



Royal College of  
General Practitioners  
Research and Surveillance Centre

## RSC Communicable and Respiratory Disease Report for England

### Key Statistics:

Week Number/Year.....52/2016  
Week Starting - Ending.....26/12/2016 - 01/01/2017  
No. of Practices.....156  
Population.....1545063

### National (England)

- **Acute Bronchitis** : decreased from **127.3** in week 51 to **114.2** in week 52.
- **Asthma** : decreased from **20.9** in week 51 to **13.3** in week 52.
- **Common Cold & URTI NOS** : decreased from **159.7** in week 51 to **119.3** in week 52.
- **Influenza-Like illness** : decreased from **16.2** in week 51 to **12.0** in week 52.
- **Respiratory System Diseases** : decreased from **441.9** in week 51 to **341.9** in week 52.

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

- **Acute Bronchitis** : decreased from **98.6** in week 51 to **93.0** in week 52 in the London region, decreased from **135.8** in week 51 to **119.7** in week 52 in the North region, decreased from **123.9** in week 51 to **99.2** in week 52 in the South region, and increased a little from **151.2** in week 51 to **156.7** in week 52 in the Midlands And East region.
- **Asthma** : decreased from **20.0** in week 51 to **15.6** in week 52 in the London region, decreased from **22.1** in week 51 to **11.6** in week 52 in the North region, decreased from **20.7** in week 51 to **13.1** in week 52 in the South region, and decreased from **20.2** in week 51 to **14.3** in week 52 in the Midlands And East region.
- **Common Cold & URTI NOS** : decreased from **186.3** in week 51 to **161.0** in week 52 in the London region, decreased from **157.2** in week 51 to **119.7** in week 52 in the North region, decreased from **151.6** in week 51 to **95.7** in week 52 in the South region, and decreased from **146.3** in week 51 to **111.8** in week 52 in the Midlands And East region.
- **Influenza-Like illness** : was unchanged at **17.1** in week 51 compared with **16.8** in week 52 in the London region, decreased from **12.6** in week 51 to **8.5** in week 52 in the North region, decreased from **19.8** in week 51 to **13.7** in week 52 in the South region, and decreased from **15.7** in week 51 to **9.8** in week 52 in the Midlands And East region.
- **Respiratory System Diseases** : decreased from **435.1** in week 51 to **361.7** in week 52 in the London region, decreased from **452.6** in week 51 to **355.3** in week 52 in the North region, decreased from **423.7** in week 51 to **296.6** in week 52 in the South region, and decreased from **461.0** in week 51 to **376.0** in week 52 in the Midlands And East region.

### Comment:

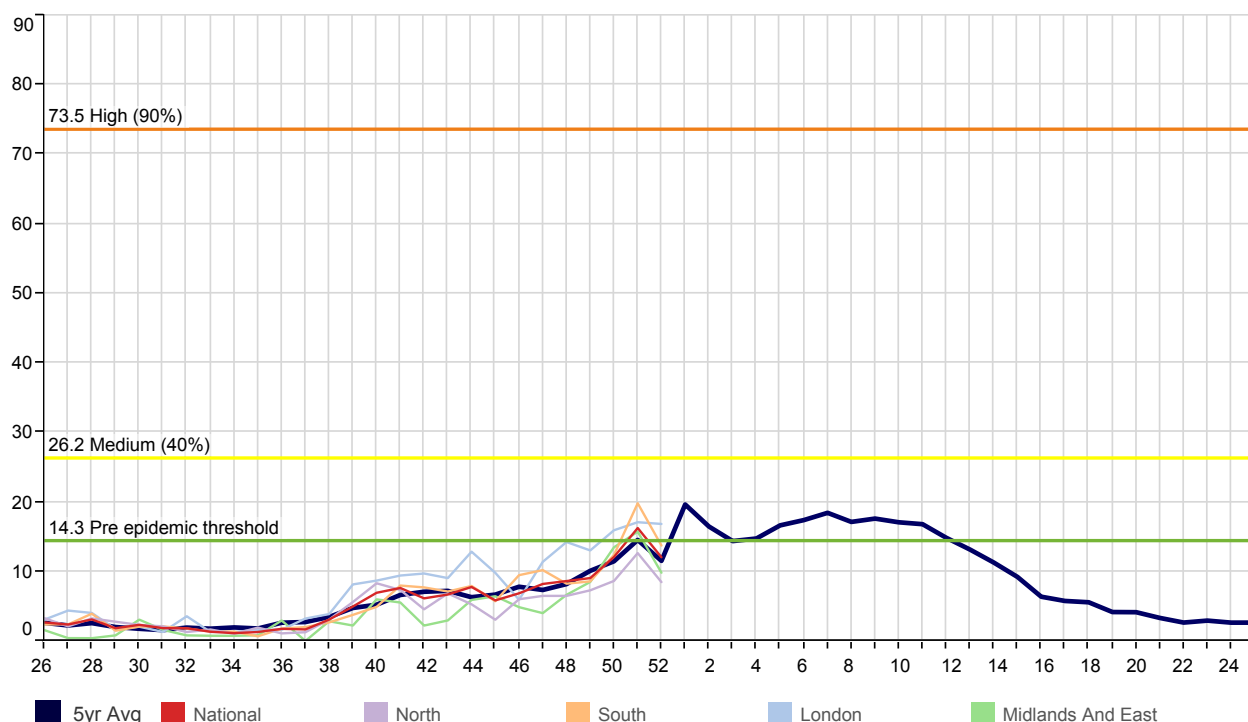
The rate of respiratory conditions decreased from last week, and it is at seasonally expected levels.

Presentations of influenza-like illness in primary care decreased this week to below the pre-epidemic threshold. Rates of presentation to RCGP RSC practices are lower this week reflecting a shorter working week due to Christmas holiday closures.

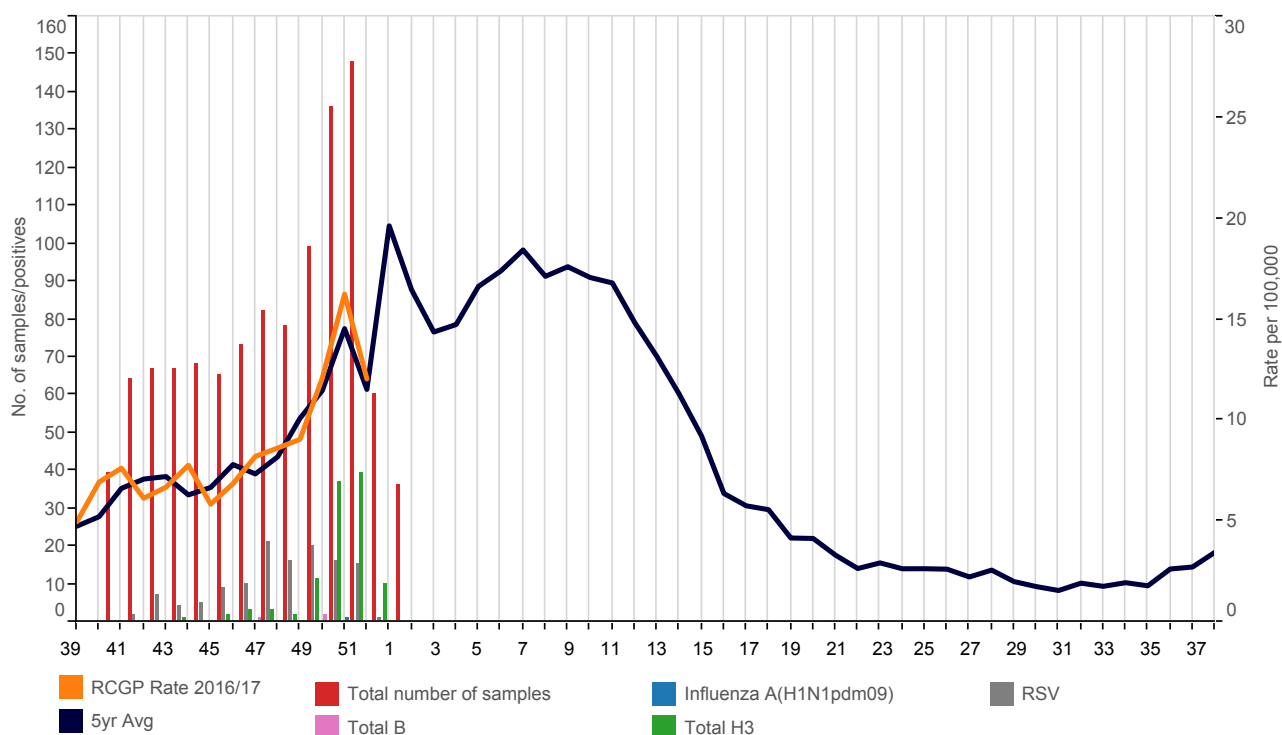
## Winter Focus 2016/17

Please see page 13 for explanatory notes on the data.

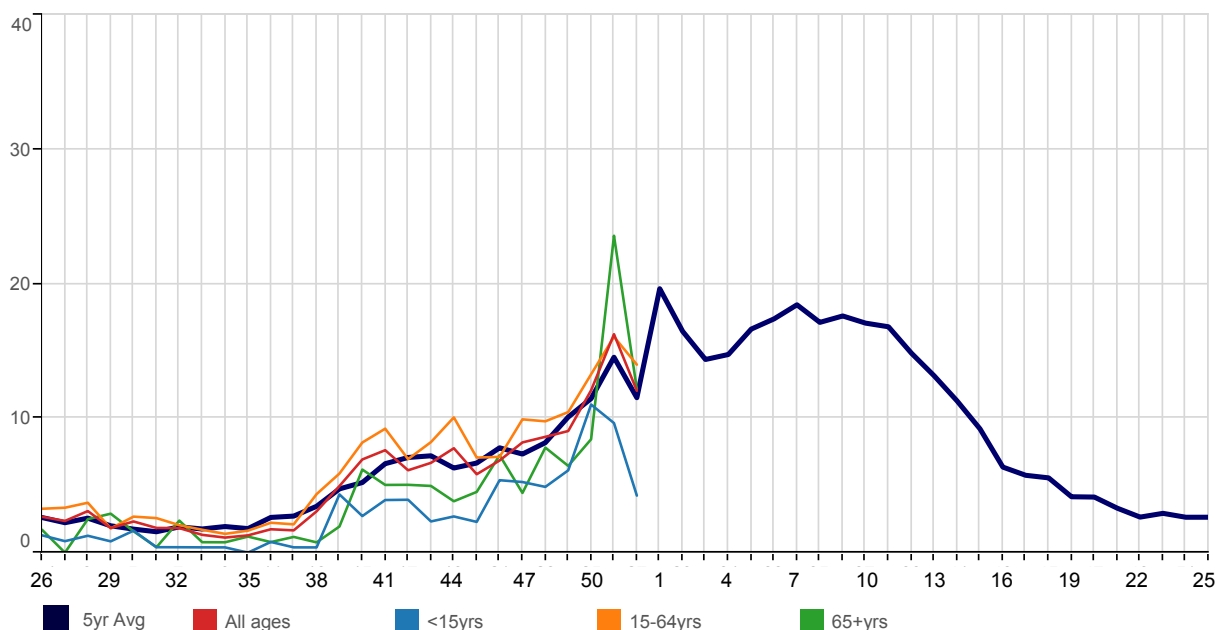
### (A) Influenza-like illness: incidence rate winter 2016/17\*



### (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	5.25	4.89	6.12	11.01	9.64	4.24				
15-64yrs	9.22	6.96	8.22	10.06	7.07	7.12	9.91	9.77	10.45	13.26	16.05	13.98				
65+yrs	5.04	5.04	4.96	3.82	4.52	7.25	4.44	7.81	6.45	8.43	23.57	12.16				
All ages	7.62	6.13	6.68	7.76	5.83	6.85	8.20	8.61	9.04	12.07	16.24	12.04				

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 <sup>1</sup>	Threshold to Medium <sup>2</sup>	Medium to High <sup>3</sup>	High to Very High <sup>4</sup>	Above Very High <sup>5</sup>
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**

<sup>1</sup>Below pre-epidemic threshold

<sup>2</sup>Pre-epidemic threshold breach to < 40th percentile

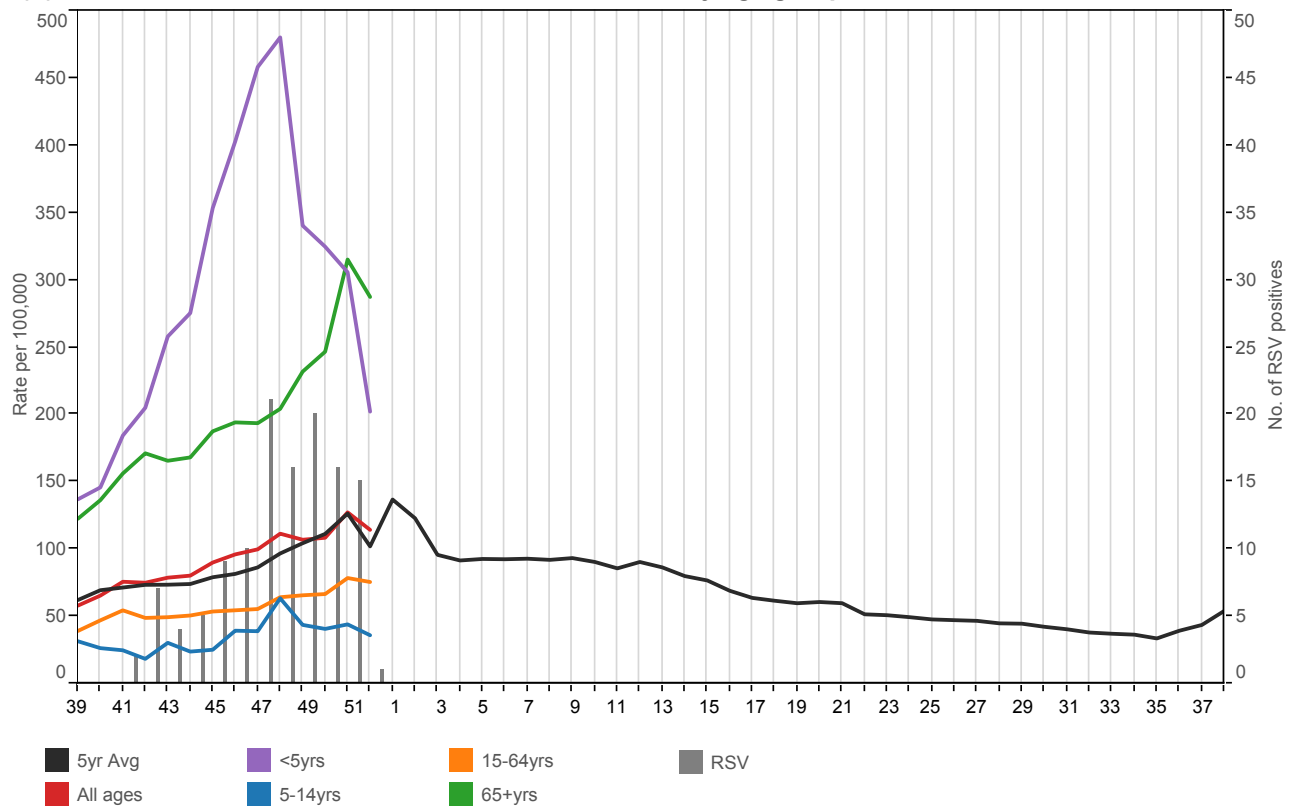
<sup>3</sup>40th to <90th percentile

<sup>4</sup>90th to <97.5th percentile

<sup>5</sup>97.5th+ percentile

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

Influenza-like illness		Bronchitis	Influenza-like illness		Acute Bronchitis
<1yr	0.0	505.1	London	16.8	93.0
1-4yrs	4.2	136.4	North	8.5	119.7
5-14yrs	4.6	35.9	South	13.7	99.2
15-24yrs	12.9	26.3	Midlands And East	9.8	156.7
25-44yrs	13.5	50.7	National	12.0	114.2
45-64yrs	15.0	129.1			
65-74yrs	10.3	209.9			
75-84yrs	15.8	298.8			
85+yrs	11.3	578.4			
All ages	12.0	114.2			

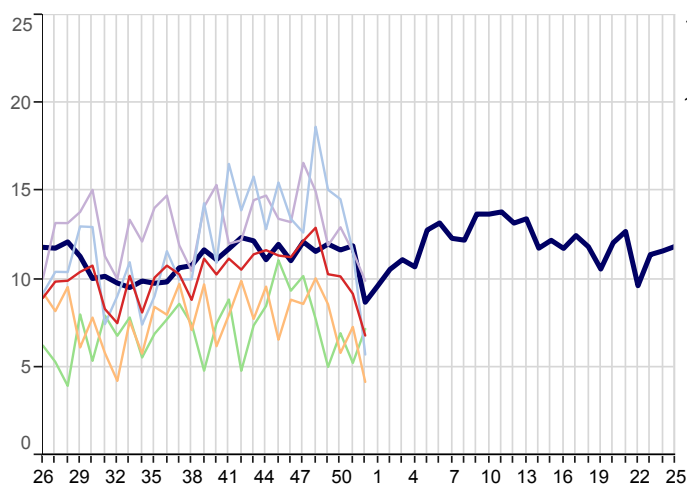
**(E) Acute Bronchitis: national incidence rate 2016/2017 by age group\*****Weekly Influenza-like illness and Acute Bronchitis incidence rates per 100,000 persons**

	Influenza-like illness	Acute Bronchitis
<5yrs	3.5	202.1
5-14yrs	4.6	35.9
15-64yrs	14.0	75.5
65+yrs	12.2	287.3
All ages	12.0	114.2

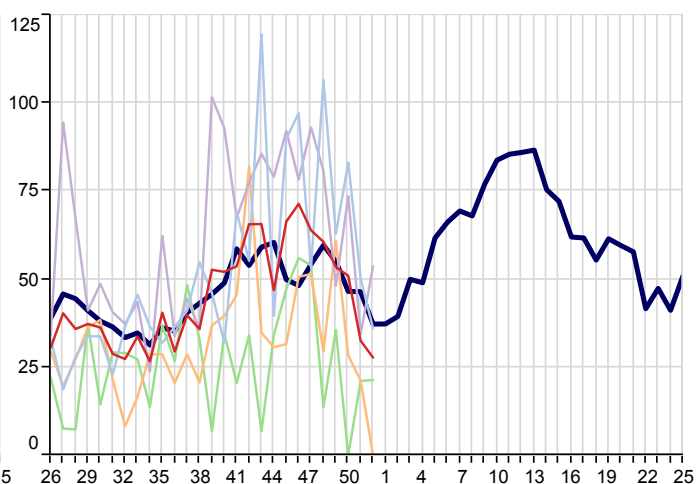
# 1. Water & Food Borne Disorders:

5yr Avg   National   London   North   South   Midlands And East

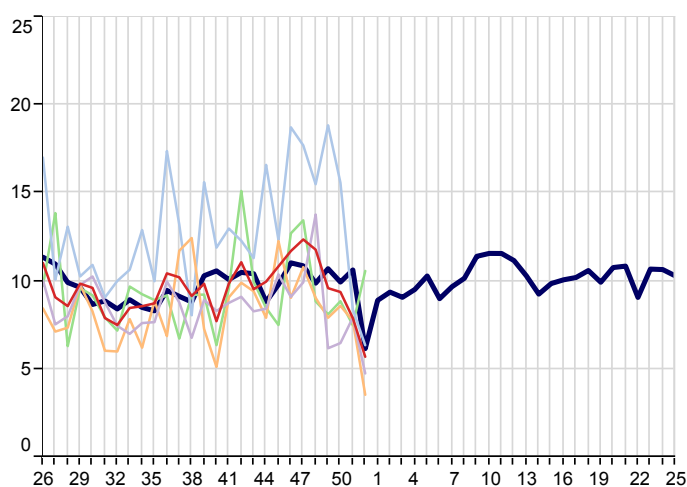
**Infectious Intestinal Disease (ICD10: A00-A09)**  
Weekly incidence (per 100,000 **all ages**) by regions  
for 2016 compared with 5 year average



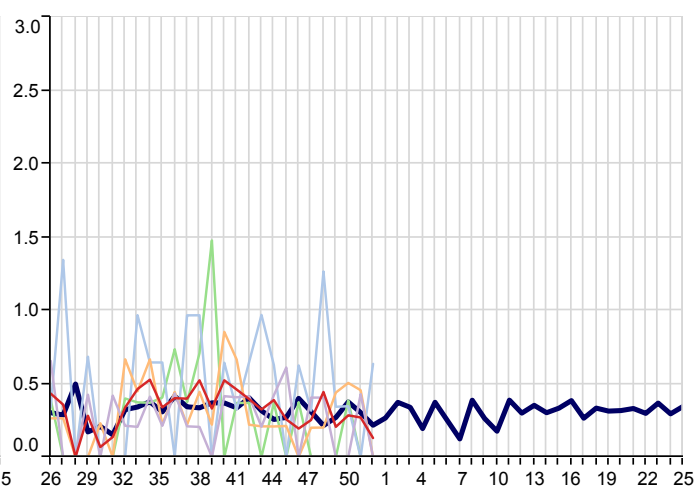
**Infectious Intestinal Disease (ICD10: A00-A09)**  
Weekly incidence (per 100,000 **0-4 years**) by regions  
for 2016 compared with 5 year average



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



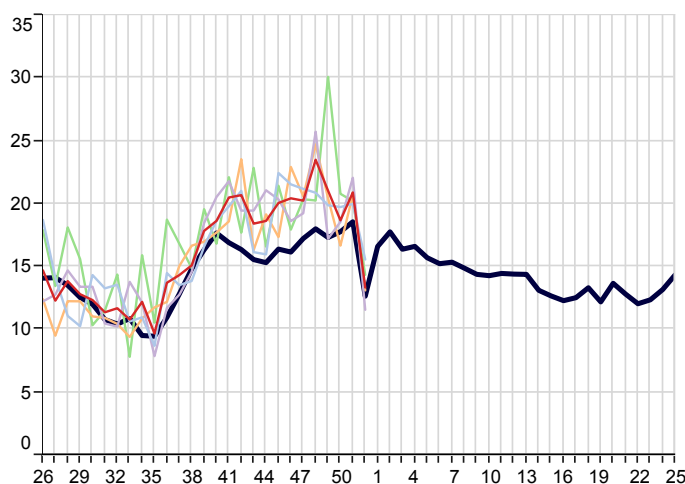
**Viral Hepatitis (ICD10: B15-B19)**  
Weekly incidence (per 100,000 **all ages**) by region  
for 2016 compared with 5 year average



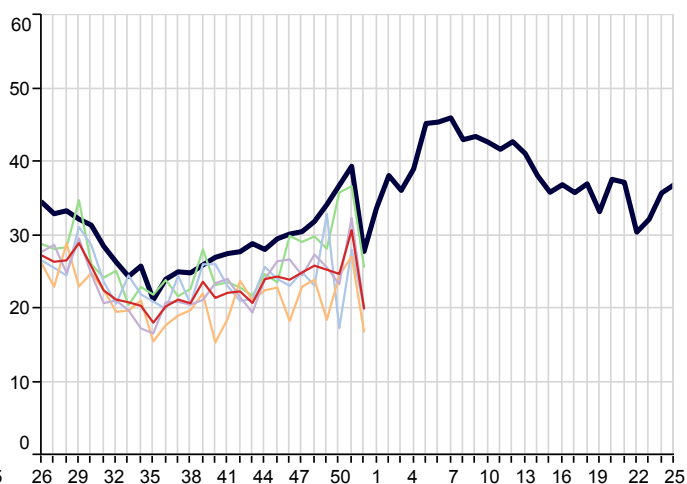
## 2. Environmentally Sensitive Disorders:

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

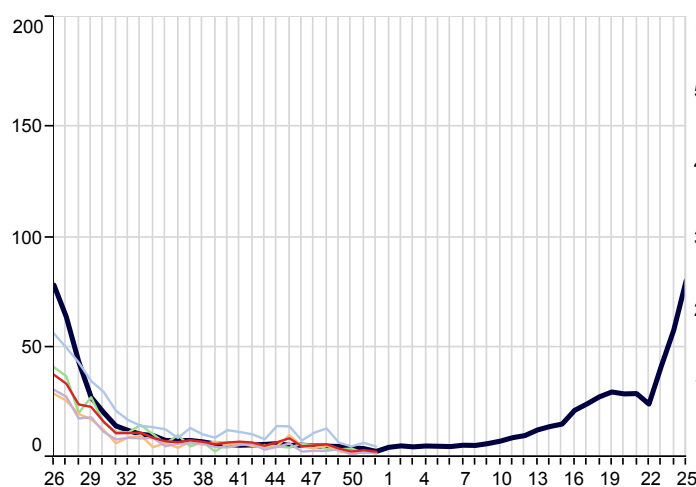
**Asthma (ICD10: J45-J46)**  
Weekly incidence (per 100,000 all ages) by region  
for 2016 compared with 5 year average



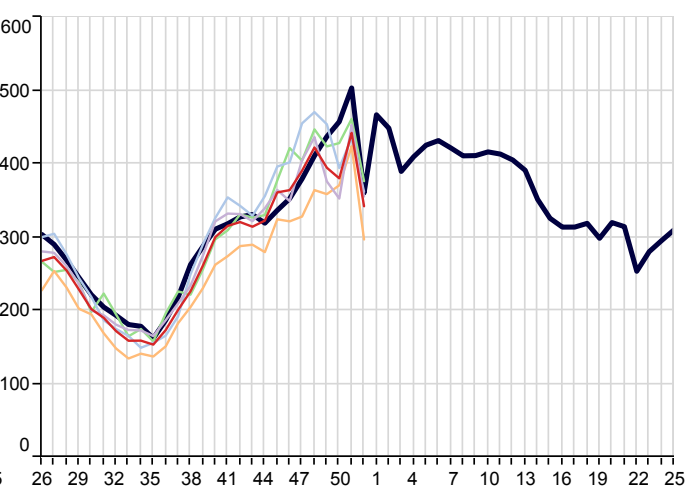
**Disorders of Conjunctiva (ICD10: H10-H13)**  
Weekly incidence (per 100,000 all ages) by region  
for 2016 compared with 5 year average



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



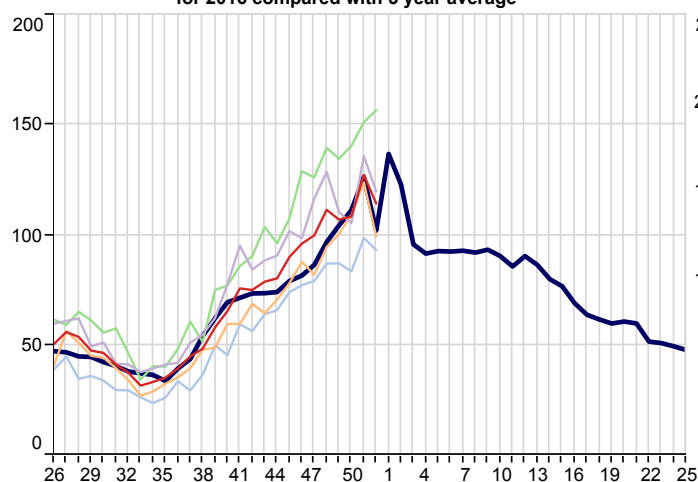
**Symptoms involving Respiratory & Chest (ICD10: R05-R07,R09)**  
Weekly incidence (per 100,000 all ages) by region  
for 2016 compared with 5 year average



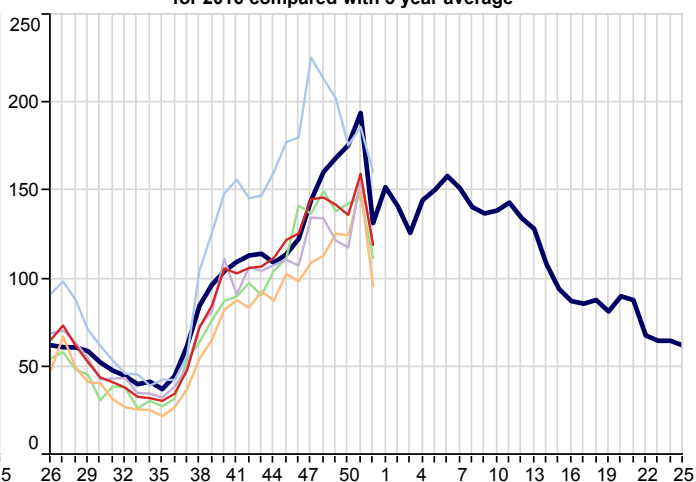
### 3. Respiratory Infections:

5yr Avg   National   North   South   London   Midlands And East

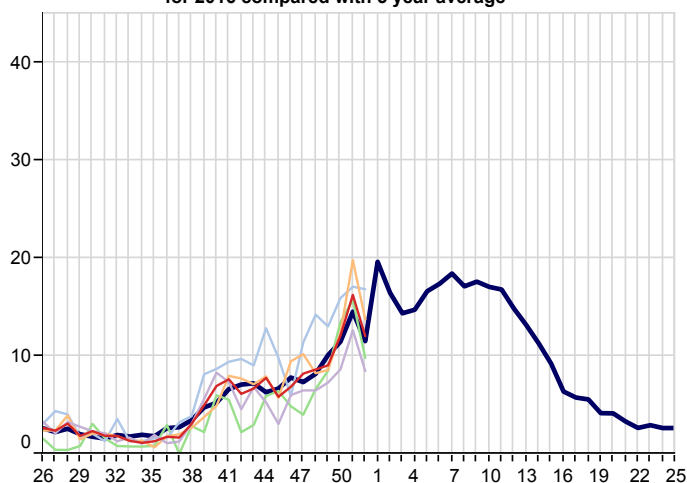
**Acute Bronchitis (ICD10: J20-J21,J40)**  
Weekly incidence (per 100,000 all ages) by region  
for 2016 compared with 5 year average



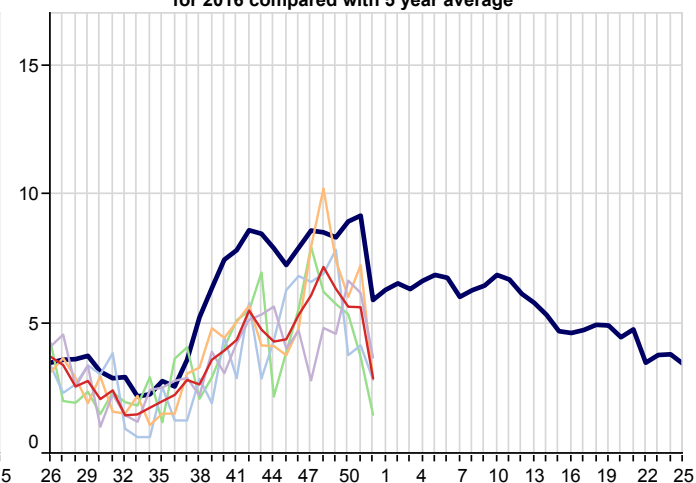
**Common Cold (ICD10: J00,J06)**  
Weekly incidence (per 100,000 all ages) by region  
for 2016 compared with 5 year average



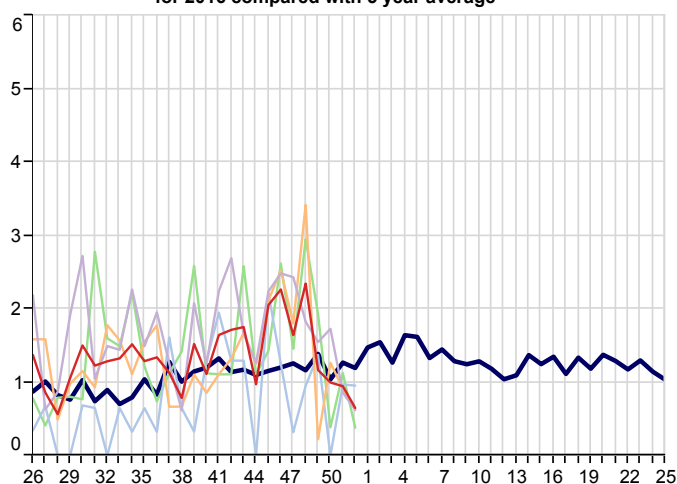
**Influenza-Like Illness (ICD10: J09-J11)**  
Weekly incidence (per 100,000 all ages) by region  
for 2016 compared with 5 year average



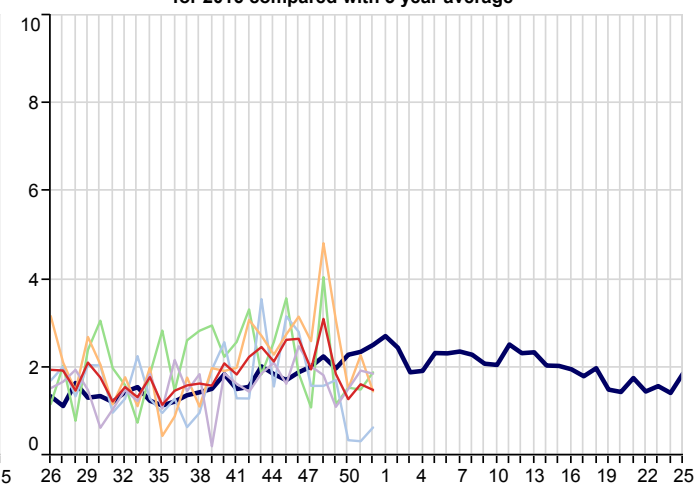
**Acute Laryngitis/Tracheitis (ICD10: J04)**  
Weekly incidence (per 100,000 all ages) by region  
for 2016 compared with 5 year average



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



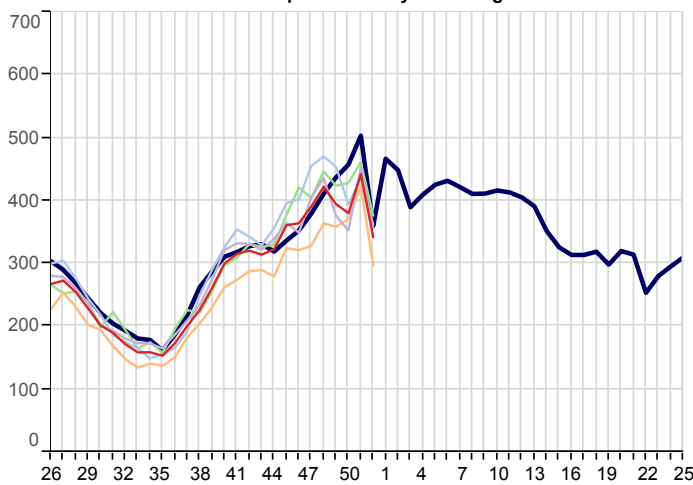
**Pneumonia/Pneumonitis (ICD10: J12-J18)**  
Weekly incidence (per 100,000 all ages) by region  
for 2016 compared with 5 year average



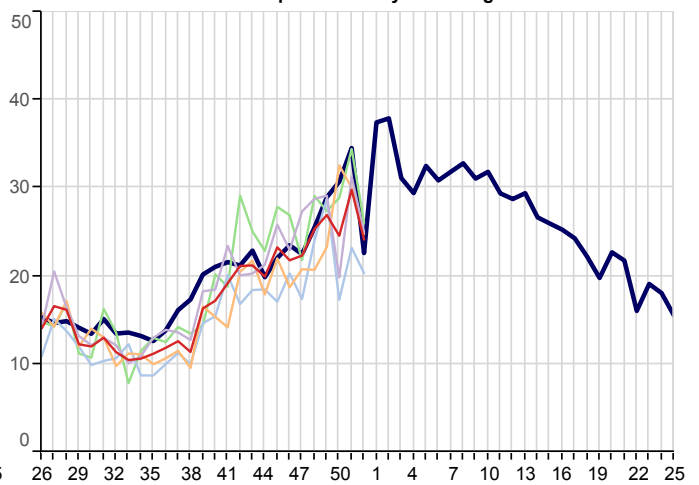
### 3. Respiratory Infections(Continued):

5yr Avg   National   North   South   London   Midlands And East

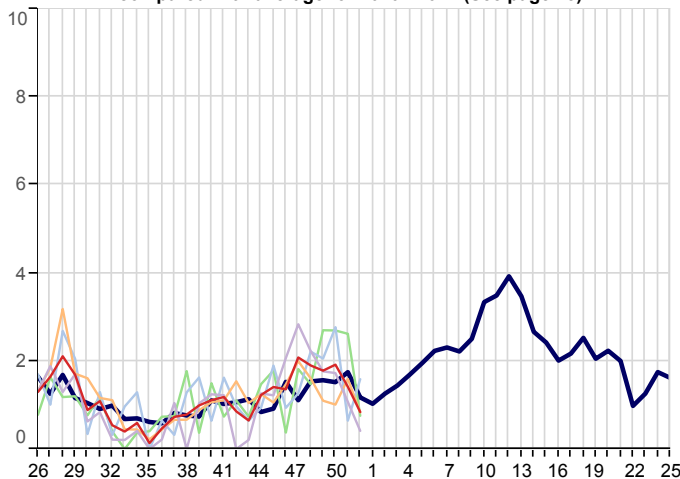
**Respiratory System Diseases (ICD10: J00-J99)**  
Weekly incidence (per 100,000 all ages) by region  
for 2016 compared with 5 year average



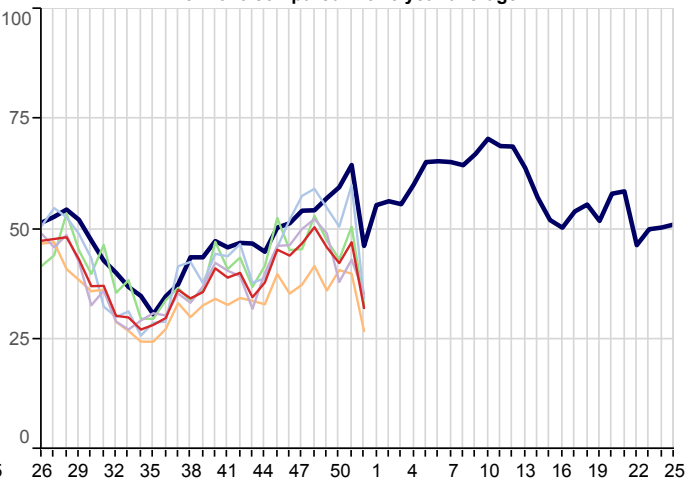
**Acute Sinusitis (ICD10: J01)**  
Weekly incidence (per 100,000 all ages) by region  
for 2016 compared with 5 year average



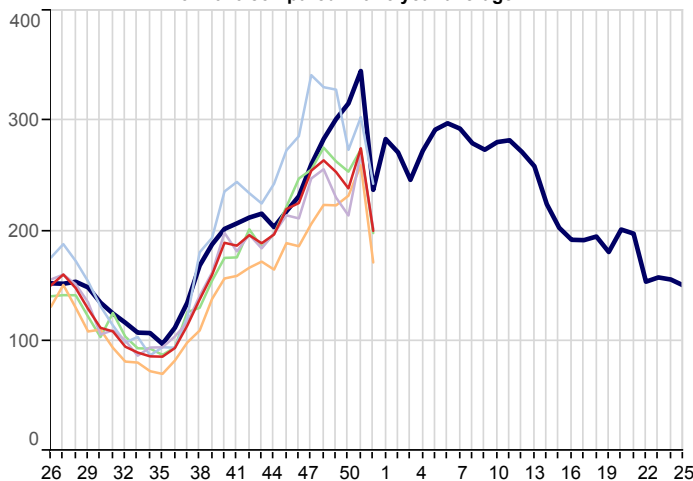
**Strep Sore Throat, Scarletina and Peritonsillar Abscess (ICD10: A38,J02,J36)**  
Weekly incidence (per 100,000 all ages) by region for 2016  
compared with average for 2010 - 2012 (See page 13)



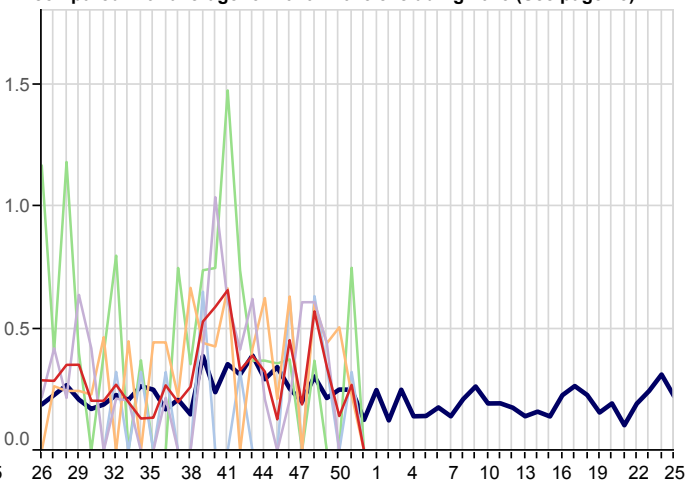
**Acute Tonsillitis/Pharyngitis (ICD10: J02-J03)**  
Weekly incidence (per 100,000 all ages) by region  
for 2016 compared with 5 year average



**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)

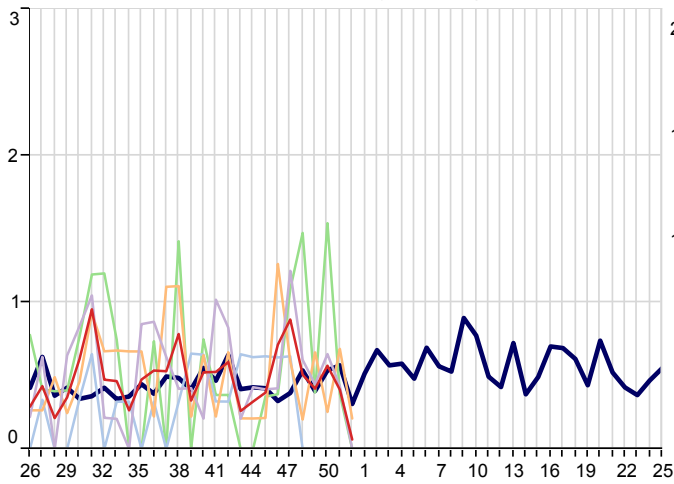




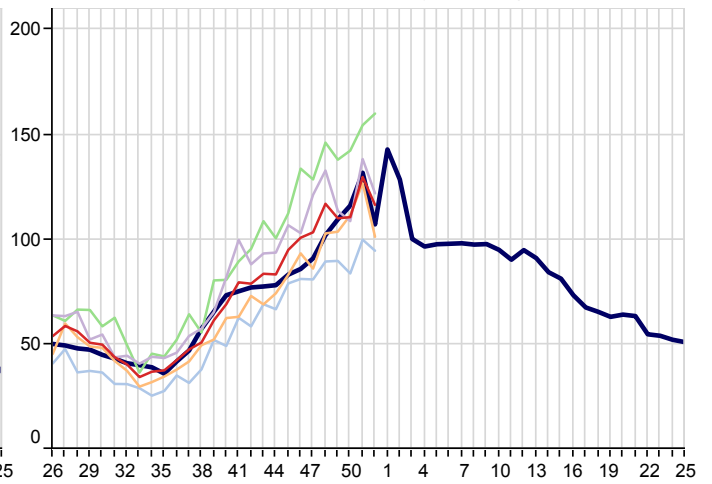
### 3. Respiratory Infections(Continued):

5yr Avg   National   North   South   London   Midlands And East

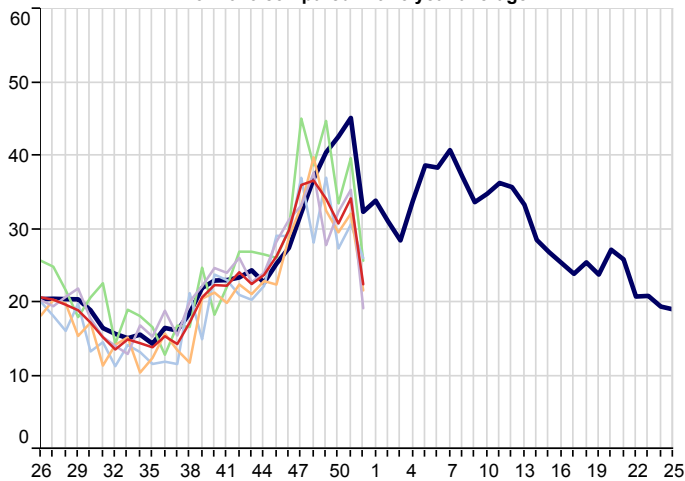
**Infectious Mononucleosis (ICD10: B27)**  
Weekly incidence (per 100,000 all ages) by region  
for 2016 compared with 5 year average



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



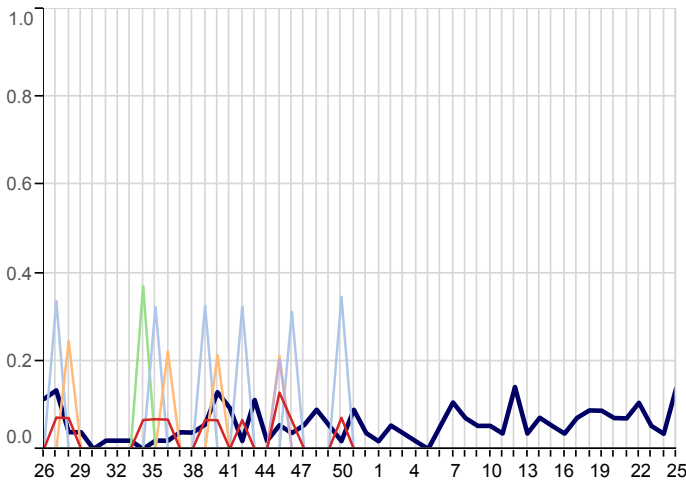
**Acute Otitis Media (ICD10: H650-H651,H660,H669)**  
Weekly incidence (per 100,000 all ages) by region  
for 2016 compared with 5 year average



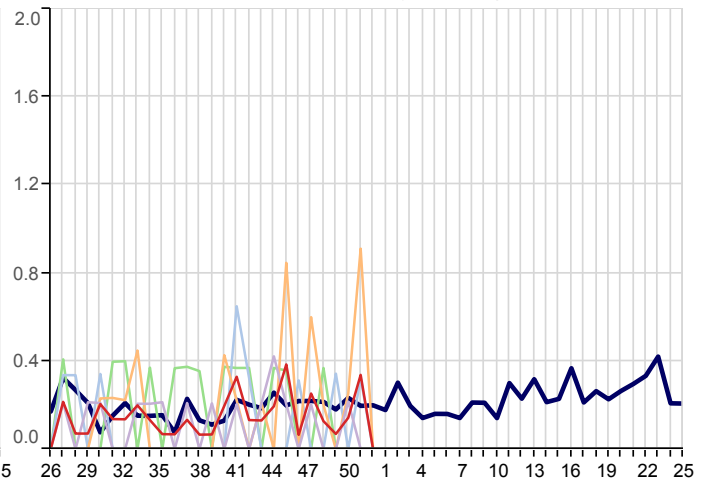
## 4. Vaccine Sensitive Disorders

5yr Avg   National   North   South   London   Midlands And East

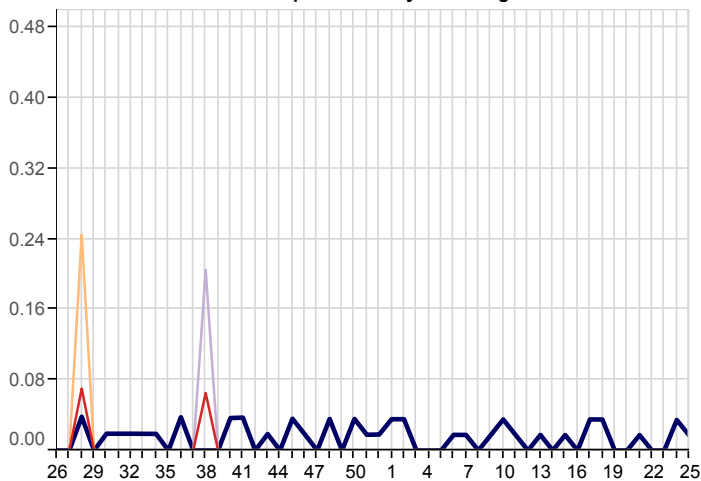
**Measles (ICD10: B05)**  
Weekly incidence (per 100,000 all ages) by region  
for 2016 compared with 5 year average



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

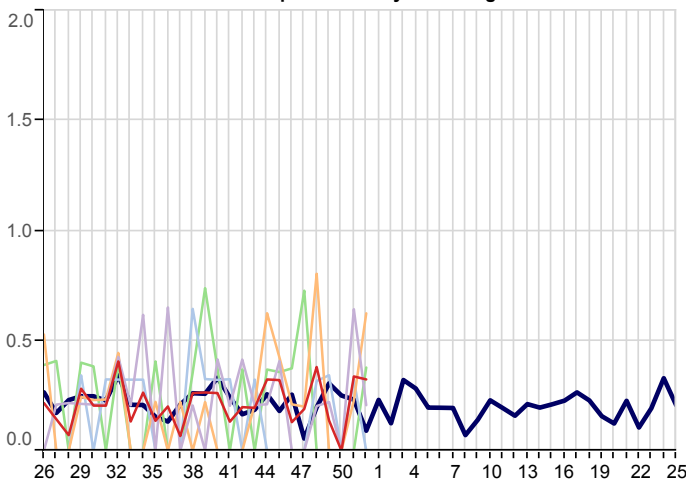


**Rubella (ICD10: B06)**  
Weekly incidence (per 100,000 all ages) by region  
for 2016 compared with 5 year average

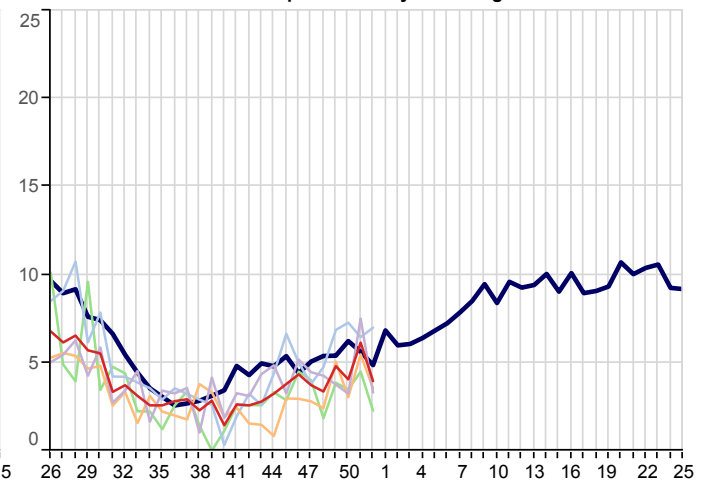


## 5. Skin Contagions

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



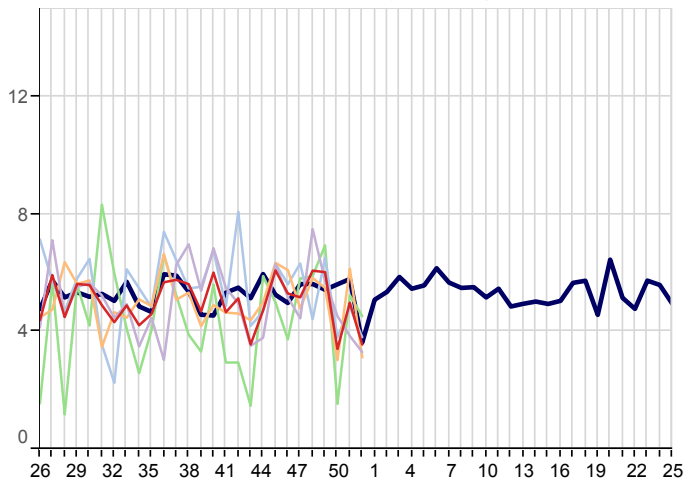
**Chickenpox (ICD10: B01)**  
Weekly incidence (per 100,000 all ages) by region  
for 2016 compared with 5 year average



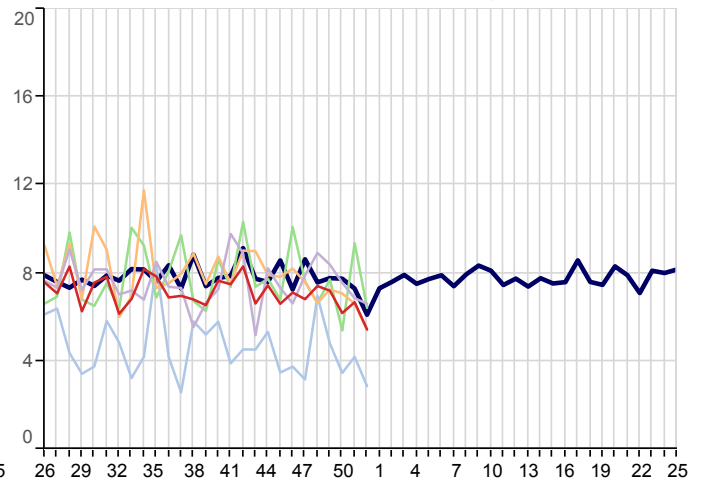
## 5. Skin Contagions (Continued)

5yr Avg   National   North   South   London   Midlands And East

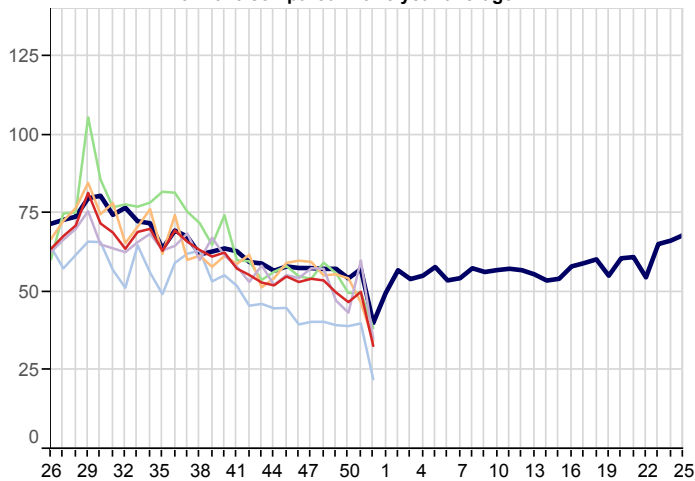
**Herpes Simplex (ICD10: B00)**  
Weekly incidence (per 100,000 all ages) by region  
for 2016 compared with 5 year average



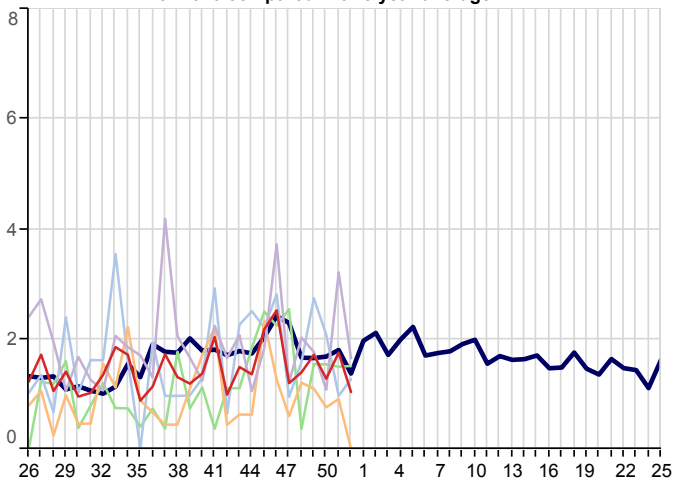
**Herpes Zoster (ICD10: B02)**  
Weekly incidence (per 100,000 all ages) by region  
for 2016 compared with 5 year average



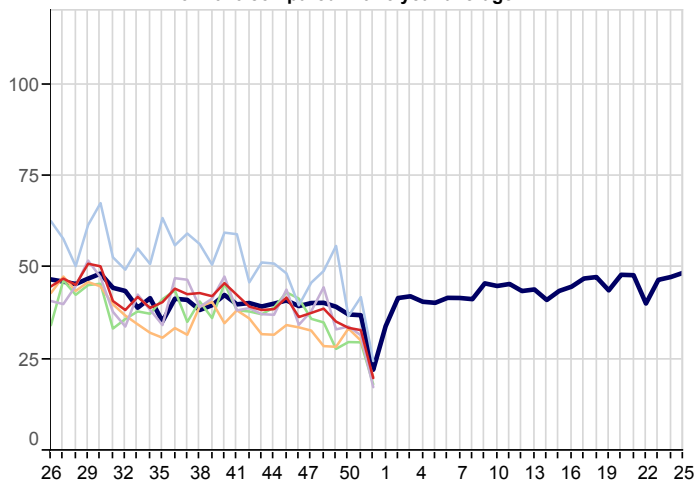
**Infections of Skin & Subcutaneous Tissue (ICD10: L00-L08)**  
Weekly incidence (per 100,000 all ages) by region  
for 2016 compared with 5 year average



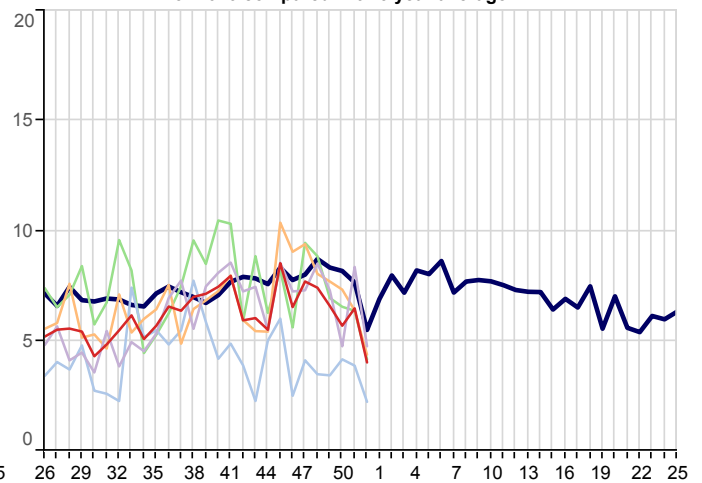
**Scabies (ICD10: B86)**  
Weekly incidence (per 100,000 all ages) by region  
for 2016 compared with 5 year average



**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



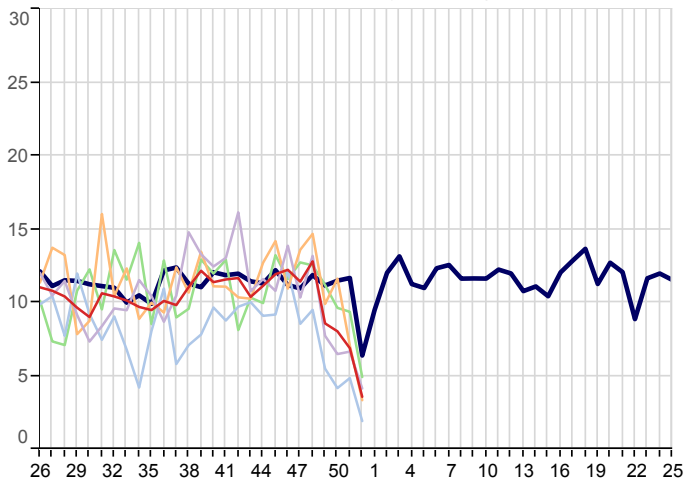
**Impetigo (ICD10: L01)**  
Weekly incidence (per 100,000 all ages) by region  
for 2016 compared with 5 year average



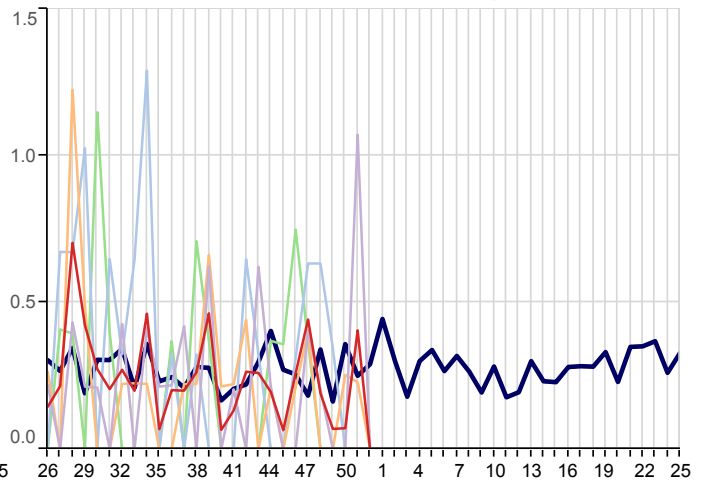
## 6. Disorders Affecting the Nervous System

5yr Avg   National   North   South   London   Midlands And East

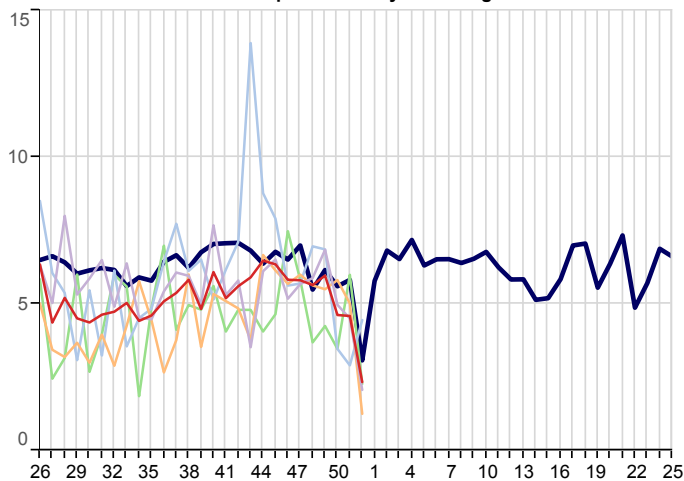
**Disorders of The Peripheral Nervous System (ICD10: G50-G64,G70-G72)**  
Weekly incidence (per 100,000 all ages) by region  
for 2016 compared with 5 year average



**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

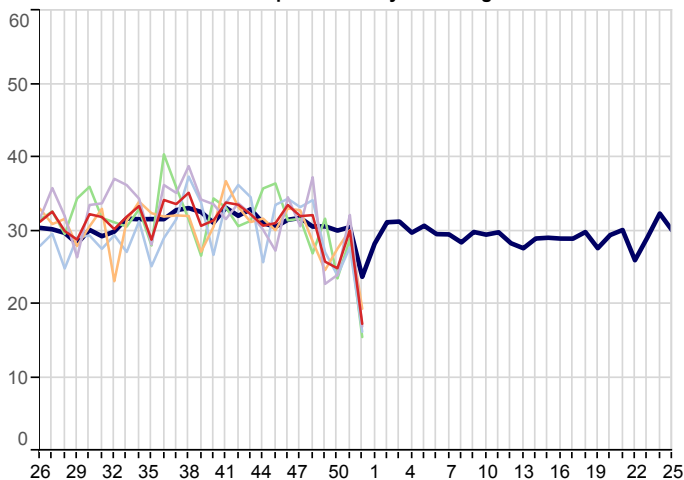


**Symptoms Involving Nervous & Musculoskeletal (ICD10: R25-R29)**  
Weekly incidence (per 100,000 all ages) by region  
for 2016 compared with 5 year average



## 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		26/12/2016 01/01/2017		19/12/2016 25/12/2016		12/12/2016 18/12/2016		05/12/2016 11/12/2016	
	Rate	Numer	Rate	Numer	Rate	Numer	Rate	Numer	Rate	Numer
Allergic Rhinitis	2.4	37	3.1	46	2.5	35	3.8	56		
Asthma	13.3	206	20.9	310	18.7	263	21.0	307		
Acute Bronchitis	114.2	1,765	127.3	1,888	108.4	1,526	106.9	1,560		
Bullous Dermatoses	0.3	5	0.3	5	0.0	0	0.1	2		
Chickenpox	3.9	61	6.1	91	4.0	57	4.8	70		
Common Cold	119.3	1,843	159.7	2,369	136.3	1,919	142.1	2,074		
Conjunctival Disorders	20.0	309	30.7	455	24.7	348	25.3	369		
Herpes Simplex	3.6	55	5.0	74	3.4	48	6.0	88		
Herpes Zoster	5.4	84	6.7	99	6.2	87	7.2	105		
Impetigo	4.0	62	6.5	96	5.7	80	6.6	96		
Infectious Mononucleosis	0.1	1	0.4	6	0.6	8	0.4	6		
Influenza-like illness	12.0	186	16.2	241	12.1	170	9.0	132		
Infectious Intestinal Diseases	6.8	105	9.2	136	10.2	143	10.3	150		
Laryngitis and Tracheitis	2.9	45	5.7	84	5.7	80	6.4	93		
Lower Respiratory Tract Infections	116.5	1,800	129.8	1,926	110.6	1,558	110.1	1,607		
Measles	0.0	0	0.0	0	0.1	1	0.0	0		
Meningitis and Encephalitis	0.0	0	0.4	6	0.1	1	0.1	1		
Mumps	0.0	0	0.3	5	0.1	2	0.1	1		
Non-infective Enteritis and Colitis	5.7	88	7.9	117	9.4	132	9.6	140		
Otitis Media Acute	22.5	347	34.2	507	30.7	433	34.1	498		
Otitis Media Acute New	3.6	56	6.1	90	5.0	71	5.8	85		
Peripheral Nervous Disease	3.6	55	6.9	102	8.0	113	8.6	125		
Pleurisy	0.6	10	0.9	14	1.0	14	1.2	17		
Pneumonia and Pneumonitis	1.5	23	1.6	24	1.3	18	1.9	27		
Respiratory System Diseases	341.9	5,282	441.9	6,556	379.9	5,350	394.4	5,756		
Rubella	0.0	0	0.0	0	0.0	0	0.0	0		
Scabies	1.0	16	1.8	26	1.3	18	1.7	25		
Sinusitis	24.1	373	29.8	442	24.6	346	26.9	393		
Skin and Subcutaneous Tissue Infections	32.8	507	50.0	742	46.7	658	49.8	727		
Strep Throat and Peritonsillar Abscess	0.8	13	1.4	21	1.9	27	1.8	26		
Symptoms involving musculoskeletal	2.3	36	4.6	68	4.6	65	6.0	87		
Symptoms involving Respiratory and Chest	17.3	268	23.9	354	22.5	317	22.5	328		
Symptoms involving Skin and Integument Tissues	19.8	306	32.9	488	33.5	472	35.2	514		
Tonsillitis and acute Pharyngitis	32.0	495	47.0	697	42.3	595	45.8	669		
Upper Respiratory Tract Infections	199.9	3,088	274.9	4,079	238.5	3,358	253.4	3,698		
Urinary Tract Infections	17.3	267	30.0	445	24.9	350	25.8	376		
Viral Hepatitis	0.1	2	0.3	4	0.3	4	0.2	3		
Whooping Cough	0.0	0	0.3	4	0.1	2	0.3	5		
<b>Denom</b>	<b>1,545,063</b>		<b>1,483,570</b>		<b>1,408,141</b>		<b>1,459,431</b>			
<b>Practice Count</b>	<b>156</b>		<b>152</b>		<b>150</b>		<b>151</b>			

## 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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