



RSC Communicable and Respiratory Disease Report for England

Key Statistics:

Week Number/Year.....	50/2024
Week Starting - Ending.....	09/12/2024 - 15/12/2024
No. of Practices.....	1,736
Population.....	18,803,239

National (England)

- **Acute Respiratory Infections:** increased from **362.9** in week 49 to **376.8** in week 50.
- **Influenza-like illness:** increased from **8.5** in week 49 to **12.1** in week 50.
- **Exacerbations of Chronic Lung Disease:** increased from **25.9** in week 49 to **26.8** in week 50.
- **Lower Respiratory Tract Infections:** increased from **131.3** in week 49 to **136.4** in week 50.
- **Upper Respiratory Tract Infections:** increased from **218.9** in week 49 to **225.9** in week 50.
- **COVID-19:** decreased from **1.4** in week 49 to **1.2** in week 50.

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

- **Acute Respiratory Infections:** increased from **285.5** in week 49 to **298.9** in week 50 in the London region, increased from **440.2** in week 49 to **463.0** in week 50 in the North region, increased from **330.0** in week 49 to **339.3** in week 50 in the South region, and increased from **388.0** in week 49 to **399.5** in week 50 in the Midlands And East region.
- **Influenza-like illness:** increased from **8.6** in week 49 to **11.2** in week 50 in the London region, increased from **10.1** in week 49 to **14.7** in week 50 in the North region, increased from **7.5** in week 49 to **10.8** in week 50 in the South region, and increased from **8.0** in week 49 to **12.1** in week 50 in the Midlands And East region.
- **Exacerbations of Chronic Lung Disease:** increased from **14.7** in week 49 to **16.4** in week 50 in the London region, increased from **36.1** in week 49 to **36.8** in week 50 in the North region, increased from **24.4** in week 49 to **25.7** in week 50 in the South region, and decreased from **26.5** in week 49 to **26.4** in week 50 in the Midlands And East region.
- **Lower Respiratory Tract Infections:** increased from **80.4** in week 49 to **82.5** in week 50 in the London region, increased from **169.2** in week 49 to **180.4** in week 50 in the North region, increased from **123.0** in week 49 to **127.3** in week 50 in the South region, and increased from **143.5** in week 49 to **146.2** in week 50 in the Midlands And East region.
- **Upper Respiratory Tract Infections:** increased from **197.4** in week 49 to **207.0** in week 50 in the London region, increased from **251.7** in week 49 to **262.3** in week 50 in the North region, increased from **195.4** in week 49 to **198.9** in week 50 in the South region, and increased from **232.6** in week 49 to **238.8** in week 50 in the Midlands And East region.
- **COVID-19:** decreased from **1.1** in week 49 to **1.0** in week 50 in the London region, decreased from **1.5** in week 49 to **1.1** in week 50 in the North region, decreased from **1.7** in week 49 to **1.4** in week 50 in the South region, and was unchanged at **1.1** in week 49 and **1.1** in week 50 in the Midlands And East region.

Comment:

Overall rates of acute respiratory infections (ARI) have increased in all regions, but are at or below the seasonal average (page 6). ARI rates in children under 5 years are decreasing compared to other age groups, where the rate is still increasing. Rates of influenza-like illness (ILI) have also increased in all regions and all age groups, but remain at or below the seasonal average (pages 2 and 3), while overall rates of COVID-19 have decreased slightly across all regions and ages (page 5).

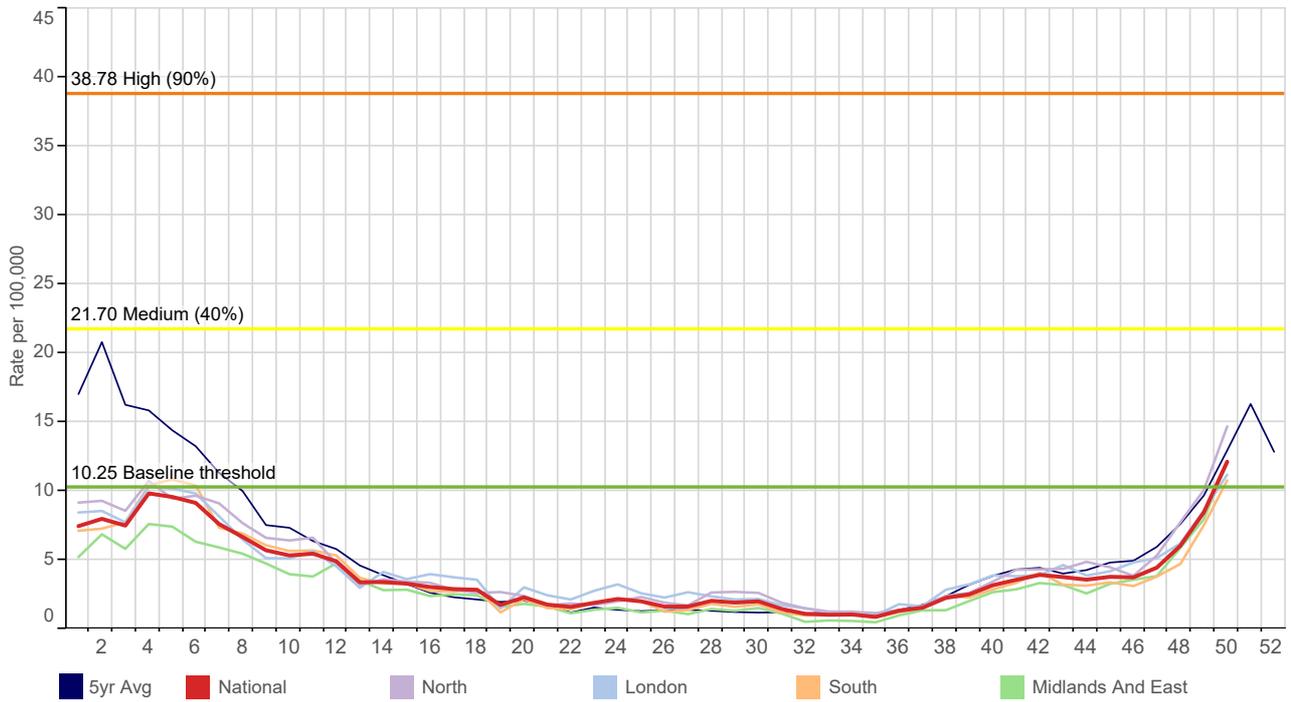
Exacerbations of chronic lung disease (ECLD) remain above the seasonal average (page 7). Rates of scabies (page 15) also remain above the seasonal average.

This report includes a respiratory virology update. RSV, influenza A (H1N1), and SARS-CoV-2 are the predominant circulating viruses detected by the UK Health Security Agency (UKHSA) Reference Virology Lab. Rates presented in this report are the number of new cases per 100,000 people by condition and region, with age-band also reported for acute respiratory infections (pages 3 to 11).

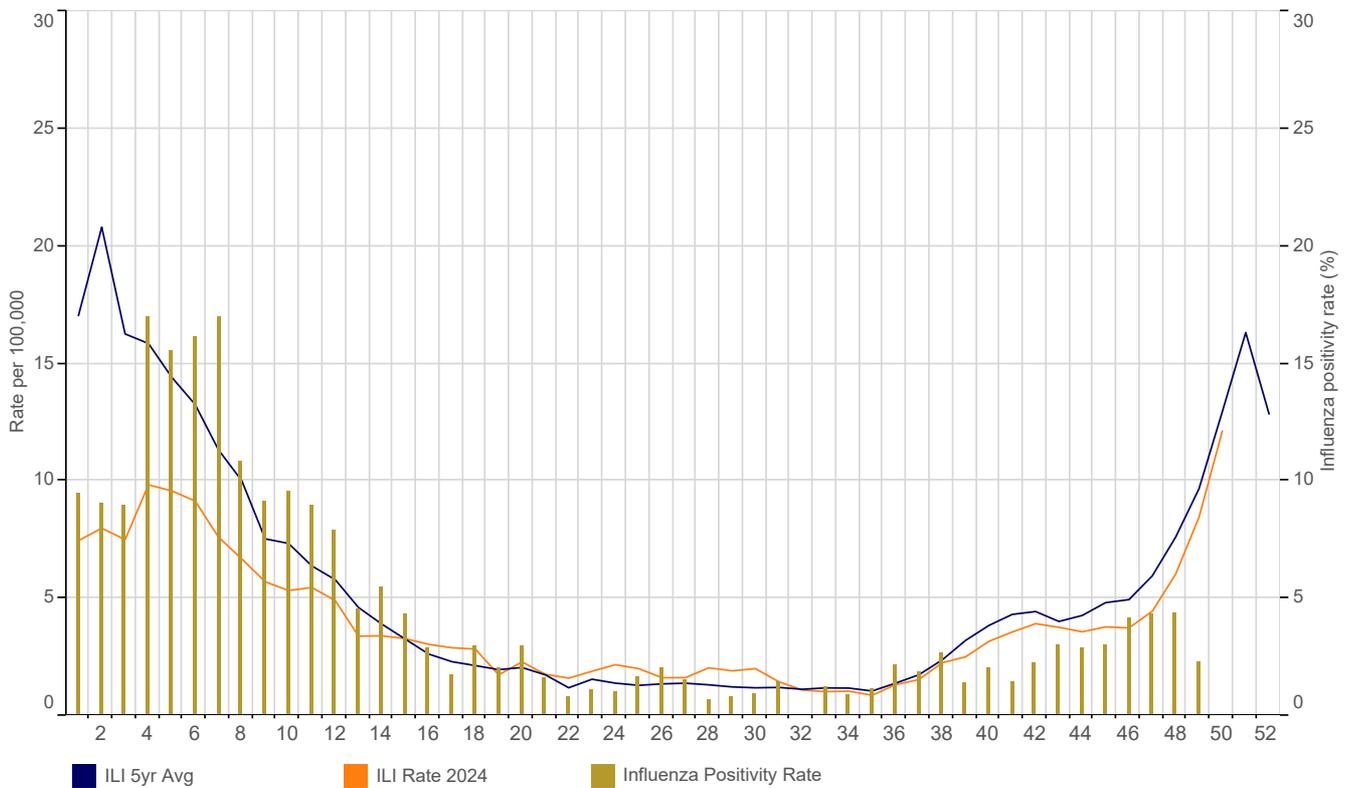
2024 Focus

Please see page 19 for explanatory notes on the data.

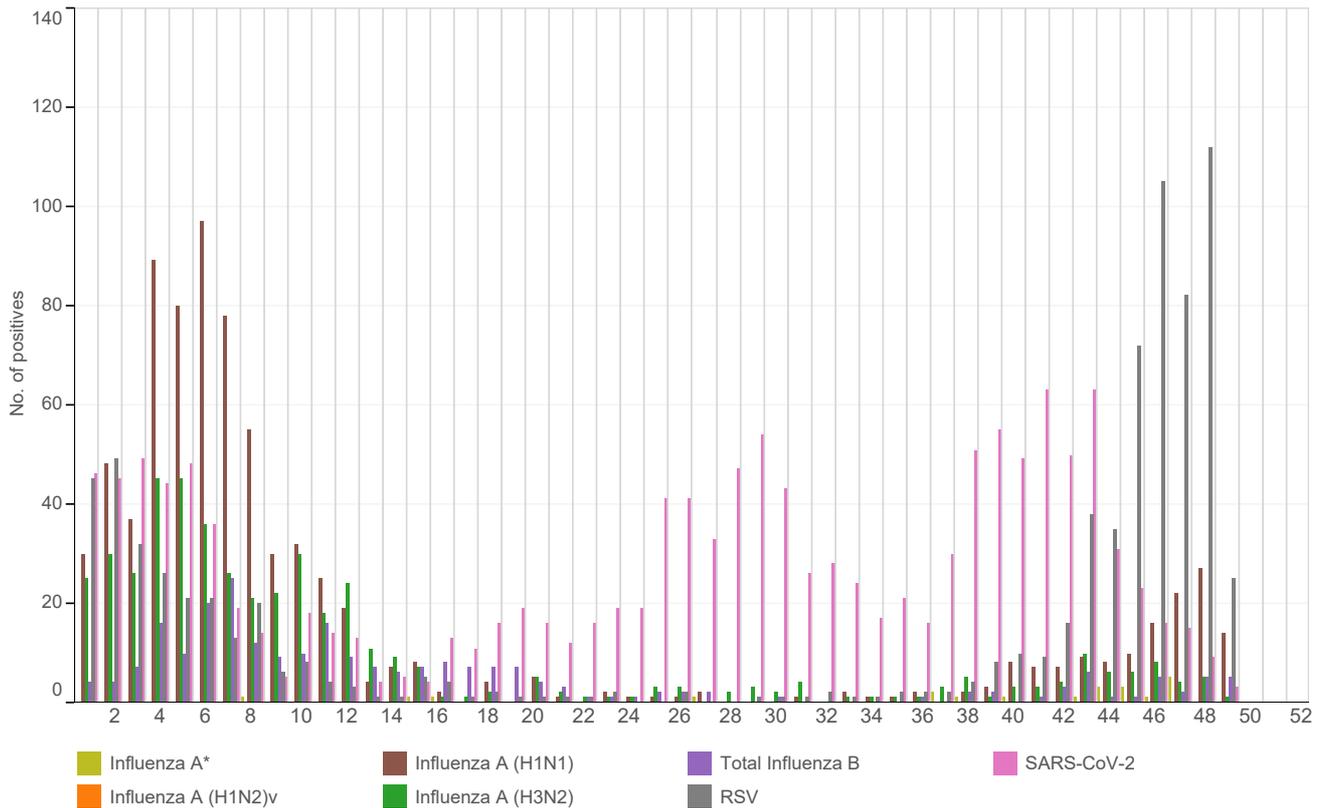
(A) Influenza-like illness: national incidence rate 2024 by region



(B) RCGP/UKHSA Influenza Virology Swab Surveillance 2024

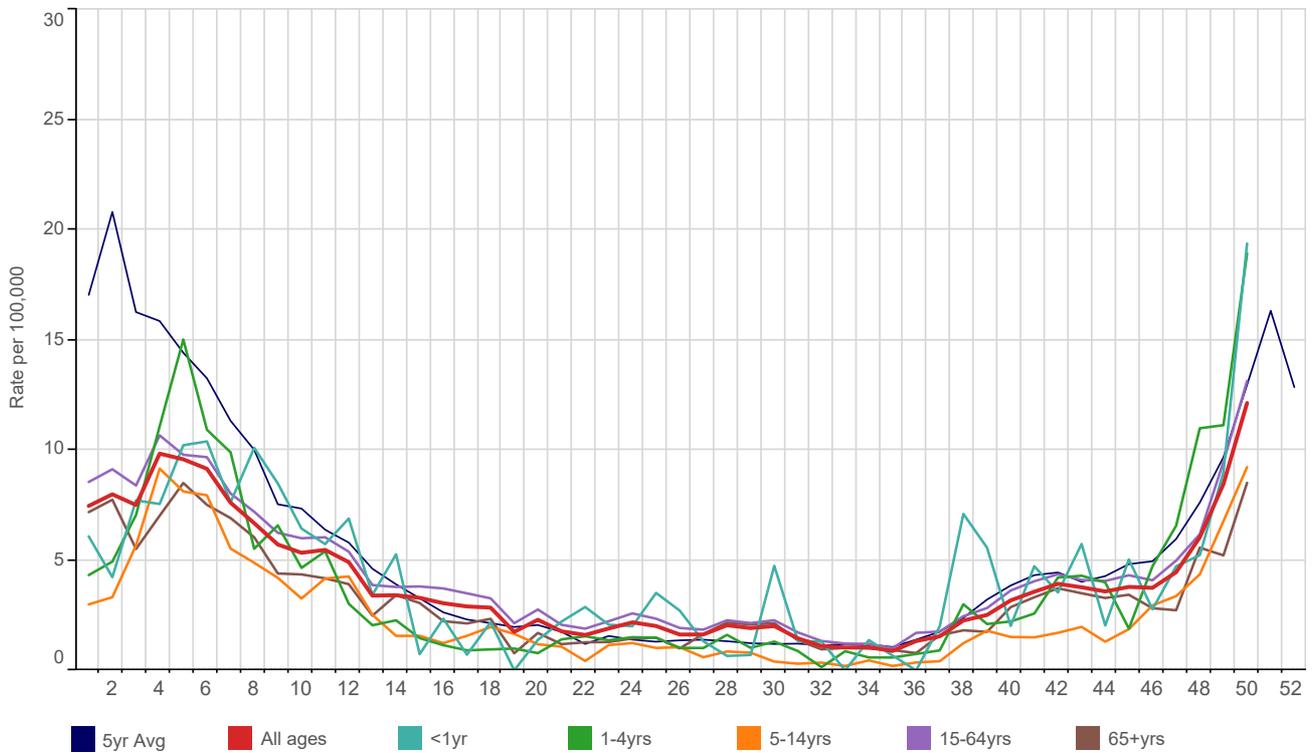


(C) RCGP/UKHSA RSV, Influenza and SARS-CoV-2 Virology Swab Surveillance 2024 by viral strain



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.

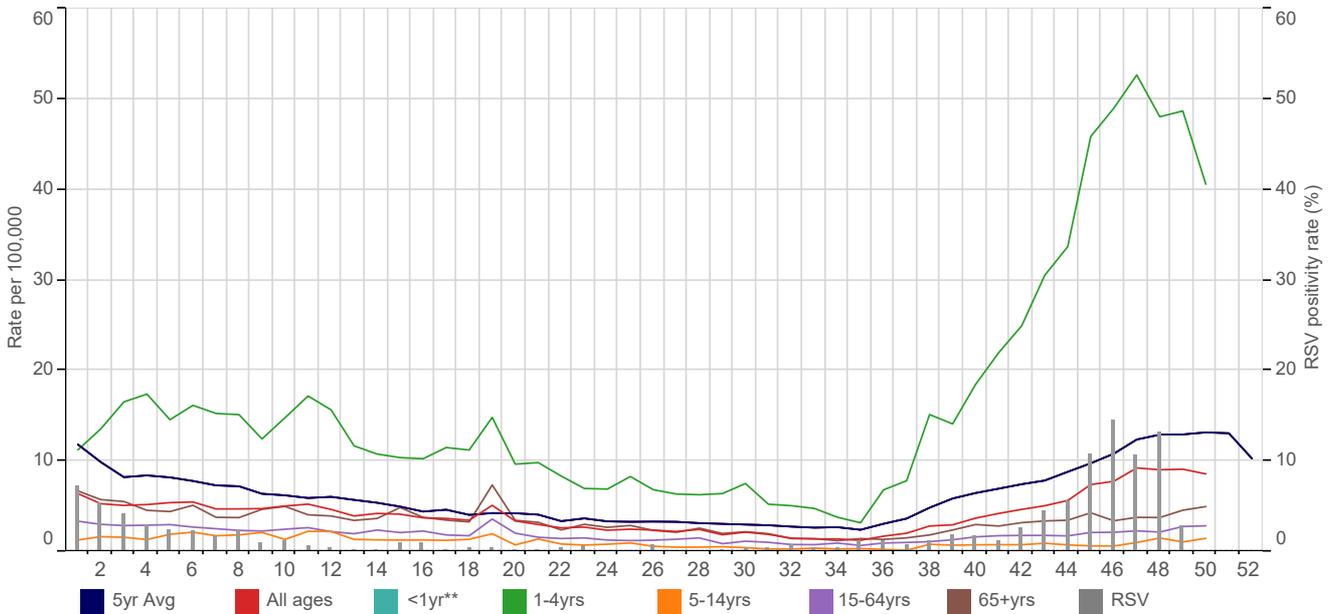
Table 1	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34
1-4yrs	0.9	0.9	1.0	0.8	1.4	1.5	1.4	1.5	1.5	1.0	1.0	1.6	1.0	1.3	0.9	0.1	0.9	0.6
5-14yrs	1.6	2.0	1.7	1.2	1.1	0.4	1.1	1.2	1.0	1.0	0.6	0.9	0.8	0.4	0.3	0.3	0.2	0.4
15-64yrs	3.5	3.3	2.1	2.8	2.1	1.9	2.2	2.6	2.3	1.9	1.8	2.3	2.1	2.3	1.7	1.3	1.2	1.2
65+yrs	2.1	2.3	0.8	1.7	1.2	1.3	1.3	1.4	1.5	1.0	1.6	2.2	2.1	2.1	1.4	1.0	1.0	1.0
All ages	2.9	2.8	1.7	2.3	1.8	1.6	1.9	2.2	2.0	1.6	1.6	2.0	1.9	2.0	1.5	1.1	1.0	1.1

	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52
1-4yrs	0.6	0.7	0.9	3.0	2.1	2.2	2.6	4.2	4.3	4.0	1.9	4.7	6.6	11.0	11.1	18.9		
5-14yrs	0.2	0.4	0.4	1.2	1.8	1.5	1.5	1.7	2.0	1.3	1.9	2.9	3.4	4.4	6.8	9.2		
15-64yrs	1.0	1.7	1.8	2.5	2.8	3.6	4.0	4.4	4.1	4.1	4.3	4.1	5.0	6.2	9.5	13.1		
65+yrs	0.9	0.8	1.6	1.8	1.7	2.9	3.3	3.7	3.5	3.3	3.4	2.8	2.7	5.6	5.2	8.5		
All ages	0.9	1.3	1.5	2.3	2.5	3.2	3.6	3.9	3.8	3.6	3.8	3.7	4.5	6.0	8.5	12.1		

Table 2	Below Threshold ¹	Threshold to Medium ²	Medium to High ³	High to Very High ⁴	Above Very High ⁵
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
¹Below baseline threshold
²baseline threshold breach to < 40th percentile
³40th to <90th percentile
⁴90th to <97.5th percentile
⁵97.5th+ percentile

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

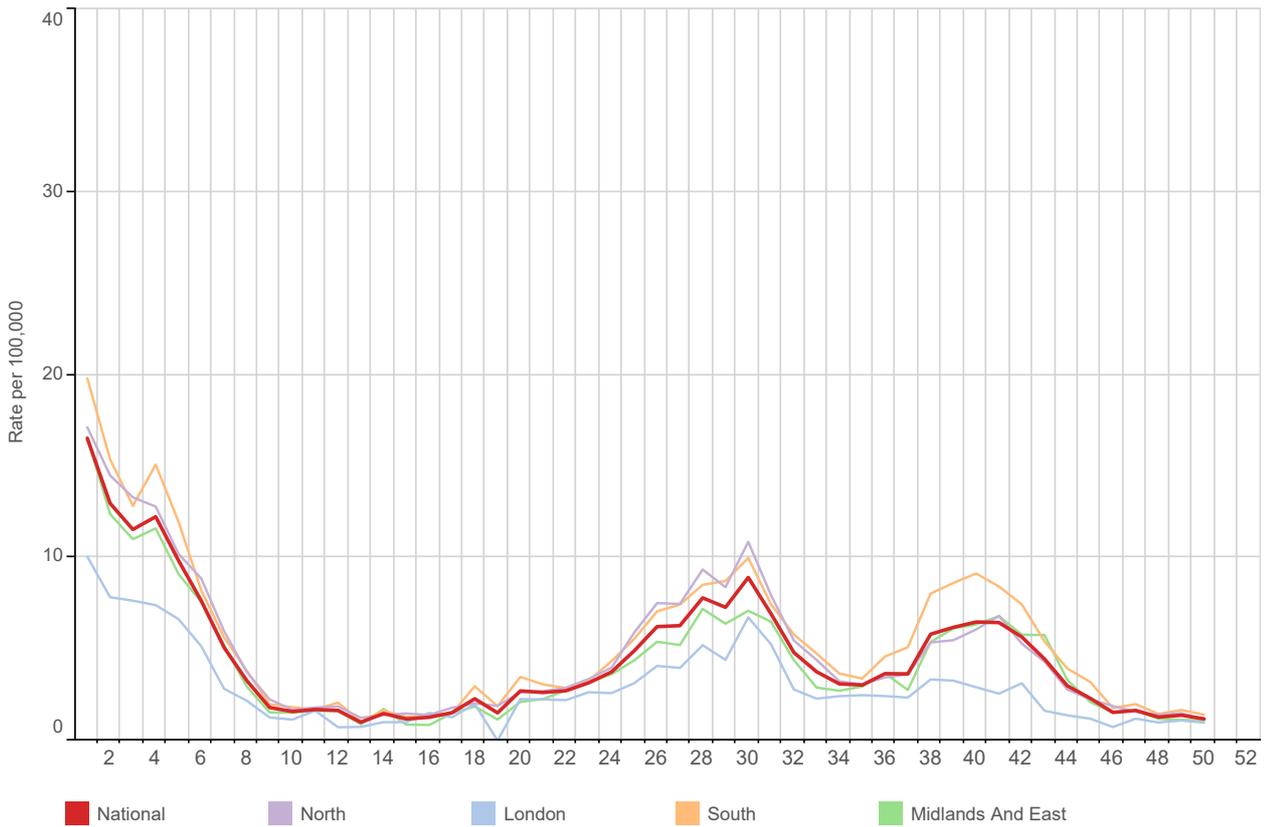


Weekly Influenza-like illness and Acute Bronchitis and Bronchiolitis incidence rates per 100,000 persons

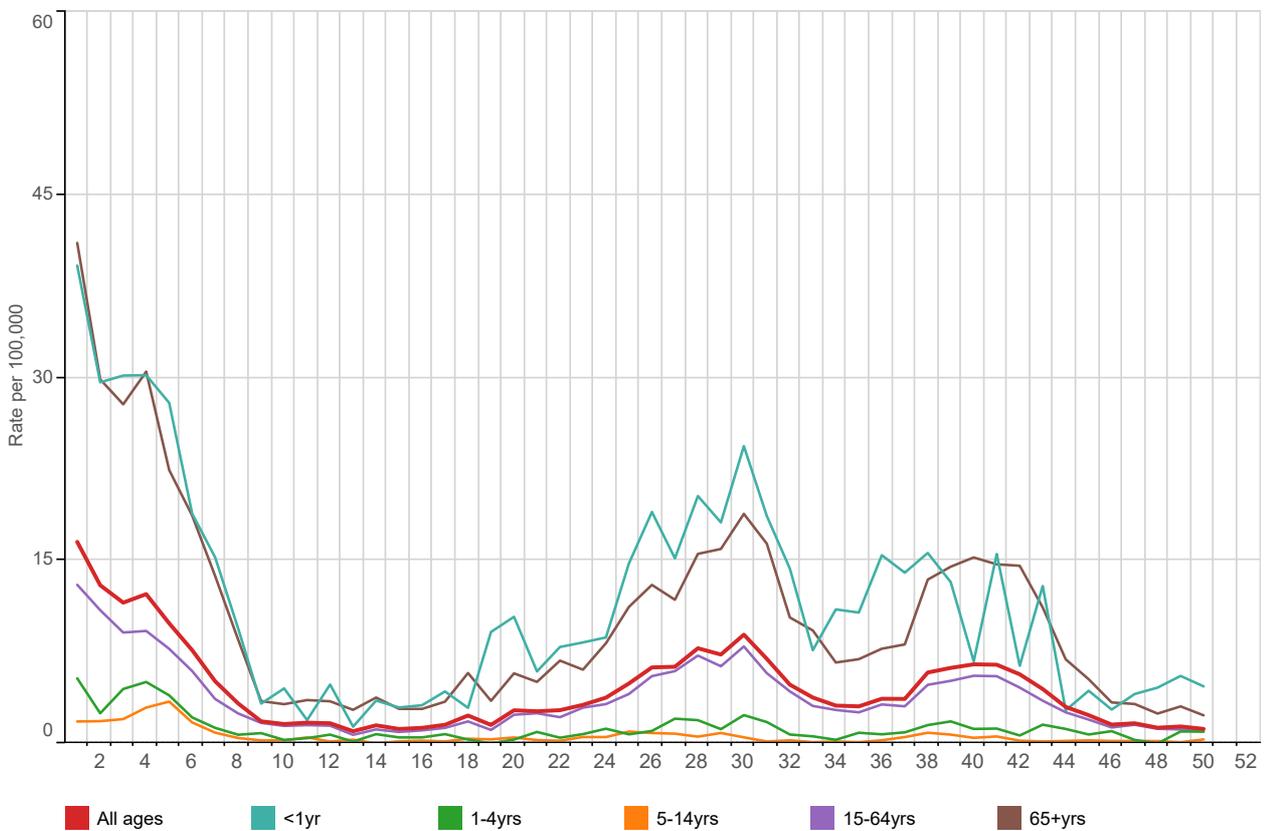
	Influenza-like illness	Acute Bronchitis and Bronchiolitis		Influenza-like illness	Acute Bronchitis and Bronchiolitis
<1yr	19.4	511.7	London	11.2	6.6
1-4yrs	18.9	40.6	North	14.7	9.6
5-14yrs	9.2	1.5	South	10.8	9.1
15-24yrs	10.7	1.1	Midlands And East	12.1	8.5
25-44yrs	14.6	2.5	National	12.1	8.6
45-64yrs	12.6	4.2			
65-74yrs	8.5	4.8			
75-84yrs	7.6	5.4			
85+yrs	10.8	4.4			
All ages	12.1	8.6			

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

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

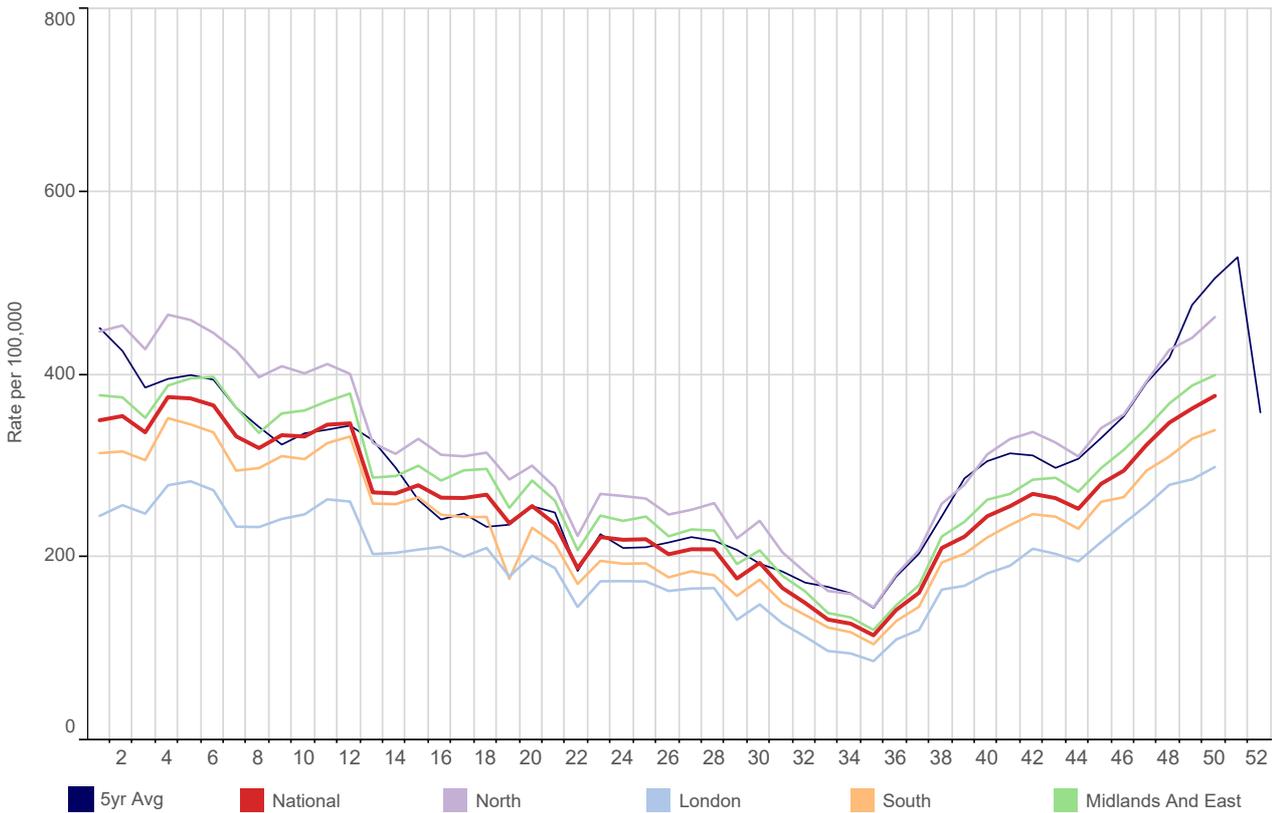


(H) COVID-19: national incidence rate 2024 by age band

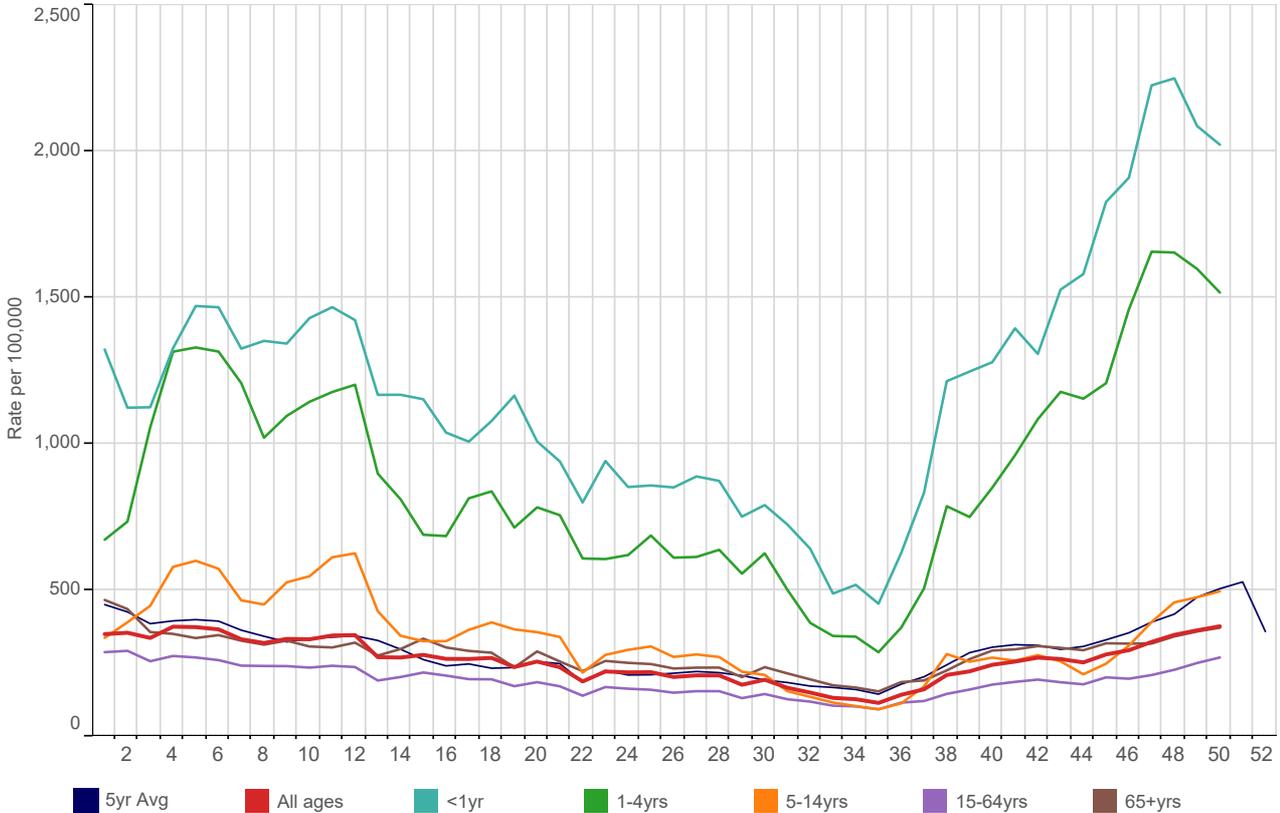


1. Respiratory Infections

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



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

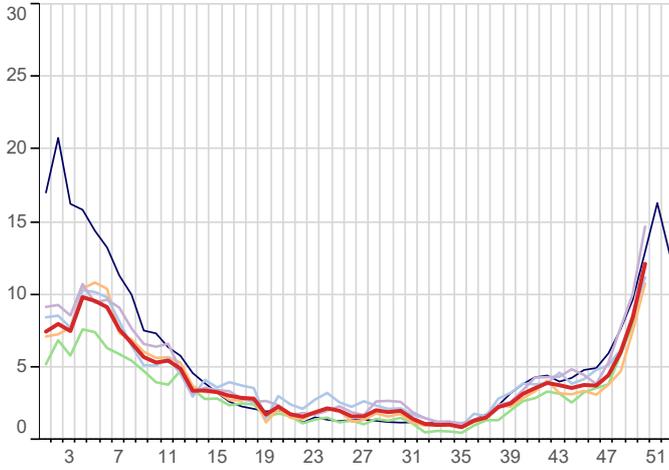


1. Respiratory Infections - by region

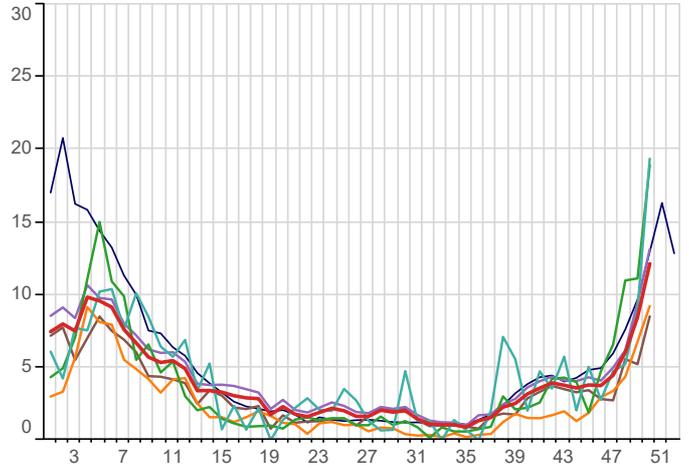
1. Respiratory Infections - by age band



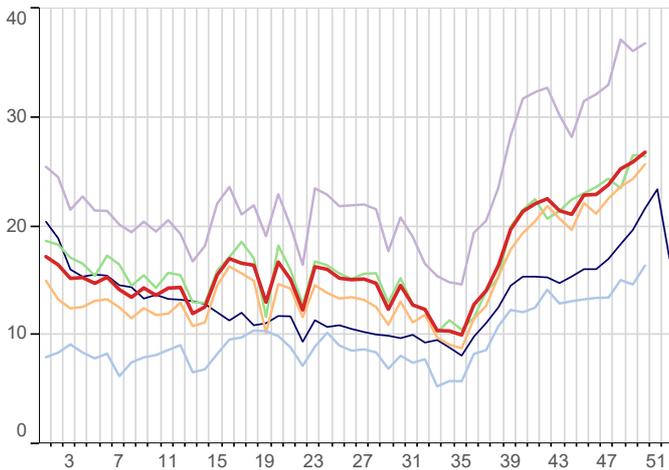
Influenza-like illness (ILI)
Weekly incidence (per 100,000 all ages) by region for 2024 compared with 5 year average



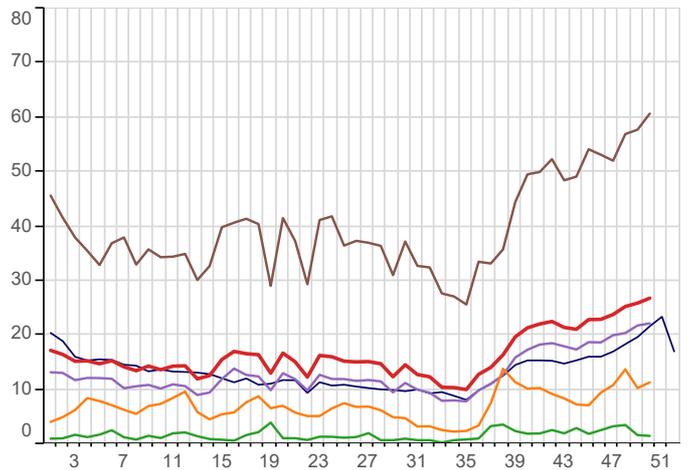
Influenza-like illness (ILI)
Weekly incidence (per 100,000 all regions) by age band for 2024 compared with 5 year average



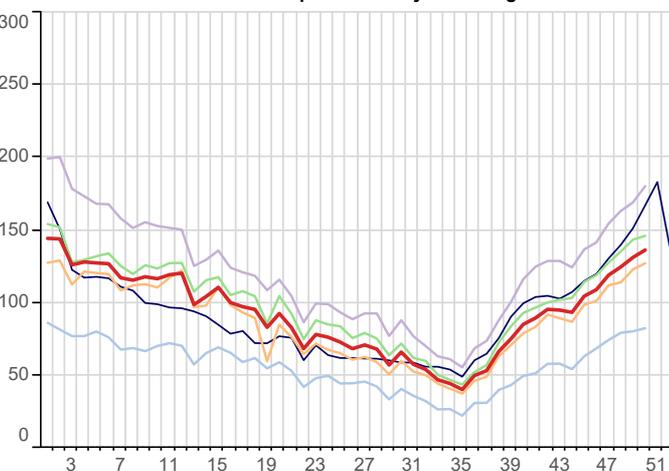
Exacerbations of Chronic Lung Disease (ECLD)
Weekly incidence (per 100,000 all ages) by region for 2024 compared with 5 year average



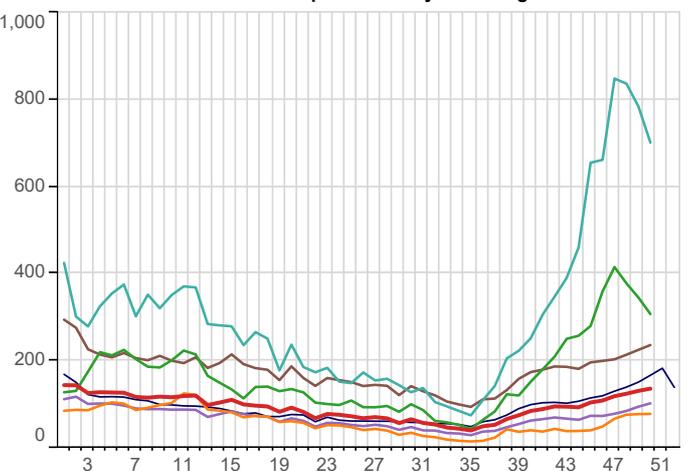
Exacerbations of Chronic Lung Disease (ECLD)
Weekly incidence (per 100,000 all regions) by age band for 2024 compared with 5 year average



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

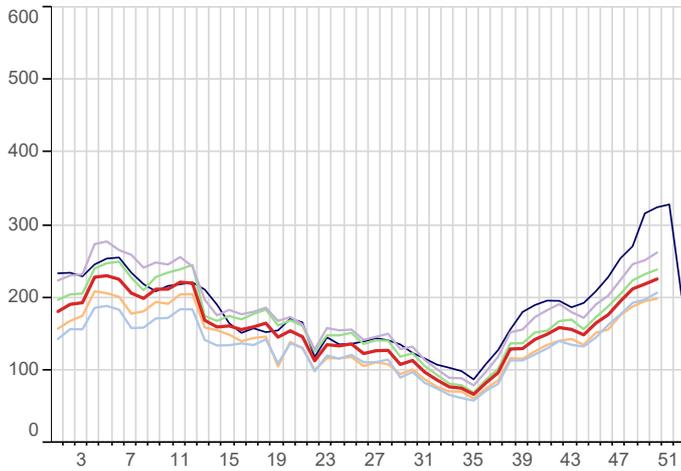


1. Respiratory Infections - by region

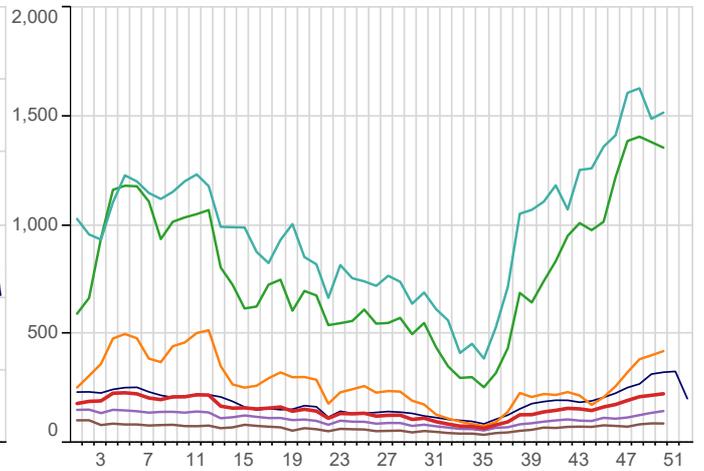
1. Respiratory Infections - by age band



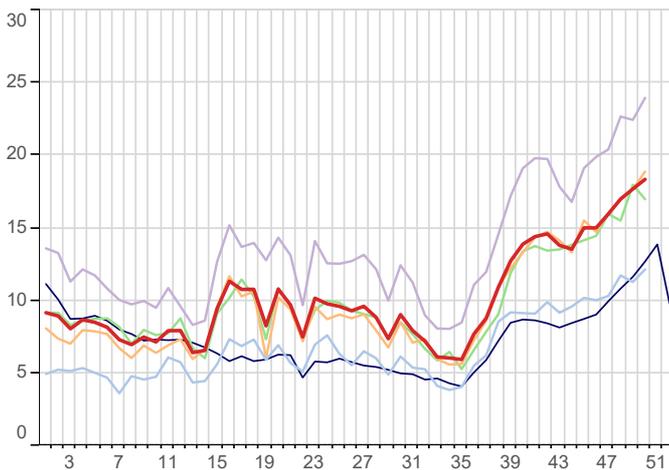
Upper Respiratory Tract Infections (URTI)
Weekly incidence (per 100,000 all ages) by region for 2024 compared with 5 year average



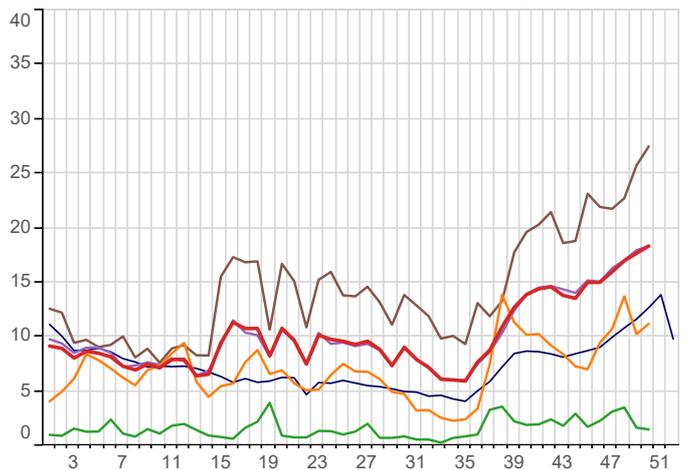
Upper Respiratory Tract Infections (URTI)
Weekly incidence (per 100,000 all regions) by age band for 2024 compared with 5 year average



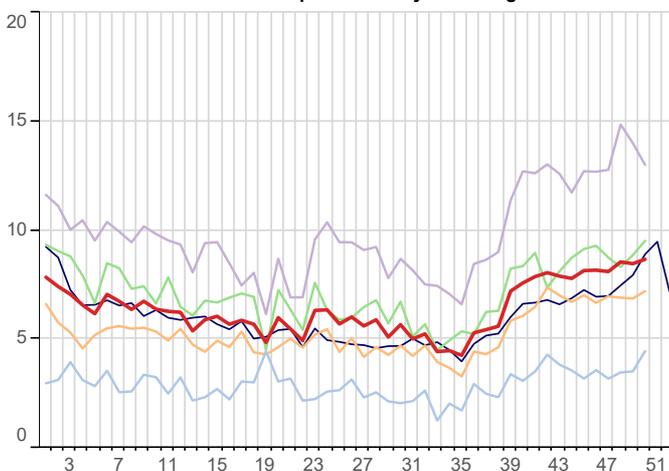
Exacerbations of Chronic Lung Disease (ECLD) - Asthma Exacerbations
Weekly incidence (per 100,000 all ages) by region for 2024 compared with 5 year average



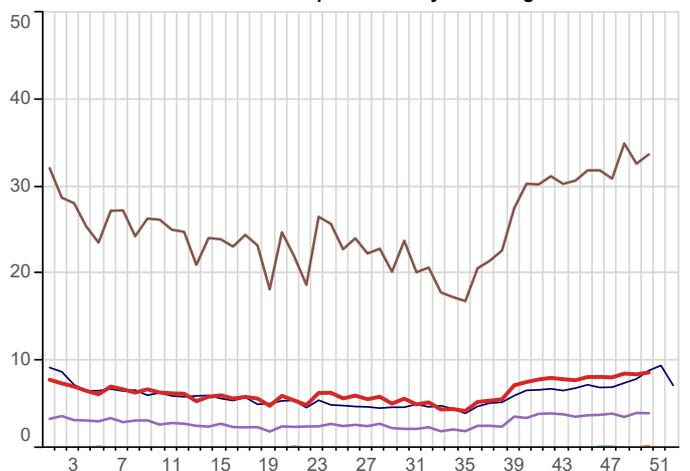
Exacerbations of Chronic Lung Disease (ECLD) - Asthma Exacerbations
Weekly incidence (per 100,000 all regions) by age band for 2024 compared with 5 year average



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

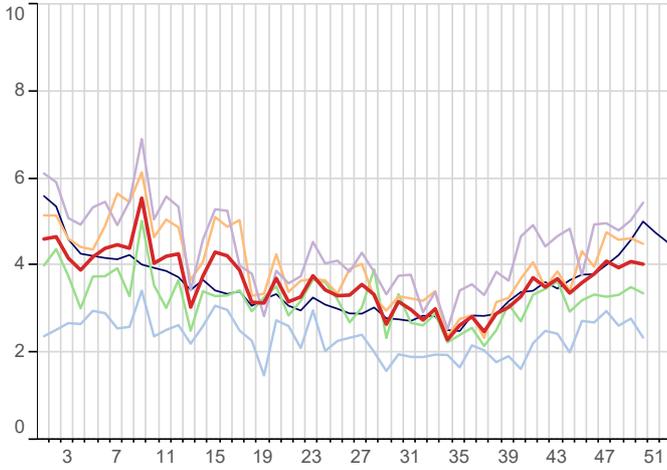


1. Respiratory Infections - by region

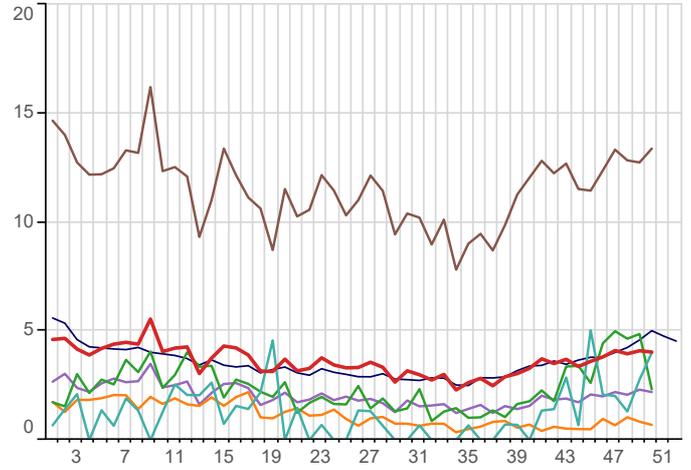
1. Respiratory Infections - by age band



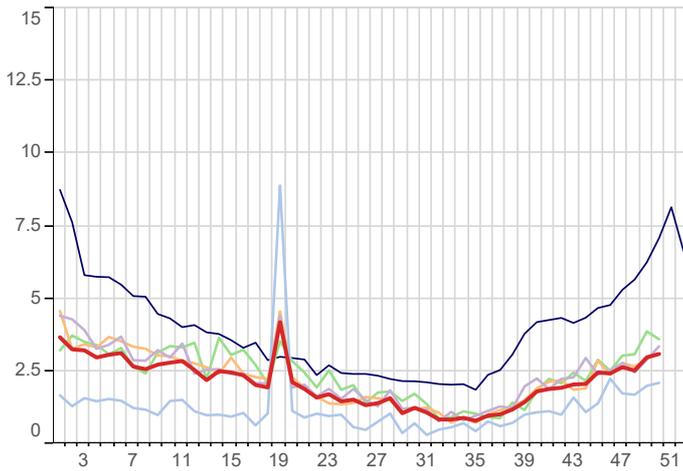
Lower Respiratory Tract Infections (LRTI) - Pneumonia
Weekly incidence (per 100,000 all ages) by region for 2024 compared with 5 year average



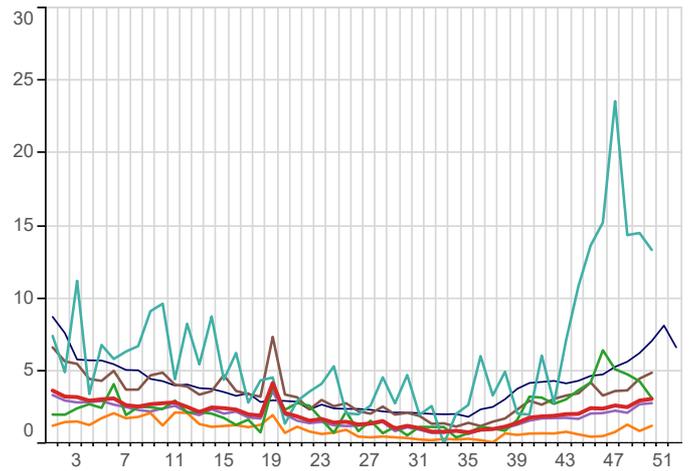
Lower Respiratory Tract Infections (LRTI) - Pneumonia
Weekly incidence (per 100,000 all regions) by age band for 2024 compared with 5 year average



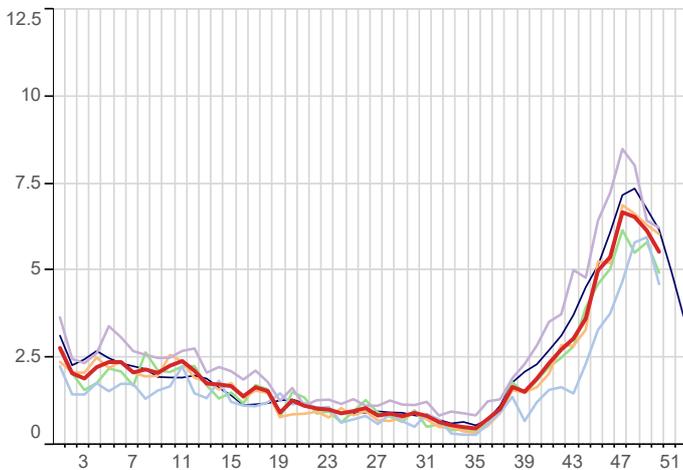
Lower Respiratory Tract Infections (LRTI) - Acute Bronchitis
Weekly incidence (per 100,000 all ages) by region for 2024 compared with 5 year average



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

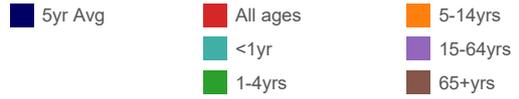


Lower Respiratory Tract Infections (LRTI) - Bronchiolitis
Weekly incidence (per 100,000 all regions) by age band for 2024 compared with 5 year average

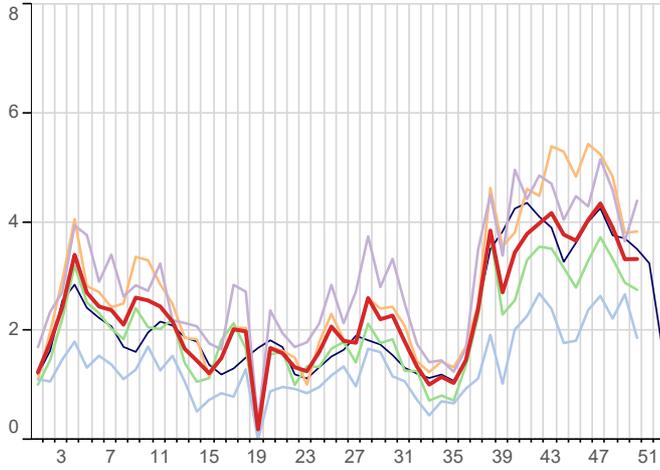


1. Respiratory Infections - by region

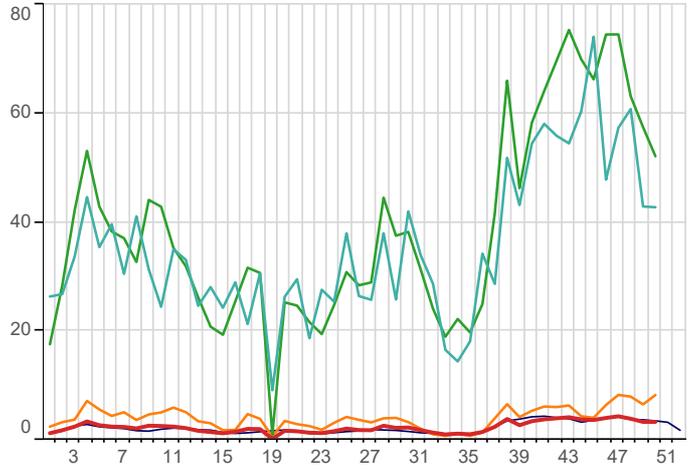
1. Respiratory Infections - by age band



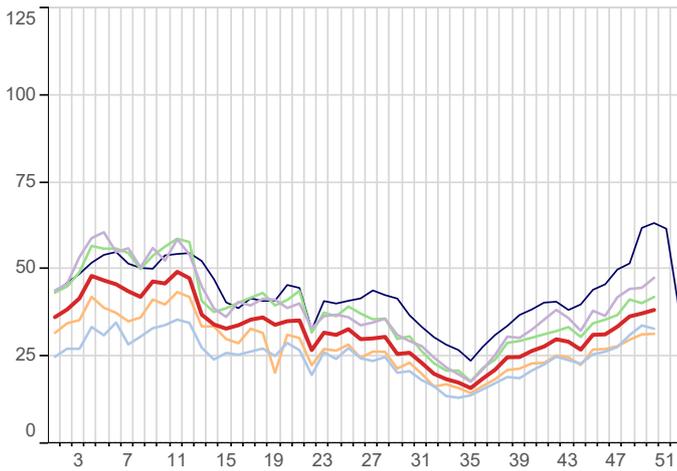
Upper Respiratory Tract Infections (URTI) - Croup
Weekly incidence (per 100,000 all ages) by region for 2024 compared with 5 year average



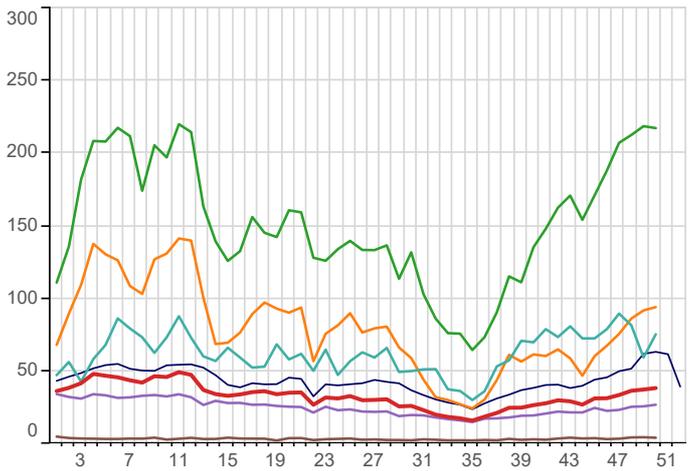
Upper Respiratory Tract Infections (URTI) - Croup
Weekly incidence (per 100,000 all regions) by age band for 2024 compared with 5 year average



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



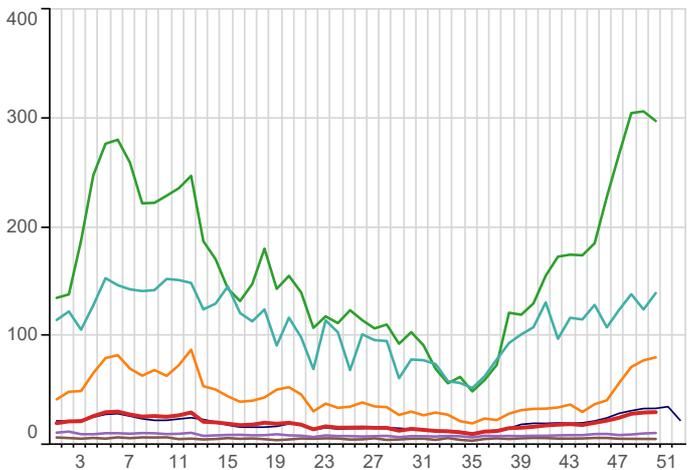
Upper Respiratory Tract Infections (URTI) - Tonsillitis/Pharyngitis
Weekly incidence (per 100,000 all regions) by age band for 2024 compared with 5 year average



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

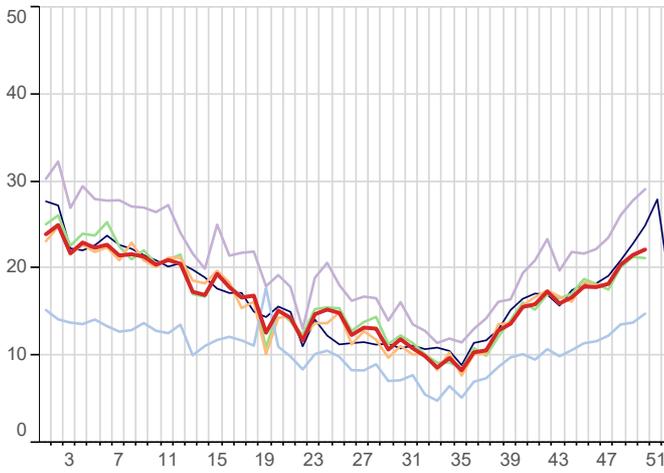


1. Respiratory Infections - by region

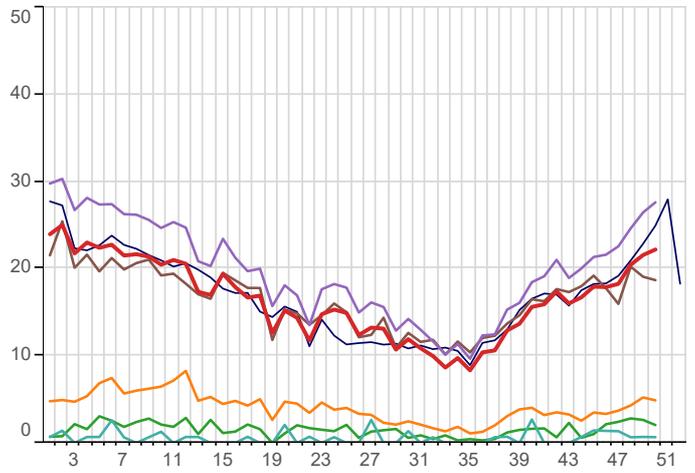
1. Respiratory Infections - by age band



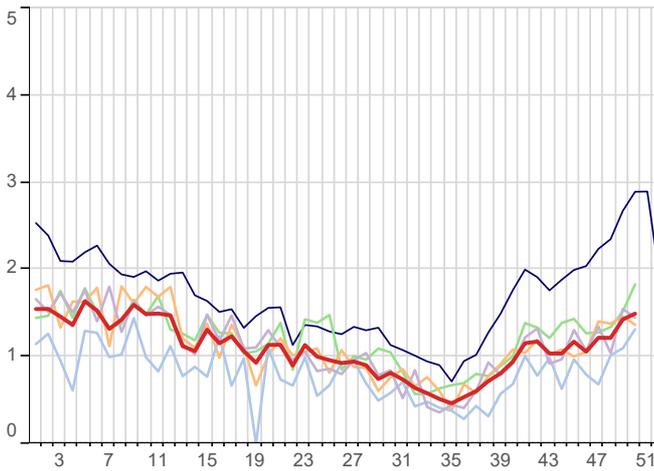
Upper Respiratory Tract Infections (URTI) - Sinusitis
Weekly incidence (per 100,000 all ages) by region for 2024 compared with 5 year average



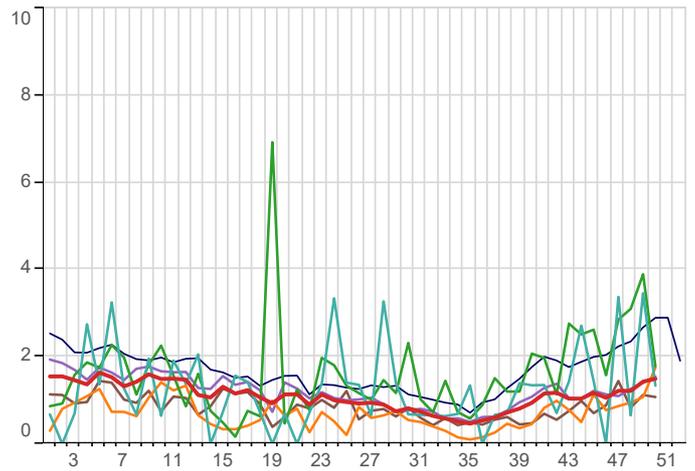
Upper Respiratory Tract Infections (URTI) - Sinusitis
Weekly incidence (per 100,000 all ages) by region for 2024 compared with 5 year average



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



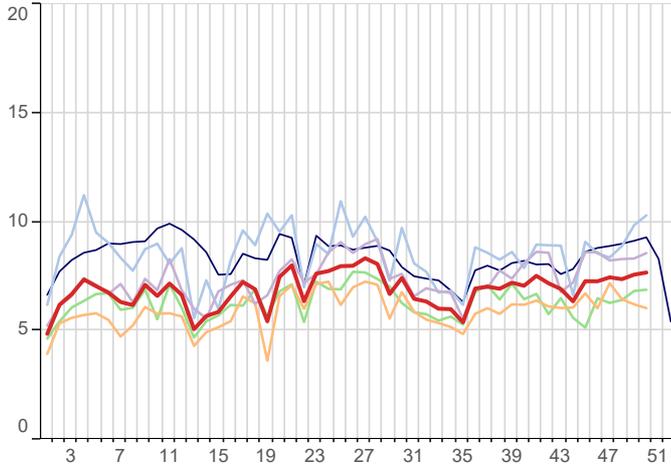
Upper Respiratory Tract Infections (URTI) - Laryngitis
Weekly incidence (per 100,000 all ages) by region for 2024 compared with 5 year average



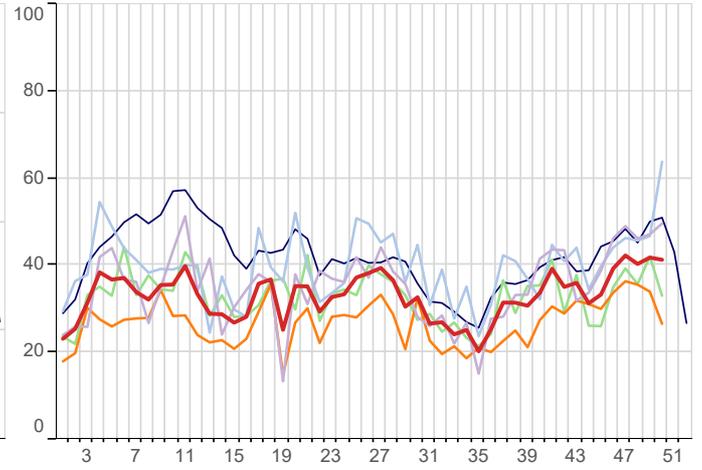
2. Water & Food Borne Disorders

5yr Avg National North London South Midlands And East

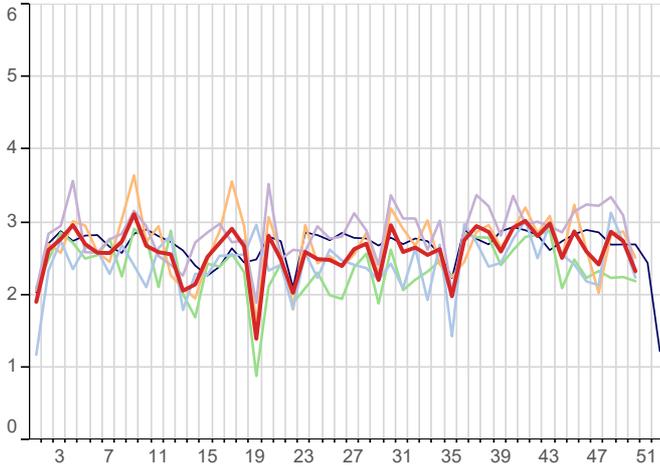
Infectious Intestinal Disease (ICD10: A00-A09)
Weekly incidence (per 100,000 all ages) by region for 2024 compared with 5 year average



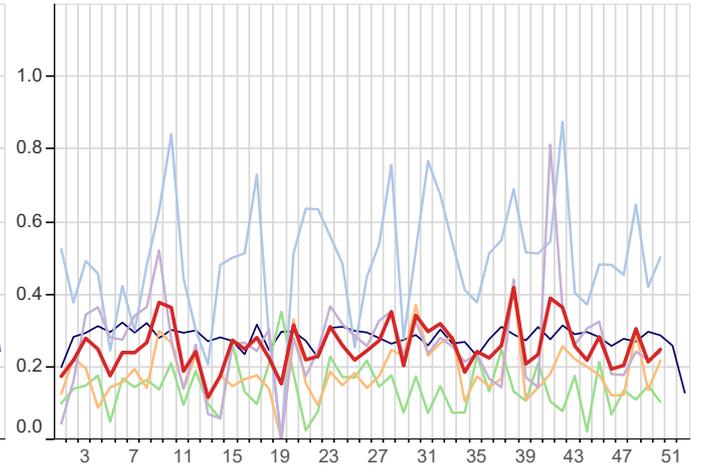
Infectious Intestinal Disease (ICD10: A00-A09)
Weekly incidence (per 100,000 0-4 years) by region for 2024 compared with 5 year average



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



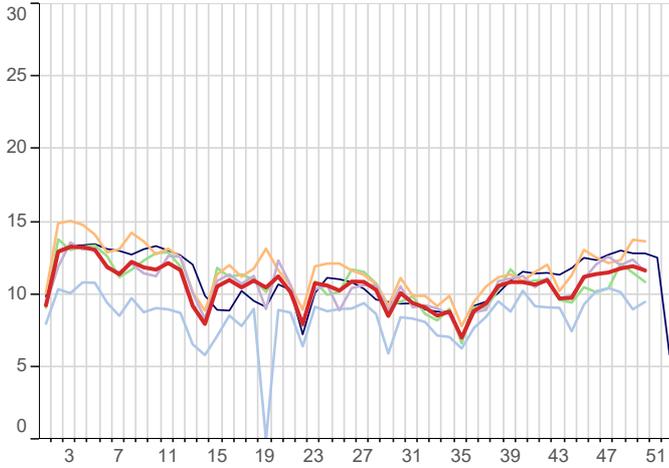
Viral Hepatitis (ICD10: B15-B19)
Weekly incidence (per 100,000 all ages) by region for 2024 compared with 5 year average



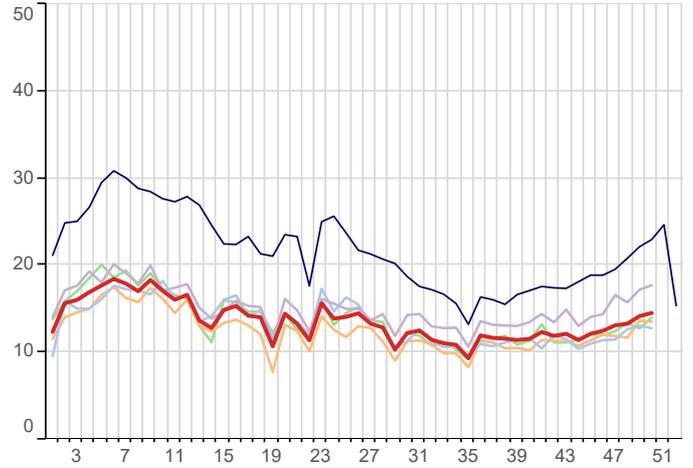
3. Environmentally Sensitive Disorders

5yr Avg National North London South Midlands And East

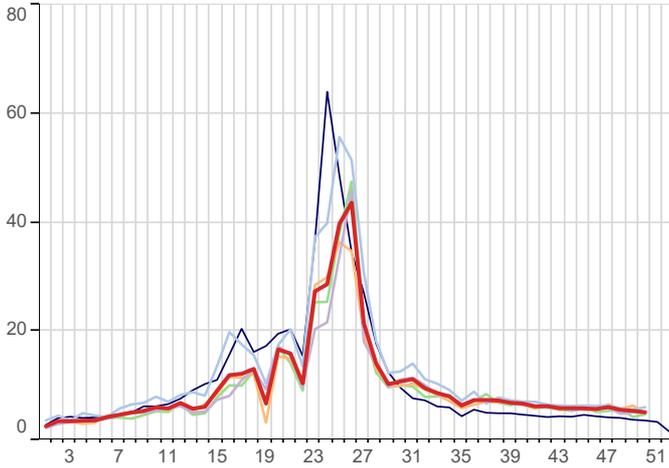
Asthma (ICD10: J45-J46)
Weekly incidence (per 100,000 all ages) by region for 2024 compared with 5 year average



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



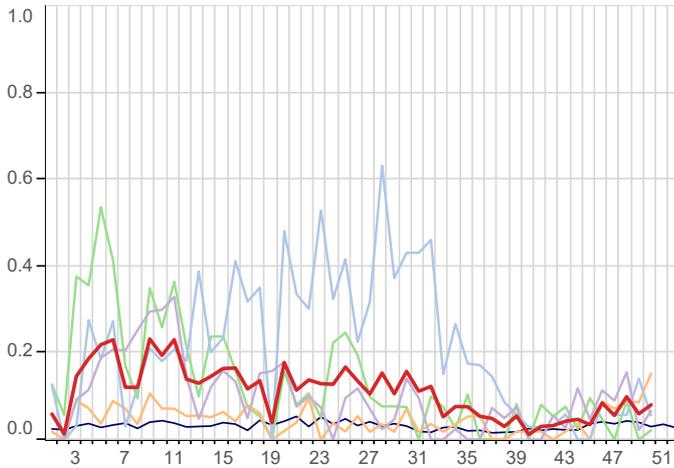
Hayfever/Allergic Rhinitis (ICD10: J30)
Weekly incidence (per 100,000 all ages) by region for 2024 compared with 5 year average



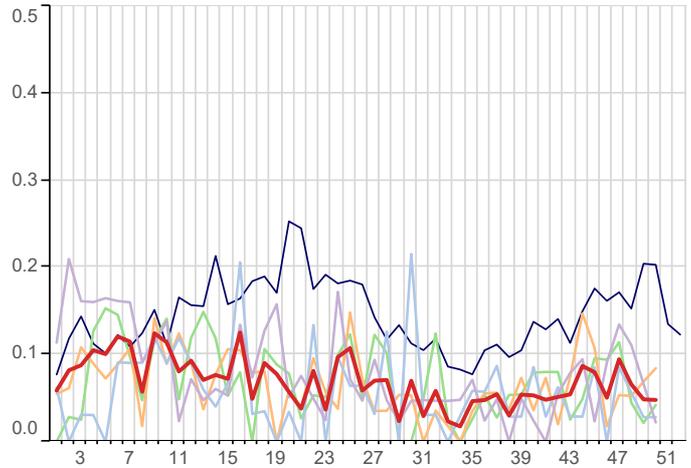
4. Vaccine Sensitive Disorders

5yr Avg National North London South Midlands And East

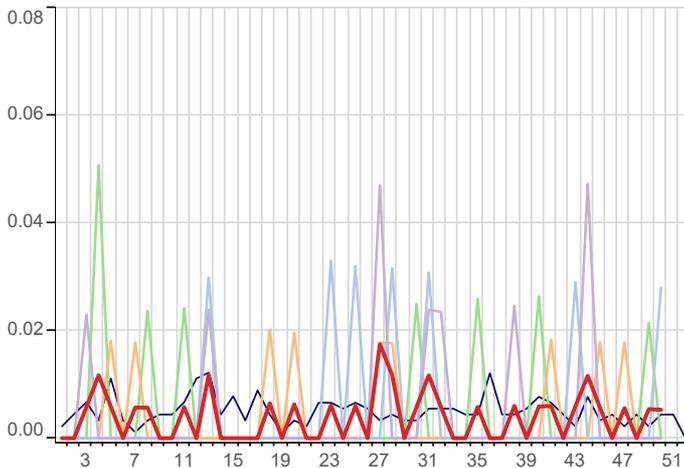
Measles (ICD10: B05)
Weekly incidence (per 100,000 all ages) by region for 2024 compared with 5 year average



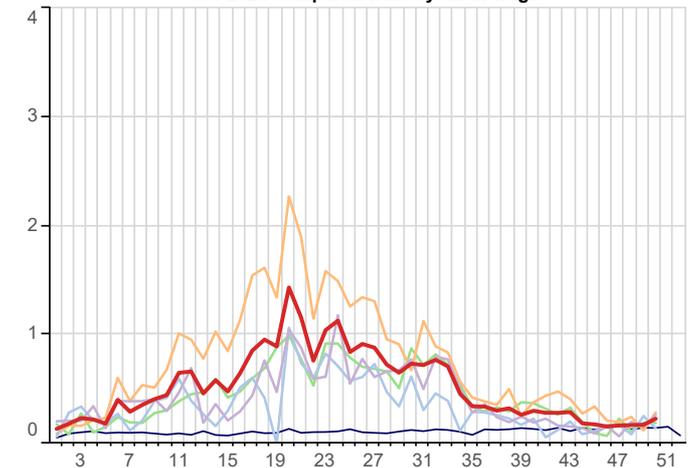
Mumps (ICD10: B26)
Weekly incidence (per 100,000 all ages) by region for 2024 compared with 5 year average



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

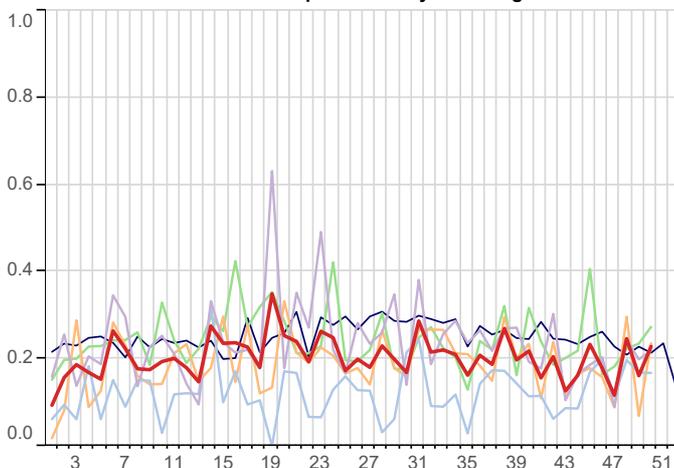


Whooping Cough (ICD10: A37)
Weekly incidence (per 100,000 all ages) by region for 2024 compared with 5 year average

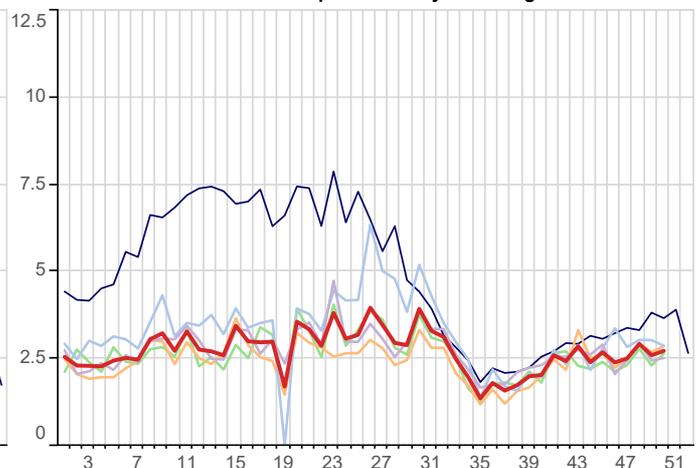


5. Skin Contagions

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



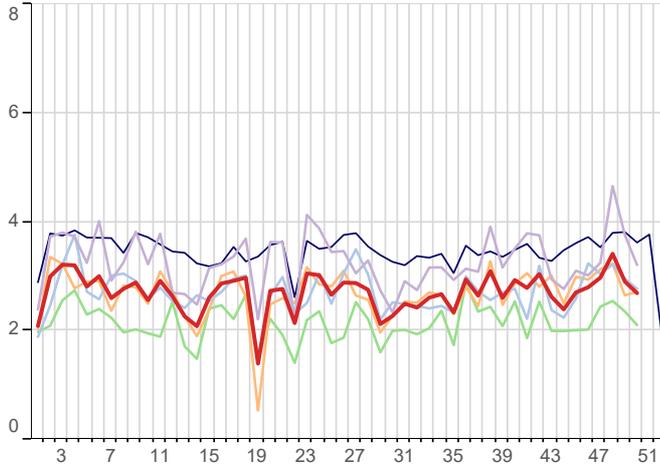
Chickenpox (ICD10: B01)
Weekly incidence (per 100,000 all ages) by region for 2024 compared with 5 year average



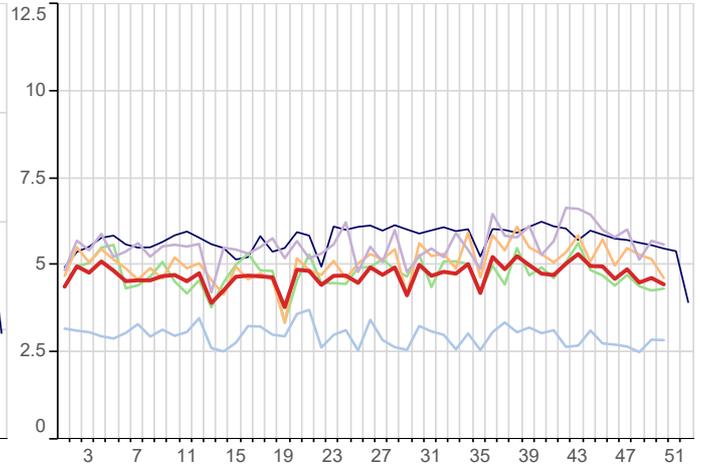
5. Skin Contagions (Continued)

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

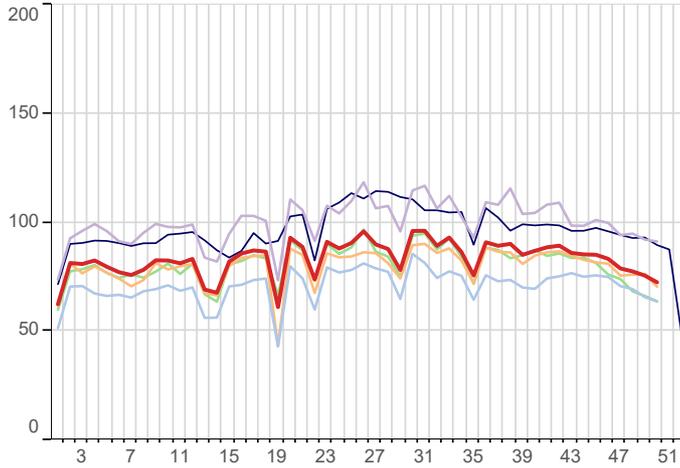
Herpes Simplex (ICD10: B00)
Weekly incidence (per 100,000 all ages) by region for 2024 compared with 5 year average



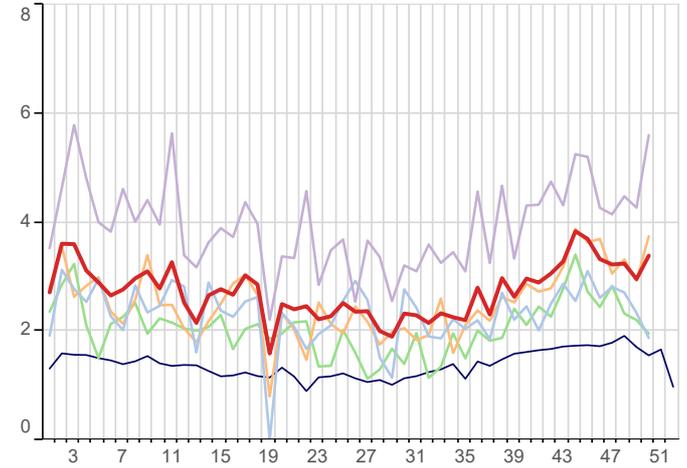
Herpes Zoster (ICD10: B02)
Weekly incidence (per 100,000 all ages) by region for 2024 compared with 5 year average



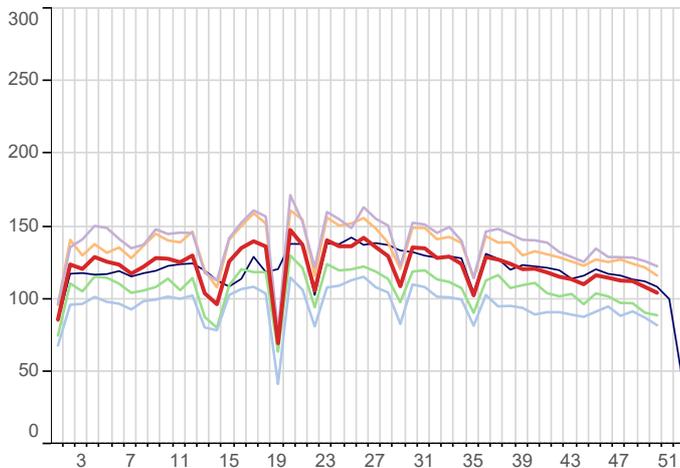
Infections of Skin & Subcutaneous Tissue (ICD10: L00-L08)
Weekly incidence (per 100,000 all ages) by region for 2024 compared with 5 year average



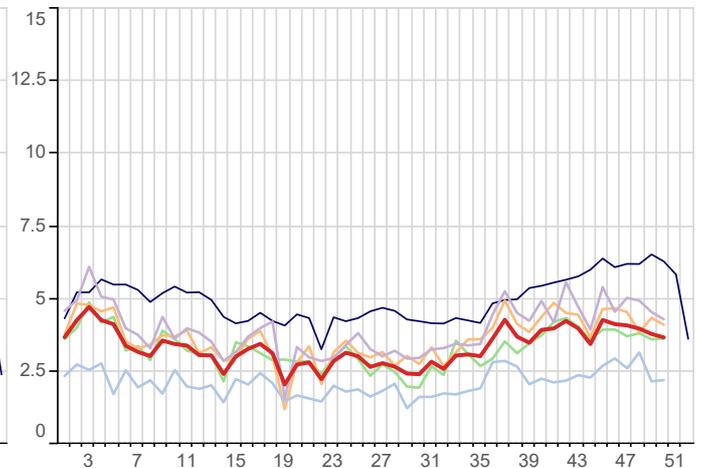
Scabies (ICD10: B86)
Weekly incidence (per 100,000 all ages) by region for 2024 compared with 5 year average



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



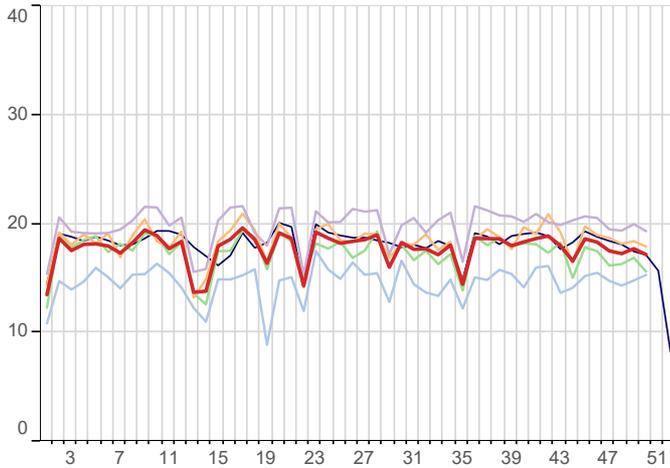
Impetigo (ICD10: L01)
Weekly incidence (per 100,000 all ages) by region for 2024 compared with 5 year average



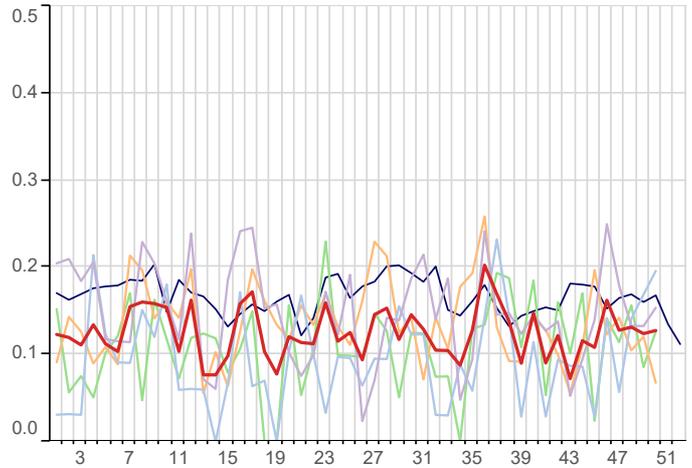
6. Disorders Affecting the Nervous System

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

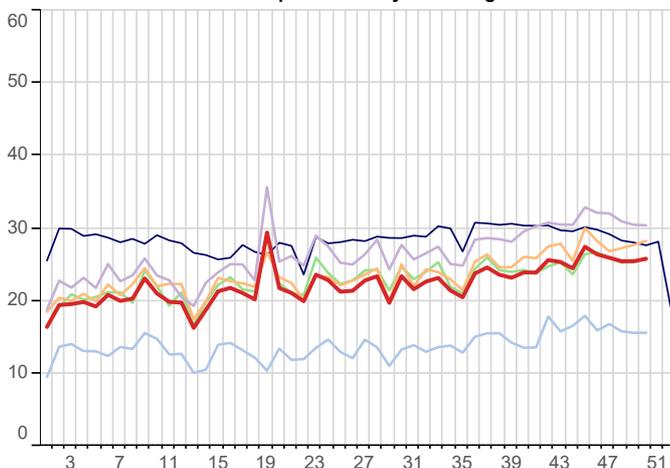


Symptoms Involving Nervous & Musculoskeletal (ICD10: R25-R29)
Weekly incidence (per 100,000 all ages) by region for 2024 compared with 5 year average



7. Genitourinary System Disorders

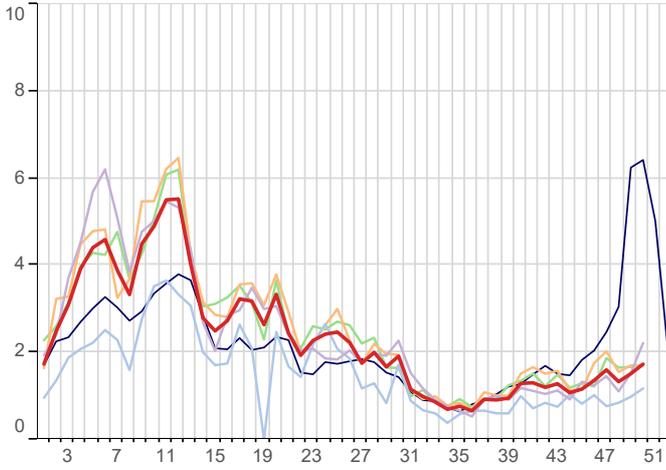
Urinary Tract Infection/Cystitis (ICD10: N30,N390)
Weekly incidence (per 100,000 all ages) by region for 2024 compared with 5 year average



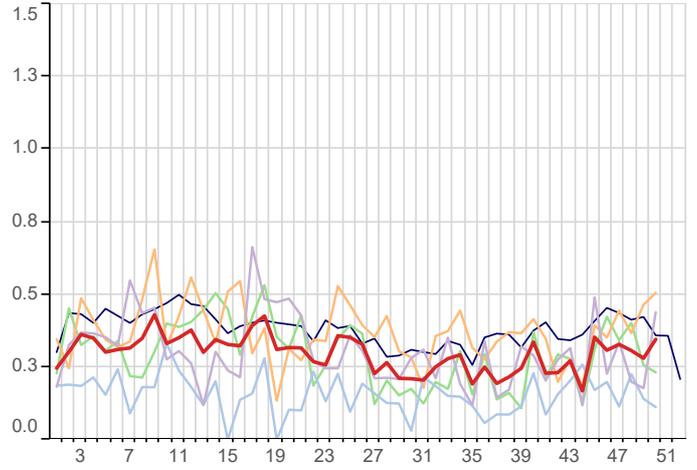
8. Other Disorders

■ 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		09/12/2024 15/12/2024		02/12/2024 08/12/2024		25/11/2024 01/12/2024		18/11/2024 24/11/2024	
	Rate	Numer	Rate	Numer	Rate	Numer	Rate	Numer	Rate	Numer
Acute Bronchitis	3.1	582	3.0	553	2.5	461	2.6	475		
Acute respiratory infections (ARI)	376.8	70,852	362.9	67,343	347.5	63,421	323.2	58,113		
Allergic Rhinitis	5.1	962	5.4	999	5.5	1,012	6.1	1,090		
Asthma	11.7	2,192	11.9	2,217	11.8	2,152	11.5	2,070		
Bronchiolitis	5.5	1,043	6.2	1,142	6.5	1,195	6.7	1,201		
Bullous Dermatoses	0.2	43	0.2	30	0.2	45	0.1	21		
Chickenpox	2.7	514	2.6	484	2.9	535	2.5	452		
Conjunctival Disorders	14.5	2,735	14.2	2,631	13.3	2,429	13.1	2,359		
COVID-19	1.2	223	1.4	257	1.3	234	1.6	296		
Croup	3.3	625	3.3	616	3.9	712	4.3	781		
ECLD - Asthma exacerbations	18.4	3,452	17.7	3,283	17.0	3,103	16.0	2,873		
ECLD - COPD exacerbations	8.7	1,630	8.5	1,571	8.5	1,560	8.1	1,457		
Exacerbations of chronic lung disease	26.8	5,042	25.9	4,808	25.3	4,614	23.8	4,282		
Herpes Simplex	2.7	506	2.9	539	3.4	623	3.0	535		
Herpes Zoster	4.5	838	4.6	861	4.5	823	4.9	879		
Impetigo	3.7	692	3.8	705	4.0	727	4.1	736		
Infectious Intestinal Diseases	7.7	1,443	7.6	1,406	7.4	1,345	7.5	1,340		
Infectious Mononucleosis	0.3	65	0.3	52	0.3	56	0.3	59		
Influenza-like illness	12.1	2,282	8.5	1,569	6.0	1,102	4.5	801		
Laryngitis	1.5	281	1.4	265	1.2	222	1.2	219		
Lower respiratory tract infections	136.4	25,648	131.3	24,360	124.7	22,765	119.1	21,409		
Measles	0.1	15	0.1	11	0.1	18	0.1	10		
Meningitis and Encephalitis	0.1	24	0.1	23	0.1	24	0.1	23		
Mumps	0.0	9	0.0	9	0.1	12	0.1	17		
Non-infective Enteritis and Colitis	2.3	438	2.7	509	2.9	524	2.4	435		
Otitis Media	30.2	5,686	29.8	5,536	28.7	5,242	25.1	4,508		
Peripheral Nervous Disease	17.2	3,231	17.7	3,288	17.3	3,152	17.5	3,149		
Pneumonia	4.0	759	4.1	760	4.0	722	4.1	738		
Rubella	0.0	1	0.0	1	0.0	0	0.0	1		
Scabies	3.4	637	3.0	549	3.2	592	3.2	580		
Sinusitis	22.2	4,176	21.6	4,003	20.5	3,734	18.3	3,283		
Skin and Subcutaneous Tissue Infections	72.5	13,626	75.6	14,020	77.5	14,140	78.8	14,173		
Strep Throat and Peritonsillar Abscess	1.7	326	1.5	281	1.3	243	1.6	288		
Symptoms involving musculoskeletal	14.9	2,799	14.9	2,762	15.3	2,789	14.8	2,665		
Symptoms involving Skin and Integument Tissues	104.4	19,625	108.4	20,116	112.4	20,508	112.8	20,277		
Tonsillitis/Pharyngitis	38.4	7,225	37.4	6,943	36.6	6,673	33.6	6,048		
Upper respiratory tract infections	225.9	42,470	218.9	40,609	212.2	38,734	195.3	35,106		
Urinary Tract Infections	25.8	4,850	25.5	4,726	25.5	4,648	25.9	4,664		
Viral Hepatitis	0.2	47	0.2	40	0.3	56	0.2	37		
Whooping Cough	0.2	43	0.2	32	0.2	31	0.2	30		
Practice Count		1,736		1,716		1,707		1,703		
Denom		18,803,239		18,554,913		18,250,883		17,977,997		

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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