

RSC Communicable and Respiratory Disease Report for England

Key Statistics:

Week Number/Year..... 49/2023
 Week Starting - Ending..... 04/12/2023 - 10/12/2023
 No. of Practices..... 1,626
 Population..... 16,496,788

National (England)

- **Acute Respiratory Infections:** increased from **353.2** in week 48 to **377.3** in week 49.
- **Influenza-like illness:** increased from **4.6** in week 48 to **5.3** in week 49.
- **Exacerbations of Chronic Lung Disease:** increased from **16.6** in week 48 to **17.9** in week 49.
- **Lower Respiratory Tract Infections:** increased from **126.3** in week 48 to **136.0** in week 49.
- **Upper Respiratory Tract Infections:** increased from **214.8** in week 48 to **226.2** in week 49.
- **COVID-19:** increased from **9.0** in week 48 to **12.1** in week 49.

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

- **Acute Respiratory Infections:** increased from **294.4** in week 48 to **314.4** in week 49 in the London region, increased from **416.8** in week 48 to **447.6** in week 49 in the North region, increased from **329.5** in week 48 to **343.4** in week 49 in the South region, and increased from **363.4** in week 48 to **397.2** in week 49 in the Midlands And East region.
- **Influenza-like illness:** increased from **6.5** in week 48 to **7.4** in week 49 in the London region, increased from **4.8** in week 48 to **5.7** in week 49 in the North region, increased from **4.2** in week 48 to **5.0** in week 49 in the South region, and increased from **3.4** in week 48 to **3.6** in week 49 in the Midlands And East region.
- **Exacerbations of Chronic Lung Disease:** increased from **9.1** in week 48 to **11.4** in week 49 in the London region, increased from **24.1** in week 48 to **24.7** in week 49 in the North region, increased from **14.9** in week 48 to **15.4** in week 49 in the South region, and increased from **16.8** in week 48 to **19.2** in week 49 in the Midlands And East region.
- **Lower Respiratory Tract Infections:** increased from **84.0** in week 48 to **95.5** in week 49 in the London region, increased from **162.1** in week 48 to **176.1** in week 49 in the North region, increased from **118.8** in week 48 to **123.8** in week 49 in the South region, and increased from **131.9** in week 48 to **141.7** in week 49 in the Midlands And East region.
- **Upper Respiratory Tract Infections:** increased from **200.4** in week 48 to **204.8** in week 49 in the London region, increased from **240.9** in week 48 to **258.1** in week 49 in the North region, increased from **198.4** in week 48 to **204.0** in week 49 in the South region, and increased from **220.4** in week 48 to **238.4** in week 49 in the Midlands And East region.
- **COVID-19:** increased from **8.7** in week 48 to **11.5** in week 49 in the London region, increased from **7.3** in week 48 to **9.6** in week 49 in the North region, increased from **10.9** in week 48 to **14.5** in week 49 in the South region, and increased from **8.7** in week 48 to **12.2** in week 49 in the Midlands And East region.

Comment:

Overall presentations of acute respiratory infections (ARI) have increased this week though they are below the seasonal norm (page 6).

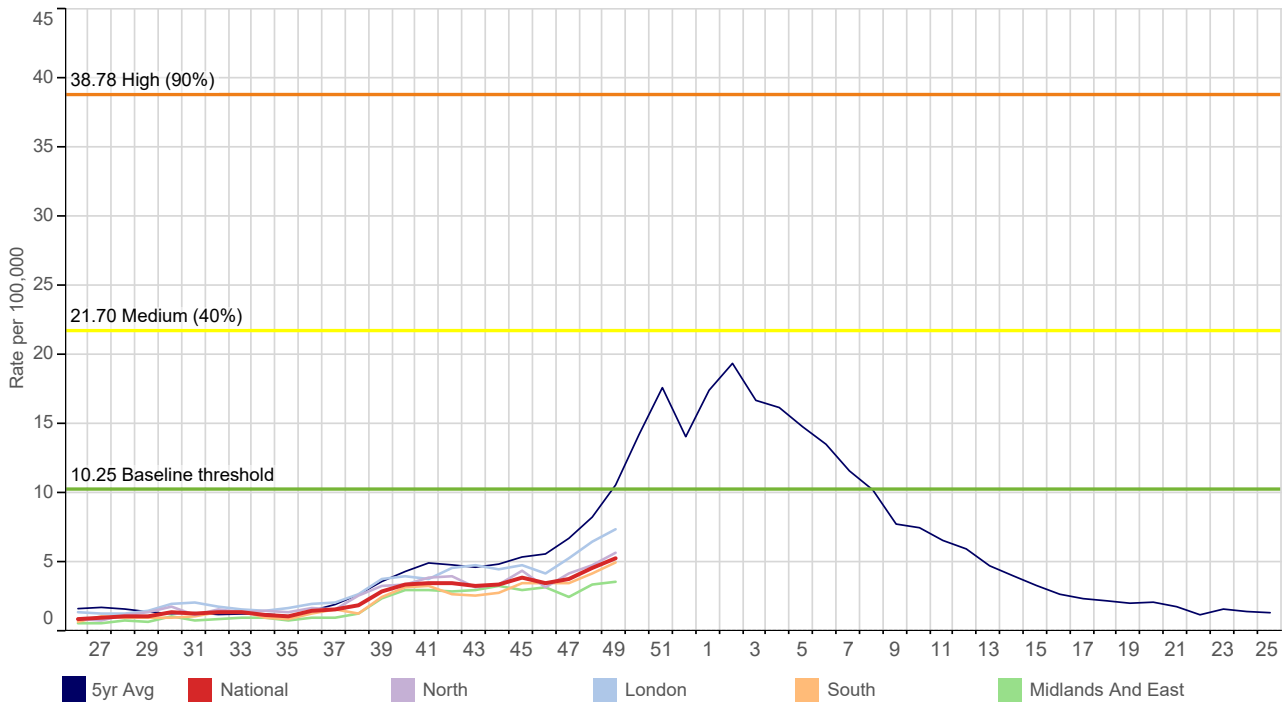
Rates of COVID-19 have increased this week in all regions and age bands, though rates in children aged 5-14 years were unchanged (page 5). Bronchitis and bronchiolitis in children aged under 5 are associated with respiratory syncytial virus (RSV) infections, and may have peaked (graph F, page 4). Scabies rates remain above the seasonal norm in all regions (page 15).

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

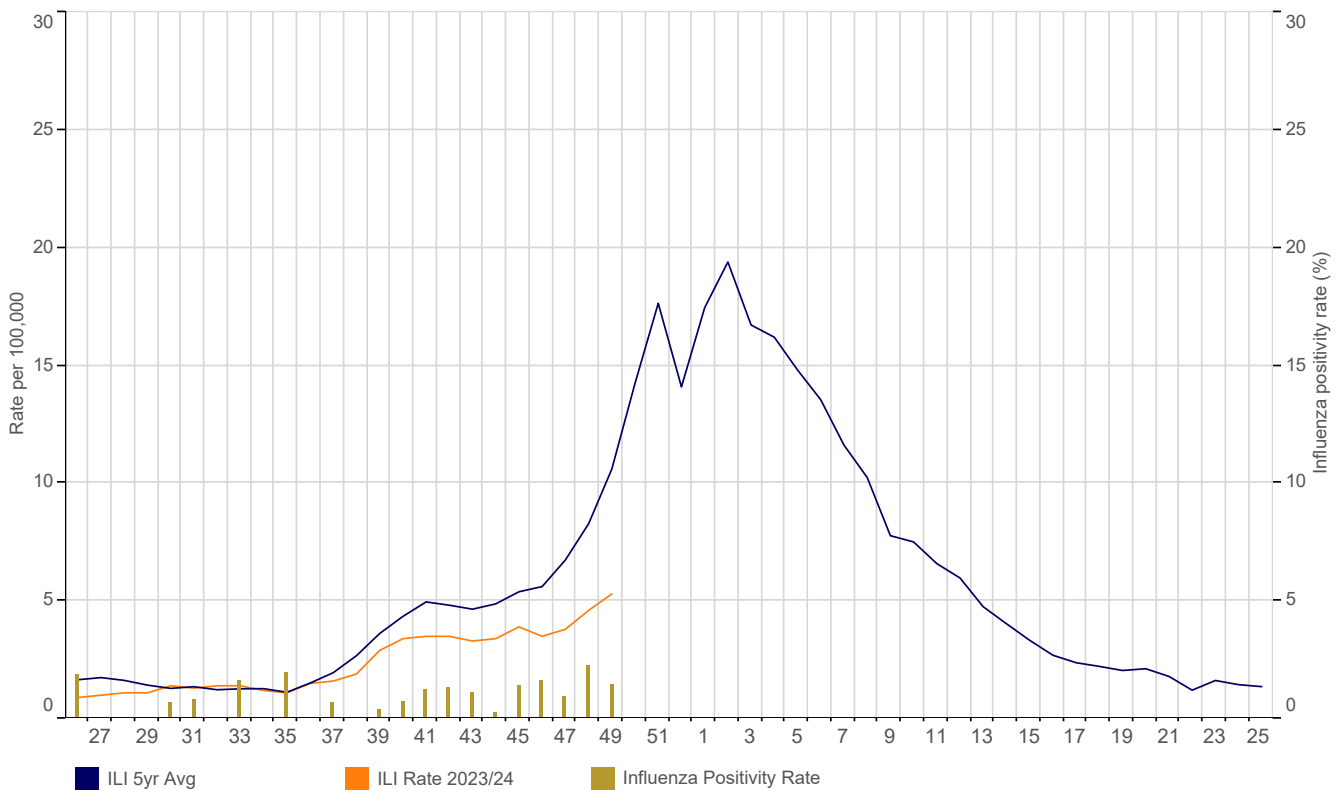
2023/24 Focus

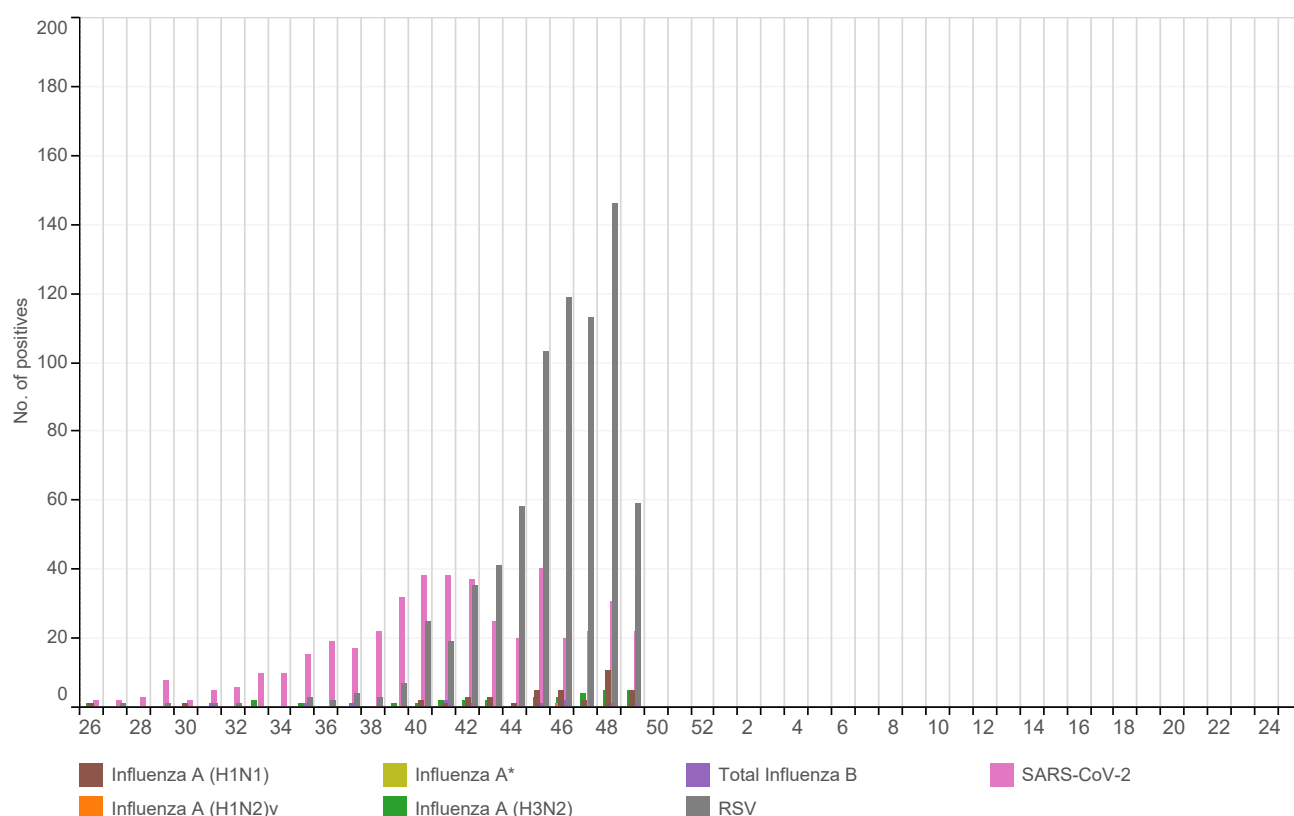
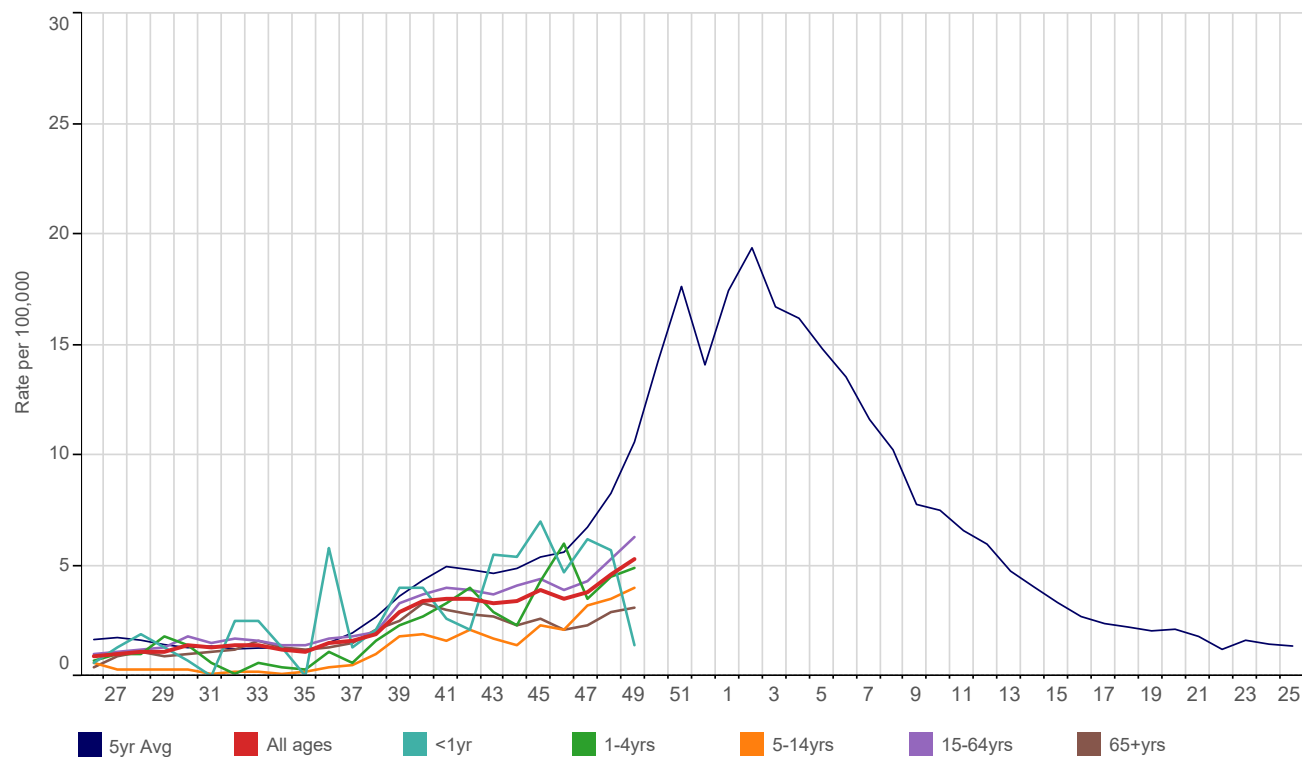
Please see page 19 for explanatory notes on the data.

(A) Influenza-like illness: national incidence rate 2023/24 by region



(B) RCGP/UKHSA Influenza Virology Swab Surveillance 2023/24



(C) RCGP/UKHSA RSV, Influenza and SARS-CoV-2 Virology Swab Surveillance 2023/24 by viral strain**(D) Influenza-like illness: national incidence rate 2023/24 by age band**

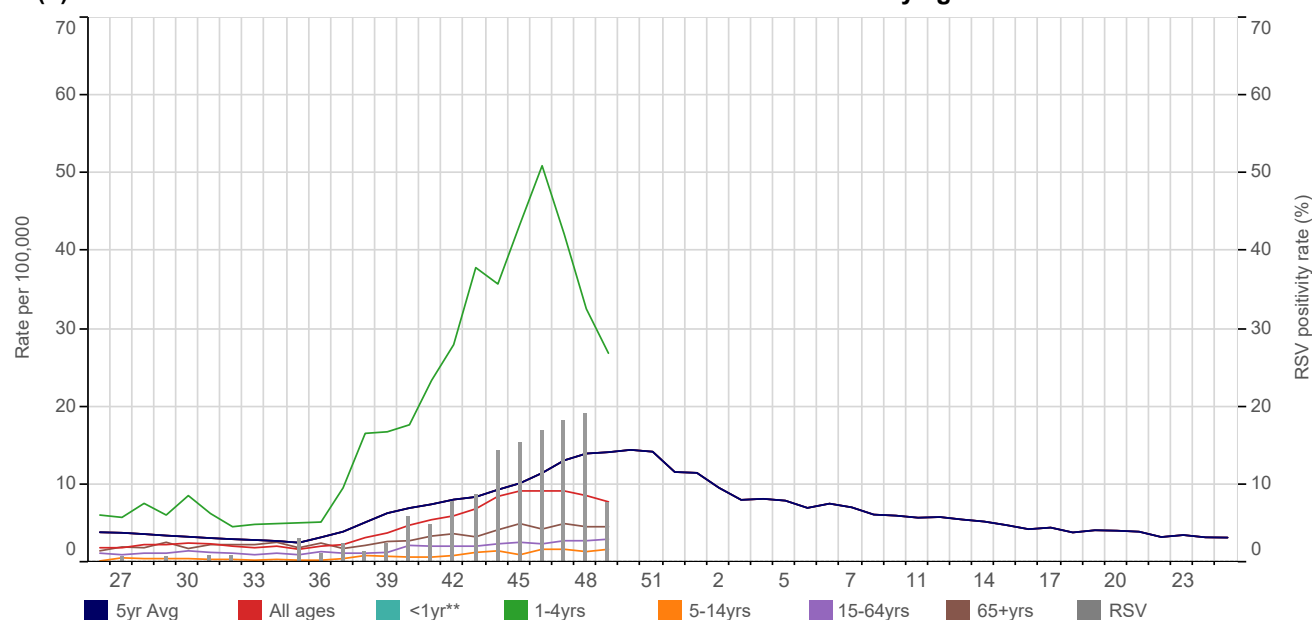
(E) Influenza-like illness: national incidence rate 2023/24 by age band

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	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43
1-4yrs	0.7	1.0	1.0	1.8	1.4	0.6	0.1	0.6	0.4	0.3	1.1	0.6	1.6	2.3	2.7	3.3	4.0	2.9
5-14yrs	0.6	0.3	0.3	0.3	0.3	0.1	0.2	0.2	0.1	0.2	0.4	0.5	1.0	1.8	1.9	1.6	2.1	1.7
15-64yrs	1.0	1.1	1.2	1.3	1.8	1.5	1.7	1.6	1.4	1.4	1.7	1.8	2.0	3.3	3.7	4.0	3.9	3.7
65+yrs	0.4	0.9	1.1	0.9	1.0	1.1	1.2	1.6	1.3	1.2	1.3	1.5	2.1	2.5	3.3	3.0	2.8	2.7
All ages	0.9	1.0	1.1	1.1	1.4	1.3	1.4	1.4	1.2	1.1	1.5	1.6	1.9	2.9	3.4	3.5	3.5	3.3
	44	45	46	47	48	49	50	51	52	1	2	3	4	5	6	7	8	9
1-4yrs	2.3	4.3	6.0	3.5	4.5	4.9												
5-14yrs	1.4	2.3	2.1	3.2	3.5	4.0												
15-64yrs	4.1	4.4	3.9	4.3	5.3	6.3												
65+yrs	2.3	2.6	2.1	2.3	2.9	3.1												
All ages	3.4	3.9	3.5	3.8	4.6	5.3												

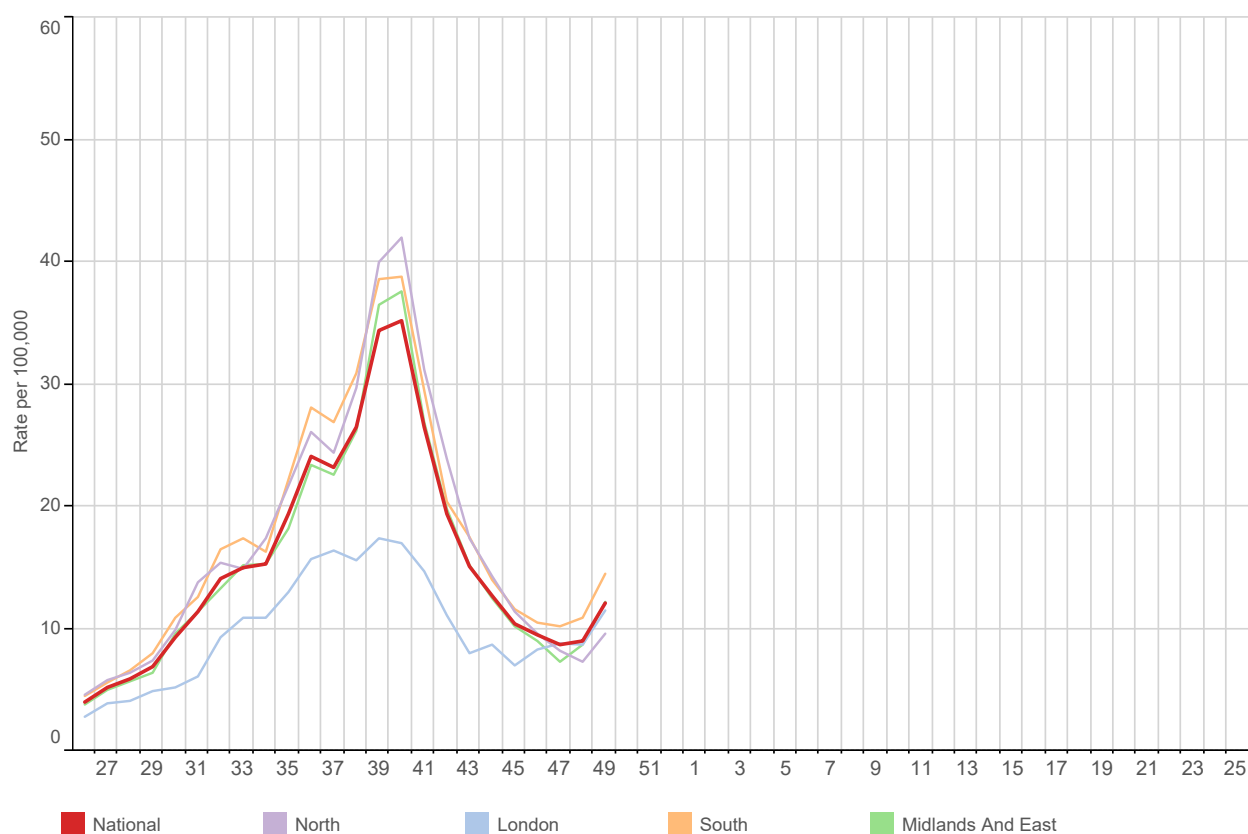
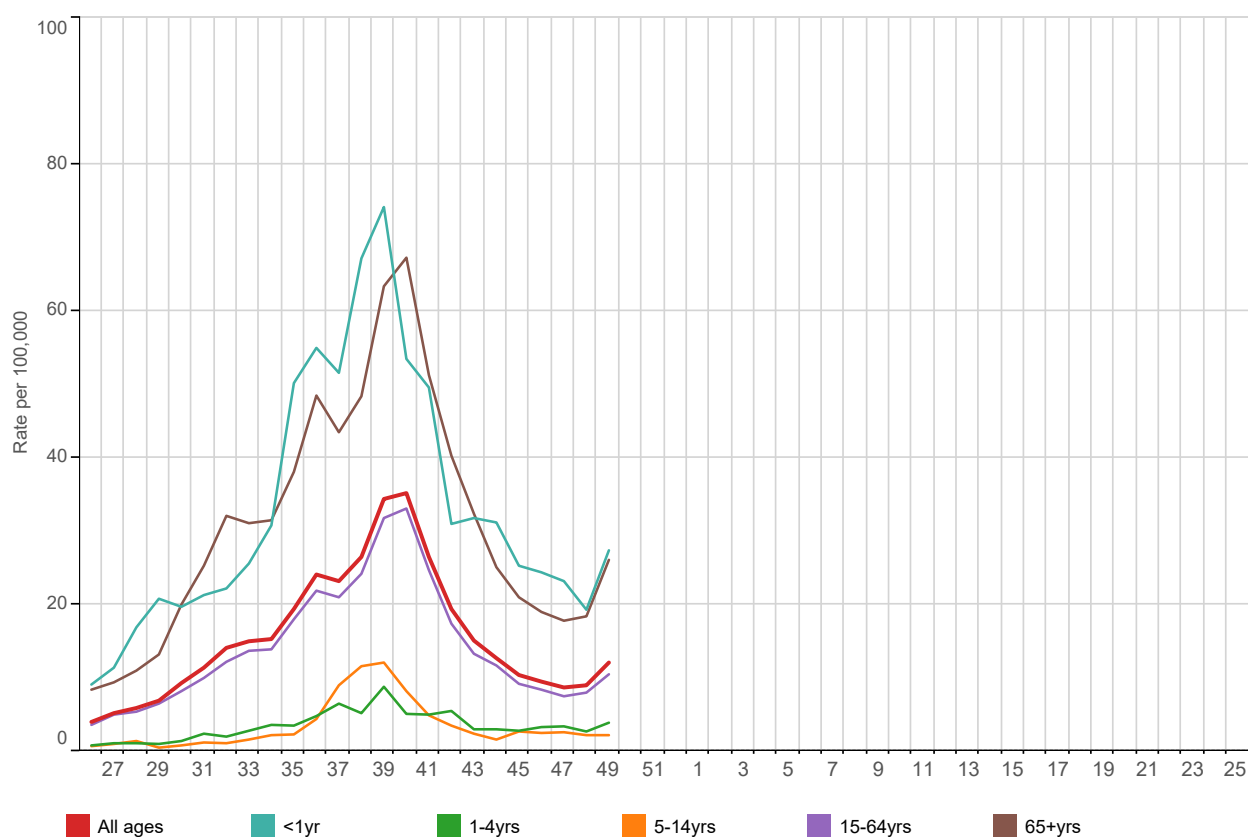
Table 2	Below Threshold ¹	Threshold to Medium ²	Medium to High ³	High to Very High ⁴	Above Very High ⁵
1-4yrs	<8.05	8.05 to 15.57	15.58 to 23.50	23.51 to 28.19	28.20+
5-14yrs	<6.53	6.53 to 15.55	15.56 to 32.18	32.19 to 44.39	44.40+
15-64yrs	<12.23	12.23 to 24.53	24.54 to 45.08	45.09 to 58.99	59.00+
65+yrs	<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 2023/24 by age band**Weekly Influenza-like illness and Acute Bronchitis and Bronchiolitis incidence rates per 100,000 persons**

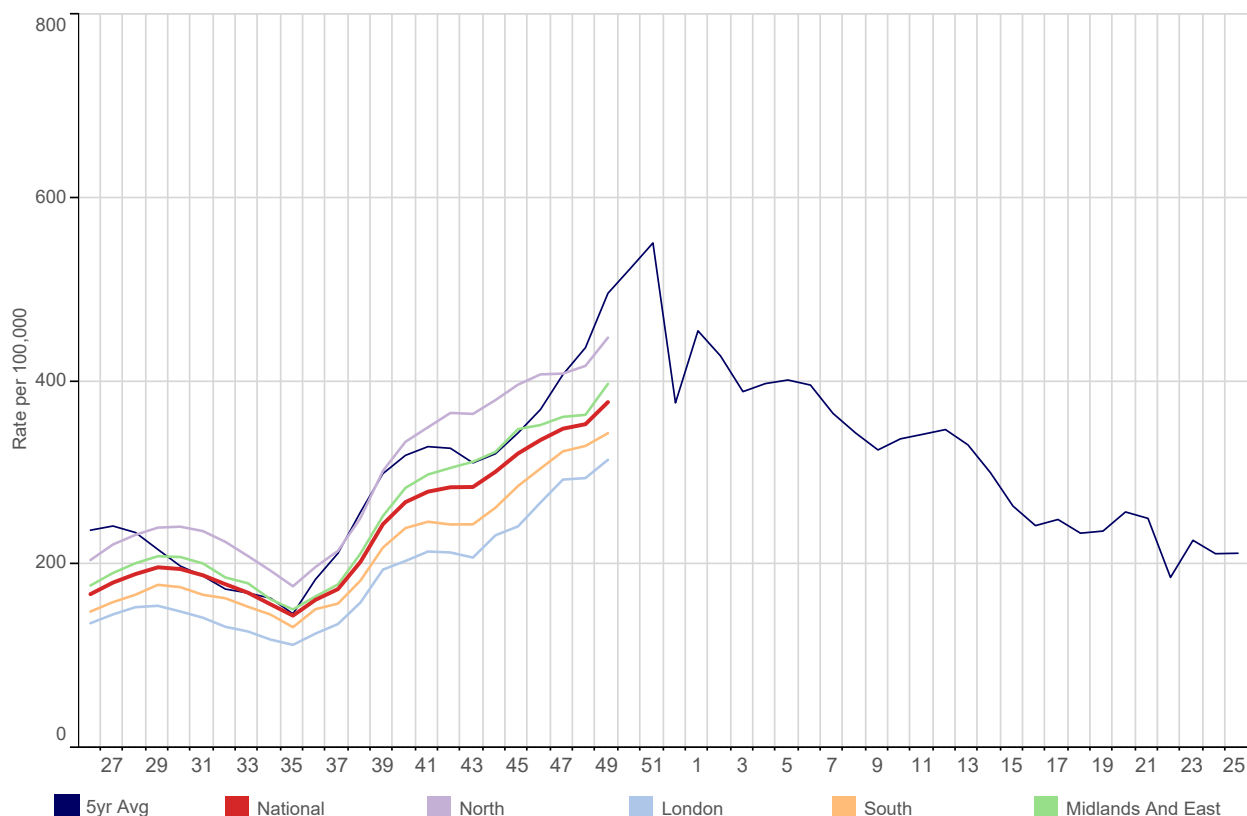
Influenza-like illness		Acute Bronchitis and Bronchiolitis		Influenza-like illness		Acute Bronchitis and Bronchiolitis	
<1yr	1.4	422.2		London	7.4	6.1	
1-4yrs	4.9	26.9		North	5.7	8.5	
5-14yrs	4.0	1.7		South	5.0	8.3	
15-24yrs	4.9	1.5		Midlands And East	3.6	7.9	
25-44yrs	6.7	3.1		National	5.3	7.8	
45-64yrs	6.4	3.8					
65-74yrs	3.3	4.7					
75-84yrs	2.7	5.1					
85+yrs	3.0	2.5					
All ages	5.3	7.8					

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

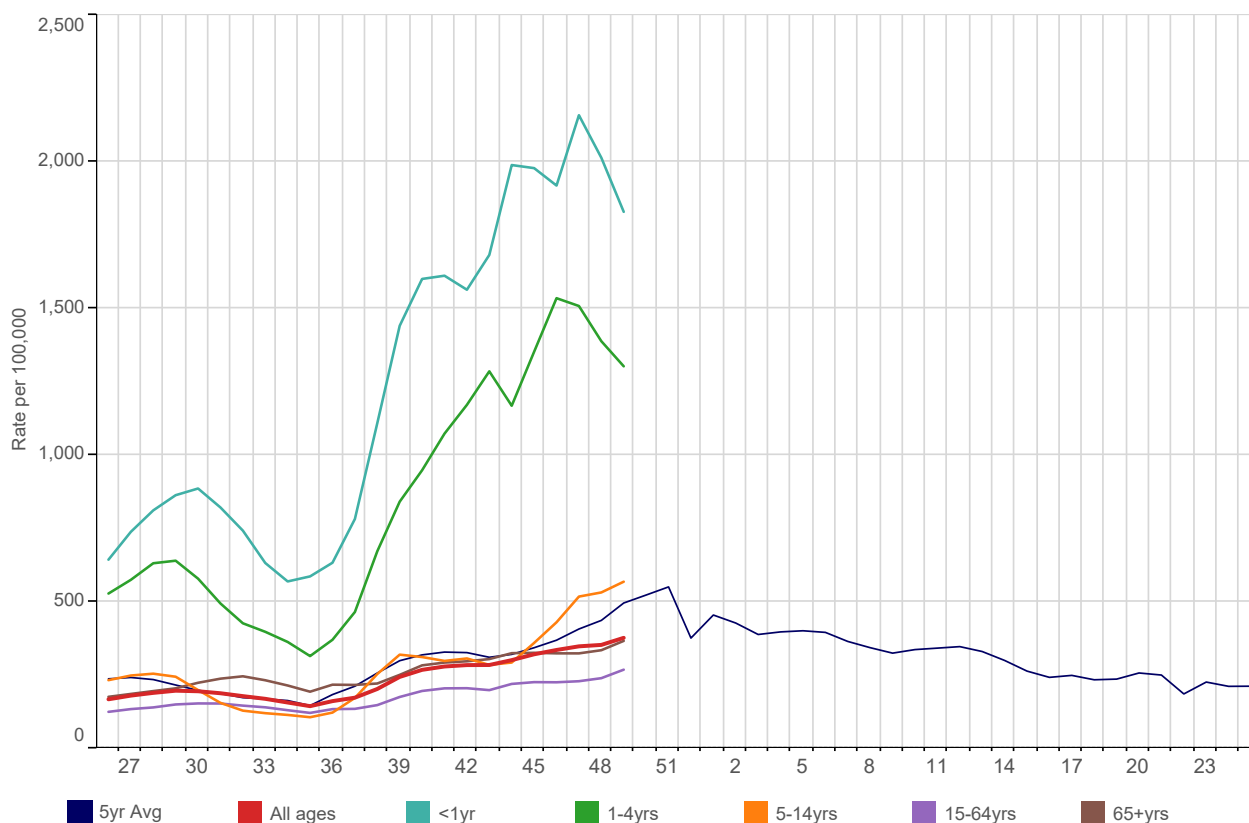
(G) COVID-19: national incidence rate 2023/24 by region**(H) COVID-19: national incidence rate 2023/24 by age band**

1. Respiratory Infections

(I) Acute Respiratory Infections (ARI): national incidence rate 2023/24 by region



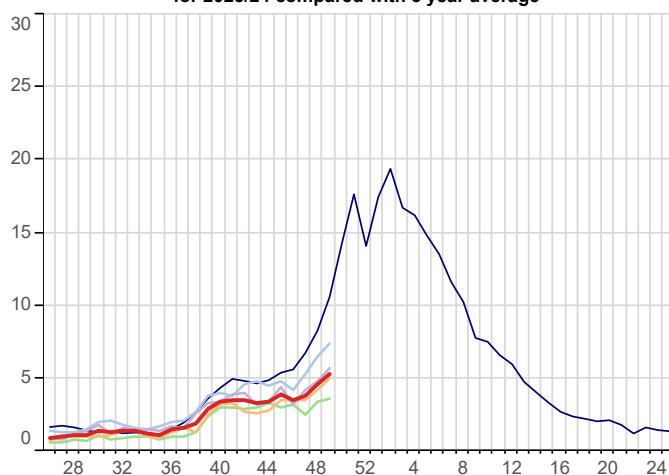
(J) Acute Respiratory Infections (ARI): national incidence rate 2023/24 by age band



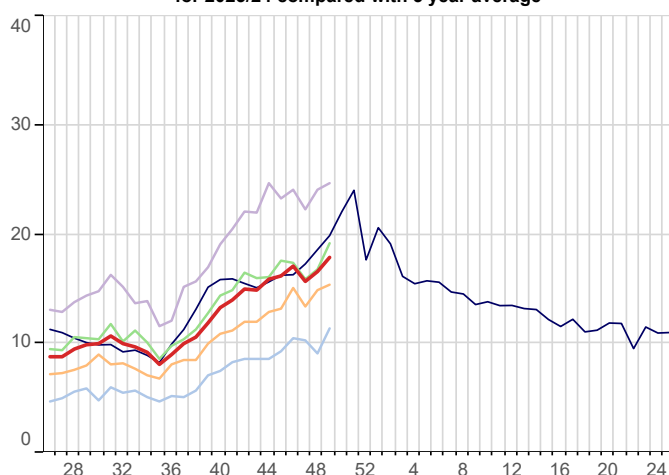
1. Respiratory Infections - *by region*

5yr Avg National South
 North Midlands And East
 London

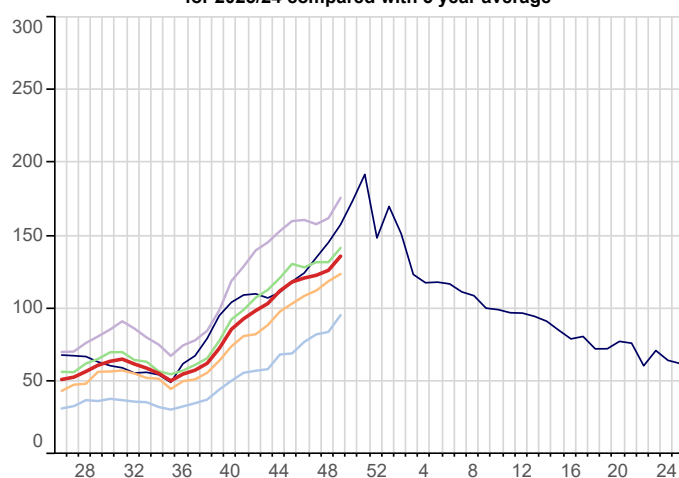
Influenza-like illness (ILI)
Weekly incidence (per 100,000 all ages) by region
for 2023/24 compared with 5 year average



Exacerbations of Chronic Lung Disease (ECLD)
Weekly incidence (per 100,000 all ages) by region
for 2023/24 compared with 5 year average

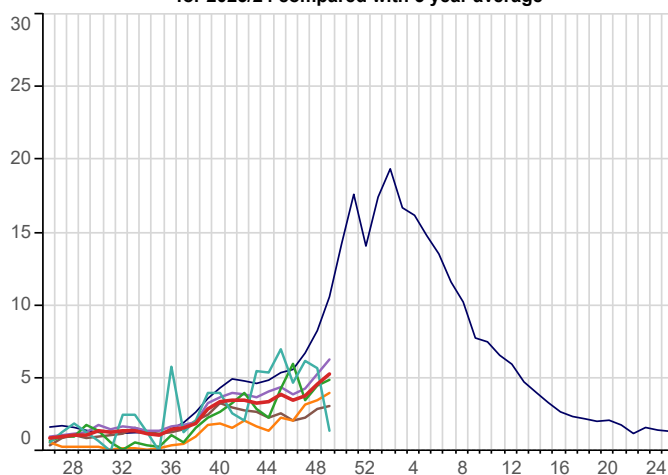


Lower Respiratory Tract Infections (LRTI)
Weekly incidence (per 100,000 all ages) by region
for 2023/24 compared with 5 year average

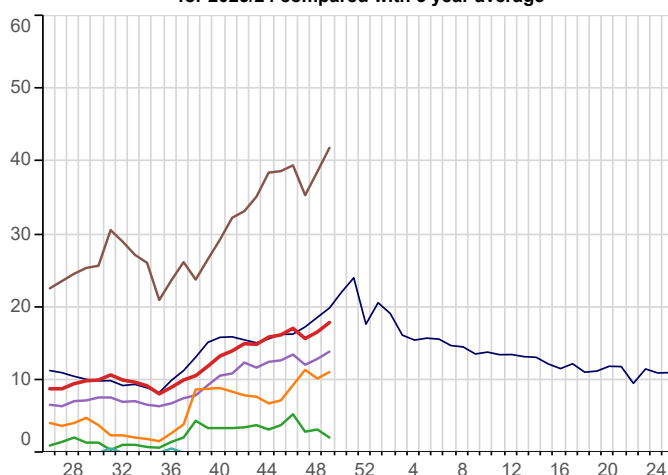
1. Respiratory Infections - *by age band*

5yr Avg All ages 5-14yrs
 <1yr 15-64yrs
 1-4yrs 65+yrs

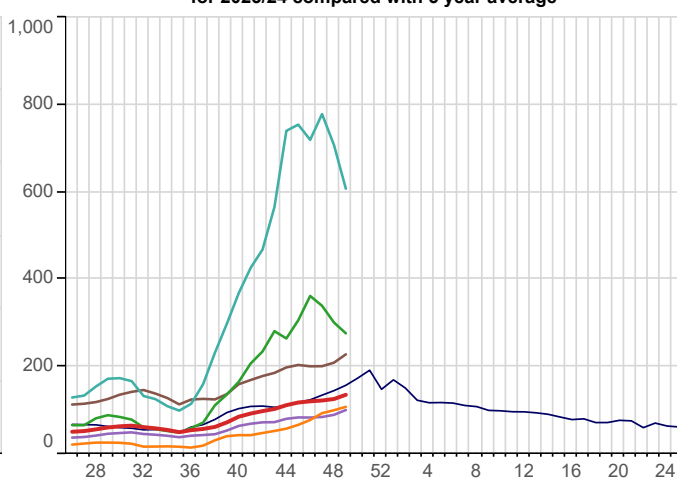
Influenza-like illness (ILI)
Weekly incidence (per 100,000 all regions) by age band
for 2023/24 compared with 5 year average



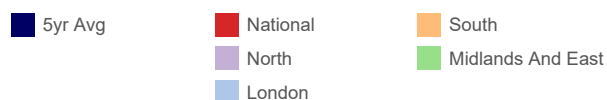
Exacerbations of Chronic Lung Disease (ECLD)
Weekly incidence (per 100,000 all regions) by age band
for 2023/24 compared with 5 year average



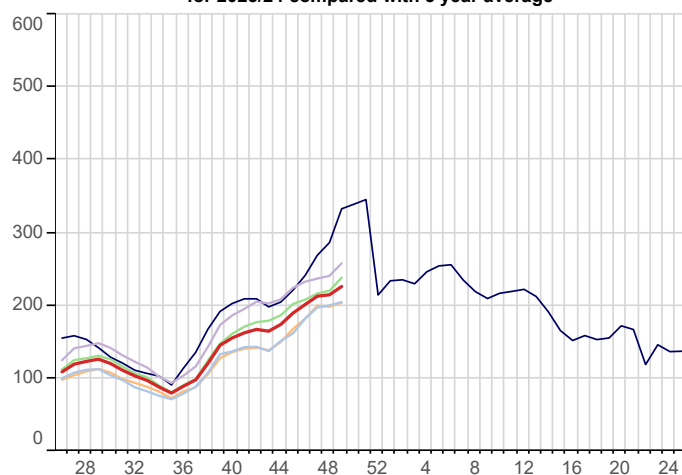
Lower Respiratory Tract Infections (LRTI)
Weekly incidence (per 100,000 all regions) by age band
for 2023/24 compared with 5 year average



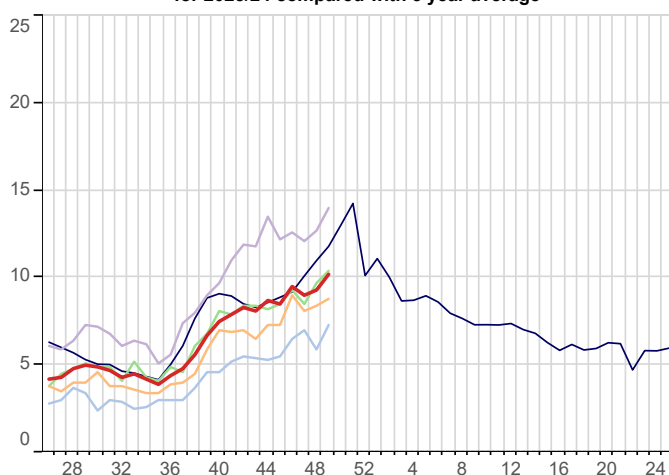
1. Respiratory Infections - *by region*



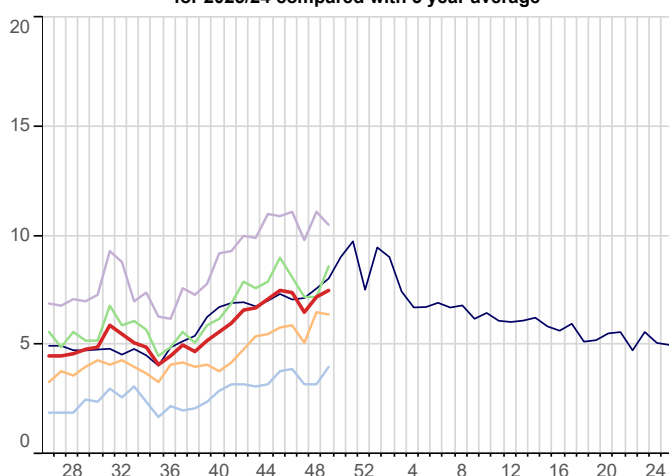
Upper Respiratory Tract Infections (URTI)
Weekly incidence (per 100,000 all ages) by region
for 2023/24 compared with 5 year average



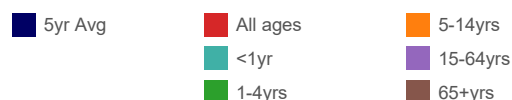
Exacerbations of Chronic Lung Disease (ECLD) - Asthma Exacerbations
Weekly incidence (per 100,000 all ages) by region
for 2023/24 compared with 5 year average



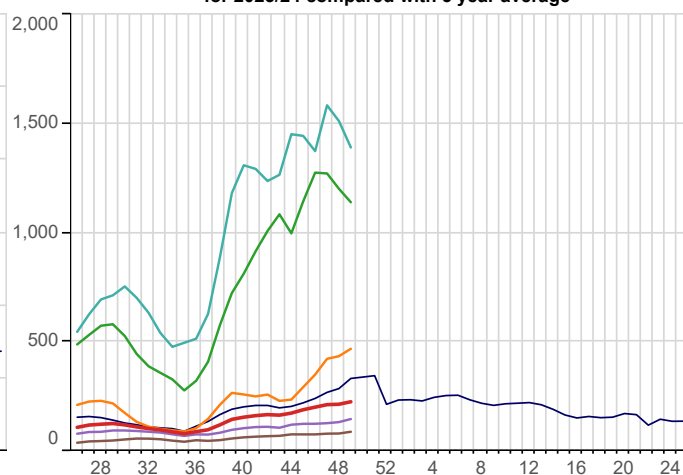
Exacerbations of Chronic Lung Disease (ECLD) - COPD Exacerbations
Weekly incidence (per 100,000 all ages) by region
for 2023/24 compared with 5 year average



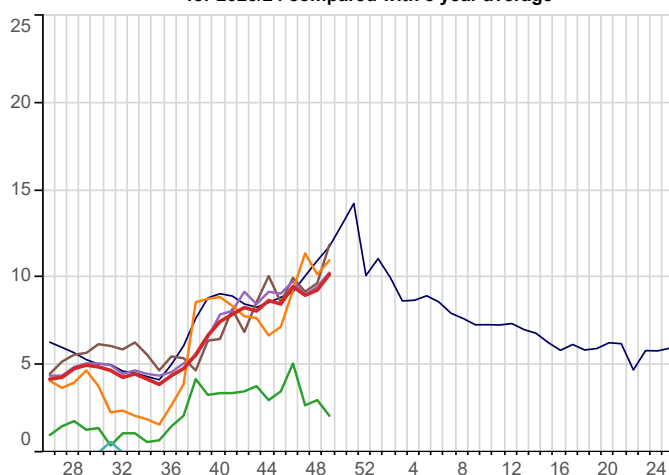
1. Respiratory Infections - *by age band*



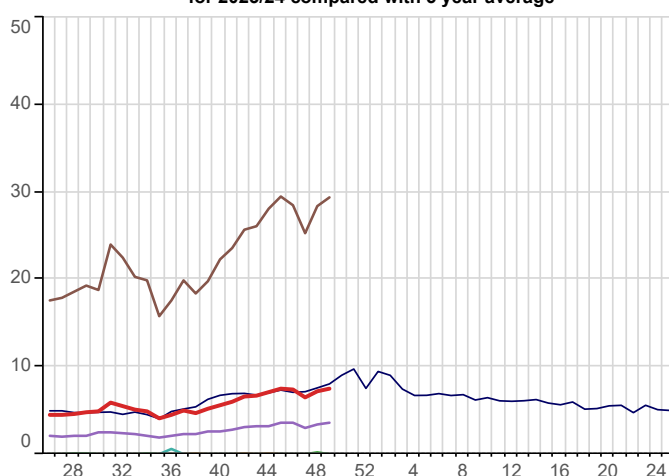
Upper Respiratory Tract Infections (URTI)
Weekly incidence (per 100,000 all regions) by age band
for 2023/24 compared with 5 year average



Exacerbations of Chronic Lung Disease (ECLD) - Asthma Exacerbations
Weekly incidence (per 100,000 all regions) by age band
for 2023/24 compared with 5 year average



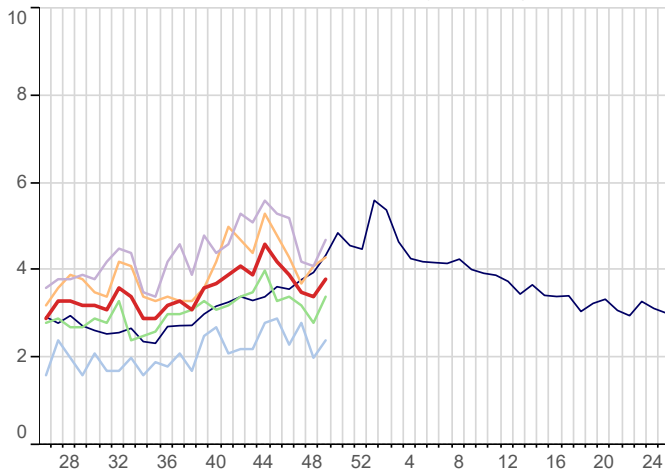
Exacerbations of Chronic Lung Disease (ECLD) - COPD Exacerbations
Weekly incidence (per 100,000 all regions) by age band
for 2023/24 compared with 5 year average



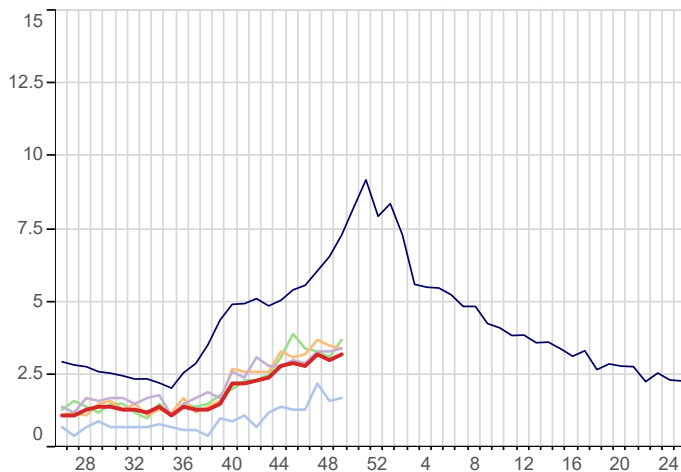
1. Respiratory Infections - *by region*

5yr Avg National South
 North Midlands And East
 London

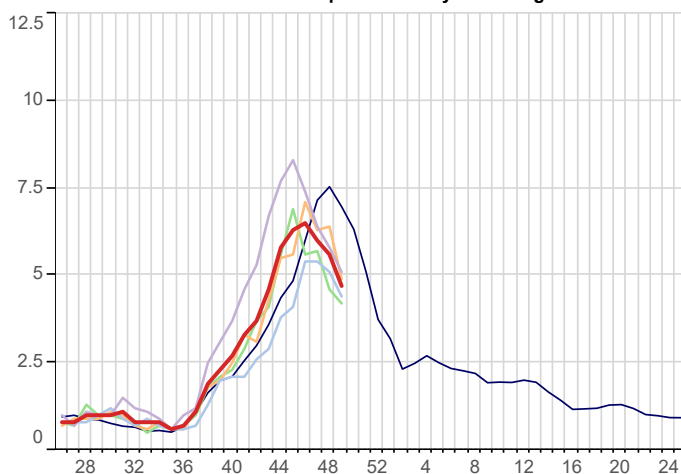
Lower Respiratory Tract Infections (LRTI) - Pneumonia
 Weekly incidence (per 100,000 all ages) by region
 for 2023/24 compared with 5 year average



Lower Respiratory Tract Infections (LRTI) - Acute Bronchitis
 Weekly incidence (per 100,000 all ages) by region
 for 2023/24 compared with 5 year average

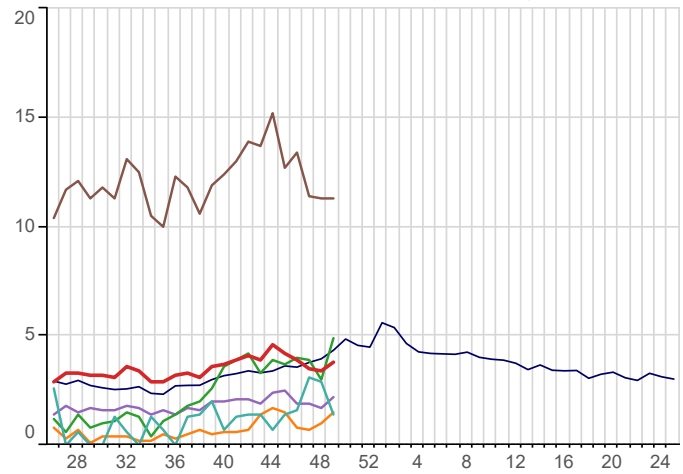


Lower Respiratory Tract Infections (LRTI) - Bronchiolitis
 Weekly incidence (per 100,000 all ages) by region
 for 2023/24 compared with 5 year average

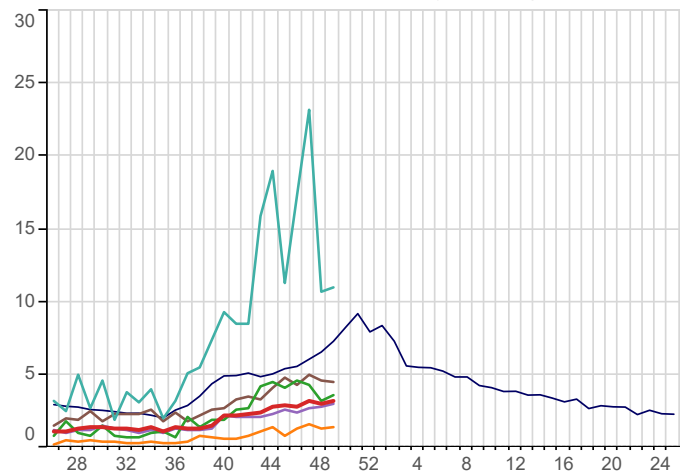
1. Respiratory Infections - *by age band*

5yr Avg All ages 5-14yrs
 <1yr 15-64yrs
 1-4yrs 65+yrs

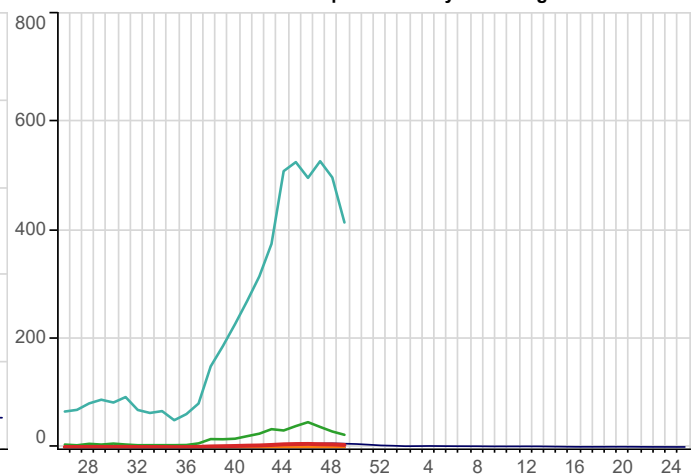
Lower Respiratory Tract Infections (LRTI) - Pneumonia
 Weekly incidence (per 100,000 all regions) by age band
 for 2023/24 compared with 5 year average



Lower Respiratory Tract Infections (LRTI) - Acute Bronchitis
 Weekly incidence (per 100,000 all regions) by age band
 for 2023/24 compared with 5 year average

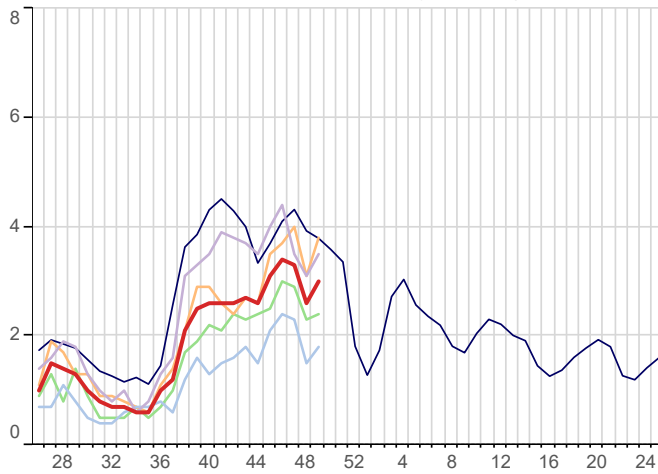


Lower Respiratory Tract Infections (LRTI) - Bronchiolitis
 Weekly incidence (per 100,000 all regions) by age band
 for 2023/24 compared with 5 year average

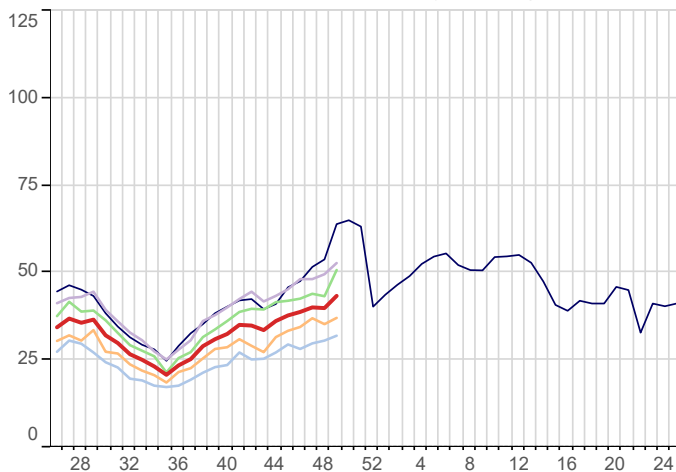


1. Respiratory Infections - *by region*

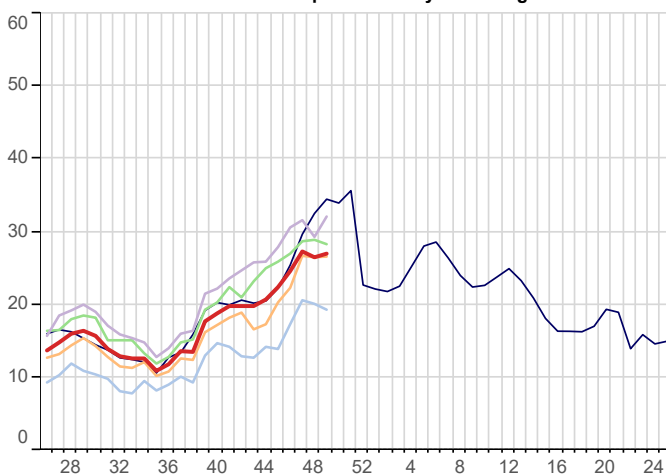
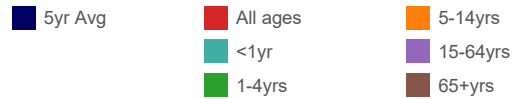
Upper Respiratory Tract Infections (URTI) - Croup
Weekly incidence (per 100,000 all ages) by region
for 2023/24 compared with 5 year average



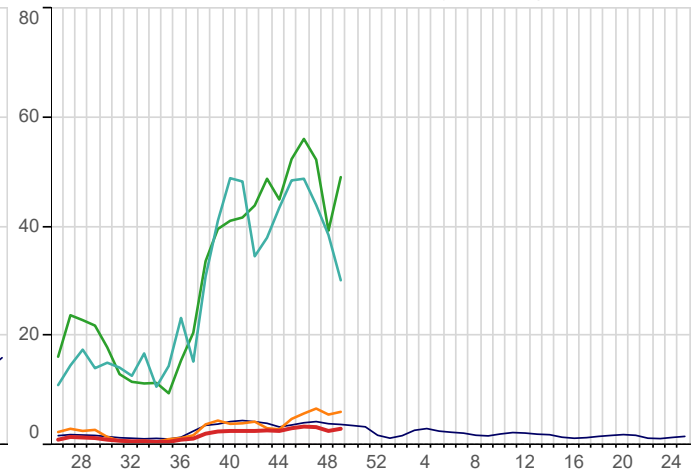
Upper Respiratory Tract Infections (URTI) - Tonsillitis/Pharyngitis
Weekly incidence (per 100,000 all ages) by region
for 2023/24 compared with 5 year average



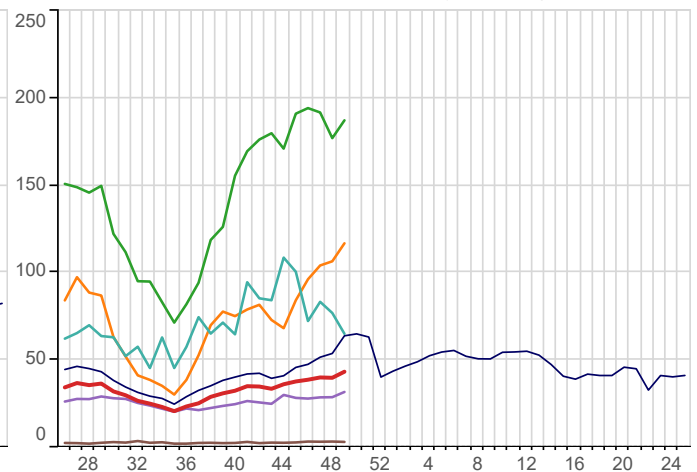
Upper Respiratory Tract Infections (URTI) - Otitis Media
Weekly incidence (per 100,000 all ages) by region
for 2023/24 compared with 5 year average

1. Respiratory Infections - *by age band*

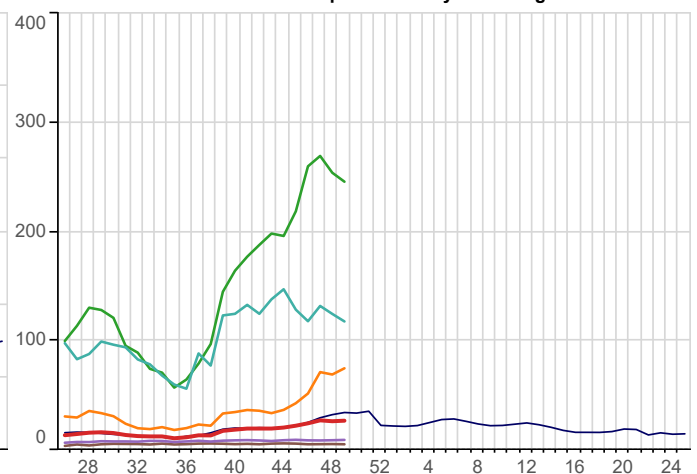
Upper Respiratory Tract Infections (URTI) - Croup
Weekly incidence (per 100,000 all regions) by age band
for 2023/24 compared with 5 year average



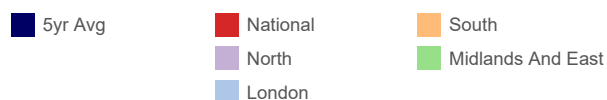
Upper Respiratory Tract Infections (URTI) - Tonsillitis/Pharyngitis
Weekly incidence (per 100,000 all regions) by age band
for 2023/24 compared with 5 year average



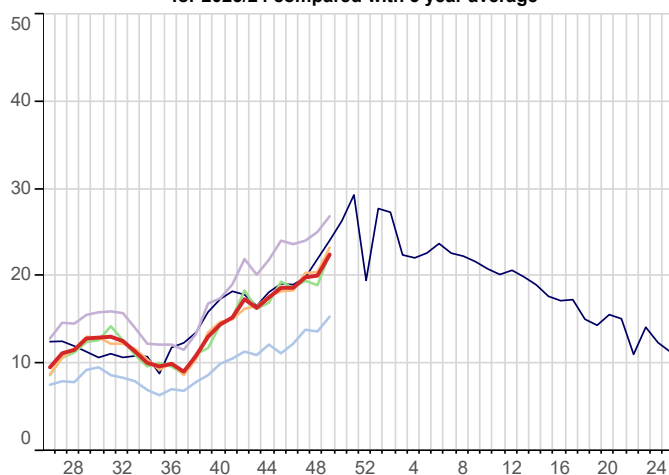
Upper Respiratory Tract Infections (URTI) - Otitis Media
Weekly incidence (per 100,000 all regions) by age band
for 2023/24 compared with 5 year average



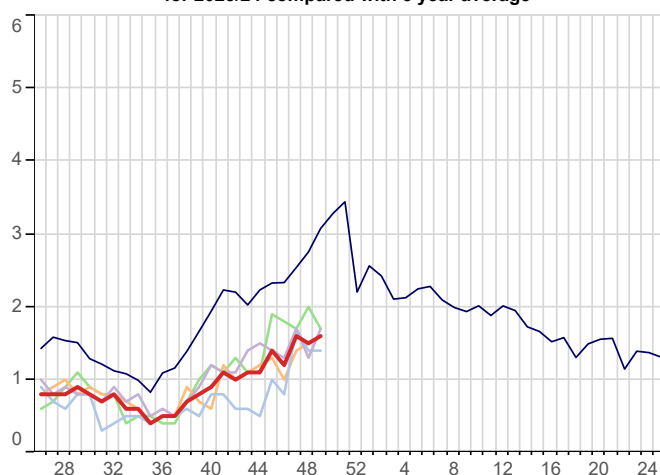
1. Respiratory Infections - *by region*



Upper Respiratory Tract Infections (URTI) - Sinusitis
Weekly incidence (per 100,000 all ages) by region
for 2023/24 compared with 5 year average



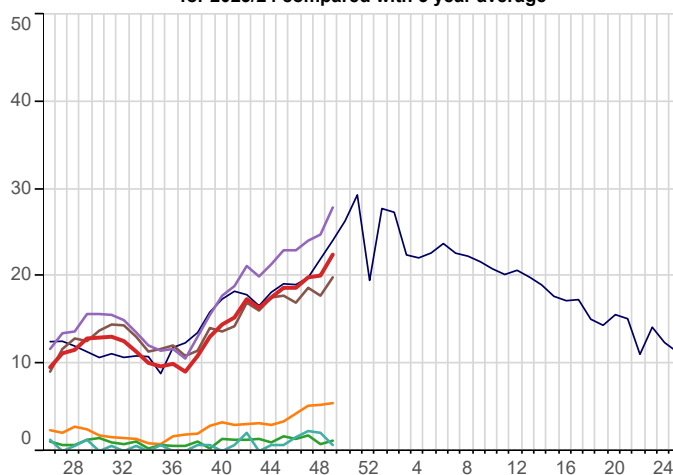
Upper Respiratory Tract Infections (URTI) - Laryngitis
Weekly incidence (per 100,000 all ages) by region
for 2023/24 compared with 5 year average



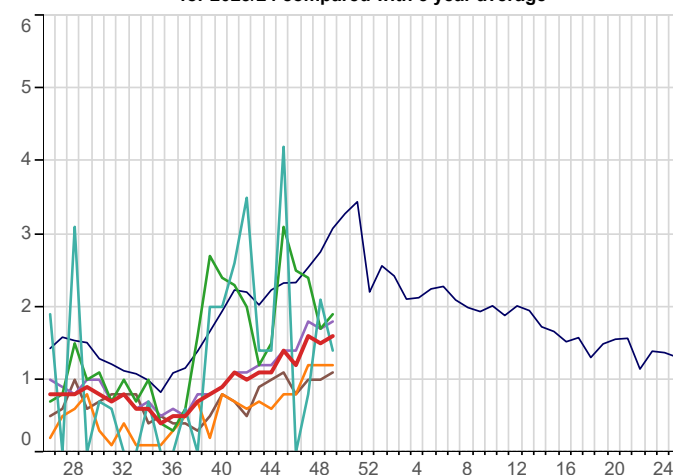
1. Respiratory Infections - *by age band*



Upper Respiratory Tract Infections (URTI) - Sinusitis
Weekly incidence (per 100,000 all ages) by region
for 2023/24 compared with 5 year average



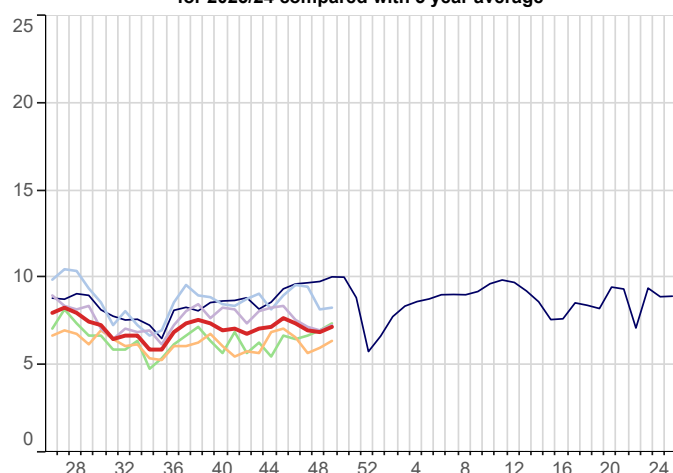
Upper Respiratory Tract Infections (URTI) - Laryngitis
Weekly incidence (per 100,000 all ages) by region
for 2023/24 compared with 5 year average



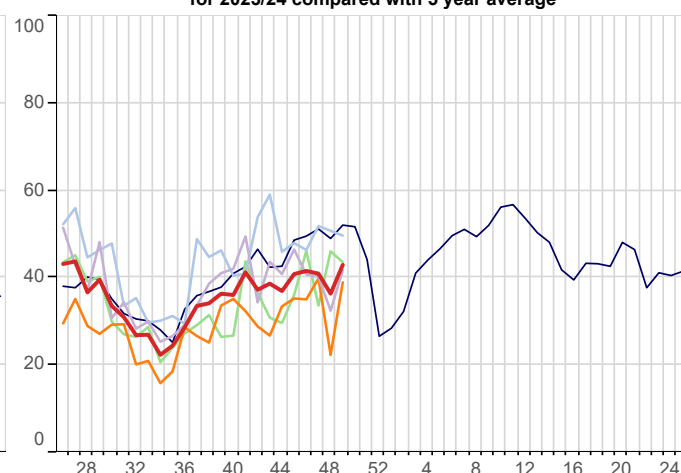
2. Water & Food Borne Disorders

5yr Avg National North London South Midlands And East

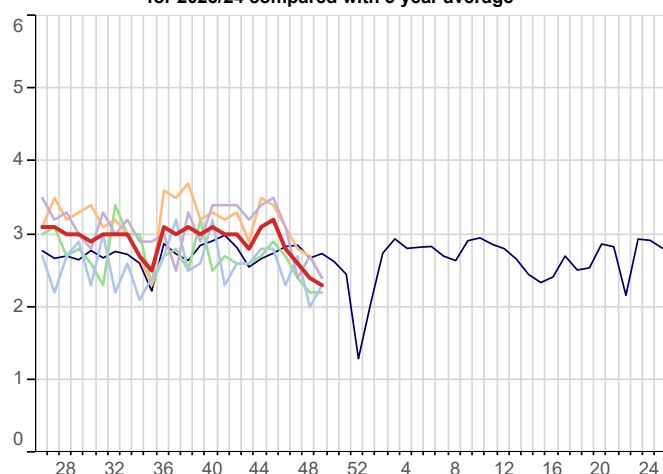
Infectious Intestinal Disease (ICD10: A00-A09)
Weekly incidence (per 100,000 **all ages**) by region
for 2023/24 compared with 5 year average



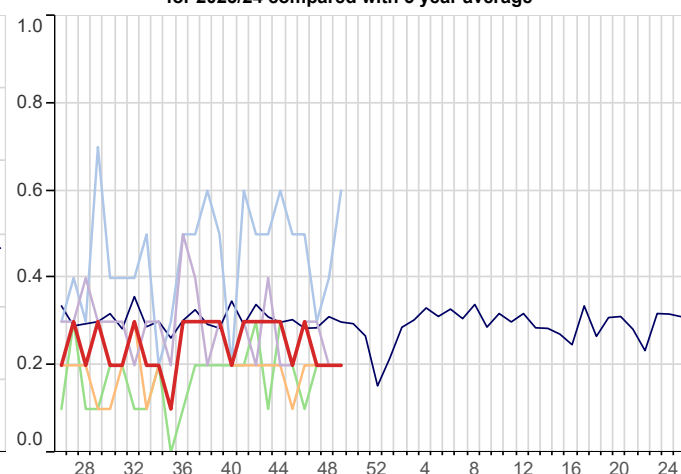
Infectious Intestinal Disease (ICD10: A00-A09)
Weekly incidence (per 100,000 **0-4 years**) by region
for 2023/24 compared with 5 year average



Non-Infective Enteritis & Colitis (ICD10: K50-K52)
Weekly incidence (per 100,000 **all ages**) by region
for 2023/24 compared with 5 year average



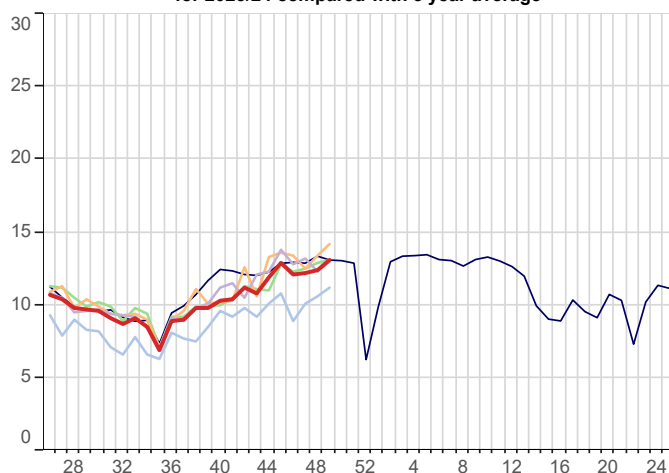
Viral Hepatitis (ICD10: B15-B19)
Weekly incidence (per 100,000 **all ages**) by region
for 2023/24 compared with 5 year average



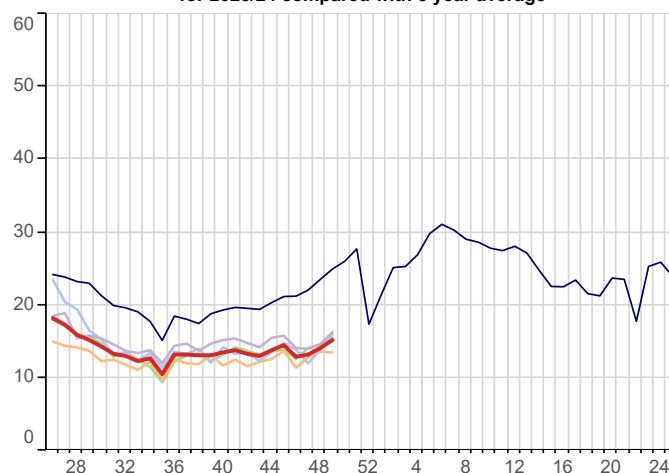
3. Environmentally Sensitive Disorders

5yr Avg National North London South Midlands And East

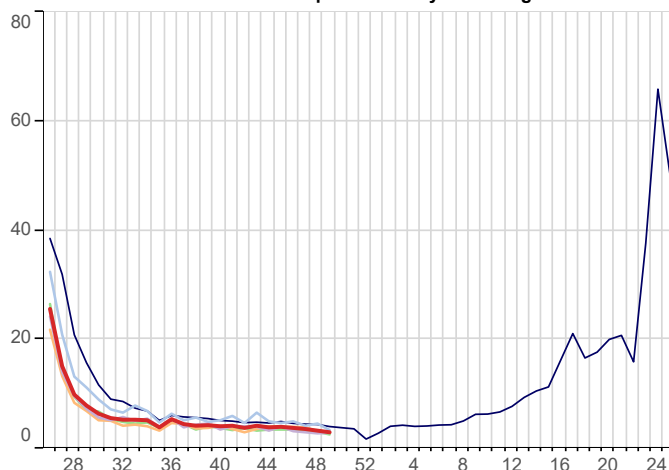
Asthma (ICD10: J45-J46)
Weekly incidence (per 100,000 all ages) by region
for 2023/24 compared with 5 year average



Disorders of Conjunctiva (ICD10: H10-H13)
Weekly incidence (per 100,000 all ages) by region
for 2023/24 compared with 5 year average



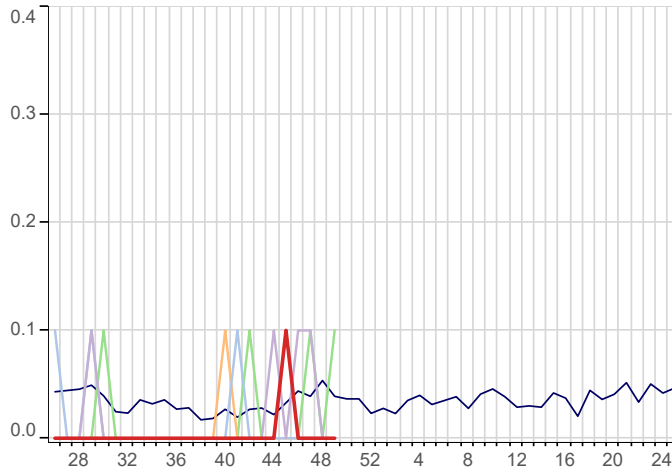
Hayfever/Allergic Rhinitis (ICD10: J30)
Weekly incidence (per 100,000 all ages) by region
for 2023/24 compared with 5 year average



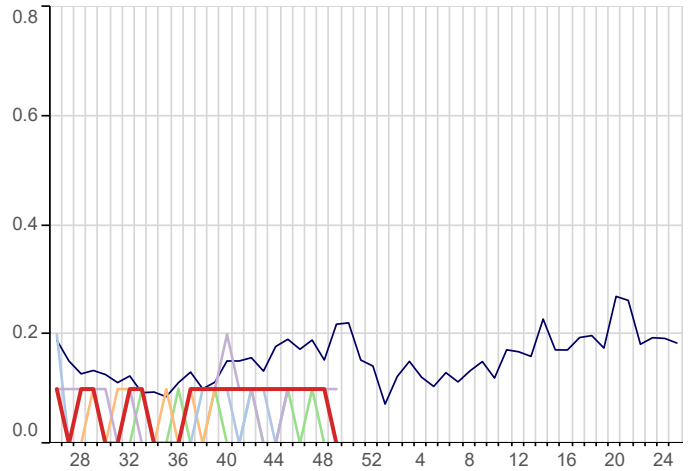
4. Vaccine Sensitive Disorders

5yr Avg National North London South Midlands And East

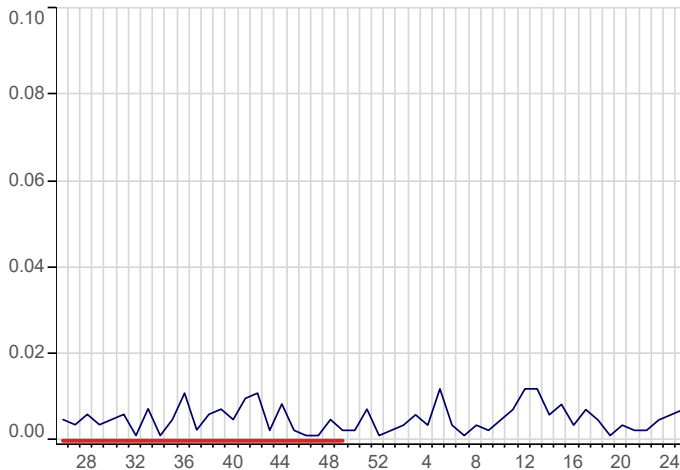
Measles (ICD10: B05)
Weekly incidence (per 100,000 all ages) by region
for 2023/24 compared with 5 year average



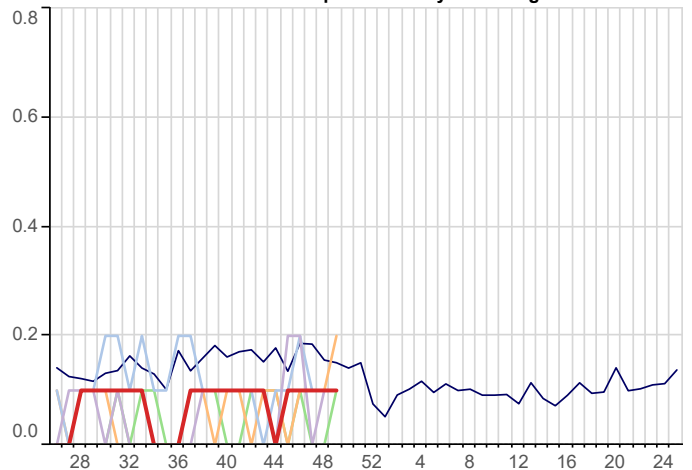
Mumps (ICD10: B26)
Weekly incidence (per 100,000 all ages) by region
for 2023/24 compared with 5 year average



Rubella (ICD10: B06)
Weekly incidence (per 100,000 all ages) by region
for 2023/24 compared with 5 year average

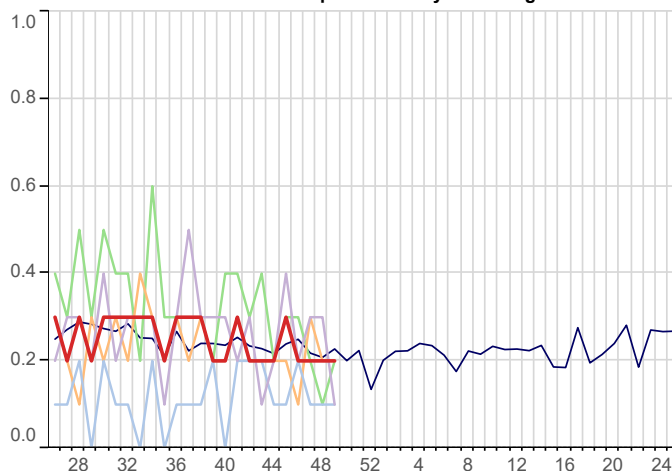


Whooping Cough (ICD10: A37)
Weekly incidence (per 100,000 all ages) by region
for 2023/24 compared with 5 year average

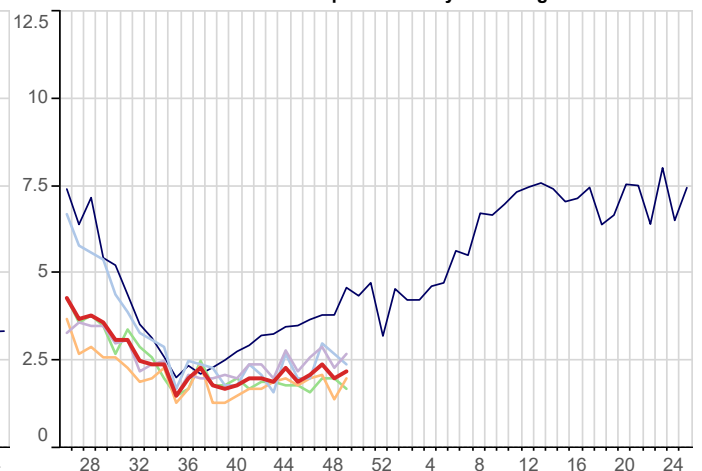


5. Skin Contagions

Bullous Dermatoses (ICD10: L10-L14)
Weekly incidence (per 100,000 all ages) by region
for 2023/24 compared with 5 year average



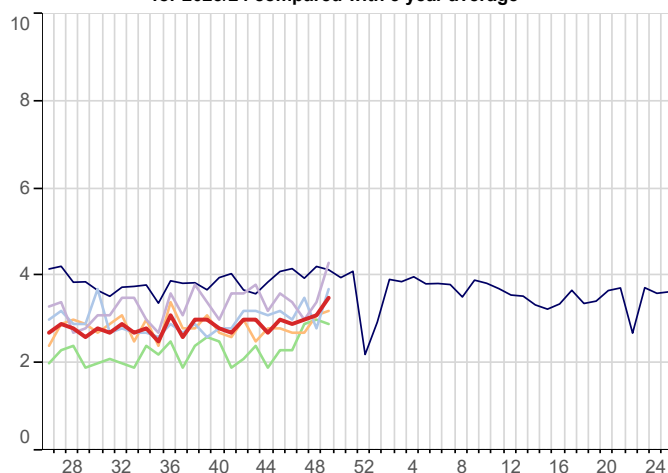
Chickenpox (ICD10: B01)
Weekly incidence (per 100,000 all ages) by region
for 2023/24 compared with 5 year average



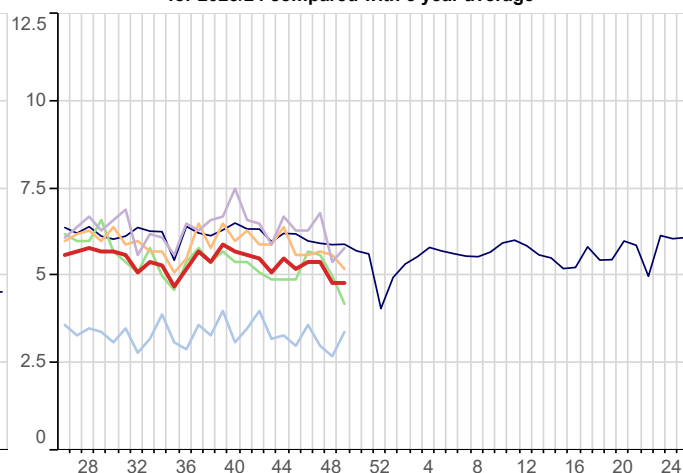
5. Skin Contagions (Continued)

5yr Avg National North London South Midlands And East

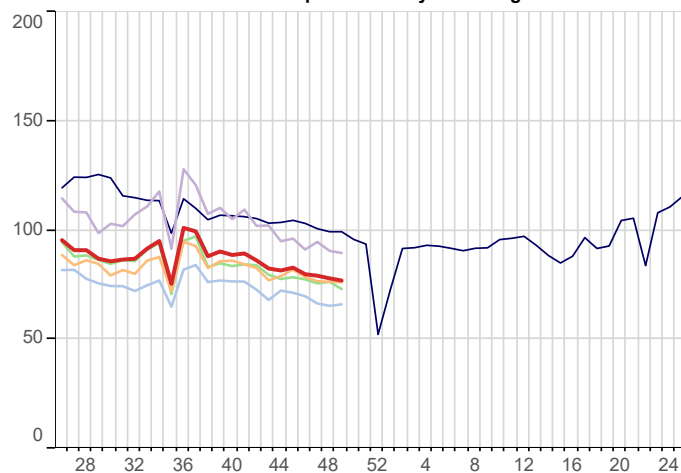
Herpes Simplex (ICD10: B00)
Weekly incidence (per 100,000 all ages) by region
for 2023/24 compared with 5 year average



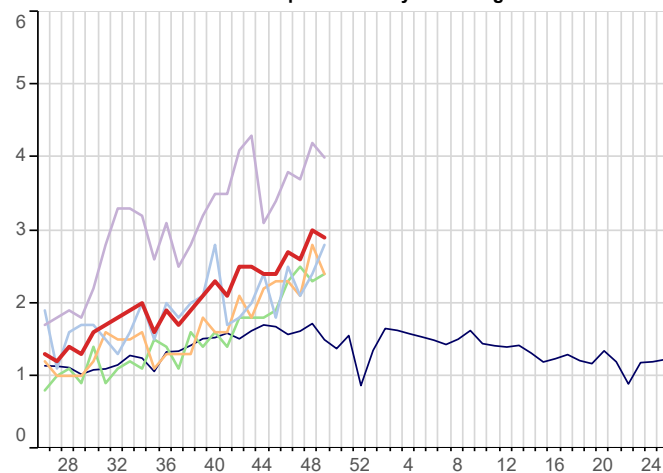
Herpes Zoster (ICD10: B02)
Weekly incidence (per 100,000 all ages) by region
for 2023/24 compared with 5 year average



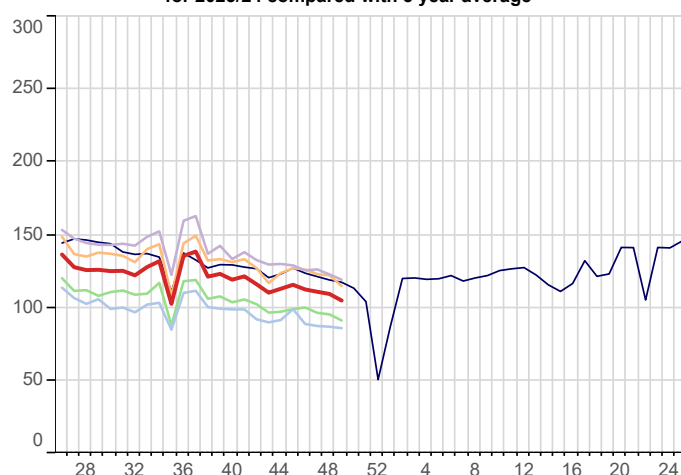
Infections of Skin & Subcutaneous Tissue (ICD10: L00-L08)
Weekly incidence (per 100,000 all ages) by region
for 2023/24 compared with 5 year average



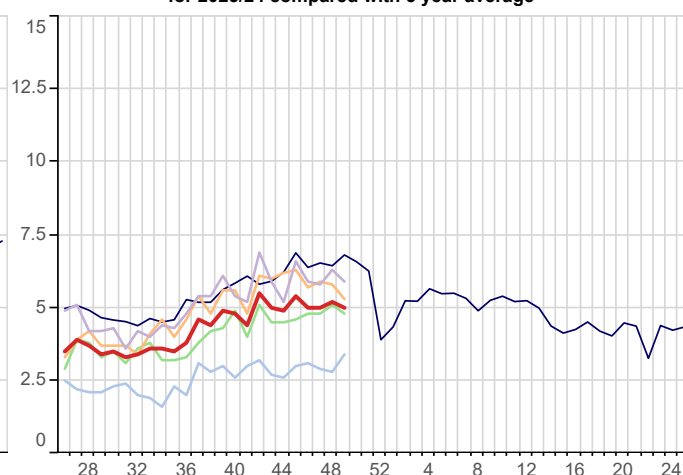
Scabies (ICD10: B86)
Weekly incidence (per 100,000 all ages) by region
for 2023/24 compared with 5 year average



Symptoms involving Skin & Oth Integument Tiss (ICD10: R20-R23)
Weekly incidence (per 100,000 all ages) by region
for 2023/24 compared with 5 year average



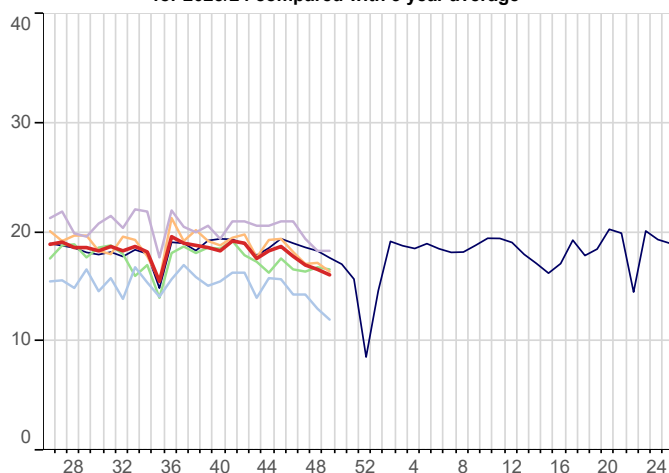
Impetigo (ICD10: L01)
Weekly incidence (per 100,000 all ages) by region
for 2023/24 compared with 5 year average



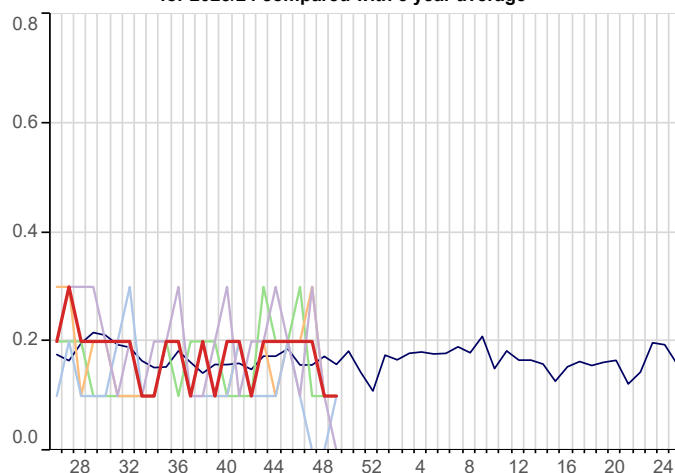
6. Disorders Affecting the Nervous System

5yr Avg National North London South Midlands And East

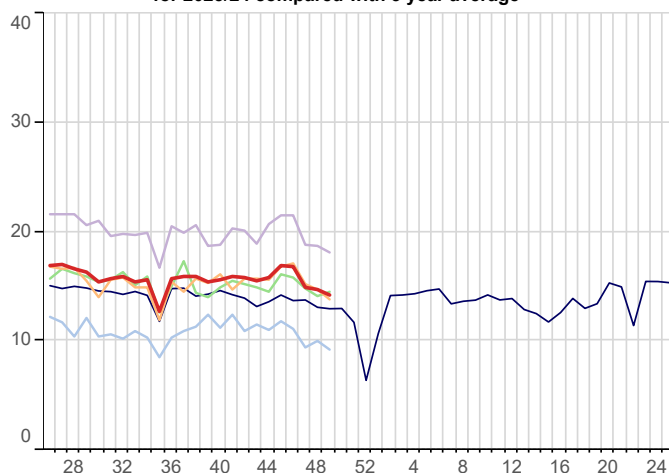
Disorders of The Peripheral Nervous System (ICD10: G50-G64,G70-G72)
Weekly incidence (per 100,000 all ages) by region
for 2023/24 compared with 5 year average



Meningitis/Encephalitis (ICD10: A170-A171, A390, A38-A85, A87, G00-G05)
Weekly incidence (per 100,000 all ages) by region
for 2023/24 compared with 5 year average

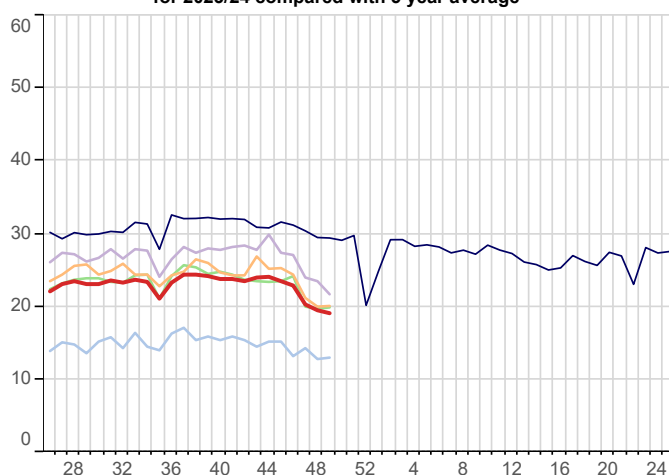


Symptoms Involving Nervous & Musculoskeletal (ICD10: R25-R29)
Weekly incidence (per 100,000 all ages) by region
for 2023/24 compared with 5 year average



7. Genitourinary System Disorders

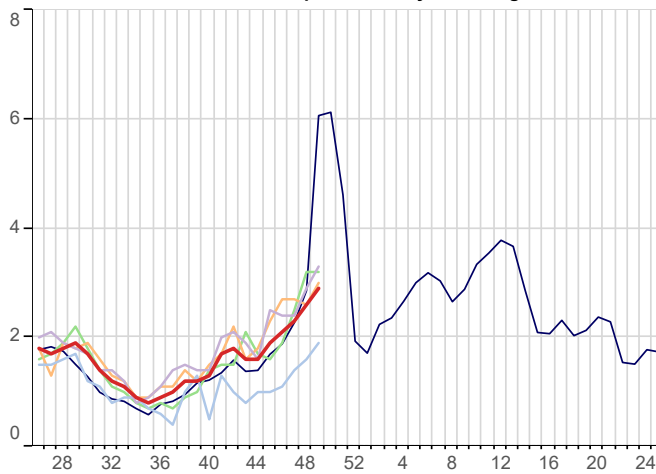
Urinary Tract Infection/Cystitis (ICD10: N30, N390)
Weekly incidence (per 100,000 all ages) by region
for 2023/24 compared with 5 year average



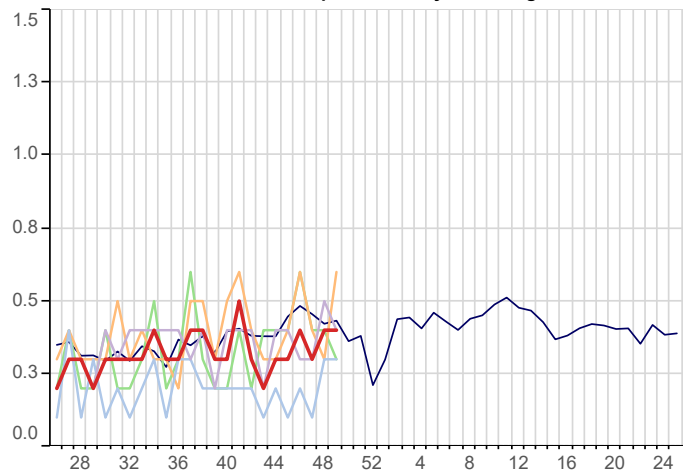
8. Other Disorders

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 2023/24 compared with 5 year average



Infectious Mononucleosis (ICD10: B27)
Weekly incidence (per 100,000 all ages) by region
for 2023/24 compared with 5 year average



8. Tabular Summary by Disease

Disease Name	Week beginning Week ending		04/12/2023 10/12/2023		27/11/2023 03/12/2023		20/11/2023 26/11/2023		13/11/2023 19/11/2023	
	Rate	Numer	Rate	Numer	Rate	Numer	Rate	Numer	Rate	Numer
Acute Bronchitis	3.2	522	3.0	483	3.2	494	2.8	392		
Acute respiratory infections (ARI)	377.3	62,244	353.2	57,127	348.3	53,300	335.9	47,024		
Allergic Rhinitis	3.0	497	3.3	537	3.6	546	3.8	538		
Asthma	13.1	2,154	12.4	2,011	12.2	1,873	12.1	1,694		
Bronchiolitis	4.7	775	5.6	904	6.0	923	6.5	907		
Bullous Dermatoses	0.2	26	0.2	33	0.2	35	0.2	29		
Chickenpox	2.2	362	2.0	328	2.4	372	2.1	289		
Conjunctival Disorders	15.2	2,504	14.1	2,287	13.2	2,027	12.9	1,804		
COVID-19	12.1	2,000	9.0	1,461	8.7	1,337	9.5	1,327		
Croup	3.0	495	2.6	424	3.3	504	3.4	482		
ECLD - Asthma exacerbations	10.2	1,687	9.3	1,505	9.0	1,381	9.5	1,333		
ECLD - COPD exacerbations	7.5	1,239	7.2	1,167	6.5	988	7.4	1,033		
Exacerbations of chronic lung disease	17.9	2,952	16.6	2,688	15.7	2,396	17.1	2,394		
Herpes Simplex	3.5	582	3.1	503	3.0	454	2.9	400		
Herpes Zoster	4.8	788	4.8	784	5.4	831	5.4	762		
Impetigo	5.0	818	5.2	841	5.0	771	5.0	702		
Infectious Intestinal Diseases	7.2	1,194	6.9	1,113	7.0	1,075	7.4	1,037		
Infectious Mononucleosis	0.4	67	0.4	63	0.3	47	0.4	61		
Influenza-like illness	5.3	880	4.6	747	3.8	583	3.5	489		
Laryngitis	1.6	265	1.5	247	1.6	249	1.2	172		
Lower respiratory tract infections	136.0	22,443	126.3	20,435	122.9	18,812	121.0	16,937		
Measles	0.0	5	0.0	4	0.0	7	0.0	4		
Meningitis and Encephalitis	0.1	16	0.1	16	0.2	29	0.2	25		
Mumps	0.0	8	0.1	13	0.1	14	0.1	12		
Non-infective Enteritis and Colitis	2.3	383	2.4	394	2.6	392	2.8	398		
Otitis Media	27.0	4,457	26.5	4,291	27.3	4,170	24.6	3,450		
Peripheral Nervous Disease	16.1	2,652	16.6	2,679	17.0	2,602	17.8	2,489		
Pneumonia	3.8	631	3.4	550	3.5	541	3.9	548		
Rubella	0.0	0	0.0	1	0.0	1	0.0	1		
Scabies	2.9	478	3.0	484	2.6	398	2.7	379		
Sinusitis	22.5	3,719	20.1	3,244	19.9	3,040	18.7	2,616		
Skin and Subcutaneous Tissue Infections	77.0	12,698	78.0	12,615	79.2	12,115	79.9	11,186		
Strep Throat and Peritonsillar Abscess	2.9	475	2.6	422	2.3	357	2.1	298		
Symptoms involving musculoskeletal	14.2	2,341	14.7	2,373	14.9	2,283	16.8	2,346		
Symptoms involving Skin and Integument Tissues	105.0	17,315	109.5	17,717	111.0	16,980	112.6	15,768		
Tonsillitis/Pharyngitis	43.4	7,161	39.9	6,459	40.1	6,142	38.8	5,437		
Upper respiratory tract infections	226.2	37,311	214.8	34,751	212.9	32,580	201.5	28,211		
Urinary Tract Infections	19.1	3,152	19.5	3,148	20.3	3,110	22.9	3,210		
Viral Hepatitis	0.2	41	0.2	38	0.2	38	0.3	40		
Whooping Cough	0.1	22	0.1	14	0.1	9	0.1	17		
Practice Count		1,626		1,580		1,501		1,404		
Denom		16,496,788		16,174,866		15,301,641		13,997,991		

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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