

# Implementation guidance for Patient-level information and costing systems (PLICS) Ambulance data set

Ref Code DCB2123-02 Amd 38/2020  
Version 1.0



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# Data Coordination Board

This information standard (DCB2123-02) has been approved for publication by the Department of Health and Social Care under [section 250 of the Health and Social Care Act 2012](#).

Assurance that this information standard meets the requirements of the Act and is appropriate for the use specified in the specification document has been provided by the Data Coordination Board (DCB), a sub-group of the Digital Delivery Board.

This information standard comprises the following documents:

- Standard Specification
- Implementation Guidance.

An Information Standards Notice (DCB2123-02 Amd 38/2020) has been issued as a notification of use and implementation timescales. Please read this alongside the documents for the standard.

The controlled versions of these documents can be found on the [NHS Digital website](#). Any copies held outside of that area, in whatever format (e.g. paper, email attachment), are considered to have passed out of control and should be checked for currency and validity.

Date of publication: 15 December 2020

# Support

1. All enquiries regarding implementation of the patient-level costing information standard or change requests should be directed to NHS England and NHS Improvement's<sup>1</sup> costing team by emailing [costing@improvement.nhs.uk](mailto:costing@improvement.nhs.uk) with the subject 'Patient-level costing Information Standard' or via their telephone surgeries<sup>2</sup>.
2. Detailed instructions and guidance, including guidance on costing approaches and methodologies and submission information, will be updated annually as part of NHS England and NHS Improvement's [Approved Costing Guidance \(ACG\)](#).

<sup>1</sup> From 1 April 2019, NHS England and NHS Improvement are working together as a new single organisation to better support the NHS to deliver improved care for patients and so this document will refer to the organisation responsible for the costing transformation programme as 'NHS England and NHS Improvement.' Some references will remain to 'NHS Improvement' however (for example for historical or legal purposes where it is still appropriate to use 'NHS Improvement').

<sup>2</sup> Costing standards surgery: 020 3747 0632 - Thursday 9.30am to 1.00pm, and Monday 2.00pm to 5.00pm  
Cost collection surgery: 020 3747 0668 - Monday and Wednesday 2.00pm to 4.00pm

# Purpose and overview

## Purpose

3. The purpose of this document is to provide guidance on how to implement the patient-level information and costing systems (PLICS) Information Standard, and any changes resulting from its release. It should be read in conjunction with the Specification<sup>3</sup> for the Information Standard. This Implementation Guidance provides:
  - general guidance on how to implement patient-level costing
  - sector-specific guidance on:
    - the activity which could be costed at a patient level<sup>4</sup>
    - details of the trusts expected to report at a patient level.<sup>5</sup>
4. It aims to provide clarity on particular aspects of the information standard, support new or amended processes and changes to human behaviour and systems to become embedded. Ultimately, its aim is to facilitate successful implementation and use of the Standard in all settings and by all organisations to which it applies.
5. The target audience for the document is those staff implementing a patient-level information and costing system (PLICS), including heads of information, senior officers such as directors of finance and medical directors, and key members of a trust's own PLICS project team.
6. The [Approved Costing Guidance \(ACG\)](#) provides detail about the introduction of patient-level costing, including support for implementing systems, guidance

<sup>3</sup> <https://digital.nhs.uk/data-and-information/information-standards/information-standards-and-data-collections-including-extractions/publications-and-notifications/standards-and-collections/patient-level-information-and-costing-systems>

<sup>4</sup> For services covered by the [costing mandate project](#)

<sup>5</sup> Because of the breadth of services provided by organisations, NHS Improvement will be publishing details of which NHS organisations will be expected to submit patient-level costing under which sector.

on implementing the *Approved Costing Guidance - Standards* (costing standards) and data quality tools.

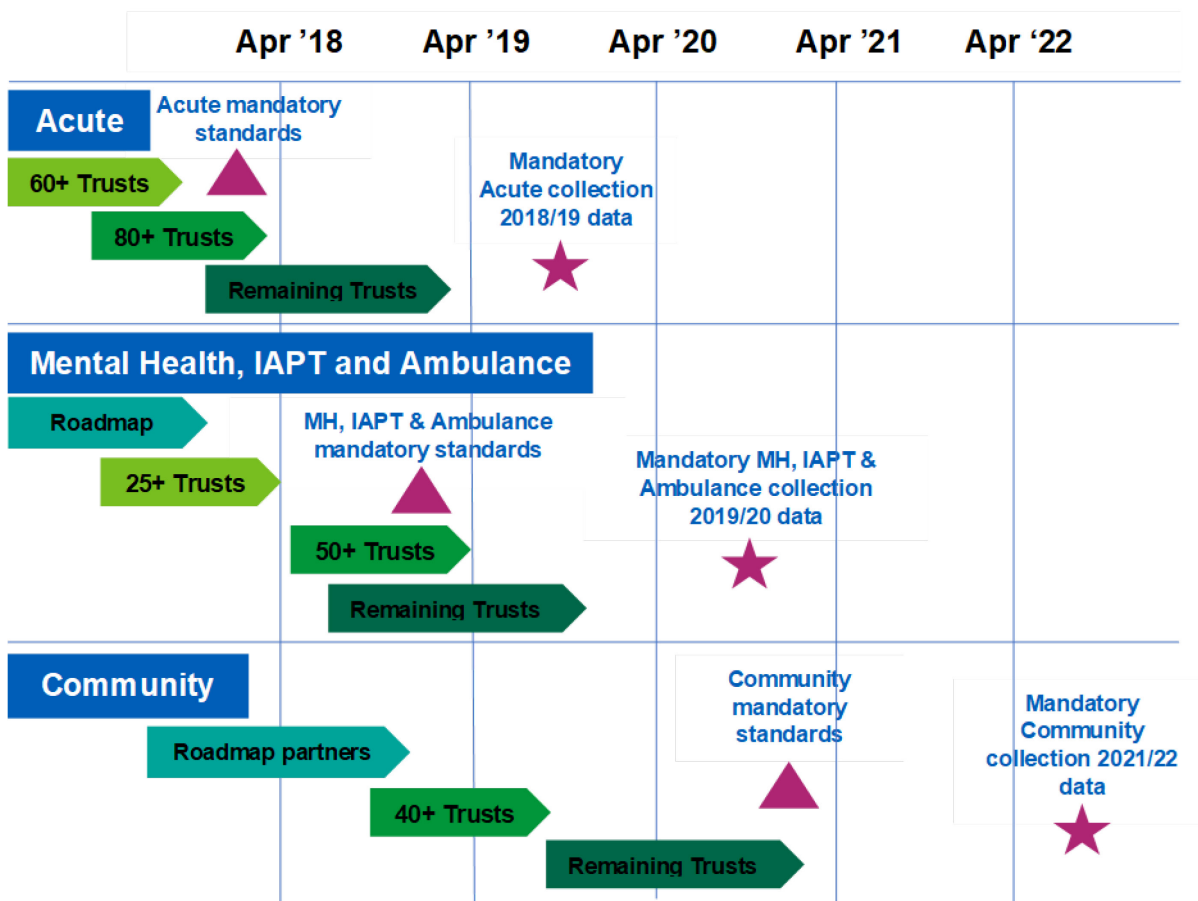
7. This Implementation Guidance will be updated annually, along with the specification guidance, as part of the annual update of the [ACG](#).

## Overview

8. Patient-level costing is being rolled out by sector, starting with acute services at acute trusts in 2018/19 and extending to mental health and 999 ambulance services from 2019/20<sup>6</sup>. This will allow NHS England and NHS Improvement to work with trusts in each sector and support providers as they implement the new costing processes.
9. The first mandated collection of ambulance activity will take place in January 2021 of data pertaining to financial year 2019/20.
10. For 2017/18 NHS Digital ran a pilot, voluntary collection where all 7 invited ambulance trusts submitted and for FY 2018/19 NHS England and NHS improvement conducted an in-house voluntary collection for which 4 trusts successfully submitted.
11. Figure 1 shows the proposed timetable for the move to patient-level costing across all sectors.

<sup>6</sup> [NHS England and NHS Improvement Costing Mandation Project](#)

Figure 1: Proposed timetable for move to patient-level costing by sector



12. A [proposed mandation timetable](#), subject to the completion of the required impact assessment and consultation (under the Health and Social Care Act 2012) has been published on the NHS England and NHS Improvement website. This will be updated regularly as part of the [costing mandation project](#). If you have any queries regarding this, please contact [costing@improvement.nhs.uk](mailto:costing@improvement.nhs.uk).

13. Specific details on submissions, including timetables and deadlines are published in the [Volume 7](#) of the National Cost Collection Guidance. To keep up to date with proposals, it is recommended you sign up to our costing newsletters (email [costing@improvement.nhs.uk](mailto:costing@improvement.nhs.uk) to be added to the distribution list).

14. NHS England and NHS Improvement has a robust process in place to update this guidance. This is driven by:
- the outcome from the impact assessment and consultation process for each sector, undertaken as part of the [costing mandation project](#). This includes details of the estimated costs of implementing PLICS and benefits identified as part of the process
  - findings from previous voluntary and mandated collections
  - work on producing and approving the ACG, including results from consultations and feedback from various Technical Focus Groups
  - consultation with NHS Digital on changes.
15. The [ACG](#) includes details to support the collection of data, including the timetable. As this may change, please keep up to date with changes on NHS England and NHS Improvement's website or contact [costing@improvement.nhs.uk](mailto:costing@improvement.nhs.uk)

# Implementing patient-level costing

## Overview of the planned roll-out of patient-level costing across all sectors

16. As shown in Figure 1 above, NHS England and NHS Improvement is planning to extend patient-level costing by service and sector.<sup>7</sup> The process for approving the implementation of patient-level costing for acute services was completed in November 2018 and the NHS Improvement Board approved mandating patient-level costing from 2019/20 for designated ambulance providers. For details of which trusts are covered by this, dates and further information on what is covered by the mandation of patient level costing, see the [ACG](#).

## Implementing or updating patient-level information and costing systems (PLICS)

17. NHS England and NHS Improvement publishes detailed information on changes to costing processes, methodologies and submission requirements in the NHS England and NHS Improvement [open learning platform](#). This guide will be of most direct value to those providers who are in the process of implementing a PLICS. It may have specific relevance for organisations which are moving towards the end of their first clinical costing system contracts and are looking to renew or replace their existing system.
18. The expected key steps for procuring a new PLICS system<sup>8</sup> are set out in Table 1.

<sup>7</sup> Subject to Approval process – see [Costing Mandation Project](#)

<sup>8</sup> It is for individual trusts to determine exactly the processes they should have in place to successfully implement a PLICS.

**Table 1: High level steps to implement PLICS**

Step	Action
1	<p>Confirm the proposed collection of data at patient level applies to your organisation and identify the current process and arrangements in place to produce costing data.</p>
2	<p>Set up a project board to oversee implementation. The project board should include senior clinical personnel, the finance director and the trust information lead. This board will be primarily responsible for meeting milestones and final delivery, as well as identifying key stakeholders – usually medical directors, clinical leads, general managers and financial managers.</p> <p>The project board will identify how the stakeholders will be involved and their requirements for training. They will also identify their performance information requirements.</p>
3	<p>Procure a costing system that is consistent with the <a href="#">minimum software requirements</a>. When drafting a business case for new or upgraded systems, assess:</p> <ul style="list-style-type: none"> <li>• whether additional server capacity will be required</li> <li>• how the system will be used and interact with other trust systems</li> <li>• the requirements of other users (clinical and financial), engaging with them to get the information.</li> </ul>
4	<p>Tender and select a system provider, consistent with the relevant contracting legislation in operation at the time of procurement.</p>
5	<p>Implement the system, including:</p> <ul style="list-style-type: none"> <li>• creating an internal group to manage the implementation with the system supplier.</li> <li>• agreeing a timetable for implementation, managed by the project team.</li> </ul>

Step	Action
	<ul style="list-style-type: none"> <li>including time for testing and verifying accuracy of output with users of the data.</li> </ul>
6	Once the system is in place, undertake a post-implementation review to identify and evaluate implementation.

19. Annex D shows the generalised approach to implementing a PLICS system and identifies the departments at a trust that should be involved in the various stages of the implementation.

## Software requirements

20. As part of the move to patient-level costing, NHS England and NHS Improvement has worked closely with system suppliers and trusts to ensure that their PLICS systems can implement the costing standards. As part of this, [minimum software requirements](#) are updated and published annually. This supports:

- trusts to procure and implement costing software, and review software updates, and
- software suppliers to develop their software.

21. The minimum software requirements will be updated annually as part of the ACG<sup>9</sup>. (This Information Standard will also be reviewed and updated each year). The minimum software requirements specify that your software should be able to produce the outputs listed on the collection file specification page.<sup>10</sup> The page includes several specification files under different headings:

- **File specification** – this contains tabs for each submission system feed type, describing the file structure, fields required and their formats. Once generated as csv files, the files must be run through the Data Validation Tool (DVT) to convert these to XML before submitting to NHS Digital. It also includes information on which fields are mandatory and which are required.

<sup>9</sup> <https://improvement.nhs.uk/resources/minimum-software-requirements/>

<sup>10</sup> <https://improvement.nhs.uk/resources/approved-costing-guidance-2020/>

- **Data checks for the Data Validation Tool (DVT)** – provides details of the checks the DVT runs on files put into it and whether they result in a warning or submission failures. You should look through this document to understand the checks the DVT carries out to help you identify data quality issues early and try to solve them. It includes information on permissible values where applicable and which fields can be left empty if needed.
  - **Structure of XML files for submission to NHS Digital** – should only be relevant to your supplier. Gives detail on the file structure for:
    - The reconciliation (AMBREC)
    - Ambulance (AMB).
  - **Schema base elements** – should only be relevant to your supplier. Gives more detail on the validation rules (i.e. provides a list of valid or permissible values) for XML files that will be used to validate the file both as part of the DVT and as part of a submission to NHS Digital.
  - **Format and structure of the XML files** – should only be relevant to your supplier. Files giving the format and structure of XML which must be used in the submission of data made to NHS Digital.
22. If the costing system in place creates CSV files as the output, the DVT will create an XML file for submission to NHS Digital. To be accepted by the DVT, the CSV file will need to follow the approved format and structure of the CSV files – example files input for:
- The reconciliation (AMBREC)
  - Ambulance (AMB).

Each provides an example of an input file with dummy data to help you understand what the file might look like.

## Successful implementation of a PLICS

23. As part of the [ambulance impact assessment](#), a number of processes have been identified that all trusts should put in place to ensure a PLICS is implemented effectively and is successfully embedded, regardless of the type of organisation. These processes include:

- reviewing the output from the PLICS on a regular basis with stakeholders (clinicians and service managers) to ensure that the data recorded is complete and accurate
- creating a costing group which manages and leads on embedding use and validation of costing data
- using the tools provided (see [ACG](#)) to ensure the data being submitted is accurate
- working with the system supplier to ensure that the costing system is updated and continues to meet the [minimum software requirements](#)
- ensuring that changes to the costing standards are identified and appropriate actions taken to implement any changes required to collect information, and
- using patient-level data as the primary source for internal planning, including cost improvement and savings plans, business cases and agreeing local prices.

## Data Quality

24. While data quality is the responsibility of the organisation submitting data, the [minimum software requirements](#) include validation, both mandatory and non-mandatory, that the trusts can use internally to validate the reasonableness of their planned submission. In addition, a number of tools have also been made available to support trusts in producing patient-level costs, for example the Data Validation Tool (DVT).
25. The DVT carries out a number of checks on the data before trusts can produce files for NHS Digital. These checks result either in a submission failure (mandatory validation) or warning (non-mandatory validation). NHS Digital will validate the files (for mandatory validations). All submission failure data quality issues must be corrected for the submission to be accepted by NHS Digital. Trusts should endeavour to also investigate and resolve warnings where necessary.
26. As part of the submission process, NHS England and NHS Improvement will review the data and may ask a Trust for a resubmission on a case-by-case basis or where there are clear data quality issues. Where requested, re-

submissions will need to be made by Trusts to NHS Digital in the communicated collection window.

27. Submitted costing data will be made available to participating organisations via the [National PLICS portal](#).<sup>11</sup> This will enable trusts to benchmark their costs against other trusts and select peer groups for further analysis. NHS England and NHS Improvement will publish the indicative timetable for submission and publishing data on the NHS England and NHS Improvement website.
28. NHS Digital will also undertake and publish analysis of PLICS data as per requirements of release of Official Statistics of which Pseudo-PLCAMDS now falls within. This will be published in a public facing manner and at a trust level. It will be rolled out across services as PLICS is mandated.

## Information governance

29. All data providers should be aware of their legal and professional obligations with regard to information governance as it applies to the mandated PLICS standard. Both the NHS and government publish a significant amount of guidance that can assist data providers to comply with their obligations. This information is available at the [NHS Digital Looking after information](#) web pages, on the [Information Commissioner's Office website](#).
30. When processing information about those receiving health and care services, providers must comply with:
  - the duty of confidentiality - if the information is confidential patient information as defined in the NHS Act 2006; and
  - the data protection legislation - if the information is personal data as defined in the General Data Protection Regulation (GDPR), supplemented by the Data Protection Act 2018.

<sup>11</sup> For mandated services all mandated trusts will be able to access the PLICS portal for the services. For those services collected under the voluntary programme, only those participating in the voluntary programme will be able to access that part of the PLICS portal.

## Confidentiality compliance

31. Where information to be shared is regarded as confidential, the provider needs to evidence how they have complied with confidentiality requirements, which will require the sharing to be on the basis of one of the following:
  - consent of the individual that is owed a duty of confidentiality (note that this is not the data protection definition of consent)
  - required or permitted due to a legal obligation or statutory authority or
  - an overriding public interest that outweighs the interest in maintaining the duty of confidentiality to the individual and the broader public interest in maintaining a confidential service.
32. For the collection of PLICS data, NHS Digital issues NHS ambulance trusts with a Data Provision Notice (DPN) under section 259 of the Health and Social Care Act 2012. Providers are required to comply with the DPN, and by doing so they do not breach the duty of confidentiality. That is, the information is required due to a legal obligation (the DPN) placed on the providers.

## Data protection compliance

33. All providers must demonstrate compliance with the General Data Protection Regulation (GDPR) as supplemented by the Data Protection Act 2018 (the data protection legislation). Demonstration of data protection compliance is in addition to evidence that the activity would not breach the duty of confidentiality.
34. As part of data protection compliance, providers must document the:
  - GDPR Article 6 lawful basis for processing personal data; and
  - GDPR Article 9 condition for processing special categories of personal data
    - supported by a Data Protection Act 2018 Schedule 1 condition for processing special categories of personal data.
35. For example:
  - **Processing personal data:** the lawful basis for providers' processing (sharing) personal data with NHS Digital is GDPR Article 6(1)(c) legal obligation - the Data Provision Notice.

- **Processing special categories of personal data:** the condition for doing so may be GDPR Article 9(2)(h) – health or social care purposes. This is supplemented by:
  - Data Protection Act 2018 (DPA) Schedule 1 Part 1 para 2 – the processing is necessary for health or social care purposes - the management of health care systems, and
  - DPA 2018 section 11 - is carried out by or under responsibility of a health professional or by another person who in the circumstances owes a duty of confidentiality under an enactment or rule of law.

36. All data providers must also ensure compliance with the transparency requirements of data protection legislation. To meet these requirements, data providers must make available information and guidance to patients and/or their legal guardians regarding the processing of their personal data (or their child’s personal data where applicable) for purposes beyond their individual health and care (such as service development analysis and national statistical research). Information must be provided in a concise, transparent, intelligible and easily accessible form and should include details such as the personal data in question, what it will be used for and the patient’s rights. Further details can be found in the [IGA GDPR: implementation checklist](#) under ‘7) Comply with more stringent transparency requirements. NHS Digital is also required to provide transparency information.

### **The National Data Opt-out**

37. The National Data Opt-out allows patients to opt-out of sharing their confidential patient information for research or planning purposes, but is subject to some caveats, for example when the information is legally required to be shared. This process replaces the previous ‘type 2’ opt-out which required NHS Digital not to share a patient’s confidential patient information for purposes beyond their direct care.
38. NHS Digital has been instructed to collect PLICS data by a [Mandatory Request](#) from NHS Improvement (Monitor) under section 255 of the Health and Social Care Act 2012. On receipt of a Mandatory Request (or a Direction under section 254), NHS Digital generally issues a Data Provision Notice (DPN) to those that hold the information that NHS Digital is legally required to collect. The DPN issued to ambulance providers for PLICS is a legal

obligation with which the providers must comply, and therefore the National Data Opt-out does not apply to the provision of PLICS data by the providers to NHS Digital.

39. The National Data Opt-out is upheld by NHS Digital and is being rolled out across the NHS.
40. In line with data protection compliance discussed above, providers must still inform patients how their information will be used, and providers should also highlight the availability of the National Data Opt-out as part of their transparency information.
41. Further information about patient opt-outs is available on the <https://digital.nhs.uk/services/national-data-opt-out> section of the NHS Digital website which include resources for health and care staff to use when informing patients.

#### **Use of data by NHS England and NHS Improvement**

42. NHS England and NHS Improvement intends to use patient-level cost collection data primarily to establish comparative data for trusts to allow them to compare their costs and identify opportunities to improve service models and the quality of their costing.
43. The information gathered from the patient-level cost collection will be used to enable NHS England and NHS Improvement to perform its pricing and licensing functions under the 2012 Health and Social Care Act more effectively. It will:
  - inform new methods of pricing NHS services
  - inform new approaches and other changes to the design of the currencies used to price NHS services
  - contribute to NHS England and NHS Improvement's strategic objective of a single national cost collection
  - inform the relationship between provider characteristics and cost
  - help trusts to maximise use of their resources and improve efficiencies, as required by the provider licence
  - identify the relationship between patient characteristics and cost, and

- support an approach to benchmarking for regulatory purposes.
44. NHS Digital disseminates data via the Data Access Request Service (DARS) which requires the recipient to agree a Data Sharing Framework Contract and Data Sharing Agreement with NHS Digital. Where relevant, dissemination of data by NHS Digital will include oversight by the Independent Group Advising on Data Release (IGARD). Details can be found via <https://digital.nhs.uk/services/data-access-request-service-dars>
  45. The PLICS data will be disseminated to NHS England and NHS Improvement in accordance with the DARS process.
  46. Both NHS England and NHS Improvement and NHS Digital will be subject to addressing ad-hoc queries, for example Freedom of Information requests and Parliamentary Questions in relation to the data.
  47. NHS Digital may also disseminate the PLICS data collected under the Mandatory Request, to other organisations via DARS. For example, suitably pseudonymised or aggregated PLICS data may be disseminated to organisations such as the Department of Health and Social Care and higher education institutions (HEIs) to help them deliver any of the programmes of work listed above.
  48. The patient-level costing submission is a national return that providers should subject to the same scrutiny as their final audited accounts. An executive sponsor for patient-level costing should sign off the cost collection and ensure the following steps have been taken:
    - the cost return has been prepared in accordance with NHS England and NHS Improvement's [ACG](#), which includes the costing standards and the [national cost collection guide](#).
    - reconciliation sheets have been checked to ensure the correct activity and cost quantum have been used
    - data validations have been reviewed and any material<sup>12</sup> errors corrected.
    - a self-assessment checklist has been completed and reviewed.

<sup>12</sup> As ascertained by NHS Improvement

## NHS Data Model and Dictionary

49. As part of patient-level costing a specific terminology for costing has been created. A costing glossary<sup>13</sup>, consistent with the Data Dictionary, is published as part of the [ACG](#).

<sup>13</sup> [https://improvement.nhs.uk/documents/2627/Approved\\_Costing\\_Guidance\\_glossary.pdf](https://improvement.nhs.uk/documents/2627/Approved_Costing_Guidance_glossary.pdf)

# Requirements of NHS Digital

50. NHS Improvement (Monitor) has requested that NHS Digital establishes and operates a system to collect patient-level costing information under sections 255 and 256(2) of the Health and Social Care Act 2012.
51. The system to be established and operated under the request will need to have the following functionality:
  - Data collection - ability for Provider Trusts to submit PLICS data direct to NHS Digital
  - Potential to link PLICS data with relevant activity and outcome data held by NHS Digital to be agreed between NHS Digital and NHS Improvement via data specifications
  - Data quality and validation, and
  - Data supply – the functionality to provide, where appropriate in accordance with NHS Digital's functions, pseudonymised PLICS data to NHS England and NHS Improvement for onward processing and analysis to be agreed between NHS Digital and NHS England and NHS Improvement via data specifications.
  - For more information see:
    - Patient-level costing information systems (PLICS) information on the NHS Digital website -  
<https://digital.nhs.uk/data-and-information/data-tools-and-services/data-services/patient-level-information-and-costing-system-plics-data-collections>
    - Patient-level information and costing systems (PLICS) Data Provision Notice –  
<https://digital.nhs.uk/about-nhs-digital/corporate-information-and-documents/directions-and-data-provision-notice>

# Annex A: Glossary for patient-level costing

Acronym	Term	Description
<b>ACG</b>	Approved Costing Guidance	NHS England and Improvement's main policy documents for costing healthcare services in England, which describes the process of producing and collecting costs, both patient-level and average (reference) costs. <a href="https://improvement.nhs.uk/resources/approved-costing-guidance/">https://improvement.nhs.uk/resources/approved-costing-guidance/</a>
ACG Standards	Approved Costing Guidance - Standards	The approved approaches and methodologies for calculating costs, published in the Approved Costing Guidance.
<b>CAP</b>	Costing Assurance Programme	This programme reviews and assesses the accuracy of the costing information produced by trusts. It also identifies trusts that need support and the outcome is used to improve the guidance available to trusts. <a href="https://improvement.nhs.uk/resources/costing-assurance-programme/">https://improvement.nhs.uk/resources/costing-assurance-programme/</a>
<b>CAT</b>	Costing Assessment Tool	An improvement tool developed by NHS England and Improvement to allow costing practitioners to record and measure their progress against the costing standards. Scores from the CAT will be included in the national PLICS portal for benchmarking as well as identifying productivity opportunities and the development of the national tariff. The CAT may also form the basis of providers assessment under the costing assurance programme.
<b>CTP</b>	Costing transformation programme	NHS England and NHS Improvement's programme to move from reference costs collection to patient-level cost collection. This will improve the quality of costing information throughout the NHS and support providers to deliver more effective and efficient outcomes. For more background information see the NHS Improvement website - <a href="https://improvement.nhs.uk/resources/transforming-patient-level-costing/">https://improvement.nhs.uk/resources/transforming-patient-level-costing/</a> .
<b>DARS</b>	Data Access Request Service	A service managed by NHS Digital that allows clinicians, researchers and commissioners access to

Acronym	Term	Description
		data required to help improve NHS services subject to meeting strict data governance standards.
<b>DPN</b>	Data Provision Notice	This provides information on the data collection including the purpose, benefits, how NHS Digital intends to collect the data, form, manner, frequency and from which organisations.
<b>DSA</b>	Data Sharing Agreement	A formal agreement for the routine sharing of data sets between organisations for an agreed purpose.
<b>DVT</b>	Data Validation Tool	This tool is used to prepare Costing Transformation Programme (CTP) PLICS submission files. It assesses the data quality of the cost collection files to identify any areas that require attention, providing the opportunity to improve data accuracy before submission
<b>HSCA</b>	The 2012 Act	The Health and Social Care Act 2012. <a href="http://www.legislation.gov.uk/ukpga/2012/7/contents">www.legislation.gov.uk/ukpga/2012/7/contents</a>
<b>IGARD</b>	Independent Group Advising on the Release of Data	Group that considers all requests for dissemination of confidential information, as defined in Section 263 of the Health & Social Care Act, through the Data Access Request Service (DARS). Also makes general recommendations or observations to NHS Digital about their processes, policies and procedures, including transparency measures such as registers.
<b>NCC guidance</b>	National Cost Collection guidance	Guidance, updated annually, which describes the requirements for the national cost collection. It covers the mandatory cost collection for all NHS providers and is part of the <a href="#">Approved Costing Guidance</a> .
<b>NHS E &amp; NHS I</b>	NHS England and NHS Improvement	Refers to NHS England and NHS Improvement, which since 1 April 2019 has been working together as a new single organisation to better support the NHS to deliver improved care for patients. As local health systems work more closely together, the same needs to happen at a national level. Our new single operating model has been designed to support delivery of the <a href="#">NHS Long Term Plan</a> .
<b>PLC</b>	Patient-level costing	Calculating and collecting data at an individual patient-level.
<b>PLCAMDS</b>	Patient-Level costing (Ambulance) Data Set	The PLICS Ambulance data that NHS Digital collects from the relevant NHS providers
<b>PLICS</b>	Patient-level information and costing system	The system used to record and report the patient pathway and costs at an individual patient-level.

Acronym	Term	Description
<b>Pseudo-PLCAMDS</b>	Pseudonymised Patient-Level costing (Ambulance) Data Set	The data set created when NHS Digital processes and pseudonymises the PLCAMDS data from Ambulance providers (before providing Pseudo-PLCAMDS to NHS Improvement).
<b>RC</b>	Reference costs	The average unit cost to the NHS of providing secondary healthcare to NHS patients.
<b>SEFT</b>	Secure Electronic File Transfer	The system that allows the transfer files securely into and out of NHS Digital, providing data security during transmission using a 256-bit AES encryption mechanism. The data are held in secure containers at NHS Digital and only people who are authorised to process the data are allowed access.
<b>XML</b>	Extensible Mark-up Language	A computer language that defines a set of rules for encoding documents in a format that is both human-readable and machine-readable.

# Annex B: Supporting and linked information

52. NHS England and NHS Improvement produces a number of documents and other sources of data to support trusts in implementing and operating their PLICS system.
53. The following is a list of other supporting information and guidance available to trusts and other users of patient level costing.

Item	Doc / Tool	Link	Description
Approved Costing Guidance (ACG)	Doc	<a href="https://improvement.nhs.uk/resources/approved-costing-guidance/">https://improvement.nhs.uk/resources/approved-costing-guidance/</a>	The Approved Costing Guidance forms a co-ordinated approach to patient-level costing, the reference costs collection and the costing assurance programme. Compliance with the ACG is mandated as part of the NHS Provider Licence
Approved Costing Guidance - Standards	Doc	<a href="https://improvement.nhs.uk/resources/approved-costing-guidance/">https://improvement.nhs.uk/resources/approved-costing-guidance/</a>	Part of the ACG, the Approved Costing Guidance - Standards describe the costing approach we ask you to adopt. There are different versions of the standards for acute, ambulance, mental health and community services.
Collection guidance	Doc	<a href="https://improvement.nhs.uk/resources/approved-costing-guidance-2020/">https://improvement.nhs.uk/resources/approved-costing-guidance-2020/</a>	Part of the ACG, collection guidance includes dates, requirements and formats, of costing information to be submitted by designated providers.
Costing Assessment Tool (CAT)	Tool	<a href="https://improvement.nhs.uk/documents/4874/Intro_to_ACG_19.pdf">https://improvement.nhs.uk/documents/4874/Intro_to_ACG_19.pdf</a>	Provides an objective assessment of the quality of an organisation's costing.
NHS Provider Licence	Doc	<a href="https://www.gov.uk/government/publications/the-nhs-provider-licence">https://www.gov.uk/government/publications/the-nhs-provider-licence</a>	The licence contains conditions for providers of NHS services, including NHS foundation trusts and other providers. This includes conditions relating to recording and reporting cost information.

Item	Doc / Tool	Link	Description
PLICS cost collection guidance file specifications	Doc	<a href="https://improvement.nhs.uk/resources/approved-costing-guidance-2020/">https://improvement.nhs.uk/resources/approved-costing-guidance-2020/</a>	Templates for software suppliers of healthcare costing systems and costing practitioners who are submitting PLICS cost collections.
Data checks for data validation tool (DVT)	Tool	<a href="https://www.england.nhs.uk/approved-costing-guidance-2020/">https://www.england.nhs.uk/approved-costing-guidance-2020/</a>	Contains the checks performed in the NHS England and NHS Improvement data validation tool.
Costing assurance programme	Doc	<a href="https://improvement.nhs.uk/resources/costing-assurance-programme/">https://improvement.nhs.uk/resources/costing-assurance-programme/</a>	Our annual programme monitors providers' costing information. It identifies providers that need support, those delivering best practice. We also share results from the programme and high-level findings.
Costing for clinicians	Doc	<a href="https://improvement.nhs.uk/resources/costing-for-clinicians/">https://improvement.nhs.uk/resources/costing-for-clinicians/</a>	A collection of resources is designed for clinicians wanting to find out more about costing, and for costing teams wanting to work more closely with clinicians.
Costing mandation project	Doc	<a href="https://improvement.nhs.uk/resources/costing-mandation-project/">https://improvement.nhs.uk/resources/costing-mandation-project/</a>	Details of progress in mandating patient level costing by service and sector
Costing mandation timetable	Doc	<a href="https://improvement.nhs.uk/documents/6608/Mandation%20timetable%20collection%2013-5-20.xlsx">https://improvement.nhs.uk/documents/6608/Mandation timetable 2020 collection 13-5-20.xlsx</a>	<u>Expected</u> details of when services will be covered by patient level costing – by provider
Open Learning Platform	Tool	<a href="https://www.openlearning.com/nhs/courses/costing-improvement/HomePage">https://www.openlearning.com/nhs/courses/costing-improvement/HomePage</a>	Training and support for staff completing patient level and reference cost submissions. Registration required.
Transforming patient-level costing in the NHS	Doc	<a href="https://improvement.nhs.uk/resources/transforming-patient-level-costing/">https://improvement.nhs.uk/resources/transforming-patient-level-costing/</a>	Background to the costing transformation programme. This will improve the quality of costing information in the NHS, with patient-level costing and a single annual cost collection. It will support providers to deliver better, more efficient outcomes. This page also includes updates on progress of the project.
Tools for costing	Tool	<a href="https://improvement.nhs.uk/resources/tools-for-using-costing-data/">https://improvement.nhs.uk/resources/tools-for-using-costing-data/</a>	A number of tools are also available to support trusts to ensure the quality of

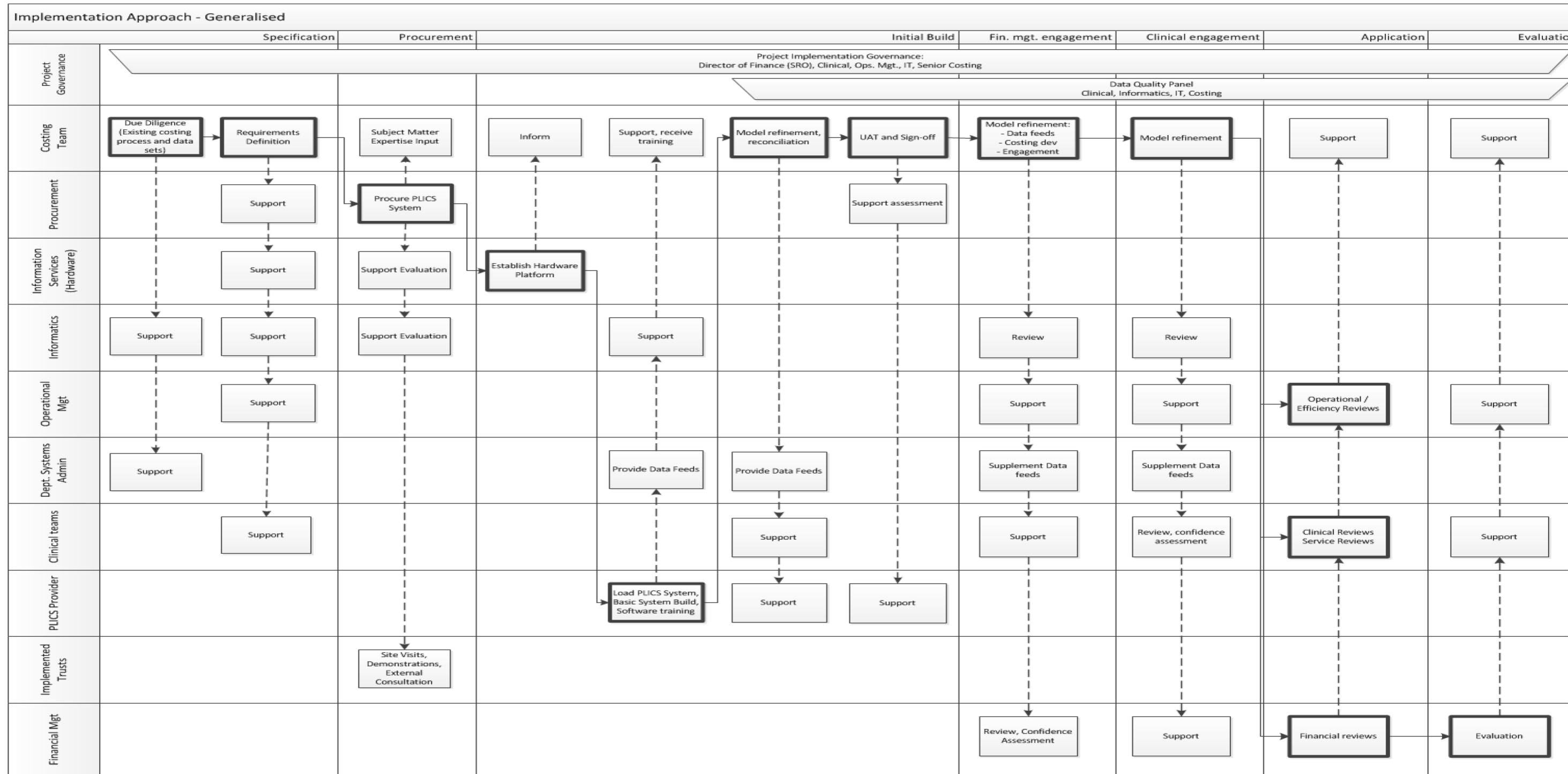
Item	Doc / Tool	Link	Description
			<p>the data submitted. These include the following tools available:</p> <ul style="list-style-type: none"> <li>- PLICS Portal</li> <li>- PLICS data quality tool</li> <li>- PLICS cost pool benchmarking tool</li> </ul> <p>Reference cost benchmarking tool</p> <p>Provides details about a selection of tools to help analyse patient-level costing information (often referred to as PLICS) and reference cost data - and how to access them</p>
NHS Digital PLICS web pages	Doc	<a href="https://digital.nhs.uk/data-and-information/data-tools-and-services/data-services/patient-level-information-and-costing-system-plics-data-collections">https://digital.nhs.uk/data-and-information/data-tools-and-services/data-services/patient-level-information-and-costing-system-plics-data-collections</a>	Information about PLICS and the role of NHS Digital in the collection
NHS Digital DPN and Directions web page	Doc	<a href="https://digital.nhs.uk/about-nhs-digital/corporate-information-and-documents/directions-and-data-provision-notices">https://digital.nhs.uk/about-nhs-digital/corporate-information-and-documents/directions-and-data-provision-notices</a>	Information on Data Provision Notices (DPNs) and Directions
NHS Digital PLICS GDPR web page	Doc	<a href="https://digital.nhs.uk/about-nhs-digital/our-work/keeping-patient-data-safe/gdpr/gdpr-register/patient-level-information-costings-system-plics">https://digital.nhs.uk/about-nhs-digital/our-work/keeping-patient-data-safe/gdpr/gdpr-register/patient-level-information-costings-system-plics</a>	PLICS GDPR Information

# Annex C: Standards gap analysis

1. NHS England and NHS Improvement also publish guidance on how trusts should assure themselves of the accuracy of their costing as part of the [healthcare costing standards](#) (CP6: Assurance of cost data). This is designed to support trusts in implementing arrangements to ensure the accuracy of their patient-level costing submissions.
2. To support trusts implementing and producing PLICS, NHS England and NHS Improvement used the findings from NHS England and NHS Improvement early implementer pilot work in 2017/18 and 2018/19, to produce documents, webinars and training to support the successful implementation of patient-level costing. NHS England and NHS Improvement Approved Costing Guidance is split by sector, with copies of the tools and guidance available for each specific sector. Examples of the [tools](#) and guidance available include<sup>14</sup>:
  - an open learning portal which includes exercises, instructional videos and moderated forums.
  - webinars on how to implement the costing standards
  - a log of all enquiries relating to PLICS
  - the costing bulletin helping trusts keep up to date on costing changes and issues
  - the results and findings from the [Costing Assurance Programme](#).

<sup>14</sup> See Annex B for links

# Annex D: Generalised approach to implementing/replacing a PLICS system



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This publication can be made available in a number of other formats on request.