



Public Health  
England

Protecting and improving the nation's health

# ICU Data Capture System User Guide

Case Capture Denominators

# About Public Health England

Public Health England exists to protect and improve the nation's health and wellbeing, and reduce health inequalities. We do this through world-leading science, research, knowledge and intelligence, advocacy, partnerships and the delivery of specialist public health services. We are an executive agency of the Department of Health and Social Care, and a distinct delivery organisation with operational autonomy. We provide government, local government, the NHS, Parliament, industry and the public with evidence-based professional, scientific and delivery expertise and support.

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](https://twitter.com/PHE_uk)  
Facebook: [www.facebook.com/PublicHealthEngland](https://www.facebook.com/PublicHealthEngland)

For queries relating to this document, please contact: [ICCQIP.surveillance@phe.gov.uk](mailto:ICCQIP.surveillance@phe.gov.uk)



© Crown copyright 2020

You may re-use this information (excluding logos) free of charge in any format or medium, under the terms of the Open Government Licence v3.0. To view this licence, visit [OGL](https://www.ogil.io). Where we have identified any third party copyright information you will need to obtain permission from the copyright holders concerned.

Published October 2020

PHE supports the UN  
Sustainable Development Goals



# Document History

Revision Date	Author	Version
02/07/2018	Public Health England	1.0
06/10/2020	Public Health England	1.1

# Contents

About Public Health England	2
Document History	3
Introduction	5
'ICU Monthly Census' Tool	5
'ICU Daily Census' Tool (formerly 'Daily Bed Census' Tool)	8
Amending and Deleting Denominator Data	10

# Introduction

Denominator data allows rates of positive blood cultures, blood stream infections (BSI) and Central Venous Catheter (CVC) -BSI to be calculated. Participating units are required to submit denominator data from their unit for each month.

Denominator data can be submitted to the ICU DCS in one of two ways:

## ICU Monthly Census:

- Entering the aggregate totals summed over all of the beds in the unit for the full month (i.e. monthly at unit level)
- To be completed at the end of every month
- Or can be calculated automatically from ICU Daily Census (see below) by the ICU DCS

## ICU Daily Census:

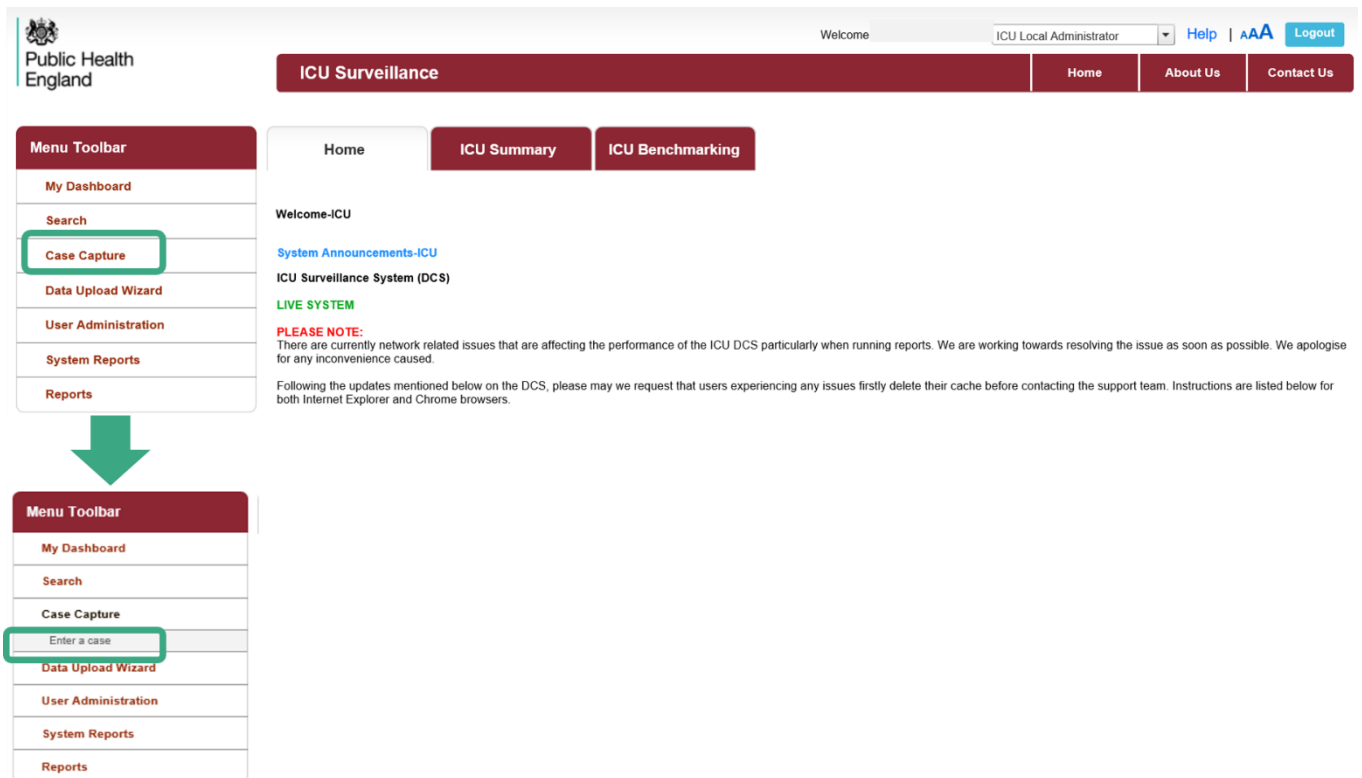
- Entering daily aggregate totals summed over all of the beds in the for a single day (i.e. daily at unit level)
- To be completed at the same time every day (preferably at midnight)
- Provides detailed daily data and the automatic aggregation to a monthly total for the unit, regardless of how many days have been entered onto the ICU DCS, allows units who cannot calculate complete unit level data for a whole month to provide us with estimates of activity for the calendar month

NOTE: The ICU DCS and ICCQIP surveillance team require a monthly denominator value for rates calculations. This can come directly from the ICU Monthly Census or, if data is entered via the ICU Daily Census, a value for the whole month is calculated based upon how many days have been entered. If BOTH the ICU Monthly Census and ICU Daily Census have been reported by a unit, then the ICU Monthly Census values will take priority and be used to calculate rates on the system. Therefore, it is mandatory that either the ICU Monthly Census or ICU Daily Census are completed, but only one of them is required.

## 'ICU Monthly Census' Tool

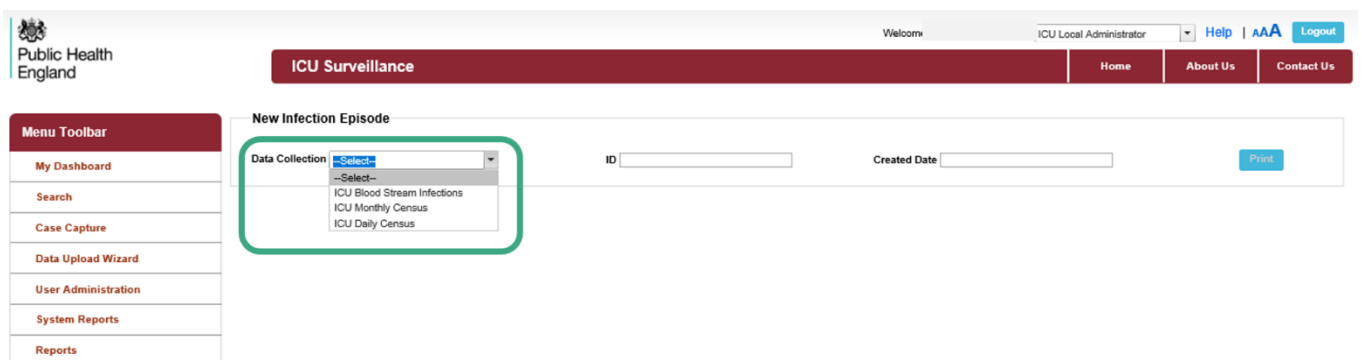
The Denominator options can be accessed via the 'Case Capture' tab on the Dashboard screen followed by selecting the type of denominator in the drop down box (Figure 1).

Figure 1: Accessing the denominator case capture screens



This will redirect you to the 'Data Collection' screen, where you can select the denominator type you wish to enter (Figure 2).

Figure 2: Data Collection selector



Dependent on the data collection selected, the system will navigate you to the relevant case capture screen, focussing on the 'ICU Monthly Census' the DCS will navigate you to the Episode Details screen (Figure 3).

**Figure 3: 'ICU Monthly Census' Episode Details screen**

Initially you will be prompted to enter the 'Critical care unit' (your unit should be listed as the default, but if you have more than one unit you can enter data for you will need to select from the drop-down list provided) and 'Time period' – this is month and year for ICU Monthly Census.

Once this Episode Details screen is completed, select 'Next'. This will take you to the next tab where you can enter the actual denominator data (Figure 4).

**Figure 4: 'ICU Monthly Census' Monthly Summary screen**

Field Label	Mandatory (*)	Sign-off Mandatory (#)
Total number of occupied patient days in the unit for the month	Yes	Yes
Total number of CVC days in the unit	No	Yes
Total number of occupied patient days in the unit, restricted to include only patients in the unit for >2nights	Yes	Yes
Total number of CVC days in the unit, restricted to include those in patients in the unit for >2nights	Yes	Yes
Total number of blood culture sets taken for the unit	Yes	Yes

All but one of the fields on this screen are marked as #, denoting mandatory for sign-off. Ideally, all fields in this section should be completed to allow all possible rates to be calculated. Total CVC days is not currently mandatory for sign-off as it was not on the legacy ICU DCS and was

only introduced in October 2018. However, this data is very useful so if possible, please do provide it even though it is an optional field.

## 'ICU Daily Census' Tool (formerly 'Daily Bed Census' Tool)

The data collection for the ICU Daily Census should be carried out at the same time every day, ideally at midnight.

To enter information using this method:

- Select 'ICU Daily Census' from the drop down menu (Figure 2), this will navigate you to the Episode Details screen for the ICU Daily Census (Figure 5)
- Complete the 'Critical care unit' – if you are only able to enter data for a single unit, this will be pre-completed for you. However, if you are able to enter data for more than one unit, you will need to select from the drop-down list provided. The list will be restricted to only those units you have the permissions to enter data for.
- Enter the date for the ICU Daily Census using the 'Data Collection Date' field. You can do this either by selecting the calendar next to the field, and a calendar picker will pop-up (Figure 5), or you can enter this directly in the format dd/mm/yyyy. Please note that if a data entry already exists for the date entered, a duplicates warning will pop up to inform you of this. Only one entry per day per unit is possible as these data are for the entire unit and day. If you need to amend values for a previously entered date, please use the Search functionality to find the relevant entry and amend from there (see below).
- Click 'Next', the ICU DCS will navigate you to the next screen.
- The 'ICU Daily Census' data can then be entered (Figure 6)



Figure 5: 'ICU Daily Census' Episode Details screen

**New Infection Episode**

Data Collection: ICU Daily Census ID: \_\_\_\_\_ Created Date: \_\_\_\_\_ Print

---

**Episode Details** Daily Census


**!** Mandatory fields are marked with red asterisk (\*)  
Mandatory for Sign Off fields are marked with red hash (#)

**Organisation Details \*#**

Critical care unit: PUBLIC HEALTH ENGLAND #

Data Collection Date: \_\_\_\_\_ # Calendar Icon

Next Cancel



**Data Collection Date** # \_\_\_\_\_ Calendar Icon

June 2020						
M	T	W	T	F	S	S
22	25	26	27	28	29	30
23	1	2	3	4	5	6
24	8	9	10	11	12	13
25	15	16	17	18	19	20
26	22	23	24	25	26	27
27	29	30	1	2	3	4

Figure 6: 'ICU Daily Census' Daily Census screen

**New Infection Episode**

Data Collection: ICU Daily Census ID: \_\_\_\_\_ Created Date: \_\_\_\_\_ Print

---

**Episode Details** Daily Census

**!** Mandatory fields are marked with red asterisk(\*)  
Mandatory for Sign Off fields are marked with red hash(#)

**Unit Census#**

How do you wish to enter your denominator data? # Daily Unit Census

Total number of patients in the unit # \_\_\_\_\_

Total number of patients in the unit with >= 1 CVC \_\_\_\_\_

Number of patients in the unit for >2nights # \_\_\_\_\_

Of the number of patients in the unit for >2nights, what number of patients have >=1 CVC # \_\_\_\_\_

Total number of blood culture sets taken for all patients in the unit # \_\_\_\_\_

Cancel Save

It is important to note that regardless of the method used to submit denominator data, the only mandatory information required by the surveillance programme are the following monthly totals:

- Total number of patients in the unit
- Total number of patients in the unit for >2 nights
- Of the patients in the unit for >2 nights, the number with ≥1 CVC

- Total number of blood culture sets taken

## Amending and Deleting Denominator Data

If denominator data is entered in error, the record can be deleted or amended. This needs to be done via the Search screen (Figure 7).

- Select 'Search' from the right-hand side menu to search for a denominator record
- Select 'ICU Denominators' in 'Condition' parameter
- Select the specific denominator type in 'Data Collection' parameter
- Ideally, enter the date that needs to be entered (or date range if trying to identify a Monthly Census record)
- Click 'Find'

**Figure 7: Searching for a denominator case**

The screenshot shows the 'Search Infection Episodes' interface. On the left is a 'Menu Toolbar' with 'Search' highlighted. The main form contains various search criteria. The 'Condition' dropdown is set to 'ICU Denominators' and the 'Data Collection' dropdown is set to 'ICU Monthly Census'. The 'Find' button is highlighted in the bottom right corner. Below the form is a table header with columns: Condition, Data Collection, ID, Data Collection Date, Region, and Organisation. The table currently shows 'There are no records to display'.

More parameters can be entered to narrow down your search. All the records meeting these search criteria will be listed. The record of interest can then be amended or deleted.

To amend a case, click the 'View' option for a particular case (Figure 8).

**Figure 8: Amending a denominator entry**

		Condition	Data Collection	ID	Data Collection Date	Time Period
		(All)	(All)	(All)		
<b>View</b>	<input type="checkbox"/>	ICU Denominators	ICU Monthly Census	908823	31-Jul-2019	July 2019
<b>View</b>	<input type="checkbox"/>	ICU Denominators	ICU Monthly Census	904650	30-Jun-2019	June 2019
<b>View</b>	<input type="checkbox"/>	ICU Denominators	ICU Monthly Census	903190	31-May-2019	May 2019
<b>View</b>	<input type="checkbox"/>	ICU Denominators	ICU Monthly Census	903186	30-Apr-2019	April 2019
<b>View</b>	<input type="checkbox"/>	ICU Denominators	ICU Monthly Census	903188	31-Mar-2019	March 2019

This will allow you to view the existing entry and make any amendments (Figure 9).

Please ensure that you are about to make changes to the correct denominator data by confirming 'Organisation Details' (Critical care unit and Time Period/Data Collection Date) under 'Episode Details' tab by clicking on 'Save' (Figure 9), after which you will be redirected to 'Monthly Summary'/'Daily Census' tab, where the data in individual fields can then be amended and re-saved with the new values ('Monthly Census' example in Figure 10).

The denominator data can be amended by directly clicking in the box and amending the data. Once changes have been made, these need to be saved using the 'Save' option in the bottom right of the page.

**Figure 9: Amending denominator data, episode details**

Manage Infection Episode

Data Collection: ICU Monthly Census    ID: 908823    Created Date: 29-Jul-2019    **Print**

Episode Details    **Monthly Summary**

**!** Mandatory fields are marked with red asterisk (\*)  
Mandatory for Sign Off fields are marked with red hash (#)

**Organisation Details \*#**

Critical care unit    **#**    RN5 - BNNH ICU

Time Period    **#**    July 2019

**Cancel**    **Save**

**Figure 10: Amending denominator data, monthly summary**

✔ Episode Details
✔ Monthly Summary

! Mandatory fields are marked with red asterisk(\*)  
Mandatory for Sign Off fields are marked with red hash(#)

# Monthly Summary#

Total number of occupied patient days in the unit for the month	#	<input style="width: 80%;" type="text" value="277"/>
Total number of CVC days in the unit		<input style="width: 80%;" type="text" value="113"/>
Total number of occupied patient days in the unit, restricted to include only patients in the unit for >2nights	#	<input style="width: 80%;" type="text" value="188"/>
Total number of CVC days in the unit, restricted to include those in patients in the unit for >2nights	#	<input style="width: 80%;" type="text" value="84"/>
Total number of blood culture sets taken for the unit	#	<input style="width: 80%;" type="text" value="3"/>

Cancel
Save

Deleting cases can be done from the main search page. Once search details have been entered (Figure 7), the relevant records will be shown. Next to each record is a tick box, once at least one record's tick box has been checked, the 'Delete' button on the bottom right-hand side of the screen will become enabled (Figure 11). You can then click on 'Delete' to delete the selected case(s).

Please note that this is a permanent change to the database and once a record is deleted it cannot be retrieved. If a record was deleted in error, it will need to be re-entered again.

**Figure 11: Deleting a case**

	■	Condition	Data Collection	ID	Data Collection Date	Time Period	Region	Organisation
		<input type="text" value="(All)"/>	<input type="text" value="(All)"/>	<input type="text" value="(All)"/>			<input type="text" value="(All)"/>	<input type="text" value="(All)"/>
View	<input checked="" type="checkbox"/>	ICU Denominators	ICU Monthly Census	908823	29-Feb-2020	February 2020	SOUTH OF ENGLAND	RN5 - BNNH ICU
View	<input type="checkbox"/>	ICU Denominators	ICU Monthly Census	904650	30-Jun-2019	June 2019	SOUTH OF ENGLAND	RN5 - BNNH ICU
View	<input type="checkbox"/>	ICU Denominators	ICU Monthly Census	903190	31-May-2019	May 2019	LONDON	RRV - WESTMORELA
View	<input type="checkbox"/>	ICU Denominators	ICU Monthly Census	903186	30-Apr-2019	April 2019	LONDON	RRV - WESTMORELA
View	<input type="checkbox"/>	ICU Denominators	ICU Monthly Census	903183	31-May-2019	May 2019	LONDON	RRV - T3 ICU UCLH
View	<input type="checkbox"/>	ICU Denominators	ICU Monthly Census	903181	30-Apr-2019	April 2019	LONDON	RRV - T3 ICU UCLH
View	<input type="checkbox"/>	ICU Denominators	ICU Monthly Census	903178	31-May-2019	May 2019	LONDON	RRV - NHNN MITU AI
View	<input type="checkbox"/>	ICU Denominators	ICU Monthly Census	903176	30-Apr-2019	April 2019	LONDON	RRV - NHNN MITU AI

Page: 1 of 12 Go
Page size: 25 Change
Item 1 to 25 of 280

Cancel
Delete
New Infection Episode