



Public Health  
England

Protecting and improving the nation's health

# HCAI Data Capture System User Manual

Counts or Rates of Infection Episodes Report

# About Public Health England

Public Health England exists to protect and improve the nation's health and wellbeing, and reduce health inequalities. It does this through world-class science, knowledge and intelligence, advocacy, partnerships and the delivery of specialist public health services. PHE is an operationally autonomous executive agency of the Department of Health.

Public Health England  
Wellington House  
133-155 Waterloo Road  
London SE1 8UG  
Tel: 020 7654 8000  
[www.gov.uk/phe](http://www.gov.uk/phe)  
Twitter: @PHE\_uk  
Facebook: [www.facebook.com/PublicHealthEngland](http://www.facebook.com/PublicHealthEngland)

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## Document History

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# Counts or Rates of Infection Episodes Report

## Introduction

The counts or rates of infection is a complex report, from which many of the standard reports (Monthly Summaries and Annual Summaries) run. The counts or rates report is available for all users.

This report presents the aggregate counts/rates of any of the data collections for a specified time period. A number of parameters are available for you to change so that you can view the data for a number of different combinations, including different time periods, frequencies and organisations

## Accessing the Counts or Rates of Infection Episodes Report

To open this report, click on 'Reports' from the Menu Toolbar to the left-hand side of the home screen, this will then expand to show you a list of reports, where you will find 'Counts or Rates of Infection Episodes'.

Figure 1: Menu Toolbar



Menu Toolbar
My Dashboard
Search
Case Capture
Data Upload Wizard
User Administration
<b>Reports</b>
Counts or Rates of Infection Episodes
Timeliness of CEO Sign-Off
Nil Returns
Line Listings
Find Duplicates
Quarterly Mandatory Laboratory Return (QMLR) Report
Standard Reports

## Counts or Rates of Infection Episodes Report Parameter Screen

When first landing on the counts or rates of infection episodes page a report, based on pre-set parameters, similar to Figure 2 will appear. Table 1 provides an overview of the report parameters and their impact on the counts or rates of infection episodes report.

Figure 2: Counts or Rates of Infection Episodes Parameters

Table 1: Counts or Rates of Infection Episodes: Report Parameters

Parameter	Comment	Parameter Type	Note
Period From and Period To	Changes the time period the data is shown for.	Date Selector	The default value for Period From will be 1 <sup>st</sup> day of the current month – 13 months. The default value for Period To will be today's date.  These dates can be altered by using either the calendar-style date picker or by typing in the date using the following format: DD/MM/YYYY.
Organisation Type	Changes the organisation type the report displays the data by.	Drop-down	The default value will be the organisation type that you are signed in as (e.g. if you are signed in as an NHS Trust user, it will show NHS Trust) but you are able to select any of the other options.
Summarisation Type	Changes the chart output to Count or Rate	Drop-down	The default is 'Count' but the data for this report can be displayed as either a Count or a Rate

Parameter	Comment	Parameter Type	Note
			<p>The rates calculated using KH03 bed days (NHS Trusts) presented in this report are slightly different to those published in the HCAI Official Statistics, presented in the quarterly epidemiological commentary, annual epidemiological commentary and annual tables.</p> <p>KH03 returns are published on a quarterly basis as an average value for a three month period. In the Official Statistics publications on gov.uk all rates produced by quarter, use the specific quarter in question to get the most accurate results.</p> <p>However, on the HCAI DCS, the KH03 occupied overnight bed days start off as a total for the relevant financial year. In order for the system to then calculate a rate for a given time period, the total for the financial year is divided by the number of days in the financial year and then multiplied by the number of days in the time period in question. As the data starts off as a financial year as opposed to a quarter, any seasonal differences in bed day values are removed and so the rates will be slightly different.</p> <p>The rates produced by the HCAI DCS should be used as an estimate only, please see the official outputs on the PHE gov.uk pages for the actual infection rates.</p>
Region	Changes the region that the data are presented for in this report.	Multi-select drop-down	The default value is the region you are signed in as. For example, if you are an NHS Trust user for the Calderdale and Huddersfield NHS Foundation Trust, the default region will be

Parameter	Comment	Parameter Type	Note
	These are the NHS Regions and an overall 'National' value.		the North of England.
Output Type	Changes whether the report is presented as a table or a chart	Drop-down	The default is Table.
Organisation	Changes the organisation for which this report presents data.	Multi-select drop-down  NB. The drop-down menu can be made larger, so that you can read the full name of the organisations, by clicking on and dragging the bottom right-hand corner to a wider point. 	The organisation drop down options are based on the organisation type and region that you have already selected, i.e. if you have selected NHS Trust for the Organisation Type and London for the Region, then all NHS acute Trusts in London will be available in the Organisation drop-down  The default organisation will be the organisation that you are signed into the system as. If you have access to multiple organisations of the same type, then all of the organisations will be selected as the default.
Data Collection	Changes which Data Collection the data is presented for in this report.	Drop-down	The default value is MRSA.
Limit Report To	Changes the data presented in the report according to location of onset or assignment	Drop-down	The options in this drop-down will depend on the Data Collection that you selected earlier.  <i>C. difficile</i> infection, MSSA and <i>E.coli</i> bacteraemia options: <ul style="list-style-type: none"> <li>• -All-</li> <li>• Hospital - onset</li> <li>• Community - onset</li> </ul> MRSA bacteraemia options:

Parameter	Comment	Parameter Type	Note
			<ul style="list-style-type: none"> <li>• -All-</li> <li>• Hospital - onset</li> <li>• Community - onset</li> <li>• Trust assigned</li> <li>• CCG assigned</li> <li>• Third Party assigned</li> </ul> <p>All Independent Sector data should only be viewed as '-All-' as they are not subject to apportionment by location of onset or the PIR process.</p>
Patient Age From and To	Provide the age range to be included in the data presented in this report.	Free-text numeric field.  Limited to values within 0 to 150 range.	<p>The default values will be 0 to 150 years.</p> <p>Of note, data presented in the Official Statistics outputs on the HCAI gov.uk pages only present data on <i>C. difficile</i> infection for patients aged <math>\geq 2</math> years of age.</p>
Denominator	Changes the denominator type used to calculate rates.	Drop-down	<p>This option is only available if Summarisation Type is set to Rate.</p> <p>The default value is dependent on the organisation type that you selected earlier.</p> <p>For NHS Trusts this will be 'KH03 occupied overnight beds (per 100,000)', for CCGs this will be 'Mid-year population (per 100,000)'. For Local Authorities, this is "Mid-year population (per 100,000)" where the numerator is calculated using the residents pathway and for Independent Sector Healthcare Providers this is 'IS bed days + discharges (per 100,000)'.</p> <p>For NHS Trusts, CCGs, Local Authorities and Independent Sector Healthcare Providers no other denominator type option is provided as the rates can only be calculated using these denominator types. These are</p>

Parameter	Comment	Parameter Type	Note
			<p>the base organisational units that the sub-national and national groups are made up from.</p> <p>For sub-national and national groups, the number of infections/bacteraemias are aggregated up through one of two routes; the reporting route – where the base unit is an NHS Trust and the infection/bacteraemia count for a sub-national group is aggregated by summing the total for all NHS Trusts that fall into in a particular geographical area, or the commissioning route – where the base unit is a CCG and the infection/bacteraemia count for a sub-national group is aggregated by summing the total for all CCGs within a particular geographical area.</p> <p>For example, NHS Regions will have their total number of infections/bacteraemias calculated by summing the total number of infections/bacteraemias for all CCGs that fall within their region, while the total number of infections/bacteraemias for a PHE Centre will be calculated by summing up the total number of infections/bacteraemias for all NHS Trusts that fall within their geographical area.</p> <p>However, the default denominator type presented by the HCAI DCS will be ‘Mid-year population (per 100,000)’ regardless of the default aggregation route for the number of bacteraemia/infections. Therefore, please note, that if you chose to calculate rates for PHE Centre or PHE Region</p>

Parameter	Comment	Parameter Type	Note
			<p>using the 'Mid-year population (per 100,000)' denominator (the default type presented), there will be a mismatch in the way that the numerator and denominator are aggregated from their base units.</p> <p>In order to match the numerator and denominator in rate calculations for PHE Centre or PHE Region, please use the drop-down menu to select 'KH03 occupied overnight beds (per 100,000)'. Please also note, that this denominator is a proxy for NHS Trust population, and is best used when calculating rates of Hospital - onset or Trust assigned cases of bacteraemia/infections.</p> <p>In addition, for all sub-national/national groups, there are alternative denominators available in the drop-down menu. However, please note that if you use 'KH03 occupied overnight beds (per 100,000)' for any of the organisation types on the commissioning pathway, this will again cause the mismatch between the aggregation routes for the numerator and denominator and rates calculated in this report should only be used as an estimate.</p> <p>Denominator values for Independent Sector Healthcare Provider Sites do not exist; IS bed days + discharges are provided at Provider level only. Therefore, please note, that while you can start to set the parameter values for Independent Sector Healthcare Provider Sites and rates, there are actually no Denominators available for this Organisation</p>

Parameter	Comment	Parameter Type	Note
			<p>Type and so the report cannot actually be run as a rate for this organisation type.</p> <p>Furthermore, no sub-national group rates should be calculated for the Independent Sector. The only rates that should be calculated for the Independent Sector are at Provider or National level.</p> <p>For more information, please see the Denominator User Guide.</p>
Denominator Period	Allows you to set the time period for the denominator.	Drop-down	<p>This will default to “Most applicable”, which means the system will automatically select the time period of the denominator to cover the Period From and To dates entered earlier. However, a specific denominator period can be selected if required, although if you want to look at rates over multiple years, the denominator will always be for the year selected, as opposed to matching the denominator with the numerators time period.</p> <p>This drop-down is only available if Summarisation Type is set to Rate</p> <p>For more information, please see the Denominator User Guide.</p>
Frequency	This changes the time period frequency (eg. Monthly, weekly, etc) that the data are presented as in this report.	Drop-down	The default is ‘Monthly’.
Signed Off	This changes the data that are	Drop-down	The default value in ‘-All-’. However, this filter allows you to see only those data that are

Parameter	Comment	Parameter Type	Note
	presented by this report with respect to whether the data shown in within a signed-off period or not.		included in signed-off periods, or conversely, those data that are in periods that have not been signed-off by the Trust CEO.
Entered After Sign-Off	This changes the data that are presented in this report with respect to whether the data were entered after a period had been initially signed of or not.	Drop-down	The default value is '-All-'. However, this filter allows you to exclude data that have only been entered after a period has been signed off, i.e. through the unlocking procedure, or those records entered before a period has been signed-off.
Sector	This changes the sector (i.e. NHS or Independent Sector) for which the data will be presented in this report.	Drop-down	<p>The default value is dependent on the Organisation Type selected earlier.</p> <p>If viewing data by Independent Sector Healthcare Provider or Independent Sector Healthcare Provider Site the default, and only option available, will be "Independent".</p> <p>If viewing the data by NHS Trust, then the default value, and only option, will be 'NHS'.</p> <p>However, if viewing the data for a CCG or sub-national/national group, the default value will be 'NHS but for these groups, the data can be filtered to include '-All-' (i.e. both NHS and Independent Sector cases) as well as only Independent Sector cases.</p>

Once you have selected your parameters, please click 'View Report' to run the report. The output will appear on the screen, as shown in Figure 3. You can then choose to review the report on screen by using the two scroll bars. Or you can export the report in one of four file types (PDF, CSV, Excel, Word). Please see Figure 4 and 5 for examples of the report outputs (Table and Chart, respectively) and see Figure 6 for more details on how to export the report.

## Counts or Rates of Infection Episodes Report Output: Screen View

Figure 3: Counts or Rates of Infection Episodes. Report Output: Screen View

**Counts or Rates of Infection Episodes**

Period From: 01/08/2014 | Period To: 07/09/2015 | **View Report**

Organisation Type: Public Health England Centre | Summarisation Type: Count

Region: NATIONAL | Output Type: Table

Organisation: ANGLIA AND ESSEX, AVON, GL | Data Collection: MRSA

Limit report to: -All- | Patient Age From: 0 | Patient Age To: 150

Denominator: Not Applicable | Frequency: Monthly

Denominator Period: Not Applicable | Entered After Sign-Off: -All-

Signed Off: -All- | Sector: NHS

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Public Health England

**Counts or Rates of Infection Episodes**

Region	NATIONAL	Data Collection	MRSA	Signed - Off	-All-
Organisation Type	Public Health England Centre	Period From	01/08/2014	Entered After Sign-Off	-All-
Organisation	-All-	Period To	07/09/2015	Limit report to	-All-
Denominator	Not Applicable	Patient Age From	0	Frequency	Monthly
Denominator Period	Not Applicable	Patient Age To	150	Summarisation Type	Count
Sector	NHS	Output Type	Table		

Organisation Name	Code	Aug-2014	Sep-2014	Oct-2014	Nov-2014	Dec-2014	Jan-2015	Feb-2015	Mar-2015	Apr-2015	May-2015
ANGLIA AND ESSEX	X25002AD	3	5	6	5	6	5	4	7	6	1
AVON, GLOUCESTERSHIRE AND WILTSHIRE	X25004AA	3	6	5	2	10	2	3	5	4	4

For a more detailed explanation of the highlighted icons please see Figure 6.

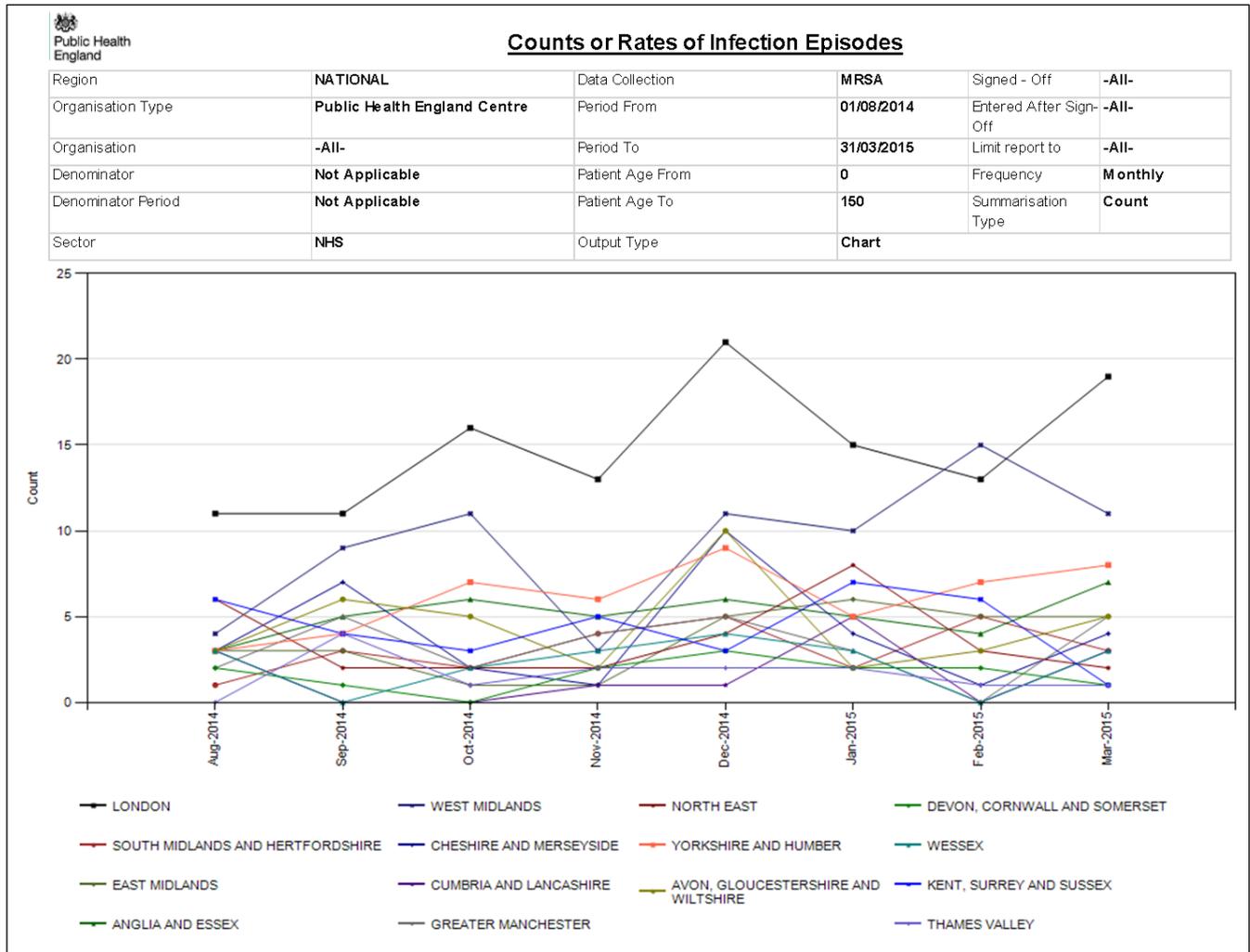
## Counts or Rates of Infection Episodes Report Output: Table

Figure 4: Counts or Rates of Infection Episodes. Report Output: Table

Public Health England										
<b>Counts or Rates of Infection Episodes</b>										
Region	NATIONAL		Data Collection			MRSA	Signed - Off		-All-	
Organisation Type	Public Health England Centre		Period From			01/08/2014	Entered After Sign-Off		-All-	
Organisation	-All-		Period To			31/03/2015	Limit report to		-All-	
Denominator	Not Applicable		Patient Age From			0	Frequency		Monthly	
Denominator Period	Not Applicable		Patient Age To			150	Summarisation Type		Count	
Sector	NHS		Output Type			Table				
Organisation Name	Code	Aug-2014	Sep-2014	Oct-2014	Nov-2014	Dec-2014	Jan-2015	Feb-2015	Mar-2015	Total
ANGLIA AND ESSEX	X25002 AD	3	5	6	5	6	5	4	7	41
AVON, GLOUCESTERSHIRE AND WILTSHIRE	X25004 AA	3	6	5	2	10	2	3	5	36
CHESHIRE AND MERSEYSIDE	X25003 AA	3	7	2	1	10	4	1	4	32
CUMBRIA AND LANCASHIRE	X25003 AC	3	0	0	1	1	5	0	3	13
DEVON, CORNWALL AND SOMERSET	X25004 AC	2	1	0	2	3	2	2	1	13
EAST MIDLANDS	X25002 AC	3	3	1	1	5	6	5	5	29
GREATER MANCHESTER	X25003 AD	2	5	2	4	5	3	0	5	26
KENT, SURREY AND SUSSEX	X25004 AE	6	4	3	5	3	7	6	1	35
LONDON	X25001 AA	11	11	16	13	21	15	13	19	119
NORTH EAST	X25003 AE	6	2	2	2	4	8	3	2	29
SOUTH MIDLANDS AND HERTFORDSHIRE	X25002 AA	1	3	2	4	5	2	5	3	25
THAMES VALLEY	X25004 AF	0	4	1	2	2	2	1	1	13
WESSEX	X25004 AD	3	0	2	3	4	3	0	3	18
WEST MIDLANDS	X25002 AE	4	9	11	3	11	10	15	11	74
YORKSHIRE AND HUMBER	X25003 AF	3	4	7	6	9	5	7	8	49
<b>Total</b>		<b>53</b>	<b>64</b>	<b>60</b>	<b>54</b>	<b>99</b>	<b>79</b>	<b>65</b>	<b>78</b>	<b>552</b>

## Counts or Rates of Infection Episodes Report Output: Chart

Figure 5: Counts or Rates of Infection Episodes. Report Output: Chart



Please note that the chart will be produced whether you include one organisation or >200 organisations. The charts will become unclear if you include too many organisations. If you wish to look at many organisations at once, the table output will be clearer.

## Counts or Rates of Infection Episodes Report Icons

Figure 6: Counts or Rates of Infection Episodes Report Icons

