



## RSC Communicable and Respiratory Disease Report for England

### Key Statistics:

Week Number/Year.....	24/2024
Week Starting - Ending.....	10/06/2024 - 16/06/2024
No. of Practices.....	1,613
Population.....	16,480,681

#### National (England)

- **Acute Respiratory Infections:** decreased from **222.4** in week 23 to **219.4** in week 24.
- **Influenza-like illness:** increased from **1.9** in week 23 to **2.2** in week 24.
- **Exacerbations of Chronic Lung Disease:** decreased from **16.3** in week 23 to **16.1** in week 24.
- **Lower Respiratory Tract Infections:** decreased from **78.2** in week 23 to **76.3** in week 24.
- **Upper Respiratory Tract Infections:** decreased from **135.4** in week 23 to **133.8** in week 24.
- **COVID-19:** increased from **3.2** in week 23 to **3.7** in week 24.

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

- **Acute Respiratory Infections:** increased from **174.0** in week 23 to **174.2** in week 24 in the London region, decreased from **269.6** in week 23 to **267.2** in week 24 in the North region, decreased from **196.4** in week 23 to **193.2** in week 24 in the South region, and decreased from **245.8** in week 23 to **240.1** in week 24 in the Midlands And East region.
- **Influenza-like illness:** increased from **2.8** in week 23 to **3.2** in week 24 in the London region, increased from **1.7** in week 23 to **2.0** in week 24 in the North region, increased from **1.9** in week 23 to **2.2** in week 24 in the South region, and increased from **1.4** in week 23 to **1.5** in week 24 in the Midlands And East region.
- **Exacerbations of Chronic Lung Disease:** increased from **9.0** in week 23 to **10.2** in week 24 in the London region, decreased from **23.5** in week 23 to **22.9** in week 24 in the North region, decreased from **14.6** in week 23 to **13.9** in week 24 in the South region, and decreased from **16.8** in week 23 to **16.4** in week 24 in the Midlands And East region.
- **Lower Respiratory Tract Infections:** increased from **48.1** in week 23 to **49.8** in week 24 in the London region, decreased from **99.5** in week 23 to **99.1** in week 24 in the North region, decreased from **71.9** in week 23 to **67.6** in week 24 in the South region, and decreased from **88.0** in week 23 to **85.1** in week 24 in the Midlands And East region.
- **Upper Respiratory Tract Infections:** decreased from **120.4** in week 23 to **116.2** in week 24 in the London region, decreased from **158.3** in week 23 to **155.1** in week 24 in the North region, decreased from **116.9** in week 23 to **116.5** in week 24 in the South region, and was unchanged at **148.3** in week 23 and **148.3** in week 24 in the Midlands And East region.
- **COVID-19:** was unchanged at **2.6** in week 23 and **2.6** in week 24 in the London region, increased from **3.4** in week 23 to **4.0** in week 24 in the North region, increased from **3.3** in week 23 to **4.3** in week 24 in the South region, and increased from **3.2** in week 23 to **3.6** in week 24 in the Midlands And East region.

### Comment:

Overall rates of acute respiratory infections (ARI, page 6) have decreased in all regions except London. Rates of influenza-like illness (ILI, page 2) increased this week in all regions, and remain above the seasonal average. Rates of COVID-19 (page 5) also increased slightly in most regions.

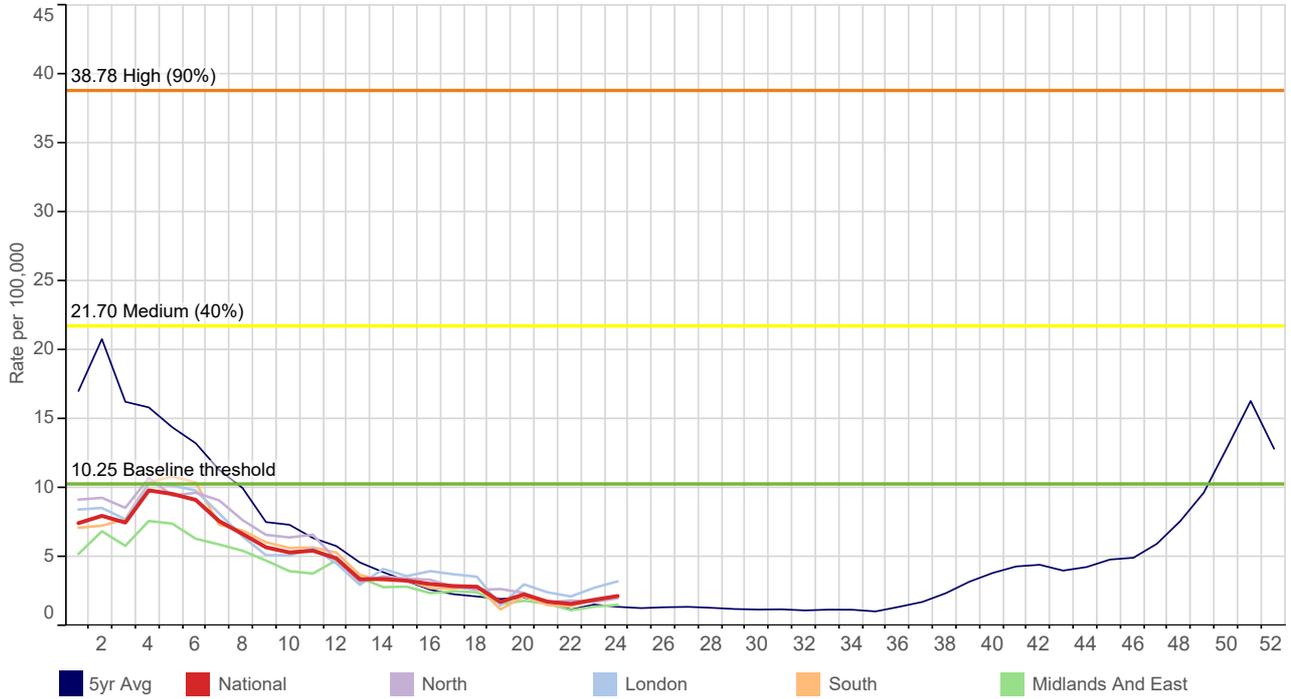
Pneumonia rates (page 9) have decreased and sit above the seasonal average. Rates of measles and whooping cough (page 14), and scabies (page 15) remain above their seasonal averages. We anticipate hayfever/allergic rhinitis (page 13) peaking in the coming weeks.

This report includes a respiratory virology update. SARS-CoV-2, influenza and RSV are the predominant circulating viruses detected by the UK Health Security Agency (UKHSA) Reference Virology Lab.

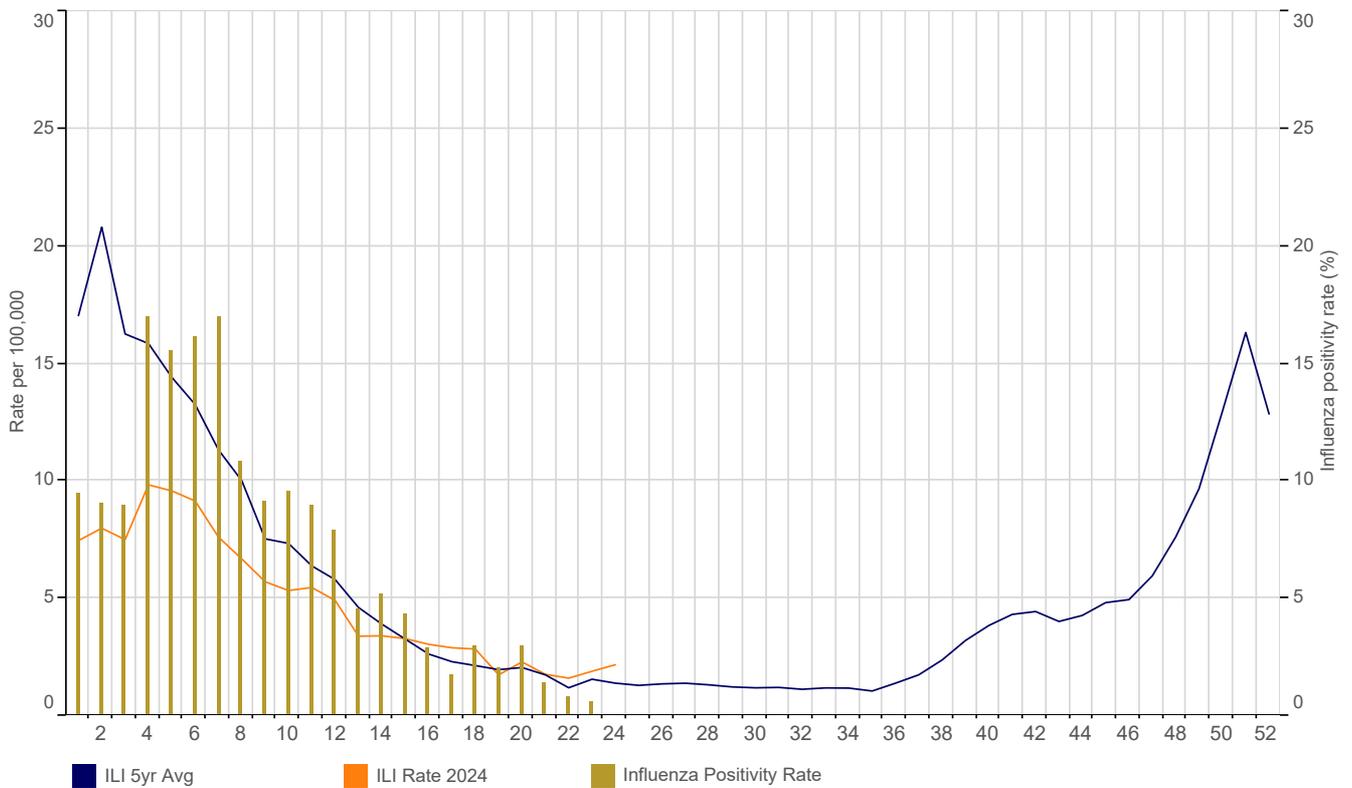
# 2024 Focus

Please see page 19 for explanatory notes on the data.

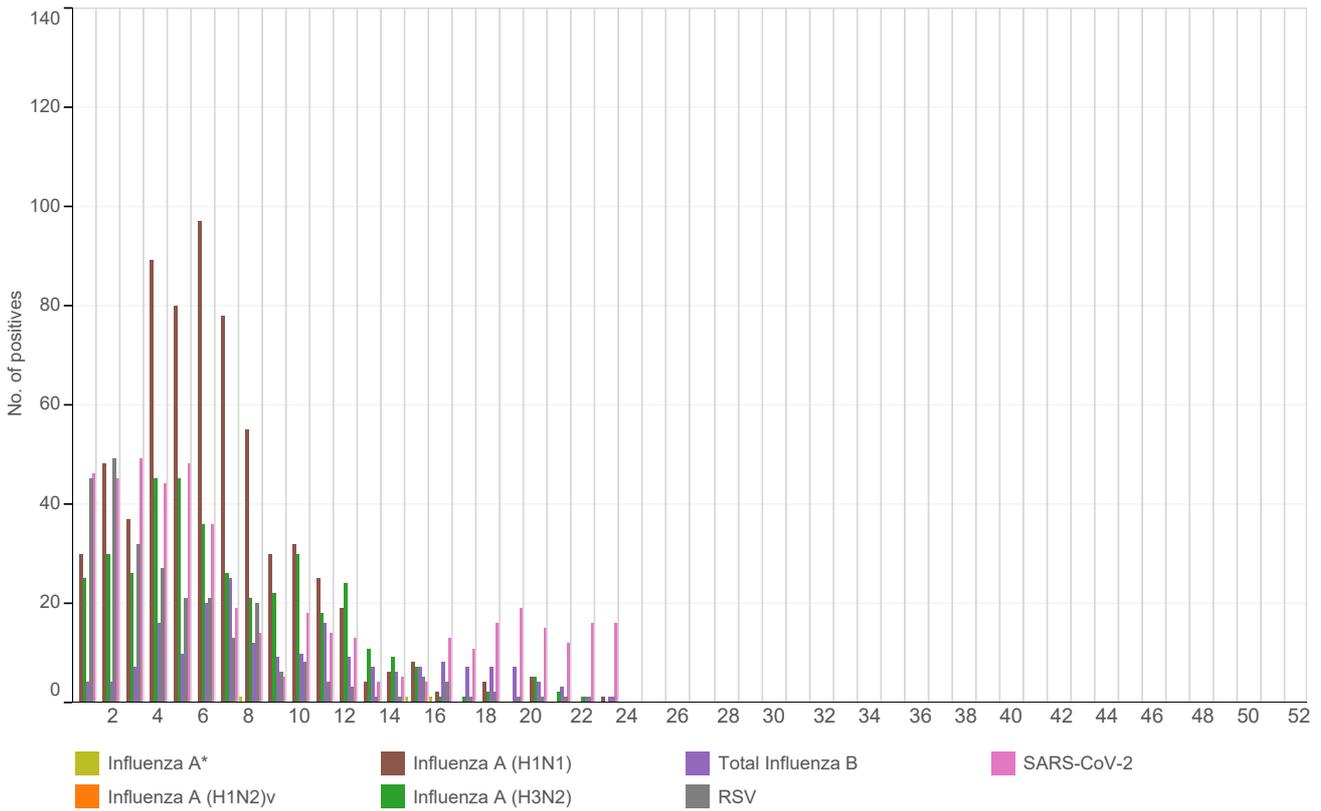
## (A) Influenza-like illness: national incidence rate 2024 by region



## (B) RCGP/UKHSA Influenza Virology Swab Surveillance 2024

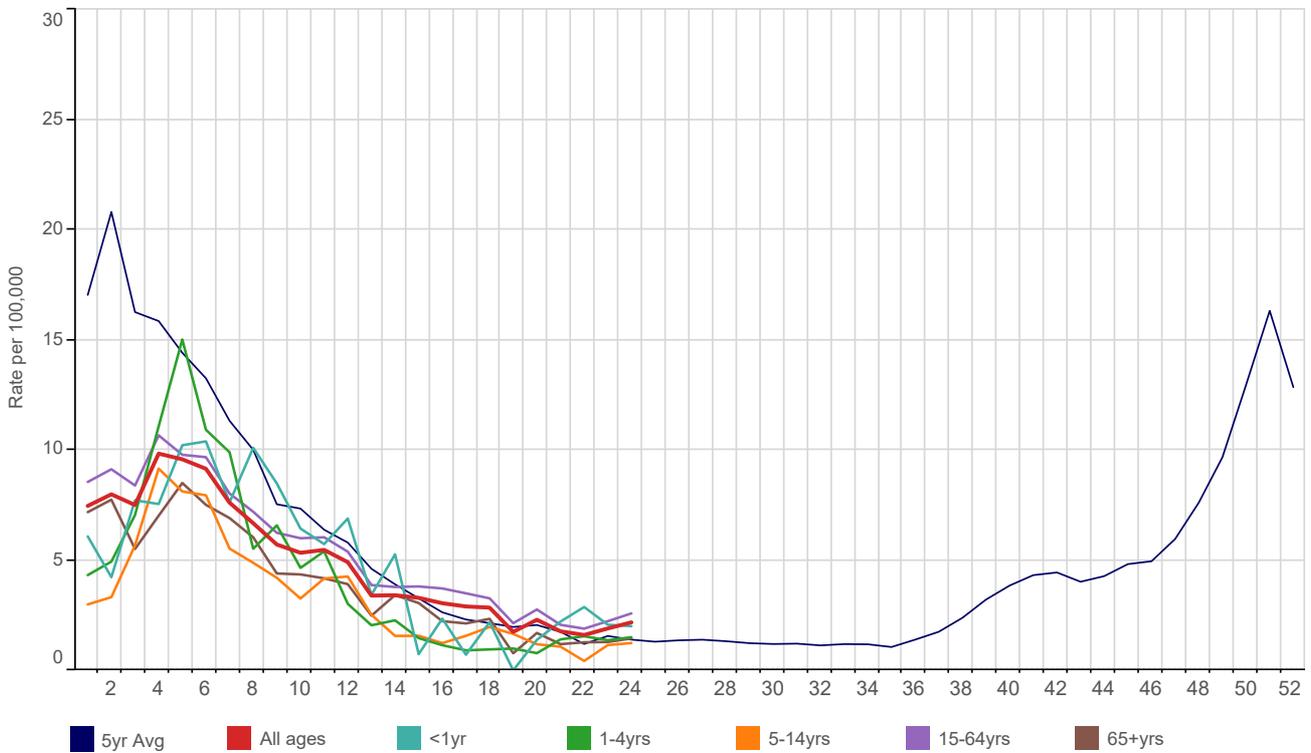


**(C) RCGP/UKHSA RSV, Influenza and SARS-CoV-2 Virology Swab Surveillance 2024 by viral strain**



The weekly virology samples displayed are offset from the ISO Week (Graph C).  
 \*No specified subtype, or coinfection with H1N1 and H3N2.

**(D) Influenza-like illness: national incidence rate 2024 by age band**



**(E) Influenza-like illness: national incidence rate 2024 by age band**

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	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18
1-4yrs	4.3	4.9	7.1	11.1	15.0	10.9	9.9	5.5	6.6	4.7	5.4	3.0	2.0	2.3	1.5	1.1	0.9	0.9
5-14yrs	3.0	3.3	5.7	9.2	8.1	7.9	5.5	4.9	4.2	3.3	4.2	4.3	2.5	1.6	1.6	1.2	1.6	2.0
15-64yrs	8.6	9.1	8.4	10.7	9.8	9.7	8.0	7.2	6.2	6.0	6.0	5.4	3.9	3.8	3.8	3.7	3.5	3.3
65+yrs	7.2	7.7	5.5	7.0	8.5	7.5	6.9	6.0	4.4	4.4	4.2	3.9	2.5	3.4	3.1	2.2	2.1	2.3
All ages	7.5	8.0	7.5	9.8	9.6	9.1	7.6	6.7	5.7	5.3	5.5	4.9	3.4	3.4	3.3	3.0	2.9	2.8

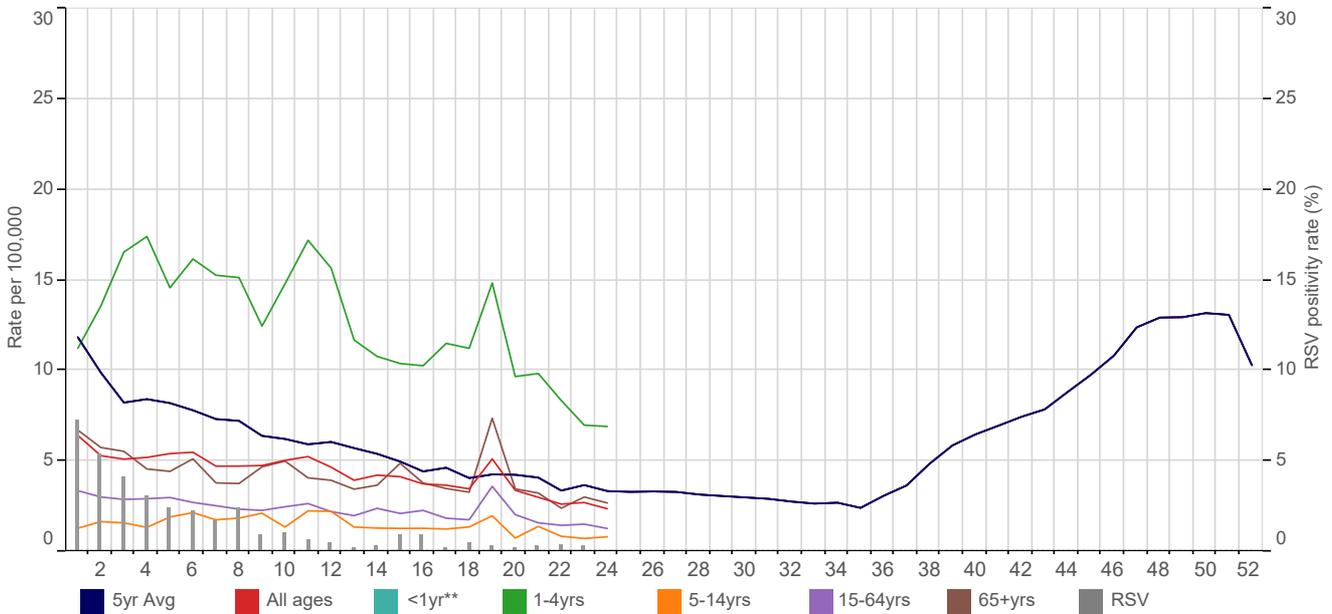
  

	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36
1-4yrs	1.0	0.8	1.4	1.5	1.4	1.5												
5-14yrs	1.7	1.2	1.1	0.4	1.1	1.2												
15-64yrs	2.1	2.8	2.1	1.9	2.2	2.6												
65+yrs	0.8	1.7	1.2	1.3	1.3	1.4												
All ages	1.7	2.3	1.8	1.6	1.9	2.2												

Table 2	Below Threshold <sup>1</sup>	Threshold to Medium <sup>2</sup>	Medium to High <sup>3</sup>	High to Very High <sup>4</sup>	Above Very High <sup>5</sup>
1-4yrs	<8.05	8.05 to 15.57	15.58 to 23.50	23.51 to 28.19	28.20+
5-14yrs	<6.53	6.53 to 15.55	15.56 to 32.18	32.19 to 44.39	44.40+
15-64yrs	<12.23	12.23 to 24.53	24.54 to 45.08	45.09 to 58.99	59.00+
65+yrs	<9.62	9.62 to 16.69	16.70 to 35.98	35.99 to 50.52	50.53+
All Ages	<10.25	10.25 to 21.69	21.70 to 38.77	38.78 to 50.11	50.12+

**Threshold levels**  
<sup>1</sup>Below baseline threshold  
<sup>2</sup>baseline threshold breach to < 40th percentile  
<sup>3</sup>40th to <90th percentile  
<sup>4</sup>90th to <97.5th percentile  
<sup>5</sup>97.5th+ percentile

**(F) Acute Bronchitis and Bronchiolitis: national incidence rate 2024 by age band**



**Weekly Influenza-like illness and Acute Bronchitis and Bronchiolitis incidence rates per 100,000 persons**

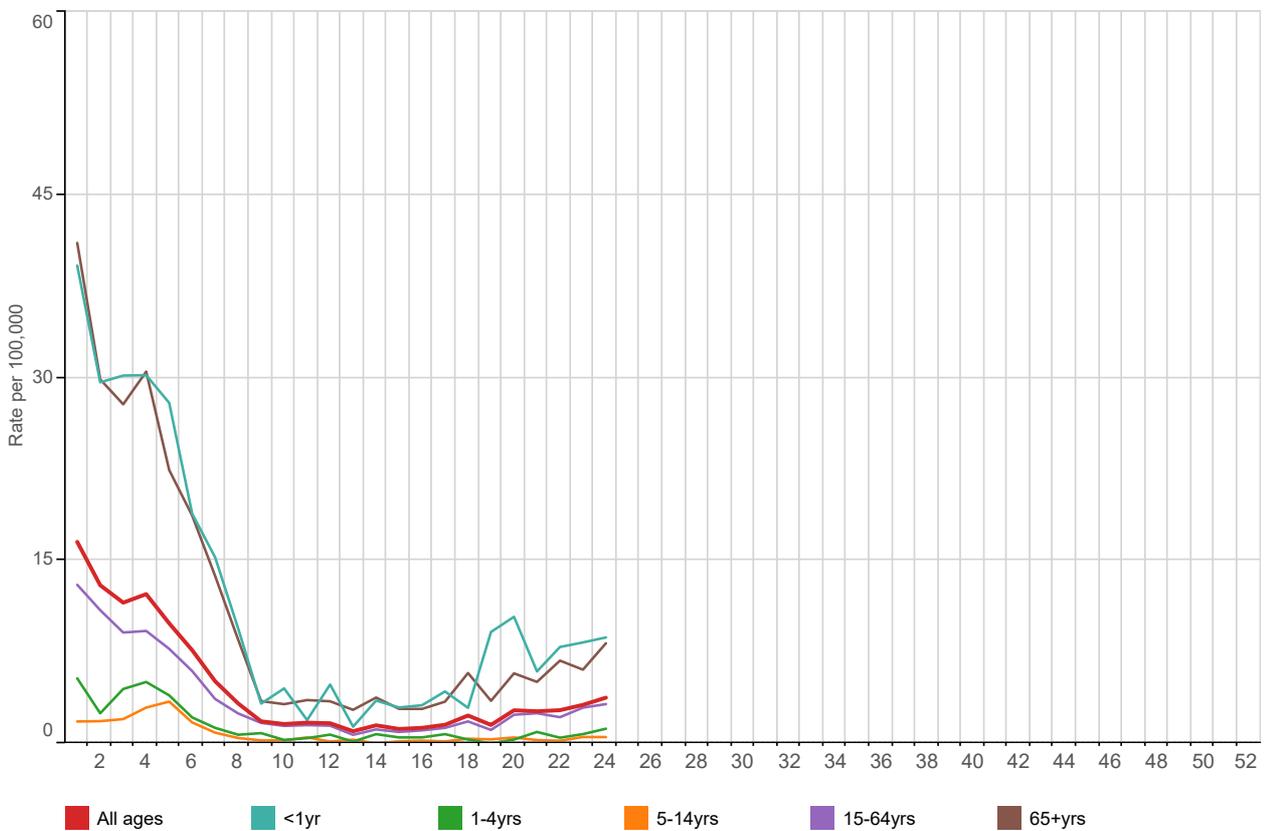
	Influenza-like illness	Acute Bronchitis and Bronchiolitis		Influenza-like illness	Acute Bronchitis and Bronchiolitis
<1yr	2.0	74.9	London	3.2	1.7
1-4yrs	1.5	6.9	North	2.0	2.7
5-14yrs	1.2	0.8	South	2.2	2.4
15-24yrs	2.5	0.9	Midlands And East	1.5	2.5
25-44yrs	2.9	1.0	National	2.2	2.4
45-64yrs	2.3	1.7			
65-74yrs	2.1	2.3			
75-84yrs	0.8	2.7			
85+yrs	1.0	4.3			
All ages	2.2	2.4			

\*\*The <1yr age band is not presented (Graph F).

**(G) COVID-19: national incidence rate 2024 by region**



**(H) COVID-19: national incidence rate 2024 by age band**

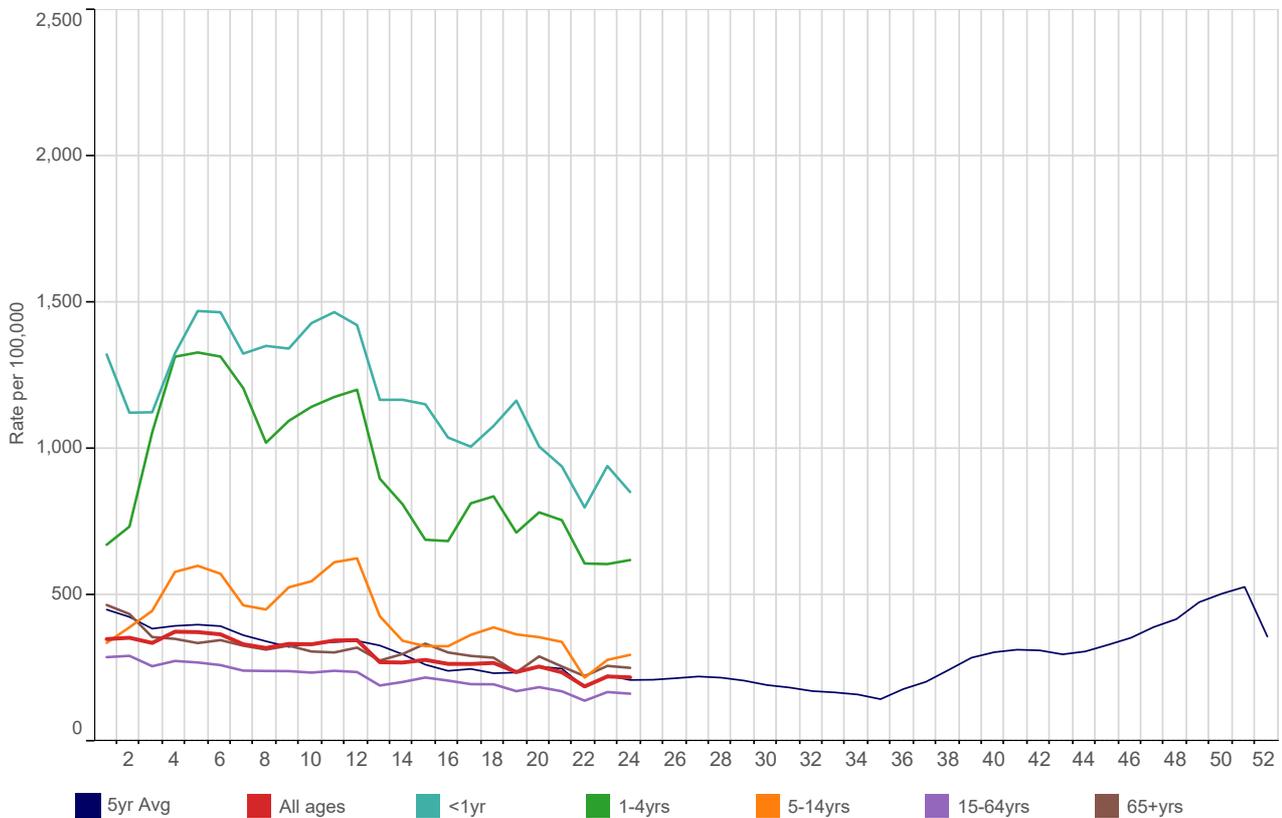


# 1. Respiratory Infections

**(I) Acute Respiratory Infections (ARI): national incidence rate 2024 by region**



**(J) Acute Respiratory Infections (ARI): national incidence rate 2024 by age band**

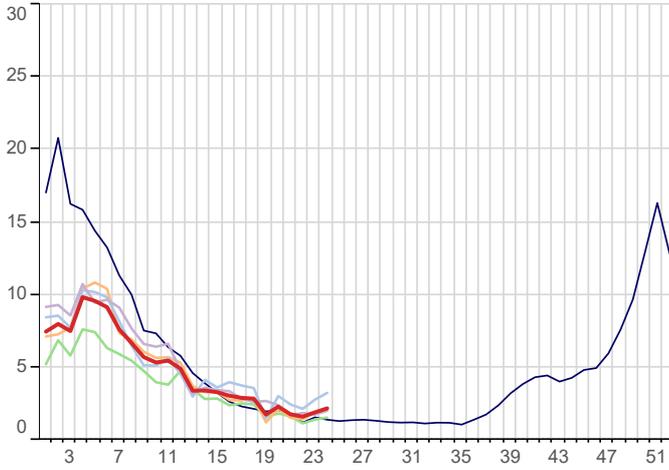


# 1. Respiratory Infections - by region

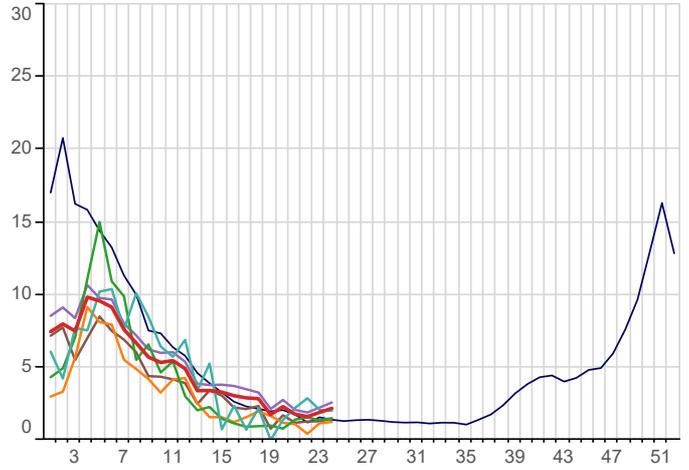
# 1. Respiratory Infections - by age band



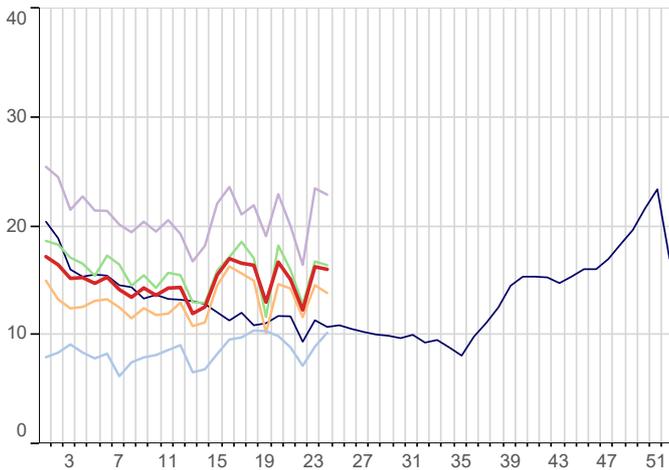
**Influenza-like illness (ILI)**  
Weekly incidence (per 100,000 all ages) by region for 2024 compared with 5 year average



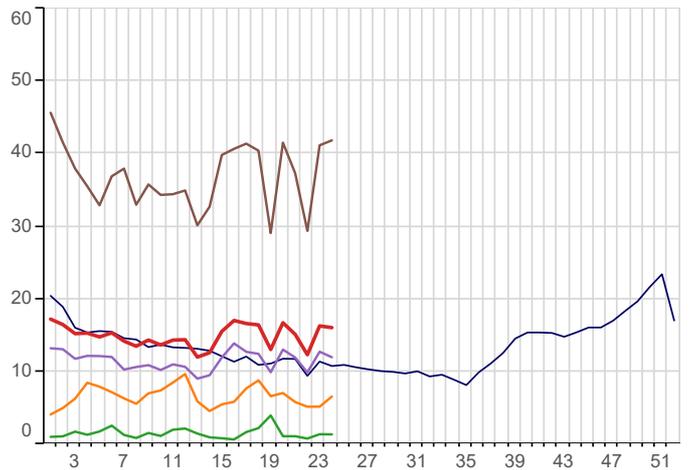
**Influenza-like illness (ILI)**  
Weekly incidence (per 100,000 all regions) by age band for 2024 compared with 5 year average



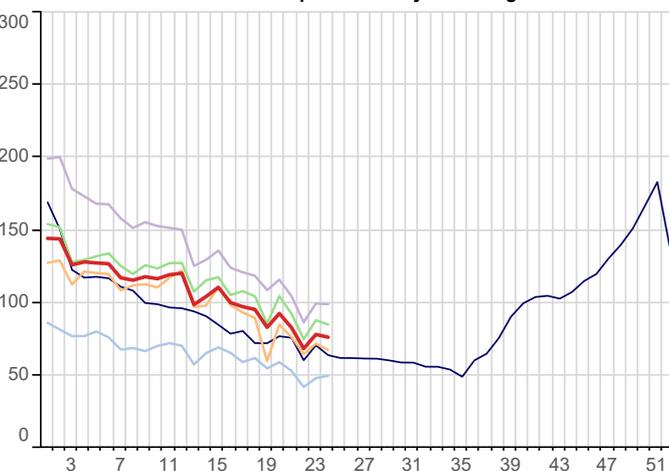
**Exacerbations of Chronic Lung Disease (ECLD)**  
Weekly incidence (per 100,000 all ages) by region for 2024 compared with 5 year average



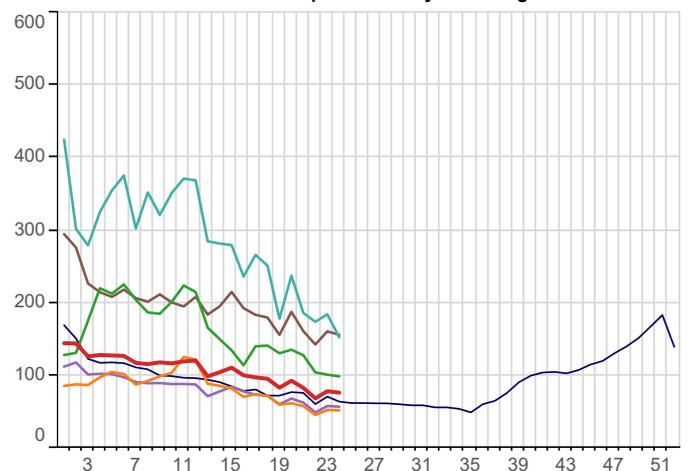
**Exacerbations of Chronic Lung Disease (ECLD)**  
Weekly incidence (per 100,000 all regions) by age band for 2024 compared with 5 year average



**Lower Respiratory Tract Infections (LRTI)**  
Weekly incidence (per 100,000 all ages) by region for 2024 compared with 5 year average



**Lower Respiratory Tract Infections (LRTI)**  
Weekly incidence (per 100,000 all regions) by age band for 2024 compared with 5 year average



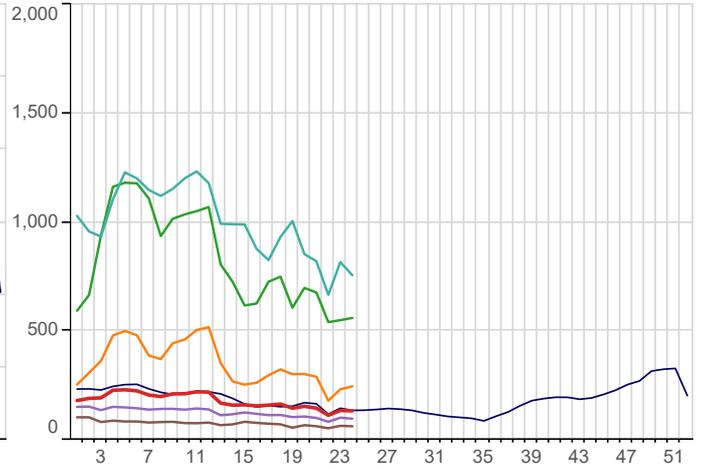
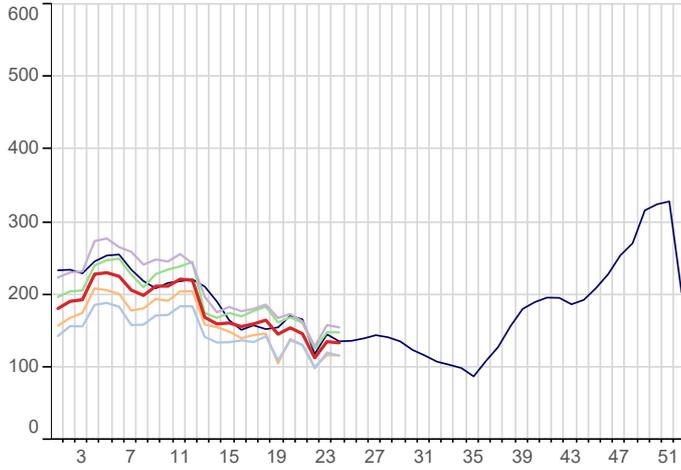
# 1. Respiratory Infections - by region

# 1. Respiratory Infections - by age band



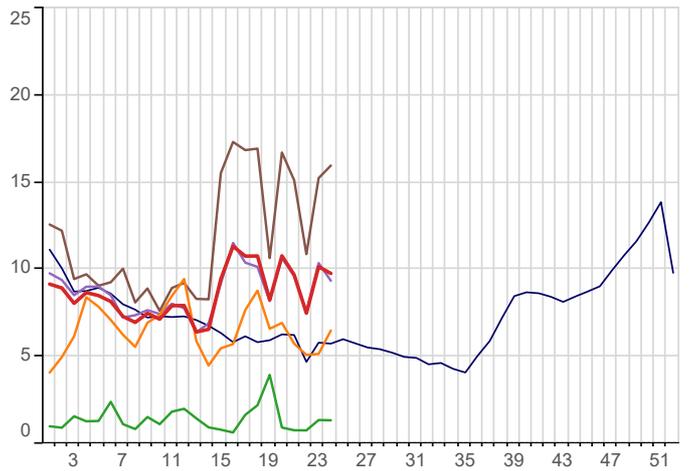
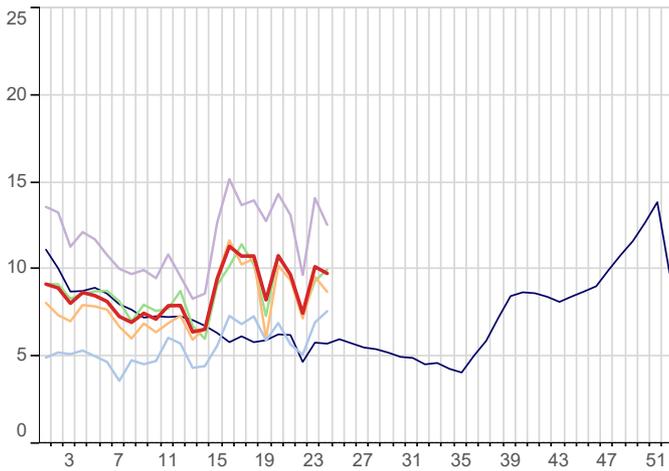
**Upper Respiratory Tract Infections (URTI)**  
Weekly incidence (per 100,000 all ages) by region for 2024 compared with 5 year average

**Upper Respiratory Tract Infections (URTI)**  
Weekly incidence (per 100,000 all regions) by age band for 2024 compared with 5 year average



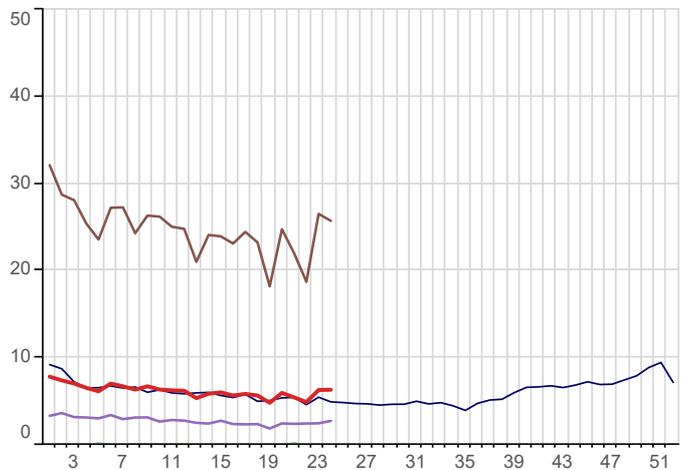
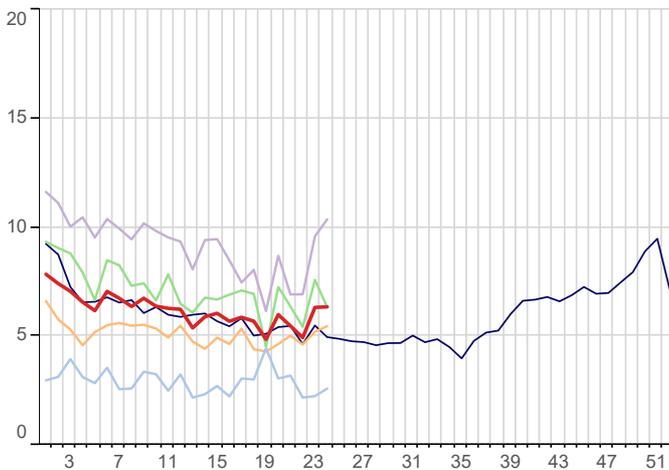
**Exacerbations of Chronic Lung Disease (ECLD) - Asthma Exacerbations**  
Weekly incidence (per 100,000 all ages) by region for 2024 compared with 5 year average

**Exacerbations of Chronic Lung Disease (ECLD) - Asthma Exacerbations**  
Weekly incidence (per 100,000 all regions) by age band for 2024 compared with 5 year average



**Exacerbations of Chronic Lung Disease (ECLD) - COPD Exacerbations**  
Weekly incidence (per 100,000 all ages) by region for 2024 compared with 5 year average

**Exacerbations of Chronic Lung Disease (ECLD) - COPD Exacerbations**  
Weekly incidence (per 100,000 all regions) by age band for 2024 compared with 5 year average

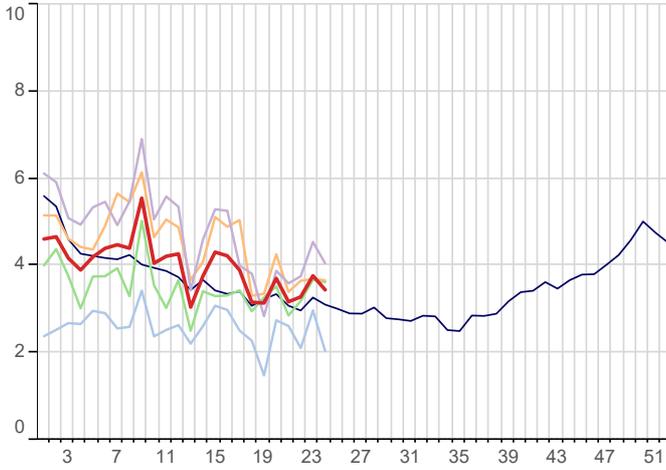


# 1. Respiratory Infections - by region

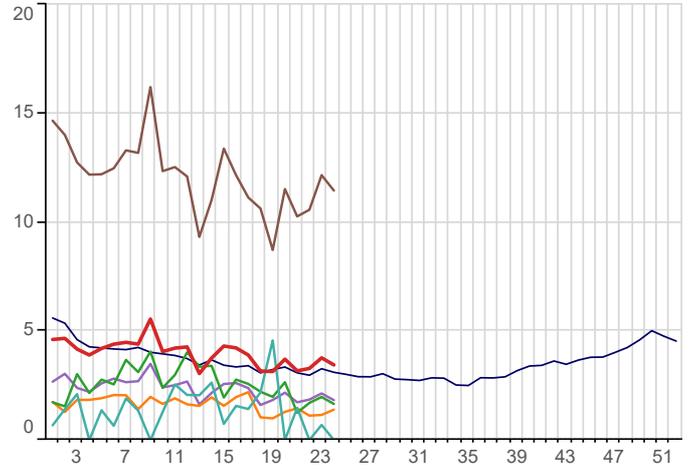
# 1. Respiratory Infections - by age band



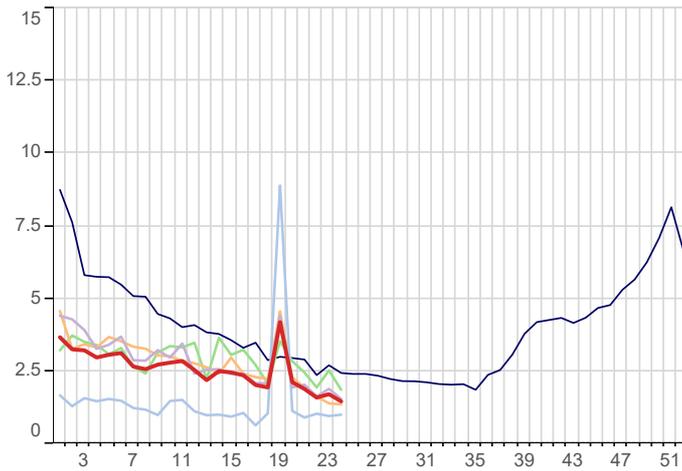
**Lower Respiratory Tract Infections (LRTI) - Pneumonia**  
Weekly incidence (per 100,000 all ages) by region for 2024 compared with 5 year average



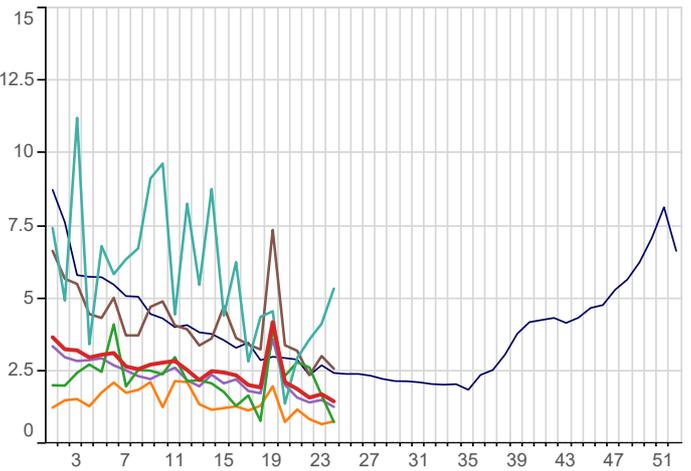
**Lower Respiratory Tract Infections (LRTI) - Pneumonia**  
Weekly incidence (per 100,000 all regions) by age band for 2024 compared with 5 year average



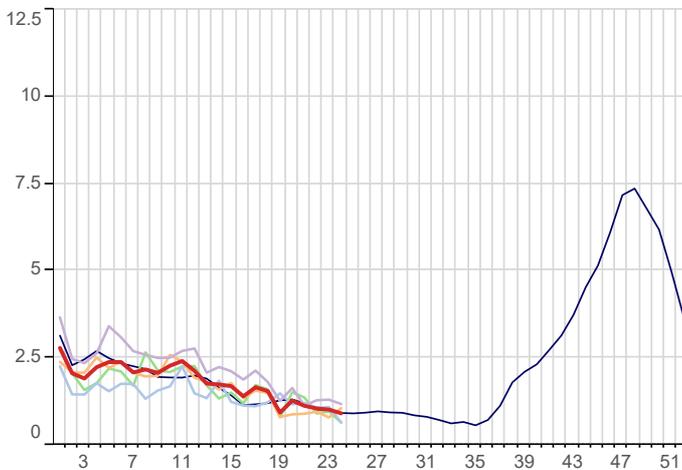
**Lower Respiratory Tract Infections (LRTI) - Acute Bronchitis**  
Weekly incidence (per 100,000 all ages) by region for 2024 compared with 5 year average



**Lower Respiratory Tract Infections (LRTI) - Acute Bronchitis**  
Weekly incidence (per 100,000 all regions) by age band for 2024 compared with 5 year average



**Lower Respiratory Tract Infections (LRTI) - Bronchiolitis**  
Weekly incidence (per 100,000 all ages) by region for 2024 compared with 5 year average



**Lower Respiratory Tract Infections (LRTI) - Bronchiolitis**  
Weekly incidence (per 100,000 all regions) by age band for 2024 compared with 5 year average

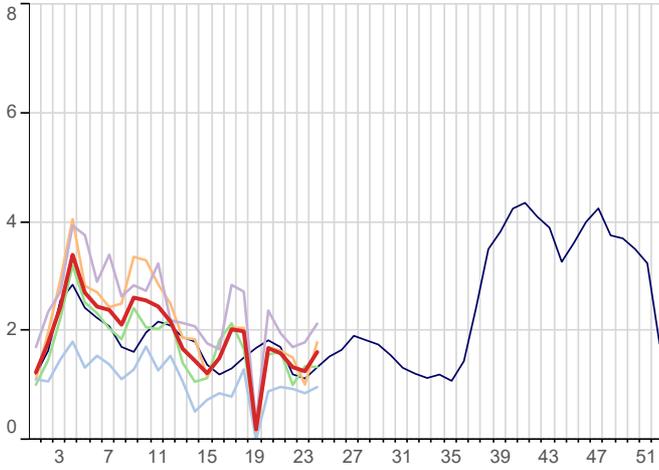


# 1. Respiratory Infections - by region

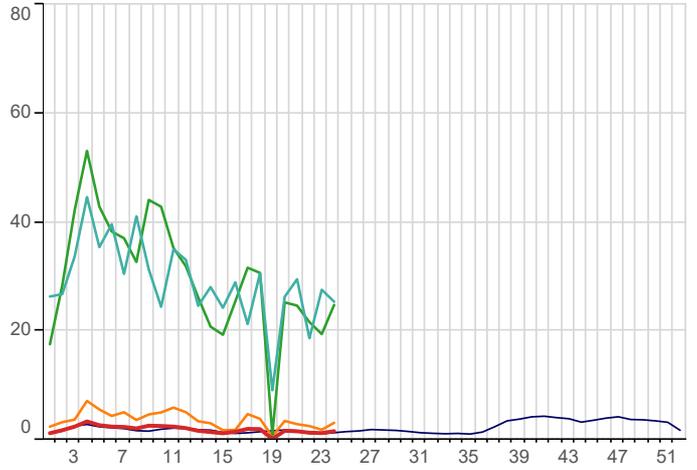
# 1. Respiratory Infections - by age band



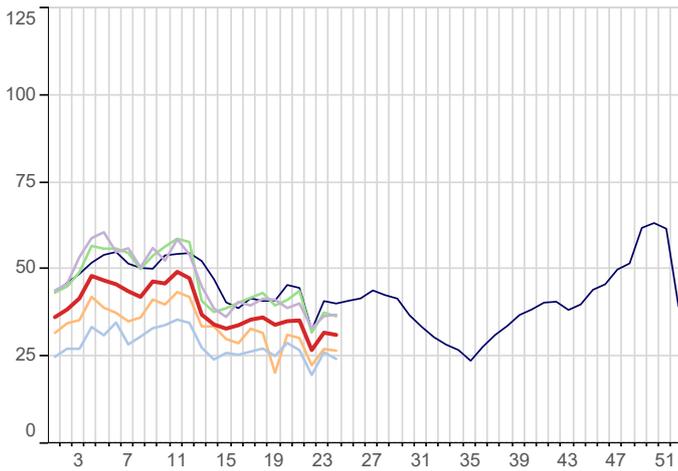
**Upper Respiratory Tract Infections (URTI) - Croup**  
Weekly incidence (per 100,000 all ages) by region for 2024 compared with 5 year average



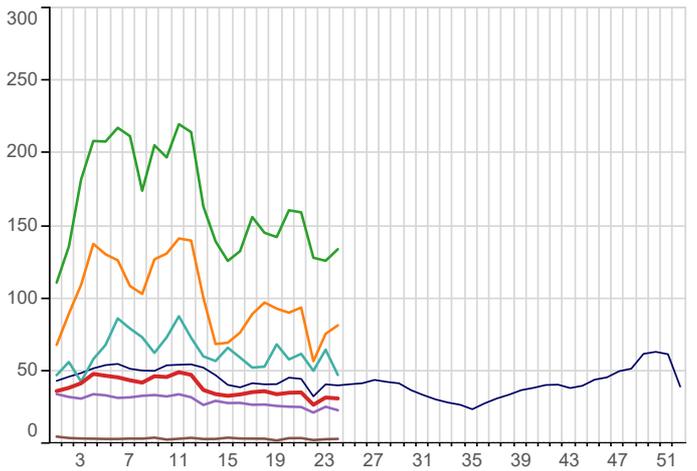
**Upper Respiratory Tract Infections (URTI) - Croup**  
Weekly incidence (per 100,000 all regions) by age band for 2024 compared with 5 year average



**Upper Respiratory Tract Infections (URTI) - Tonsillitis/Pharyngitis**  
Weekly incidence (per 100,000 all ages) by region for 2024 compared with 5 year average



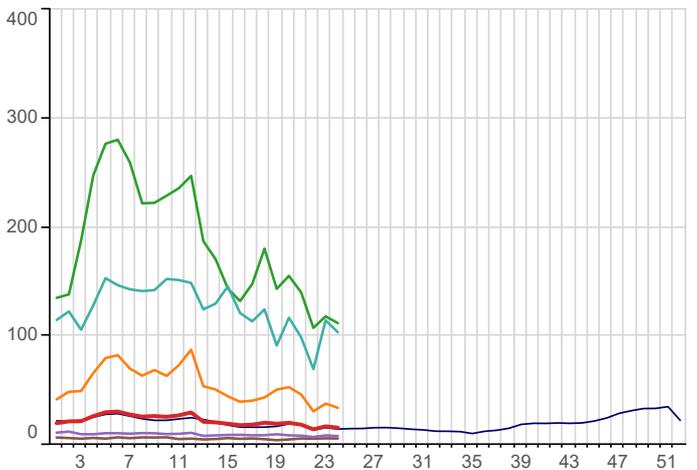
**Upper Respiratory Tract Infections (URTI) - Tonsillitis/Pharyngitis**  
Weekly incidence (per 100,000 all regions) by age band for 2024 compared with 5 year average



**Upper Respiratory Tract Infections (URTI) - Otitis Media**  
Weekly incidence (per 100,000 all ages) by region for 2024 compared with 5 year average



**Upper Respiratory Tract Infections (URTI) - Otitis Media**  
Weekly incidence (per 100,000 all regions) by age band for 2024 compared with 5 year average

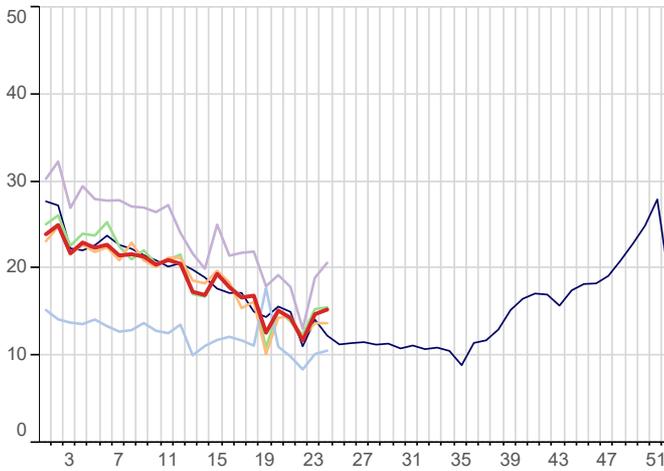


# 1. Respiratory Infections - by region

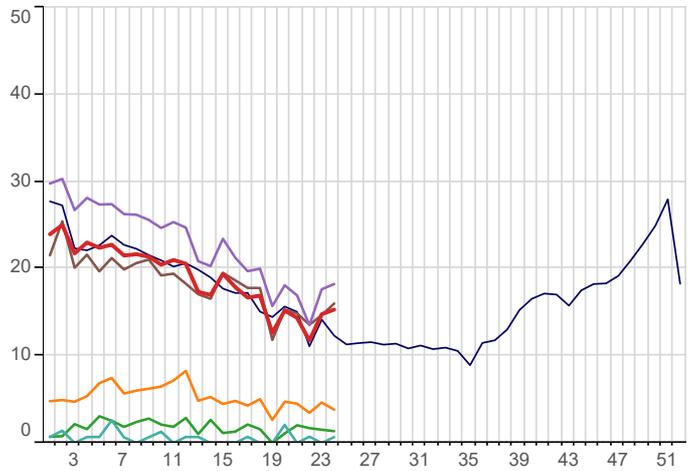
# 1. Respiratory Infections - by age band



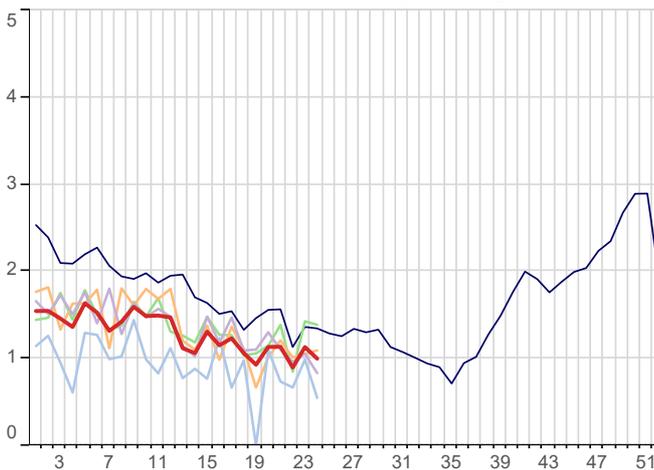
**Upper Respiratory Tract Infections (URTI) - Sinusitis**  
Weekly incidence (per 100,000 all ages) by region for 2024 compared with 5 year average



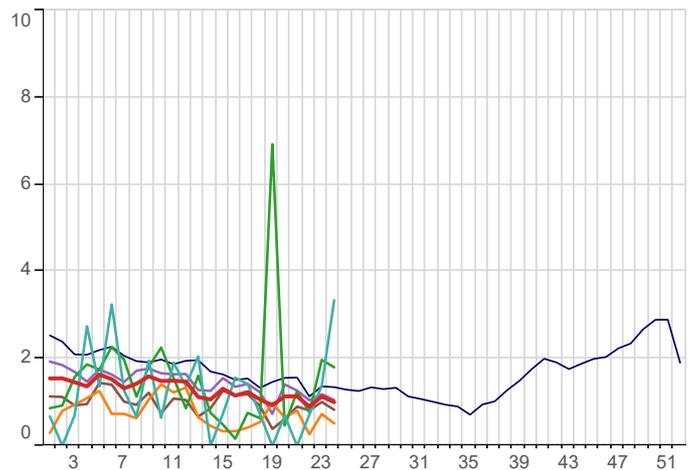
**Upper Respiratory Tract Infections (URTI) - Sinusitis**  
Weekly incidence (per 100,000 all ages) by region for 2024 compared with 5 year average



**Upper Respiratory Tract Infections (URTI) - Laryngitis**  
Weekly incidence (per 100,000 all ages) by region for 2024 compared with 5 year average



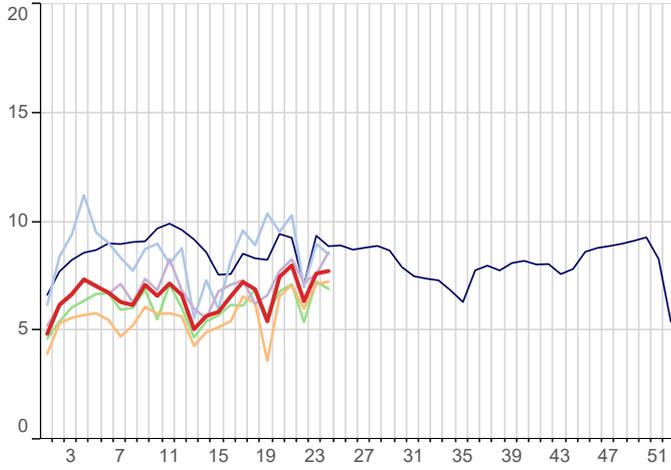
**Upper Respiratory Tract Infections (URTI) - Laryngitis**  
Weekly incidence (per 100,000 all ages) by region for 2024 compared with 5 year average



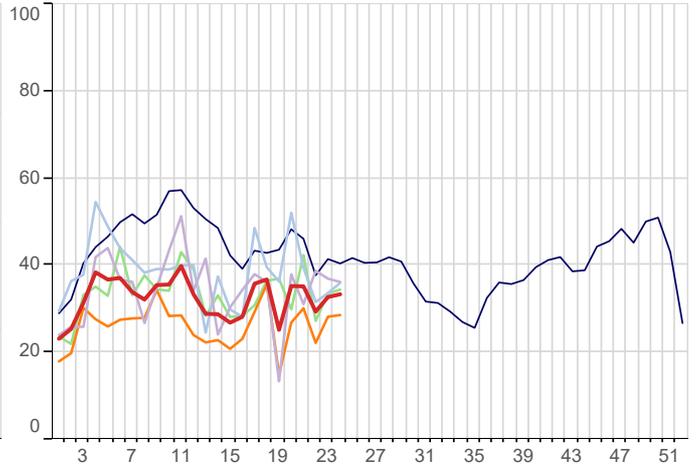
## 2. Water & Food Borne Disorders

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

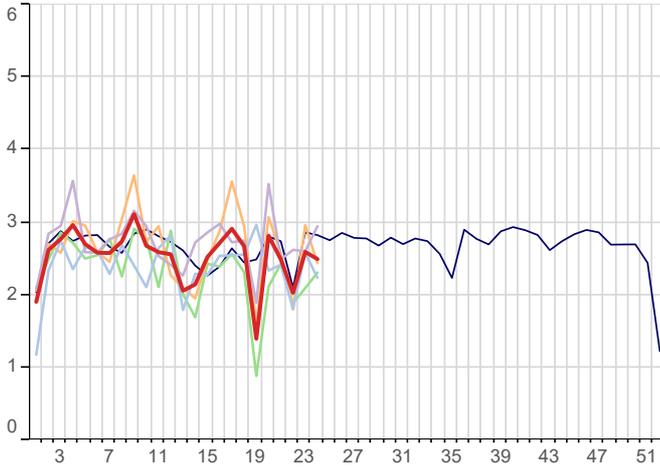
**Infectious Intestinal Disease (ICD10: A00-A09)**  
Weekly incidence (per 100,000 all ages) by region for 2024 compared with 5 year average



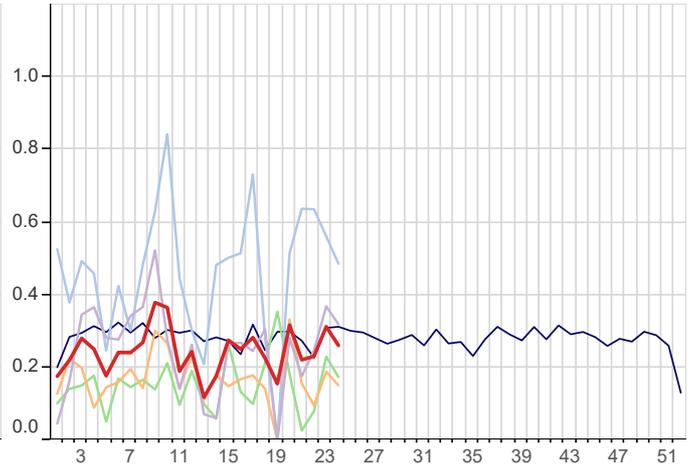
**Infectious Intestinal Disease (ICD10: A00-A09)**  
Weekly incidence (per 100,000 0-4 years) by region for 2024 compared with 5 year average



**Non-Infective Enteritis & Colitis (ICD10: K50-K52)**  
Weekly incidence (per 100,000 all ages) by region for 2024 compared with 5 year average



**Viral Hepatitis (ICD10: B15-B19)**  
Weekly incidence (per 100,000 all ages) by region for 2024 compared with 5 year average



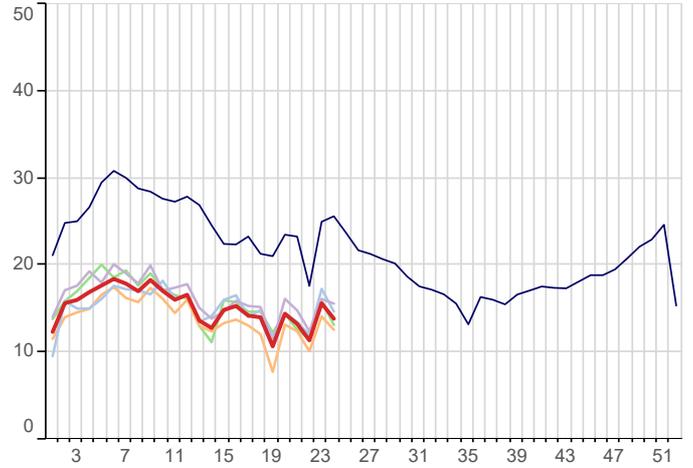
### 3. Environmentally Sensitive Disorders

5yr Avg   National   North   London   South   Midlands And East

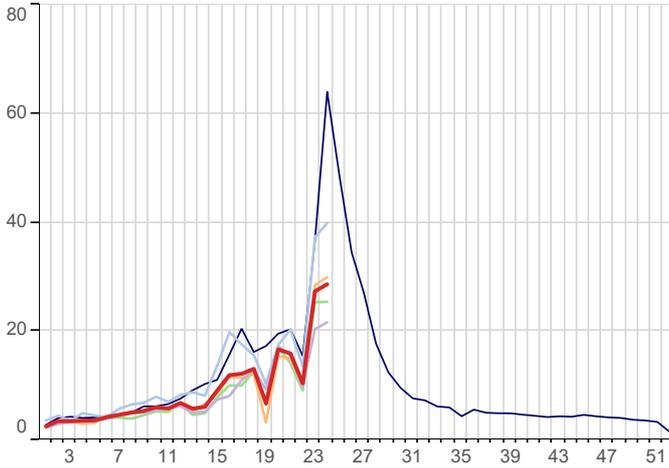
**Asthma (ICD10: J45-J46)**  
Weekly incidence (per 100,000 all ages) by region for 2024 compared with 5 year average



**Disorders of Conjunctiva (ICD10: H10-H13)**  
Weekly incidence (per 100,000 all ages) by region for 2024 compared with 5 year average



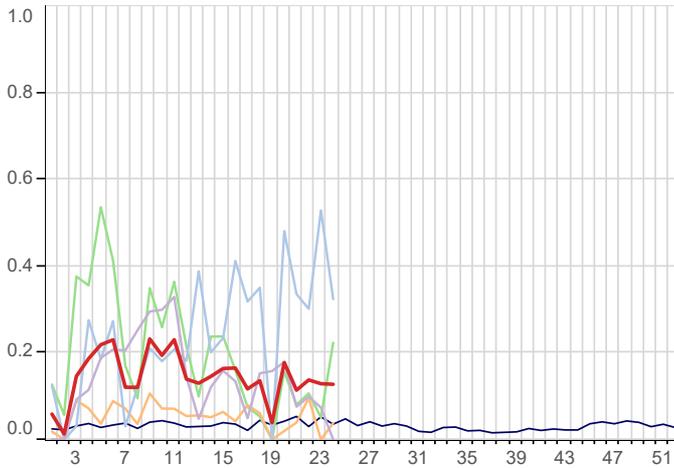
**Hayfever/Allergic Rhinitis (ICD10: J30)**  
Weekly incidence (per 100,000 all ages) by region for 2024 compared with 5 year average



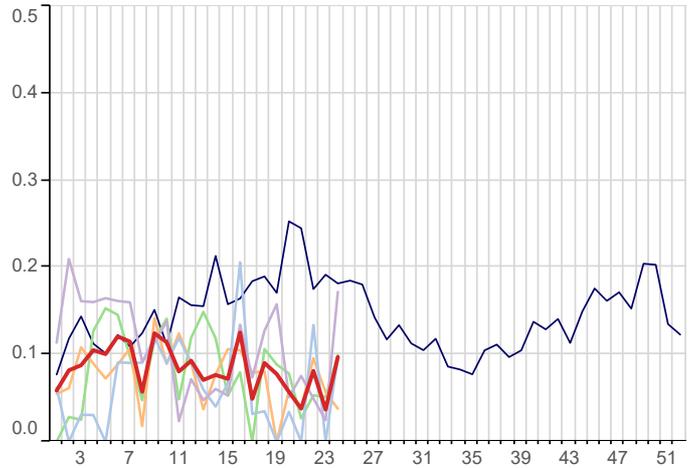
## 4. Vaccine Sensitive Disorders

5yr Avg National North London South Midlands And East

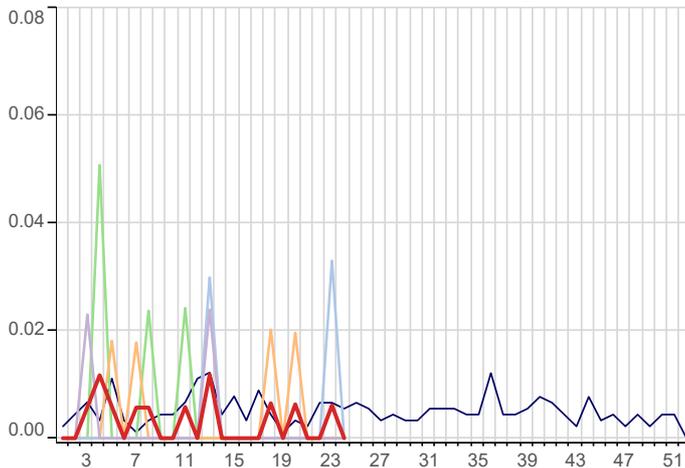
**Measles (ICD10: B05)**  
Weekly incidence (per 100,000 all ages) by region for 2024 compared with 5 year average



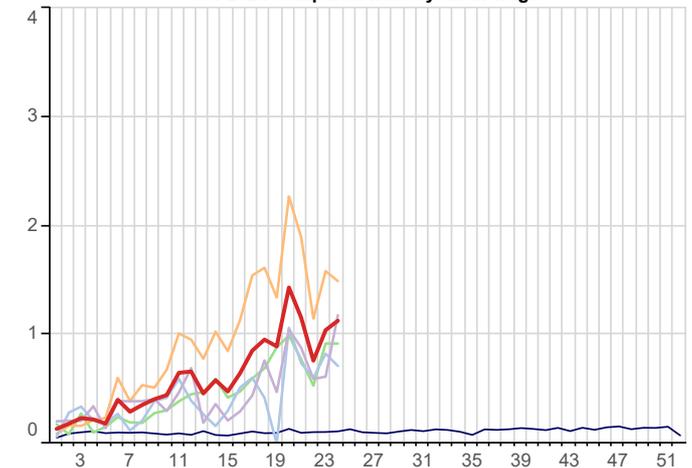
**Mumps (ICD10: B26)**  
Weekly incidence (per 100,000 all ages) by region for 2024 compared with 5 year average



**Rubella (ICD10: B06)**  
Weekly incidence (per 100,000 all ages) by region for 2024 compared with 5 year average

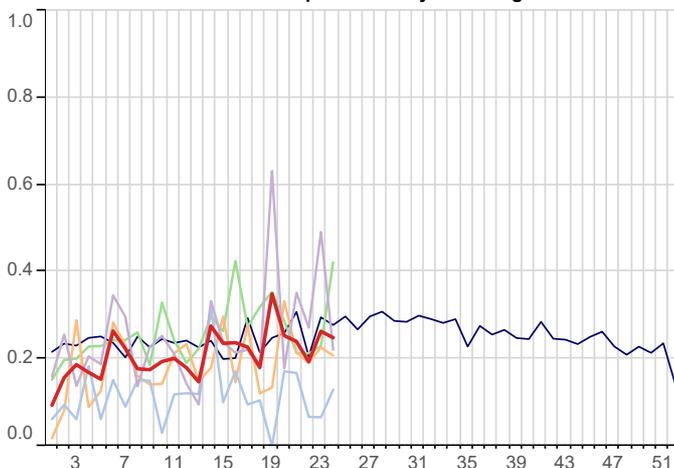


**Whooping Cough (ICD10: A37)**  
Weekly incidence (per 100,000 all ages) by region for 2024 compared with 5 year average

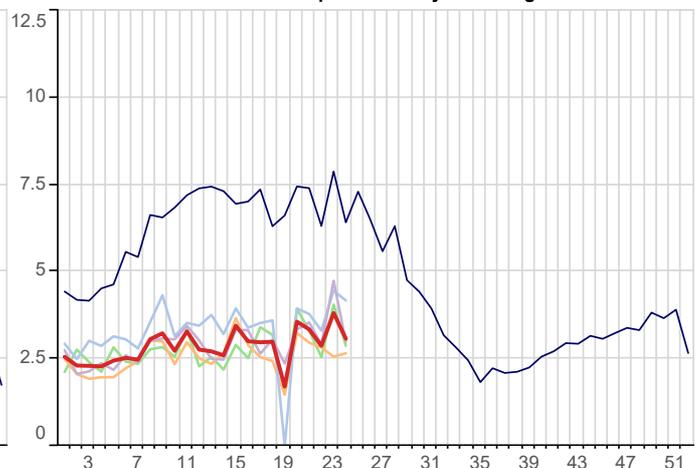


## 5. Skin Contagions

**Bullous Dermatoses (ICD10: L10-L14)**  
Weekly incidence (per 100,000 all ages) by region for 2024 compared with 5 year average



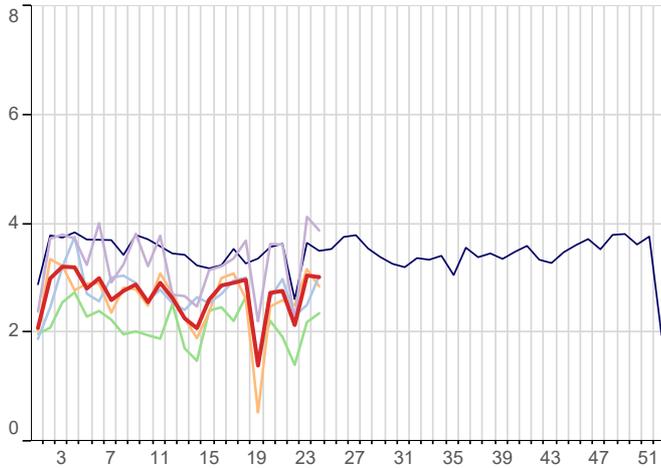
**Chickenpox (ICD10: B01)**  
Weekly incidence (per 100,000 all ages) by region for 2024 compared with 5 year average



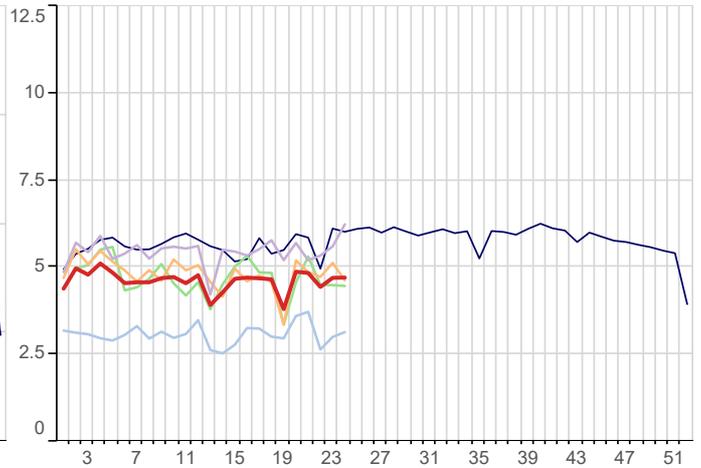
## 5. Skin Contagions (Continued)

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

**Herpes Simplex (ICD10: B00)**  
Weekly incidence (per 100,000 all ages) by region for 2024 compared with 5 year average



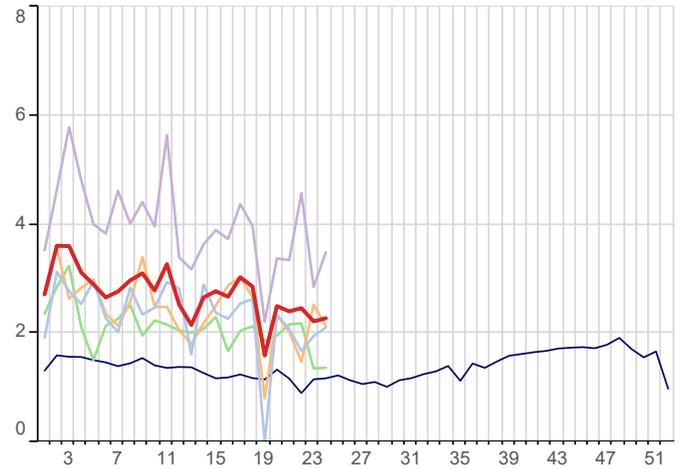
**Herpes Zoster (ICD10: B02)**  
Weekly incidence (per 100,000 all ages) by region for 2024 compared with 5 year average



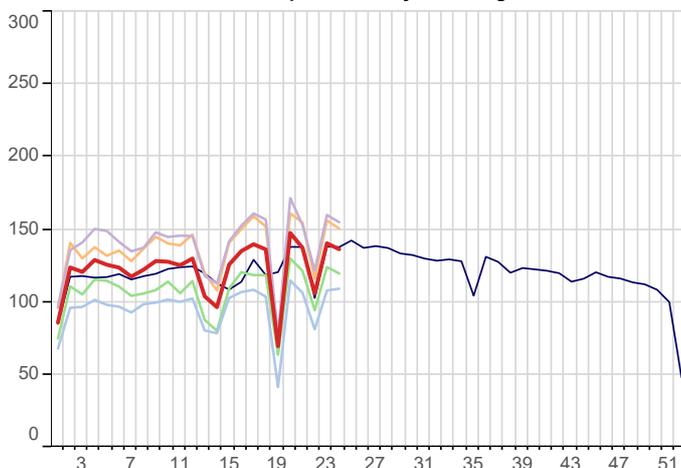
**Infections of Skin & Subcutaneous Tissue (ICD10: L00-L08)**  
Weekly incidence (per 100,000 all ages) by region for 2024 compared with 5 year average



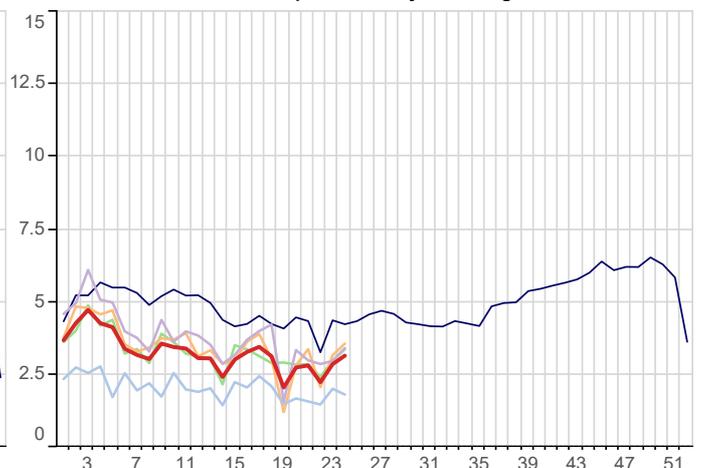
**Scabies (ICD10: B86)**  
Weekly incidence (per 100,000 all ages) by region for 2024 compared with 5 year average



**Symptoms involving Skin & Oth Integument Tiss (ICD10: R20-R23)**  
Weekly incidence (per 100,000 all ages) by region for 2024 compared with 5 year average



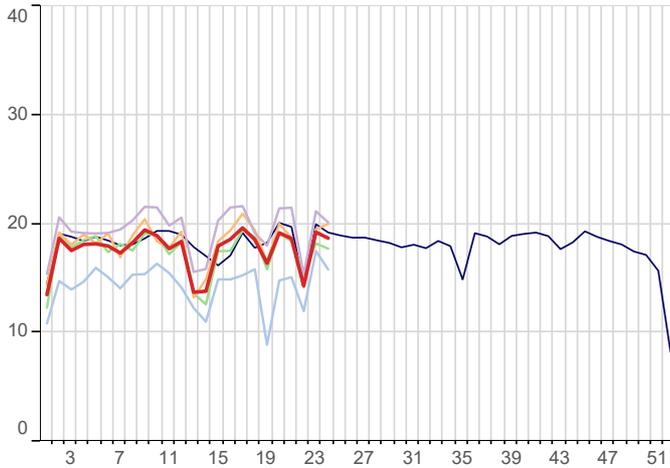
**Impetigo (ICD10: L01)**  
Weekly incidence (per 100,000 all ages) by region for 2024 compared with 5 year average



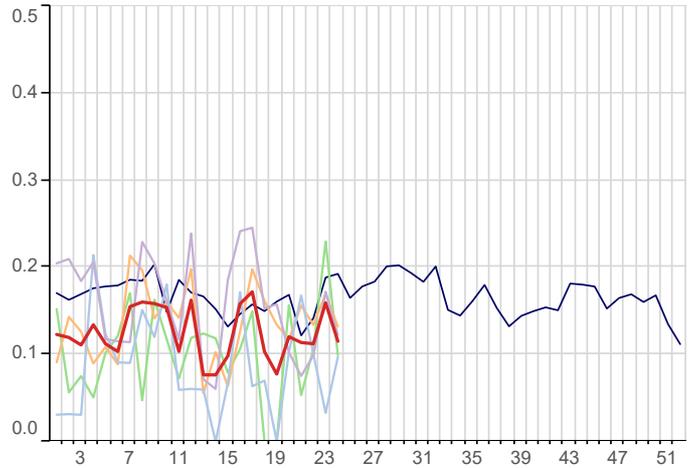
## 6. Disorders Affecting the Nervous System

5yr Avg   National   North   London   South   Midlands And East

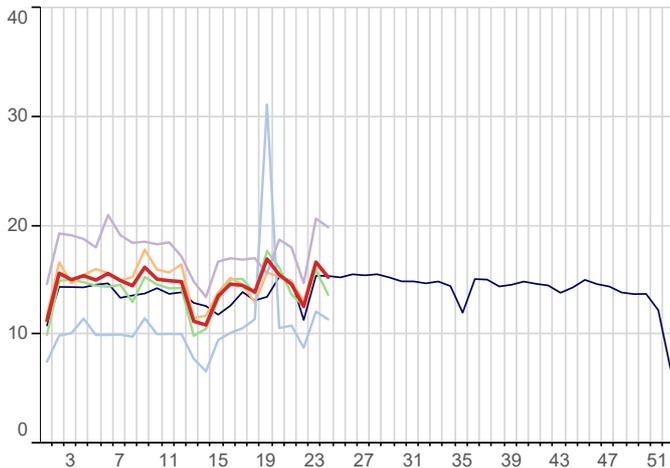
**Disorders of The Peripheral Nervous System (ICD10: G50-G64,G70-G72)**  
Weekly incidence (per 100,000 all ages) by region for 2024 compared with 5 year average



**Meningitis/Encephalitis(ICD10: A170-A171,A390,A38-A85,A87,G00-G05)**  
Weekly incidence (per 100,000 all ages) by region for 2024 compared with 5 year average

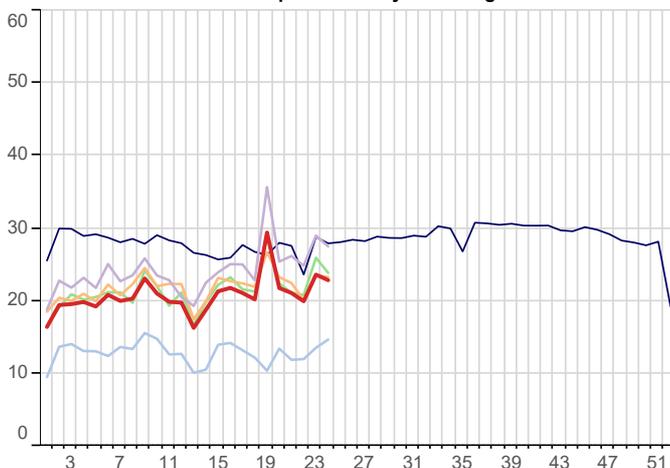


**Symptoms Involving Nervous & Musculoskeletal (ICD10: R25-R29)**  
Weekly incidence (per 100,000 all ages) by region for 2024 compared with 5 year average



## 7. Genitourinary System Disorders

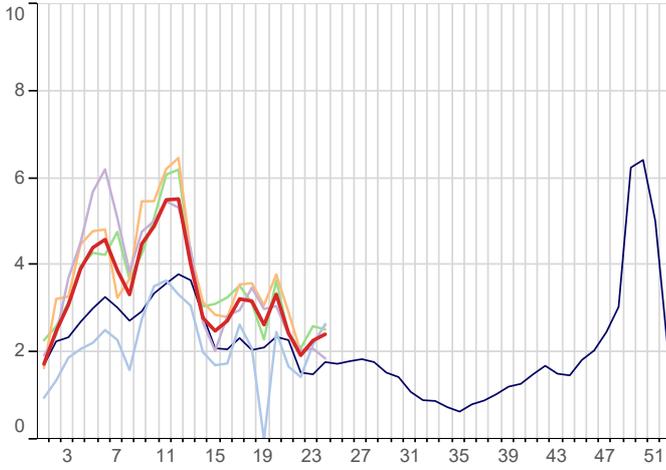
**Urinary Tract Infection/Cystitis (ICD10: N30,N390)**  
Weekly incidence (per 100,000 all ages) by region for 2024 compared with 5 year average



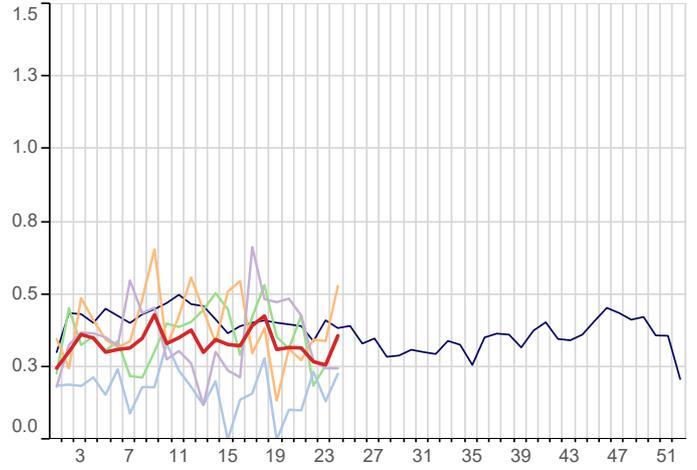
## 8. Other Disorders

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

**Strep Sore Throat, Scarlatina and Peritonsillar Abscess (ICD10: A38,J020,J36)**  
 Weekly incidence (per 100,000 all ages) by region  
 for 2024 compared with 5 year average



**Infectious Mononucleosis (ICD10: B27)**  
 Weekly incidence (per 100,000 all ages) by region  
 for 2024 compared with 5 year average



## 8. Tabular Summary by Disease

Disease Name	Week beginning Week ending		10/06/2024 16/06/2024		03/06/2024 09/06/2024		27/05/2024 02/06/2024		20/05/2024 26/05/2024	
	Rate	Numer	Rate	Numer	Rate	Numer	Rate	Numer	Rate	Numer
Acute Bronchitis	1.5	241	1.7	279	1.6	255	1.9	299		
Acute respiratory infections (ARI)	219.4	36,156	222.4	36,276	188.3	30,159	236.7	37,449		
Allergic Rhinitis	28.6	4,719	27.3	4,459	10.4	1,671	15.9	2,518		
Asthma	10.6	1,750	10.8	1,758	7.9	1,273	10.2	1,608		
Bronchiolitis	0.9	150	1.0	166	1.0	168	1.1	178		
Bullous Dermatoses	0.2	41	0.3	43	0.2	31	0.2	38		
Chickenpox	3.1	508	3.8	623	2.9	461	3.4	530		
Conjunctival Disorders	13.9	2,289	15.7	2,554	11.4	1,826	13.3	2,103		
COVID-19	3.7	618	3.2	515	2.7	436	2.6	416		
Croup	1.6	266	1.3	206	1.3	214	1.6	252		
ECLD - Asthma exacerbations	9.8	1,612	10.2	1,659	7.5	1,201	9.7	1,535		
ECLD - COPD exacerbations	6.3	1,046	6.3	1,031	4.9	790	5.5	865		
Exacerbations of chronic lung disease	16.1	2,646	16.3	2,658	12.3	1,973	15.1	2,393		
Herpes Simplex	3.0	498	3.1	498	2.1	343	2.8	438		
Herpes Zoster	4.7	776	4.7	767	4.4	711	4.8	766		
Impetigo	3.2	520	2.9	467	2.2	359	2.8	446		
Infectious Intestinal Diseases	7.7	1,276	7.6	1,244	6.4	1,018	8.0	1,266		
Infectious Mononucleosis	0.4	59	0.3	42	0.3	43	0.3	50		
Influenza-like illness	2.2	359	1.9	310	1.6	257	1.8	280		
Laryngitis	1.0	165	1.1	185	0.9	144	1.1	180		
Lower respiratory tract infections	76.3	12,581	78.2	12,766	68.5	10,963	82.9	13,119		
Measles	0.1	21	0.1	21	0.1	22	0.1	18		
Meningitis and Encephalitis	0.1	19	0.2	26	0.1	18	0.1	18		
Mumps	0.1	16	0.0	6	0.1	13	0.0	6		
Non-infective Enteritis and Colitis	2.5	411	2.6	423	2.0	325	2.5	394		
Otitis Media	15.9	2,627	17.2	2,800	14.4	2,313	18.7	2,958		
Peripheral Nervous Disease	18.7	3,080	19.2	3,139	14.3	2,293	18.7	2,951		
Pneumonia	3.4	568	3.8	615	3.3	526	3.2	502		
Rubella	0.0	0	0.0	1	0.0	0	0.0	0		
Scabies	2.3	375	2.2	362	2.5	394	2.4	380		
Sinusitis	15.3	2,524	14.8	2,412	11.8	1,884	14.4	2,273		
Skin and Subcutaneous Tissue Infections	88.0	14,501	91.1	14,856	73.7	11,801	88.7	14,035		
Strep Throat and Peritonsillar Abscess	2.4	399	2.3	371	1.9	310	2.4	387		
Symptoms involving musculoskeletal	15.3	2,518	16.7	2,719	12.6	2,016	14.6	2,316		
Symptoms involving Skin and Integument Tissues	136.4	22,481	140.5	22,923	105.9	16,962	137.4	21,737		
Tonsillitis/Pharyngitis	31.3	5,152	31.9	5,206	26.9	4,309	35.4	5,602		
Upper respiratory tract infections	133.8	22,045	135.4	22,087	113.2	18,124	146.3	23,139		
Urinary Tract Infections	22.9	3,767	23.6	3,853	20.0	3,195	21.1	3,336		
Viral Hepatitis	0.3	43	0.3	51	0.2	37	0.2	35		
Whooping Cough	1.1	186	1.0	170	0.8	122	1.2	183		
<b>Practice Count</b>		<b>1,613</b>		<b>1,597</b>		<b>1,566</b>		<b>1,551</b>		
<b>Denom</b>		<b>16,480,681</b>		<b>16,314,424</b>		<b>16,013,291</b>		<b>15,819,344</b>		

## FURTHER INFORMATION:

### **About the report**

#### **Focus**

The first two pages of data within this report focus on influenza-like illness and virology data, 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 bands, 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 (navy blue lines), 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 (Graph A, page 2 and Table E, page 4 of this report). 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 four age bands: those aged 1-4, 5-14, 15-64 and those aged 65 and over. ILI incidence rates vary among different age bands, and the age-specific thresholds allow us to highlight epidemics where ILI disproportionately affects a particular age band.

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.

Both the *all-ages* thresholds and the *age-specific* thresholds are shown in Table E, page 4. Five years of data were used for *all-ages* and *age-specific* thresholds calculation (winter seasons 2015/16, 2016/17, 2017/18, 2018/19 and 2022/23, excluding 2019/20, 2020/21 and 2021/22).

## 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 Magentus data management and EMIS-X Analytics (EXA) 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 Magentus 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/collections/syndromic-surveillance-systems-and-analyses>

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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