## Contents

1. Introduction .................................................................................................................. 4  
   1.1 Purpose ...................................................................................................................... 4  
   1.2 Provider compliance with new acute PLICS feeds ................................................. 5  
2. 2020 National Cost Collection submission windows .............................................. 6  
   2.1 Further information on agreed adjustments ........................................................... 7  
3. Submission scheduling – acute, ambulance and mental health. 9  
   3.1 Submission scheduling detail – acute trusts ............................................................ 10  
   3.2 Submission scheduling detail – ambulance and mental health trusts ................. 11  
4. Submission scheduling detail – community trusts ................................................. 12  
5. Reporting of national averages throughout the collection ................................. 13  
6. Revised National Cost Collection sign-off process .............................................. 14  
   6.1 Board assurance ....................................................................................................... 14  
   6.2 NCC authorisation ................................................................................................... 15  
   6.3 COVID-19 integrated costing assurance log (ICAL) ............................................. 15  
7. NCC workbook user guide ....................................................................................... 16  
   7.1 NCC workbook contents ......................................................................................... 16  
   7.2 Completing the workbook for aggregated costs .................................................... 17  
   7.3 Flexible worksheets ................................................................................................ 18  
   7.4 Fixed worksheets ..................................................................................................... 20  
   7.5 Summary worksheets ............................................................................................... 21  
   7.6 Reconciliation worksheet ....................................................................................... 21  
   7.7 Populating the upload worksheet ........................................................................... 22  
   7.8 Data validations for aggregated costs ..................................................................... 23  
      Running the validations in the workbook ................................................................. 23  
      RECON validations ................................................................................................... 24  
      Mandatory workbook validations ........................................................................... 24  
      Non-mandatory validations ..................................................................................... 27  
   7.9 NHS Digital submission platforms ......................................................................... 29  
8. Data validation tool (DVT) user guide ..................................................................... 30  
   8.1 What is the DVT? ..................................................................................................... 30  
   8.2 Important information about the DVT ................................................................. 30
8.3 System requirements ................................................................. 31
8.4 How to install the tool ............................................................... 31
8.5 Known issues, limitations and remedial steps ............................... 32
    Scenario ............................................................................. 32
    Remedial steps ............................................................... 32
8.6 General screens ................................................................. 33
    Welcome screen ............................................................... 33
    System Requirements screen ................................................ 34
    Available Collections screen ................................................. 35
8.7 How to validate your patient-level costing extracts ..................... 35
    Collection Options screen ................................................... 35
    File Locations screen .......................................................... 36
    File Conversion and Data Validation screen ............................ 36
    Generating your report screen ................................................. 37
    Summary screen .................................................................. 37
    Alerts .............................................................................. 38
8.8 How to compress your PLICS extracts (when validation is complete) 39
    Collection Options screen ................................................... 39
    File Locations screen .......................................................... 39
    How to test the tool if your PLICS extracts are not ready .............. 40
    How to access and read the data validation report ..................... 40
    How to access XML files ....................................................... 43
    Further support available ...................................................... 43
9. Highlights from the desktop review ............................................. 44
10. Acute dry run updates ............................................................... 46
Annex 1: Clarifications to Volume 3 – acute sector .......................... 49
    Guidance clarification .......................................................... 49
Annex 2: Updated board assurance .................................................. 53
Annex 3: NHS Digital submission platforms ................................... 55
    Submission platforms explained .......................................... 55
    Strategic data collection service (SDCS) .................................. 55
    Accessing SDCS ................................................................. 55
    Using SDCS to submit your NCC workbook and view previous submissions 59
    Secure electric file transfer (SEFT) ....................................... 65
1. Introduction

1.1 Purpose

1. This document is one of the seven volumes of the 2020 National Cost Collection (NCC) guidance\(^1\) and should be read in conjunction with:

- *Volume 1: Overview*
- *Volume 2: National Cost Collection reconciliations and exclusions*
- Volume 3, 4, 5 or 6 depending on your organisation’s primary sector category\(^2\)
- *National Cost Collection 2020 COVID-19 recommendations.*\(^3\)

2. Volume 4 for ambulance and Volume 5i for mental health will be published in July 2020. Volume 5ii for IAPT will be published in August 2020.

3. This document is intended to be used by all trusts that are mandated to make an NCC return for financial year 2019/20.

4. This document captures all remaining guidance not included in volumes 1 to 6 for your 2020 or 2021\(^4\) NCC submission, including user guides for the two main tools\(^5\) you need to use. It also addresses the impact of COVID-19 on the use of costing standards and the cost collection\(^6\).

5. It covers:

- how to select your submission date and submit your 2019/20 NCC data
- user guides for the NCC workbook and data validation tool (DVT)

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1. [https://improvement.nhs.uk/resources/approved-costing-guidance-2020/](https://improvement.nhs.uk/resources/approved-costing-guidance-2020/)
2. Please refer to NCC volume 1 to identify your sector category.
4. For financial year 2019/20. The collection has been moved to early 2021 as a result of the COVID-19 pandemic.
6. Specifically, the process for applying for agreed adjustments, the change to the 2019/20 collection timetable and the relaxation of NCC sign off.
• new sign-off process for financial year 2019/20
• findings from the 2020 acute sector dry run cost collection and changes made as a result (applicable to the acute sector only7).

6. Costing practitioners can access support from NHS England and NHS Improvement in a number of ways – see *Volume 1: Overview* (2.4 Support during the collection).

7. In addition you can join our weekly ‘coffee and connect’ sessions by contacting costing@improvement.nhs.uk.

### 1.2 Provider compliance with new acute PLICS feeds

8. If your trust is unable to submit the new data feeds at patient level, please explain why in an email to costing@improvement.nhs.uk. One of the NCC team will contact you to discuss your situation in more detail and agree next steps.

9. If your trust can only submit one of the two new feed types,8 we ask that you prioritise the supplementary information (SI) feed over the specialised ward care (SWC) extract.

---

7 A dry run for Mental Health is currently being considered.
8 In addition to AE, APC and OP.
2. 2020 National Cost Collection submission windows

10. We have revised the National Cost Collection (NCC) submission windows to take account of COVID-19, following engagement with trusts, software providers, NHS Digital and users of the PLICS data.

<table>
<thead>
<tr>
<th>Sector</th>
<th>Timetable</th>
</tr>
</thead>
<tbody>
<tr>
<td>Acute and community</td>
<td>7 September 2020 to 13 November 2020</td>
</tr>
<tr>
<td>Ambulance, mental health and IAPT</td>
<td>11 to 29 January 2021</td>
</tr>
</tbody>
</table>

11. There are no resubmission windows for any of the PLICS collections of financial year 2019/20 data.

12. We have chosen these windows because they have the fewest drawbacks and were preferred by trusts.9

13. These new windows:

- allow sufficient time for trusts to cost COVID-19 as per the recommended guidance (this can be found on the open learning platform (OLP)10)
- allow the IAPT collection to be added to the timetable without causing disruption
- avoid the major holiday periods for most costing practitioners.

9 Evidence gathered through the NCC survey in April and May 2020.
10 https://www.openlearning.com/nhs/courses/costing-improvement/covid_19_guidance/
14. Costing practitioners will have all the required tools as per the original timetable so if your trust is in a position to do so, you can complete all your files ahead and then upload them when your window opens.

15. The revised submission windows mean the development of the 2021 PLICS programme will be limited; stakeholder engagement indicated this is preferable to maintaining the original submission windows.

2.1 Further information on agreed adjustments

16. Line 48 on the reconciliation statement in the NCC workbook should be used only for adjustments for the NHS England and NHS Improvement COVID-19 financial impact template.\(^\text{11}\)

17. Volume 2 of the NCC guidance outlines the agreed adjustments as part of the reconciliation statement. The information below updates that guidance to reduce the time it takes NHS England and NHS Improvement to authorise an agreed adjustment.

18. As per the existing guidance you should request authorisation for your adjustment by emailing costing@improvement.nhs.uk. However, please now cite '2020 NCC request for agreed adjustment' in the subject field when requesting an amendment as a result of the COVID-19 recommendations.\(^\text{12}\)

19. You need to cover the following in your email:\(^\text{13}\)

- brief description of the exclusion (a couple of sentences)
- why the exclusion is required:
  - COVID-19 related and not identified on the strategic finance return
  - other reasons
- the value of the exclusion
- whether the exclusion has been requested and agreed in previous years

\(^{11}\) Also known as the strategic finance return.
\(^{12}\) https://www.openlearning.com/nhs/courses/costing-improvement/covid_19_guidance/
\(^{13}\) You may wish to copy across the questions as subheadings to support our review of the request.
• any other supporting information, including calculations relating to lost productivity as a result of COVID-19.
3. Submission scheduling – acute, ambulance and mental health

20. As in previous years, trusts submitting mandated PLICS files to NHS Digital will need to schedule a day for submission with NHS England and NHS Improvement, to ensure full utilisation of the submission window and allow support to be provided where necessary. To effectively manage acute submissions in 2020, trusts will be asked to select a date within the submission window that falls on a day between Monday and Thursday.

21. Please agree a submission date and a back-up option with your software supplier, in case you cannot secure your first preference.

22. Submission dates can only be booked online. Providers should book one slot only.

23. This will be a self-service process, with slots allocated on a first come, first served basis. Your booked slot will be confirmed with an automated acknowledgement.

24. Once a date is booked it cannot be changed through the online system. If you need to change it, please email costing@improvement.nhs.uk citing ‘Amendment to booked submission date <trust code>’ in the subject field.

25. You need to upload all your PLICS XML files, your National Cost Collection (NCC) workbook and NCC authorisation14 on your booked submission date. If your submission is not successful, you will need to agree a subsequent date for submission with the NCC team. You can do this by emailing

14 See Section 4.2.

9 | Submission scheduling – acute, ambulance and mental health
26. No initial submissions will be scheduled on Fridays – these slots will be allocated to trusts that fail to submit on their scheduled date earlier in that week.

27. As there are no resubmission windows this year, the NCC team may request a subsequent submission from trusts where they identify serious data quality issues.¹⁵

28. Trusts that successfully submit their files early in the submission window may wish to improve their data and make a second submission before the window closes. This will be permitted in 2020 subject to availability of slots. The date for a second submission must be agreed with the NCC team. To do this email costing@improvement.co.uk citing ‘Additional NCC submission requested <trust code>’ in the subject field.

3.1 Submission scheduling detail – acute trusts

29. Slots will be limited to:

- no submission slot selection on Fridays
- 10 submissions a day between 7 September 2020 and 23 October 2020
- five submissions a day between 26 October 2020 and 6 November 2020
- no planned submissions during the final week of the window (9 November 2020 to 13 November 2020).

30. The booking page for acute providers went live at 09:00 on Tuesday 26 May 2020. Cost accountants have been emailed the link for the booking process.¹⁶

31. The booking page for acute providers will close once all trusts have booked a date or two weeks before the window opens. The NCC team will contact any trusts that have not booked a slot by that date.

¹⁵ In the first instance, a member of the NCC team will ring you to discuss the issue.

¹⁶ https://www.events.england.nhs.uk/events/cost-submissions-2020
3.2 Submission scheduling detail – ambulance and mental health trusts

32. Spaces will be limited to:

- 10 submissions per day during 11 to 15 January 2021
- five submissions per day during 18 to 22 January 2021
- no planned submission during the final week of the window (25 to 29 January 2021).

33. The booking page for ambulance and mental health providers will go live at 09:00 on Monday 7 September 2020. The costing lead at each trust will be notified by email of the URL for the booking process.

34. The booking page will close once all ambulance and mental health trusts have booked a date or six weeks before the window opens. The NCC team will contact any trusts that have not booked by that date.

35. Providers that have submitted PLICS data in previous years voluntary collection will be advised to book a slot early in the window.
4. Submission scheduling detail – community trusts

36. As there are only a small number of community trusts, submission dates will be managed centrally by the NCC team.

37. Community submissions will be between 7 September 2020 and 6 November 2020.

38. The NCC team will contact community trusts individually to arrange a submission date.
5. Reporting of national averages throughout the collection

39. NHS England and NHS Improvement have commissioned NHS Digital to report all submitted PLICS to our organisation.¹⁷

40. This report will include the national averages and we will use it to inform our potential requests for additional submissions (see Section 3).

41. NHS England and NHS Improvement will produce a central report giving the national averages for each combination of ‘department>service code>currency>episode type’, and share this periodically through the collection on the open learning platform (OLP). This will allow trusts to compare their costs to the national average.

42. NHS England and NHS Improvement are currently identifying what detail can published on the OLP without breaching publishing restrictions.

43. The details of all reports, their uses and how to access them will be shared in a webinar with supporting guidance before the collection window opens.

¹⁷ ‘organisation>department>service code>currency>episode type’
6. Revised National Cost Collection sign-off process

45. As part of our review of how to reduce provider burden following the outbreak of the COVID-19 pandemic, NHS England and NHS Improvement have made the following changes to the board assurance process (BAP) and National Cost Collection (NCC) workbook authorisation.

6.1 Board assurance


47. It required two reports to be prepared and then approved by the executive board:
   - pre-submission report before the submission window opens
   - final submission report at the time of submission or shortly afterwards.

48. These reports are no longer required for financial year 2019/20, and the NCC return no longer requires executive sign off.

49. Instead, the trust’s director of finance\(^{18}\) can sign off the collection for financial year 2019/20.

50. You should complete the pro forma in *Annex 2* and your trust’s director of finance (or delegated alternative) should review and sign it.

51. The trust should keep a copy of this signed document.

\(^{18}\) Or chief financial officer.
6.2 NCC authorisation

52. In previous years, on final upload of your NCC workbook, you have had to tick the sign-off checkbox on the workbook control panel to indicate executive approval of the submission.

53. **This is no longer required.**

54. Instead, you should submit a signed copy of the pro forma in Annex 2 to NHS England and NHS Improvement via costing@improvement.nhs.uk, citing ‘Executive authorisation of NCC 2020 <trust code>’ in the subject field.

55. This should be submitted on your scheduled submission day along with your PLICS XML files and NCC workbook, and will indicate your submission has executive approval.

6.3 COVID-19 integrated costing assurance log (ICAL)

56. *National Cost Collection 2020 COVID-19 recommendations*\(^1\) suggests that practitioners complete a new worksheet within the ICAL to record changes made to the cost quantum as a result of the COVID-19 pandemic.

57. You can find this worksheet on the open learning platform (OLP)\(^2\) and in the full ICAL on the approved costing guidance website.

58. We are asking all trusts to send the NCC team a copy of their worksheet. Doing so will help us understand your data and support the development of more extensive guidance on COVID-19.

59. Where possible, please send it with your Annex 2 pro forma, ensuring the filename includes your trust code, to costing@improvement.nhs.uk, citing ‘ICAL COVID-19 <trust code>’ in the subject field.

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7. NCC workbook user guide

60. All organisations should use the workbook to submit national aggregate cost data that is not mandated for submission using the PLICS extract specifications.\(^{21}\)

61. Data should be submitted to the strategic data collection system (SDCS) by uploading the entire workbook. The data from the NHSD_Upload worksheet is uploaded into SDCS.

62. Please ensure you are using the latest version of the workbook as SDCS will not accept uploads from older versions.

63. The latest version will always be available from SDCS and we will announce any updates via the open learning platform (OLP).

64. The workbook is built in MS Excel 2010 and relies on macros to generate the outputs. As a minimum you must have Microsoft Excel 2007 installed. Your Excel macro settings need to be set to Enabled.

7.1 NCC workbook contents

65. After downloading the workbook, open it in Excel and click **Enable Content** if prompted.

66. There are five types of worksheet:

   - **Control panels** – there are two, REFC and RECON: they give an overview of the data you have submitted, and are where you run the validations\(^{22}\) and upload.

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\(^{21}\) The relevant sector-specific volume of the NCC guidance (3, 4, 5 or 6) identifies the data to be submitted.

\(^{22}\) These validations should be completed in addition to those completed for your PLICS files by the DVT.
• **Flexible worksheets** – generally, these are for admitted patient and outpatient services. Users need to enter the data themselves as the data combinations are too numerous to list.

• **Fixed worksheets** – these are the most common type and they cover all other services and reconciliation.

• **Reference table** – this lists department, service and currencies, as well as further information to validate the data being submitted.

• **NHSD_Upload** – this is where SDCS takes your submitted data from; you can also use it to check your data is correct before submitting it.

### 7.2 Completing the workbook for aggregated costs

![Figure 1: National Cost Collection Control Panel](image)

<table>
<thead>
<tr>
<th>Tab Name</th>
<th>Worksheet Name</th>
<th>2019-20 total cost</th>
<th>2020-21 total activity</th>
</tr>
</thead>
<tbody>
<tr>
<td>PHC</td>
<td>Pharmacy</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>S1H:1</td>
<td>Medicines &amp; drugs</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>S1N:1</td>
<td>Food &amp; Nutrition</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>S1P:1</td>
<td>Housing</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>S1Q:1</td>
<td>Recreation &amp; leisure</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>S1R:1</td>
<td>Education &amp; training</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>S1S:1</td>
<td>Health promotion</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>S1T:1</td>
<td>Support services</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>S1U:1</td>
<td>Social services</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>S1V:1</td>
<td>Information services</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>S1W:1</td>
<td>Community services</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>S1X:1</td>
<td>Health promotion</td>
<td>0</td>
<td>0</td>
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<td>S1Y:1</td>
<td>Support services</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>S1Z:1</td>
<td>Social services</td>
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<td>0</td>
</tr>
<tr>
<td>S2:1</td>
<td>Other public services</td>
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<td>0</td>
</tr>
<tr>
<td>S3:1</td>
<td>Private services</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>S4:1</td>
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<tr>
<td>S5:1</td>
<td>Total cost</td>
<td>0</td>
<td>0</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Area</th>
<th>Description</th>
<th>2019-20 total cost</th>
<th>2020-21 total activity</th>
</tr>
</thead>
<tbody>
<tr>
<td>PHC</td>
<td>Pharmacy</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>S1H:1</td>
<td>Medicines &amp; drugs</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>S1N:1</td>
<td>Food &amp; Nutrition</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>S1P:1</td>
<td>Housing</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>S1Q:1</td>
<td>Education &amp; training</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>S1R:1</td>
<td>Support services</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>S1S:1</td>
<td>Community services</td>
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<td>0</td>
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<tr>
<td>S1T:1</td>
<td>Health promotion</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>S1U:1</td>
<td>Support services</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>S1V:1</td>
<td>Social services</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>S1W:1</td>
<td>Information services</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>S1X:1</td>
<td>Health promotion</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>S1Y:1</td>
<td>Support services</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>S1Z:1</td>
<td>Social services</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>S2:1</td>
<td>Other public services</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>S3:1</td>
<td>Private services</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>S4:1</td>
<td>Other services</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>S5:1</td>
<td>Total cost</td>
<td>0</td>
<td>0</td>
</tr>
</tbody>
</table>

**National Cost Collection Quantum**: £0.00
67. Error! Reference source not found. is a screenshot of the NCC Control Panel, with the red numbering explained below:

1 – Run REFC Validation – once you have populated the individual worksheets, press this button to check your data against the mandatory and non-mandatory validations described in the collection guidance.

2 – Populate Upload Sheet REFC – once you have completed the individual worksheets, press this button to populate the NHSDUpload sheet with the data.

3 – View RECON Tabs – press this button to view and populate the reconciliation worksheet.

4 – Workbook Version – here you can see which version of the workbook you are using. Check it is the most recent version as SDCS will not accept uploads from older versions.

5 – Organisation Details – use the dropdown to select your three-character trust code; the name will populate automatically.

6 – Validations Checks – here you can see if your data has passed the mandatory workbook validations, whether your total aggregated costs and reconciliation quanta are within the acceptable tolerance, and how many non-mandatory validations you have triggered.

7 – Worksheet Hyperlinks – you can use these to navigate to the individual input worksheets; or you can use the tabs at the bottom of the workbook.

8 – Summary Information – here you can see the data by worksheet and point of delivery (POD).

68. You should now populate the flexible and fixed worksheets as appropriate.

7.3 Flexible worksheets

69. Flexible worksheets (see Error! Reference source not found.) are used where the data combinations are too numerous to list:

• APC: admitted patient care
• OPATT: outpatient attendances; consultant led, non consultant-led
• OPPROC: outpatient procedures
- IMAG: diagnostic imaging
- HCD: high cost drugs
- DAD: direct access diagnostic services and plain film X-ray.

Figure 2: Example flexible input worksheet

1 – Sheet name – the title of each sheet indicates the departments it includes.

2 – Sheet totals – these tell you what the total cost and total activity entered on the sheet are.

3 – Department, service and currency names – these auto-populate once you have completed the data entry in the adjacent white cells.

4 – Data cells – you need to input the relevant department, service and currency codes into these, as well as the cost and activity information for each row.

5 – Return to Control Panel – this hyperlink takes you back to the REFC Control Panel.

70. You need to enter your data into the white cells. The associated labels for the data will then auto-populate the blue cells. For further guidance, hover over the column headings and extra information will appear.²³

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²³ For example, navigate to the admitted patient care (APC) worksheet and start entering your data into the white cells; the blue cells will begin to update as appropriate.
71. If you enter an invalid code, the entry in the blue cells will change to **Code Not Found**. Once you have corrected the code, the blue cells will update with the correct description.

72. Alternatively, you can copy data across from an external database or spreadsheet. **Copy** the block of data from the external source and then click the first white cell in the flexible sheet. **Right click** and then select **Values** (note that we have disabled paste options other than Values from all the workbooks). You can repeat the above process for the next block of data, remembering not to leave any blank rows in between.

73. There may be occasions when the macro that updates the blue cells is interrupted and the blue columns fail to update. If this happens, you should re-copy the rows that have failed. Highlight the data causing the error, **right click** and select **Copy**. Reselect the first cell in the first row of the erroneous data, **right click** and select **Values**. This will restart the macro and populate the blue columns correctly.

74. The number of rows in each sheet is fixed; therefore, you cannot delete rows. There should be no empty rows between blocks of data. If you need to delete data, only delete it in the white cells. The blue cells may sometimes fail to clear. If this happens, re-highlight the white cells from which you deleted data, and press **Delete**. The macro will run and clear the blue cells.

**7.4 Fixed worksheets**

75. Other worksheets in the **REFC** workbook are **fixed**. Fixed worksheets are pre-populated, ie all available data combinations are already listed and you will only need to enter cost and activity data into the appropriate line of the worksheet.

76. Unlike for flexible worksheets, rows can be left empty between sets of data. If you do not have any data to report for a data row, leave it blank. A few fixed worksheets have grey cells containing formulas; these will update automatically.
7.5 Summary worksheets

77. The REFC workbook includes the following **Summary** worksheets:

- **Control Panel (summary totals)** – this shows the total costs and activity reported on every *flexible* and *fixed* worksheet. You should also populate the patient-level costs summary worksheet to enable you to check whether the data reconciles with what you were expecting.

- **Summary Validations** – this shows a count of the non-mandatory validations on each *flexible* or *fixed* worksheet. The sum of these validations feeds through to the Control Panel.

7.6 Reconciliation worksheet

78. Navigate to the RECON worksheets by pressing the **View RECON Tabs** button on the homepage.

79. The **RECON Control Panel** (see Error! Reference source not found.) is similar to the **REFC Control Panel**. Your *organisation’s name* will be completed automatically if you have already entered it on the REFC Control Panel.

Figure 3: RECON Control Panel

1 – **Run RECON Validation** – once you have populated the reconciliation worksheets, press this button to check your data against the mandatory and non-mandatory validations described in the collection guidance.
2 – Populate Upload Sheet RECON – once you have populated the reconciliation worksheet, press this button to paste the data into the NHSD_Upload worksheet in the workbook.

3 – View REFC Tabs – press this button to view the various worksheets in the REC area of the workbook.

4 – Organisation Details – use the dropdown to select your three-character trust code; the name will populate automatically.

5 – Validations Checks – here you can see if you have passed the mandatory validations, and whether your total cost and reconciliation quanta are within the acceptable tolerance.

80. You should now begin completing the relevant worksheets. Throughout the workbook, only white cells will allow input. Blue cells are locked to stop input. Grey cells are also locked and contain totals or links from other worksheets.

81. RECON includes the following worksheets:
   • Control Panel
   • Reconciliation.

7.7 Populating the upload worksheet

82. Once you have added some data to the individual tabs, you can begin to populate the upload worksheet by pressing the Populate Upload Sheet REFC or Populate Upload Sheet RECON buttons. Please note that each time you do this, any previous iterations of your data will be overwritten, so if you need to keep them you will need to save older versions of the workbook locally.

83. On pressing either of the buttons, the workbook will run all the mandatory and non-mandatory validations. For more information on the validations, see Section Error! Reference source not found. for aggregate costs.

84. Providing you have no mandatory validations, your data will be added to the NHSD_Upload Tab of the workbook (see Figure 4).
1 – **REFC data** – the data in columns A to P shows all the data you have submitted as part of the REFC workbook.

2 – **RECON data** – the data in columns Q to X shows all the data you have submitted as part of the RECON workbook.

85. Once you have populated this worksheet, you can use it in the same way as any other Excel worksheet and, using the filters, you can check that the data you want to be imported from the individual input sheets will be uploaded into SDCS.

86. If you choose to, you can upload REFC and RECON data individually into SDCS, but please note that each time you upload a new workbook into SDCS, everything will be overwritten. For example, if you upload REFC data on 1 July and then want to append the RECON data on 2 July, you need to upload a workbook containing both sets of data. If you were to upload a workbook containing RECON data only on 2 July, your REFC data would disappear from SDCS.

### 7.8 Data validations for aggregated costs

#### Running the validations in the workbook

87. When you click the **Run REFC Validation** button on the **Control Panel**, you may receive a message similar to that shown in Figure 5 below.

88. The status of the **Control Panel** will also change to **failed**.

89. This indicates that the workbook validation has found errors in the data input. An **Errors** worksheet will be generated listing the lines that need to be amended.
90. To resolve these errors, you will need to navigate to each of the worksheets identified on the Errors worksheet and correct the errors as appropriate. Once you have done this, you will need to run the validations again.

91. In the example shown in Figure 5, four errors were found on the CMDT worksheet.

92. By navigating to the CMDT worksheet (see Figure 6 below), the errors can be seen on rows 10, 12, 13 and 14; they are flagged *Mand Error in column K.

93. After fixing these errors and clicking the Run REFC Validation button on the Control Panel, the Mandatory Validation Status will change from failed to pass.

RECON validations

94. Similar to REFC, when you click the Run RECON Validation button on the Control Panel, an Errors worksheet may be generated. If there are errors, the validation status on the Control Panel will also change to failed. To resolve these errors, you will need to navigate to each of the worksheets identified on the Errors worksheet and correct the errors as appropriate. Then you will need to click the Run RECON Validation button again to ensure the status is now pass.

Mandatory workbook validations

95. Our mandatory validations (see Table 2 below) are designed to assure the basic integrity of the data submitted. All validations are embedded in the NCC workbook and NHS Improvement’s data validation tool. Providers will not be able to sign-off their returns until their data passes each of these validations.

96. As previously mentioned, all mandatory validations (with the exception of ‘14 – Quantum’) must be cleared before a signed-off submission can be done.
Figure 5: Errors worksheet

<table>
<thead>
<tr>
<th>Worksheet</th>
<th>Row/C</th>
<th>Error</th>
</tr>
</thead>
<tbody>
<tr>
<td>CMDT</td>
<td>10</td>
<td>If an activity is reported then a cost must be reported and vice versa.</td>
</tr>
<tr>
<td>CMDT</td>
<td>12</td>
<td>If an activity is reported then a cost must be reported and vice versa.</td>
</tr>
<tr>
<td>CMDT</td>
<td>13</td>
<td>Activity must be positive.</td>
</tr>
<tr>
<td>CMDT</td>
<td>14</td>
<td>Unit Cost must be greater than or equal to 20.</td>
</tr>
</tbody>
</table>

Figure 6: CMDT worksheet example

Cancer multi-disciplinary team meetings

Fixed - these are the only possible rows on this worksheet; only enter appropriate data in columns I and J.

Return to Control Panel
Table 2: List of mandatory validations for aggregated costs

<table>
<thead>
<tr>
<th>No</th>
<th>Validation</th>
<th>Description</th>
<th>Worksheet</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Activity = integer</td>
<td>Activity must be an integer</td>
<td>All</td>
</tr>
<tr>
<td>2</td>
<td>Activity &gt;0</td>
<td>Activity must be positive</td>
<td>All</td>
</tr>
<tr>
<td>3</td>
<td>Activity and unit cost</td>
<td>If activity is reported, then a unit cost must be reported, and vice versa</td>
<td>All</td>
</tr>
<tr>
<td>5</td>
<td>Duplicate entry</td>
<td>Each combination of department code, service code and currency code must be unique</td>
<td>All</td>
</tr>
<tr>
<td>6</td>
<td>Invalid code</td>
<td>Department code (eg DC), service code (eg 100) or HRG code (eg AA22C) is invalid</td>
<td>Flexible</td>
</tr>
</tbody>
</table>
| 7  | Memorandum information | The following memorandum information must be supplied in addition to unit cost and activity:  
- number of adult critical care periods  
- average number of home haemodialysis sessions per week  
- number of direct access pathology tests  
- average cluster review period and number of completed cluster review periods  
- number of high intensity contacts  
- number of low intensity contacts  
- total number of cluster days  
- average length of episode  
- average number of contacts per episode  
- number of service users | CC, RENAL, DAP, MHCC, MHCCIAPT, SECUREMH |
| 8  | Missing code | Missing department, service or currency code within a row of data | Flexible |
| 9  | Missing costs and activity | Codes have been supplied, but no unit costs or activity | Flexible |
| 10 | Quantum | The sum of unit costs multiplied by activity must be within ±1% of the reconciliation statement | N/A |
| 11 | Unit cost = #.## | Unit cost must be to two decimal places | All |
| 12 | Unit cost ≥0.01 | Unit cost must be positive and ≥£0.01 | All worksheets except those listed in 13 and 14 |
### Non-mandatory validations

97. Our non-mandatory validations (see Table 3 below) are designed to improve the quality and accuracy of the data.

98. Failing a non-mandatory validation is not in itself an indication that the data is incorrect. There are many valid reasons why data may not pass a non-mandatory validation: for example, a small number of high cost episodes may result in an average unit cost >£50,000.

99. Nevertheless, a requirement is for providers to consider these validations and make any necessary revisions, confirming the extent to which they have done so on the self-assessment quality checklist in the reconciliation area of the NCC workbook.

100. However, you are advised to investigate and correct as necessary non-mandatory validations, and you are required to record your response in the self-assessment quality checklist in RECON. The non-mandatory validation error count is shown on the Control Panel.

101. In the example in Table 3, there are 10 non-mandatory validations. These will generate a new worksheet called Non-mandatory Errors.

102. A summary of all the non-mandatory validations is included in the Summary Validations worksheet (see Figure 7 below). The grey cells indicate that a validation is not performed on that worksheet.
Table 3: List of non-mandatory validations for aggregated costs

<table>
<thead>
<tr>
<th>No</th>
<th>Validation</th>
<th>Work-sheets</th>
<th>Materiality threshold</th>
<th>Exceptions</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Day-case unit cost is more than double the ordinary elective unit cost for the same HRG and the same TFC</td>
<td>APC</td>
<td>&gt;10 day-case FCEs and &gt;10 ordinary elective FCEs</td>
<td>None</td>
</tr>
<tr>
<td>2</td>
<td>Follow-up unit cost is more than double the first unit cost for the same outpatient attendance in the same TFC</td>
<td>OPATT</td>
<td>&gt;10 follow-ups and &gt;10 firsts</td>
<td>None</td>
</tr>
<tr>
<td>3</td>
<td>Non consultant-led unit cost is more than double the consultant-led unit costs for the same outpatient attendance in the same TFC</td>
<td>OPATT</td>
<td>&gt;10 non consultant-led and &gt;10 consultant-led</td>
<td>None</td>
</tr>
<tr>
<td>4</td>
<td>Outliers: unit cost is less than one 10th or more than 10 times the national mean unit cost. The NCC workbook will use 2018/19 means. During the submission window, we recommend that trusts refer to the national average report in SEFT, which is updated overnight and shows real-time means.</td>
<td>All</td>
<td>&gt;10 activities</td>
<td>None</td>
</tr>
<tr>
<td>5</td>
<td>Paediatric critical care HRGs are being reported by the expected organisations.</td>
<td>CC</td>
<td>N/A</td>
<td>None</td>
</tr>
<tr>
<td>6</td>
<td>Single professional unit cost is more than double the multiprofessional unit cost for the same outpatient attendance in the same TFC.</td>
<td>OPATT</td>
<td>&gt;10 single and &gt;10 multi</td>
<td>None</td>
</tr>
<tr>
<td>7</td>
<td>Unit cost &gt;£50,000.</td>
<td>All</td>
<td>None</td>
<td>None</td>
</tr>
<tr>
<td>8</td>
<td>Unit cost &lt;£5.</td>
<td>All</td>
<td>None</td>
<td>Excluded services:</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>• ambulance service calls</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>• direct access pathology</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>• mental healthcare clusters</td>
</tr>
<tr>
<td>9</td>
<td>Variance between 2018/19 and 2019/20 total costs or total activity is &gt;25%. The workbook analysis will be at worksheet level. The mid-collection</td>
<td>All</td>
<td>None</td>
<td>None</td>
</tr>
<tr>
<td>No</td>
<td>Validation</td>
<td>Work-sheets</td>
<td>Materiality threshold</td>
<td>Exceptions</td>
</tr>
<tr>
<td>----</td>
<td>------------</td>
<td>-------------</td>
<td>----------------------</td>
<td>------------</td>
</tr>
<tr>
<td></td>
<td>feedback will be by department and HRG subchapter for acute services, and department, service and currency for non-acute services.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>10</td>
<td>The A&amp;E department type reported in the aggregated costs is different from that in the NHS national statistics for quarterly A&amp;E activity.</td>
<td>AE</td>
<td>None</td>
<td>None</td>
</tr>
</tbody>
</table>

Figure 7: Non-mandatory Errors worksheet

7.9 NHS Digital submission platforms

103. For more information on accessing the submission platform, please refer to Annex 3.
8. Data validation tool (DVT) user guide

8.1 What is the DVT?

104. The NHS England and NHS Improvement DVT assesses the quality of the PLICS extracts before their submission to NHS Digital, to minimise the chance of submission failure and to improve data quality.\(^\text{24}\)

105. Software suppliers and NHS providers can choose to create CSV or XML files. Regardless of whether CSV or XML files are produced, providers should validate their files using the DVT before submission.

106. The NHS England and NHS Improvement DVT:

- converts CSV files into XML format (if required)
- 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
- compresses the collection files before submission to NHS Digital.

8.2 Important information about the DVT

107. The tool is hosted on the secured NHS England and NHS Improvement Microsoft Azure public cloud.

108. The tool is digitally signed by NHS Improvement; the certificate is issued by GlobalSign, a security certificate authority.

109. The NHS England and NHS Improvement environment is Cyber Essential Plus certified.

110. The tool is client-deployed – no data is exchanged between the host and the client.

\(^{24}\) These are in addition to the workbook validations noted in Section 5.
8.3 System requirements

111. Two versions of the DVT are available. The one you require will depend on whether the tool will be installed on a 32-bit or 64-bit version of Windows.

112. If you are not sure which version you require, please click here and follow the steps outlined. Alternatively, please contact your IT department.

<table>
<thead>
<tr>
<th>Table 4: System requirements for data validation</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Recommended system requirements</strong></td>
</tr>
<tr>
<td>Windows 7 service pack 1 (64 bit)</td>
</tr>
<tr>
<td>16Gb RAM</td>
</tr>
<tr>
<td>Net 4.0</td>
</tr>
<tr>
<td>Internet Explorer 8 or above</td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td>Maximum file size: 430Mb</td>
</tr>
</tbody>
</table>

8.4 How to install the tool

113. The tool should be downloaded from: https://ctpdatavalidation.azurewebsites.net

114. The DVT download/install page will display.
115. After you have determined which version of the DVT you need to use, click the applicable **Install** button to begin installing it.

116. Depending on the version of Windows you are using (namely 8 or 10), this dialogue box may appear. Click **More info**.

117. Next, click **Run anyway** to start the application.

8.5 Known issues, limitations and remedial steps

118. The tool uses ClickOnce technology to enable users to install or execute the application without administration rights.

119. Depending on the computer configuration, the error **CANNOT START APPLICATION** might appear.

**Table 5: Troubleshooting step 1**

<table>
<thead>
<tr>
<th>Scenario</th>
<th>Remedial steps</th>
</tr>
</thead>
<tbody>
<tr>
<td>Windows Defender SmartScreen prevents app from starting</td>
<td>Please contact your IT team to:</td>
</tr>
<tr>
<td></td>
<td>• whitelist the application</td>
</tr>
<tr>
<td></td>
<td>• align the GPO setting to <strong>NCSC</strong> guidelines to allow the More Info link and Run anyway button to be seen.</td>
</tr>
</tbody>
</table>
### Scenario | Remedial steps
---|---
When running the application for the first time or there is a new update | Please re-run the application.
When the tool runs in the client download folder | Please move the Setup.exe application to a different folder and run the application again.
Application started, but the user cannot locate the icon to open the programme | Please contact your IT admin, as this error commonly relates to admin rights not granted to the user or anti-virus/firewall issues.

### 8.6 General screens

#### Welcome screen

120. The **Welcome** screen will give you the following information:

- tool version and release date
- contact information
- release notes and sample files to run the testing of the tool.

121. Click **Start** to start the validation process.
System Requirements screen

122. Before proceeding, your computer information system will be checked to ensure it meets the minimum requirements to run the tool. Running the tool on a lower specification machine is not recommended as the process is likely to time out or take an inconvenient amount of time.

123. You can obtain extracts specifications, guidance and sample files by clicking the Supporting Information box.

Table 6: Troubleshooting step 2

<table>
<thead>
<tr>
<th>What to do if your machine does not meet one or more of the system requirements</th>
</tr>
</thead>
<tbody>
<tr>
<td>The files to be compressed are over 430Mb</td>
</tr>
<tr>
<td>My computer runs an earlier version of the Windows 7 service pack 1</td>
</tr>
<tr>
<td>My computer memory is 4Gb of RAM and the available memory is lower than 2Gb of RAM</td>
</tr>
<tr>
<td>My computer doesn’t have Net 4.0 installed</td>
</tr>
<tr>
<td>I’m using Google Chrome/Firefox/Opera</td>
</tr>
<tr>
<td>I do not see the Next button</td>
</tr>
</tbody>
</table>
Available Collections screen

124. The Available Collections screen gives you the following options:

- access available running collections
- access PLICS costing guidance files and specifications (NHS England and NHS Improvement website)
- download the sample files to run local testing of the tool.

125. After selecting the collection you are participating in, click Start to start the validation process.

8.7 How to validate your patient-level costing extracts

Collection Options screen

126. The Collection Options screen gives you the following options:

- validate your PLICS extracts
- compress your previously created PLICS extracts.

127. Select the option Validate my Patient-Level Costing extracts to convert CSV files to XML (where applicable) and to validate the files produced by your costing system, and then click Next.
File Locations screen

128. The **Files Locations** screen will now display.

129. Click **Browse** to select the **folder location** of the files you want to convert/validate; and where you want to save the output files.

130. An error message will appear when an invalid folder location is selected.

131. Then click **Start** to start the file conversion and validation process.

132. If the output file location or the **Next** button is not available, please restart the programme after upgrading the resolution of your computer screen.

File Conversion and Data Validation screen

133. The **File Conversion and Data Validation** screen will now display.

134. Single or multiple datasets/files can be selected, but if more than one, all should be completed in one go, or the process will fail.

135. Select the files to run, then click **Run**.

136. The CSV to XML conversion and data validation process against the schema will begin.

137. Conversion status, Validation status and Submission errors updates will show on screen.
Table 1: Troubleshooting step 3

-known issues-

If the folder location for the files to be processed is removed while the user is on file location screen, the application may crash.

If the data validation process is cancelled, the cancellation confirmation message does not appear until after the current process completes.

When validating the last file, the Validation results column status is recorded as waiting while the validation processing is run.

Hyperlinks are not produced in the data validation report if the errors in a file relate to data quality checks 50, 51 and 52 only.

Generating your report screen

138. When the file conversion and validation processes are complete, the Generate Report button will display.

139. We recommend running the report step even when the files include submission errors as the report will list all the submission and warnings error(s).

140. Then click Generate Report, and then Next.

Summary screen

141. The Summary screen will now display.

142. The following information will display:

- readiness for submission to NHS Digital
- total number of files processed, files with errors (submissions and format).
143. To access the output folder where the converted files are stored, you need to:

- click the hyperlink
- click Finish. This action will also close the application.

Alerts

144. The tool notifies users when invalid or no datasets have been selected.

145. A warning message will appear if you do not select a folder location for the reconciliation file.

146. If you do not have a reconciliation file and wish to proceed, click Yes.

147. A warning message will also appear if you only select the reconciliation file and no other dataset folder locations.

148. If you do not need to process files within a dataset folder, click Yes.

149. An error message will appear if you select an invalid folder location.

150. Click OK and re-select.

151. An error message will also appear if the chosen upload folder does not contain valid file names.
8.8 How to compress your PLICS extracts (when validation is complete)

Collection Options screen

152. The Collection Options screen gives you the following options:

- validate your PLICS extracts
- compress your previously created PLICS extracts.25

153. Select the second option: Compress my previously created Patient-Level Costing Extracts and click Next.

File Locations screen

154. The File Locations screen will now display.

155. Click Browse to select the folder location of the files you want to compress.

156. You can use either the XML or CSV validated files.26

157. The collection should be signed off before files are compressed for submission.27

158. Then click Run to start compressing your PLICS extracts.

159. Click Next when this process is completed.

25 This should only be completed for files which have passed validation.
26 The DVT will convert CSV files to XML files ready for submission.
27 Annex 2: Updated board assurance
160. The Summary screen will now display.

161. The summary report and submission files to submit to NHS Digital are available in the output folder, and accessible by clicking the provided hyperlink or the Finish button.

**How to test the tool if your PLICS extracts are not ready**

162. Sample files for testing the tool are available on the DVT download/install page on the system requirements and collection screens.

163. On clicking the Download Folder (Install page) or the icon in the supporting information folder on the system requirements and collection screens, the CTP_Documentation.zip folder will download through your browser.

164. The CTP_Documentation folder will now be available in your download folder.

165. You will see the Readme.txt file (Release note) and the sample files folder containing sample files for all available collections – the data modified column will help you identify if the sample files refer to the current or past collections.

166. Sample files are now available in XML and CSV format.

**How to access and read the data validation report**

167. The data validation report is now available as Excel or CSV outputs. The tool will determine this based on the system configuration.
Excel reports

168. Double click the **Data Validation Summary** Excel workbook to open the summary report.

169. The Data Validation Summary Excel workbook report contains five tabs.

170. **Summary Breakdown 1**: This tab provides an aggregate view across all processed files of the warning and submission failures that have been detected.

171. There are three types of errors: **warning**, **submission** and **file integrity**. If submission or file integrity errors are recorded, these will need to be corrected: files with these errors cannot be compressed or uploaded to NHS Digital.

172. **Summary Breakdown 2**: This tab details the errors detected by filename. If a file contains errors, click the hyperlink to see details of the error(s).

173. Clicking on the file name will direct you to the relevant location on the **File Breakdown** tab.

174. **File Breakdown**: This tab details, at a file level, the data quality check that generated the error, the error value and the number of times the value occurs.

175. **Data Quality Check Definitions**: This tab details the criteria the tool uses to identify errors.

176. **Reference Data Tables**: This tab lists the reference data the tool uses.\(^28\)

\(^{28}\) These reference tables are replicas of those included in the extract specification for your sector.
CSV reports

When the tool detects that no Excel software is available on the system, it will generate three CSV files as part of the summary report. These files can be opened using any text editor, such as Notepad or Wordpad.

178. SummaryBreakdown1_DataValidationSummaryReportyyyymmdd.csv is equivalent to the Summary Breakdown 1 tab in the Excel version.
179. **SummaryBreakdown2_DataValidationSummaryReportyyyymmdd.csv** is equivalent to the **Summary Breakdown 2** tab in the Excel version.

180. **FileBreakdown_DataValidationSummaryReportyyyymmdd.csv** is equivalent to the **File Breakdown** tab in the Excel version.

**How to access XML files**

181. The DVT produces the XML files and will zip the file as part of the process. You can access these files after the job is complete. The **XML** folder contains the XML files generated and validated by the tool.

182. The **Zipped.XML** folder contains the zipped files ready for submission to NHS Digital. Only files that have no submission errors will be compressed.

**Further support available**

183. Please email any installation queries you may have to [IT.Support@Improvement.nhs.uk](mailto:IT.Support@Improvement.nhs.uk) citing ‘CTP data validation tool’ in the subject field.

184. If you have any technical costing queries, please email the NHS England and NHS Improvement NCC team at [costing@improvement.nhs.uk](mailto:costing@improvement.nhs.uk).

185. If you have any feedback on how to improve the DVT, please contact the development team at [NHSI.DVT.Feedback@nhs.net](mailto:NHSI.DVT.Feedback@nhs.net).
9. Highlights from the desktop review

186. This section summaries highlights from the desktop review of the NCC reconciliation for 2018/19.

187. This is a light touch review by the National Cost Collection (NCC) team. It aims to help trusts with their governance and ensure the starting point for the NCC submission – the quantum – is completed correctly.

188. The review covers:

- board assurance process (BAP) – review the report(s) for compliance with the requirements in Volume 1 of the NCC guidance

- Costing Assurance Programme (CAP) action plans – review and ensure that the action plans agreed after a CAP review are being enacted, and monitored by a relevant committee

- quantum – review of the quantum against audited accounts, approved adjustments and expected exclusions.

189. This exercise is undertaken once the submission window closes, and findings are shared with individual trusts for them to address issues ahead of the next year’s submission. 2018/19 submissions were reviewed in early 2020 to enable any issues to be addressed ahead of the 2019/20 submissions.

190. Feedback from trusts has been that the desktop review is helpful, particularly for a better understanding of the NCC reconciliation process. Our analysis of review findings shows that, overall, collections are improving each year.

191. We have done about 40 desktop reviews from the 2019 NCC and the common findings are outlined in Table 7.

29 For the 2019/20 collection of data.
<table>
<thead>
<tr>
<th>Common issues identified</th>
<th>Action</th>
</tr>
</thead>
<tbody>
<tr>
<td>Starting quantum in reconciliation does not match final audited accounts</td>
<td>The starting figure for the quantum <strong>must</strong> equal the sum of the operating expenses reported in the accounts. Any adjustments should be agreed with costing and included in user-defined lines.</td>
</tr>
<tr>
<td>Operating income in reconciliation does not match final audited accounts</td>
<td>The total for lines for research and development and education and training other operating income <strong>must</strong> reconcile to the total for other operating income in the accounts. Any adjustments should be agreed with NCC team and included in user-defined lines.</td>
</tr>
<tr>
<td>User-defined line adjustments not agreed</td>
<td>Any adjustments made to the user-defined lines <strong>must</strong> be agreed with the NCC team annually. Approval is only for one year.</td>
</tr>
<tr>
<td>No reconciliation of entries to audited accounts</td>
<td>Trusts must match figures outlined in the NCC reconciliation back to the final audited accounts.</td>
</tr>
<tr>
<td>Non-NHS patient costs versus non-NHS patient income</td>
<td>If trusts have issues identifying and splitting out non-NHS patients into private, non-reciprocal, etc and there is significant variance (positive and negative), they should contact the NCC team.</td>
</tr>
<tr>
<td>Exclusions</td>
<td>If trusts are unsure where to exclude a service or aids and appliances, they should consult the NCC team before making the adjustment(s).</td>
</tr>
</tbody>
</table>
10. Acute dry run updates

192. Ahead of the 2020 collection, the NCC team sought to learn lessons from the experience of the first mandated PLICS collection in 2019.

193. To improve future collections and move towards a single cost collection in 2022, the collection needs to evolve by moving more services out of the workbook and into the PLICS submissions.

194. To embrace the changes to the tools and processes, to mitigate any risk associated with collecting new data in a live collection, and to allow the initial submission period to open earlier and be shorter, a thorough test (dry run collection) was done earlier this year. This tested the:

- NCC guidance
- technical document which goes alongside the Approved Costing Guidance – Standards
- acute extract specification
- data validation tool (DVT)
- NCC workbook.

195. The dry run aimed to identify any issues that would previously have been picked up by early submitters, and thereby build confidence in the new feed types work, to encourage more trusts to implement them in 2020.

196. The dry run cost collection was limited to testing the acute sector cost collection for 2020. It ran from 16 March 2020 to 15 April 2020 and involved the following stakeholders:

- NHS England and NHS Improvement
- software suppliers
- providers.

197. The dry run tested the process up to the point of submission to NHS Digital. Feedback from the dry run was discussed with NHS Digital, and the Acute extract specification updated as necessary.
198. All suppliers were invited to participate in the dry run cost collection.

199. Four suppliers and partner trusts volunteered for the dry run collection. Suppliers chose the partner trusts they worked with. Those trusts were expected to meet a minimum set of criteria.

200. Suppliers that could not take part were still able to access all the documentation for the dry run collection, and were invited to and participated in the project calls and feedback processes.

201. We would like to thank the four trusts and their software suppliers for their support throughout the dry run; it proved to be a very valuable exercise.

202. Our four dry run partners were all able to send some data to us. Table 8 shows the files they submitted.

**Table 8: Data received from trust partners during the dry run**

<table>
<thead>
<tr>
<th></th>
<th>APC</th>
<th>OP</th>
<th>AE</th>
<th>SWC</th>
<th>SI</th>
<th>Rec</th>
<th>Workbook</th>
</tr>
</thead>
<tbody>
<tr>
<td>Partner 1</td>
<td>✅</td>
<td>✅</td>
<td>✅</td>
<td>✅</td>
<td>✅</td>
<td>✅</td>
<td>✅</td>
</tr>
<tr>
<td>Partner 2</td>
<td>✅</td>
<td>✅</td>
<td>✅</td>
<td>✅</td>
<td>✅</td>
<td>✅</td>
<td>✅</td>
</tr>
<tr>
<td>Partner 3</td>
<td>✅</td>
<td>✅</td>
<td>✅</td>
<td></td>
<td></td>
<td></td>
<td>✅</td>
</tr>
<tr>
<td>Partner 4</td>
<td>✅</td>
<td>✅</td>
<td>✅</td>
<td>✅</td>
<td>✅</td>
<td>✅</td>
<td></td>
</tr>
</tbody>
</table>

203. During the dry run collection we received 33 queries from our partners, some of which were resolved during the collection and some subsequently. The queries fell into the following broad categories:

- acute specification
• DVT
• NCC guidance
• technical document
• workbook.

204. The changes made as a result of the issues raised during the dry run can be found in Annex 1. We highlight those that change or clarify the guidance issued in Volume 3: National Cost Collection – Acute sector.

205. All parties agreed the dry run collection has better prepared us for the 2020 NCC. The lessons from this include:

• the dry run is a very valuable exercise, particularly as changes are now applied to ‘live’ collections, without first piloting them, due to the complexity of PLICS collections
• highlights both minor and more complex issues before the collection opens, giving us the opportunity to resolve them ahead
• work with NHS Digital to ensure ‘end-to-end’ testing where appropriate
• encourages all costing software suppliers to participate
• timing was appropriate for the initially planned opening of the submission window.
Annex 1: Clarifications to Volume 3 – acute sector

Guidance clarification

206. Paragraph 167

NHS England and NHS Improvement were asked to clarify paragraph 167 of Volume 3 of the NCC guidance as it refers to trim points which have been phased out.

167. You should not attempt to separately identify non-discrete rehabilitation costs during an APC stay. You should not use unbundled rehabilitation HRGs to describe the cost of activity beyond an HRG trim point for any acute or non-specified HRG.

Clarification: This paragraph refers to discrete specialist rehabilitation collected in the workbook on the REHAB tab. Excess bed days for data submitted anywhere in the NCC workbook should be included in the FCE. No excess bed days will be separately collected in 2020. (DR015\textsuperscript{30})

207. Low cost HRG – validation

NHS England and NHS Improvement were asked to clarify zero and minimal cost HRGs where we used different modal verbs (‘should’ and ‘may’) in different sections of the guidance. We were also asked to clarify what constitutes ‘minimal’.

Clarification: The correct modal verb in all circumstances is ‘should’, so for paragraphs 177, 216 and 230 of Volume 3 please read ‘may’ as ‘should’. As per the costing principles, it is the provider’s responsibility to identify minimal cost HRGs under the concept of materiality. The DVT and NCC workbook validations consider an FCE of <£5 as low cost. If you have HRGs with

\textsuperscript{30} DR, dry run query.
minimal costs, they will not fail the DVT submission process but will trigger warnings. (DR017)

208. Costing grouper for 2019/20

NHS England and NHS Improvement were asked to clarify the correct grouper as we referred to it by two different names on pages 5 and 17 of Volume 3.

**Clarification:** Providers should use the same grouper as for the 2019 collection: ‘reference costs grouper HRG4+ 2018/19’.

NHS England and NHS Improvement appreciate this name may cause some confusion. However, to ensure a grouper was ready for use early in the costing cycle, we decided to continue with the 2018/19 one. A name change would have required a full testing process, despite there being no changes to the underlying HRGs in the grouper. (DR025)

209. Adult critical care in the SWC feed

The guidance and Standard CM6: Critical care contradict regarding the treatment of outreach costs for critical care.

**Clarification:** Standard CM6 has been updated. The cost of outreach in the standard should be on general wards and not an overhead to critical care patients. The updated Standard CM6 supersedes the guidance in Volume 3 in terms of the costing of critical care outreach costs.

- If a patient on a general ward is supported by the outreach team, then the cost of the outreach team is attributable to them.
- If a patient is recorded in the Critical Care Minimum Dataset while on a general ward, they would normally be supported by critical care staff from the main ICU, not the critical care outreach team. However, this varies and where material, you should discuss this with the service.

210. Supplementary information (SI) feed

NHS England and NHS Improvement were asked if direct access imaging can be submitted in the SI feed.
**Clarification:** All direct access diagnostic imaging should be submitted via the NCC workbook. (DR013)

NHS England and NHS Improvement were asked how to identify whether a drug is sensitive or not, to understand where drugs should be submitted.

**Clarification:** High cost drugs now have one of two prefixes, identifying where/how they should be submitted. Any high cost drugs prefixed with PHCD should be submitted in PLICS via the SI feed and any prefixed with HICD must be submitted via the NCC workbook. (DR020)

NHS England and NHS Improvement were asked how unmatched high cost drugs and high cost devices should be included in the NCC.

**Clarification:** These should be submitted via PLICS in the SI feed without a PLEMI. (DR016)

NHS England and NHS Improvement were asked where sensitive/legally restricted unbundled imaging should be submitted.

**Clarification:** It is unlikely that an unbundled radiology test will be classified as sensitive/legally restrictive. However, should unbundled imaging be identified, it should be submitted in the NCC workbook. (DR035)

NHS England and NHS Improvement were asked to confirm what combination of resources and activities should be used in the SI feed for unbundled items.

**Clarification:** Table A1.1 shows the items and what coding must be used. (DR018)
Table A1.1: Unbundled collection resource and collection activity mapping

<table>
<thead>
<tr>
<th>Unbundled Item</th>
<th>CSIU</th>
<th>Resource</th>
<th>Activity</th>
</tr>
</thead>
<tbody>
<tr>
<td>High cost drugs and high cost blood products</td>
<td>1</td>
<td>CPF027</td>
<td>PHA003</td>
</tr>
<tr>
<td>High cost devices</td>
<td>2</td>
<td>CPF029</td>
<td>THR003</td>
</tr>
<tr>
<td>outpatient diagnostic imaging</td>
<td>3</td>
<td>CPF031</td>
<td>DIM001</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>DIM002</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>DIM003</td>
</tr>
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<td></td>
<td></td>
<td></td>
<td>DIM004</td>
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<td></td>
<td>DIM005</td>
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<td></td>
<td></td>
<td>DIM006</td>
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<td></td>
<td></td>
<td></td>
<td>DIM007</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>DIM008</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>DIM009</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>ODT006</td>
</tr>
</tbody>
</table>

31 The reference table in the acute extract specification has more combinations but mapping should be used.

32 CPF031-ODT006 is not on the Acute Extract Specification v1.1, worksheet ‘Ref Data – Combinations’ (published here on 29 May 2020) however, as this worksheet has only been included to indicate the probable combination, records linked to CPF031-ODT006 will should as part of your output.
Annex 2: Updated board assurance

1. As Director of Finance (or equivalent position) I certify the following:

- The activity included in the National Cost Collection in 2020 for <insert trust name and org code here> is consistent\(^{33}\) with the activity submitted to the sector’s mandated dataset\(^{34}\) submitted to NHS Digital for financial year 2019/20.
- The quantum has been reconciled to the audited/unaudited <delete as appropriate> accounts submitted to NHS England and NHS Improvement on <insert submission date here>.
- With the exceptions of those issues included in Annex A, the trust has complied with the Approved Cost Guidance for England, including the relevant costing standards for England for 2019/20 and the National Cost Collection guidance.
- I have reviewed and ensured any mandatory validations are correct and all uncorrected non-mandatory validations have been reviewed and do not impact on the data quality of the overall submission.

<Summarise any significant issues at the trust – for example, inability to submit patient level data for new data feeds – in an annex; Annex A.>

2. I can confirm that, at an appropriate time, the costs included in this return will be reviewed with clinicians and services, and any errors or issues corrected as part of the 2020/21 submission.

Signed: ____________________________________________

Position:____________________________________________

Trust: _______________________________________________

Date: _______________________________________________

\(^{33}\) Consistent means that there is less than a 0.5% difference between total activity in the National Cost Collection for 2019/20 and your organisation’s mandated dataset.

\(^{34}\) Hospital Episode Statistics (HES) for Acute, Community Services Data Set (CSDS) and Mental Health Services Data Set (MhSDS)/Improving Access to Psychological Therapies Data Set (IAPT) for Mental Health. There is no mandated dataset for the ambulance sector.
(A signed copy should be submitted to NHS England and NHS Improvement via costing@improvement.nhs.uk citing ‘Executive authorisation of NCC 2020 <trust code> in the subject line’. The trust should maintain a copy of this signed document.)
Annex 3: NHS Digital submission platforms

Submission platforms explained

211. SDCS is to be used to submit your NCC workbook.

212. SEFT is to be used to submit your PLICS acute data.

213. SEFT is also to be used to access some reports available to practitioners when assuring their data.

Strategic data collection service (SDCS)

Accessing SDCS

214. All trusts should read this guide to familiarise themselves with the system before the collection.

215. If you require access to SCDS, you should email NHS Digital at data.collections@nhs.net to request this. You can have two concurrent users per trust for this submission. Please note that your director of finance does not need access to SDCS.

216. If you are new to using this system, you will receive an email from NHS Digital inviting you to register to use it (see
217. **Figure A3.1**. Click the hyperlink to access the correct URL: from the landing screen you can either register (on your first visit) or sign-in (on any subsequent visits).
Figure A3.1: SDCS invitation email

— This message was sent from an email address external to NHSmail but gives the appearance of being from an NHSmail address. Verify the sender and content is legitimate before acting upon information contained within. —

Welcome,

You have been associated with the following organisation(s) and can submit data on their behalf:

BRADFORD TEACHING HOSPITALS NHS FOUNDATION TRUST (RAE)

You have been invited to become a user of the NHS Digital Strategic Data Collection Service (SDCS) to enable you to submit data for the RfCst collection.

Please click here to login using your existing NHS Digital Single Sign-On account or to register for an SSO account to access the SDCS data submission site.

Please note that this email invite is specific to you as is your details that are associated with your organisation on SDCS. If you are not the correct person to submit data please contact us using the email listed below.

More information about the RfCst collection is available here.

218. Your username for SDCS will be the email address you provided when nominating your system users.

219. On clicking the hyperlink in the email you will arrive at the SDCS landing page (see Figure A3.2 below). Click Sign In and you will be taken to the sign-in/registration page.

Figure A3.2: SDCS landing page

220. Figure A3.3 shows the sign-in/registration page: the first time you visit SDCS you will need to register; on subsequent visits you will use the same page to sign-in to the collection.

Figure A3.3: Sign-in/registration page
221. When you click **Register** the first time you access SDCS, you will be taken to the registration screen (see Figure A3.4). Your username will be the email address you used to generate the invitation to SDCS.

**Figure A3.4: Registration page**

![Registration page](image)

222. Complete all the fields to set up your account, type in the required verification code and click **Create my account**.

223. Following registration, you will be taken back to the sign-in screen (Figure A3.3). Click **Sign-In** and you will be taken to the submissions screen for the 2020 collection.
Using SDCS to submit your NCC workbook and view previous submissions

224. Figure A3.5 shows what the SDCS homepage will look like once you have registered and signed into the system. From here you can view your account information, sign out or make and view data submissions.

225. To make or view a submission, click the **Submissions** dropdown.

![Figure A3.5: Homepage when signed in](image)

226. As shown in Figure A3.6, you will be given two options: All or New. We go through the new submission process in the next few screenshots.

![Figure A3.6: Viewing or making submissions](image)

227. Clicking **New** will take you to the submission upload screen (see Figure A3.7).

![Figure A3.7: Submission upload screen](image)

228. You should check the collection, organisation and period fields are correct on the submission upload screen. These will have been automatically populated.
Clicking the View Guidance link will take you to the latest collection guidance.

229. You should always check you are using the latest NCC workbook before making a submission. We will let users know through the online learning platform (OLP) if there is an update to the NCC workbook, but when you are ready to upload, you must download the NCC workbook from this screen using the Download Proforma button. The test version on the NHS England and NHS Improvement website is not compatible with SDCS.

230. When you have downloaded and completed the latest version of the workbook, you should save the file locally and then, when you are ready to upload, click the Choose file button and locate the version of the workbook you want to upload.

231. Figure A3.8 shows what the submission upload screen will look like once you have added your completed workbook; you can see the name of the workbook in the Data File box.

**Figure A3.8: Submission upload screen with file added**

232. Use the Test Submission box on this screen if all you want to do is check the functionality of the system. If you tick this box, your data will not flow through to the reports and you will receive an email letting you know you have submitted a test submission only.
233. When you have uploaded the file and are ready to submit, click **Create**. This will start the upload process.

234. If this is your first submission, the file will start to upload, but if you have already made a submission, you will receive the error message shown in Figure A3.9 below. Simply tick the **Allow Resubmit** box and click **Create** again.

235. Once you have either clicked **Create** for the first time or ticked the **Allow Resubmit** box and clicked **Create** for subsequent uploads, you will see the screen shown in Figure A3.10. From here you can track the uploading of your submission: do not close this screen until it shows ‘Complete’ in the history section.

**Figure A3.9: Submission upload screen showing error**
236. Following each submission, you will receive an automated email from NHS Digital to let you know the status of your submission and whether it has been successful.

237. **Error! Reference source not found.** A3.11 shows the email you will receive if you ticked the ‘test submission’ box on the submission page, Figure A3.12 the email on making a successful submission and Figure A3.13 the email once you have submitted a workbook with the relevant sign-off box checked on the control panel of the workbook.

**Figure A3.11: Test submission email**

---

This message was sent from an email address external to NHSmail but gives the appearance of being from an NHSmail address. Verify the sender and content is legitimate before acting upon information contained within.

---

Dear Tim,

You have created a TEST submission for the RefCost collection, for BRADFORD TEACHING HOSPITALS NHS FOUNDATION TRUST at 09/05/2018 10:52:56 for the reporting period RefCosts-2018.

Please note this is NOT a real submission and NO data has been submitted.

You are now required to log in to the system to submit your data for RefCost collection for reporting period RefCosts-2018.

<table>
<thead>
<tr>
<th>Structure</th>
<th>FieldOrAreaName</th>
<th>Warnings</th>
</tr>
</thead>
<tbody>
<tr>
<td>SDC/Validations</td>
<td>Error</td>
<td>1</td>
</tr>
</tbody>
</table>

*Click here for further details*
Figure A3.12: Successful submission email

---

Dear Tim,

Thank you for submitting your data for the RefCost collection.

Data was successfully submitted for **BRADFORD TEACHING HOSPITALS NHS FOUNDATION TRUST** at 08/05/2018 11:40:07 for the reporting period **RefCosts-2018**.

[Click here for further details]

Figure A3.13: Signed-off submission email

---

Dear Tim,

Thank you for submitting your data for the RefCost collection.

Data was successfully submitted for **BRADFORD TEACHING HOSPITALS NHS FOUNDATION TRUST** at 08/05/2018 13:55:46 for the reporting period **RefCosts-2018**.

The following potential issues with your successful submission have been identified, please investigate and consider updating your systems for future submissions.

<table>
<thead>
<tr>
<th>Structure</th>
<th>FieldOrAreaName</th>
<th>Warnings</th>
</tr>
</thead>
<tbody>
<tr>
<td>SDCSValidation</td>
<td>Error</td>
<td>1</td>
</tr>
</tbody>
</table>

[Click here for further details]

238. Once you have uploaded some data, you can click **All** (see Figure A3.14), and you will see the history of any submissions you have made on the submission history screen (see Figure A3.14).

Figure A3.14: Submission history screen

<table>
<thead>
<tr>
<th>Collection</th>
<th>Org Code</th>
<th>Organisation</th>
<th>Period</th>
<th>Submitted By</th>
<th>Current Stage</th>
<th>Test Actions</th>
</tr>
</thead>
<tbody>
<tr>
<td>RefCost</td>
<td>RAE</td>
<td><strong>BRADFORD TEACHING HOSPITALS NHS FOUNDATION TRUST</strong></td>
<td>RefCosts-2018</td>
<td><a href="mailto:tim.edmonston@nhs.net">tim.edmonston@nhs.net</a></td>
<td>Complete</td>
<td>Detail</td>
</tr>
<tr>
<td>RefCost</td>
<td>RAE</td>
<td><strong>BRADFORD TEACHING HOSPITALS NHS FOUNDATION TRUST</strong></td>
<td>RefCosts-2018</td>
<td><a href="mailto:tim.edmonston@nhs.net">tim.edmonston@nhs.net</a></td>
<td>Complete</td>
<td>Detail</td>
</tr>
<tr>
<td>RefCost</td>
<td>RAE</td>
<td><strong>BRADFORD TEACHING HOSPITALS NHS FOUNDATION TRUST</strong></td>
<td>RefCost-2018</td>
<td><a href="mailto:tim.edmonston@nhs.net">tim.edmonston@nhs.net</a></td>
<td>Test Complete</td>
<td>Detail</td>
</tr>
</tbody>
</table>

239. From this submission history screen, you can pull up the details of each of the submissions you have made. The example shown in Figure A3.15 is from the signed-off submission.

240. You can view the workbook you have submitted by clicking the hyperlink including your workbook name and see whether the upload has generated any system errors or warnings.
241. For details of what the error or warning is, select the **Error** hyperlink. A new page will open showing what prompted the error or warning.

242. In the example error warning screen shown in Figure A3.16, the submission was signed-off before it was uploaded and the warning message just informs the user that because of this they cannot make any further submissions into SDCS.

243. This underlines the importance of making sure that your signed-off submission is your final submission. If you have a valid reason for needing to resubmit, do get in touch with the NCC team. We will not be able to allow resubmissions as quickly as we could with Unify2 as it is now up to NHS Digital to ‘re-associate’ your trust with the collection.

**Figure A3.16: Example warning message**

Validation Messages - SDCSValidations - Error

244. Once you have made a successful submission, you can view the reports. The next section of this guide covers access to and downloading of reports via SEFT.
Secure electric file transfer (SEFT)

245. A suite of data reports will be available for the 2020 collection.

246. Reports will be run overnight. The aim is that you will be able to access them the day after you make a successful submission.

247. If you are new to the system, you will receive an invitation to register for SEFT (Figure A3.17); this will be sent to the people who requested SDCS access.

**Figure A3.17: SEFT invitation**

Good morning
You have been nominated as a SEFT user.
Data can be submitted by accessing [this link](#).
You should have received an automated email providing further details of how to log in for the first time. (click sign in/register)
The data will be available to review via SEFT. This can be accessed at [this link](#).
Your username for SEFT will be **SDCS_T1234_XX**
As SEFT is a live system, your password will be sent to you by text, once you have confirmed receipt of this email. Please provide a mobile number for me to do so. Alternatively give me a call on one of the numbers below.

248. You will need to register for SEFT by clicking the link in the email. Although the email contains your username, in your reply you will need to give your mobile number to receive a password via text message.

249. If you are uncomfortable sharing your mobile number with NHS Digital, you can call the number in the email to request a password over the phone.

250. Once you have your username and password, click the link and fill in the sign-in details (Figure A3.18). The first time you log in you will be asked to change your password (your username cannot be changed).
251. Once you have logged in, you will see the SEFT report homepage (Figure A3.19). Please note that if you are submitting aggregated costs and PLICS, you will see two folders on this screen. To view the aggregated costs reports, click the RefCosts_Download hyperlink.

Figure A3.19: SEFT report homepage

252. This will open a separate folder with your latest reports (Figure A3.20). Please note that these reports are automatically refreshed each day, so if you make a new submission your old data will be overwritten. The reports are not archived in SEFT, so if you need to retain old reports you will need to download and save them locally.

Figure A3.20: Your trust reports
Contact us:

costing@improvement.nhs.uk

**NHS England and NHS Improvement**
Wellington House
133-155 Waterloo Road
London
SE1 8UG

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

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