

National Cancer Database Tools

2021

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National Cancer Database Tools | 2021

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This application provides end-users with descriptive reports for many types of cancers diagnosed within the last 10 years captured in the NCDB. These reports include summaries on patient demographics, treatment, and stage, which can be queried for your facility as well as all CoC-accredited facilities at the state, regional, or national levels. Stage is based on NCDB's best stage, which represents a combination of AJCC pathologic stage over clinical stage.

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INTRODUCTION

The nationally recognized National Cancer Database (NCDB)—jointly sponsored by the American College of Surgeons and the American Cancer Society—is a clinical oncology database sourced from hospital registry data that are collected from approximately 1,500 Commission on Cancer (CoC)-accredited facilities. NCDB data are used to analyze and track patients with malignant neoplastic diseases, their treatments, and outcomes. Data represent more than 72 percent of newly diagnosed cancer cases nationwide and more than 42 million historical records.

Online reporting tools are available to provide your facility with comparative benchmarks for similar facilities aggregated throughout your state, region, and across CoC-accredited facilities as a whole. Additional reporting tools provide quality related performance measures in comparison with aggregated CoC-accredited facilities. Through comparison and evaluation, you can use these tools proactively to improve delivery and quality of care for cancer patients in your community and cancer facility.

- **Track and analyze data on all types of cancer to:**
 - Explore trends in cancer care
 - Review benchmarks for CoC-accredited facilities
 - Evaluate and compare the cancer care delivered to patients diagnosed and/or treated at your facility with accredited facilities at the state, regional, and national levels
 - Determine patients lost from or referred to your cancer facility
- **Community Assessment**
 - Identify potential areas of outreach and areas for population screening for cancers by site, age group, and race/ethnicity
 - Develop treatment practices to meet community needs
 - Develop cancer prevention programs based on the community needs
 - Provide information to address State Cancer Plan requests
- **Quality Improvement**
 - Identify survival rates by stage and disease site
 - Assess past performance rates on quality measures
 - Enhance coordination of care and completeness of data through the use of actionable alerts of anticipated adjuvant therapies
 - Demonstrate accountable, evidence-based care
 - Identify areas to focus quality improvement efforts
- **Cancer Facility Administration**
 - Use data to negotiate favorable reimbursement
 - Identify areas to market programs through demographic variables that define sex, race/ethnicity, age group, and education level

There are seven NCDB tools

NCDB Hospital Comparison Benchmark Reports, NCDB Survival Reports, NCDB Rapid Cancer Reporting System, Cancer Quality Improvement Program, NCDB Completeness Reports, Site by Stage Distribution Reports, and Participant User Files.

NCDB HOSPITAL COMPARISON BENCHMARK REPORTS (HCBR)

This application provides end-users with descriptive reports for many types of cancers diagnosed within the last 10 years captured in the NCDB. These reports include summaries on patient demographics, treatment, and stage, which can be queried for your facility as well as all CoC-accredited facilities at the state, regional, or national levels. Stage is based on NCDB's best stage, which represents a combination of American Joint Committee on Cancer (AJCC) pathologic stage over clinical stage. This report may be accessed from the password-protected CoC Datalinks portal.

How to Run a Report

Select from the following options, and then click Submit:

- Select view by My Hospital Only, Aggregate Report, or Comparison Report; for aggregation and comparison view, select by hospital type then by state, American Cancer Society region (West, North, South, North Central, Southeast, Northeast), or national
- Restrict to diagnosis year and primary site of interest
- Choose class of case to define the patient cohort for diagnosis and treatment
- Determine which analysis variables and select up to three (select only one for Comparison Report)

NCDB Hospital Comparison Benchmark Reports. Cases Diagnosed 2009 - 2018.

My Hospital Only Aggregate Report Comparison Report

NCDB Test Program

Filter Facility List: All FIN Name City State

FIN	Net...	Name	City	State	Zip	ACS Region	Census Region	Hospital Category
NCDB Test Program								
Page 1 of 1								

Dx. Year Select All 2009 2010 2011 2012 2013 2014 2015 2016 2017 2018

Site:

Case Type:

Analysis Variables

Var. 1:

Hosp. Type: Geo:

Report Tips

You have the option to show a chart, table, or export into a PDF or PowerPoint to use for a presentation

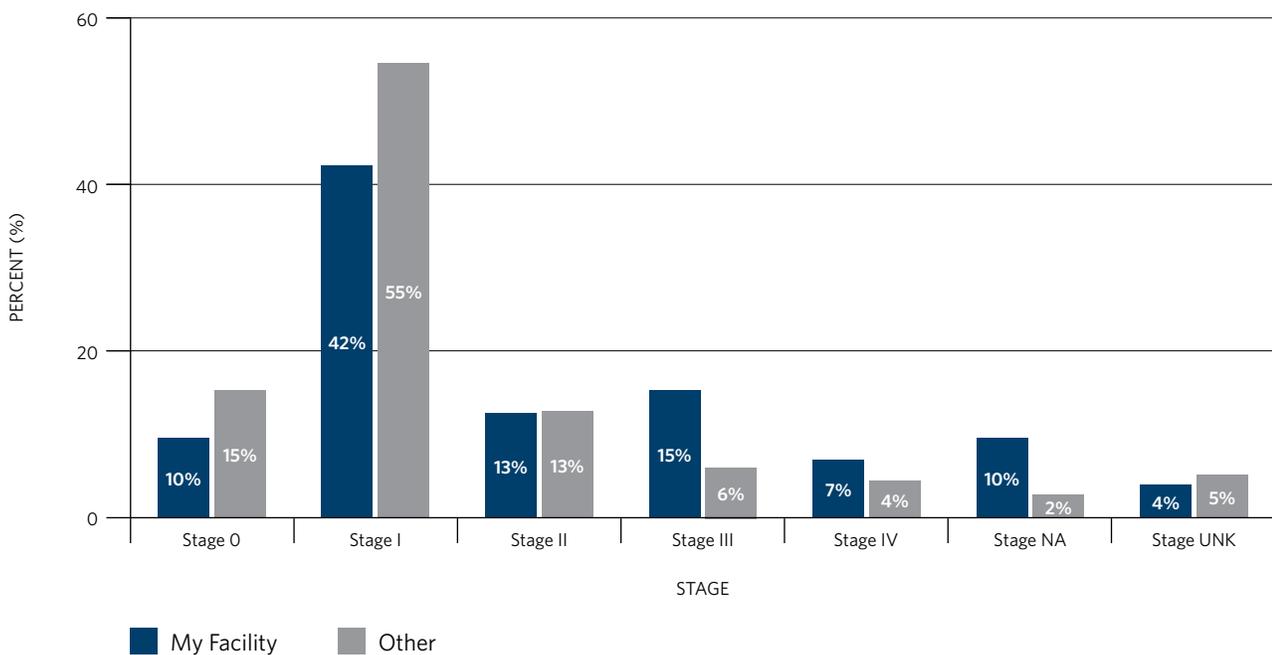
Report Usage

Descriptive summary reports may be used to examine the frequency distribution of a cohort of diagnoses by disease site stratified by key factors. In this example, 52 percent of breast cancer patients were diagnosed at Stage 0 or I compared with 70 percent at all other CoC-accredited facilities in 2018. The same proportion of cases is diagnosed at Stage II in both the facility and all CoC-accredited facilities. Additional reports may be run substituting age, insurance status, race, ZIP code level of educational attainment or median household income by stage to compare the case mix in your cancer facility with other CoC-accredited facilities.

Stage of Breast Cancer Diagnosed in 2018

NCDB Test Facility vs. All Types of Hospitals in All States

All Diagnosis Types - Data from 1,337 Hospitals

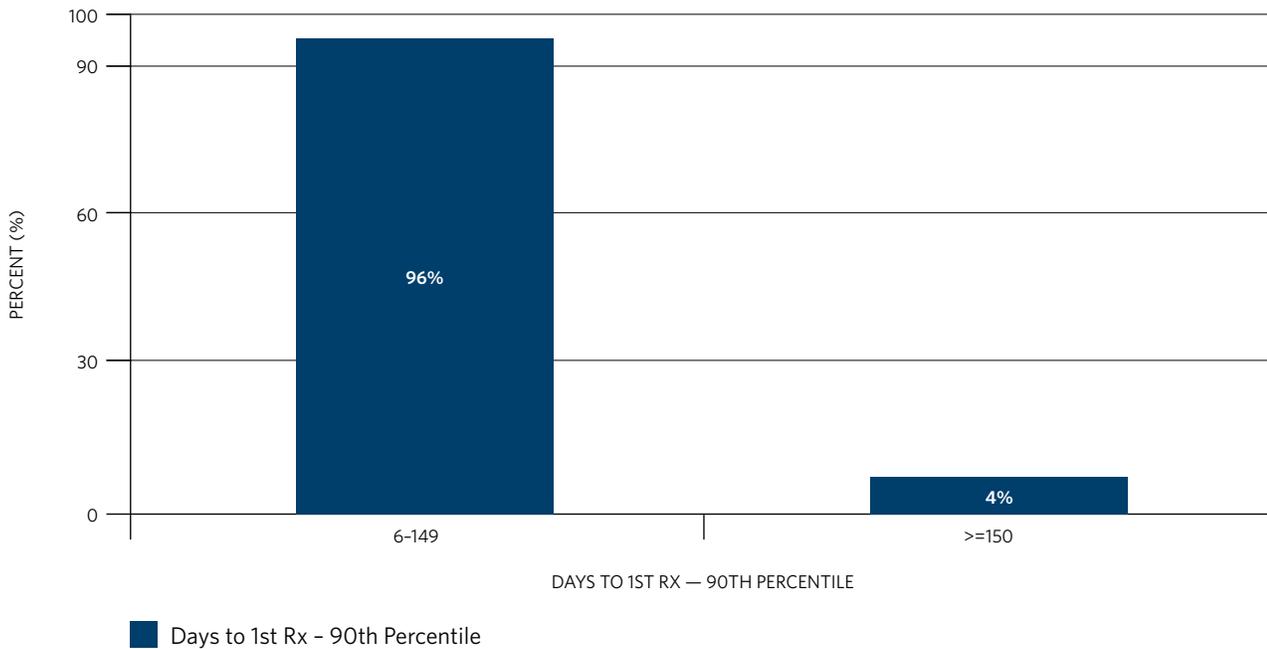


In this example, 96 percent of prostate cancer patients begin treatment within 149 days of their cancer diagnosis, and 4 percent wait at least 150 days before starting treatment.

NCDB Test Facility

Days to 1st Rx — 90th Percentile of Prostate Cancer Diagnosed in 2018.

Dx and all/part 1st crx. Rx at reporting facility



For More Information

Help links and data resources for this report are located on the left navigation panel within the report.

NCDB SURVIVAL REPORTS

This application calculates overall and unadjusted observed survival rates stratified by stage, sex, age group, or comorbidity score for all cancer sites. Stage is based on NCDB's best stage, which represents a combination of AJCC pathologic stage over clinical stage. It is accessed through the password-protected CoC Datalinks portal.

How to Run a Report

1. Check the boxes for disease site(s) of interest; one or multiple sites can be selected.
2. Check the box for the stage group(s) of interest.
3. Select the Diagnosis Years group; diagnosis years groups are based on corresponding AJCC edition.
4. Select Sequence Number of interest—patient's first and/or only cancer diagnosis.
5. Select Age of interest—all adults (18 years old or older), 18–64 years old, or 65 years old or older at diagnosis.
6. Select Reference Date of interest—all cases or cases diagnosed after the facility's reference date.
7. Select Stratification Variable—stage only, stage and sex, stage and comorbid, or stage and age.
8. Click on the blue Generate button to run the report based on the selections made.

Report Tips

- In the figure, hover over the survival curves to confirm label colors and exact values within the figure
- You can remove stage groups from survival curve in the figure by clicking on that stage group in the label; to add the survival curve back in the figure, reselect the stage group

Report Usage

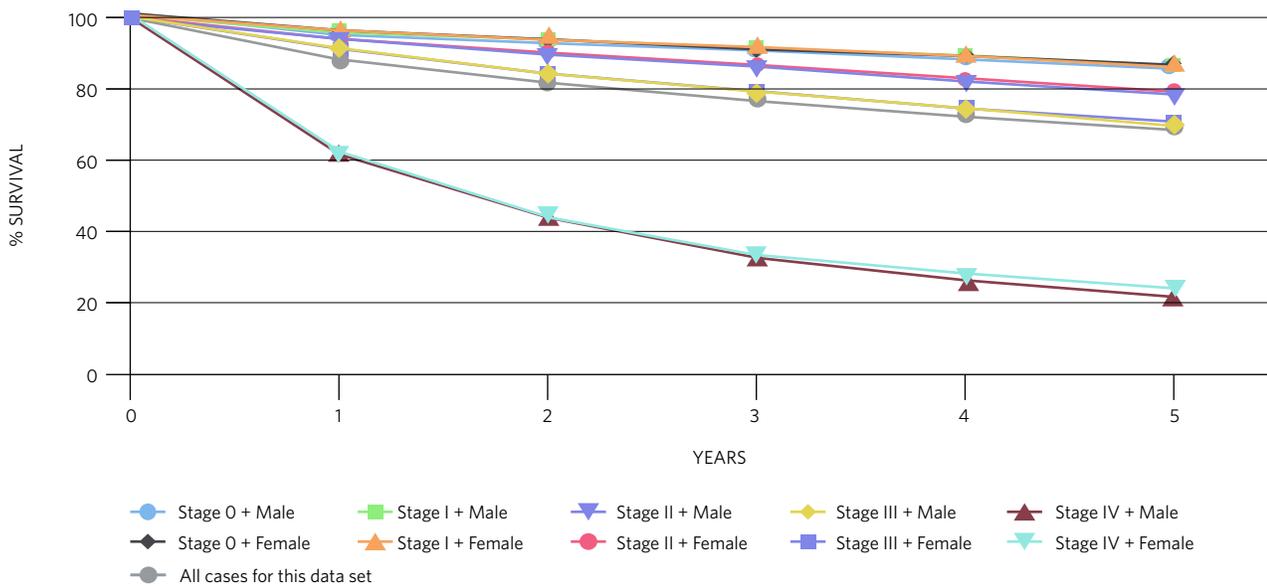
In this example, the overall five-year survival for colon cancer patients is 68.5 percent. There are no statistically significant differences for survival based on sex, except for at stage III at year one and two and stage IV for year four and five. Additionally there is a statistically significant difference in all stages by corresponding sex groups, except for between stage 0 and stage I for all years.

Observed Survival for Colon

Cases Diagnosed in 2010–2013 | Data from 1,268 Programs

Aggregate Report for all CoC Hospitals

WARNING: The information within this graphic is not to be used for clinical decision making.



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For More Information

Help links and data resources for this report are located at the bottom left of the application.

NCDB RAPID CANCER REPORTING SYSTEM (RCRS)

This application launched in September 2020 and is the source of both historical and real-time data used to assess quality measure performance. A case log report and alerts summaries assist registries with data quality efforts and treatment follow-up. This report is located within the RCRS platform (acsdatapatform.com/login).

How to Run a Report

Select from the left navigation panel to access the following:

- **Dashboard (Home Page)**—provides a general overview of some of the main reports and a brief highlight of the quality measure performance data
- **Upload**—allows cancer registrars to submit all cancer cases diagnosed in 2004 and forward
- **Submission History Report**—provides a summary of historical submissions; located at the bottom of the Uploads page
- **Submission Detail Report**—provides case-level details from a submission file and is located in a column within the Submission History Report
- **Notifications**—highlights new library resources or downtime in RCRS
- **Alerts Report**—provides the last three years of outstanding case alerts and corresponding edit errors
- **Case Log Report**—provides the last six years of all cases for the facility and case-level edits
- **Quality Measures Report**—provides the last six years of detailed quality measure performance information
- **Comparisons Report**—provides the last six years of all cases for the facility and compares performance rates of quality measures with other groups of CoC-accredited facilities and allows for stratification of patient and socioeconomic variables

Report Tips

- Each quadrant can be expanded by hovering the cursor over the quadrant and then selecting the icon at the top left of the quadrant with two diagonal arrows pointing away from each other; to revert to quadrant view, select the same arrows that are facing each other
- Legends can be shown and hidden by hovering over applicable quadrants and selecting the icon at the top right of the quadrant with three dots and three lines
- The Library is the go-to resource for information about RCRS, the STORE manual, CTR Guide to Coding Radiation Data items in STORE
- Upload, Submission History Report, and Submission Detail Report are only viewable by facility registrars

Report Usage

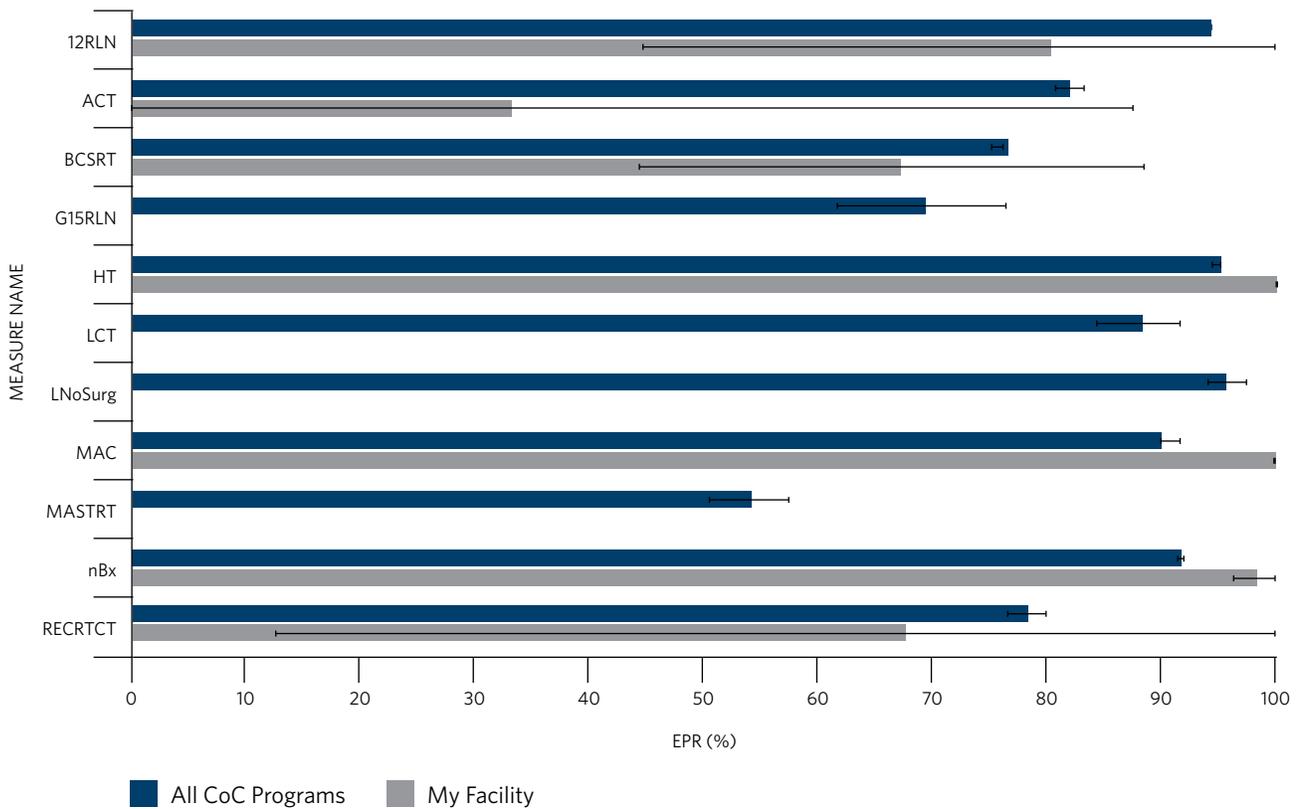
The dashboard on the home page illustrates the benchmark performance rate for quality measures in 2016–2018. The alerts tab displays the total number of cases with expected treatment. End-users may compare their facility performance with all other CoC-accredited facilities in the comparison tab.

Alert Summary



Quality Measures Comparison (DX Year: 2020)

Note: Report displays data available for the current year - 1.



For More Information

Help links and data resources for this report are located within the user library. The RCRS Library contains many tools, including videos instructing users on how to navigate the RCRS system and reports. Each video is approximately five to 10 minutes.

Videos in the RCRS Library include:

General Navigation

This video will cover the basics of RCRS, such as logging in and signing out and toggling between facilities if you have access to more than one CoC-accredited facility, and it provides the location of a quick link for easy access to the CoC Datalinks platform. Also reviewed in this video is the RCRS navigation panel to the left of the page, which includes a link to the Library where you will find useful documents such as the RCRS User's Guide, the Quality Measures Specifications, and the Latest Measure Release Updates, among others. The landing page or the home page for RCRS is the non-interactive Dashboard, which provides a snapshot of various measures and important notifications.

Quality Measure Report

This video provides a review of the facility's quality measures and explains that this report will initially load blank. For data to populate, Measures under the Summary Panel must be selected. In the table, green indicates that the measure met the CoC benchmark or 95 percent Confidence Interval. Red indicates that the facility did not meet the CoC benchmark or 95 percent Confidence Interval and that the cancer committee should discuss, formulate an action plan, and monitor for improvement.

Comparison Report

This video provides information regarding different quality measure performance rates, which can be compared by the facility with other CoC-accredited facilities at the facility category, national, Census division (East North Central, East South Central, Middle Atlantic, Mountain, New England, Pacific, South Atlantic, West North Central, West South Central), American Cancer Society region (West, North, South, North Central, Southeast, Northeast), or state levels. This report also loads blank, and selections must be made under the Summary Panel before data will populate. The various options available will be reviewed so the facility can customize reports specific to their needs and/or interests.

Access

For access to the RCRS platform, the user must be listed in a role in CoC Datalinks under CoC Manage Staff Contacts for each facility/FIN. Once updates are applicable, an e-mail will be sent from ACSTechsupport@iqvia.com with login and temporary password information.

- This system requires a different log in from your CoC Datalinks login
- Adding/changing of access in CoC Manage Staff Contacts must be performed at the program level
- Users are only allowed one ID in CoC Datalinks and one e-mail address for all associated FINs/facilities
- For any issues associated with RCRS login or password (reset), contact ACSTechsupport@iqvia.com

CANCER QUALITY IMPROVEMENT PROGRAM (CQIP)

This PowerPoint report is issued annually and summarizes data from the HCBR, NCDB Survival Reports, and the RCRS. It also includes operative mortality and risk-adjusted survival reports.

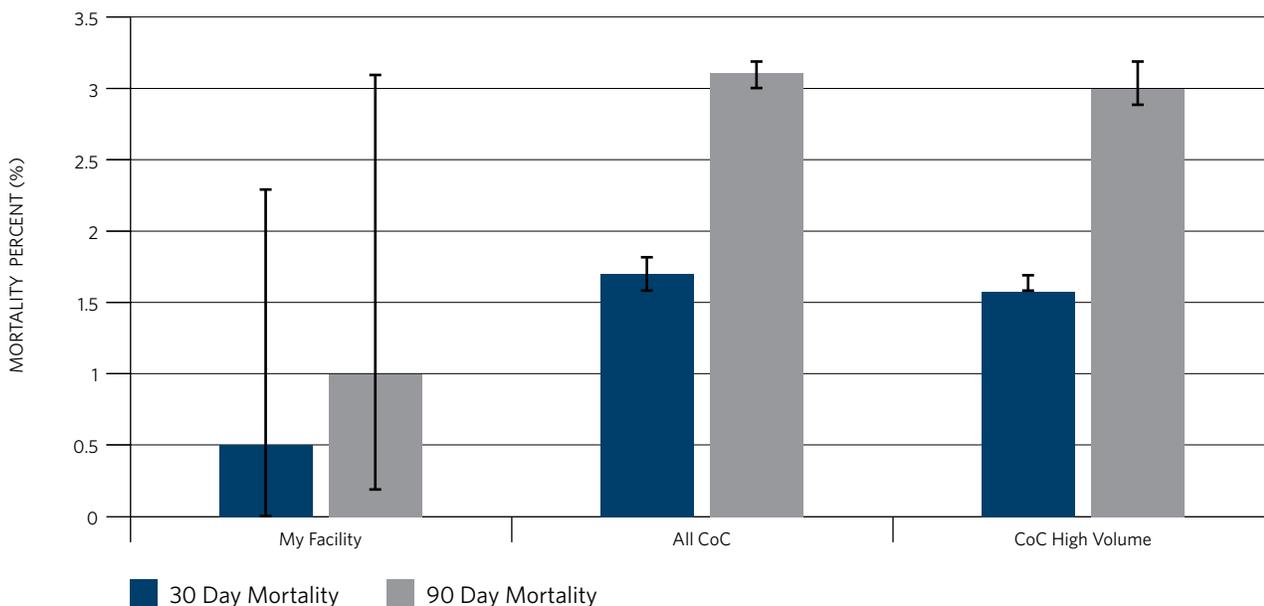
Each CoC-accredited facility receives a report that can be used to conduct a retrospective review of the services provided. This information enables facilities to develop plans and programs to ensure that their cancer facility offers high-quality, patient-centered cancer services to prevent, screen, diagnose, treat, and monitor the population served. This report may be accessed from the password-protected CoC Datalinks portal.

Report Usage

In this example, there are no statistically significant differences between the 30- and 90-day mortality after non-small-cell lung resections for this facility compared with all CoC-accredited facilities.

NSCLS Resections, Unadjusted 30, 90 Day Mortality, 95% CI, 2016-2018

My Facility vs. All CoC and CoC High Volume



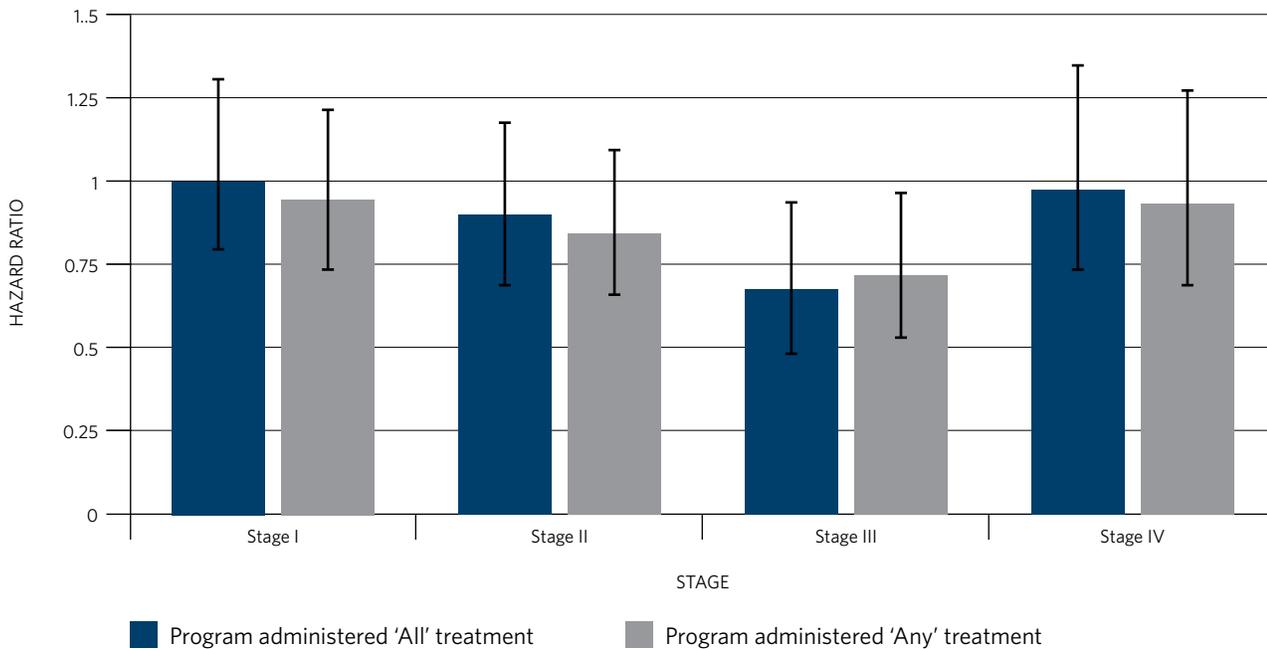
	My Facility		All CoC		CoC High Volume	
	30 Day	90 Day	30 Day	90 Day	30 Day	90 Day
Mortality Percent	0.5%	1.0%	1.7%	3.1%	1.6%	3.0%
95% CI	(0.0,2.3)	(0.2,3.1)	(1.6,1.8)	(3.0,3.2)	(1.6,1.7)	(2.9,3.2)
Deaths	1	2	1,369	2,474	1,244	2,266
Resections	208	203	80,293	78,830	75,754	74,374

*NA No resections, or < 30 or < 90 days of follow-up for alive patients

In this example, risk-adjusted survival is shown for stages I-IV breast cancer patients diagnosed between 2011 and 2013 allowing for at least 60 months of follow-up. A hazard below 1 indicates a reduced risk of death, whereas >1 indicates an increased risk of death, compared with all facilities. There are no statistically significant differences in risk-adjusted survival in this report for “my hospital” compared with all facilities for any stage groups. Given the strong association between treatment and outcomes, this report compares by stage patients that received “all” of their treatment at “my hospital” (blue bars) with those who received partial or “any” treatment (grey bars), meaning their care was coordinated with another facility.

Risk-Adjusted Survival Breast Cancer Stage

Stratified Hazard Ratios 2011-2013



	Stage I All	Stage I Any	Stage II All	Stage II Any	Stage III All	Stage III Any	Stage IV All	Stage IV Any
Hazard Ratio	1.01	0.94	0.89	0.84	0.67	0.71	0.98	0.93
95% CI	(0.78, 1.3)	(0.73, 1.2)	(0.68, 1.16)	(0.65, 1.08)	(0.49, 0.92)	(0.53, 0.95)	(0.72, 1.34)	(0.69, 1.26)
Deaths	44	46	38	39	15	19	21	22
Total Cases	546	640	281	330	92	110	32	37
Significance	**NS	**NS	**NS	**NS	Higher Survival	Higher Survival	**NS	**NS

CoC policy does not allow cancer programs to publicly report survival rates for their facility generated from NCDDB data.

*NA denotes < 30 cumulative cases &/or the cancer program has not submitted at least 5 years of data.

**NS denotes "Non-Significant" Lower (Worse) Survival Hazard Ratio > 1 and Higher (Better) Survival Hazard Ratio < 1.

For More Information

Help links and data resources for this report are located on the CQIP web page under “About CQIP” and “CQIP Details.”

NCDB COMPLETENESS REPORTS

This application provides feedback to CoC-accredited facilities about submission of missing, unknown, or nonspecific information for NCDB-required data items.

The most recent diagnosis year is included in this report. Long-term follow-up is evaluated for the most recent diagnosis year minus five years. This report may be accessed from the password-protected CoC Datalinks portal.

There are two report types available. All sites include nine reports (Report and Case IDs, Patient, Diagnostic, Staging, Surgery, Radiation, Other Treatment, Short-Term Follow-Up, and Long-Term Follow-Up). These reports can be analyzed independently or all together depending on the tab viewed. Site-specific reports consist of nine tabs (Breast, Colon, Rectum, Stomach, Esophagus and EGJ, Lung, Cervical, Endometrium, and Ovary).

Report Columns

- Registry Item—the variable being analyzed for completeness
- Subset—specifies any selection criteria to form the overall subset of cases analyzed
- Subset Description—description of the subset codes
- NAACCR #—NAACCR item number for the Registry Item
- Code Evaluated—the codes that causes the Registry Item to be considered missing, nonspecific, or incomplete
- Benchmark—the percent threshold of acceptable missing data, non-specificity, or incompleteness for the Registry Item
- Hospital Percent—the facility's percent of missing data, non-specificity, or incompleteness for the Registry Item
- Number—numerator / denominator; number of cases considered missing, nonspecific, or incomplete / number of all cases as defined in Subset
- Message—summary message describing the concern with the Registry Item if the Hospital Percent is greater than the Benchmark

Report Usage

In this example, the Registry Items, under the Other Treatment tab, RX Summ - Treatment Status and Chemotherapy at This Facility, shows that this facility's level of missing data, non-specificity, or incompleteness is less than that of the benchmark and thus not a concern. However, for Date of First Course Treatment, this facility's percent is above the benchmark and should signal to the facility that they should reevaluate their submission of Date of First Course Treatment and see why the full date of first treatment or decision not to treat is not consistently recorded, and then update those cases accordingly.

Registry Item	Subset (denominator is in range described below)	Subset Description	NAACCR #	Code Evaluated	Benchmark (highlighted if % above this value)	Hospital Percent	Number (Num/Denom)	Message
1. Date of First Course of Treatment	Class of Case (#610) = 10-22	At least some treatment was provided at the facility	1270	blank day	5%	5.13%	71732 / 1397425	Full date of first treatment or decision not to treat not consistently recorded
2. Rx Summ - Treatment Status	Class of Case (#610) = 0-22	All analytic diagnoses	1285	9	1%	0.4%	5527 / 1397425	High portion of cases with unknown treatment status
3. Chemotherapy at This Facility	Chemotherapy at This Facility (#700) NOT = 00	Patient was given chemotherapy at the facility or it was unknown	700	86, 88, 99	8%	6.11%	24336 / 398263	High unknown for chemotherapy given at this facility (allows that some 88s may not be given yet)

For More Information

Help link is located on the top left of the application.

SITE BY STAGE DISTRIBUTION REPORTS

This application enables facilities to obtain an overview of the number of cases by primary site and sub-sites as well primary site by stage. Case-level details are also provided for each primary site and stage. This report may be accessed from the password-protected CoC Datalinks portal.

How to Run a Report

- Select the facility of interest
- In the left panel, Cancer Site, select the main grouping of disease site
- In the main table, which consists of each sub-primary site by stage, select the cell in which you want to look for more specific details

Report Tips

- At the bottom left of the page is a link for NCDB Primary Site-Histology Groupings, which defines the primary site codes and histology associated with each primary site
- Case-level details can only be viewed within the live application, they cannot be viewed in exports
- The primary site and sub-sites counts by stage can be exported as HTML, PDF, or Excel

PARTICIPANT USER FILES (PUF)

The PUF is a source of data that allows for researchers at CoC-accredited facilities to review and improve the quality of care delivered to cancer patients through analyses of cases reported to the NCDB.

This Health Insurance Portability and Accountability Act (HIPAA)-compliant data file contains de-identified patient-level data that do not identify facilities, health care providers, or patients as agreed to in the Business Associate Agreement (BAA) that each CoC-accredited facility signs with the American College of Surgeons. The NCDB extends investigators at CoC-accredited facilities an opportunity to apply for a PUF year-round.

Researchers interested in utilizing NCDB PUF data should visit and review the contents on the PUF website (facs.org/quality-programs/cancer/ncdb/puf). The PUF website includes all information needed on how to complete an application, access the application, how to download the data and the data dictionary, as well as some additional resources to understand the data and how to use it.

