Public Health England

GP In Hours

Syndromic Surveillance System: England

18 March 2020 | Year: 2020 Week: 11

In This Issue:

Key messages

Data to: 15 March 2020

Mumps consultations have remained above baseline levels during week 11, particularly in the 15-44 years age group (figures 12 & 12a).

During week 11, GP consultations for influenza-like-illness (ILI) and asthma increased, remaining above seasonally expected levels (figures 2 & 10). ILI consultations are highest in London and the 15-64 age groups (figures 2b & 2a).

A Cold Watch System operates in England from 1 November to 31 March each year. As part of the Public Health England Cold Weather Plan for England the PHE Real-time Syndromic Surveillance team will be monitoring the impact of cold weather on syndromic surveillance data during this period.
Cold weather alert level (current reporting week): **Level 1 Winter preparedness**
http://www.metoffice.gov.uk/weather/uk/coldweatheralert/

Diagnostic indicators at a glance:

Indicator	Trend	Level
Upper respiratory tract infection	increasing	below baseline levels
Influenza-like illness	increasing	above baseline levels
Pharyngitis	increasing	below baseline levels
Scarlet fever	no trend	below baseline levels
Lower respiratory tract infection	decreasing	below baseline levels
Pneumonia	no trend	below baseline levels
Gastroenteritis	no trend	below baseline levels
Vomiting	no trend	below baseline levels
Diarrhoea	no trend	below baseline levels
Asthma	increasing	above baseline levels
Conjunctivitis	decreasing	below baseline levels
Mumps	no trend	above baseline levels
Measles	no trend	similar to baseline levels
Rubella	no trend	similar to baseline levels
Pertussis	no trend	similar to baseline levels
Chickenpox	no trend	below baseline levels
Herpes zoster	no trend	similar to baseline levels
Cellulitis	no trend	similar to baseline levels
Impetigo	no trend	similar to baseline levels

* From week 9, this bulletin no longer includes the historic Moving Epidemic Method (MEM) influenza activity threshold (see notes).

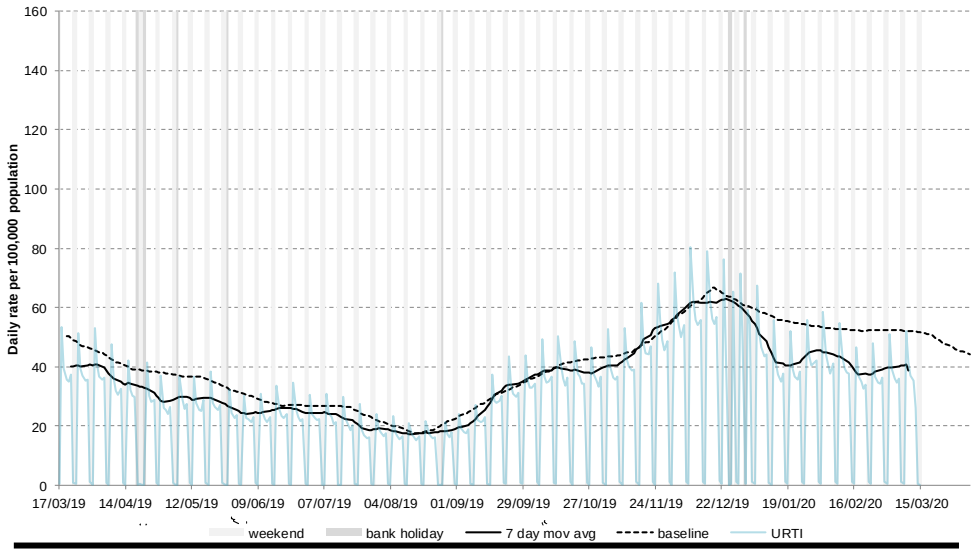
GP practices and denominator population:

Year	Week	GP Practices Reporting**	Population size**
2020	11	4,580	40.9 million

**based on the average number of practices and denominator population in the reporting working week.

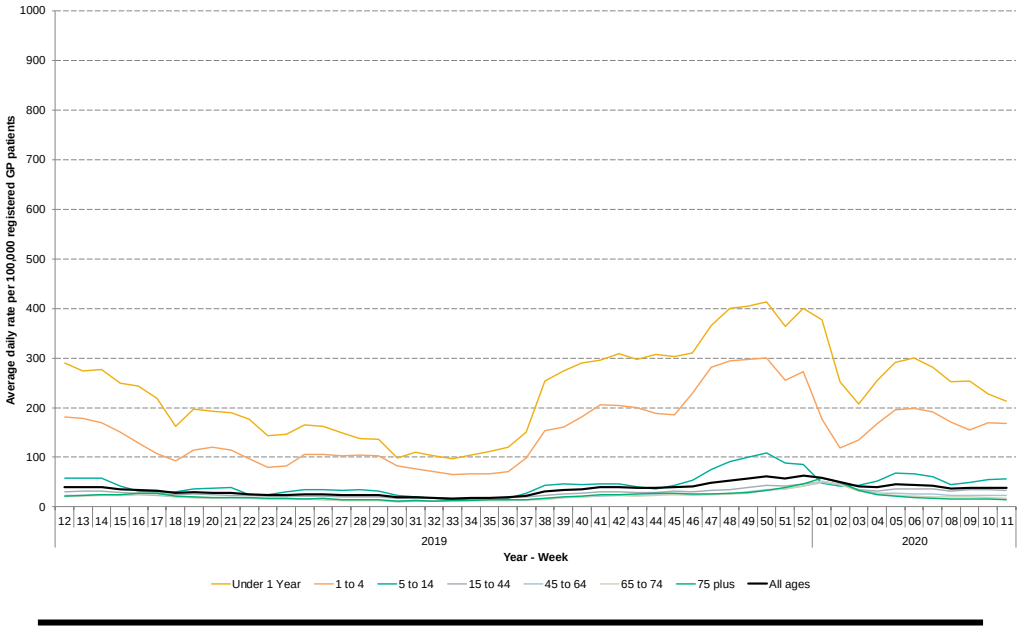
1: Upper respiratory tract infection (URTI)

Daily incidence rate (and 7-day moving average*) per 100,000 population (all England, all ages).



1a: Upper respiratory tract infection (URTI) by age

Average daily incidence rate by week per 100,000 population (all England).



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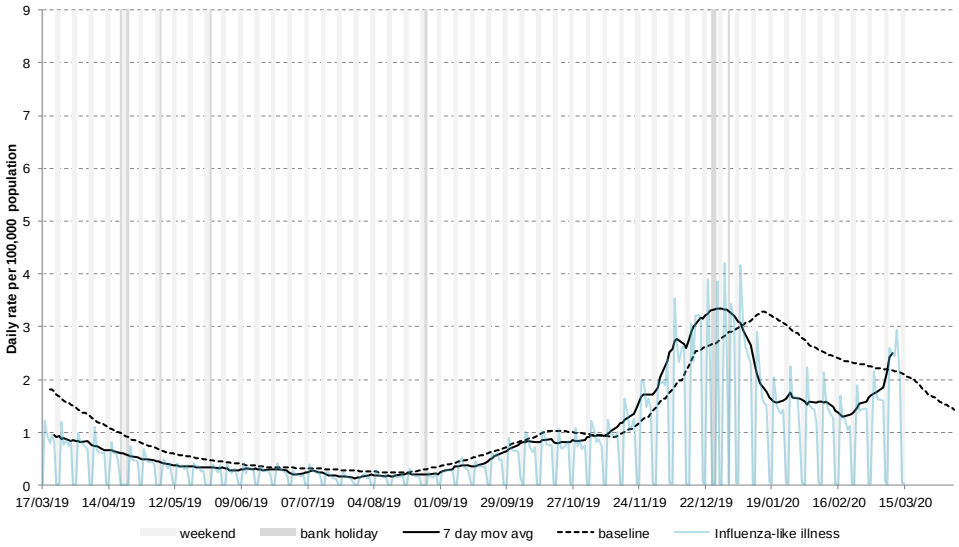
* 7-day moving average adjusted for bank holidays.

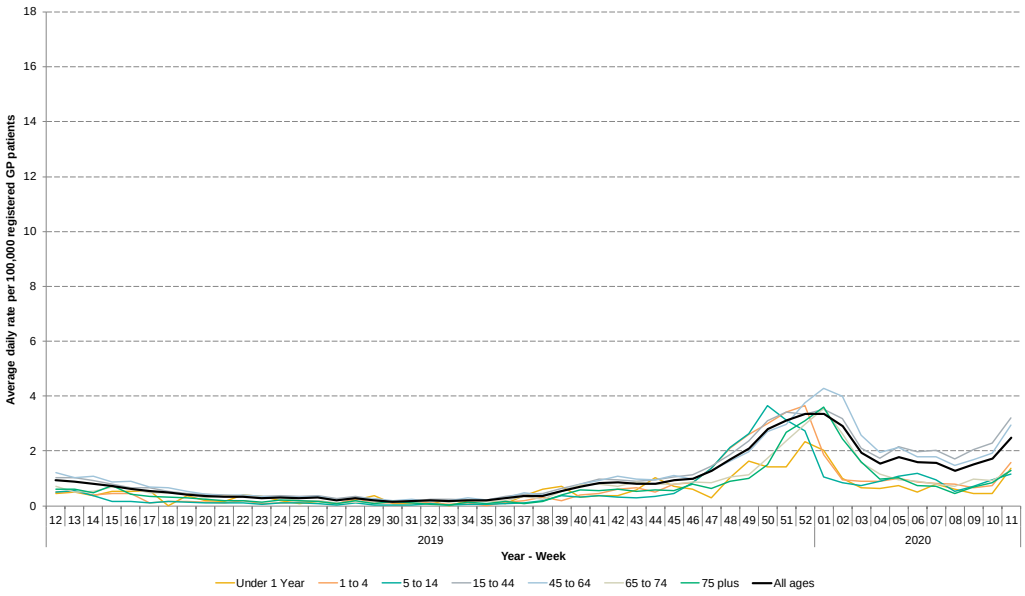
2: Influenza-like illness (ILI)

Daily incidence rates (and 7-day moving average*) per 100,000 population (all England, all ages).



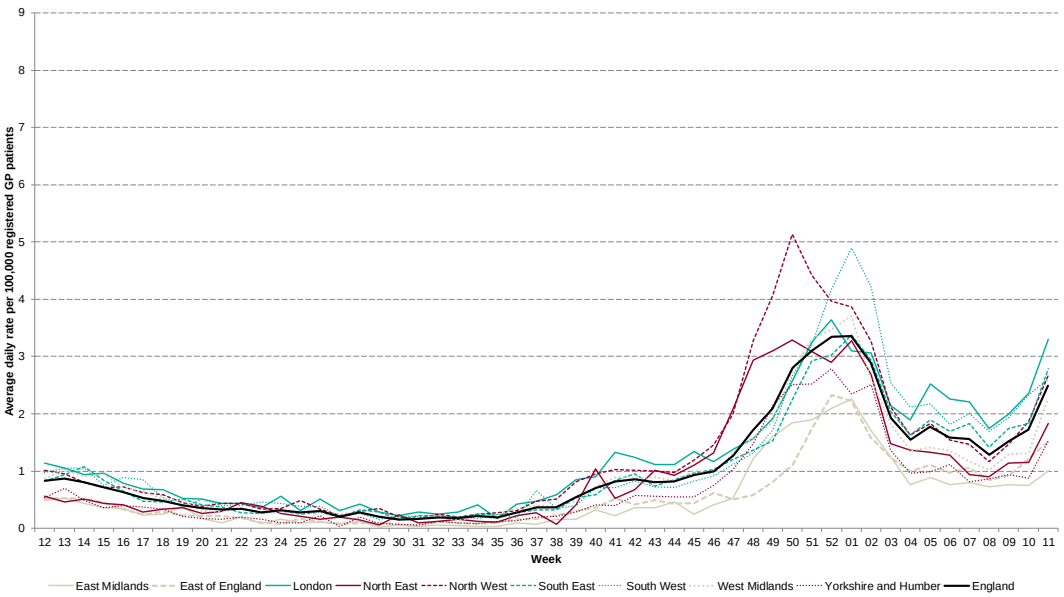
2a: Influenza-like illness by age

Average daily incidence rate by week per 100,000 population (all England).



2b: Influenza-like illness by PHE Centre

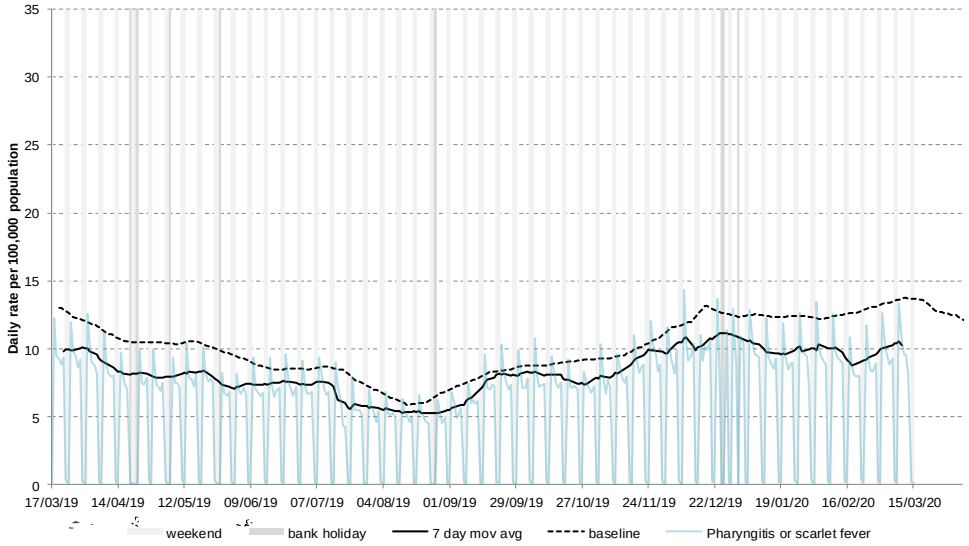
Average daily incidence rate by week per 100,000 population (all ages).



* 7-day moving average adjusted for bank holidays.

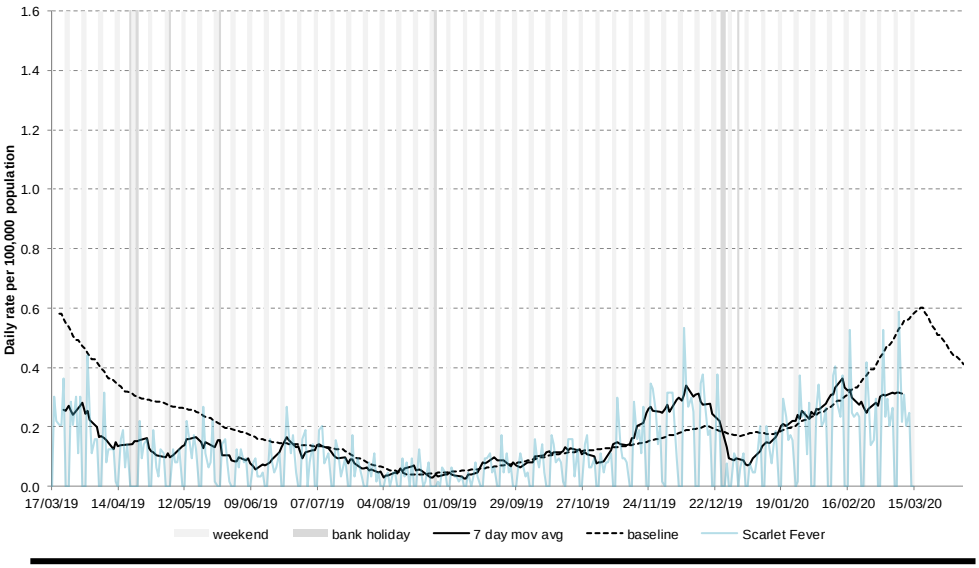
3: Pharyngitis or scarlet fever

Daily incidence rate (and 7-day moving average*) per 100,000 population (all England, all ages).



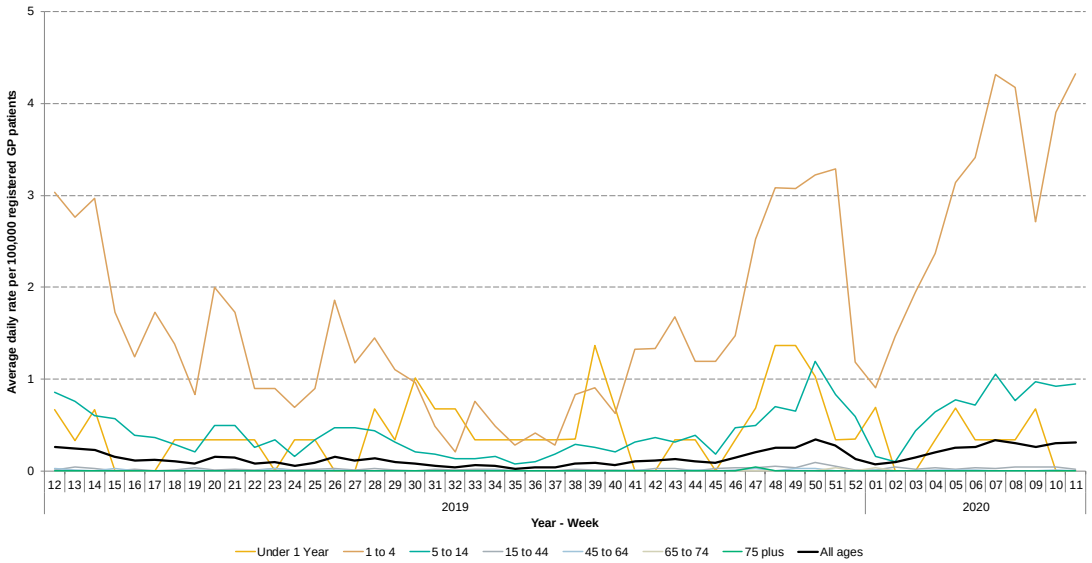
4: Scarlet fever

Daily incidence rate (and 7-day moving average*) per 100,000 population (all England, based on a denominator population of approximately 5.5 million patients)



4a: Scarlet fever by age

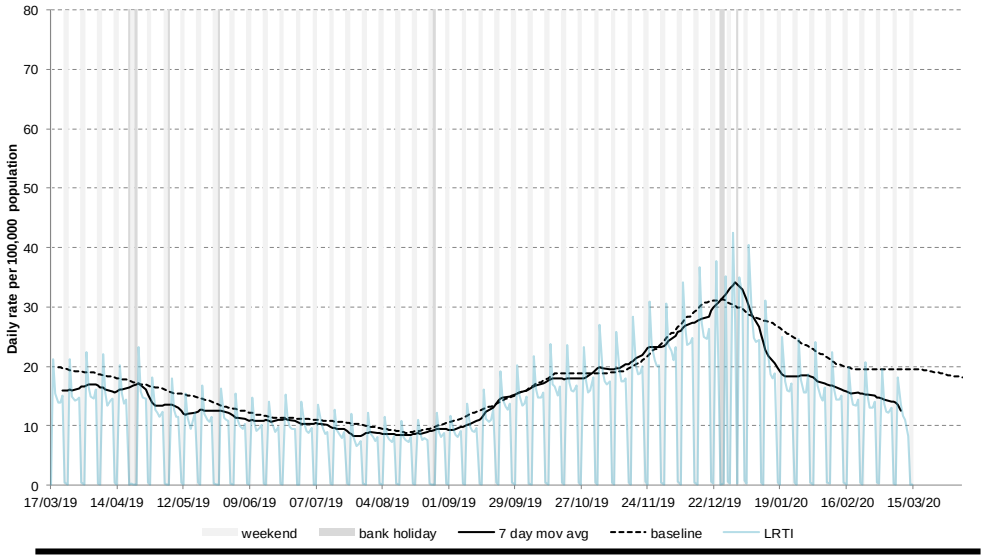
Average daily incidence rate by week per 100,000 population (all England, based on a denominator population of approximately 5.5 million patients).



* 7-day moving average adjusted for bank holidays.

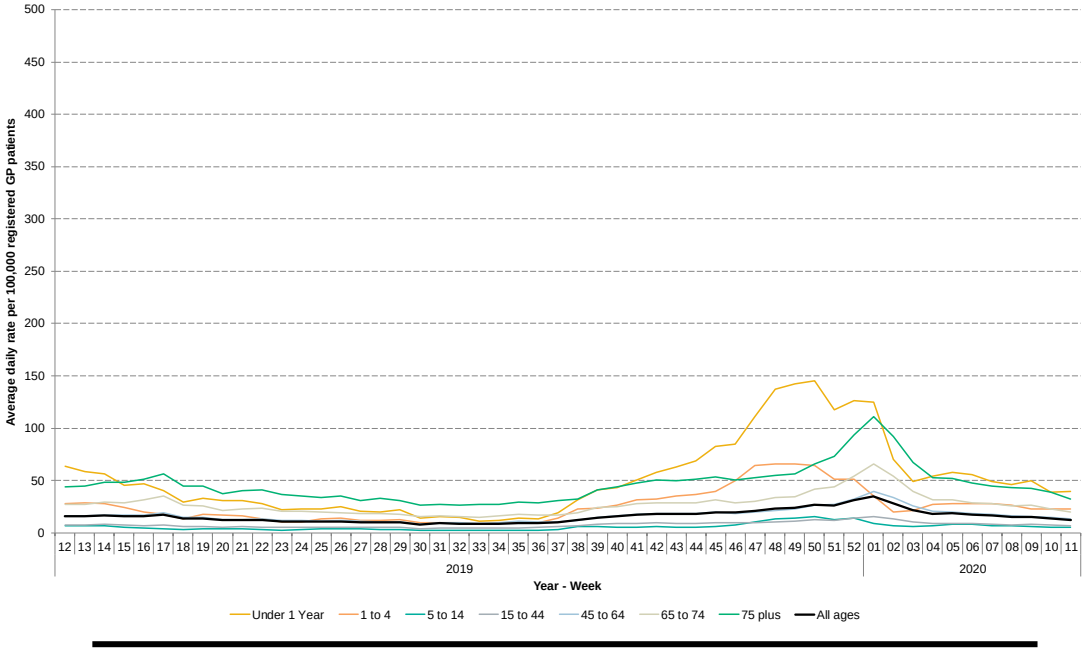
5: Lower respiratory tract infection (LRTI)

Daily incidence rate (and 7-day moving average*) per 100,000 population (all England, all ages).



5a: Lower respiratory tract infection (LRTI) by age

Average daily incidence rate by week per 100,000 population (all England).



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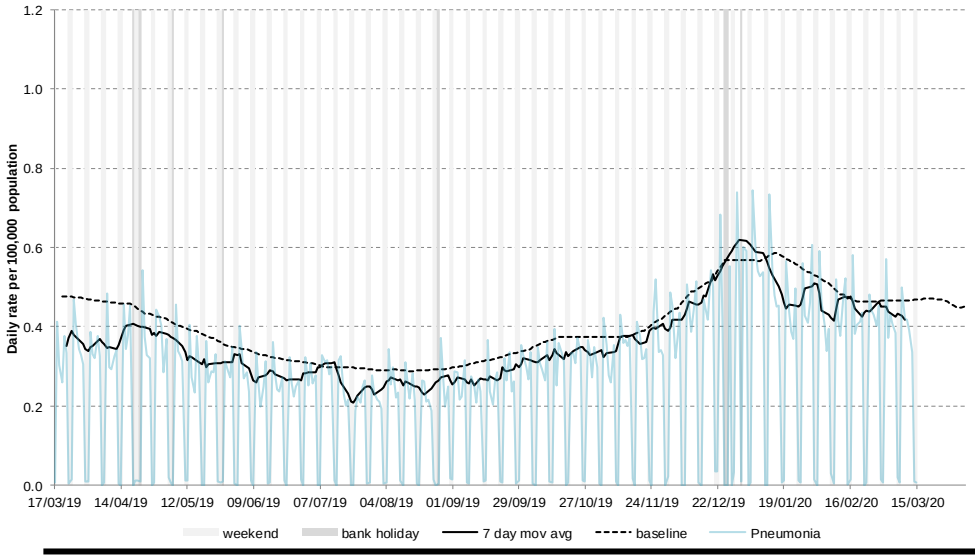
* 7-day moving average adjusted for bank holidays.

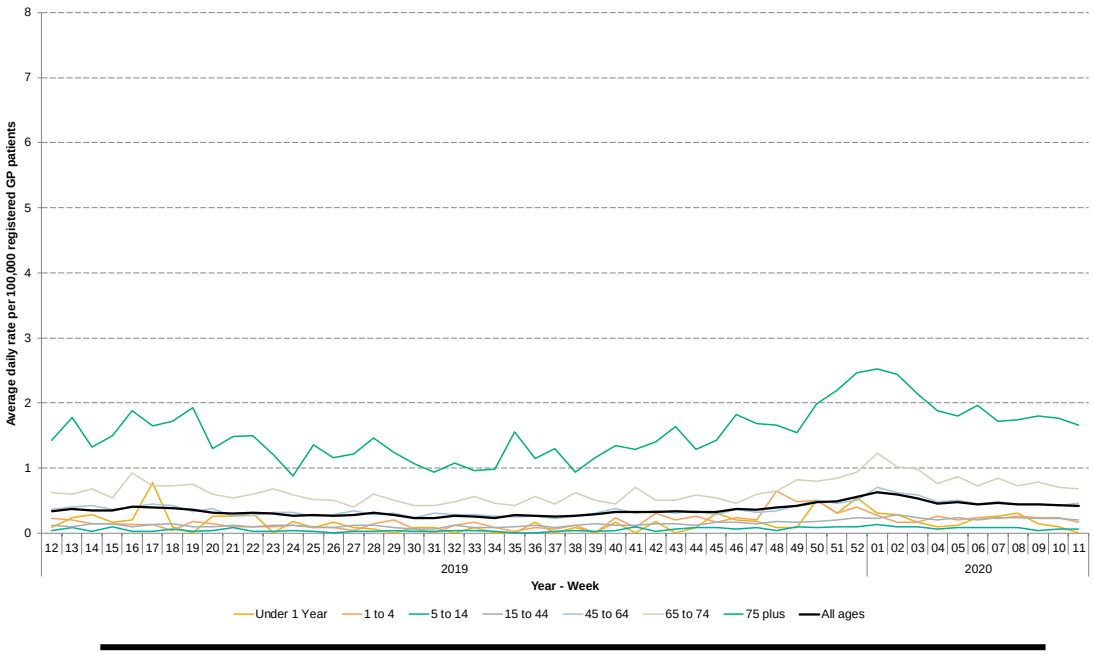
6: Pneumonia

Daily incidence rate (and 7-day moving average*) per 100,000 population (all England, all ages).



6a: Pneumonia by age

Average daily incidence rate by week per 100,000 population (all England).



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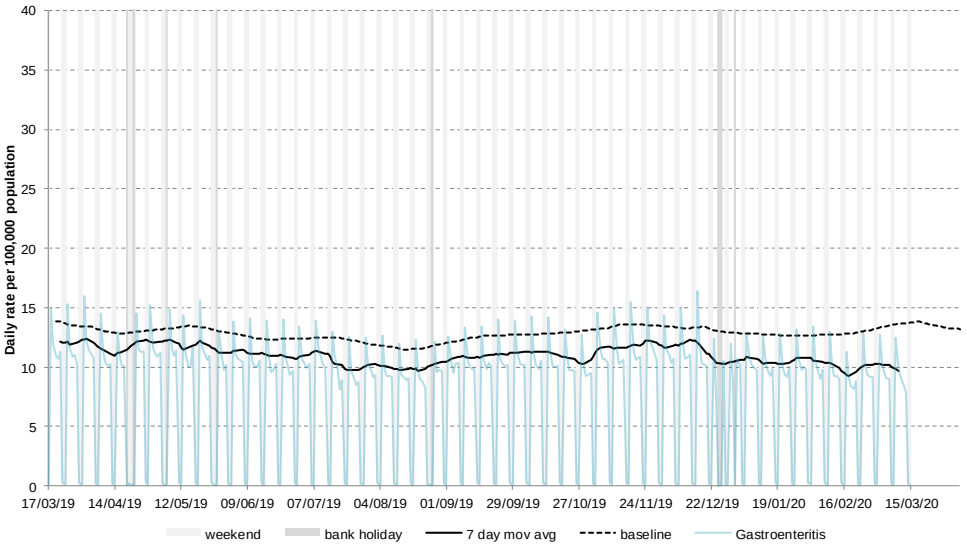
* 7-day moving average adjusted for bank holidays.

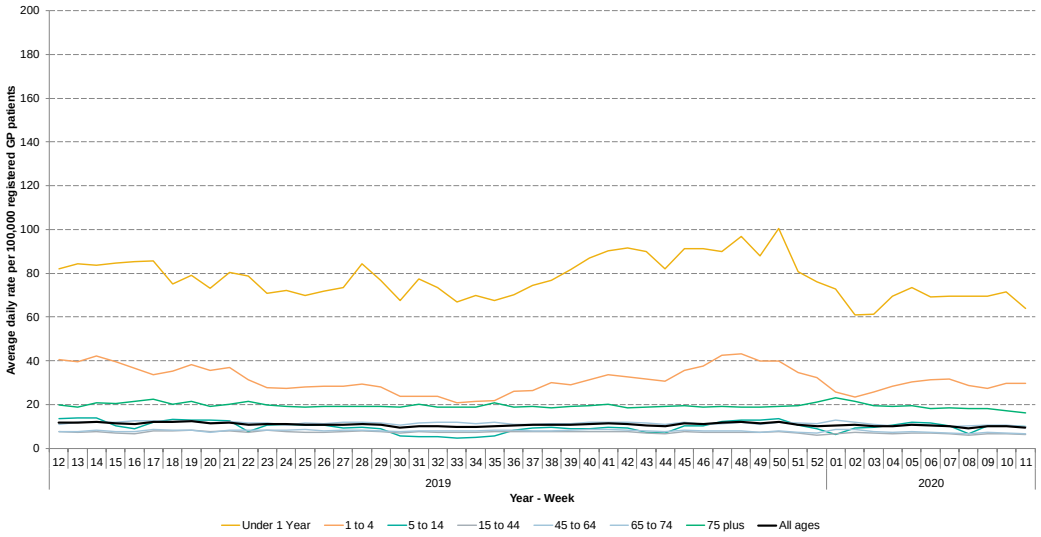
7: Gastroenteritis

Daily incidence rate (and 7-day moving average*) per 100,000 population (all England, all ages).



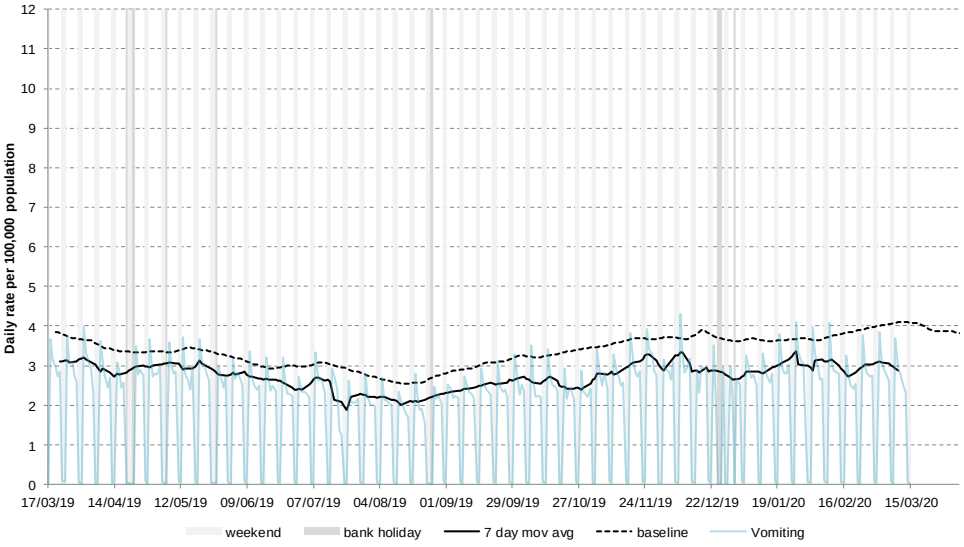
7a: Gastroenteritis by age

Average daily incidence rate by week per 100,000 population (all England).



8: Vomiting

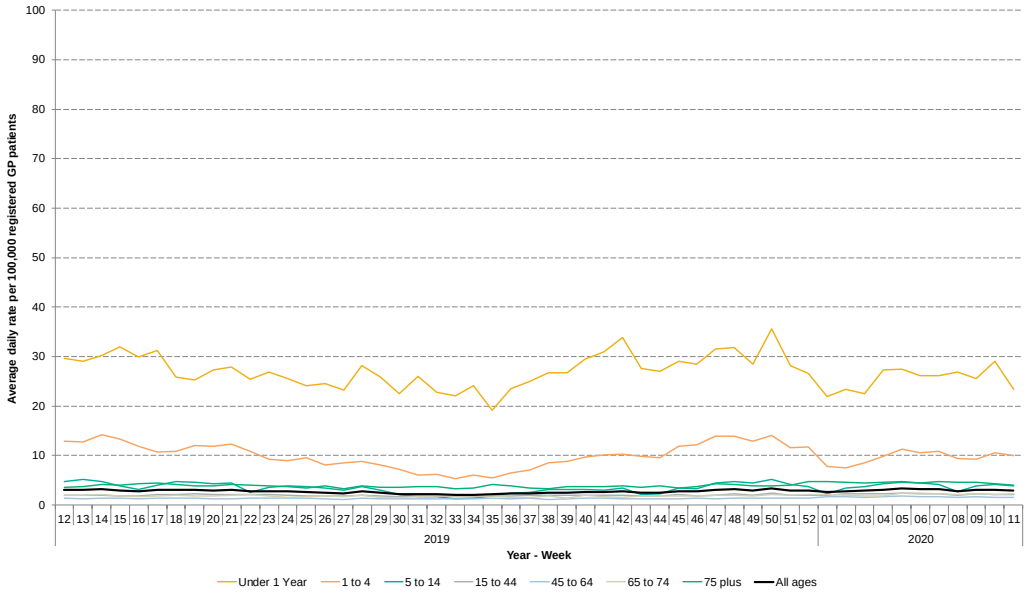
Daily incidence rate (and 7-day moving average*) per 100,000 population (all England, all ages).



* 7-day moving average adjusted for bank holidays.

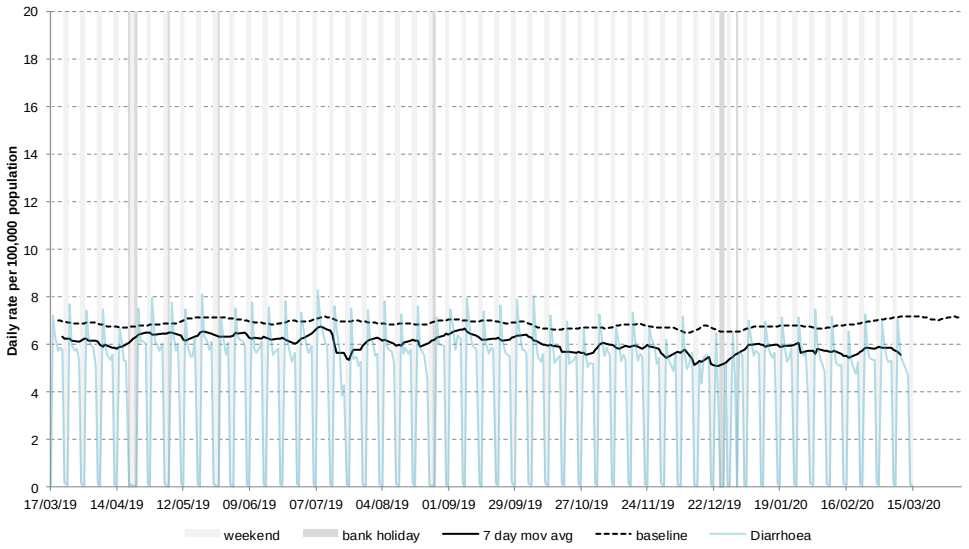
8a: Vomiting by age

Average daily incidence rate by week per 100,000 population (all England).



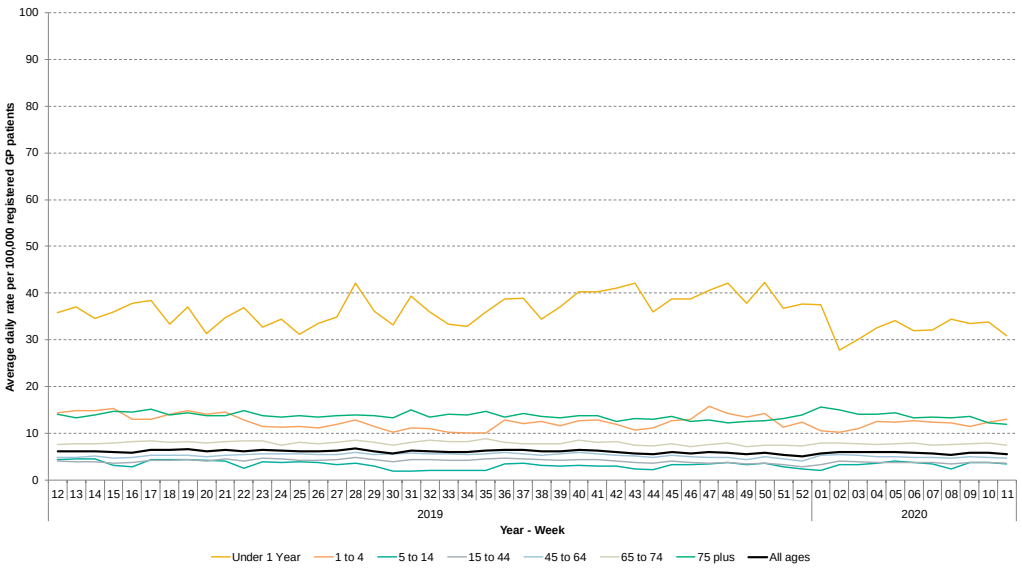
9: Diarrhoea

Daily incidence rate (and 7-day moving average*) per 100,000 population (all England, all ages).



9a. Diarrhoea by age

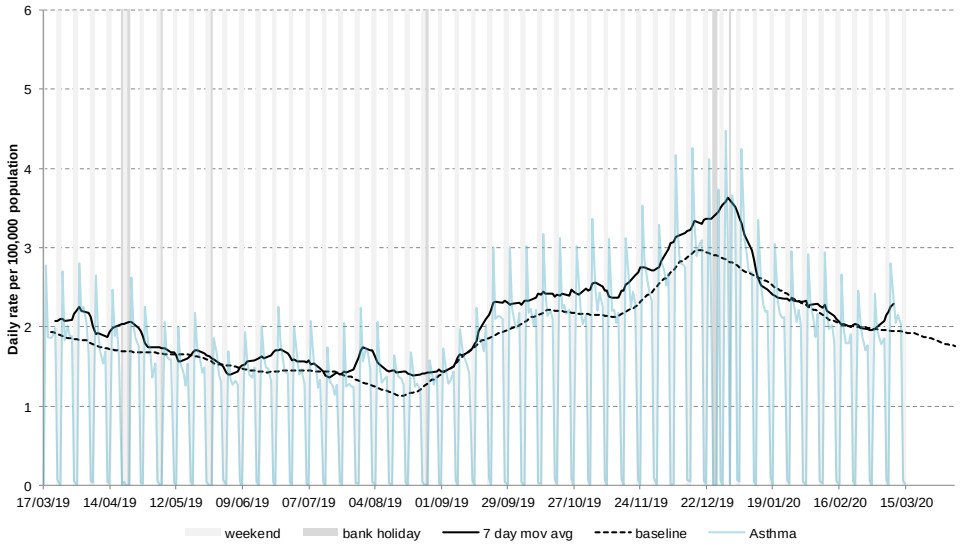
Average daily incidence rate by week per 100,000 population (all England).



* 7-day moving average adjusted for bank holidays.

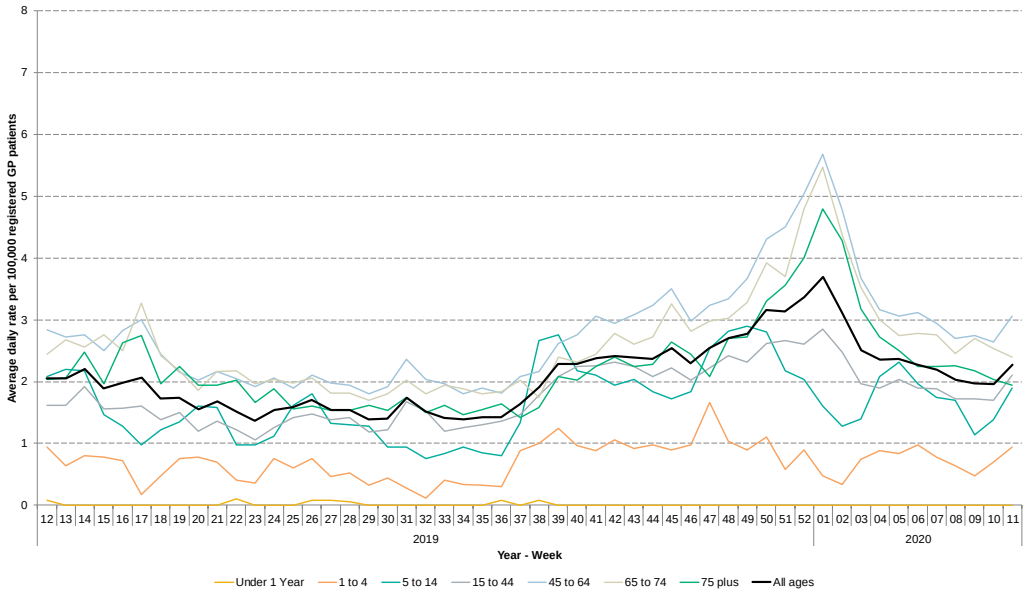
10: Asthma

Daily incidence rate (and 7-day moving average*) per 100,000 population (all England, all ages).



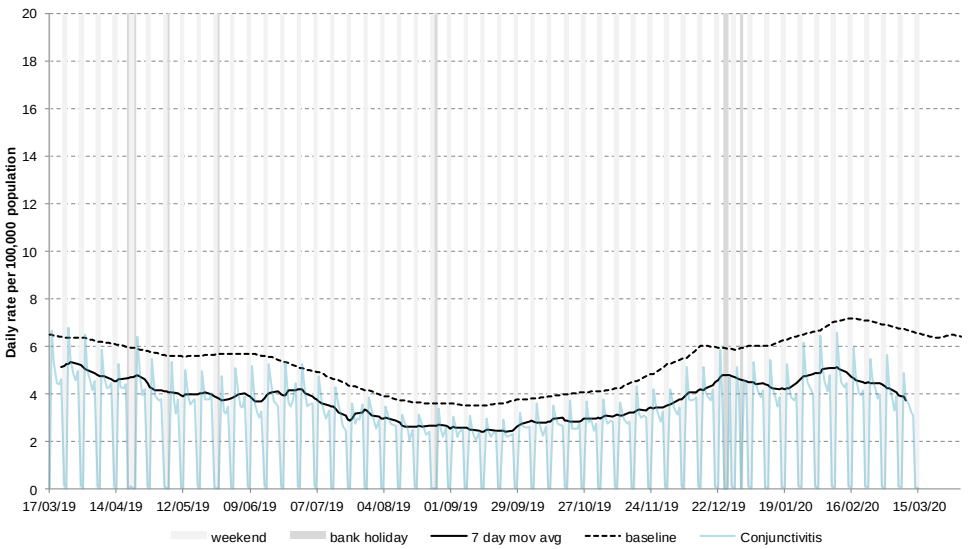
10a: Asthma by age

Average daily incidence rate by week per 100,000 population (all England).



11: Conjunctivitis

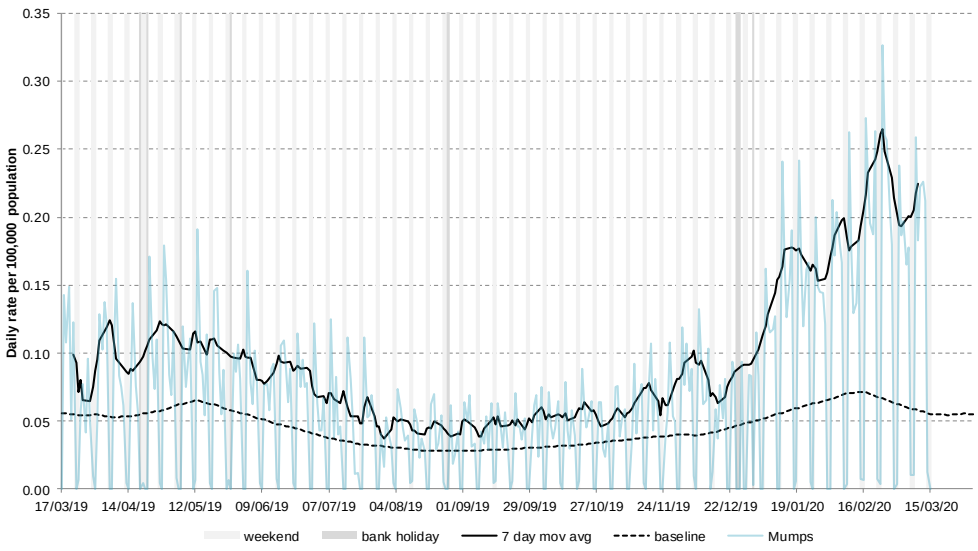
Daily incidence rate (and 7-day moving average*) per 100,000 population (all England, all ages).



* 7-day moving average adjusted for bank holidays.

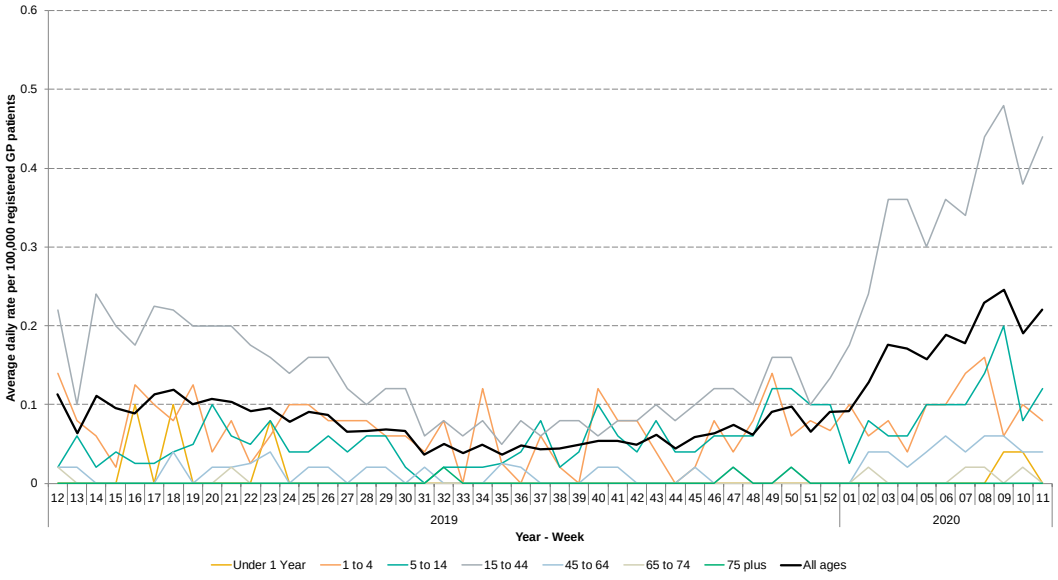
12: Mumps

Daily incidence rate (and 7-day moving average*) per 100,000 population (all England, all ages).



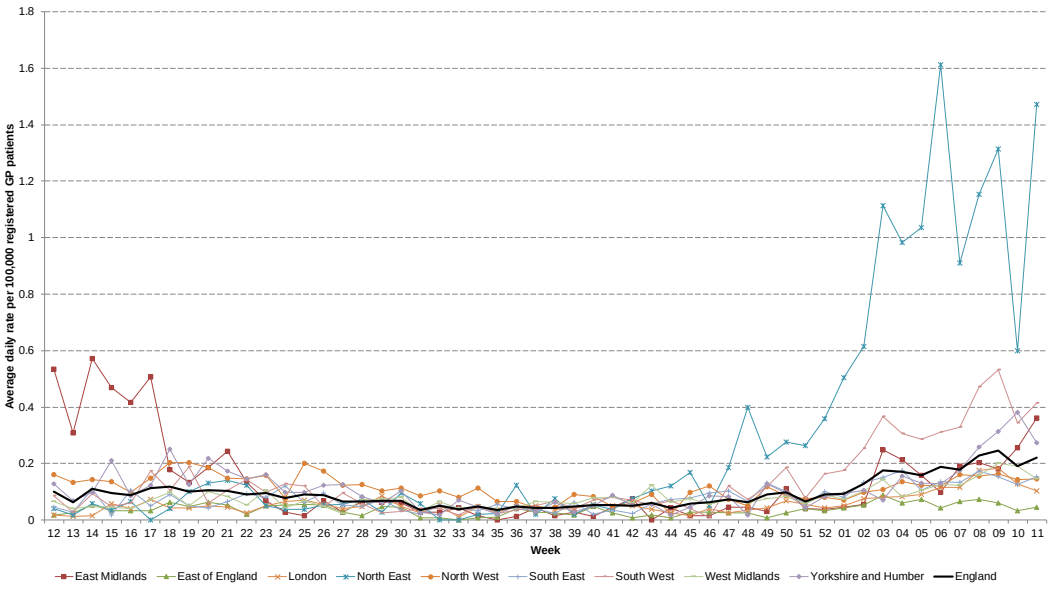
12a: Mumps by age

Average daily incidence rate by week per 100,000 population (all England).



12b: Mumps by PHE Centre

Average daily incidence rate by week per 100,000 population (all ages).



* 7-day moving average adjusted for bank holidays.

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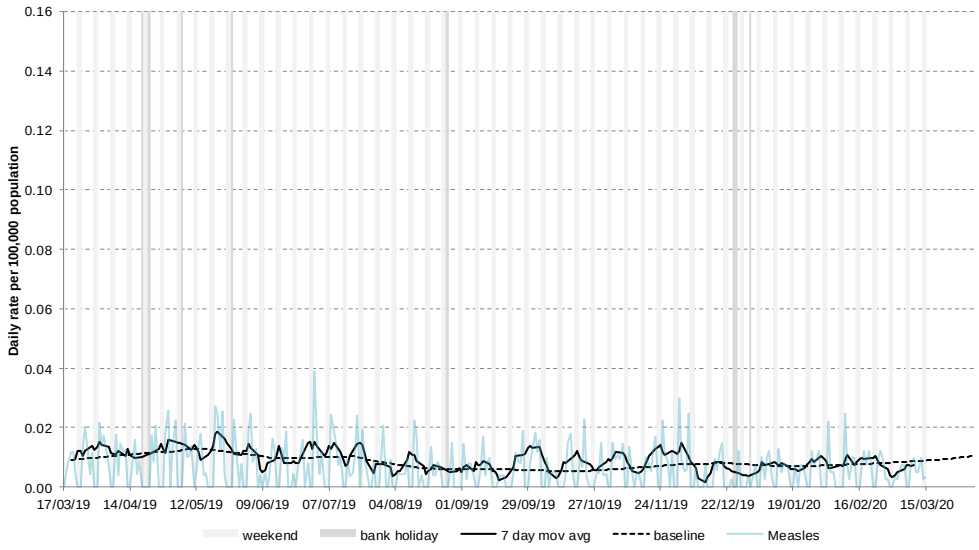
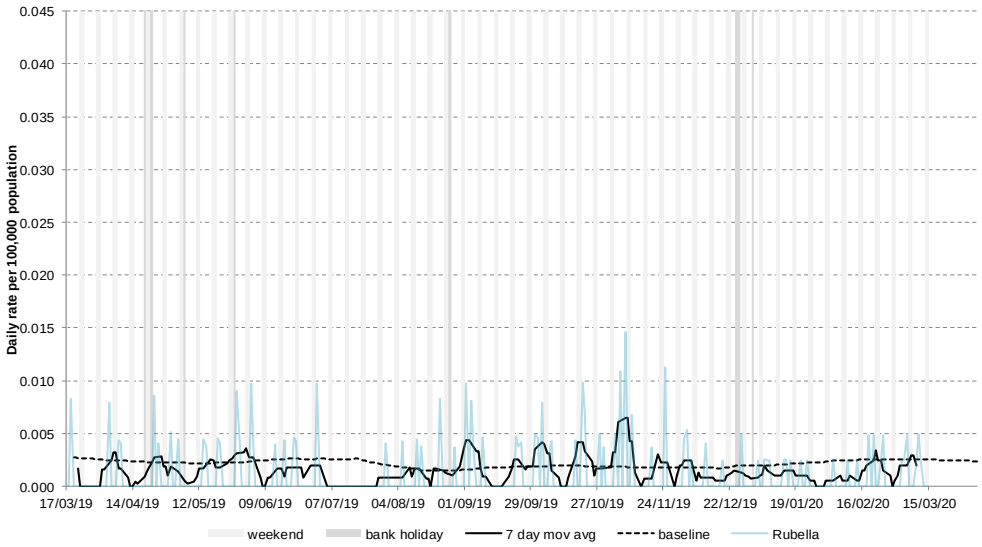
13: Measles

Daily incidence rate (and 7-day moving average*) per 100,000 population (all England, all ages).



14: Rubella

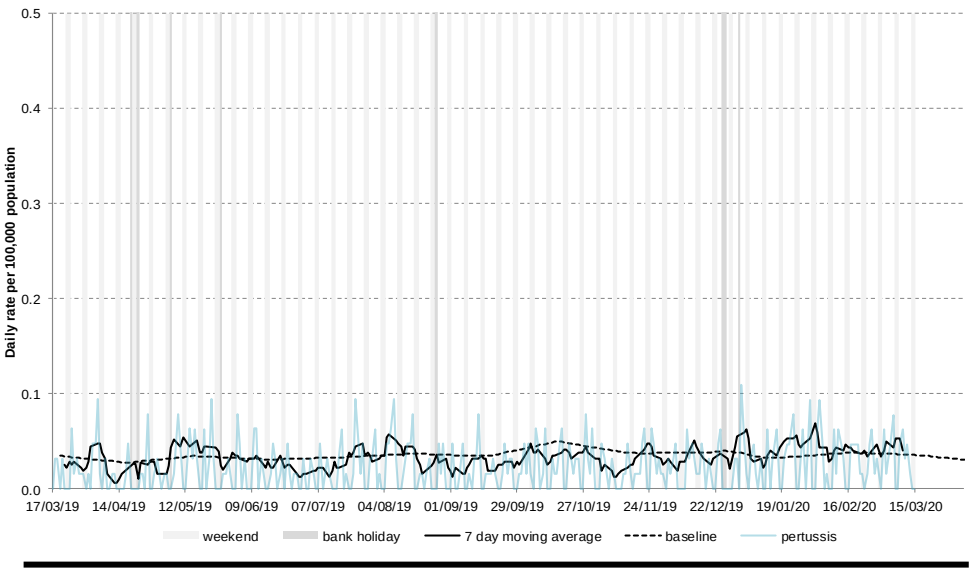
Daily incidence rate (and 7-day moving average*) per 100,000 population (all England, all ages).



* 7-day moving average adjusted for bank holidays.

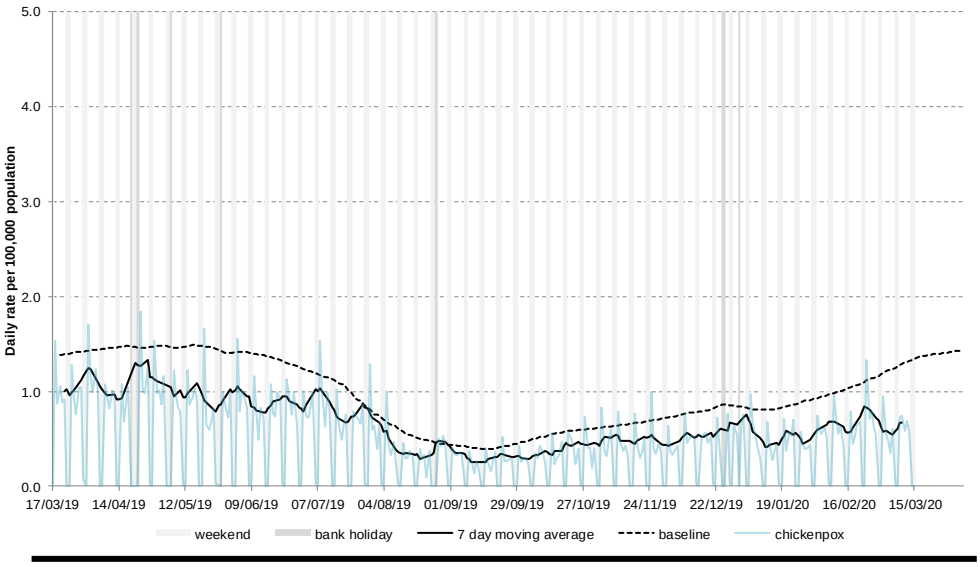
15: Pertussis

Daily incidence rate (and 7-day moving average*) per 100,000 population (all England, based on a denominator population of approximately 5.5 million patients)



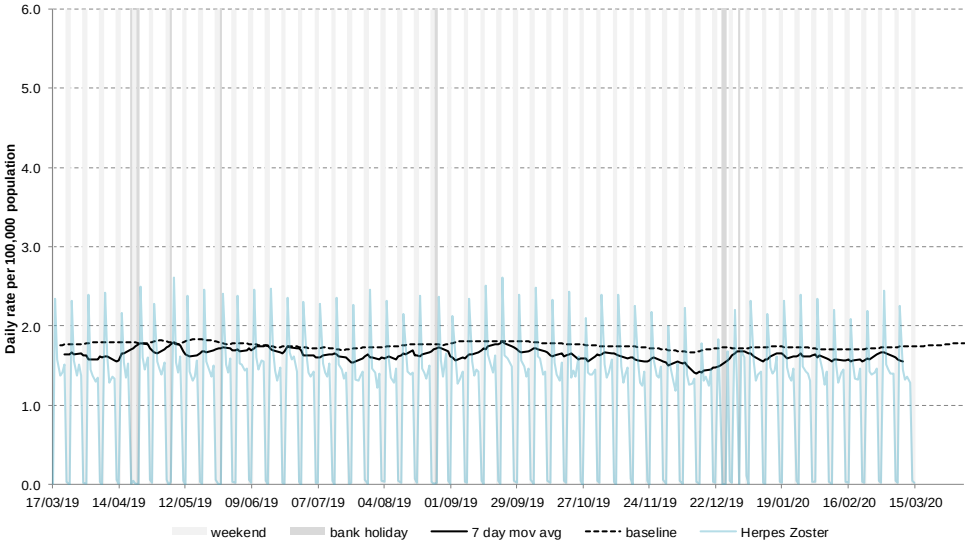
16: Chickenpox

Daily incidence rate (and 7-day moving average*) per 100,000 population (all England, based on a denominator population of approximately 5.5 million patients)



17: Herpes zoster

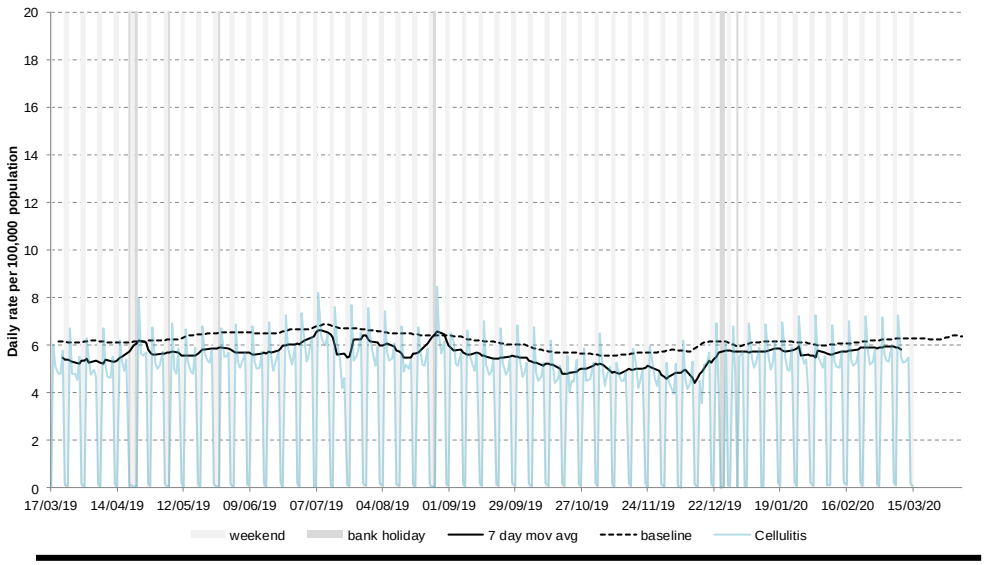
Daily incidence rate (and 7-day moving average*) per 100,000 population (all England, all ages).



* 7-day moving average adjusted for bank holidays.

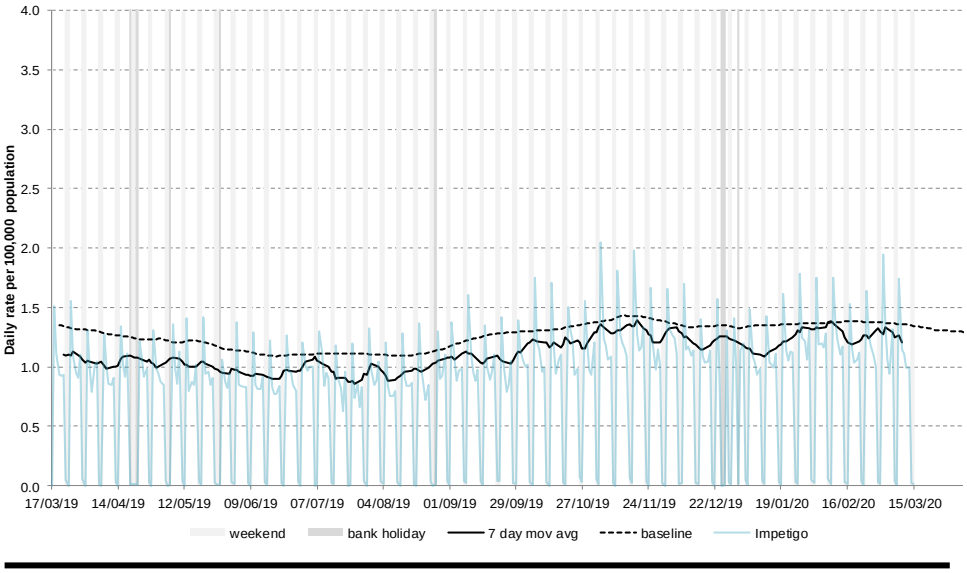
18: Cellulitis

Daily incidence rate (and 7-day moving average*) per 100,000 population (all England, all ages).



19: Impetigo

Daily incidence rate (and 7-day moving average*) per 100,000 population (all England, all ages).



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* 7-day moving average adjusted for bank holidays.

Notes and further information

- The Public Health England GP in hours surveillance system is a syndromic surveillance system monitoring community-based morbidity recorded by GP practices.
- GP consultation data are analysed on a daily basis to identify national and regional trends. A statistical algorithm underpins each system, routinely identifying activity that has increased significantly or is statistically significantly high for the time of year. Results from these daily analyses are assessed by the ReSST, along with analysis by age group, and anything deemed of public health importance is alerted by the team.
- This system captures anonymised GP morbidity data from two GP clinical software systems, EMIS, from version 1 of the QSurveillance® database, and TPP SystmOne.
- Baselines represent seasonally expected levels of activity and are constructed from historical data since April 2012. They take into account any known substantial changes in data collection, population coverage or reporting practices. Gastroenteritis, diarrhoea and vomiting baselines also account for changes since the introduction of rotavirus vaccine in July 2013. Baselines are refreshed using the latest data on a regular basis.

Moving Epidemic Method:

- During winter we present Moving Epidemic Method (MEM) influenza thresholds on selected indicators.
- The moving epidemic method or MEM is a standard methodology used for setting influenza thresholds across many European nations.[1]
- MEM is used for GP ILI thresholds at a national level and at PHE Centre level and stratified by age band.
- **MEM thresholds should be interpreted using 7 day moving averages rather than daily data.**
- MEM thresholds currently use six years of historic data (2013-2019). The thresholds are re-calculated every year.
- Baseline ('pre-epidemic') thresholds are used alongside other surveillance systems to identify the start of influenza circulating in the community; 40%, 95% and 97.5% intensity thresholds are used to identify when influenza activity moves from low to medium, high or very high.

[1]Vega T et al. Influenza Other Respir Viruses. 2013;7(4):546-58.

Maps:

- From week 40 2019 the levels of influenza-like illness (ILI) rates are illustrated in the bulletin appendix maps. The ILI intensity levels are calculated using MEM.
- The current ILI thresholds are based upon previous influenza seasons from 2012/13 onwards and therefore illustrate activity levels in relation to previous ILI activity recorded in the GPIH system. **IILI thresholds presented in the maps should be interpreted with caution and reference made to other GP surveillance systems incorporating more historical data, which are available in the PHE National Influenza Report.**

  https://www.gov.uk/government/statistics/weekly-national-flu-reports

- The ILI thresholds have been calculated separately for each of the nine PHE Centres to allow for differences between areas e.g. background ILI rates are historically higher in London than other areas of England.

Acknowledgements:

We thank and acknowledge the University of Oxford, ClinRisk® and the contribution of EMIS and EMIS practices. Data source: version 1 of the QSurveillance® database.

We thank TPP, ResearchOne and the SystmOne GP practices contributing to this surveillance system.

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GP In Hours Syndromic Surveillance System Bulletin.

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