



Royal College of
General Practitioners
Research and Surveillance Centre

RSC Communicable and Respiratory Disease Report for England

Key Statistics:

Week Number/Year.....52/2017
Week Starting - Ending.....25/12/2017 - 31/12/2017
No. of Practices.....163
Population.....1686402

National (England)

- **Acute Bronchitis** : decreased from **127.8** in week 51 to **116.9** in week 52.
- **Asthma** : decreased from **19.8** in week 51 to **13.3** in week 52.
- **Common Cold** : decreased from **168.3** in week 51 to **116.5** in week 52.
- **Influenza-Like illness** : increased from **18.9** in week 51 to **21.0** in week 52.
- **Respiratory System Diseases** : decreased from **467.1** in week 51 to **355.3** in week 52.

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

- **Acute Bronchitis** : decreased from **98.4** in week 51 to **79.4** in week 52 in the London region, decreased from **151.7** in week 51 to **128.8** in week 52 in the North region, was unchanged at **122.3** in week 51 compared with **118.8** in week 52 in the South region, and increased from **129.8** in week 51 to **143.3** in week 52 in the Midlands And East region.
- **Asthma** : decreased from **14.1** in week 51 to **11.1** in week 52 in the London region, decreased from **25.5** in week 51 to **15.3** in week 52 in the North region, decreased from **17.1** in week 51 to **13.4** in week 52 in the South region, and decreased from **21.2** in week 51 to **11.8** in week 52 in the Midlands And East region.
- **Common Cold** : decreased from **200.9** in week 51 to **119.4** in week 52 in the London region, decreased from **182.3** in week 51 to **119.6** in week 52 in the North region, decreased from **148.0** in week 51 to **109.7** in week 52 in the South region, and decreased from **139.8** in week 51 to **121.7** in week 52 in the Midlands And East region.
- **Influenza-Like illness** : decreased from **19.3** in week 51 to **16.7** in week 52 in the London region, increased from **14.1** in week 51 to **16.9** in week 52 in the North region, increased from **25.9** in week 51 to **29.0** in week 52 in the South region, and increased from **13.5** in week 51 to **17.3** in week 52 in the Midlands And East region.
- **Respiratory System Diseases** : decreased from **443.9** in week 51 to **311.8** in week 52 in the London region, decreased from **523.7** in week 51 to **367.3** in week 52 in the North region, decreased from **444.7** in week 51 to **355.6** in week 52 in the South region, and decreased from **430.5** in week 51 to **394.4** in week 52 in the Midlands And East region.

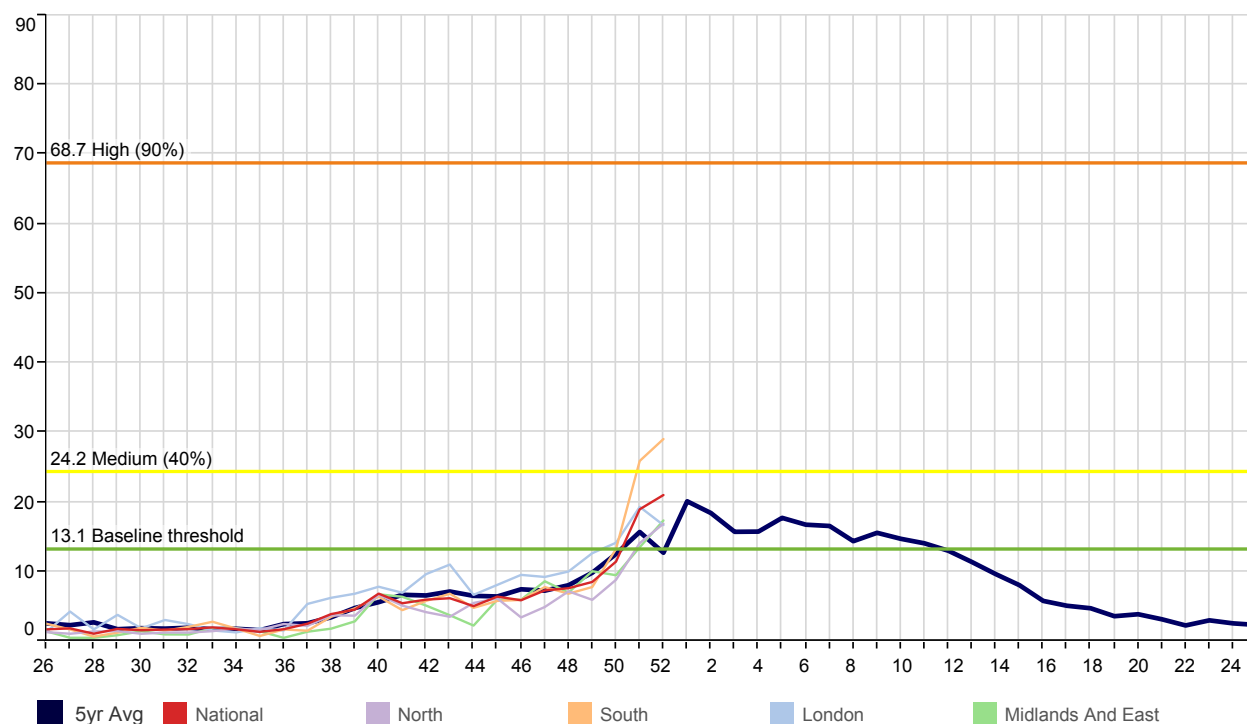
Comment:

Presentations of respiratory and other conditions monitored have generally decreased this week, with influenza like illness the exception. However, most general practices were only open for three working days due to Christmas Day and Boxing day closure. The main circulating strain of influenza so far this year is influenza B (Graph B). Presentations of influenza-like-illness have increased above the baseline threshold overall. For people in the over 65 years old age-band influenza like-illness has increased above the medium threshold (Graph A, Table D). These changes are typical for this time of year.

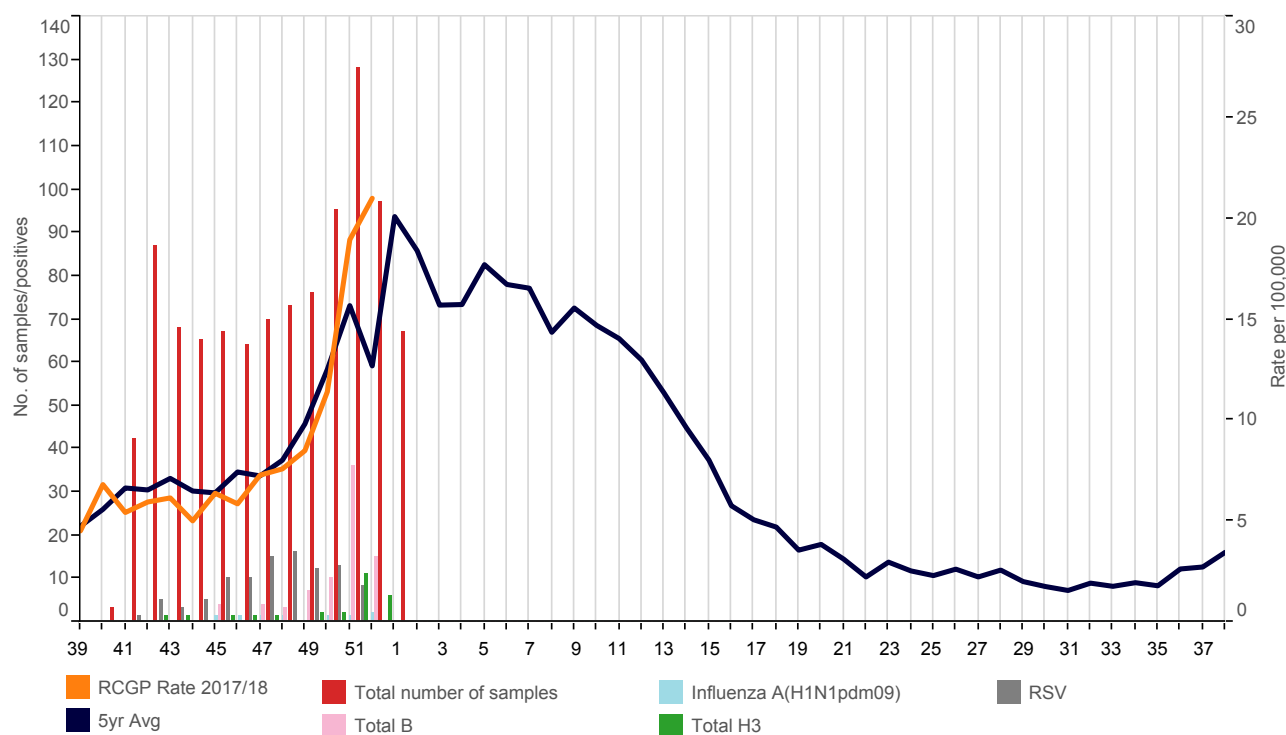
Winter Focus 2017/18

Please see page 13 for explanatory notes on the data.

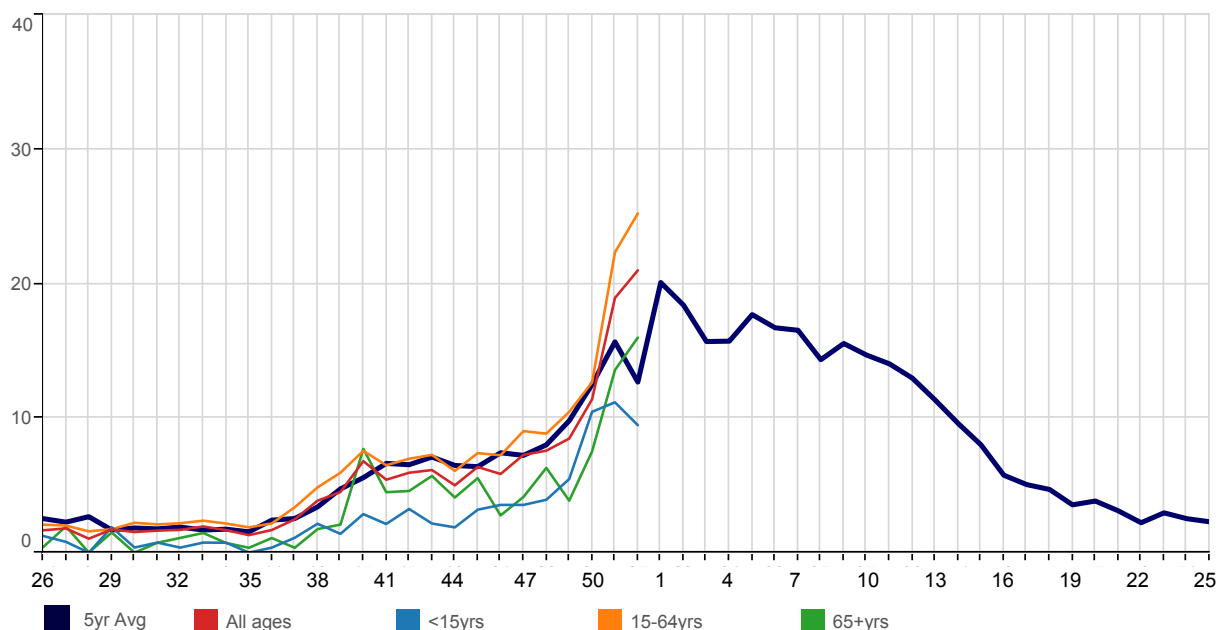
(A) Influenza-like illness: incidence rate winter 2017/18*



(B) RCGP/PHE RSV and Influenza Virology Swab Surveillance 2017/18(all ages, gender & regions combined)*



* The thresholds used are the agreed RCGP/ Public Health England levels for 2017/18. The rolling average line (blue) is based on 5 year historic RCGP RSC level.

(C) Influenza-like illness: national incidence rate 2017/2018 by age group***(D) Influenza-like illness: national incidence rate 2017/2018 by age group***

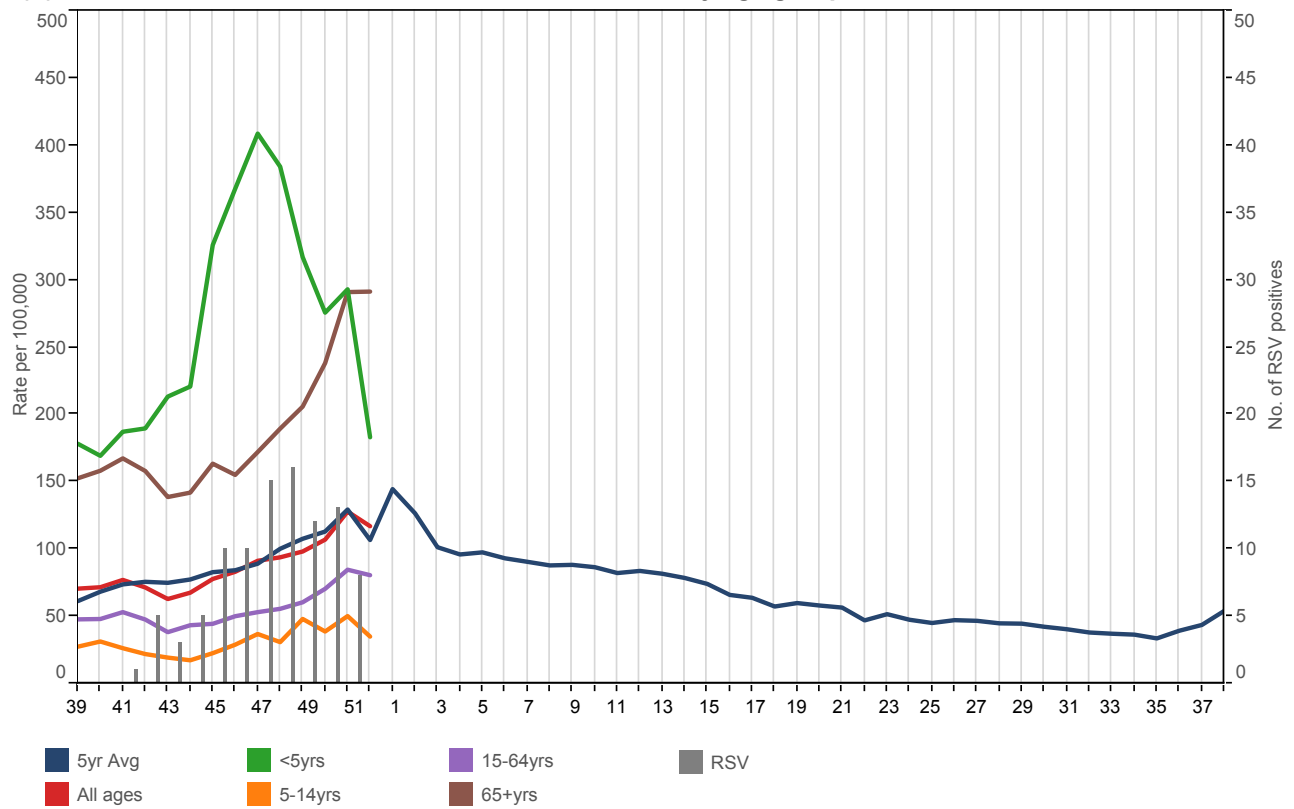
This table shows the level of intensity of ILI by age band. MEM thresholds have been calculated separately for each age band - the ranges are shown in the table Threshold levels by age band.

	40	41	42	43	44	45	46	47	48	49	50	51	52	1	2	5	6
<15yrs	2.87	2.13	3.25	2.17	1.88	3.19	3.55	3.55	3.93	5.47	10.47	11.18	9.48				
15-64yrs	7.57	6.50	6.98	7.27	6.08	7.40	7.24	9.04	8.85	10.47	12.66	22.33	25.23				
65+yrs	7.71	4.49	4.58	5.70	4.10	5.54	2.77	4.14	6.30	3.86	7.53	13.58	15.99				
All ages	6.80	5.42	5.94	6.14	5.01	6.37	5.85	7.27	7.58	8.48	11.41	18.94	20.99				
	7	8	9	10	11	12	13	14	15	16	17	18	19	20			
<15yrs																	
15-64yrs																	
65+yrs																	
All ages																	

Table 2	Below Threshold ¹	Threshold to Medium ²	Medium to High ³	High to Very High ⁴	Above Very High ⁵	Threshold levels
0-14	<10.8	10.8 to <16.2	16.2 to <49.0	49.0 to <80.0	80.0+	¹ Below baseline threshold
15-64	<14.6	14.6 to <27.5	27.5 to <62.6	62.6 to <90.0	90.0+	² baseline threshold breach to < 40th percentile
65+	<11.0	11.0 to <15.8	15.8 to <34.4	34.4 to <48.5	48.5+	³ 40th to <90th percentile
All Ages	<13.1	13.1 to <24.2	24.2 to <68.7	68.7 to <108.9	108.9+	⁴ 90th to <97.5th percentile
						⁵ 97.5th+ percentile

Weekly influenza-like illness and bronchitis incidence rates per 100,000 persons

	Influenza-like illness	Acute Bronchitis		Influenza-like illness	Acute Bronchitis
<1yr	6.0	395.6	London	16.7	79.4
1-4yrs	7.9	136.5	North	16.9	128.8
5-14yrs	10.4	34.9	South	29.0	118.8
15-24yrs	19.2	26.7	Midlands And East	17.3	143.3
25-44yrs	20.5	66.4	National	21.0	116.9
45-64yrs	33.7	123.8			
65-74yrs	15.2	217.7			
75-84yrs	17.6	317.1			
85+yrs	15.4	530.1			
All ages	21.0	116.9			

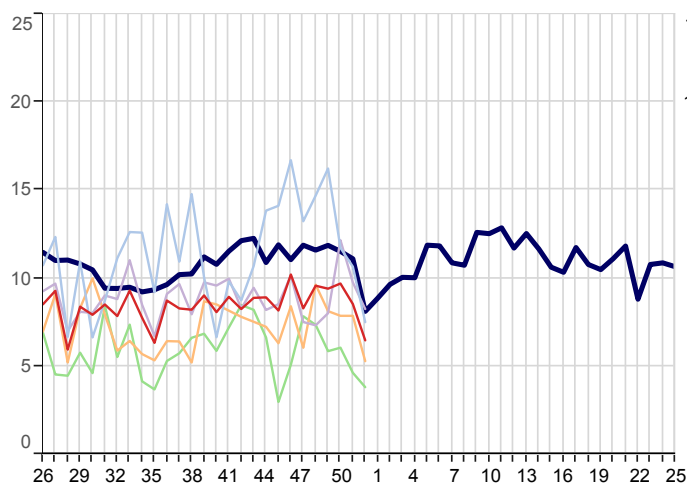
(E) Acute Bronchitis: national incidence rate 2017/2018 by age group***Weekly Influenza-like illness and Acute Bronchitis incidence rates per 100,000 persons**

	Influenza-like illness	Acute Bronchitis
<5yrs	7.5	183.0
5-14yrs	10.4	34.9
15-64yrs	25.2	80.5
65+yrs	16.0	291.3
All ages	21.0	116.9

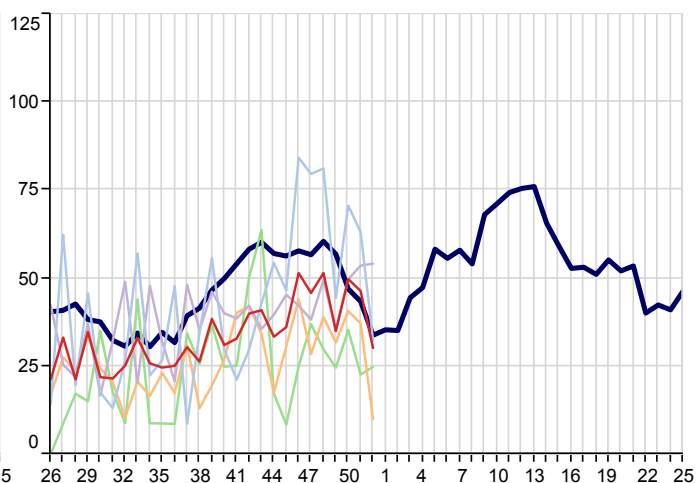
1. Water & Food Borne Disorders:

5yr Avg National London North South Midlands And East

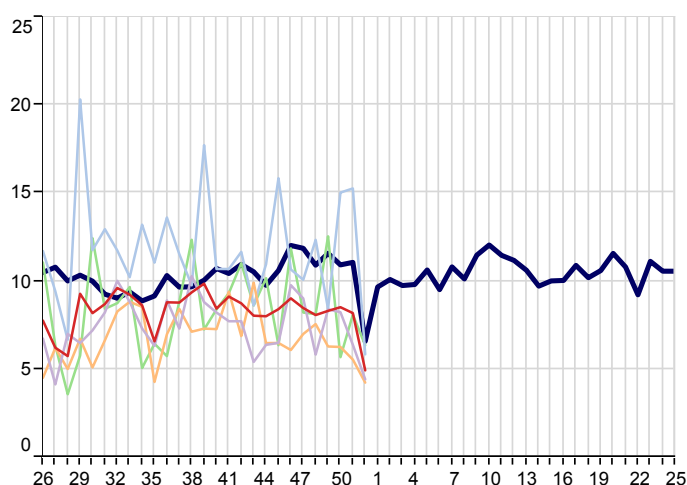
Infectious Intestinal Disease (ICD10: A00-A09)
Weekly incidence (per 100,000 **all ages**) by regions
for 2017 compared with 5 year average



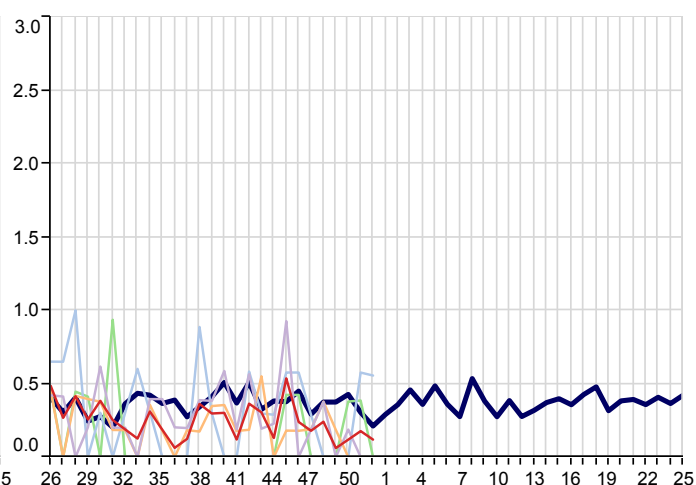
Infectious Intestinal Disease (ICD10: A00-A09)
Weekly incidence (per 100,000 **0-4 years**) by regions
for 2017 compared with 5 year average



Non-Infective Enteritis & Colitis (ICD10: K50-K52)
Weekly incidence (per 100,000 **all ages**) by region
for 2017 compared with 5 year average



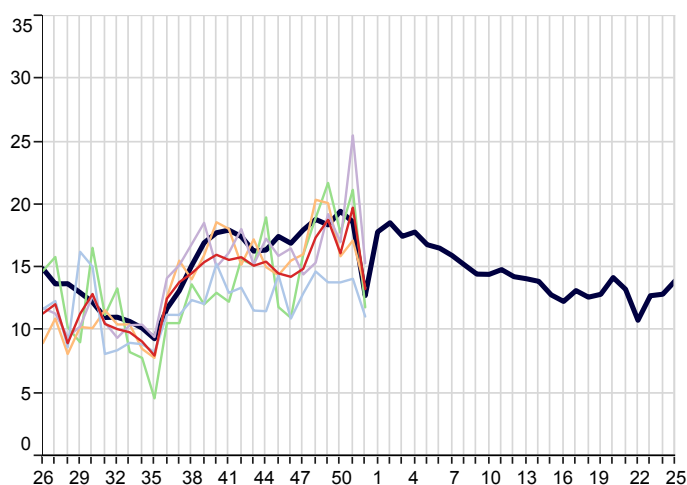
Viral Hepatitis (ICD10: B15-B19)
Weekly incidence (per 100,000 **all ages**) by region
for 2017 compared with 5 year average



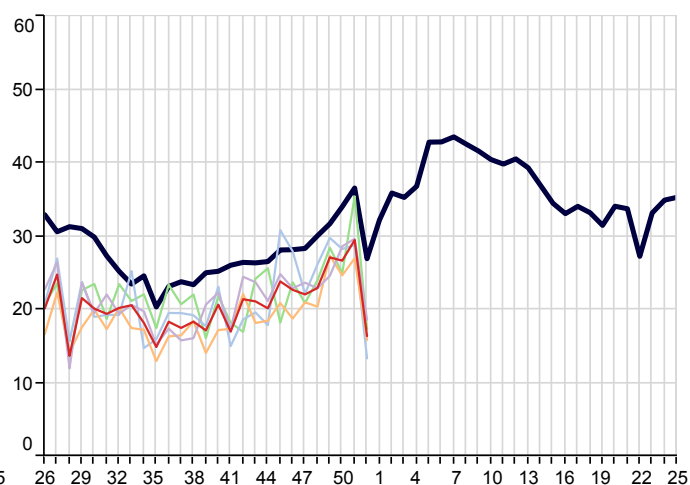
2. Environmentally Sensitive Disorders:

5yr Avg National London North South Midlands And East

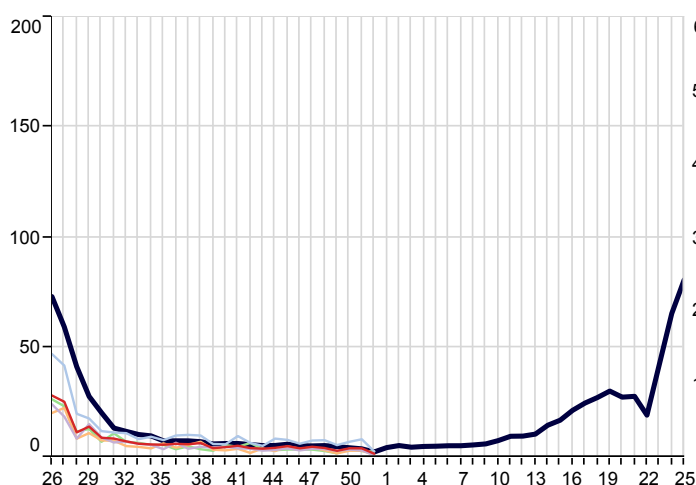
Asthma (ICD10: J45-J46)
Weekly incidence (per 100,000 all ages) by region
for 2017 compared with 5 year average



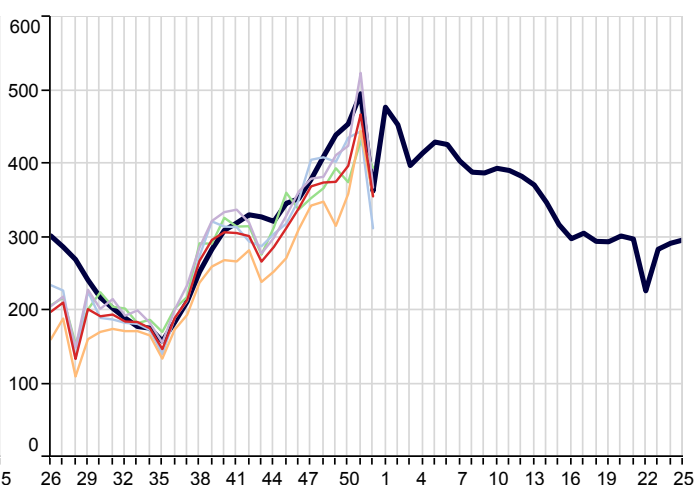
Disorders of Conjunctiva (ICD10: H10-H13)
Weekly incidence (per 100,000 all ages) by region
for 2017 compared with 5 year average



Hayfever/Allergic Rhinitis (ICD10: J30)
Weekly incidence (per 100,000 all ages) by region
for 2017 compared with 5 year average



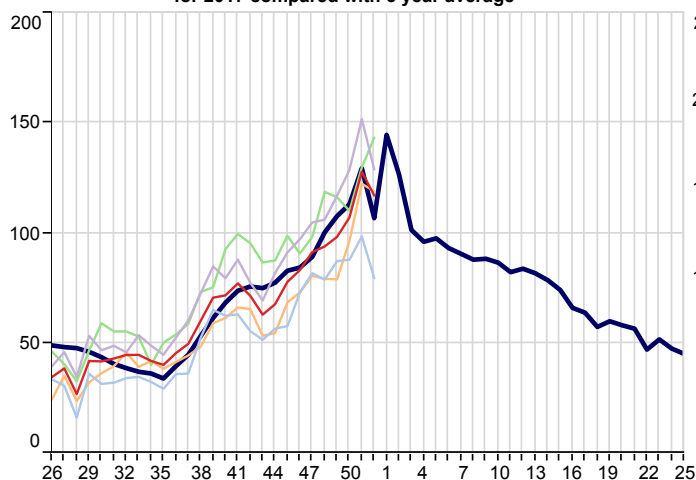
Symptoms involving Respiratory & Chest (ICD10: R05-R07,R09)
Weekly incidence (per 100,000 all ages) by region
for 2017 compared with 5 year average



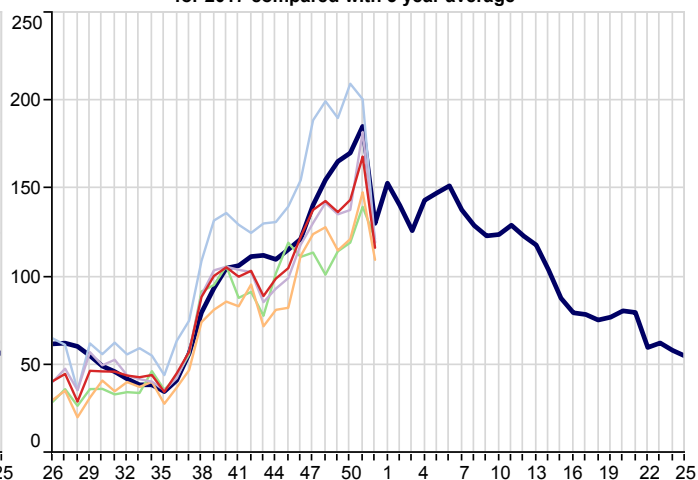
3. Respiratory Infections:

5yr Avg National London North South Midlands And East

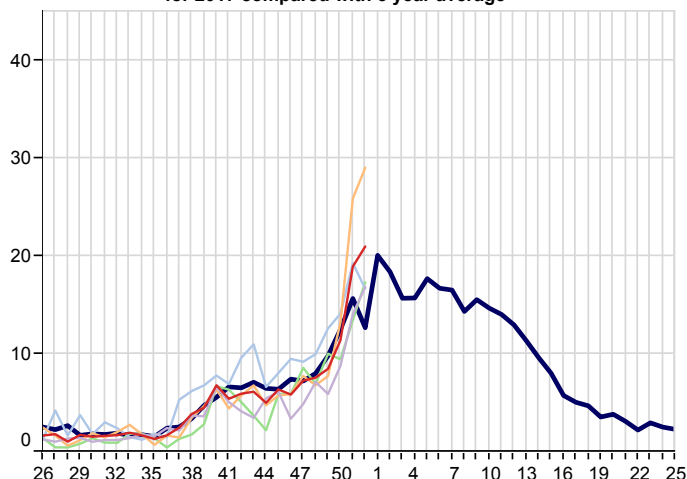
Acute Bronchitis (ICD10: J20-J21,J40)
Weekly incidence (per 100,000 all ages) by region
for 2017 compared with 5 year average



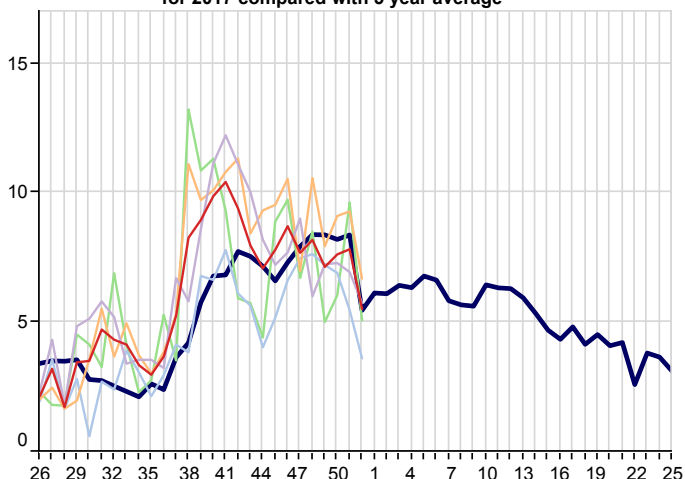
Common Cold (ICD10: J00,J06)
Weekly incidence (per 100,000 all ages) by region
for 2017 compared with 5 year average



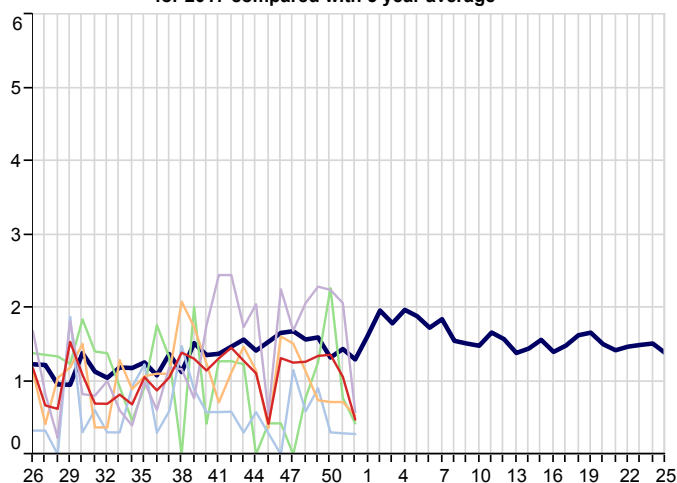
Influenza-Like Illness (ICD10: J09-J11)
Weekly incidence (per 100,000 all ages) by region
for 2017 compared with 5 year average



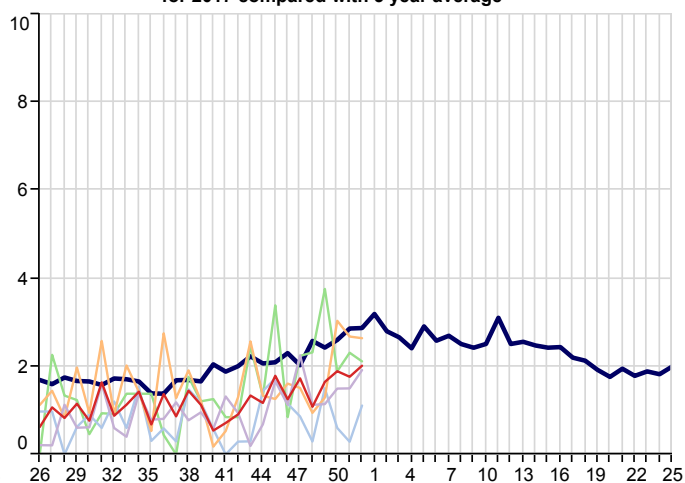
Acute Laryngitis/Tracheitis (ICD10: J04)
Weekly incidence (per 100,000 all ages) by region
for 2017 compared with 5 year average



Pleurisy (ICD10: R091)
Weekly incidence (per 100,000 all ages) by region
for 2017 compared with 5 year average



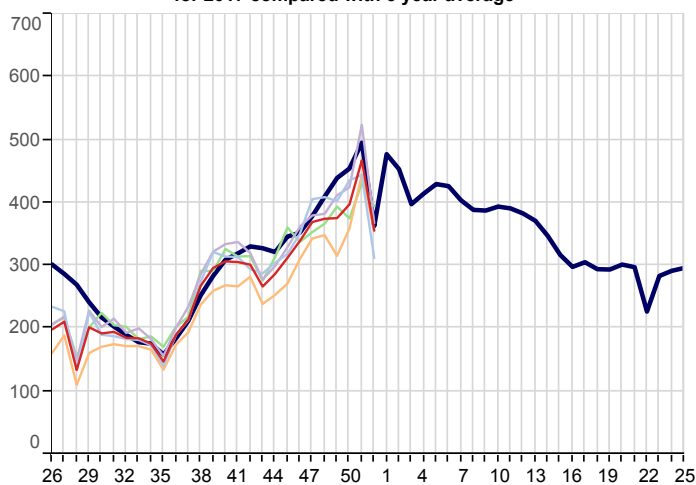
Pneumonia/Pneumonitis (ICD10: J12-J18)
Weekly incidence (per 100,000 all ages) by region
for 2017 compared with 5 year average



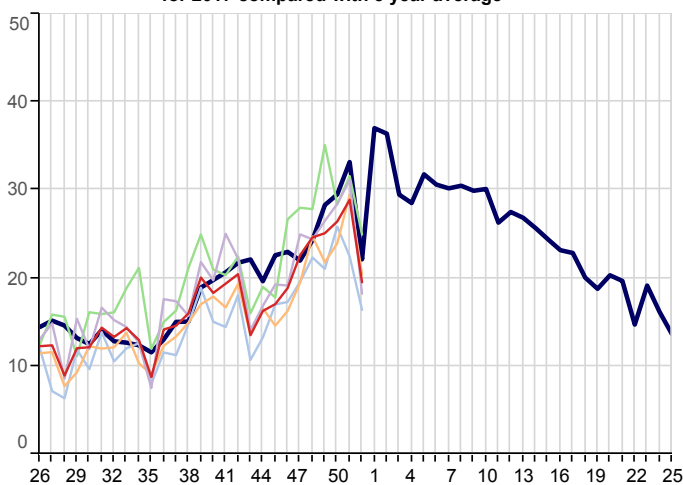
3. Respiratory Infections(Continued):

5yr Avg National London North South Midlands And East

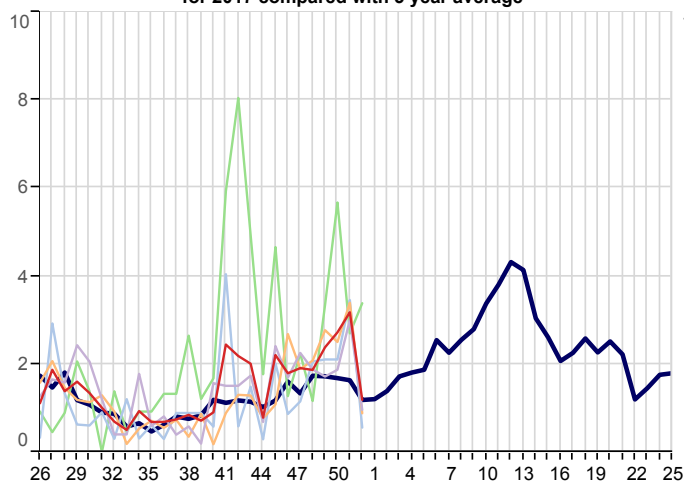
Respiratory System Diseases (ICD10: J00-J99)
Weekly incidence (per 100,000 all ages) by region
for 2017 compared with 5 year average



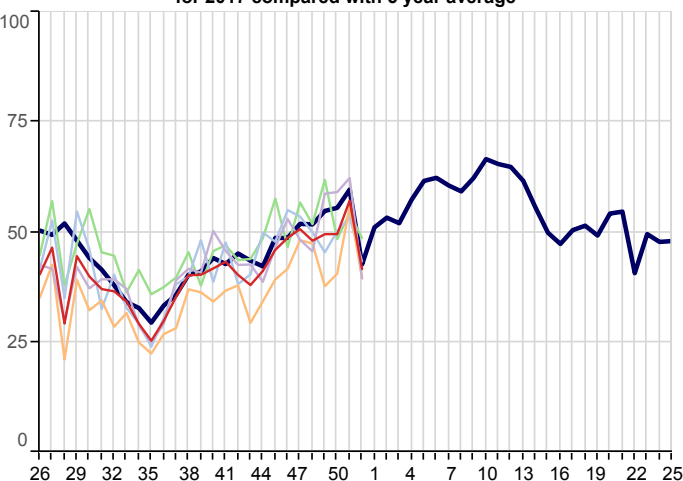
Acute Sinusitis (ICD10: J01)
Weekly incidence (per 100,000 all ages) by region
for 2017 compared with 5 year average



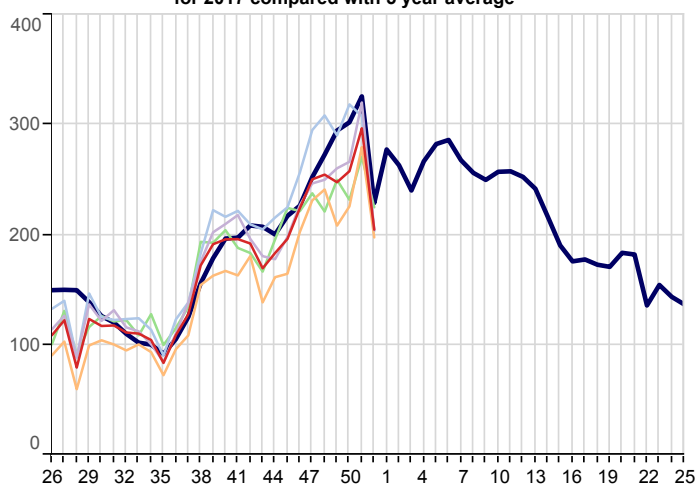
Strep Sore Throat, Scarletina and Peritonsillar Abscess (ICD10: A38,J020,J36)
Weekly incidence (per 100,000 all ages) by region for 2017
for 2017 compared with 5 year average



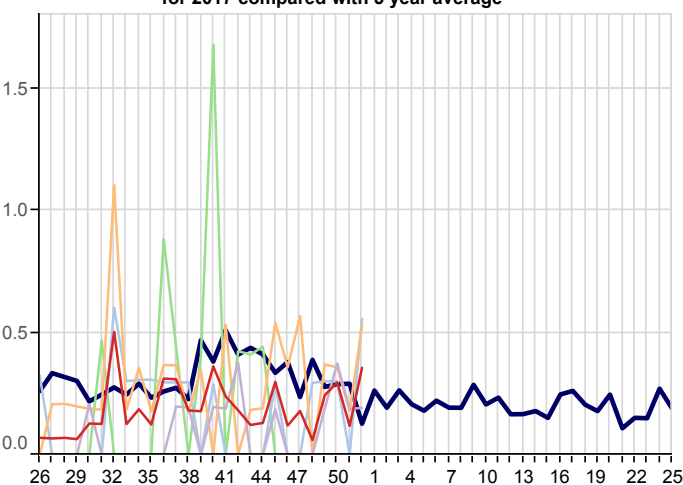
Acute Tonsillitis/Pharyngitis (ICD10: J02-J03)
Weekly incidence (per 100,000 all ages) by region
for 2017 compared with 5 year average



Upper Respiratory Tract Infections (URTI)(ICD10: J00-J06)
Weekly incidence (per 100,000 all ages) by region
for 2017 compared with 5 year average



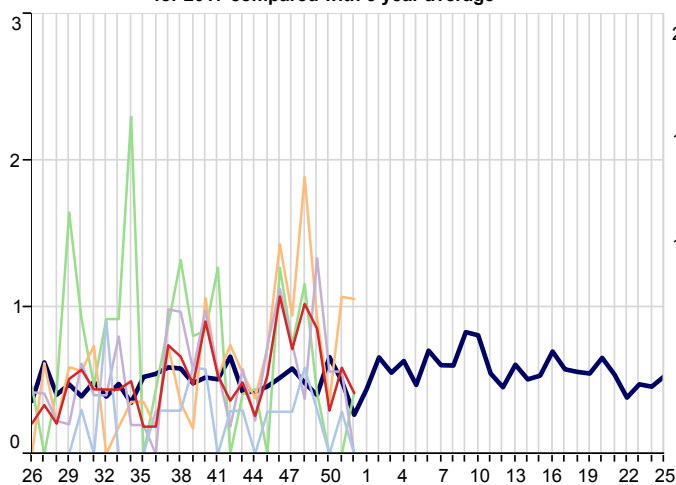
Whooping Cough (ICD10: A37)
Weekly incidence (per 100,000 all ages) by region for 2017
for 2017 compared with 5 year average



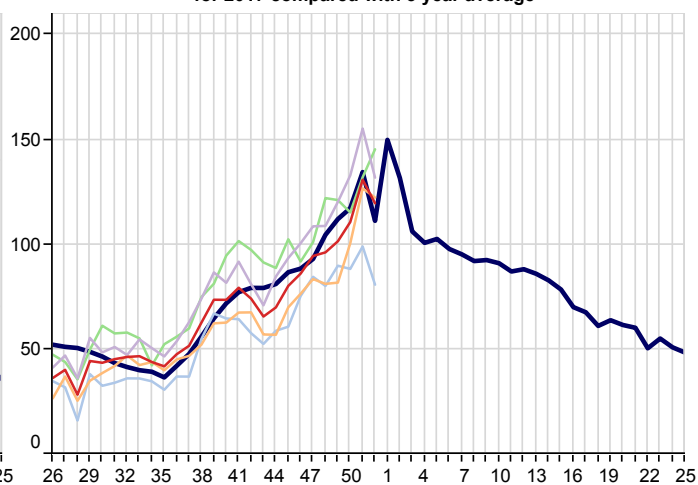
3. Respiratory Infections(Continued):

5yr Avg National London North South Midlands And East

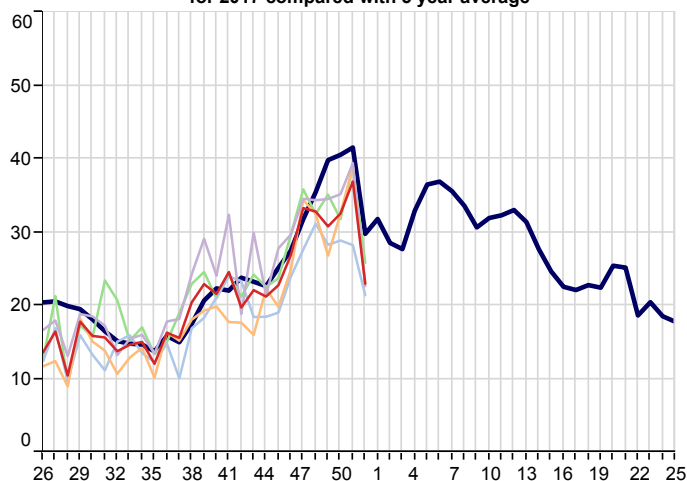
Infectious Mononucleosis (ICD10: B27)
Weekly incidence (per 100,000 all ages) by region
for 2017 compared with 5 year average



Lower Respiratory Tract Infections (LRTI)(ICD10: J20-J22)
Weekly incidence (per 100,000 all ages) by region
for 2017 compared with 5 year average



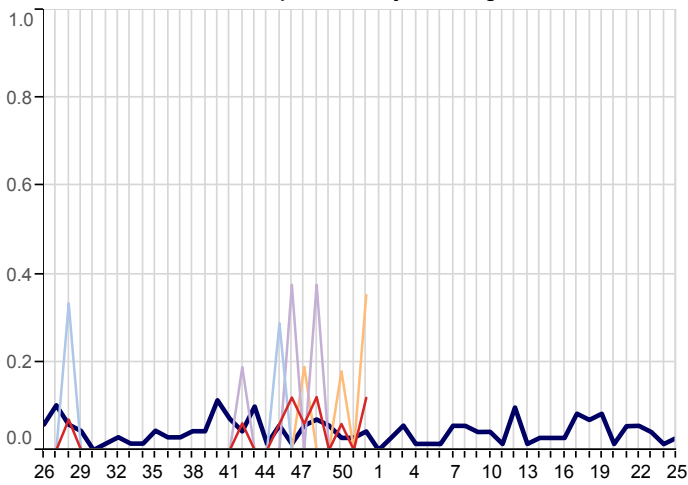
Acute Otitis Media (ICD10: H650-H651,H660,H669)
Weekly incidence (per 100,000 all ages) by region
for 2017 compared with 5 year average



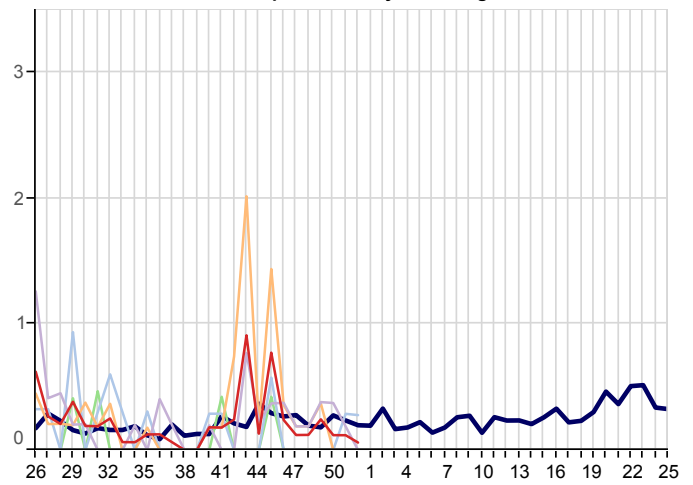
4. Vaccine Sensitive Disorders

5yr Avg National London North South Midlands And East

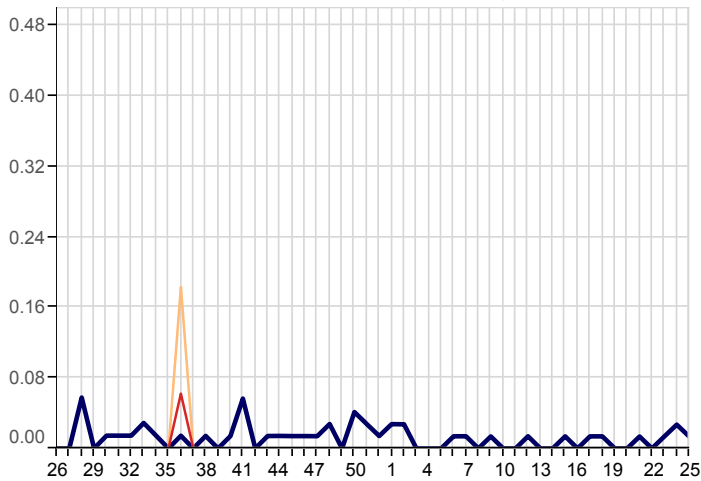
Measles (ICD10: B05)
Weekly incidence (per 100,000 all ages) by region
for 2017 compared with 5 year average



Mumps (ICD10: B26)
Weekly incidence (per 100,000 all ages) by region
for 2017 compared with 5 year average

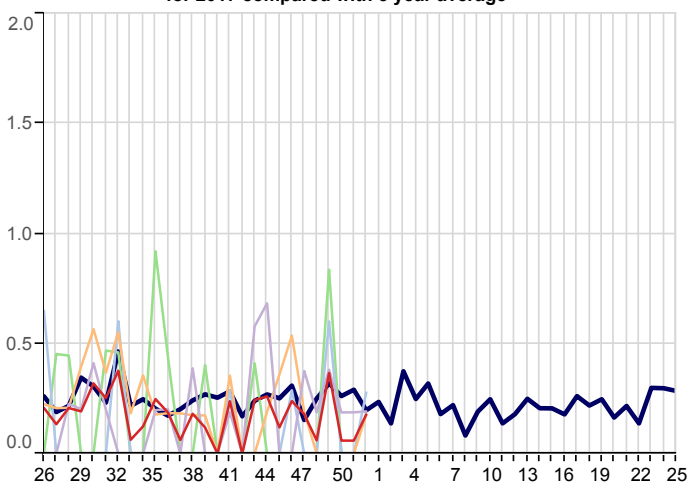


Rubella (ICD10: B06)
Weekly incidence (per 100,000 all ages) by region
for 2017 compared with 5 year average

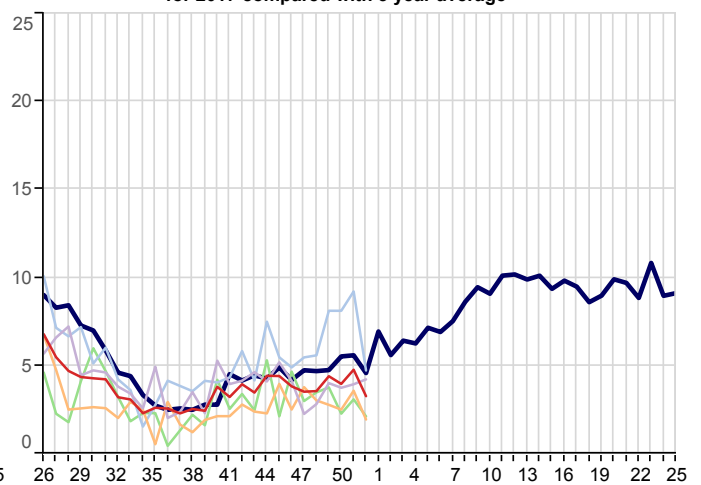


5. Skin Contagions

Bullous Dermatoses (ICD10: L10-L14)
Weekly incidence (per 100,000 all ages) by region
for 2017 compared with 5 year average



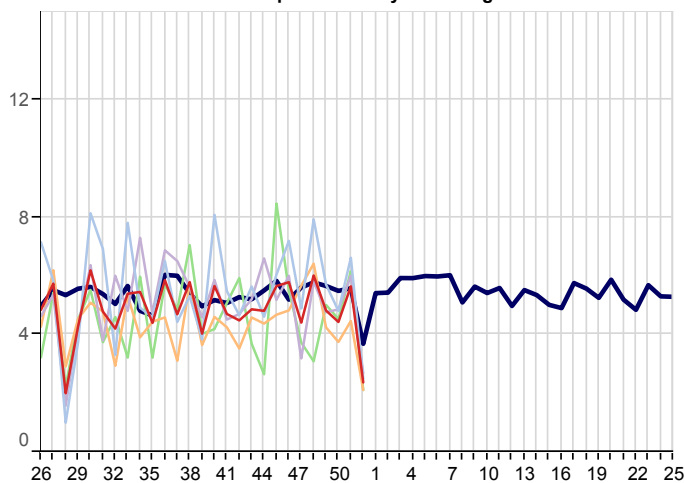
Chickenpox (ICD10: B01)
Weekly incidence (per 100,000 all ages) by region
for 2017 compared with 5 year average



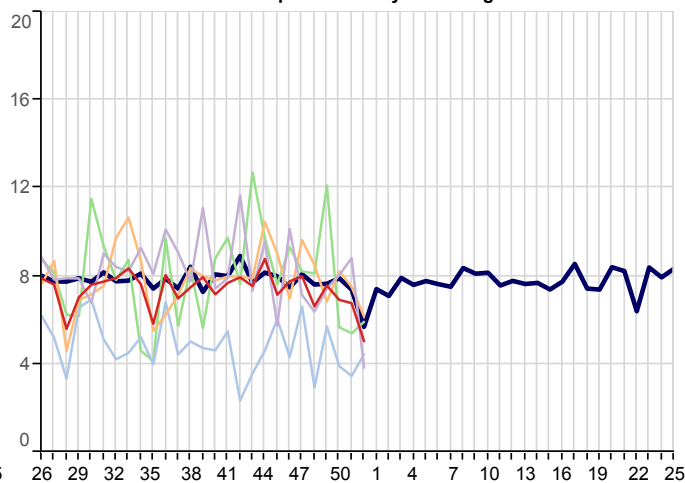
5. Skin Contagions (Continued)

5yr Avg National London North South Midlands And East

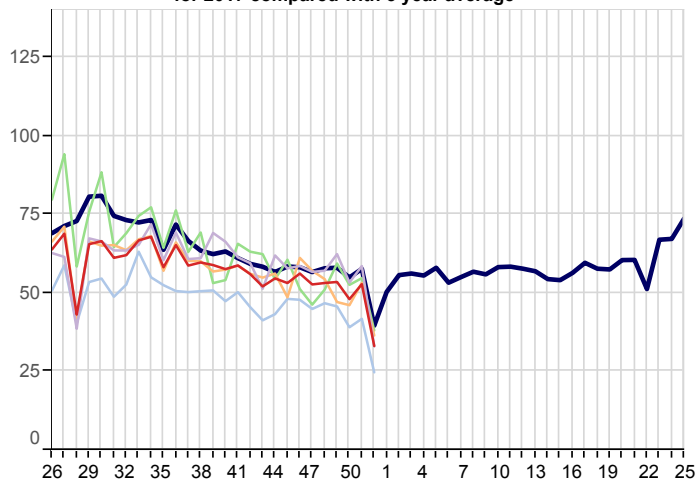
Herpes Simplex (ICD10: B00)
Weekly incidence (per 100,000 all ages) by region
for 2017 compared with 5 year average



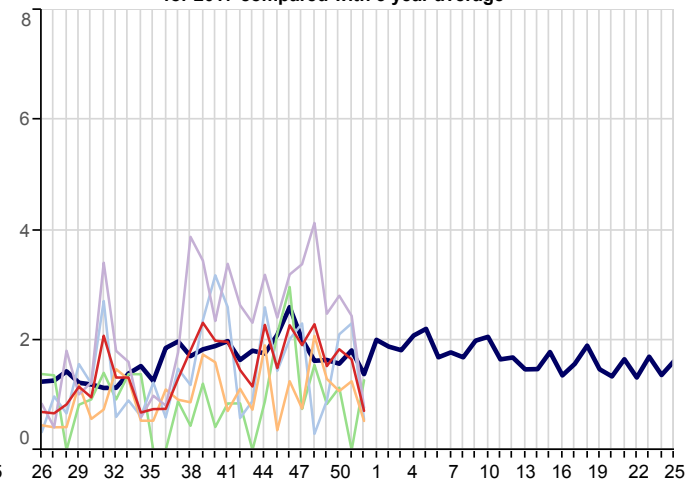
Herpes Zoster (ICD10: B02)
Weekly incidence (per 100,000 all ages) by region
for 2017 compared with 5 year average



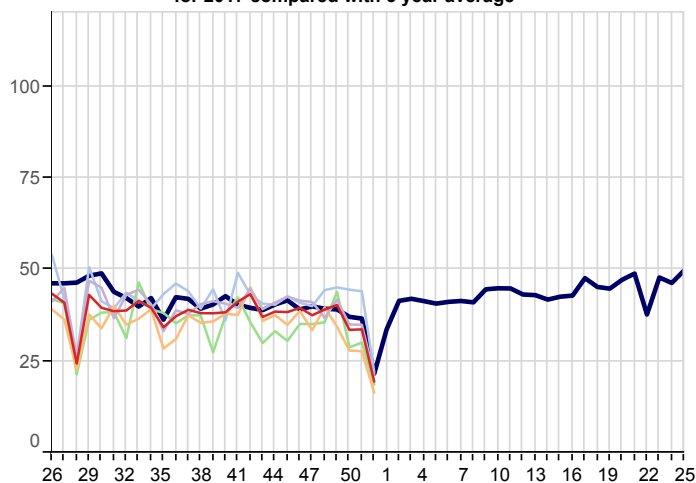
Infections of Skin & Subcutaneous Tissue (ICD10: L00-L08)
Weekly incidence (per 100,000 all ages) by region
for 2017 compared with 5 year average



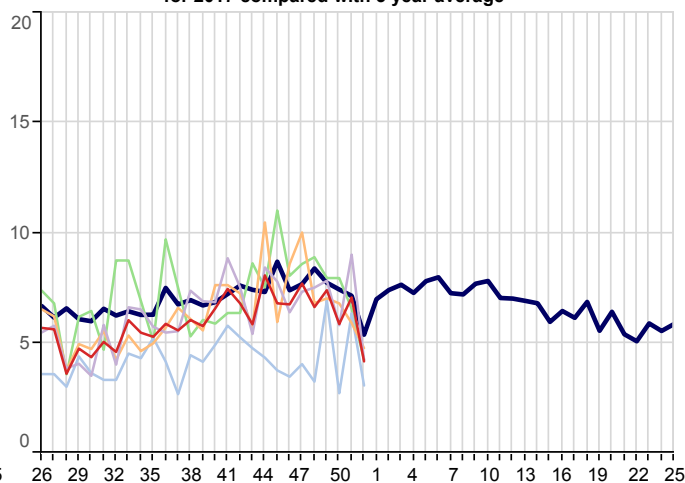
Scabies (ICD10: B86)
Weekly incidence (per 100,000 all ages) by region
for 2017 compared with 5 year average



Symptoms involving Skin & Oth Integument Tiss (ICD10: R20-R23)
Weekly incidence (per 100,000 all ages) by region
for 2017 compared with 5 year average



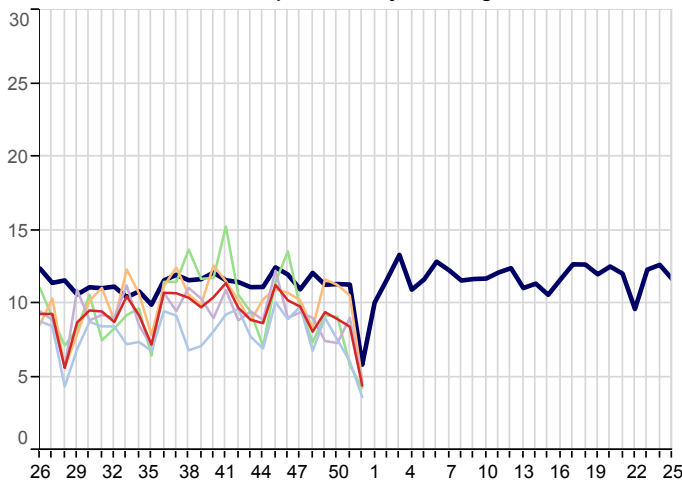
Impetigo (ICD10: L01)
Weekly incidence (per 100,000 all ages) by region
for 2017 compared with 5 year average



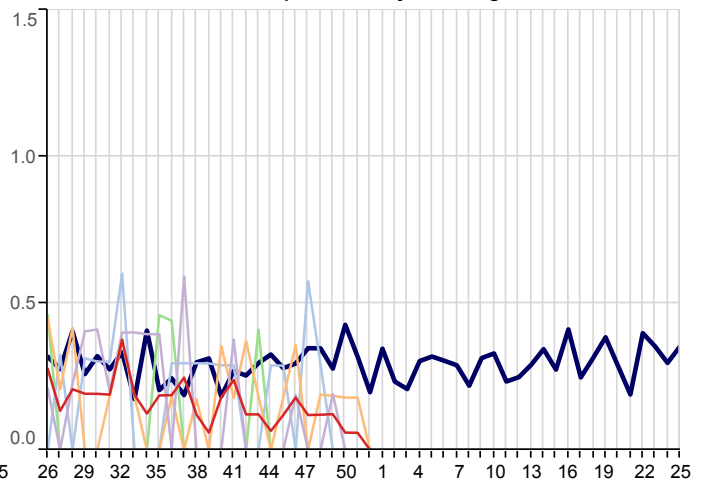
6. Disorders Affecting the Nervous System

5yr Avg National London North South Midlands And East

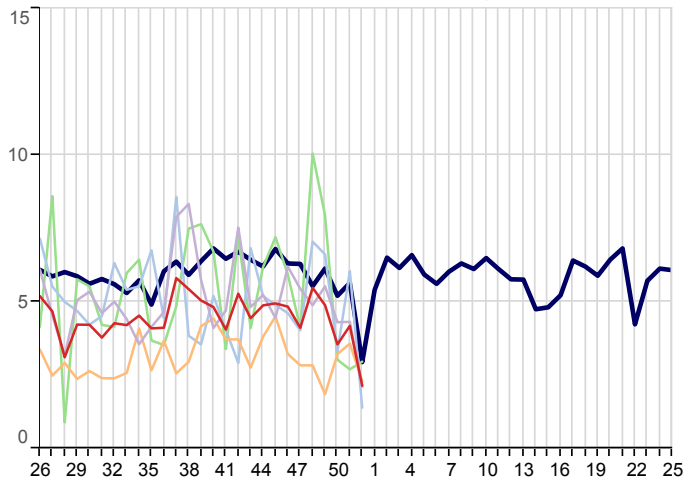
Disorders of The Peripheral Nervous System (ICD10: G50-G64,G70-G72)
Weekly incidence (per 100,000 all ages) by region
for 2017 compared with 5 year average



Meningitis/Encephalitis (ICD10: A170-A171,A390,A38-A85,A87,G00-G05)
Weekly incidence (per 100,000 all ages) by region
for 2017 compared with 5 year average

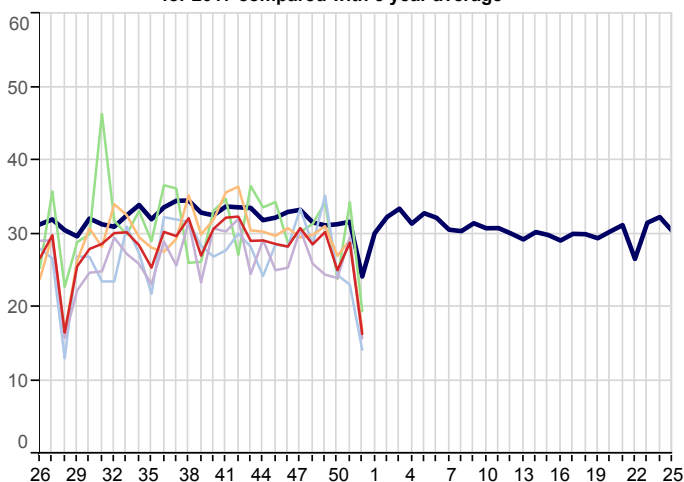


Symptoms Involving Nervous & Musculoskeletal (ICD10: R25-R29)
Weekly incidence (per 100,000 all ages) by region
for 2017 compared with 5 year average



7. Genitourinary System Disorders

Urinary Tract Infection/Cystitis (ICD10: N30,N390)
Weekly incidence (per 100,000 all ages) by region
for 2017 compared with 5 year average



8. Tabular Summary by Disease

Disease Name	Week beginning Week ending		25/12/2017 31/12/2017		18/12/2017 24/12/2017		11/12/2017 17/12/2017		04/12/2017 10/12/2017	
	Rate	Numer	Rate	Numer	Rate	Numer	Rate	Numer	Rate	Numer
Acute Bronchitis	116.9	1,972	127.8	2,173	107.0	1,810	98.1	1,608		
Allergic Rhinitis	1.5	25	3.9	67	4.0	67	2.8	46		
Asthma	13.3	224	19.8	336	16.1	273	18.8	308		
Bullous Dermatoses	0.2	3	0.1	1	0.1	1	0.4	6		
Chickenpox	3.3	55	4.8	81	4.0	67	4.4	72		
Common Cold	116.5	1,965	168.3	2,862	143.7	2,432	136.8	2,241		
Conjunctival Disorders	16.4	276	29.5	501	26.7	451	27.1	444		
Herpes Simplex	2.4	40	5.6	96	4.4	75	4.8	79		
Herpes Zoster	5.0	85	6.8	115	6.9	117	7.6	124		
Impetigo	4.2	70	7.1	120	5.9	99	7.4	121		
Infectious Mononucleosis	0.4	7	0.6	10	0.3	5	0.9	14		
Influenza-like illness	21.0	354	18.9	322	11.4	193	8.5	139		
Infectious Intestinal Diseases	6.5	109	8.5	145	9.7	164	9.4	154		
Laryngitis and Tracheitis	5.5	93	7.8	133	7.6	129	7.1	117		
Lower Respiratory Tract Infections	119.7	2,018	130.9	2,225	110.7	1,873	101.5	1,663		
Measles	0.1	2	0.0	0	0.1	1	0.0	0		
Meningitis and Encephalitis	0.0	0	0.1	1	0.1	1	0.1	2		
Mumps	0.1	1	0.1	2	0.1	2	0.2	4		
Non-infective Enteritis and Colitis	4.9	83	8.2	139	8.5	144	8.3	136		
Otitis Media Acute	22.9	387	36.9	627	32.5	550	30.8	504		
Peripheral Nervous Disease	4.4	74	8.4	143	8.9	151	9.4	154		
Pleurisy	0.5	8	1.1	18	1.4	23	1.3	22		
Pneumonia and Pneumonitis	2.0	34	1.8	30	1.9	32	1.6	27		
Respiratory System Diseases	355.3	5,992	467.1	7,942	397.0	6,718	375.2	6,147		
Rubella	0.0	0	0.0	0	0.0	0	0.0	0		
Scabies	0.7	12	1.6	28	1.8	31	1.5	25		
Sinusitis	19.5	329	28.9	491	26.4	447	25.1	411		
Skin and Subcutaneous Tissue Infections	33.1	558	52.8	897	48.0	812	53.5	876		
Strep Throat and Peritonsillar Abscess	1.2	20	3.2	54	2.7	46	2.4	39		
Symptoms involving musculoskeletal	2.1	36	4.2	71	3.5	60	4.9	80		
Symptoms involving Respiratory and Chest	17.4	293	20.8	354	20.4	346	22.9	375		
Symptoms involving Skin and Integument Tissues	19.4	327	33.6	572	33.5	567	40.3	660		
Tonsillitis and acute Pharyngitis	41.6	701	57.1	971	49.5	838	49.5	811		
Upper Respiratory Tract Infections	204.6	3,450	296.7	5,045	257.7	4,361	247.7	4,058		
Urinary Tract Infections	16.3	275	28.8	489	25.0	423	30.2	495		
Viral Hepatitis	0.1	2	0.2	3	0.1	2	0.1	1		
Whooping Cough	0.4	6	0.1	2	0.3	5	0.2	4		
Denom	1,686,402		1,700,175		1,692,134		1,638,390			
Practice Count	163		164		163		159			

FURTHER INFORMATION:

About the report

Winter focus

The first two pages of data within this report focus on Influenza-Like Illness, in order to provide information about the on set of seasonal influenza and early warning of any epidemic.

Rate calculation

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

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

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

Five-year averages

Weekly rates are set against the five-year average, calculated from data for the calendar years 2012-2016. Previously we reported against a ten-year average. The change to a five-year average was made because longer-term trends in the incidence of disease have led to weekly rates for certain diseases becoming increasingly divergent from their ten-year average. The use of five-year averages lessens this effect and enables more meaningful comparison.

Threshold calculation for Influenza-Like Illness (ILI)

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

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

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

Both the *all-ages* thresholds and the *age-specific* thresholds are shown in Table 2, page 3. Ten years of data were used for *all-ages* and *age-specific* thresholds calculation (winter seasons 2005/06- 2015/16 excluding 2009/10).

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

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 in the Section of Clinical Medicine and Ageing at the University of Surrey.

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

<http://www.rcgp.org.uk/clinical-and-research/our-programmes/research-and-surveillance-centre.aspx>

Our data extraction process and information governance

Data are extracted twice weekly from practice systems by Apollo Medical Software Solutions 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 in the Section of Clinical Medicine and Ageing at the University of Surrey. Both Apollo and the University of Surrey 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 Public Health England. The bulletin can be found at the following URL:

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

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

<http://www.rcgp.org.uk/clinical-and-research/our-programmes/research-and-surveillance-centre.aspx>

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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