3	3,173	62.2	3,157	59.2	2,897	61.2	2,927		
Measles	0.0	0	0.0	0	0.0	1	0.0	0		
Meningitis and Encephalitis	0.1	7	0.1	5	0.2	8	0.1	5		
Mumps	0.1	4	0.1	4	0.0	2	0.2	8		
Non-infective Enteritis and Colitis	12.4	642	12.8	648	11.9	584	10.4	499		
Otitis Media Acute	2.7	141	1.6	82	2.1	105	2.0	94		
Peripheral Nervous Disease	18.6	964	20.7	1,049	17.9	875	16.9	806		
Pleurisy	0.4	22	0.3	16	0.3	15	0.3	15		
Pneumonia and Pneumonitis	2.8	146	3.1	156	2.5	124	2.8	132		
Respiratory System Diseases	273.6	14,154	266.1	13,516	261.8	12,815	253.2	12,113		
Rubella	0.0	0	0.0	0	0.0	0	0.0	0		
Scabies	0.8	43	1.3	64	0.8	41	1.0	48		
Sinusitis	18.0	933	19.4	985	21.4	1,047	17.6	843		
Skin and Subcutaneous Tissue Infections	68.1	3,524	72.8	3,697	71.0	3,473	70.6	3,375		
Strep Throat and Peritonsillar Abscess	0.7	35	0.6	30	0.5	24	0.6	27		
Symptoms involving musculoskeletal	11.0	569	9.9	501	11.2	548	9.6	461		
Symptoms involving Respiratory and Chest	215.8	11,165	209.3	10,630	206.8	10,122	198.0	9,469		
Symptoms involving Skin and Integument Tissues	103.5	5,355	108.0	5,484	110.0	5,385	99.4	4,755		
Tonsillitis and acute Pharyngitis	31.6	1,633	30.5	1,550	28.0	1,372	26.3	1,260		
Upper Respiratory Tract Infections	137.3	7,102	128.3	6,514	126.9	6,214	124.6	5,960		
Urinary Tract Infections	14.6	753	15.4	780	14.1	688	14.3	682		
Viral Hepatitis	0.1	7	0.2	9	0.2	9	0.2	10		
Whooping Cough	0.0	1	0.0	1	0.0	0	0.0	1		
Practice Count		506		504		490		482		
Denom		5,172,783		5,079,016		4,894,845		4,783,235		

FURTHER INFORMATION:

About the report

Winter focus

The first two pages of data within this report focus on Influenza-like illness and COVID-19, in order to provide information about seasonal influenza and early warnings of any epidemic.

Rate calculation

Each weekly incidence rate is presented per 100,000 population. All presentations are for males and females, and for all age groups, unless otherwise stated.

The denominator used for this report is taken from our most recent extract of data from GP practice systems, and includes all patients currently registered with eligible practices. The denominator varies week-on-week as patients register and deregister; it may also be the case that all patients from an individual practice are excluded because of problems with the data extraction from that practice in a specific week. As stated above, patients who have withheld consent for data-sharing are excluded.

In addition to the national rate, we present data for the four NHS England regions: North; Midlands and East; South; and London.

Five-year averages

Weekly rates are set against a five-year average, previously we reported against a ten-year average. The change to a five-year average was made because longer-term trends in the incidence of disease have led to weekly rates for certain diseases becoming increasingly divergent from their ten-year average. The use of five-year averages lessens this effect and enables more meaningful comparison.

Threshold calculation for Influenza-Like Illness (ILI)

We are now using the Moving Epidemic Method (MEM) to calculate threshold and intensity levels for Influenza-Like Illness. MEM works by identifying seasonal epidemic peaks and then calculates thresholds and intensity levels based on the pre and post epidemic values. This allows us to report the severity of ILI against multiple thresholds, rather than a simple comparison with the five-year average as the wide variation in ILI year on year, especially during the seasonal peak, makes the average less representative.

In addition to the All Ages thresholds, we have also calculated thresholds for three age bands: those aged under 15, 15-64 year olds and those aged 65 and over. ILI incidence rates vary among different age groups, and the age-specific thresholds allow us to highlight epidemics where ILI disproportionately affects a particular age group.

This methodology is used by the European Centre for Disease Prevention and Control to standardise reporting of influenza activity across Europe, and is also in use by the UK Health Security Agency. Full details of the methodology can be found in: Vega *et al.* (2012) Influenza surveillance in Europe: establishing epidemic thresholds by the moving epidemic method. Influenza and Other Respiratory Viruses 7(4), 546–558. For ease of graphical representation, the final threshold (Very High) is not included in Graph A, page 2, but it is part of Table 3, page 3.

Both the *all-ages* thresholds and the *age-specific* thresholds are shown in Table 2, page 3. Ten years of data were used for *all-ages* and *age-specific* thresholds calculation (winter seasons 2006/07- 2016/17 excluding 2009/10).

About the Royal College of General Practitioners (RCGP) Research and Surveillance Centre (RSC)

Acknowledgement:

Staff from the Data Science department at the National Physical Laboratory (<https://www.npl.co.uk/data-science>) assisted in the provision of and extension of the primary care national surveillance reports during the 2020 SARS-CoV-2 pandemic; as well as adding resilience.

What we do

The RCGP RSC was established in 1957, with the current name in use since 2009. The Centre is an internationally renowned source of information, analysis and interpretation concerning the onset, patterns, prevalence and trends over time of morbidity in primary care. The RSC is an active research and surveillance unit that collects and monitors data; its most important research is the surveillance of influenza and the monitoring of vaccine effectiveness.

The RSC data and analytics hub is housed at the Oxford-Royal College of General Practitioners Research and Surveillance Centre.

Further information about the RSC can be found on our website:

<http://www.rcgp.org.uk/rsc>

Our data extraction process and information governance

Data are extracted twice weekly from practice systems by Wellbeing data management on the RCGP's behalf. Patients who have withheld consent for data sharing are excluded from the extraction process.

Data are pseudonymised as close to source as possible. Data are held on secure servers at the RCGP data and analytics hub at the Oxford-Royal College of General Practitioners Research and Surveillance Centre. Both Wellbeing data management and the University of Oxford are Registered and compliant with the Data Protection Act and fully compliant with all relevant NHS Digital data information governance best practice.

What the data is used for

The RCGP RSC has been providing reports weekly about health and disease, called the Weekly Returns Service (WRS) since 1964. The WRS monitors the number of patients consulting with new episodes of illness classified by diagnosis in England and provides weekly incidence rates per 100,000 population for these new episodes of illness. It is the key primary care element of the national disease monitoring systems run by the UK Health Security Agency. The bulletin can be found at the following URL:

<https://www.gov.uk/government/publications/syndromic-surveillance-summary>

In addition to the WRS, the data is used for other research studies. Any other uses of the data for research follow ethical approval or agreement from NIHR proportionate review, and where relevant Health Research Authority Confidential Advisory Group advice that further approval is not needed. Full details can be found on our website:

<http://www.rcgp.org.uk/rsc>

For further information

For further information about the work of the RSC, or if you would like to be included on our email notification list, please contact:

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