



CHILDHOOD CANCER CLINICAL DATA COMMONS (C3DC)

User Guide

06/18/2025

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| 1.4.0 | 03/05/2025 | Release 5 | C3DC Team |
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Introduction and Overview

The Childhood Cancer Clinical Data Commons (C3DC) enables searching demographic and phenotypic clinical data of childhood cancers. These data have been harmonized to a standard set of common data elements (CDEs). C3DC empowers researchers to search for participant-level data to create synthetic cohorts and export data for analysis.

This document describes a high-level overview of the features of C3DC. Investigators are encouraged to explore C3DC themselves, using this guide as a primer.

C3DC Home Page

The Home Page allows users to navigate through key sections, including Explore, Cohort Analyzer, Data Model, and About pages.

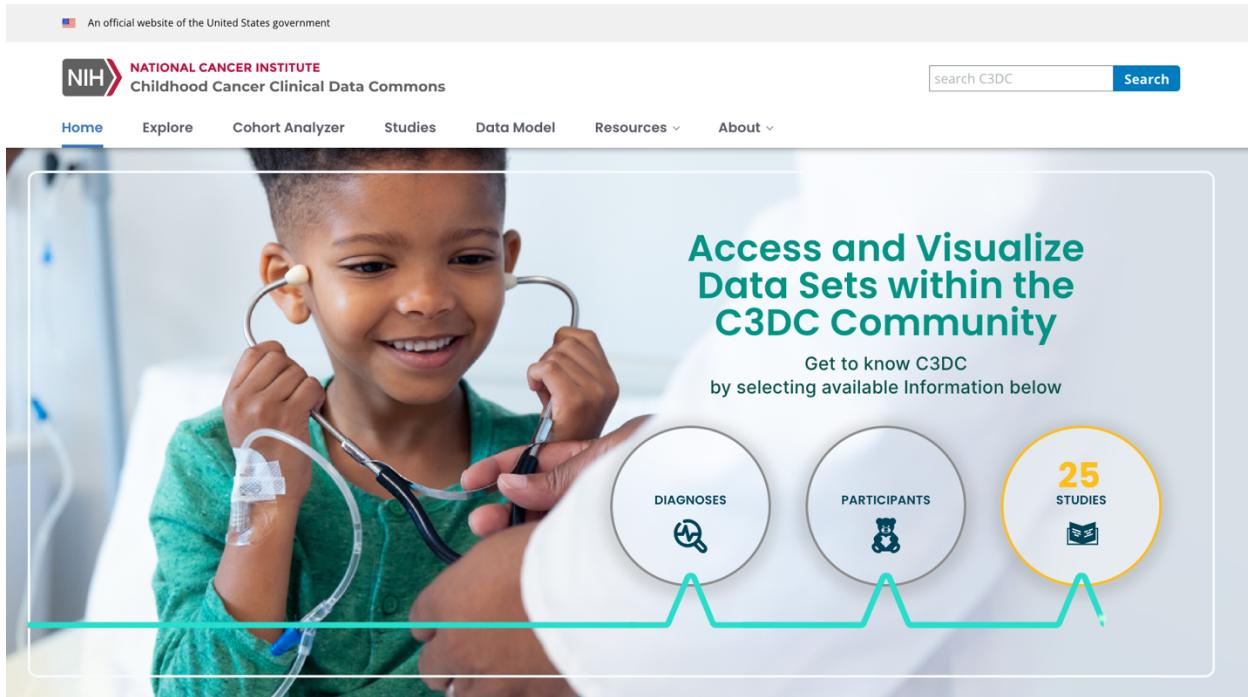


Figure 1: C3DC Home Page (top)

At the bottom of the Home page, there are links to brief descriptions of key sections of the C3DC application.

The screenshot shows the bottom portion of the C3DC Home Page. It features a grid of four main sections: 'About the Childhood Cancer Clinical Data Commons' (with a network diagram), 'Data Model' (with a person using a laptop), 'Announcements' (with a person using a laptop), and 'C3DC Data' (with a hand interacting with a digital interface). Below this grid is a dark blue footer bar containing links for 'About', 'Resources', 'Policies', and a 'Sign up for email updates' form.

About the Childhood Cancer Clinical Data Commons

The Childhood Cancer Clinical Data Commons (C3DC) is a database that houses childhood cancer demographics and phenotypic clinical data. These data have been harmonized to a standard set of common data elements (CDEs). C3DC empowers researchers to search for participant-level data to create synthetic cohorts and export data for analysis.

[READ MORE](#)

Data Model

Review components to gain a deeper understanding of the specifics of harmonization.

[EXPLORE DATA MODEL](#)

Announcements

Our latest release contains harmonized demographic and phenotypic data from nine additional CCDDI datasets.

[EXPLORE ANNOUNCEMENTS](#)

C3DC Data

Explore and export C3DC data for analysis alongside other data types.

[EXPLORE DATA](#)

About

- About C3DC
- About CCDDI
- Contact CCDDI

Resources

- C3DC Data Model
- Bento

Policies

- Accessibility
- FOIA
- Privacy & Security
- Disclaimer
- Vulnerability Disclosure

Sign up for email updates

Enter your email address

[Sign up](#)

Figure 2: C3DC Home Page (bottom)

C3DC Explore Page

The Explore Page is the main interface for searching and visualizing data. Users can refine results using faceted search options and analyze participant-level details.

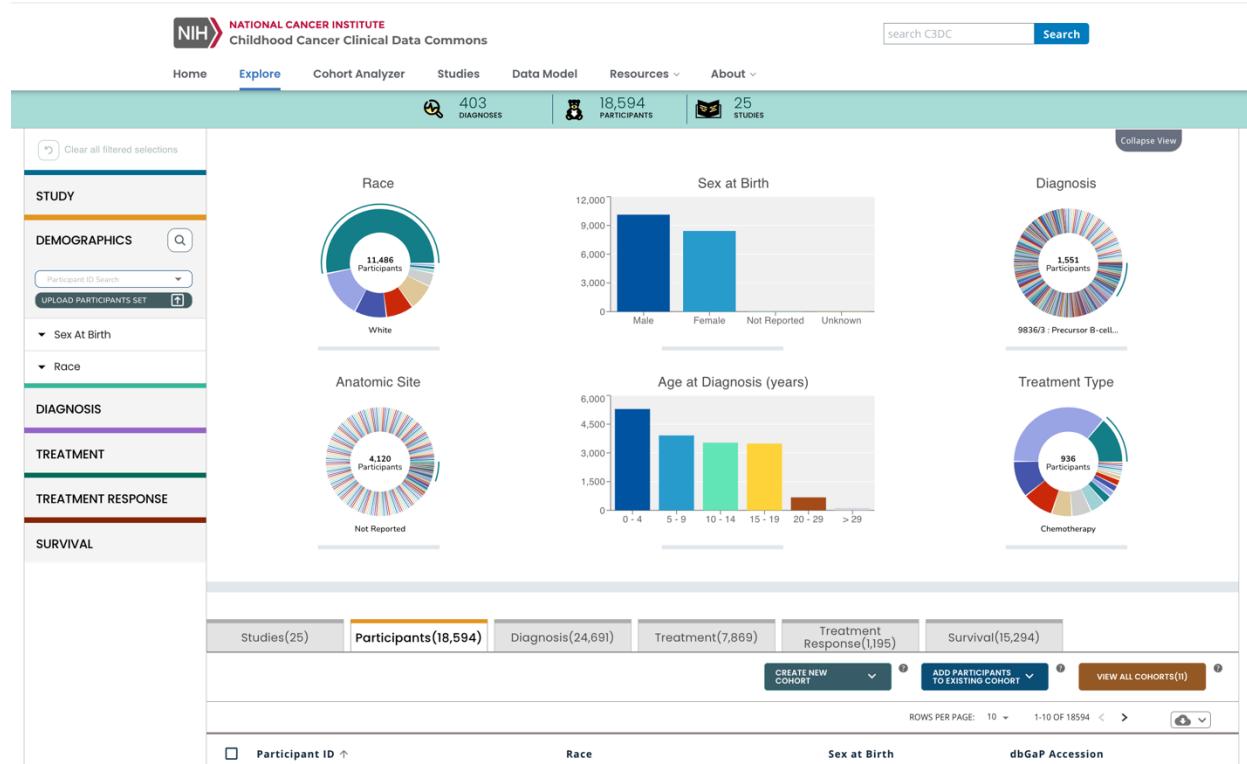


Figure 3: The Explore Page – Faceted Search (left), Visualization (top), and Data Tables (bottom)

Facet Search

Users can select a subset of the childhood cancer participants by choosing filtering options from drop-down lists within six main categories: Study, Demographics, Diagnosis, Treatment, Treatment Response, and Survival.

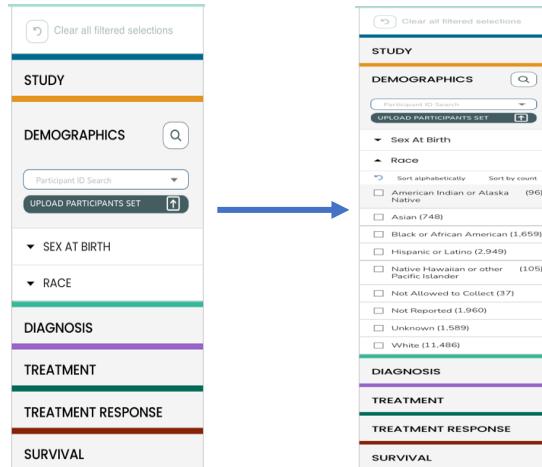


Figure 4: Performing a faceted search on the C3DC Explore Page

Chart Visualization

The **Stats Bar**, **Visualization Section**, and **Data Table** dynamically update based on applied filters.

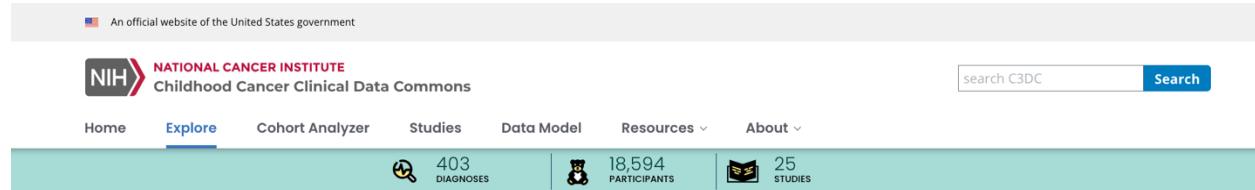


Figure 5: Results returned from a faceted search in the Stats bar

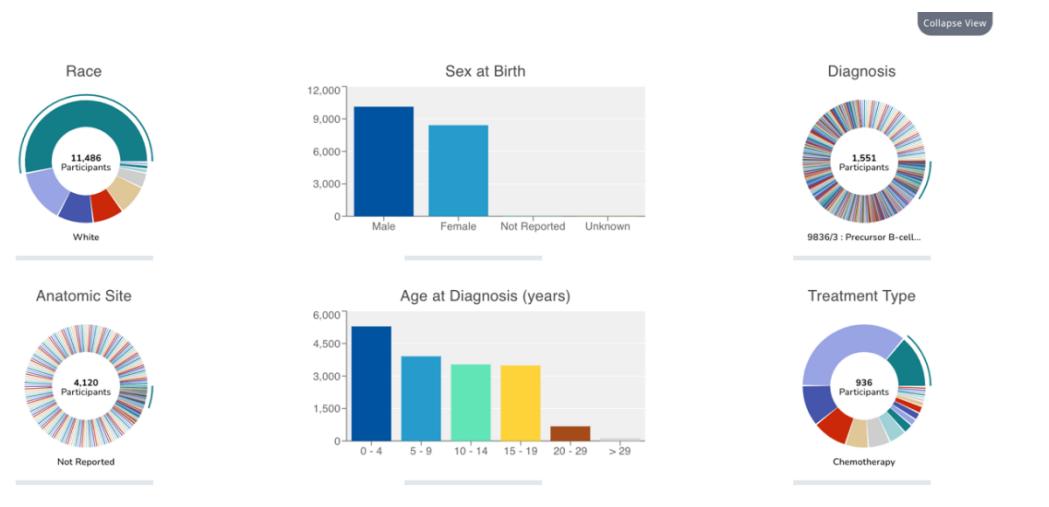


Figure 6: Results returned from a faceted search in six graphs in the Visualization section

Table Visualization

Displays participant details with **tooltips explaining table headers**.

| Count of Participant Record | | | | |
|-----------------------------|-----------------------|--------------------------|-------------------|----------------------------|
| Studies (25) | Participants (18,594) | Diagnosis (24,691) | Treatment (7,869) | Treatment Response (1,195) |
| | | | | |
| <input type="checkbox"/> | Participant ID ↑ | Race | Sex at Birth | dbGaP Accession |
| <input type="checkbox"/> | 00301d78915737fa100f | White | Female | phs002431 |
| <input type="checkbox"/> | 0061ccb0846973206fcf | White | Male | phs002431 |
| <input type="checkbox"/> | 0065af91e89ee2859595 | Hispanic or Latino;White | Female | phs002431 |
| <input type="checkbox"/> | 008b04a84717e7d007a4 | White | Male | phs002431 |
| <input type="checkbox"/> | 009f9efadc9602a28fb | White | Female | phs002431 |
| <input type="checkbox"/> | 00c5e4372375eb3627f3 | White | Female | phs002431 |
| <input type="checkbox"/> | 00df38d509984ead22 | White | Male | phs002431 |
| <input type="checkbox"/> | 00e3d1d383c8c08a25d2 | White | Male | phs002431 |
| <input type="checkbox"/> | 00eff50ac98a200da9f9 | White | Male | phs002431 |
| <input type="checkbox"/> | 01504e3b7031a9eec2b2 | White | Female | phs002431 |

Figure 7: Results returned from a faceted search in the Table section

Synonym Search

When searching for a participant, Users can use any recognized synonym from the CCDI Participant Index (CPI). The system will identify the synonym, note that it matches a known participant, and display the corresponding participant_id and details in the results table below .

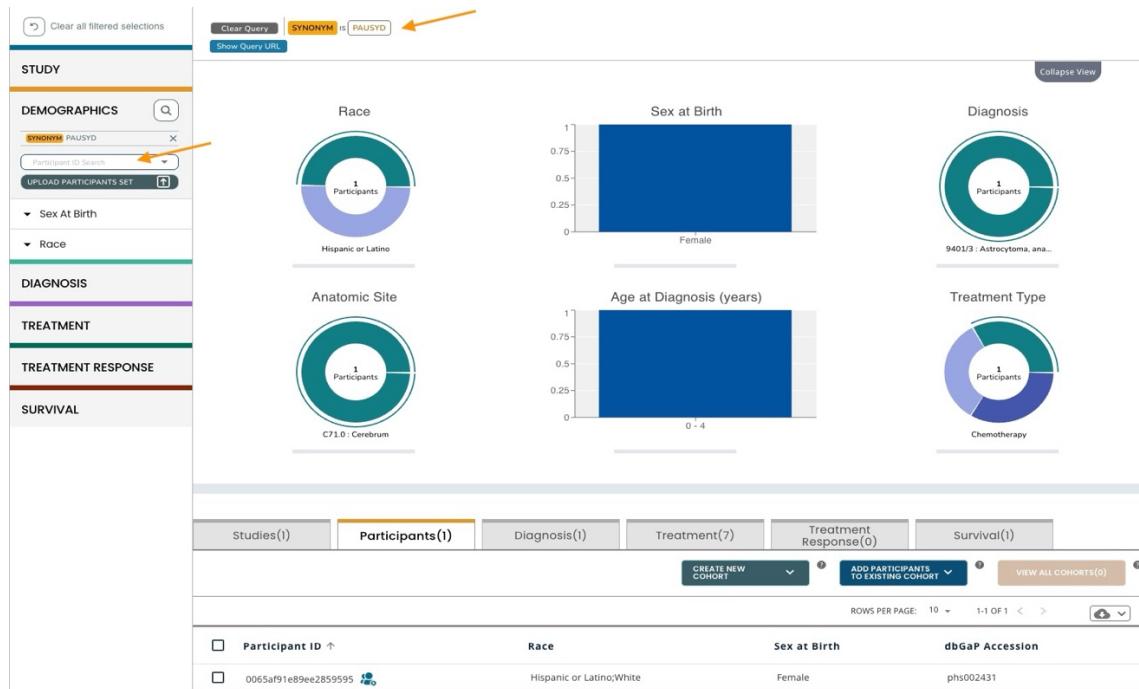
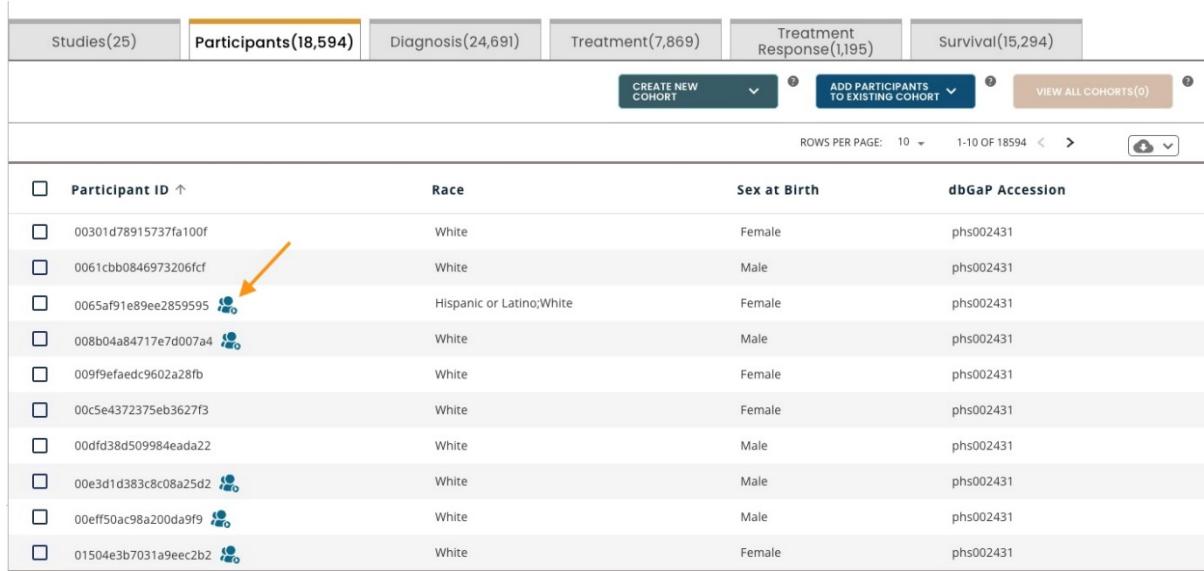


Figure 7A: Searching by synonym capabilities and match confirmation

CPI Participant Indicator

For participants with additional synonym values from the CPI, an icon will be displayed next to the participant_id values within the Participant tab table. Hovering over the icon displays a tooltip with the clickable link that opens a popup table containing synonym information from the CPI.



| Participant ID ↑ | Race | Sex at Birth | dbGaP Accession |
|---|--------------------------|--------------|-----------------|
| <input type="checkbox"/> 00301d78915737fa100f | White | Female | phs002431 |
| <input type="checkbox"/> 0061ccb0846973206fcf | White | Male | phs002431 |
| <input type="checkbox"/> 0065af91e89ee2859595 | Hispanic or Latino;White | Female | phs002431 |
| <input type="checkbox"/> 008b04a84717e7d007a4 | White | Male | phs002431 |
| <input type="checkbox"/> 009f9efaedc9602a28fb | White | Female | phs002431 |
| <input type="checkbox"/> 00c5e4372375eb3627f3 | White | Female | phs002431 |
| <input type="checkbox"/> 00dfd38d509984eada22 | White | Male | phs002431 |
| <input type="checkbox"/> 00e3d1d383c8c08a25d2 | White | Male | phs002431 |
| <input type="checkbox"/> 00eff50ac98a200da9f9 | White | Male | phs002431 |
| <input type="checkbox"/> 01504e3b7031a9eec2b2 | White | Female | phs002431 |

Figure 7B: Table view with annotations showing the existence of synonyms for a participant.

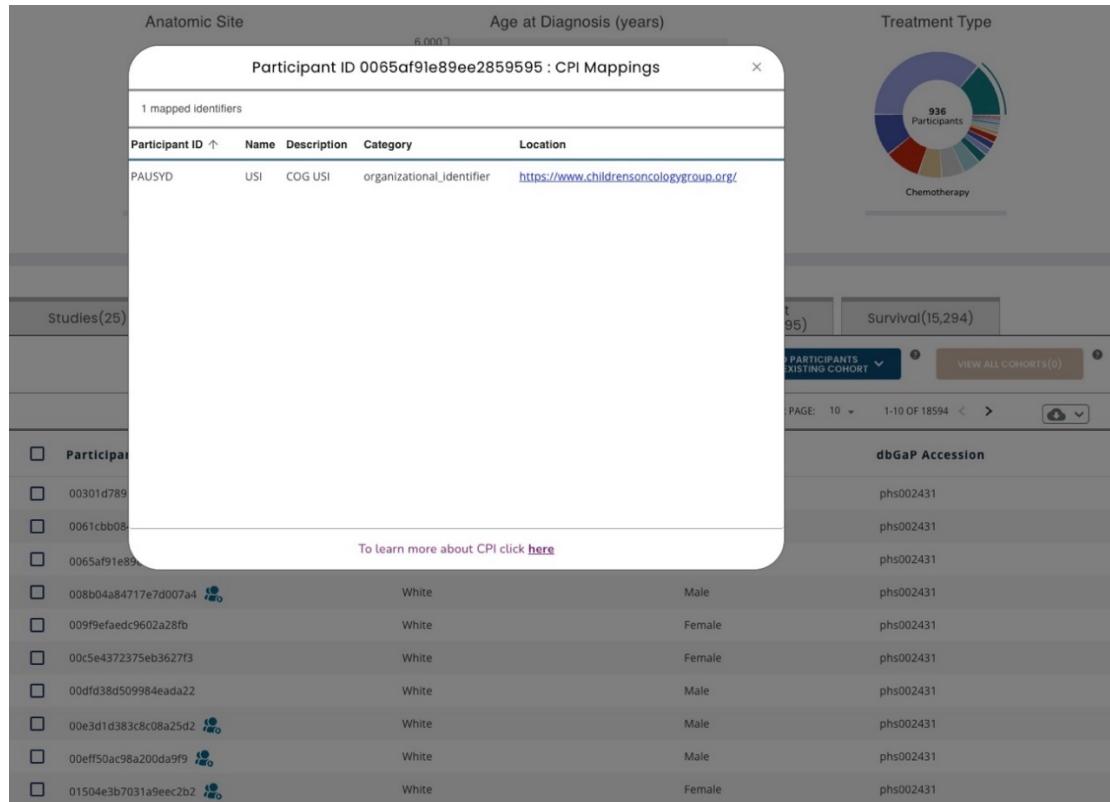


Figure 7C: clicking on participant icon shows a pop-up window showing synonym mapping

Download Harmonized Data

Users can download the contents of the Studies, Participants, Diagnosis, Treatment, Treatment Response, and Survival tabs by selecting the "Download Data" button under the table tab headers. Users can download filtered data in **CSV or JSON formats**.

| A1 | | | | | | | | | | | | | | | | | | | | | |
|----|----------------|--------------------------------------|------------------|---------------------|---------------------|---------------------|--------------------|--------------------|------------------------|-----------------|-----------------|--------------|-------------|-------------|-------------|------------|------------|------------|----------|----------|--|
| | A | B | C | D | E | F | G | H | I | J | K | L | M | N | O | P | Q | R | | | |
| 1 | Participant Id | | | | | | | | | | | | | | | | | | | | |
| 2 | PBCHD1L | Diagnosis ID | 94211: Diagnosis | 94211: Diagnosis Ci | 94211: Diagnosis Ba | 94211: Diagnosis Co | 94211: Disease Phs | 94211: Tumor Class | Anatomic Site at Diagn | Toronto | Child | Tumor Grade | Tumor Stage | Tumor Stage | Tumor Stage | Study ID | Accession | | | | |
| 3 | P1_17H2A0SA | 02268635-e61b-4b87-a9fa-fd105b3977bc | 94211: Pilot | ICD-O-3.2 | Clinical | Not Report | Initial | Digital Primary | C71.6: Cereb | 2005 | Not Report | Not Report | Not Report | Not Report | Not Report | phs02790 | phs02790 | | | | |
| 4 | P1_RC1H1GQJ | 0743006ec1635e86b6e43221_1 | 94211: CNS | Diagnos | Pathological | High-grade | g | Initial | Digital Primary | C71.6: Cereb | 2712 | Not Report | Not Report | Not Report | Not Report | Not Report | pss02517 | phs02517 | | | |
| 5 | P1_VWPW047R | 09e93a8e163558b538a53628cb5d3_1 | 94211: Astro | ICD-O-3.2 | Clinical | Pathological | Low-grade | g | Initial | Digital Primary | C71.6: Cereb | 1548 | Not Report | Not Report | Not Report | Not Report | Not Report | pss02517 | phs02517 | | |
| 6 | P1_D267YXN6 | 0958c5547d45ee53a344fe62825e7_1 | 94211: M | Medulloblasto | CNS | Diagnos | Pathological | Medulloblasto | g | Initial | Digital Primary | C71.6: Cereb | 2212 | Not Report | Not Report | Not Report | Not Report | Not Report | pss02517 | phs02517 | |
| 7 | P1_6N825561 | 0960d3673be903dcad8a6c7513_1 | 94000: Astro | ICD-O-3.2 | Clinical | Pathological | Low-grade | g | Initial | Digital Primary | C71.6: Cereb | 1805 | Not Report | Not Report | Not Report | Not Report | Not Report | pss02517 | phs02517 | | |
| 8 | P1_96T2CBVR | 09640db8c553b8ee468452c57_1 | 94000: Atypi | ICD-O-3.2 | Clinical | Pathological | Atypical Ter. | Post-Mortem | Primary | C71.6: Cereb | 3562 | Not Report | Not Report | Not Report | Not Report | Not Report | pss02517 | phs02517 | | | |
| 9 | P1_GAKH0C1V2 | 1466dd508a1637727090b3d_1 | 94000: Low-Grade | CNS | Diagnos | Pathological | Low-grade | g | Progression | Primary | C71.6: Cereb | 2402 | Not Report | Not Report | Not Report | Not Report | Not Report | pss02517 | phs02517 | | |
| 10 | P1_6VNKN63HK | 16296002z143375650aa36ea3734_1 | 94000: Astro | ICD-O-3.2 | Clinical | Pathological | Low-grade | g | Initial | Digital Primary | C71.6: Cereb | 1372 | Not Report | Not Report | Not Report | Not Report | Not Report | pss02517 | phs02517 | | |
| 11 | P1_64JHC2B8H | 1b1de1a7be6b3426812d_9919467eb0_1 | 94000: Low-Grade | CNS | Diagnos | Pathological | Low-grade | g | Initial | Digital Primary | C71.6: Cereb | 3699 | Not Report | Not Report | Not Report | Not Report | Not Report | pss02517 | phs02517 | | |
| 12 | P1_KUKY21Z | 1b550275c4a0896879d062e204_1 | 94000: Astro | ICD-O-3.2 | Clinical | Pathological | Low-grade | g | Initial | Digital Primary | C71.6: Cereb | 1473 | Not Report | Not Report | Not Report | Not Report | Not Report | pss02517 | phs02517 | | |
| 13 | P1_96T2CBVR | 1c5bb12565bd37e8996fa19ca25_1 | 94000: Low-Grade | CNS | Diagnos | Pathological | Low-grade | g | Initial | Digital Primary | C71.6: Cereb | 2326 | Not Report | Not Report | Not Report | Not Report | Not Report | pss02517 | phs02517 | | |
| 14 | P1_PBHZP | 19c1b9-024f-4661-a061-097274400d5 | 94211: Pilot | ICD-O-3.2 | Clinical | Not Report | Initial | Digital Primary | C71.6: Cereb | 1717 | Not Report | Not Report | Not Report | Not Report | Not Report | pss02517 | phs02517 | | | | |

Figure 8: Download Diagnosis Table tab as CSV file format

Cohort Selector

The Cohort Selector enables users to create and manage up to 20 cohorts. This feature offers flexibility to researchers, allowing them to create cohort groups according to their specific requirements.

| studies(21) | Participants(13,597) | diagnosis(9,697) | treatment(7,769) | Treatment Response(GR) | survival(9,861) |
|--|--------------------------|------------------|------------------|------------------------|--|
| | | | | | |
| CREATE COHORT * ADD PARTICIPANTS TO EXISTING COHORT * VIEW ALL COHORTS (0) * | | | | | |
| | | | | | |
| | | | | | RESULTS PER PAGE: 10 ✓ 1-10 OF 13597 ⏪ ⏩ |
| | | | | | RESULTS |
| 1 rows(s) selected | | | | | |
| Participant ID | Race | Sex at Birth | dbGaP Accession | | |
| <input checked="" type="checkbox"/> 083014789057520a10f | White | Female | phs002430 | | |
| <input type="checkbox"/> 0867060846973206nf | White | Male | phs002430 | | |
| <input type="checkbox"/> 0865a911d9e2859105 | Hispanic or Latino/White | Female | phs002430 | | |
| <input type="checkbox"/> 08804a8d217a769067af | White | Male | phs002430 | | |
| <input type="checkbox"/> 099f9efedc9902a28fb | White | Female | phs002430 | | |
| <input type="checkbox"/> 08c5e4372375eb3627f3 | White | Female | phs002430 | | |
| <input type="checkbox"/> 09d938e509954nead22 | White | Male | phs002430 | | |
| <input type="checkbox"/> 08e98f3385a8c05425d2 | White | Male | phs002430 | | |
| <input type="checkbox"/> 0aef7ca9f8a12004a9f9 | White | Male | phs002430 | | |
| <input type="checkbox"/> 01504a3b7231a0ec262 | White | Female | phs002430 | | |

Figure 9: Cohort Selection features visible on the Explore page Table tabs (see choice buttons in orange rectangles)

Users can do the following:

- Create New Cohort:
 - Users can select participant IDs from the table or choose to add all participants based on the faceted results and create a new cohort.
 - Users can name and describe the cohort for easy reference.
 - A user can add up to 4000 participants in their cohorts.
 - Add Participants to Existing Cohort: Add participants to existing cohorts or remove them. Entire cohorts can also be deleted as needed.

- View All Cohort(s): View a list of all created cohorts, making it easier to manage and analyze groups.
 - Cohort ID: Create your own ID to identify saved cohorts
 - Cohort Description: Create a description for saved cohorts
 - Save Changes: Save the changes made to the selected cohort. This includes changes to cohort ID, cohort description, and any participants removed.
 - Download Selected Cohort:
 - Download the selected cohort in one of two formats.
 - Manifest CSV: a list of participant IDs and high-level data.
 - Metadata JSON: a JSON file containing all metadata information for the participants in the selected cohort.
 - View Cohort Analyzer: Navigate to the Cohort Analyzer from the cohort list.
 - Explore in CCDI Hub: Export cohorts (up to 600 participants) that open the CCDI Hub with pre-filtered data based on selected participants.

The screenshot shows a user interface for managing cohorts. On the left, a sidebar titled "COHORTS (1)" contains a single item: "New Cohort". On the right, a larger panel titled "New Cohort" displays a form for creating a new cohort. The form includes a text input for "Enter cohort description..." and a search bar for "Search Participant ID here". Below the search bar is a table listing participants with their IDs, dbGaP Accessions, and a trash icon for deletion. The table data is as follows:

| Participant ID ↑ | dbGaP Accession | |
|----------------------|-----------------|--|
| 00301d78915737fa100f | phs002431 | Delete |
| 0061cbb0846973206fcf | phs002431 | Delete |
| 0065af91e89ee2859595 | phs002431 | Delete |
| 008b04a84717e7d007a4 | phs002431 | Delete |
| 009f9efaedc9602a28fb | phs002431 | Delete |
| 00c5e4372375eb3627f3 | phs002431 | Delete |
| 00dfd38d509984eada22 | phs002431 | Delete |
| 00e3d1d383c8c08a25d2 | phs002431 | Delete |

At the bottom of the panel are "CANCEL" and "SAVE CHANGES" buttons. A note "Last Updated: 5/7/2025" is displayed. At the very bottom, there are three buttons: "DOWNLOAD SELECTED COHORTS", "VIEW COHORT ANALYZER", and "EXPLORE IN CCDI HUB" with a magnifying glass icon.

Figure 10: View All Cohorts and edit capabilities

C3DC Cohort Analyzer

The Cohort Analyzer offers a powerful method to explore how various clinical attributes overlap and differ across multiple groups. The Cohort Analyzer is designed to compare up to three cohorts and visualize their intersections through an interactive Venn diagram and a corresponding data table. This feature leverages cohorts created on the Explore page, enabling users to analyze key relationships and distinctions based between datasets effectively.

By visualizing the shared and unique data points using a Venn diagram, you can identify common patterns or variations in key clinical variables such as diagnosis, treatment, and participant characteristics. This analysis helps reveal underlying trends in the clinical data that may be crucial for research, such as identifying which treatment protocols are common across cohorts or exploring the presence of specific diagnoses.

Customizable Properties

The radio buttons allow users to select more than one property for comparison. Available properties include:

- Participant ID
- Diagnosis
- Treatment

Enhanced Analytical Capabilities

Users will be able to visualize overlaps and unique attributes within each cohort. In addition, users can:

- Investigate specific sections of the Venn diagram to view participant-level details from the corresponding table view
- Export results, including the data table and Venn diagram, for further analysis or integration into other platforms.
- Use advanced filters to refine cohort comparisons, such as narrowing by treatment or specific diagnosis.
- Download result: The result can be downloadable as a CSV or JSON files.
- Build in Explore Dashboard: Export your analysis into a pre-filtered view within the Explore Dashboard for streamlined review and exploration.
- Explore in CCDI Hub: Export cohorts (up to 600 participants) that open the CCDI Hub with pre-filtered data based on selected participants.

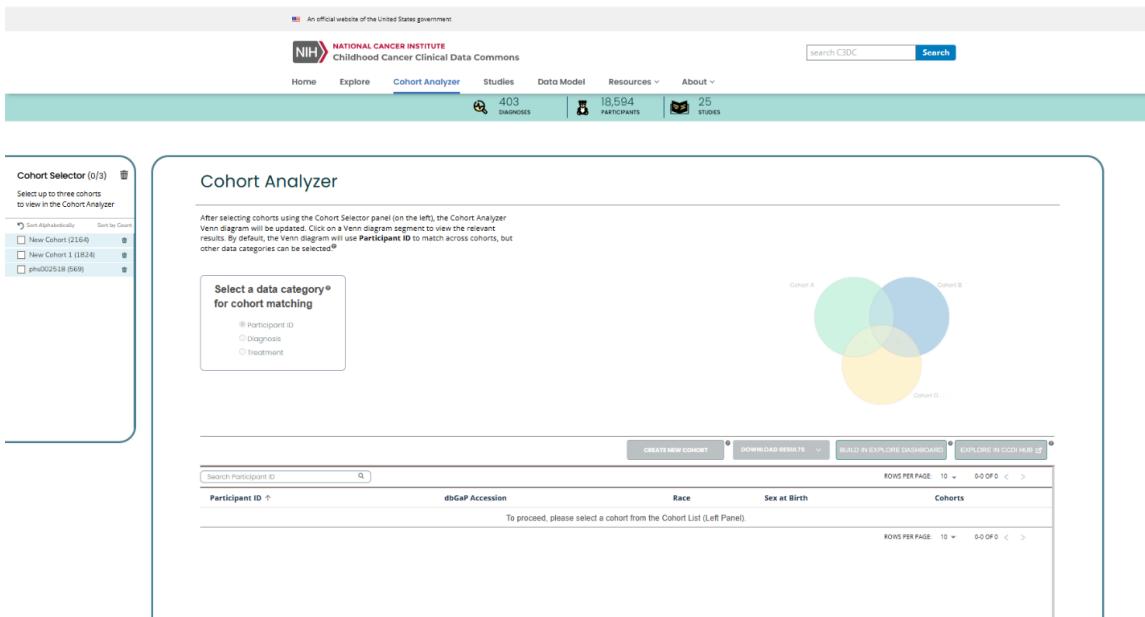


Figure 11: Cohort Analyzer landing page

To start using the Cohort Analyzer, you will first need to select the cohorts you want to analyze. As you add cohorts, the system will automatically keep track of your cohorts on the left side Cohort Selector. This tool's functionality adapts based on the number of selected cohorts, ensuring a customized analysis.

Select your first cohort by clicking the check box in the Cohort Selector sidebar. The Venn diagram and table will update to display the cohort information based on the participant ID, diagnosis or treatment based on the radio button selection. In this example, we are using the participant ID, thus the table will contain properties specific to the participant as well as show to what cohorts the participant belongs.

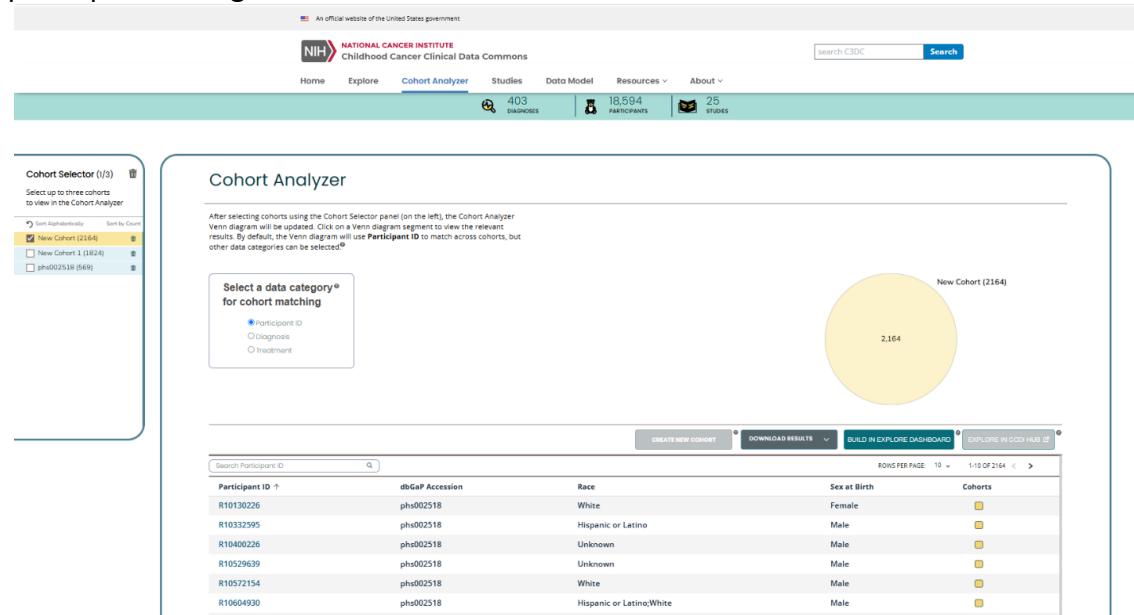


Figure 12: One Cohort Selected: You have created and selected one cohort.

Select another cohort in the Cohort Selector to see the Venn diagram and table update again. This time, if there are common participants between both cohorts, the diagram will show the shared participants in the intersection between the two. In the table, with none of the Venn diagram selected, it will display all participants and their respective cohort.

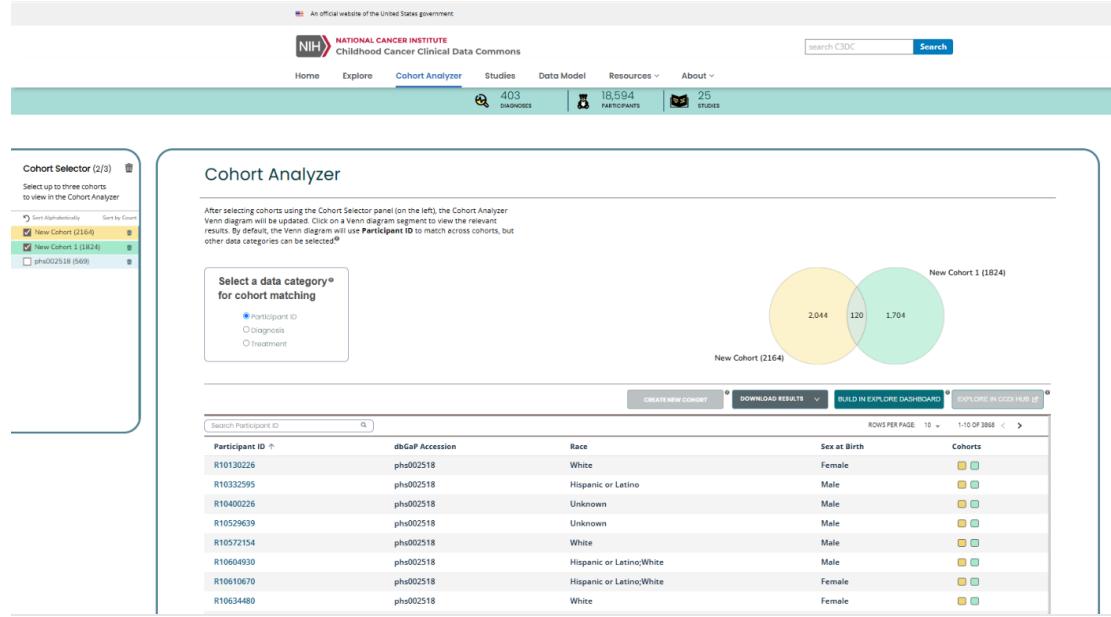


Figure 13: Two Cohorts Selected: You have selected two cohorts. Visualize shared and unique data points between these cohorts.

Select a third and final cohort. The Venn diagram and table will update once more with all the participant level data.

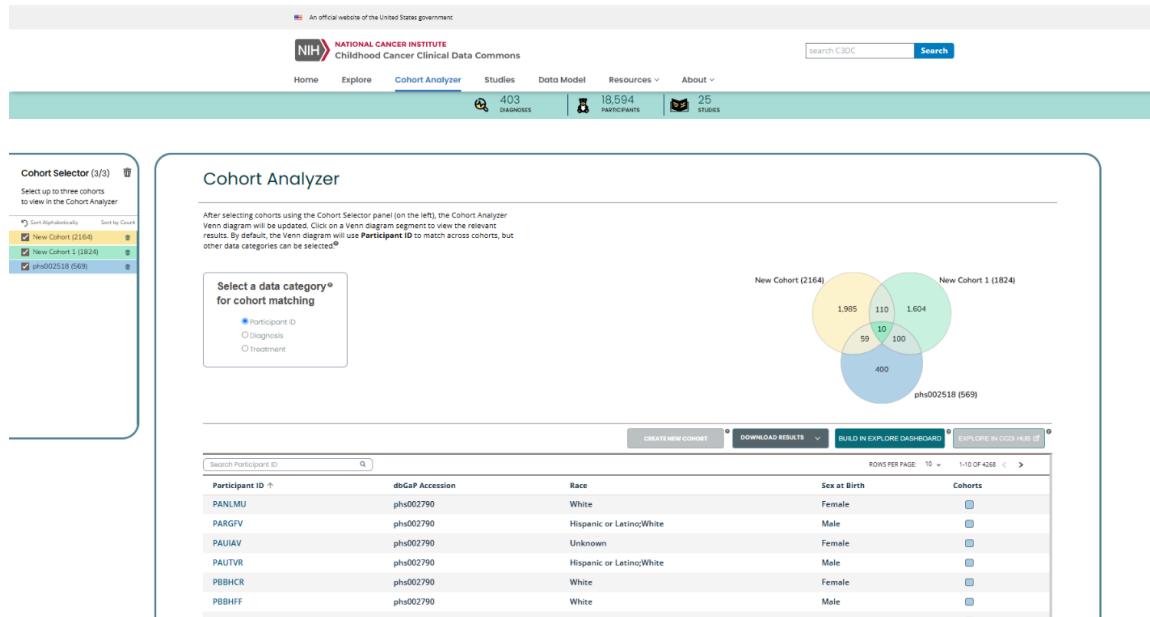


Figure 14: Three Cohorts Selected: You have selected three cohorts. Explore their intersections and unique attributes using the Venn diagram.

Please note that the number in parentheses by the cohort's name in the Venn diagram represents the count of unique records for that radio button selection. The number inside the Venn diagram sections are the count of unique values for that radio button selection. Finally, the count next to your cohort in the Cohort Selection side bar indicates the total participants in your cohort.

At this point, you can select one of these pieces on the Venn diagram to update the table to show only those participants and their respective data. In the example below, the center intersection was selected. The table updates showing only participants that are found in all three cohorts. With this section selected, a user can also create an entirely new cohort with these filtered participants.

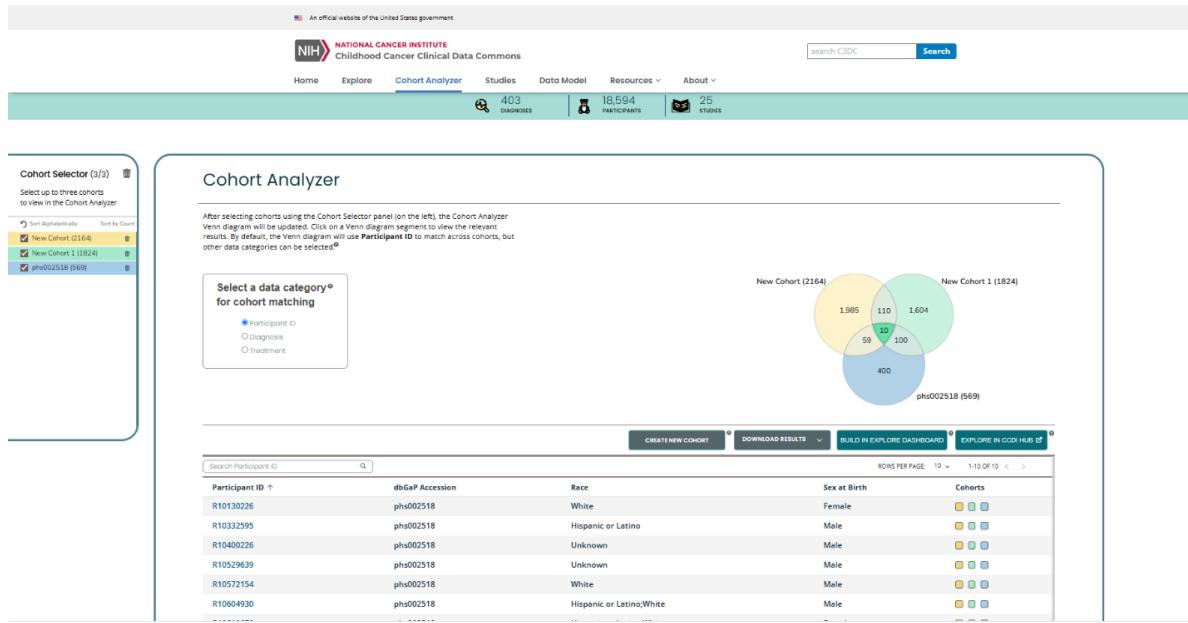


Figure 15: View the center intersection between all Cohort selected (see dark green highlighted region)

The user will see the intersections of all three cohort. Additionally, the user will also see intersections between two cohorts. Clicking on the desired intersection will result in the table being updated accordingly with metadata for those selected participants.

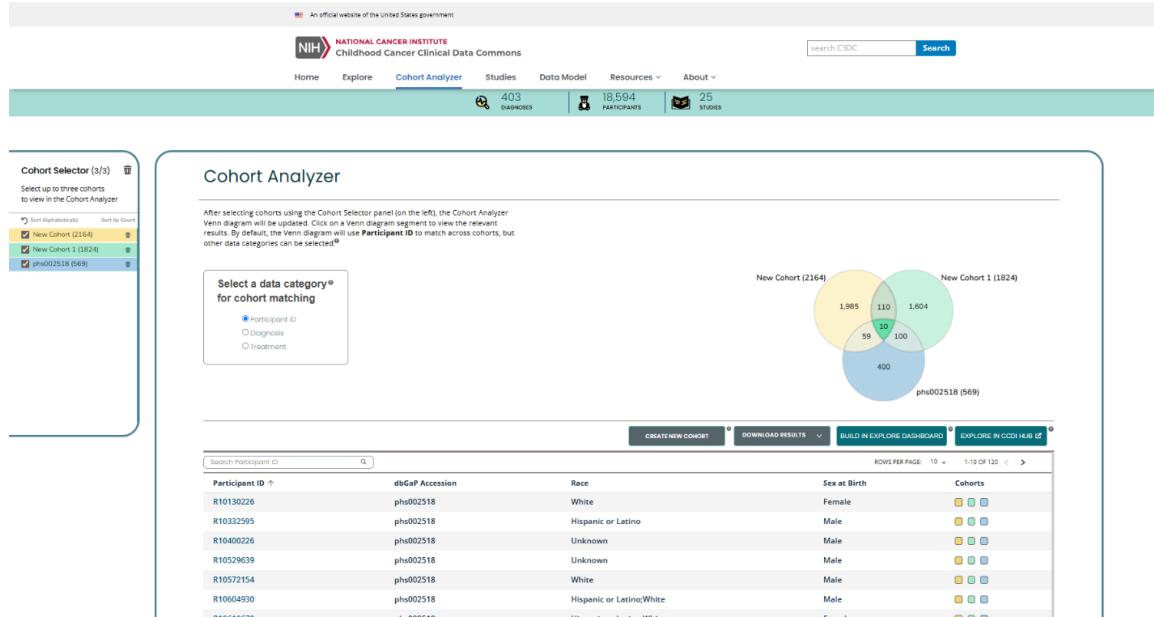


Figure 16: View the specific intersections between selected Cohorts

C3DC Studies Page

Users can navigate to the Studies Page to view the list of dbGaP accessions, study names, and counts for participants and diagnoses.

The screenshot shows the C3DC Studies page. At the top, there's a header with the NIH logo, the text "NATIONAL CANCER INSTITUTE Childhood Cancer Clinical Data Commons", a search bar, and navigation links for Home, Explore, Cohort Analyzer, Studies (which is highlighted in blue), Data Model, Resources, and About. Below the header, there are three summary statistics: 403 DIAGNOSES, 18,594 PARTICIPANTS, and 25 STUDIES. The main content area is titled "C3DC Studies" and contains a table with 10 rows of data. The table has four columns: "dbGaP Accession ↑", "Study Name", "Participants Count", and "Diagnosis Count". The data is as follows:

| dbGaP Accession ↑ | Study Name | Participants Count | Diagnosis Count |
|-------------------|---|--------------------|-----------------|
| phs000463 | TARGET: Acute Lymphoblastic Leukemia (ALL) Pilot Phase 1 | 231 | 2 |
| phs000464 | TARGET: Acute Lymphoblastic Leukemia (ALL) Expansion Phase 2 | 1,704 | 9 |
| phs000465 | TARGET: Acute Myeloid Leukemia (AML) | 2,144 | 10 |
| phs000466 | TARGET: Kidney, Clear Cell Sarcoma of the Kidney (CCSK) | 13 | 1 |
| phs000467 | TARGET: Neuroblastoma (NBL) | 1,119 | 3 |
| phs000468 | TARGET: Osteosarcoma (OS) | 282 | 1 |
| phs000469 | TARGET: Cancer Model Systems (MDLS): Cell Lines and Xenografts (including PPTP) | 2 | 1 |
| phs000470 | TARGET: Kidney, Rhabdoid Tumor (RT) | 69 | 1 |
| phs000471 | TARGET: Kidney, Wilms Tumor (WT) | 652 | 1 |
| phs000720 | Genomic sequencing of Pediatric Rhabdomyosarcoma | 403 | 5 |

Figure 17: The Studies Page

C3DC Studies Details Page

By clicking on the dbGaP accession number, users can access detailed information about the studies. This action will redirect users to the dbGaP page to view a high-level overview of the information. Currently, source data files are only available for open access data (TARGET datasets phs000463, phs000464, phs000465, phs000466, phs000467, phs000468, phs000469, phs000470, and phs000471) and manifest metadata is available for all other CCDI studies. If you are interested in accessing the controlled access data, please follow this [link](#) for instructions on how to access it.

For other CCDI studies, source data can be found in the [CCDI Hub](#).



Figure 18A: The Studies Details page – downloadable Open Access Source file data for TARGET datasets

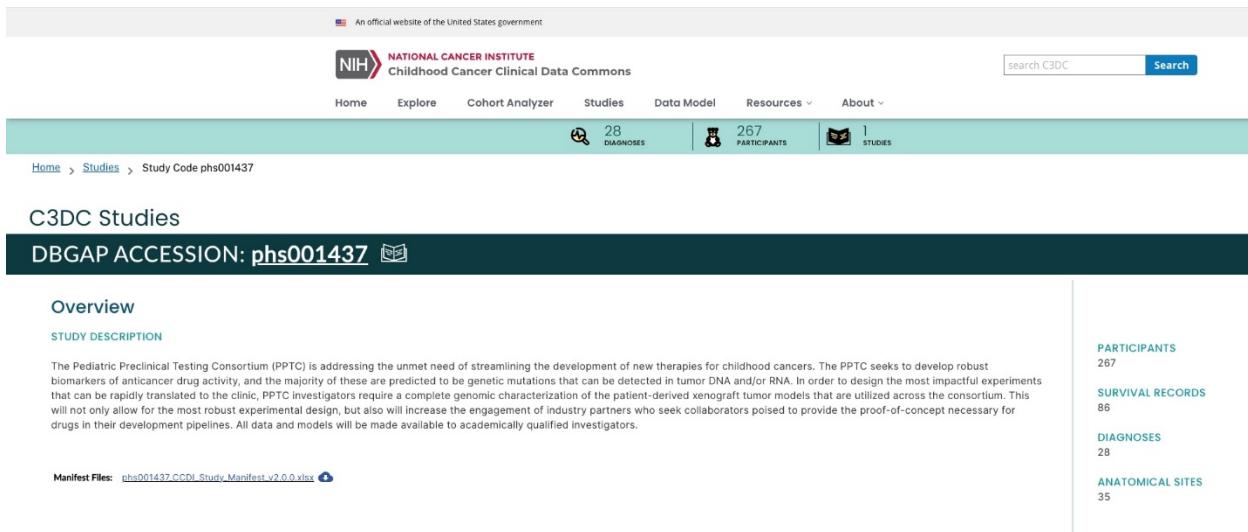


Figure 18B: The Studies Details page – downloadable manifest metadata files for all other CCDI studies

C3DC Data Model Page

The [data model](#) is developed collaboratively with multiple organizations to establish standard terms for pediatric cancer. In this harmonization effort, we are using CDEs (Common Data Elements) to enhance data accuracy, consistency, and interoperability across health research studies. CDEs are defined in the caDSR (Cancer Data Standards Registry and Repository) and provide controlled terms, vocabularies, detailed information on data representation, and robust metadata. The C3DC data model schema consists of well-defined classes with attributes and permissible values.

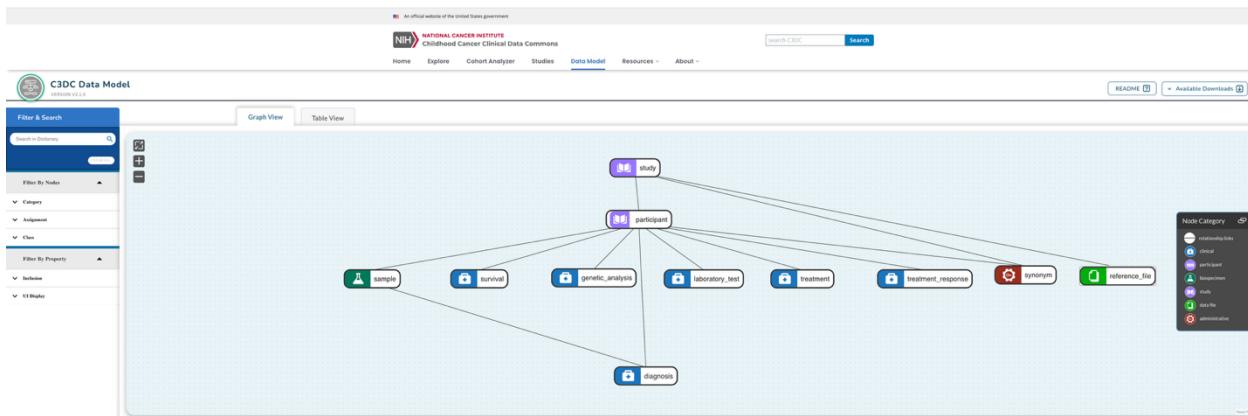


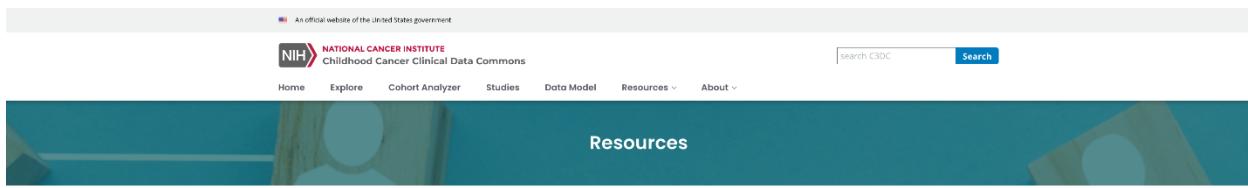
Figure 19A: The Data Model Navigator (DMN) page – Graph with nodes visible and dynamically arranged

This screenshot shows the Table View of the C3DC Data Model Navigator. The top navigation bar and sidebar are identical to Figure 19A. The main content area is a large table with rows for various data types. The first row, 'Clinical', has a dark blue header and contains sections for 'Diagnosis', 'Survival', 'Genetic Analysis', 'Laboratory Test', 'Treatment', and 'Treatment Response'. Each section provides a brief description and two buttons for 'Assignment' (Core or Extended) and 'Class' (Primary or Secondary). Subsequent rows for 'Participant' and 'Sample' have a purple header and contain similar descriptive text and assignment/class buttons.

Figure 19B: The Data Model Navigator (DMN) page – Table view with readme

C3DC Resource Page

By clicking on each resource, users can access a range of useful tools and information available on the site.



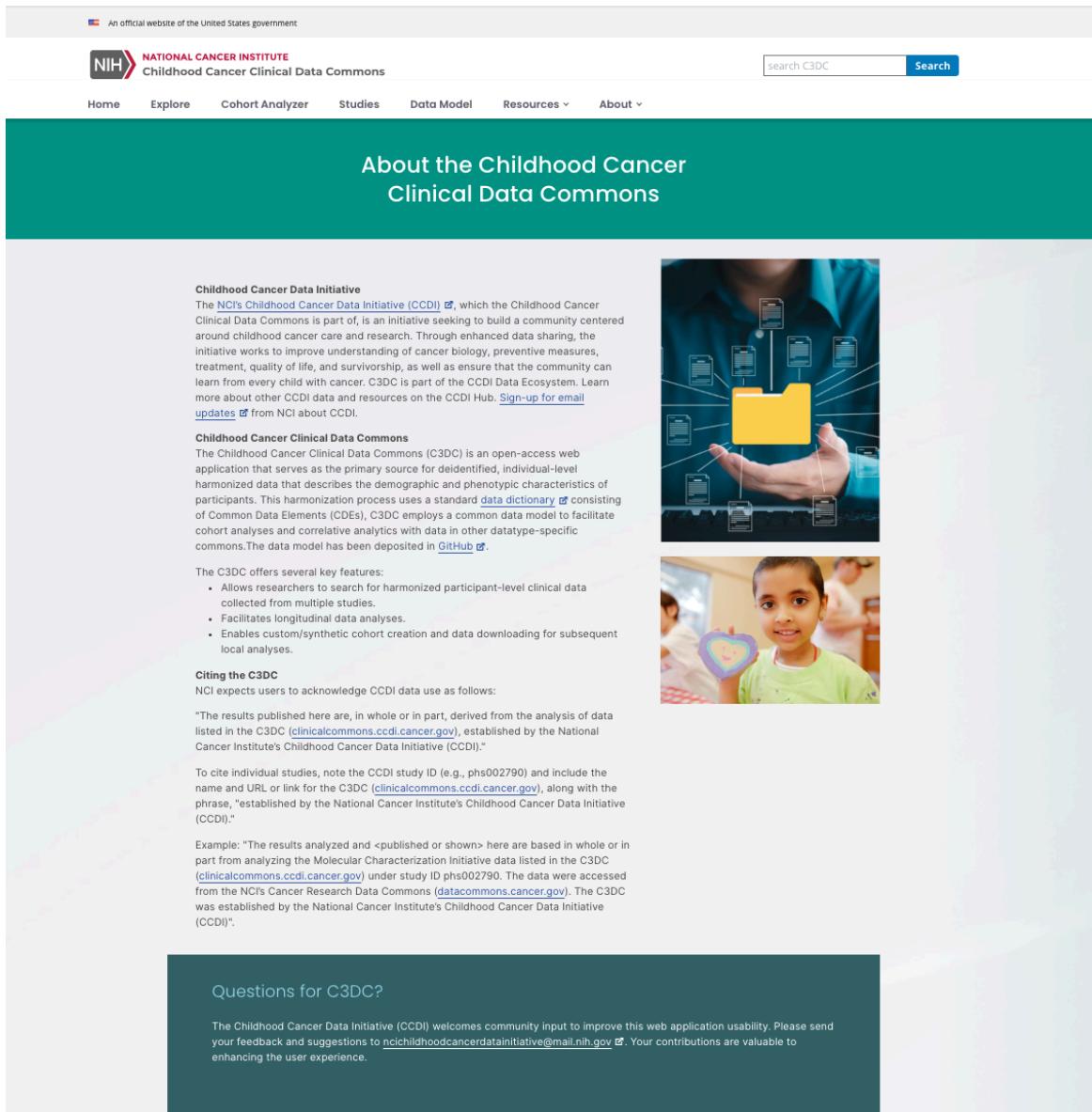
The screenshot shows the C3DC Resource Page. At the top, there's a navigation bar with the NIH logo, the text "NATIONAL CANCER INSTITUTE", and "Childhood Cancer Clinical Data Commons". Below the navigation bar, there's a search bar with the placeholder "search C3DC" and a "Search" button. The main content area has a teal header with the word "Resources". Underneath, there are several sections: "A GROWING RESOURCE NETWORK" which includes links to "C3DC Data Model", "GitHub Harmonization Repository", "CCDI Hub", and "GDC". To the right of these descriptions is a graphic of a hand interacting with a grid of colored squares. At the bottom of the page, there's a footer with the text "An official website of the United States government" and a link to "https://www.cancer.gov/cancer-data-commons/c3dc" with a small "External Link" icon.

Figure 20: The Resource page

C3DC About Page

Users can navigate to the About Page by clicking the link on the Home Page menu bar, where you will find more information about the content of C3DC. This includes details such as dataset and data model information as well as links to useful resources. There are dropdown menus to access the following documents:

- Announcements
- Release Notes
- User Guide



The screenshot shows the 'About the Childhood Cancer Clinical Data Commons' page. At the top, there's a navigation bar with the NIH logo, the text 'NATIONAL CANCER INSTITUTE', and 'Childhood Cancer Clinical Data Commons'. Below the navigation bar, there are links for 'Home', 'Explore', 'Cohort Analyzer', 'Studies', 'Data Model', 'Resources', and 'About'. A search bar with the placeholder 'search C3DC' and a 'Search' button are also present. The main content area has a teal header with the title 'About the Childhood Cancer Clinical Data Commons'. The page contains several sections of text and images. One section discusses the Childhood Cancer Data Initiative (CCDI) and its role in the C3DC. Another section describes the C3DC as an open-access web application for harmonized clinical data. A third section lists key features of the C3DC. A fourth section provides instructions for citing the C3DC. A fifth section contains a photo of a young child. At the bottom, there's a 'Questions for C3DC?' section with a feedback email address.

An official website of the United States government

NIH NATIONAL CANCER INSTITUTE
Childhood Cancer Clinical Data Commons

Home Explore Cohort Analyzer Studies Data Model Resources About

search C3DC Search

About the Childhood Cancer Clinical Data Commons

Childhood Cancer Data Initiative
The NCI's [Childhood Cancer Data Initiative \(CCDI\)](#), which the Childhood Cancer Clinical Data Commons is part of, is an initiative seeking to build a community centered around childhood cancer care and research. Through enhanced data sharing, the initiative works to improve understanding of cancer biology, preventive measures, treatment, quality of life, and survivorship, as well as ensure that the community can learn from every child with cancer. C3DC is part of the CCDI Data Ecosystem. Learn more about other CCDI data and resources on the CCDI Hub. [Sign-up for email updates](#) from NCI about CCDI.

Childhood Cancer Clinical Data Commons
The Childhood Cancer Clinical Data Commons (C3DC) is an open-access web application that serves as the primary source for deidentified, individual-level harmonized data that describes the demographic and phenotypic characteristics of participants. This harmonization process uses a standard [data dictionary](#) consisting of Common Data Elements (CDEs), C3DC employs a common data model to facilitate cohort analyses and correlative analytics with data in other datatype-specific commons. The data model has been deposited in [GitHub](#).

The C3DC offers several key features:

- Allows researchers to search for harmonized participant-level clinical data collected from multiple studies.
- Facilitates longitudinal data analyses.
- Enables custom/synthetic cohort creation and data downloading for subsequent local analyses.

Citing the C3DC
NCI expects users to acknowledge CCDI data use as follows:
"The results published here are, in whole or in part, derived from the analysis of data listed in the C3DC ([clinicalcommons.ccdi.cancer.gov](#)), established by the National Cancer Institute's Childhood Cancer Data Initiative (CCDI)."
To cite individual studies, note the CCDI study ID (e.g., phs002790) and include the name and URL or link for the C3DC ([clinicalcommons.ccdi.cancer.gov](#)), along with the phrase, "established by the National Cancer Institute's Childhood Cancer Data Initiative (CCDI)."
Example: "The results analyzed and <published or shown> here are based in whole or in part from analyzing the Molecular Characterization Initiative data listed in the C3DC ([clinicalcommons.ccdi.cancer.gov](#)) under study ID phs002790. The data were accessed from the NCI's Cancer Research Data Commons ([datacommons.cancer.gov](#)). The C3DC was established by the National Cancer Institute's Childhood Cancer Data Initiative (CCDI)."

Questions for C3DC?
The Childhood Cancer Data Initiative (CCDI) welcomes community input to improve this web application usability. Please send your feedback and suggestions to nichildhoodcancerdatainitiative@mail.nih.gov. Your contributions are valuable to enhancing the user experience.

Figure 21: The About page

Announcements

The Announcements page contains all C3DC updates, both data and application, with the newest release information at the top of the list.

The screenshot shows the C3DC Announcements page with a dark teal background featuring a network of nodes and connections. At the top center, the text "C3DC Announcements" is displayed. Below the header, there are two main announcement cards.

Datasets Update
June 18, 2025
This release includes newly harmonized data from the TARGET studies (phs000463, phs000464, phs000465) and PIVOT neuroblastoma PDX models data (phs003163), along with updates to several existing CCDI datasets.
[Read More](#)

Data Model Update
June 18, 2025
The C3DC data model has been enhanced with a new synonym node to enable cross-study participant mapping via the CCDI Participant Index (CPI), allowing linkage of data across studies. The treatment node was also updated with new dose-related properties (dose, dose_unit, dose_route, dose_frequency). Additionally, new permissible values were added to various properties to support data organization and usability for newly suggested studies.
[Read More](#)

Figure 22: The Announcements page

Release Notes

The Release Notes page contains the change logs of all releases, noting the differences between the previous versions of both the data and application.

The screenshot shows a dark-themed web page titled "Data Update". On the left, there's a sidebar titled "RELEASE VERSIONS" with sections for "2025" and "2024". The "2025" section lists "Data Release 6.0" (JUN 18, 2025) and "Data Release 5.0" (MAR 5, 2025). The "2024" section is currently empty. The main content area is titled "Data Release 6.0" and includes a "Study Overview" section with the date "June 18, 2025". It lists several datasets with their sizes:

- TARGET: Acute Lymphoblastic Leukemia (ALL) Pilot Phase 1 (New Dataset) - phs000463
 - 231 Participants
 - 2 Diagnoses
- TARGET: Acute Lymphoblastic Leukemia (ALL) Expansion Phase 2 (New Dataset) - phs000464
 - 1,704 Participants
 - 9 Diagnoses
- TARGET: Acute Myeloid Leukemia (AML) (New Dataset) - phs000465
 - 2,144 Participants
 - 10 Diagnoses
- Pediatric In Vivo Testing Program – Neuroblastoma (New Dataset) - phs003163
 - 36 Participants
 - 2 Diagnoses
- UCSF Database for the Advancement of JMML - Integration of Metadata with Omic Data (Update Dataset) - phs002504
 - 222 Participants
 - 1 Diagnosis

Figure 23: The Release Notes page

User Guide

The User Guide page contains the mission statements for CCDI and C3DC, as well as useful resources related to the C3DC project.

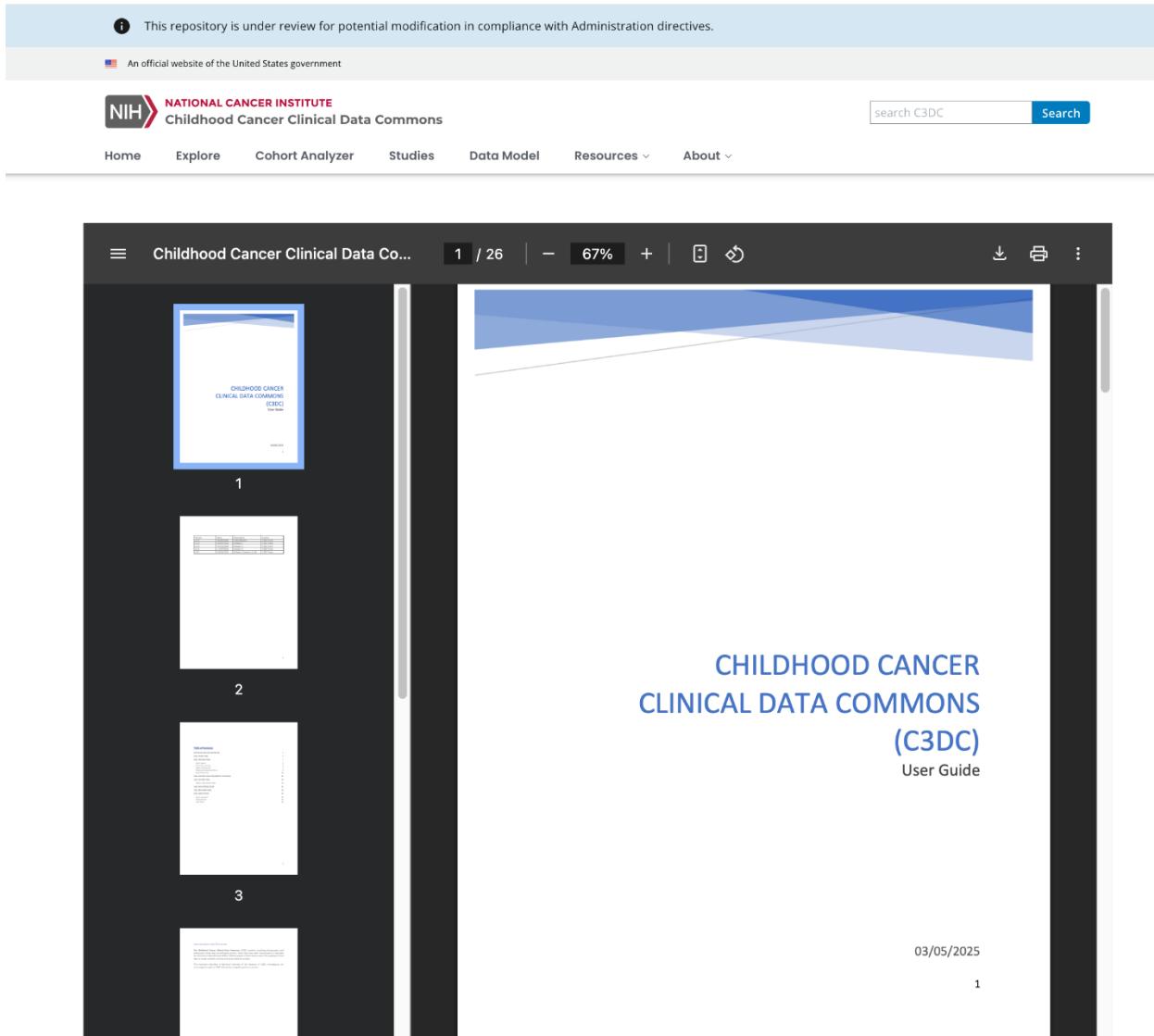


Figure 24: The User Guide