

CHILDHOOD CANCER CLINICAL DATA COMMONS (C3DC)

Release 7 (version 1.7.0)
10/22/2025

Overview

This release introduces key enhancements to the **C3DC** application, improving data exploration, cohort management, Cohort Analyzer and data model updates to better support pediatric cancer research.

Data Updates

- **New Datasets**
 - Childhood Cancer Survivor Study (phs001327)
 - Gabriella Miller Kids First Pediatric Research Program in Pediatric T-Cell Acute Lymphoblastic Leukemia (phs002276)
 - Feasibility and Clinical Utility of Whole Genome Profiling in Pediatric and Young Adult Cancers (phs002620)
 - NCI-COG Pediatric MATCH Precision Medicine Clinical Trial (phs002883)
 - Clonal evolution during metastatic spread in high-risk neuroblastoma (phs003111)
 - CCDI Pediatric In Vivo Testing Program - Pediatric In Vivo Testing Program - Sarcoma, Kidney, and Liver Cancers (phs003160)
 - CCDI Pediatric In Vivo Testing Program - Sarcomas and other Solid Tumors (phs003161)
- **Updated Datasets**

- TARGET: Acute Lymphoblastic Leukemia (ALL) Expansion Phase 2 (phs000464)
- UCSF Database for the Advancement of JMML - Integration of Metadata with Omic Data (phs002504)
- Molecular Characterization across Pediatric Brain Tumors and Other Solid and Hematologic Malignancies for Research, Diagnostic, and Precision Medicine (phs002517)
- Molecular Characterization Initiative (phs002790)

General Application Updates

Explore Page Enhancements

- **User Guide Button:** A new “Explore the C3DC User Guide” button offers quick access to the manual, including detailed feature explanations, step-by-step instructions, and use cases to help users navigate the system more effectively.
- **Genetic Analysis Facet:** A Genetic Analysis category has been added to both the facet and table tabs for easier filtering and exploration.
- **Improved Visualizations**
 - User can now toggle between pie charts and histograms for each visualization.
 - Download individual visualizations as PNG files for reporting and presentations.

Cohort Selector Enhancements

- **Explore in CCDI Hub:** Users can now export cohorts of up to 4,000 participants per cohort to the CCDI Hub with pre-filtered data (previously limited to 600 participants).
- **Updated JSON Output:** JSON downloads for Cohort Selector now include CPI synonym values for improved consistency.

Cohort Analyzer Improvements

- **Add Example Cohort:** A new button allows users to load an example Venn diagram with sample data from three cohorts to explore the tool’s capabilities.
- **Histogram:** The Cohort Analyzer supports comparison of up to three cohorts, displaying their intersections in an interactive Venn diagram, with new corresponding feature to display histograms and data table.
 - Default Visual Summaries: Histograms for Sex at Birth and Race appear by default.
 - Users can include additional histograms for Treatment Type and Treatment Outcome by selecting the checkboxes.
 - Users are able to switch histograms view between raw counts and relative frequency.
 - Download buttons are available for users to download both Venn diagram and histograms in PNG format.
- **Updated JSON Output:** Cohort Analyzer JSON downloads now also include CPI synonym values.

CHILDHOOD CANCER CLINICAL DATA COMMONS (C3DC)

Release 6 (version 1.6.0)
06/18/2025

Overview

This release introduces key enhancements to the **C3DC** application, improving data exploration, cohort management, and data model transparency to better support pediatric cancer research.

Data Updates

- **New Datasets**
 - TARGET: Acute Lymphoblastic Leukemia (ALL) Pilot Phase 1 (phs000463)
 - TARGET: Acute Lymphoblastic Leukemia (ALL) Expansion Phase 2 (phs000464)
 - TARGET: Acute Myeloid Leukemia (AML) (phs000465)
 - CCDI Pediatric In Vivo Testing Program - Neuroblastoma (phs003163)
- **Updated Datasets**
 - UCSF Database for the Advancement of JMML - Integration of Metadata with Omic Data (phs002504)
 - Molecular Characterization across Pediatric Brain Tumors and Other Solid and Hematologic Malignancies for Research, Diagnostic, and Precision Medicine (phs002517)
 - Comprehensive Genomic Sequencing of Pediatric Cancer Cases (CMRI/KUCC) (phs002529)
 - Molecular Characterization Initiative (phs002790)

General Application Updates

Explore Page Enhancements

- **Improved Participant Set Upload**
Under the Demographic > Upload Participant Set section, users can search for participants and discover synonym mappings to the CPI.
- **CCDI Participant Index (CPI)**
Participants with records mapped across studies via the CPI now have a visual indicator, hover tooltip, and popup table summarizing their linked data.
- **Sharable Query URLs**
Users can now share their Explore page filters and results via auto-generated URLs. This supports collaboration by preserving selected facets for others to access.

Cohort Selector Enhancements

- **Create New Cohorts**
Flexible Participant Selection: This new option allows users to include either all participants (up to 4,000 participants) in a filtered view of the C3DC Explore Dashboard or only a selected subset when creating or refining cohorts.
- **Improved View of All Cohorts link out buttons**
 - Cohort Analyzer Access: Navigate directly to the Cohort Analyzer from the cohort list.
 - Export to CCDI Hub: Export cohorts (up to 600 participants) that open in the CCDI Hub with pre-filtered data based on selected participants.

Cohort Analyzer Improvements

- **Explore Dashboard Export**
Export your analysis into a pre-filtered view within the Explore Dashboard for streamlined review and exploration.
- **Export to CCDI Hub**
This feature is also accessible from within the Cohort Analyzer for further exploration in the Hub environment.

Data Model Navigator

The C3DC Data Model can now be interactively browsed within the newly released C3DC Data Model Navigator, available at the 'Data Model' link at the top of the C3DC application page. The Data Model Navigator allows users to browse node entities, view node properties and metadata, and download node metadata templates within an interactive user interface.

CHILDHOOD CANCER CLINICAL DATA COMMONS (C3DC)

Release 5 (version 1.4.0)
03/05/2025

Overview

The March release brings key enhancements to the C3DC application, including new datasets, updates to existing datasets, and the introduction of the **Cohort Analyzer**. These updates improve data exploration and enhance the user experience.

Data Updates

This release includes the addition of 2 new datasets, updates to existing one, and the temporary removal of two, ensuring the latest information is available for research and exploration:

- **New Datasets**
 - phs000469 (TARGET: Cancer Model Systems (MDLS): Cell Lines and Xenografts (including PPTP))
 - phs000468 (TARGET: Osteosarcoma (OS))
- **Updated Datasets**
 - phs002517 (Molecular Characterization across Pediatric Brain Tumors and Other Solid and Hematologic Malignancies for Research, Diagnostic, and Precision Medicine)
- **Temporarily Removed Datasets**
 - phs003111 (Clonal Evolution During Metastatic Spread in High-Risk Neuroblastoma)
 - phs002620 (Feasibility and Clinical Utility of Whole Genome Profiling in Pediatric and Young Adult Cancers)

General Application Updates

This release introduces significant updates to the user interface and underlying data model for enhanced search and analysis capabilities.

- **Data Model Enhancements**

- New properties added to support genetic analysis, data organization, and usability genetic_analysis:

- Props:

- genetic_analysis_id
- gene_symbol
- transcript
- age_at_genetic_analysis
- genomic_source_category
- reported_significance
- reported_significance_system
- hgvs_coding
- hgvs_protein
- hgvs_genome
- allelic_ratio
- vaf_numeric
- alteration
- dna_index_numeric
- iscn
- status
- second_gene_symbol

- Updated permissible values to better align with research needs.

- **Cohort Selector Improvements**

- Users can now create and manage up to **20 cohorts** (previously 10).

- **New Feature: Cohort Analyzer**

- Compare up to **three cohorts** using an interactive **Venn diagram** and data table.
- Select multiple properties (Participant ID, Diagnosis, Treatment) for comparison.
- Export results, including the data table and Venn diagram, for further analysis or integration into other platforms.
- Apply advanced filters (diagnosis, treatment subcategories) for deeper analysis.

Support & Inquiries

For additional support or questions, contact the **Childhood Cancer Data Initiative** at NCIChildhoodCancerDataInitiative@mail.nih.gov.

CHILDHOOD CANCER CLINICAL DATA COMMONS (C3DC)

Release 4
11/7/2024

Overview

The November release introduces several enhancements to the C3DC application, including the addition of new datasets, updates to existing datasets, and the introduction of a key new feature called the **Cohort Selector**. These updates are designed to optimize data exploration, enhance user experience.

Data Updates

This release includes updates to 3 existing datasets and the addition of 3 new ones, ensuring the latest information is available for research and exploration:

- **New Dataset: phs003432:** Identification and Targeting of Treatment Resistant Progenitor Populations in T-cell Acute Lymphoblastic Leukemia
- **New Dataset: phs003519:** Single-Cell Atlas of NF1 Nerve Sheath Tumors
- **New Dataset: phs00466:** TARGET: Kidney, Clear Cell Sarcoma of the Kidney (CCSK)
- **Dataset Update: phs002504** (UCSF Database for the Advancement of JMML - Integration of Metadata with "Omic" Data)
- **Dataset Update: phs002517** (Molecular Characterization across Pediatric Brain Tumors and Other Solid and Hematologic Malignancies for Research, Diagnostic, and Precision Medicine)
- **Dataset Update: phs002790** (Molecular Characterization Initiative)

General Application Updates

This release introduces significant updates to the user interface and underlying data model for enhanced search and analysis capabilities.

- **Facet Search Reorganization:** The **Ethnicity** widget has been removed. A new **Treatment Type** widget allowing users to filter participants based on treatment data.
- **New Nodes Added:** Additional nodes for **treatment**, **treatment response**, and **survival** have been integrated into the **C3DC Harmonized Data Model**, enabling more refined search and analysis. These nodes come with updated permissible values to support research needs.
- **Cohort Selector (New Key Feature):** The new **Cohort Selector** feature enables users to create and manage up to **10 cohorts**. This feature offers flexibility to researchers, allowing them to create cohort groups according to their specific requirements. Users can do the following:
 - **Create New Cohort:** Select participant IDs from the facet search and create a new cohort. Users can name and describe the cohort for easy reference.
 - **Add to Existing Cohort:** Add participants to existing cohorts or remove them. Entire cohorts can also be deleted as needed.
 - **View All Cohorts:** View a list of all created cohorts, making it easier to manage and analyze groups.
- **New Feature: Announcements Page:** The **Announcements Page** is a new addition to the application. Located under the "About" section, this page highlights new datasets, version updates, and relevant news. Content on this page is searchable via a **global search function**, ensuring users can quickly find updates and release information.

Additional Support and Inquiries

Users requiring any additional support or with any questions about the C3DC can contact the Childhood Cancer Data Initiative at NCIChildhoodCancerDataInitiative@mail.nih.gov. Please include a name and a reference to the C3DC with the submitted inquiry.

CHILDHOOD CANCER CLINICAL DATA COMMONS (C3DC)

Release 3
07/31/2024

This release contains harmonized data from:

- [phs000467: TARGET Neuroblastoma](#)
- [phs000470: TARGET: Kidney, Rhabdoid Tumor \(RT\) \(New\)](#)
- [phs000471: TARGET: Kidney, Wilms Tumor \(WT\) \(New\)](#)
- [phs000720: Genomic sequencing of Pediatric Rhabdomyosarcoma \(New\)](#)
- [phs001437: Pediatric Preclinical Testing Consortium PPTC](#)
- [phs002371: Human Tumor Atlas Network \(HTAN\) \(New\)](#)
- [phs002430: Genomic Analysis in Pediatric Malignancies](#)
- [phs002431: Enhancement of Data Sharing in Pediatric, Adolescent and Young Adult Cancers \(New\)](#)
- [phs002504: UCSF Database for the Advancement of JMML - Integration of Metadata with "Omic" Data](#)
- [phs002517: Molecular Characterization across Pediatric Brain Tumors and Other Solid and Hematologic Malignancies for Research, Diagnostic, and Precision Medicine](#)
- [phs002518: OncoKids - NGS Panel for Pediatric Malignancies](#)
- [phs002529: Comprehensive Genomic Sequencing of Pediatric Cancer Cases \(CMRI/KUCC\)](#)
- [phs002599: NCI CCSG CCDI Supplement Additional Genomic Submission](#)
- [phs002620: Feasibility and Clinical Utility of Whole Genome Profiling in Pediatric and Young Adult Cancers](#)
- [phs002677: Integrating Longitudinal Clinical, Sociodemographic and Genomic Data into the NCCR \(New\)](#)
- [phs002790: Molecular Characterization Initiative](#)

- [phs003111: Clonal Evolution During Metastatic Spread in High-Risk Neuroblastoma](#)
- [phs003164: CCDI Pediatric In Vivo Testing Program – Leukemia](#) (New)

Home Page (Update): Showcases data statistics and allows navigation to pages such as Explore and About on the C3DC site.

Explore Page (Update): Enables investigation of datasets and participant properties using faceted searching. The page includes real-time charts and tables reflecting faceted search results, all based on the newly created [C3DC Data Model](#) refining diagnosis classifications.

- Visualizations: C3DC offers visualizations for six different data elements:
 - o Race
 - o Ethnicity
 - o Sex at Birth
 - o Diagnosis
 - o Anatomic Site
 - o Age at Diagnosis (years)
- Data Table: The data table presents information across four unique tabs with a tooltip with a short description:
 - o Participants
 - o Diagnosis
 - o Survival
 - o Studies

Studies Page (New): Users can explore the available study data sets and display counts of participants and diagnoses. By clicking on the dbGaP accession, users can access a more comprehensive study description. Each study includes the following components:

- **Hyperlink:** dbGaP accession taking the user to a Studies Detail page

Studies Detail Page (New): where users can find high-level information about:

- **Description:** Contains the study abstract and outlined objectives.
- **Statistics Count:**
 - o Participants
 - o Survival Records
 - o Diagnoses
 - o Anatomic Sites

Note: Availability of Source Data

Currently, source data is only available for open access data (phs000467, phs000470, and phs000471). To obtain other CCDI data, please visit the [CCDI Data Hub](#).

Data Model Page (New): Introducing the [C3DC Harmonized Data Model](#)! This model unites childhood cancer studies, focusing on key data elements like participant diagnosis. Developed collaboratively with esteemed partners, it establishes standard terms for pediatric cancer research, guiding researchers and enhancing data interoperability.

Resources Page (New): Explore the C3DC Resources Page for data modeling, harmonization scripts, CCDI Hub access, GDC Data Portal, and caDSR.

About Page (Update): The About Page describes CCDI and C3DC and includes a drop-down option to download Release Notes and the User Guide which is a new functionality in this release. The content on the About Page is searchable through a global search feature.

CHILDHOOD CANCER CLINICAL DATA COMMONS (C3DC)

Release 2
04/28/2024

This release contains harmonized data from:

- [phs000467: TARGET Neuroblastoma](#)
- [phs001437: Pediatric Preclinical Testing Consortium PPTC](#)
- [phs002430: Genomic Analysis in Pediatric Malignancies](#)
- [phs002517: Molecular Characterization: Pediatric Brain Tumors & other Cancers](#)
- [phs002518: OncoKids Cancer Panel: Pediatric Cancers](#)
- [phs002504: Genomic Characterization: Juvenile Myelo Monocytic Leukemia](#)
- [phs002529: Comprehensive Genomic Sequencing: Pediatric Cancers](#)
- [phs002599: Genomic Landscape: Acute Myeloid Leukemia](#)
- [phs002620: Feasibility and Clinical Utility of Whole Genome Profiling in Pediatric and Young Adult Cancers](#)
- [phs002790: Molecular Characterization Initiative \(MCI\)](#)
- [phs003111: Molecular Characterization during Clonal Evolution: High-risk Neuroblastoma](#)

Features

Home Page

Showcases data statistics and provides links to all pages on the C3DC site.

Explore Page

Enables investigation of datasets and participant properties using faceted searching. The page includes real-time charts and tables reflecting faceted search results, all based on the newly created C3DC Data Model refining diagnosis classifications.

Data Visualization

C3DC offer data visualizations for six different data elements:

1. Study
2. Diagnosis
3. Age at Diagnosis (years)
4. Race
5. Ethnicity
6. Anatomic Site

Data Table

The data table presents information across four unique tabs:

1. Participants
2. Diagnosis
3. Survival
4. Studies

About Page

Describes CCDI, C3DC, and various resources useful to C3DC users. The About page content is searchable through a global search feature.

Childhood Cancer Clinical Data Commons (C3DC) Release 2

Release Date: 04/28/2024

This release contains harmonized data from:

1. [phs000467: TARGET Neuroblastoma](#)
2. [phs001437: Pediatric Preclinical Testing Consortium PPTC](#)
3. [phs002430: Genomic Analysis in Pediatric Malignancies](#)
4. [phs002517: Molecular Characterization: Pediatric Brain Tumors & other Cancers](#)
5. [phs002518: OncoKids Cancer Panel: Pediatric Cancers](#)
6. [phs002504: Genomic Characterization: Juvenile Myelo Monocytic Leukemia](#)
7. [phs002529: Comprehensive Genomic Sequencing: Pediatric Cancers](#)
8. [phs002599: Genomic Landscape: Acute Myeloid Leukemia](#)
9. [phs002620: Feasibility and Clinical Utility of Whole Genome Profiling in Pediatric and Young Adult Cancers](#)
10. [phs002790: Molecular Characterization Initiative \(MCI\)](#)
11. [phs003111: Molecular Characterization during Clonal Evolution: High-risk Neuroblastoma](#)

Features:

Home Page:

Showcases data statistics and provides links to all pages on the C3DC site.

Explore Page:

Enables investigation of datasets and participant properties using faceted searching. The page includes real-time charts and tables reflecting faceted search results, all based on the newly created C3DC Data Model refining diagnosis classifications.

Visualizations

C3DC offers visualizations for six different data elements:

1. Study
2. Diagnosis
3. Age at Diagnosis (years)
4. Race
5. Ethnicity
6. Anatomic Site

Data Table:

The data table presents information across four unique tabs:

1. Participants
2. Diagnosis
3. Survival
4. Studies

About Page:

Describes CCDI, C3DC, and various resources useful to C3DC users. The About page content is searchable through a global search feature.

CHILDHOOD CANCER CLINICAL DATA COMMONS (C3DC)

Initial Release V1.0
02/29/2024

Data Updates

The initial release of C3DC includes two datasets:

- Molecular Characterization Initiative (MCI)
- TARGET Neuroblastoma-

General Application Updates

Home Page

Showcases data statistics and provides links to all pages on the C3DC site.

Explore Page

Enables investigation of datasets and participant properties using faceted searching. The page includes real-time charts and tables reflecting faceted search results, all based on the newly created C3DC Data Model refining diagnosis classifications.

The data visualizations display six different data elements:

1. Study
2. Diagnosis (ICD-O)
3. Age at Diagnosis (years)
4. Race
5. Ethnicity
6. Anatomic Site

The data table presents information across four unique tabs:

1. Participants
2. Diagnosis
3. Survival
4. Studies

About Page

Describes CCDI, C3DC, and various resources useful to C3DC users. The About page content is searchable through a global search feature.