



Royal College of
General Practitioners
Research and Surveillance Centre

RSC Communicable and Respiratory Disease Report for England

Key Statistics:

Week Number/Year.....51/2016
Week Starting - Ending.....19/12/2016 - 25/12/2016
No. of Practices.....152
Population.....1483570

National (England)

- **Acute Bronchitis** : increased from **108.4** in week 50 to **127.3** in week 51.
- **Asthma** : increased from **18.7** in week 50 to **20.9** in week 51.
- **Common Cold & URTI NOS** : increased from **136.3** in week 50 to **159.7** in week 51.
- **Influenza-Like illness** : increased from **12.1** in week 50 to **16.2** in week 51.
- **Respiratory System Diseases** : increased from **379.9** in week 50 to **441.9** in week 51.

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

- **Acute Bronchitis** : increased from **83.4** in week 50 to **98.6** in week 51 in the London region, increased from **105.3** in week 50 to **135.8** in week 51 in the North region, increased from **109.1** in week 50 to **123.9** in week 51 in the South region, and increased from **140.5** in week 50 to **151.2** in week 51 in the Midlands And East region.
- **Asthma** : was unchanged at **19.7** in week 50 compared with **20.0** in week 51 in the London region, increased from **18.6** in week 50 to **22.1** in week 51 in the North region, increased from **16.7** in week 50 to **20.7** in week 51 in the South region, and was unchanged at **20.8** in week 50 compared with **20.2** in week 51 in the Midlands And East region.
- **Common Cold & URTI NOS** : increased from **175.9** in week 50 to **186.3** in week 51 in the London region, increased from **117.8** in week 50 to **157.2** in week 51 in the North region, increased from **124.7** in week 50 to **151.6** in week 51 in the South region, and was unchanged at **142.8** in week 50 compared with **146.3** in week 51 in the Midlands And East region.
- **Influenza-Like illness** : increased from **15.9** in week 50 to **17.1** in week 51 in the London region, increased from **8.6** in week 50 to **12.6** in week 51 in the North region, increased from **12.4** in week 50 to **19.8** in week 51 in the South region, and increased from **13.5** in week 50 to **15.7** in week 51 in the Midlands And East region.
- **Respiratory System Diseases** : increased from **393.9** in week 50 to **435.1** in week 51 in the London region, increased from **352.4** in week 50 to **452.6** in week 51 in the North region, increased from **370.4** in week 50 to **423.7** in week 51 in the South region, and increased from **428.0** in week 50 to **461.0** in week 51 in the Midlands And East region.

Comment:

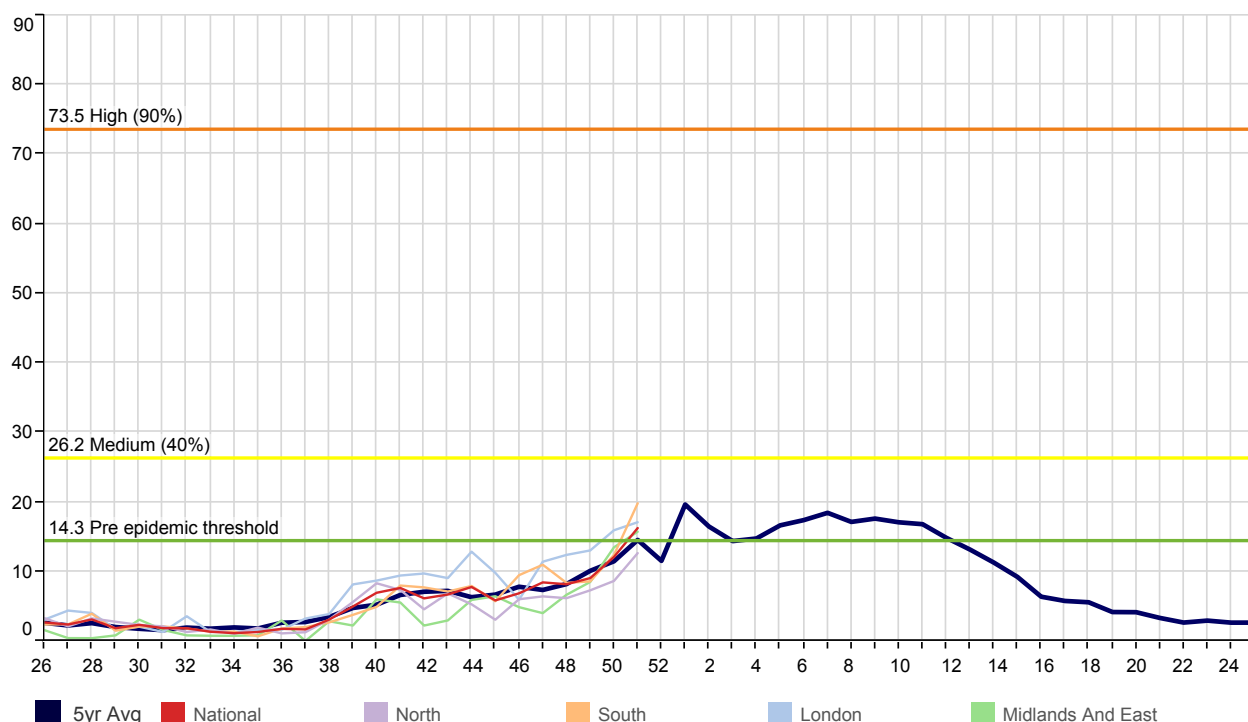
The rate of respiratory conditions increased from last week, but is still below seasonally expected levels.

Presentations of influenza-like illness in primary care increased this week to above the pre-epidemic threshold. Presentations of acute bronchitis in children under five continue to decrease, while presentations in adults over 65 continue to increase.

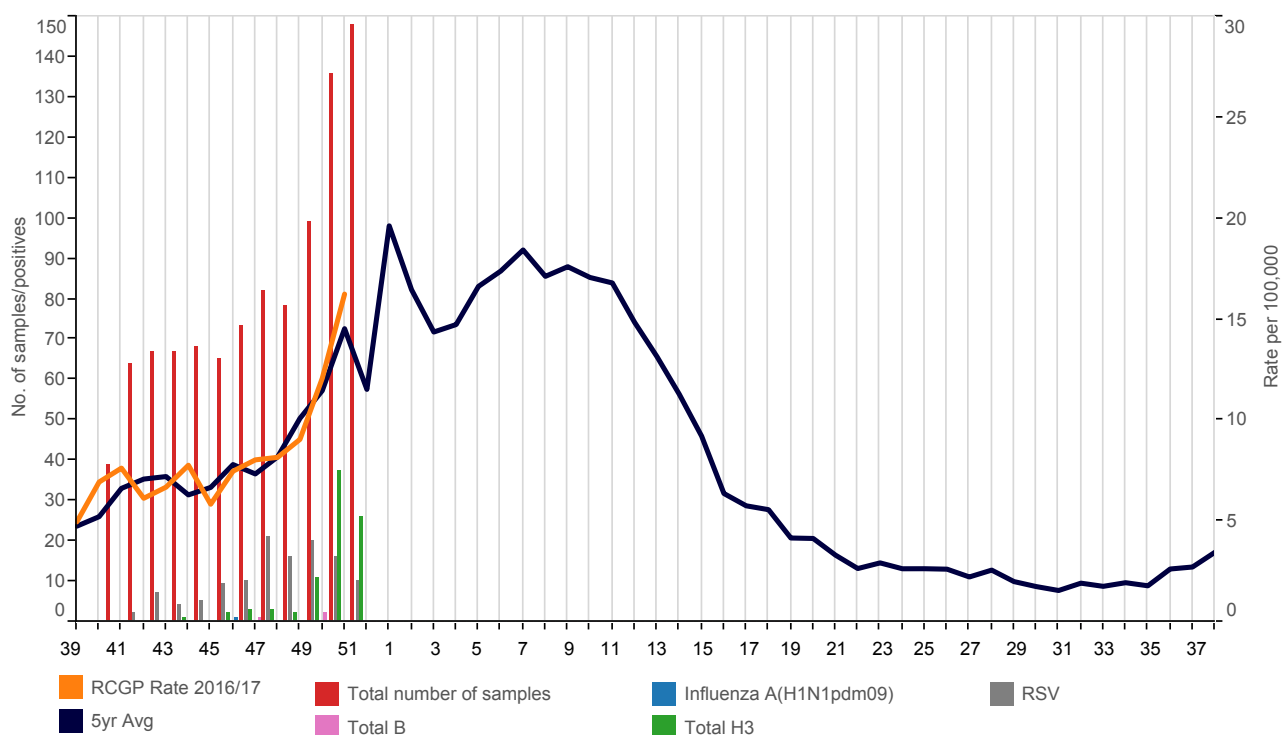
Winter Focus 2016/17

Please see page 13 for explanatory notes on the data.

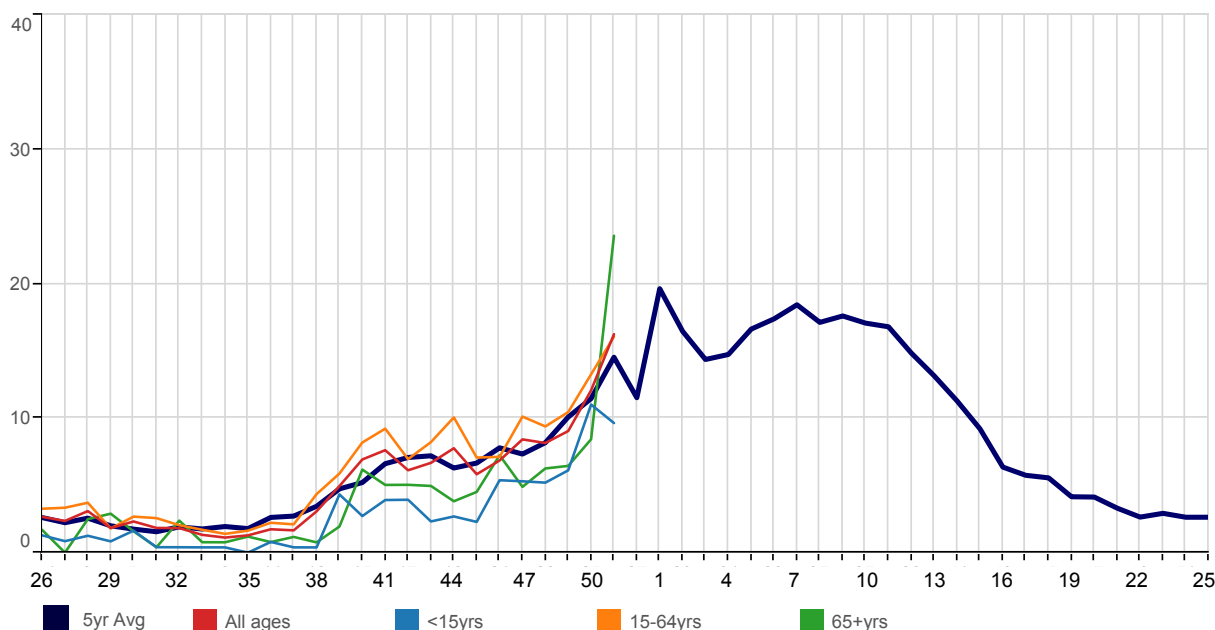
(A) Influenza-like illness: incidence rate winter 2016/17*



(B) RCGP/PHE RSV and Influenza Virology Swab Surveillance 2016/17(all ages, gender & regions combined)*



* The thresholds used are the agreed RCGP/ Public Health England levels for 2016/17. The rolling average line(blue) is based on 5 year historic RCGP RSC level.

(C) Influenza-like illness: national incidence rate 2016/2017 by age group***(D) Influenza-like illness: national incidence rate 2016/2017 by age group***

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

Table 1	41	42	43	44	45	46	47	48	49	50	51	52	1	2	3	4
<15yrs	3.91	3.93	2.32	2.69	2.29	5.39	5.31	5.21	6.12	11.01	9.64					
15-64yrs	9.22	6.96	8.22	10.06	7.07	7.12	10.12	9.39	10.45	13.26	16.05					
65+yrs	5.04	5.04	4.96	3.82	4.52	7.25	4.89	6.26	6.45	8.43	23.57					
All ages	7.62	6.13	6.68	7.76	5.83	6.85	8.42	8.15	9.04	12.07	16.24					

5 6 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
0-14	<11.0	11.0 to <18.0	18.0 to <55.3	55.3 to <90.7	90.7+
15-64	<14.6	14.6 to <28.2	28.2 to <63.1	63.1 to <90.1	90.1+
65+	<11.1	11.1 to <14.6	14.6 to <32.8	32.8 to <46.8	46.8+
All Ages	<14.3	14.3 to <26.2	26.2 to <73.5	73.5 to <116.1	116.1+

Threshold levels

¹Below pre-epidemic threshold

²Pre-epidemic threshold breach to < 40th percentile

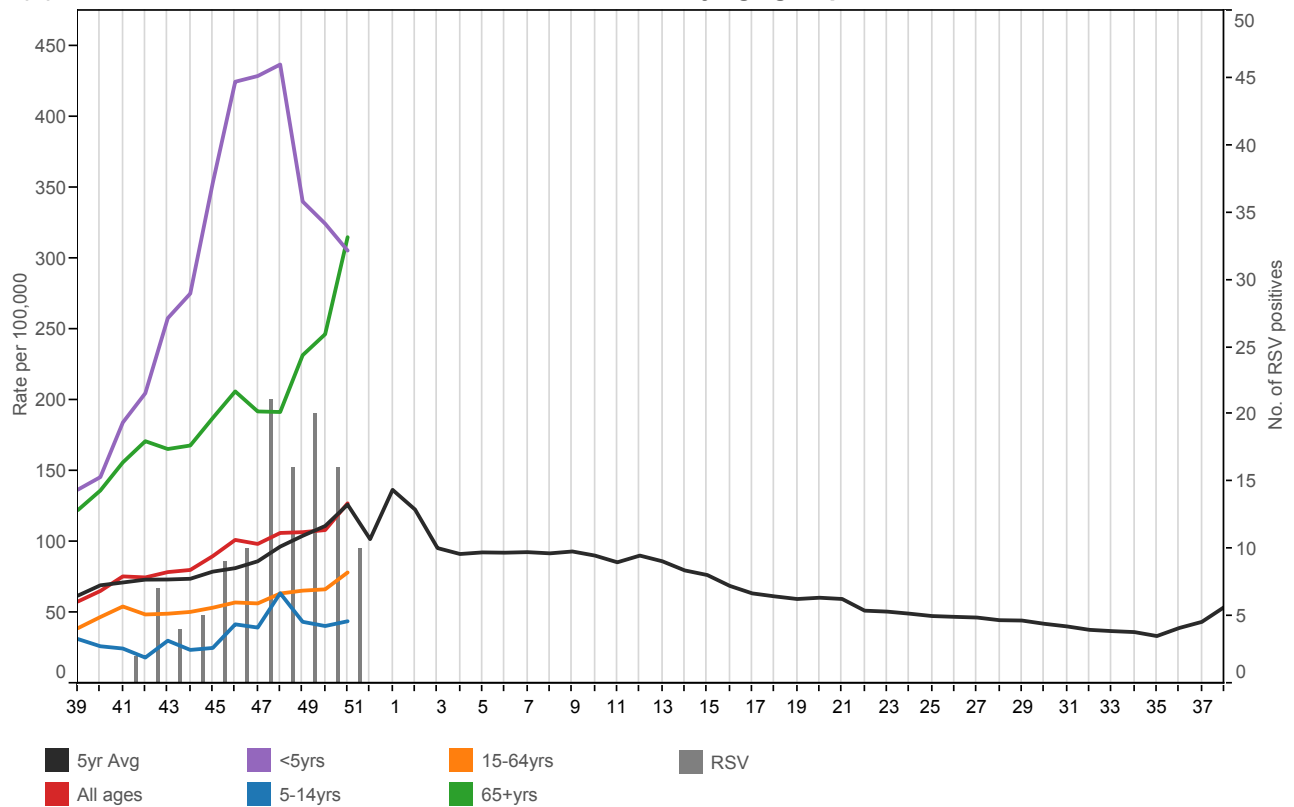
³40th to <90th percentile

⁴90th to <97.5th percentile

⁵97.5th+ percentile

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

Influenza-like illness		Bronchitis	Influenza-like illness		Acute Bronchitis
<1yr	13.7	608.4	London	17.1	98.6
1-4yrs	13.1	241.0	North	12.6	135.8
5-14yrs	7.8	44.0	South	19.8	123.9
15-24yrs	10.8	25.2	Midlands And East	15.7	151.2
25-44yrs	17.6	59.9	National	16.2	127.3
45-64yrs	17.1	127.7			
65-74yrs	16.6	230.7			
75-84yrs	21.7	361.4			
85+yrs	56.2	553.3			
All ages	16.2	127.3			

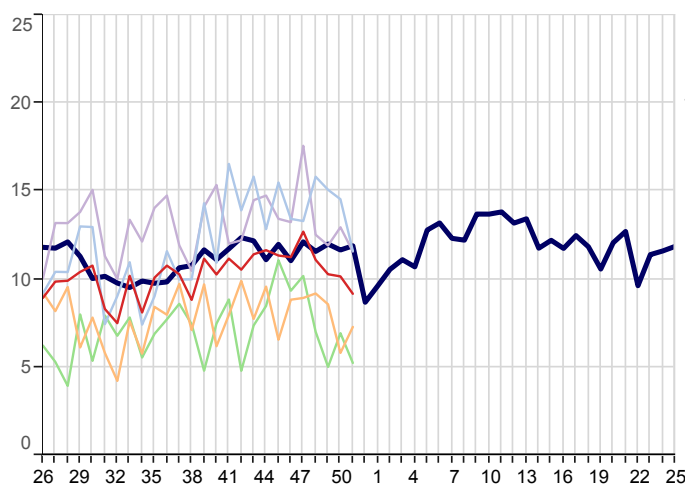
(E) Acute Bronchitis: national incidence rate 2016/2017 by age group***Weekly Influenza-like illness and Acute Bronchitis incidence rates per 100,000 persons**

	Influenza-like illness	Acute Bronchitis
<5yrs	13.2	305.7
5-14yrs	7.8	44.0
15-64yrs	16.1	78.4
65+yrs	23.6	315.2
All ages	16.2	127.3

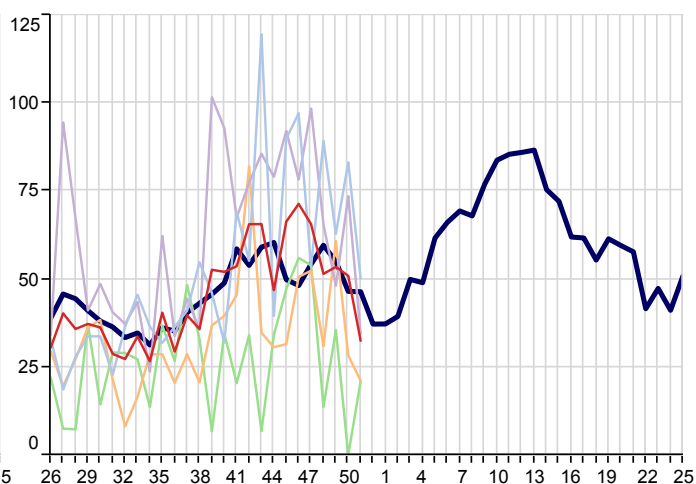
1. Water & Food Borne Disorders:

5yr Avg National London North South Midlands And East

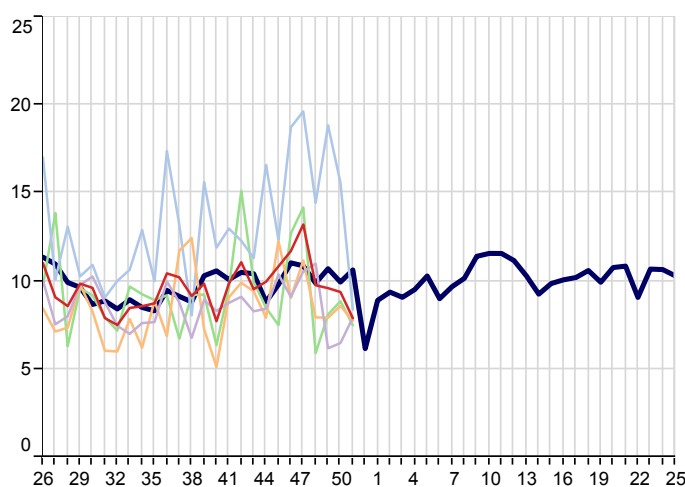
Infectious Intestinal Disease (ICD10: A00-A09)
Weekly incidence (per 100,000 **all ages**) by regions
for 2016 compared with 5 year average



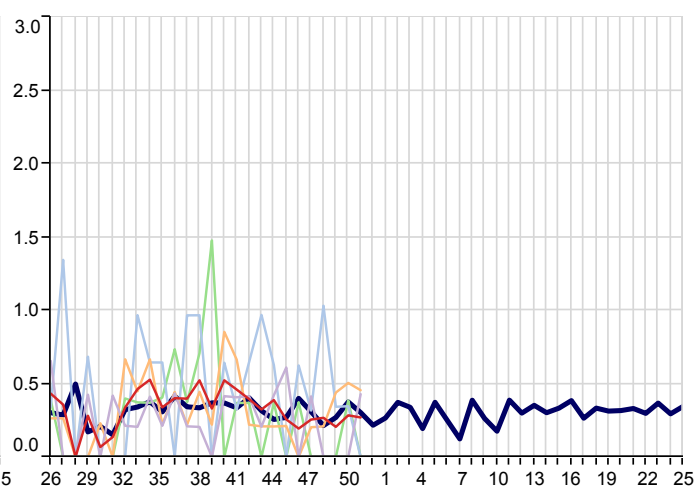
Infectious Intestinal Disease (ICD10: A00-A09)
Weekly incidence (per 100,000 **0-4 years**) by regions
for 2016 compared with 5 year average



Non-Infective Enteritis & Colitis (ICD10: K50-K52)
Weekly incidence (per 100,000 **all ages**) by region
for 2016 compared with 5 year average



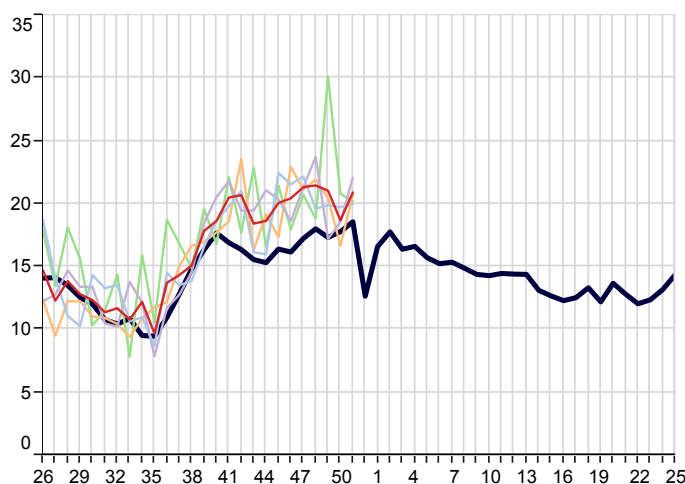
Viral Hepatitis (ICD10: B15-B19)
Weekly incidence (per 100,000 **all ages**) by region
for 2016 compared with 5 year average



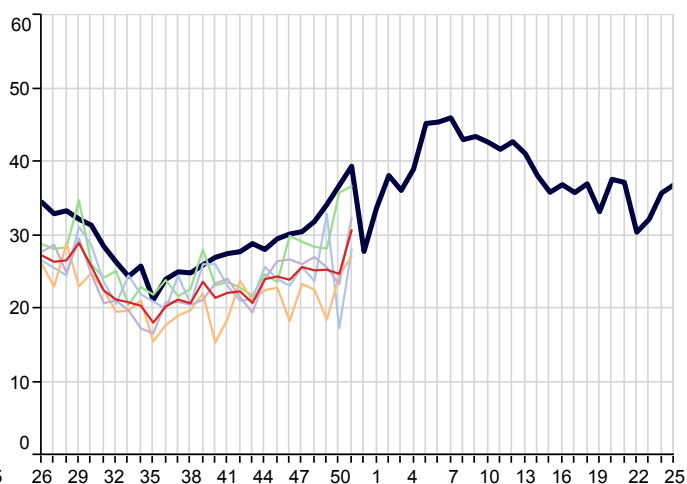
2. Environmentally Sensitive Disorders:

5yr Avg Region Na.. National London North South Midlands And East

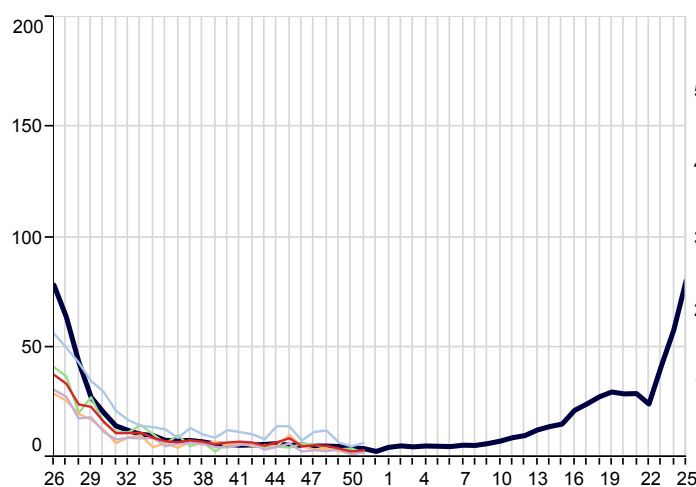
Asthma (ICD10: J45-J46)
Weekly incidence (per 100,000 all ages) by region
for 2016 compared with 5 year average



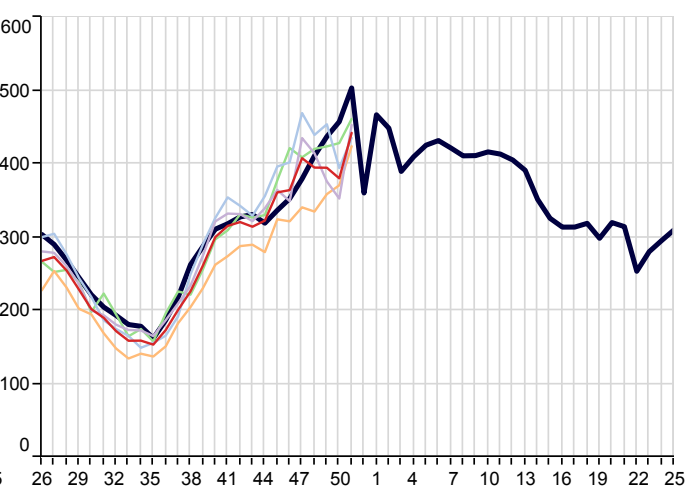
Disorders of Conjunctiva (ICD10: H10-H13)
Weekly incidence (per 100,000 all ages) by region
for 2016 compared with 5 year average



Hayfever/Allergic Rhinitis (ICD10: J30)
Weekly incidence (per 100,000 all ages) by region
for 2016 compared with 5 year average



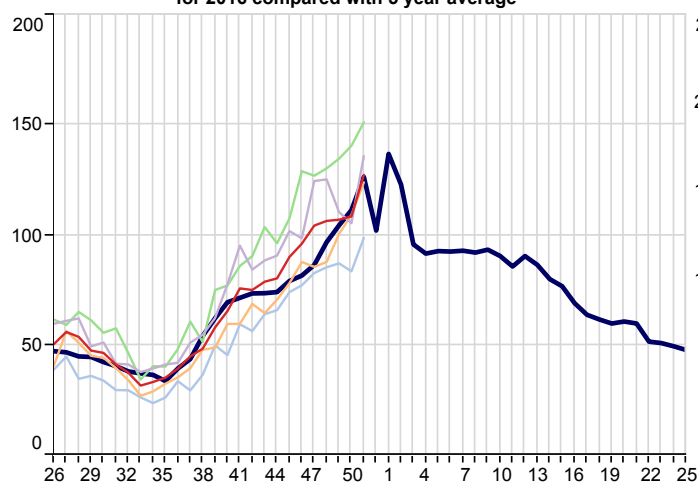
Symptoms involving Respiratory & Chest (ICD10: R05-R07,R09)
Weekly incidence (per 100,000 all ages) by region
for 2016 compared with 5 year average



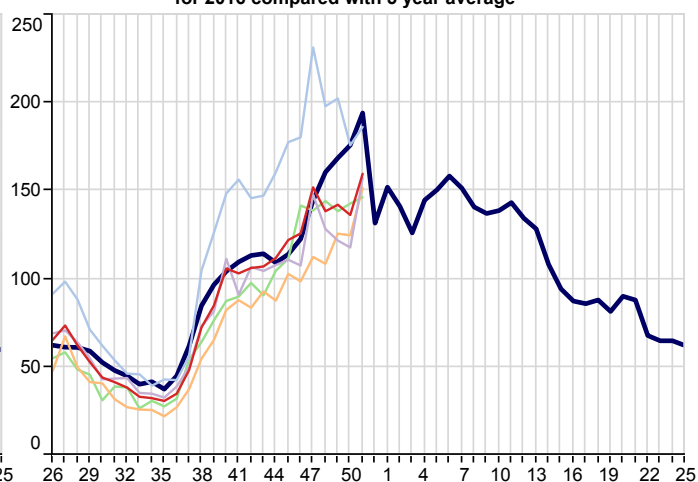
3. Respiratory Infections:

5yr Avg National North South London Midlands And East

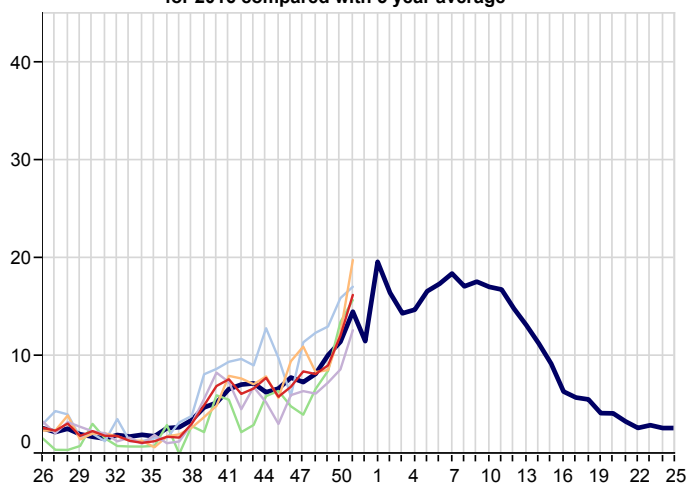
Acute Bronchitis (ICD10: J20-J21,J40)
Weekly incidence (per 100,000 all ages) by region
for 2016 compared with 5 year average



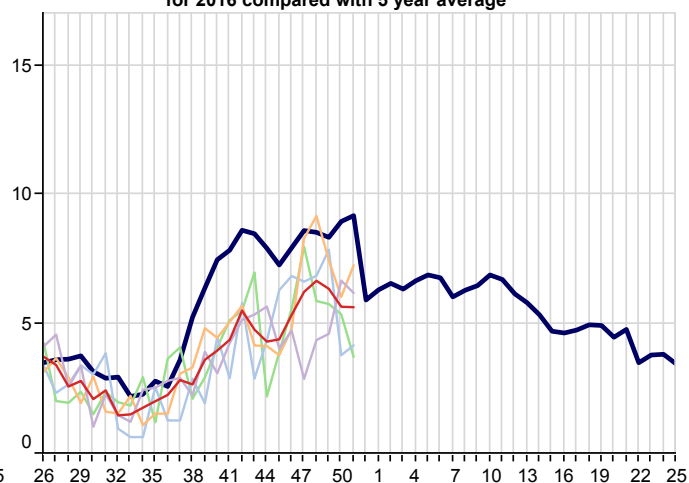
Common Cold (ICD10: J00,J06)
Weekly incidence (per 100,000 all ages) by region
for 2016 compared with 5 year average



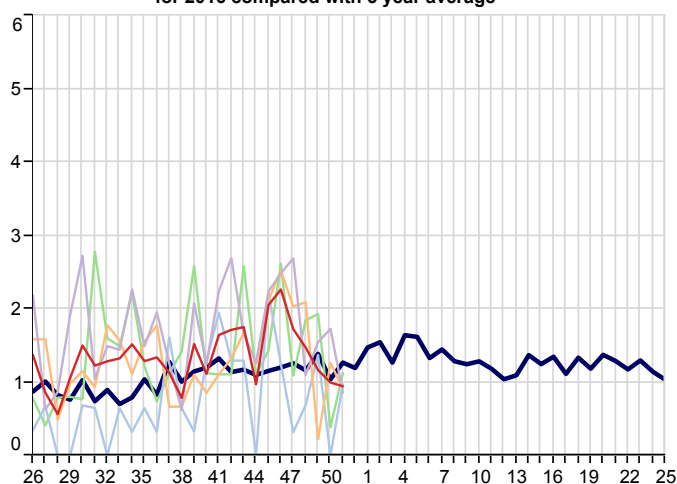
Influenza-Like Illness (ICD10: J09-J11)
Weekly incidence (per 100,000 all ages) by region
for 2016 compared with 5 year average



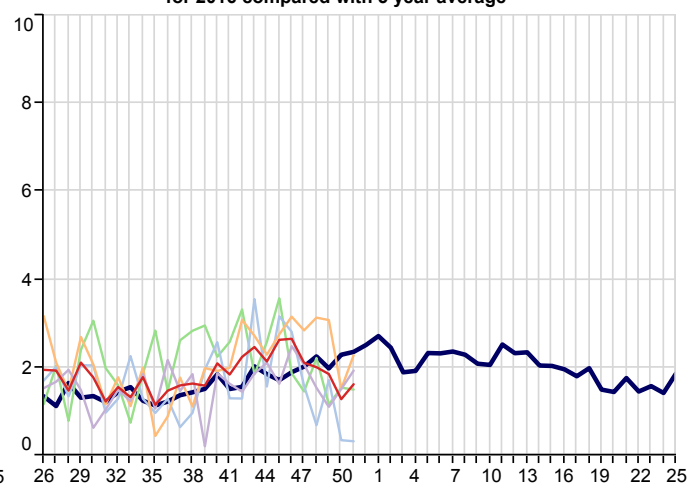
Acute Laryngitis/Tracheitis (ICD10: J04)
Weekly incidence (per 100,000 all ages) by region
for 2016 compared with 5 year average



Pleurisy (ICD10: R091)
Weekly incidence (per 100,000 all ages) by region
for 2016 compared with 5 year average



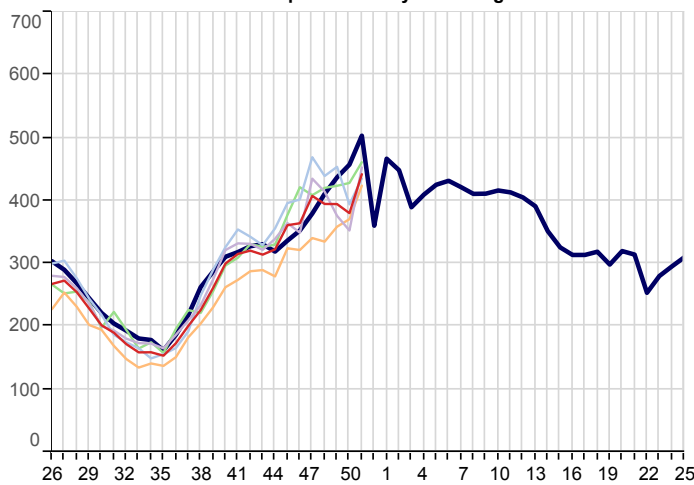
Pneumonia/Pneumonitis (ICD10: J12-J18)
Weekly incidence (per 100,000 all ages) by region
for 2016 compared with 5 year average



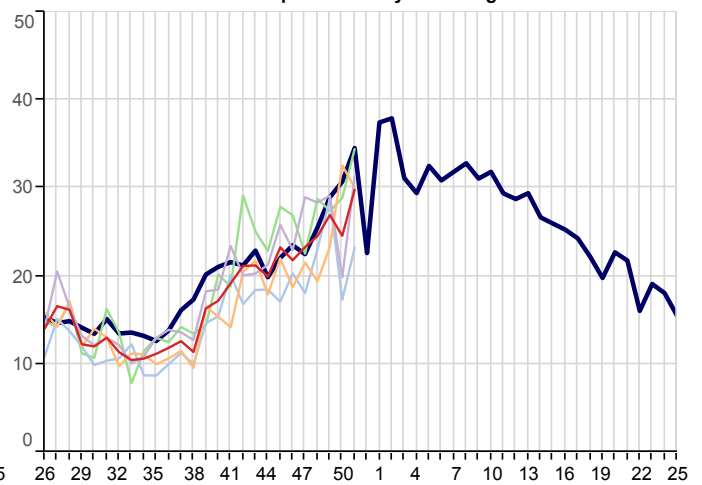
3. Respiratory Infections(Continued):

5yr Avg National North South London Midlands And East

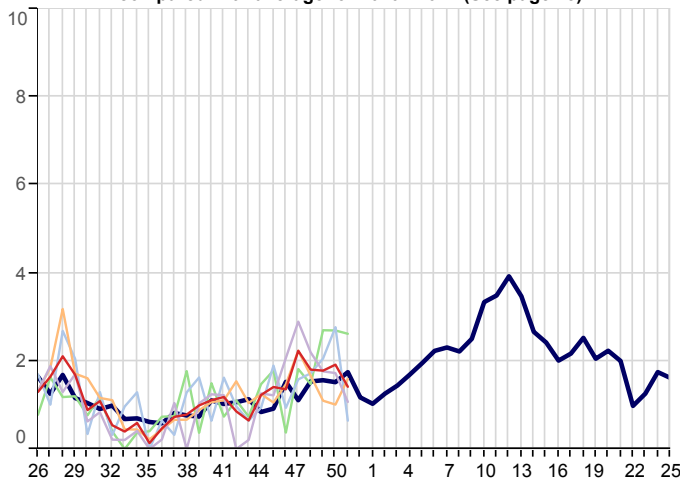
Respiratory System Diseases (ICD10: J00-J99)
Weekly incidence (per 100,000 all ages) by region
for 2016 compared with 5 year average



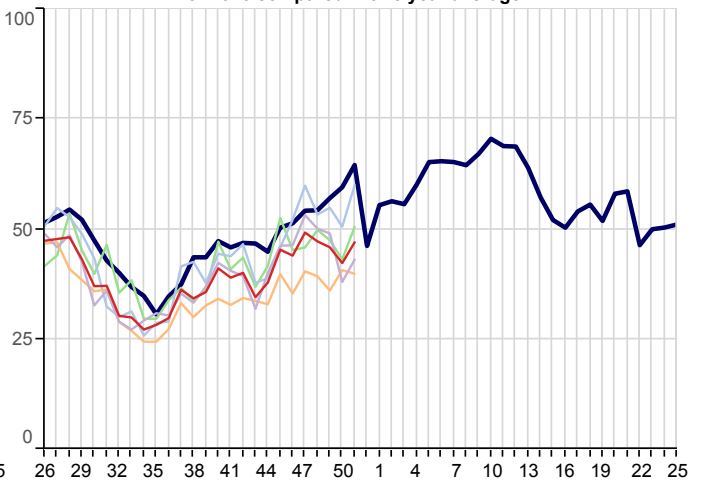
Acute Sinusitis (ICD10: J01)
Weekly incidence (per 100,000 all ages) by region
for 2016 compared with 5 year average



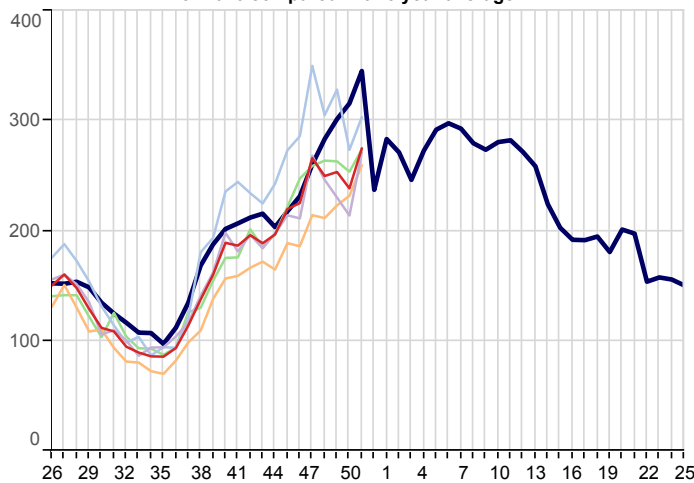
Strep Sore Throat, Scarletina and Peritonsillar Abscess (ICD10: A38,J02,J36)
Weekly incidence (per 100,000 all ages) by region for 2016
compared with average for 2010 - 2012 (See page 13)



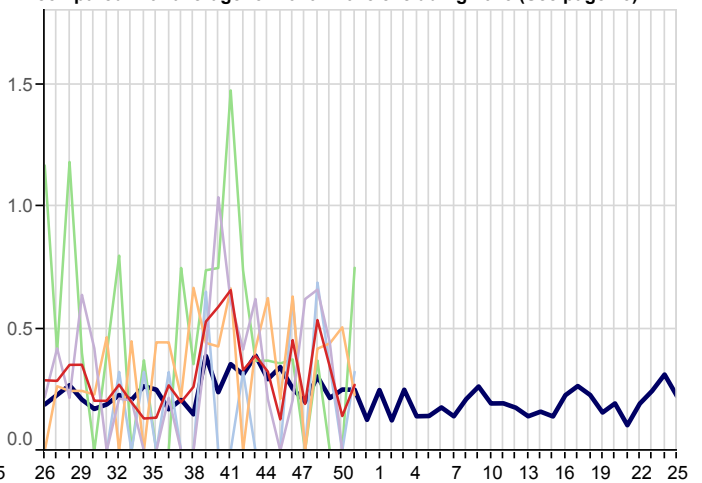
Acute Tonsillitis/Pharyngitis (ICD10: J02-J03)
Weekly incidence (per 100,000 all ages) by region
for 2016 compared with 5 year average



Upper Respiratory Tract Infections (URTI)(ICD10: J00-J06)
Weekly incidence (per 100,000 all ages) by region
for 2016 compared with 5 year average



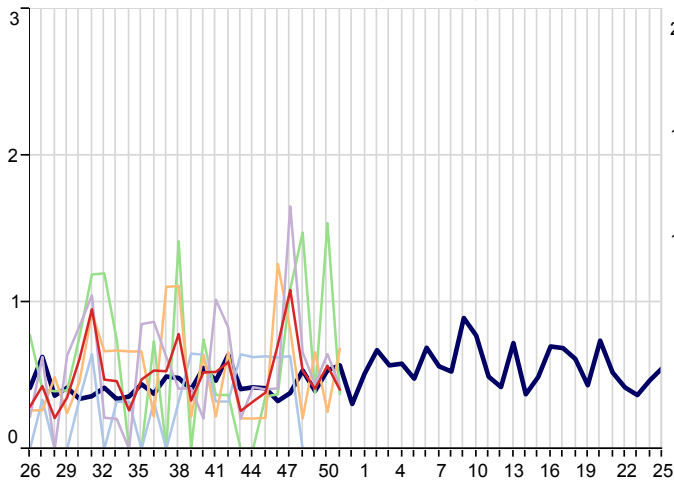
Whooping Cough (ICD10: A37)
Weekly incidence (per 100,000 all ages) by region for 2016
compared with average for 2010 - 2015 excluding 2013 (See page 13)



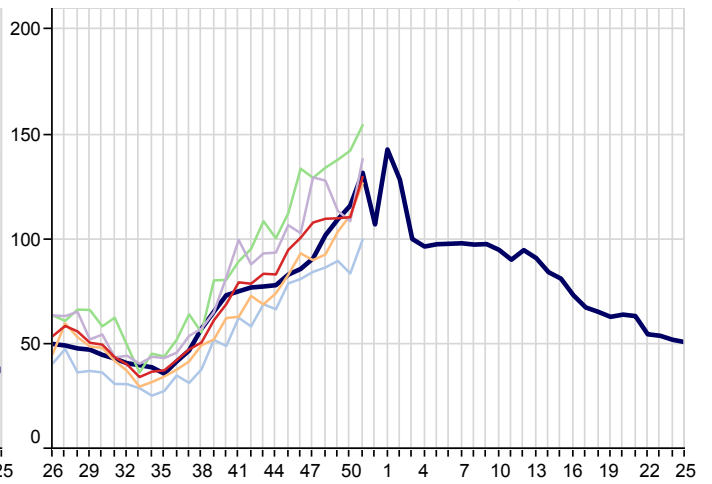
3. Respiratory Infections(Continued):

5yr Avg National North South London Midlands And East

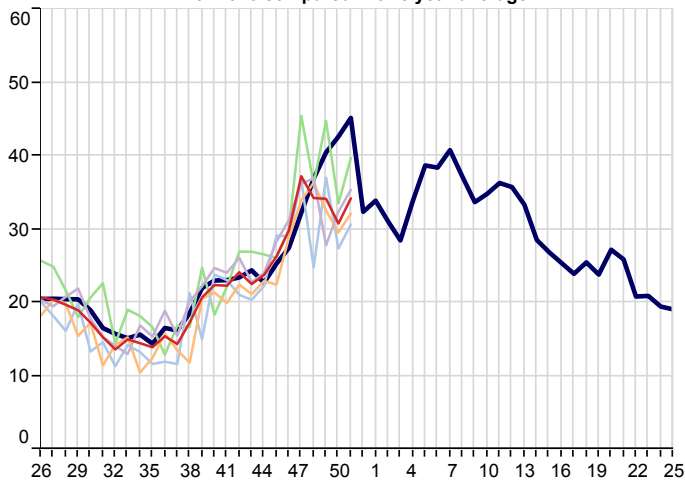
Infectious Mononucleosis (ICD10: B27)
Weekly incidence (per 100,000 all ages) by region
for 2016 compared with 5 year average



Lower Respiratory Tract Infections (LRTI)(ICD10: J20-J22)
Weekly incidence (per 100,000 all ages) by region
for 2016 compared with 5 year average



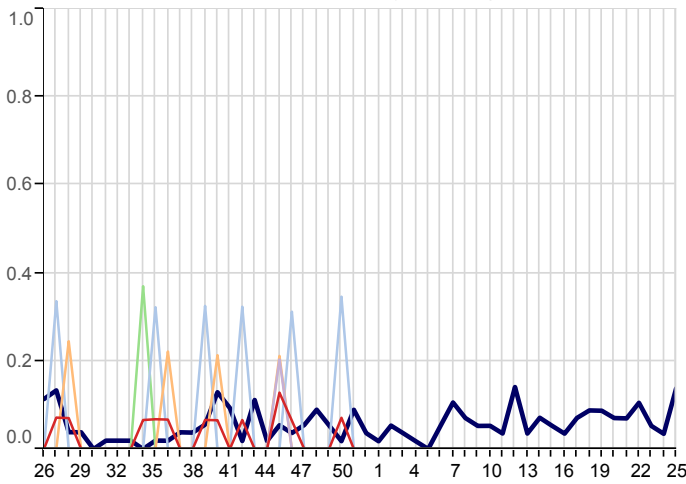
Acute Otitis Media (ICD10: H650-H651,H660,H669)
Weekly incidence (per 100,000 all ages) by region
for 2016 compared with 5 year average



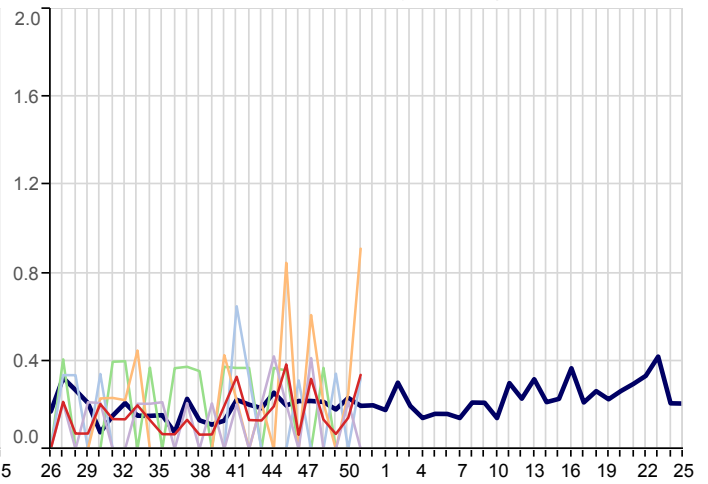
4. Vaccine Sensitive Disorders

5yr Avg National North South London Midlands And East

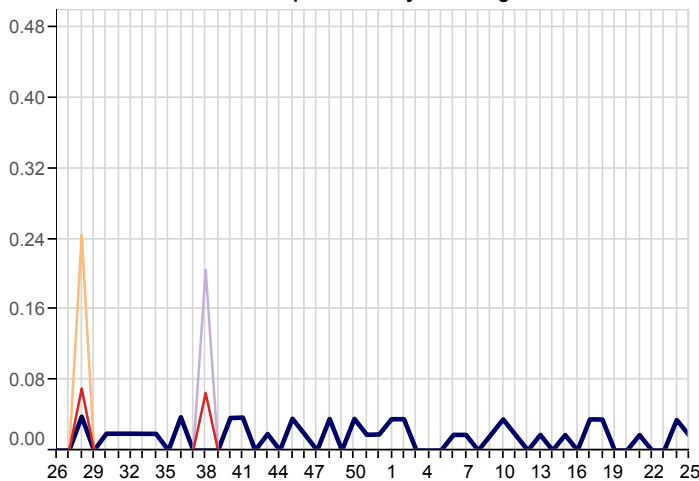
Measles (ICD10: B05)
Weekly incidence (per 100,000 all ages) by region
for 2016 compared with 5 year average



Mumps (ICD10: B26)
Weekly incidence (per 100,000 all ages) by region
for 2016 compared with 5 year average

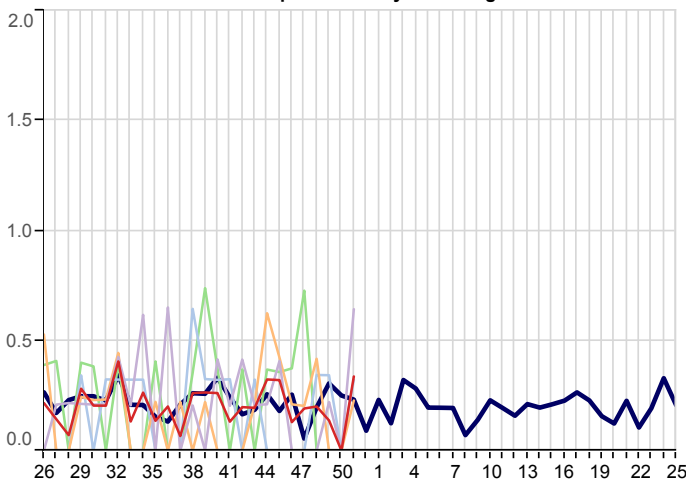


Rubella (ICD10: B06)
Weekly incidence (per 100,000 all ages) by region
for 2016 compared with 5 year average

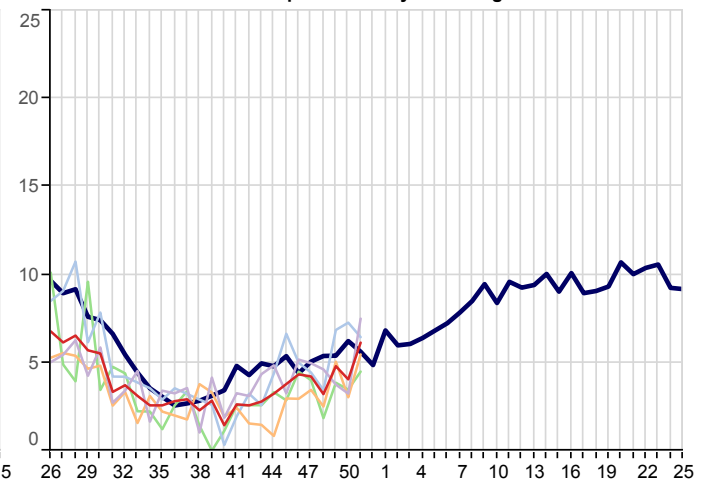


5. Skin Contagions

Bullous Dermatoses (ICD10: L10-L14)
Weekly incidence (per 100,000 all ages) by region
for 2016 compared with 5 year average



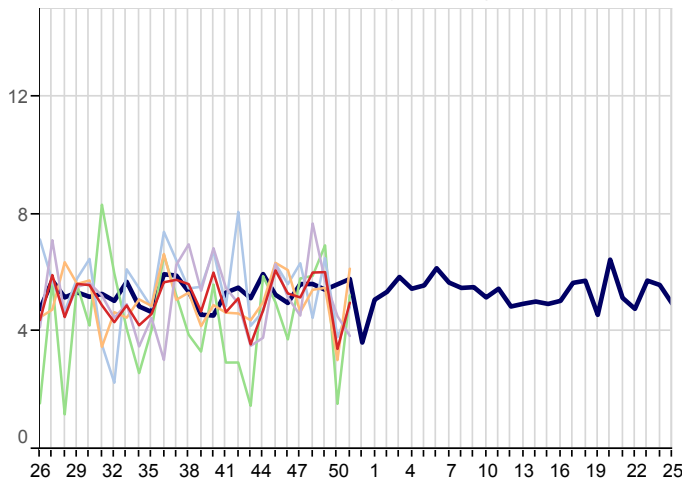
Chickenpox (ICD10: B01)
Weekly incidence (per 100,000 all ages) by region
for 2016 compared with 5 year average



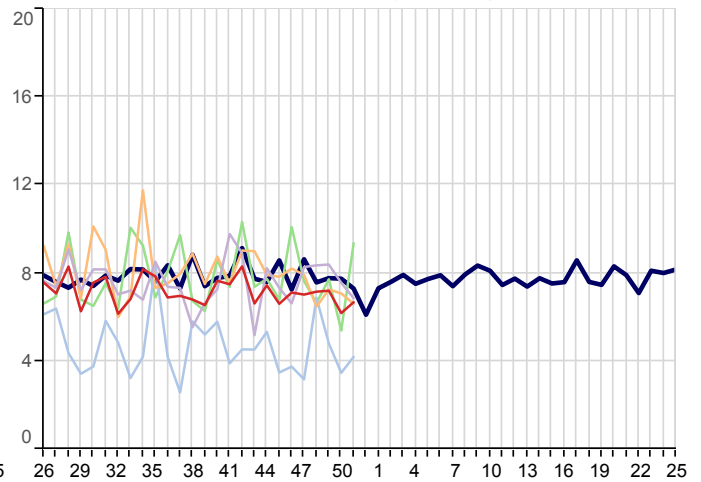
5. Skin Contagions (Continued)

5yr Avg National North South London Midlands And East

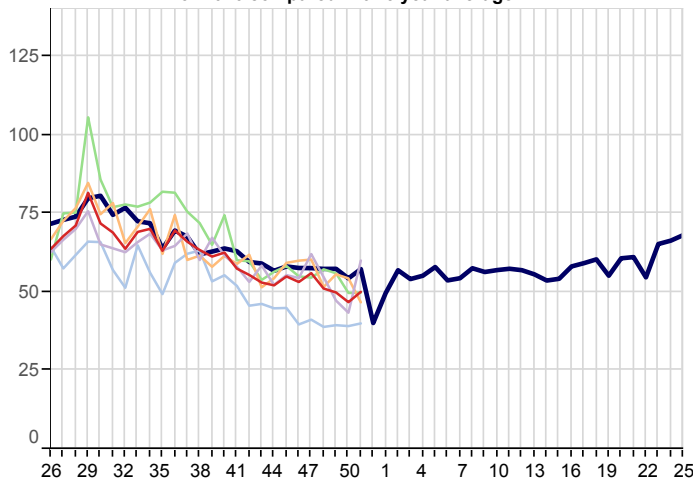
Herpes Simplex (ICD10: B00)
Weekly incidence (per 100,000 all ages) by region
for 2016 compared with 5 year average



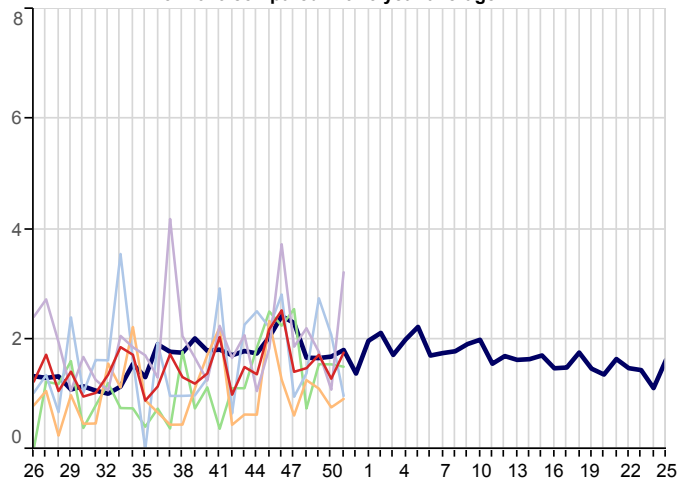
Herpes Zoster (ICD10: B02)
Weekly incidence (per 100,000 all ages) by region
for 2016 compared with 5 year average



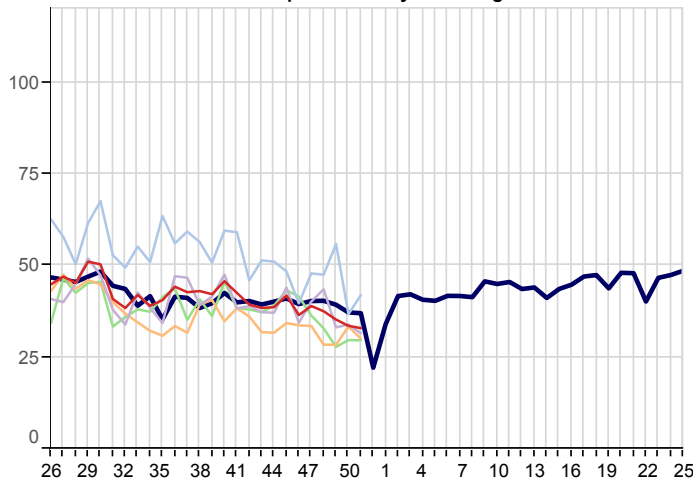
Infections of Skin & Subcutaneous Tissue (ICD10: L00-L08)
Weekly incidence (per 100,000 all ages) by region
for 2016 compared with 5 year average



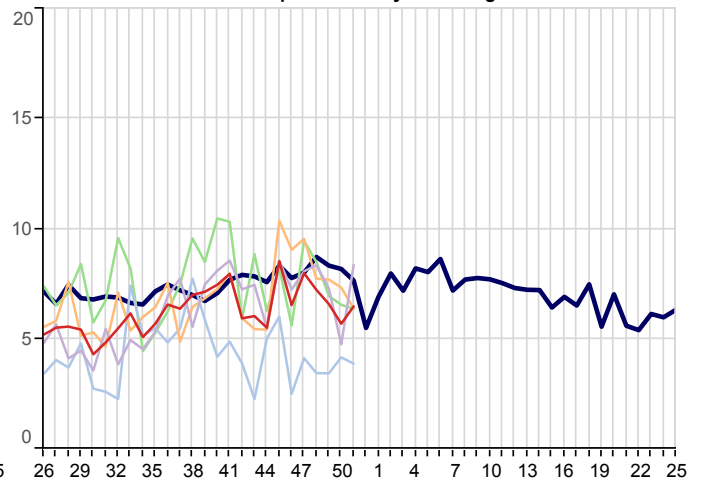
Scabies (ICD10: B86)
Weekly incidence (per 100,000 all ages) by region
for 2016 compared with 5 year average



Symptoms involving Skin & Oth Integument Tiss (ICD10: R20-R23)
Weekly incidence (per 100,000 all ages) by region
for 2016 compared with 5 year average



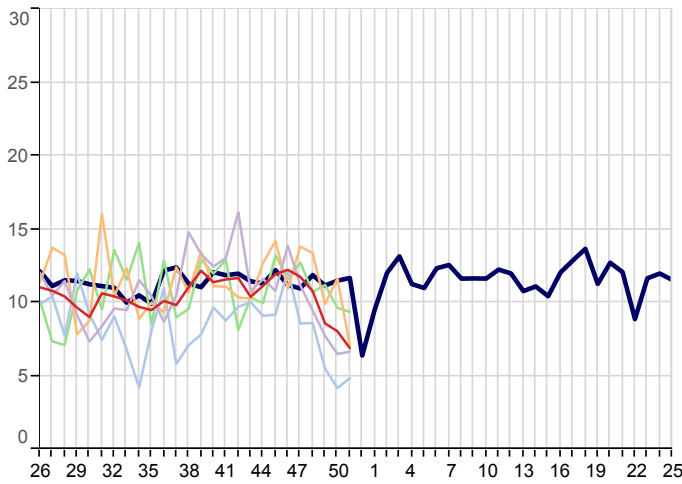
Impetigo (ICD10: L01)
Weekly incidence (per 100,000 all ages) by region
for 2016 compared with 5 year average



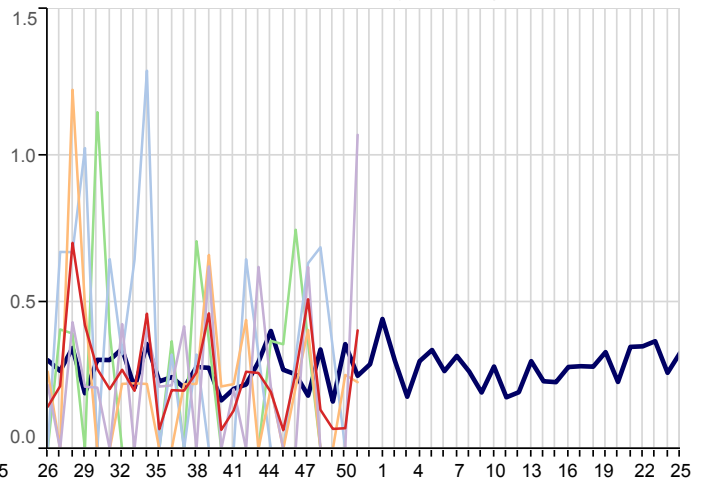
6. Disorders Affecting the Nervous System

5yr Avg National North South London Midlands And East

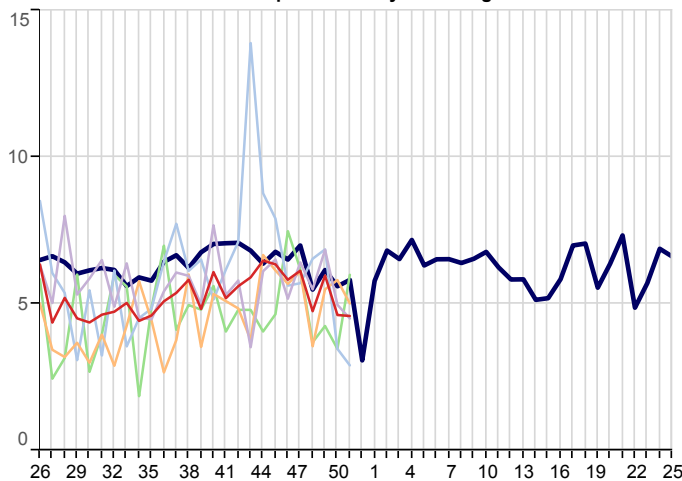
Disorders of The Peripheral Nervous System (ICD10: G50-G64,G70-G72)
Weekly incidence (per 100,000 all ages) by region
for 2016 compared with 5 year average



Meningitis/Encephalitis (ICD10: A170-A171,A390,A38-A85,A87,G00-G05)
Weekly incidence (per 100,000 all ages) by region
for 2016 compared with 5 year average

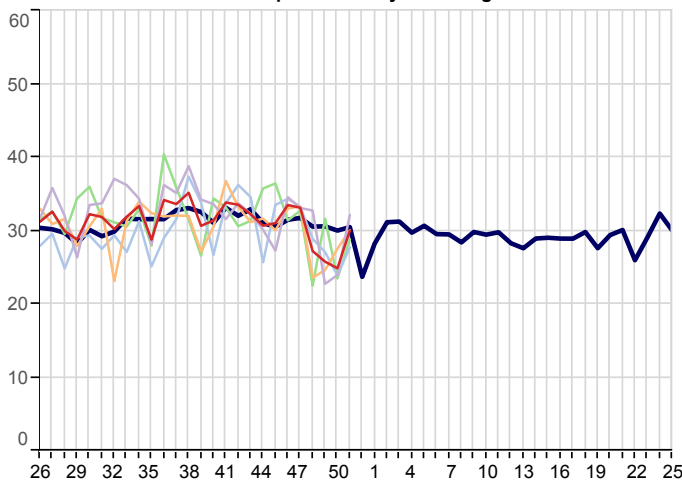


Symptoms Involving Nervous & Musculoskeletal (ICD10: R25-R29)
Weekly incidence (per 100,000 all ages) by region
for 2016 compared with 5 year average



7. Genitourinary System Disorders

Urinary Tract Infection/Cystitis (ICD10: N30,N390)
Weekly incidence (per 100,000 all ages) by region
for 2016 compared with 5 year average



8. Tabular Summary by Disease

Disease Name	Week beginning Week ending		19/12/2016 25/12/2016		12/12/2016 18/12/2016		05/12/2016 11/12/2016		28/11/2016 04/12/2016	
	Rate	Numer	Rate	Numer	Rate	Numer	Rate	Numer	Rate	Numer
Allergic Rhinitis	3.1	46	2.5	35	3.8	56	5.1	76		
Asthma	20.9	310	18.7	263	21.0	307	21.5	321		
Acute Bronchitis	127.3	1,888	108.4	1,526	106.9	1,560	106.3	1,591		
Bullous Dermatoses	0.3	5	0.0	0	0.1	2	0.2	3		
Chickenpox	6.1	91	4.0	57	4.8	70	3.2	48		
Common Cold	159.7	2,369	136.3	1,919	142.1	2,074	138.4	2,071		
Conjunctival Disorders	30.7	455	24.7	348	25.3	369	25.2	377		
Herpes Simplex	5.0	74	3.4	48	6.0	88	6.0	90		
Herpes Zoster	6.7	99	6.2	87	7.2	105	7.2	107		
Impetigo	6.5	96	5.7	80	6.6	96	7.2	108		
Infectious Mononucleosis	0.4	6	0.6	8	0.4	6	0.5	8		
Influenza-like illness	16.2	241	12.1	170	9.0	132	8.2	122		
Infectious Intestinal Diseases	9.2	136	10.2	143	10.3	150	11.1	166		
Laryngitis and Tracheitis	5.7	84	5.7	80	6.4	93	6.7	100		
Lower Respiratory Tract Infections	129.8	1,926	110.6	1,558	110.1	1,607	109.9	1,644		
Measles	0.0	0	0.1	1	0.0	0	0.0	0		
Meningitis and Encephalitis	0.4	6	0.1	1	0.1	1	0.1	2		
Mumps	0.3	5	0.1	2	0.1	1	0.1	2		
Non-infective Enteritis and Colitis	7.9	117	9.4	132	9.6	140	9.8	146		
Otitis Media Acute	34.2	507	30.7	433	34.1	498	34.2	512		
Otitis Media Acute New	6.1	90	5.0	71	5.8	85	6.1	92		
Peripheral Nervous Disease	6.9	102	8.0	113	8.6	125	10.8	161		
Pleurisy	0.9	14	1.0	14	1.2	17	1.5	22		
Pneumonia and Pneumonitis	1.6	24	1.3	18	1.9	27	2.0	30		
Respiratory System Diseases	441.9	6,556	379.9	5,350	394.4	5,756	394.6	5,904		
Rubella	0.0	0	0.0	0	0.0	0	0.0	0		
Scabies	1.8	26	1.3	18	1.7	25	1.5	22		
Sinusitis	29.8	442	24.6	346	26.9	393	24.5	367		
Skin and Subcutaneous Tissue Infections	50.0	742	46.7	658	49.8	727	51.1	764		
Strep Throat and Peritonsillar Abscess	1.4	21	1.9	27	1.8	26	1.8	27		
Symptoms involving musculoskeletal	4.6	68	4.6	65	6.0	87	4.7	71		
Symptoms involving Respiratory and Chest	23.9	354	22.5	317	22.5	328	23.8	356		
Symptoms involving Skin and Integument Tissues	32.9	488	33.5	472	35.2	514	37.5	561		
Tonsillitis and acute Pharyngitis	47.0	697	42.3	595	45.8	669	47.2	706		
Upper Respiratory Tract Infections	274.9	4,079	238.5	3,358	253.4	3,698	249.7	3,736		
Urinary Tract Infections	30.0	445	24.9	350	25.8	376	27.2	407		
Viral Hepatitis	0.3	4	0.3	4	0.2	3	0.3	4		
Whooping Cough	0.3	4	0.1	2	0.3	5	0.5	8		
Denom	1,483,570		1,408,141		1,459,431		1,496,182			
Practice Count	152		150		151		153			

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 2011-2015. 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.

For two diseases, years with exceptionally high incidence have been excluded from the averages: for Whooping Cough, data from 2012 has been excluded; for Strep Sore Throat, Scarletina and Peritonsillar Abscess, data from 2013 and 2014 have been excluded so that similar rates in the future will appear as exceptional rather than normal in 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 2004/05- 2014/15 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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