National PLICS Portal v2.0: user guide

July 2019
We support providers to give patients safe, high quality, compassionate care within local health systems that are financially sustainable.
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Contact costing@improvement.nhs.uk for further queries or support on the National PLICS Portal
Introduction

What is the National PLICS Portal?

The National PLICS Portal is a Tableau-based tool that analyses patient-level information and costing (often referred to as PLICS) data. The portal enables NHS providers to analyse the key drivers of their cost variation at a very granular level of detail. It lets providers compare costs with their peers on several levels, and to identify opportunities to improve productivity.

We are committed to making PLICS data available as quickly as possible to the providers that supplied it, so they can use the data. However, this speedy release does mean there are some caveats:

- The data in the National PLICS Portal is officially pre-published and should be used for management purposes only (supporting the day-to-day management and operation of an organisation or for decision making).
- Please use this data with caution at this stage.

For further information, please refer to the terms and conditions dashboard within the portal.

Dataset

All patient data is pseudonymised so users will not be able to identify patients directly. Each user will only be able to see (pseudonymised) information about patients who have used services provided by their organisation. We are working with NHS Digital on a reidentification service for future versions of the portal.

The portal connects nationally collected PLICS data and combines it with hospital episode statistics (HES) data to enable in-depth benchmarking of costs, patient outcomes reporting, patient-level activity analysis, patient pathway analysis and more. It has been built using Tableau and was developed as part of our costing transformation programme (CTP).
Accessing the portal

Access to the portal is via our website’s identity management service, OKTA. This acts as a central entrance point to many of our existing tools including the Model Hospital. To access the log-in, click on ‘My account’ at the top right of the NHS Improvement home page (https://improvement.nhs.uk/).

At the log-in page, enter your username and password:

If you don’t have log-in details, please contact costing@improvement.nhs.uk

You must agree to the terms and conditions before continuing to the portal.
You are granted access to use the National PLCIS Portal. You must agree to the terms and conditions to use the portal.

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If you wish to re-use any data from the National PLCIS Portal for any purpose you must ask for specific permission. Applications for use should be submitted by sending an email to data@hscic.gsi.gov.uk

Freedom of Information Act 2000

If you require a report for information under the Freedom of Information Act 2000 which would include data obtained from National PLCIS Portal, you must inform us of the request and proposed response, allowing us sufficient time to provide you with our view on disclosure. The rules on suppression of small numbers will still be applicable. NHS Improvement reserves the right to undertake an audit to ensure that all terms and conditions are being adhered to.

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You must keep it appropriately restricted. You may share with your peers where access to this data has been granted.

You may use it in reports as an indicator.

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- Use it in any publication or listing of data.
- Use it in any report or presentation.
- Use it in any public statement, cause or case file.
- Use it to influence the timing or content of publications, including methods and definitions.
- Circulate it or allow it to be circulated beyond the people to whom access has been granted.

NHS Improvement must be immediately notified of any suspected or known accidental or wrongful release of data. Access may be suspended pending response and may result in the incident being reported to your organisational lead for IT or the National Statistician. Either may lead to an official inquiry and may affect the availability of data. Release includes indicators of content, such as “successful” or “unsuccessful.” Contact: data@nhs.uk for further advice.

For any questions about these terms and conditions of use please feel free to email: data@nhs.uk
Using the portal and available reports

General use

Filters: The tool’s interactive reports contain filters. These allow users to customise the report to fit their individual needs and drill down into specific data. Once a filter is selected, the graphs will update to reflect a user’s specifications. You can also filter the data by clicking on the data marks within a graph or a table.

Tooltips: Additional data details that display when you hover over one or more marks in the view. Tooltips also include options to filter marks (exclude or keep only), display marks that have the same values, create groups, create sets.

Highlighting: When you click on a graph or a legend for a graph, all of the graphical elements that are associated with that data point will be highlighted. To remove the highlighting, click again (sometimes twice) on the same graphical element.

Sort: Lets you change the order in which the data is displayed in a view

Navigating the reports

Tabs: Each report contains the navigation tabs across the top of the screen, to move to a different report, just click on the tab.

Other functions

Buttons

A range of buttons appear above an interactive report. See below for what they do, and how you can use them:

Undo and Redo: You can perform unlimited undo and redo of your actions. You can undo almost all actions in Tableau by pressing the Undo button on the
Using the portal and available reports toolbar. Likewise, you can redo almost all actions by pressing the Redo button on the toolbar.

**Revert:** This button allows the user to clear all filters and view the original report.

**Refresh:** If you have made changes while the dashboard has been paused, clicking on refresh will apply those changes.

**Original View:** This can be used to select from pre-set views that you have created or that have been publicly shared by another user. You can also use this feature to create a personalised view.

To create a view, you should:

- make all filter selections throughout the dashboard,
- click on the views icon "Original View",
- enter a name for your view, and
- save your changes.

**Share:** This button allows you to share the view you have created of the dashboard. You can copy and paste the link into an email or just click icon to email the link.

**Download:** This button allows the user to export the report and its data.

- PDF: A user can download the current dashboard or the entire report as a PDF, allowing you to print what you see.
- Image: This allows a user to save an image of the current graph (i.e. with current filters applied).
- Data: The data feeding the report will open in a new window. This data can then be downloaded as a text file.
- Crosstab: Transfer the data from the dashboard into Excel by selecting any of the data from the report.
Pause/Resume: As you interact with a report, you may find the report takes some time to update any changes made with a filter. Use the “Pause” button to pause those changes from occurring as you update the filters. Once you have selected all filters you desire, click the “Resume” button to update the report.

Selecting your parameters

Peer selection

Using the portal and available reports

Select your provider

<table>
<thead>
<tr>
<th>Potential cost opportunities</th>
<th>Activity and resource</th>
<th>Key metrics</th>
<th>High cost patients</th>
<th>Value for money assessment</th>
<th>Footnote</th>
</tr>
</thead>
</table>

Select your peers

1. Select your provider using the Select your provider filter.
2. Select your peer providers in the Select your peers filter. You will need to click on the box next to each provider you want to include in the comparison and then click the ‘Apply’ button to apply the filters. You MUST include your own provider in this selection. If you do not do this, you will not see any data.

This is where you select your provider and peer providers for comparison.

Selections are made using the filters to the left (these selections will apply to all reports). The steps to follow are:

1. Select your provider using the Select your provider filter.
2. Select your peer providers in the Select your peers filter. You will need to click on the box next to each provider you want to include in the comparison and then click the ‘Apply’ button to apply the filters. You MUST include your own provider in this selection. If you do not do this, you will not see any data.
3. You can narrow down the list of peers to choose from by using Filter peers by trust region, Filter peers by trust size, and Filter peers by trust type.

4. Select the financial year you are interested in.

5. Select whether to include or exclude the market forces factor (MFF) from all calculations. By default, MFF will be included but you can use this filter to choose between the two options.

You can return to ‘Peer selection’ at any time to change your provider, peers, financial year, etc.

**Costing Assessment Tool (CAT) score**

On the bottom of the report is a list of selected providers, their total cost and their CAT score. The CAT score reflects the quality of the provider PLICS submissions and how well they have implemented the approved costing guidance.¹ This should help you to make a more informed decision about which peers to select.

¹ [https://improvement.nhs.uk/resources/approved-costing-guidance/](https://improvement.nhs.uk/resources/approved-costing-guidance/)
Summary of standard reports

PLICS potential cost opportunities

This updated cost opportunities report shows the potential cost opportunity compared to your peers, based on the selected dimension. You can see the overall opportunity for your provider, broken down into the opportunities by TFC (Treatment Function Code) and by HRG (Healthcare Resource Group). Also available in this report is a graphical representation of your total cost/activity as well as that of your peers. All calculations are casemix-adjusted and follow our potential cost opportunity (PCO) formula for calculating opportunity (see box overleaf).

To see details at the Collection Activity and Collection Resource-level, then you will need to left-click on a given HRG from the ‘HRG code’ column in the Potential Cost Opportunity by HRG section (in the bottom-half of the screen). This will open a pop-up (see image below). Clicking on the ‘click here to see activity and resource breakdown’ will take you through to the Activity and Resource breakdown for the

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2 Casemix-adjusted means the calculation only looks at episodes or attendances, on an HRG code basis, that have been performed at both your trust and peers. For example, if you have performed activity for HRG WF01B and your peers have not, this will not be included in the calculation – and vice versa.
selected HRG. You will be able to see the selection within the Activity and Resource breakdown report (see section below for further details).

PLICS PCO calculation

The PLICS potential productivity opportunity (PCO) calculation shows potential financial opportunity by comparing your provider’s cost mean with that of your selected peers. The formula for this is:

\[ \text{MIN}((\text{Trust mean} - \text{Peer mean}) \times \text{Trust total no of epis}, 50\% \times \text{Trust total cost}) \]

eg of your trust mean of the HRG LB15E is £67,990 vs a peer mean of £5,834, and you have a total of 8 episodes, the trust mean minus the peer mean multiplied by the trust total number of episodes equals £497,248. However as 50% of the trust total cost (for the selected HRG) is £271,962, and this is the lower figure of the two (£497,248 and £271,962) then this is the given Cost Opportunity for the selected HRG (LB15E) for the trust.
Activity and Resource Breakdown

This is a new reporting functionality on the National PLICS Portal. You are now able to see the collection activity and collection resource breakdown of a selected HRG. The breakdown you can see below is for the selected HRG: LB15E. The way in which the report is laid out compares your provider’s Collection Activity cost breakdown with that of your peers, and also compares your provider’s Collection Resource breakdown with that of your peers. At the bottom of the report you can see the same information broken down in a tabular format, where you can see, for example, the benchmarked trust spending £3.70 more than its peers on Ultrasound activity per episode.

You can also see this information in a matrix format by clicking on the ‘click to view and download activity and resource matrix’ button from the top right of the report.
Key Metrics

This is a new reporting functionality on the National PLICS Portal.

You are now able to see data for 8 key metrics, comparing yourself to your peers:

1) Average inpatient days (APC) – Length of Stay
2) Average emergency department minutes
3) Average outpatient minutes
4) Average theatre minutes
5) Average pathology cost
6) Average pathology count
7) Average imaging cost
8) Average imaging count

Currently you are only able to see the key metric breakdown for individual collection activities through the ‘Activity and Resource’ report. You do this by left-clicking on the collection activity within the Activity and Resource table on the bottom left of the report. See the example of ‘Haematology’ below:

If you click on ‘click here to see key metrics for Haematology’, you will be taken through to the key metrics report, solely for the Haematology breakdown of the selected HRG.
Reports still being developed

We will continue to develop the portal to help enhance the user experience. To suggest new reports, please email NHS Improvement’s costing team at costing@improvement.nhs.uk
Glossary of key terms

**Casemix-adjusted** – This means that the calculation takes into account variation in patient type and only compares like-for-like activity. Casemix-adjusted means the calculation only looks at episodes or attendances, on an HRG code basis, that have been performed at both your and peer trusts. For example, if you have performed activity for HRG WF01B and your peers have not, this will not be included in the calculation – and vice versa. Similarly, if your peers have activity for HRG WF01B but your trust has not, this will not be taken into account in the calculation.

**Costing Assessment Tool (CAT) score** – This score reflects the quality of the provider PLICS submissions and how well they have implemented the approved costing guidance.

**Potential cost opportunity** – This calculation shows the financial opportunity that could be had if your providers’ cost per episode or attendance was the same as the average of your peers. The formula for this calculation is:

- \[ \text{MIN} ((\text{Trust mean} - \text{Peer mean}) \times \text{Trust total no of epis}), 50\% \times \text{Trust total cost}) \]

If the value is positive, it means that potential savings opportunities exist; i.e. you are more costly than your peers on an episode/attendance basis.