



Diving Into Dialysis Data: NHSN Dialysis Component Analysis & Report Options

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Presentation Overview

- Why are NHSN data important?
- How are NHSN data used and by whom?
- How can YOU use NHSN data?
 - * NHSN Analysis and Report Tools

Why Collect NHSN Data?

- Data reflect healthcare practices that impact patient safety and health
- Measures like bloodstream infections (BSI) and local access site infections (LASI) can be indicators of healthcare practice and patient health
- Specific fields we collect like access type and facility/patient characteristics are important to study
- That's why these data are critical to monitor and examine

How are NHDN Data Used?

- CMS for quality incentive program (QIP)
- CDC for national surveillance reports
- Research studies to better understand dialysis events and practices
- Corporations use data to assess performance at the organization and facility level
- State and local health depts. and ESRD networks use data to monitor performance and practice in jurisdictions, or at the facility and organization level
- YOU can use the data too, to examine performance at the jurisdiction/facility-level
- We'd like to show you how!

How Can you Examine Your Own Data?

NHSN Dialysis Analysis & Reports Function

NHSN reports can be run anytime to review data

- Standard reports can be run as default or modified



Different reports are available:

- NHSN can summarize what's been reported & calculate infection rates
- Report types include line listings, frequency tables, bar charts, pie charts, rate tables, run charts

Use reports to:

- Track infections
- Inform infection prevention practices
- Identify areas for quality improvement

Recommend monthly/quarterly reviews of data to ensure data quality, detect trends & provide feedback for quality improvement

Running Reports: 3 Steps



Centers for Disease Control and Prevention
CDC 24/7: Saving Lives, Protecting People™

NHSN - National Healthcare Safety Network

NHSN Home

- Alerts
- Reporting Plan ▶
- Patient ▶
- Event ▶
- Summary Data ▶
- COVID-19 ▶
- Import/Export
- Surveys ▶
- Analysis ▶
- Users ▶
- Facility ▶
- Group ▶
- Logout



NHSN Dialysis Component Home Page

Action Items

COMPLETE THESE ITEMS

Facility Geolocation
Confirm

ALERTS

3

Missing Events

2

Missing Summary

- NHSN includes reports that jurisdictions/ facilities can run anytime to examine data
- There are many canned reports to use without modifying anything (default)
- Or you can modify the report to suit your needs, like filter for time period, include/ exclude certain fields/ variables & more
- So, get in there & muck around....you won't break anything!

Step 1 - Generate New Data Sets

The screenshot shows the NHSN (National Healthcare Safety Network) interface. At the top left is the CDC logo and text: "Centers for Disease Control and Prevention, CDC 24/7: Saving Lives, Protecting People™". At the top right is the NHSN logo: "NHSN NATIONAL HEALTHCARE SAFETY NETWORK". Below the header is a navigation bar with "NHSN - National Healthcare Safety Network" and a user profile for "THOXWORTH SB Test Facility Dialysis Compo...".

The main content area is titled "Generate Data Sets (Dialysis)". It features a "Reporting Data Sets" section with a gear icon and the text "Include data for the following time period:". Below this are "Beginning" and "Ending" date pickers. The "Beginning" date is set to "01/2021" and the "Ending" date is set to "mm/yyyy" with a "1" in the day field. A "Clear Time Period" button is next to the date pickers. A "Generate Reporting Data Sets" button is highlighted with a red arrow. Below the button is a "Last Generated:" box showing "June 11, 2024 9:45 AM to include data beginning 01/2021".

A "Warning" dialog box is open, displaying the message: "The current data sets will be updated. Are you sure you want to continue?". It has "OK" and "Cancel" buttons. A red arrow points to the "OK" button.

The sidebar on the left contains the following navigation items: NHSN Home, Alerts, Reporting Plan, Patient, Event, Summary Data, COVID-19, Import/Export, Surveys, Analysis, Users, Facility, Group, and Logout. A red arrow points to the "Surveys" item.

Notes on Generating Data Sets

- Data sets include your jurisdiction's data that NHSN uses to run reports
- Generating new data sets allows capture of all your jurisdiction's data so reports reflect up-to-date, complete data
- Each user has their own data sets based on what they have access to
- It may take a while (generally few minutes) to generate, but you can work elsewhere in NHSN or minimize window and work on external tasks while you wait

Step 2 – Select a Report

The screenshot displays the NHSN - National Healthcare Safety Network interface. The top navigation bar includes the CDC logo and the text "Centers for Disease Control and Prevention CDC 24/7: Saving Lives, Protecting People™". Below this, the "NHSN Home" section contains a list of menu items: Alerts, Reporting Plan, Patient, Event, Summary Data, Import/Export, Analysis, Users, Facility, Group, and Logout. The "Analysis" menu item is highlighted, and a sub-menu is visible with "Reports" circled in red. An orange arrow points from this sub-menu to the "Analysis Reports" section of the interface. The "Analysis Reports" section features a search bar and two buttons: "Expand All" and "Collapse All". A tree view of report categories is shown, with the "Dialysis Events" folder expanded and highlighted with a red box. The sub-items under "Dialysis Events" are: Numerators, Denominators, Rates, SIR, and Outcomes. Other report categories listed include Prevention Process Measures, Central Line Insertion Practices, Patient Vaccination, Data Quality, CMS Reports, Advanced, and My Custom Reports.

- Once data sets are generated, select ‘Reports’ from the navigation bar
- Open “Dialysis Event” folder to find report templates

Step 3 – ‘Run’ the Report

The screenshot displays the NHSN - National Healthcare Safety Network (apt-v-nhsn-test:8001) interface. On the left is a navigation menu with items: NHSN Home, Alerts, Reporting Plan, Patient, Event, Summary Data, Import/Export, Surveys, Analysis, Users, Facility, Group, Tools, and Logout. The main content area is titled 'Analysis Reports' and features a tree view with folders for 'Dialysis Events', 'Numerators', 'Denominators', and 'Rates'. Under 'Rates', several report items are listed, including 'Rate Table - IV Antimicrobial Start Data', 'Run Chart - IV Antimicrobial Start Data', 'Rate Table - IV Vancomycin Start Data', and 'Run Chart - IV Vancomycin Start Data'. A context menu is open over the 'Run Chart - IV Vancomycin Start Data' item, showing three options: 'Run Report' (highlighted with a red box), 'Modify Report', and 'Export Data Set'. The 'Run Report' option is accompanied by a play button icon.

Modifying Reports – Optional

- **Two common modifications:**
 - Filter the data, so the report includes desired information only
 - Customize which variables are included and in what order
- **Click the ‘Modify Report’ button next to the template you would like to change**

NHSN - National Healthcare Safety Network (apt-v-nhsn-test:8001)

NHSN Home

- Alerts
- Reporting Plan ▶
- Patient ▶
- Event ▶
- Summary Data ▶
- Import/Export
- Surveys ▶
- Analysis ▶
- Users ▶
- Facility ▶
- Group ▶
- Tools ▶
- Logout

Analysis Reports

Expand All Collapse All Search

- Dialysis Events
 - Numerators
 - Denominators
 - Rates
 - Rate Table - IV Antimicrobial Start Data
 - Run Chart - IV Antimicrobial Start Data
 - Rate Table - IV Vancomycin Start Data
 - Run Chart - IV Vancomycin Start Data
 - Rate Table - Access Related Bloodstream Infection
 - Run Chart - Access Related Bloodstream Infection
 - Rate Table - Vascular Access Infection Data
 - Run Chart - Vascular Access Infection Data

Run Report

Modify Report

Export Data Set

Modify Screen

The modify screen can be described in three main sections:

1. Report formatting
2. Data filters
3. Variable display and organization

Modify "Line Listing - Dialysis Events (detailed)"

Show descriptive variable names ([Print List](#)) Analysis Data Set: DE_Events Type: Line Listing Data Set Generated On: 07/10/2017 15:12:00

1 **Title/Format** 2 **Time Period** **Filters** 3 **Display Variables** Sort Variables Display Options

Title:
Line Listing for Dialysis Events (detailed)

Format:

html **pdf** **xls** **rtf**

Variable Reference List

- Data collected or calculated in NHSN are assigned variable names:

Event Details [HELP](#)

Specify Event (check one or more)

IV antimicrobial start **“abxStart”**

Was vancomycin the antimicrobial of choice?

Was this a new outpatient or inpatient course?:

Positive blood culture **“bldCultDE”**

Suspected source of positive blood culture:

Pus, redness, or increased swelling at vascular access site **“prsEvent”**

Show descriptive variable names (Print List)

Title/Format | Time Period | Filters | Display Options

Title:

Format:

html pdf xls rtf

Don't know a variable name's meaning?
Open the variable reference list.

Modify the Report – Filter Data

- The second section allows you to specify which data are included in the report

- Filter by time period

The screenshot shows the 'Modify "Line Listing - Dialysis Events (detailed)"' interface. At the top, there is a header bar with the title and a 'Show descriptive variable names (Print List)' checkbox. Below the header, there are several tabs: 'Title/Format', 'Time Period' (which is selected and highlighted in green), 'Filters', 'Display Variables', 'Sort Variables', and 'Display Options'. The 'Time Period' section contains a 'Date Variable' dropdown menu, 'Beginning' and 'Ending' input fields, and a 'Clear Time Period' button. There is also a checkbox labeled 'Enter Date variable/Time period at the time you click the Run button'.

- Specify data filters

The screenshot shows the 'Modify "Line Listing - Dialysis Events (detailed)"' interface with the 'Filters' tab selected. The header bar includes the title, a 'Show descriptive variable names (Print List)' checkbox, and the text 'Type: Line Listing' and 'Data Set Generated On: 07/10/2017 15:12:00'. The 'Filters' tab is highlighted in green. Below the tabs, there is an 'Additional Filters:' section with a 'Show' button and a 'Clear' button. The main area contains a filter rule editor with 'AND' and 'OR' buttons, an 'Add group' button, an 'Add rule' button, and a 'Delete' button. A dropdown menu is visible at the bottom of the filter rule editor.

Modify Report – Change Variable Display & Order

- Arrows move variables between 'Available Variables' and 'Selected Variables' columns
- Use 'Up' and 'Down' buttons to change the display order

The screenshot shows the 'Modify Line Listing - Dialysis Events' configuration window. At the top, it displays 'Analysis Data Set: DE_Events', 'Type: Line Listing', and 'Data Set Generated On: 06/09/2017 09:25:00'. Below this is a navigation bar with tabs for 'Title/Format', 'Time Period', 'Filters', 'Display Variables' (which is active), 'Sort Variables', and 'Display Options'. The main area is titled 'Display Variables:' and is divided into two columns: 'Available Variables:' and 'Selected Variables:'. The 'Available Variables' list includes items like '(Old) Bleeding', '(Old) Blood Culture', '(Old) Blood Culture Description', '(Old) Cardiovascular Event', '(Old) Clotting', '(Old) Fistula with Pus/Red/Swell Problem?', '(Old) Graft with Pus, Red, Swelling Problem?', '(Old) Hospitalization Dialysis Event type', '(Old) Local Access Infection', '(Old) Other noninfection access problem', '(Old) Perm Central Line with Pus, Red, Swell problem?', '(Old) Pneumonia', '(Old) Port', '(Old) Port Placement Date', and '(Old) Port Placement Date Unknown'. The 'Selected Variables' list includes 'Facility Org ID', 'CMS Certification Number', 'Event ID', 'Patient ID', 'Event Date', 'Admitted on DE Date', 'Fistula', 'Graft', 'Other Access Device', 'Tunneled Central Line', 'Nontunneled Central Line', 'IV Antimicrobial Start', 'Positive Blood Culture', 'Local Access Site Infection', and 'Access Related Bloodstream Infection'. Between the two lists are buttons for 'All', 'Selected', and '<< All'. To the right of the 'Selected Variables' list are buttons for 'Up', 'Down', and 'Undo'. At the bottom right of the window are buttons for 'Run', 'Save...', 'Export...', and 'Close'.

Display & Save, Export Data & Close

- **When modifications are complete, click the ‘Run’ button to determine if report is as desired**
- **Click ‘Save...’ to save modified report for future use**
 - Must change the “Report Name” to save
- **Click ‘Export...’ to export modified dataset to use with other analysis software (e.g., Excel, SAS)**
- **Click ‘Close’ to close the Modify screen without running, saving or exporting reports.**



Dialysis Analysis & Reports Resources

[Dialysis Roadmap | NHSN Roadmap | NHSN | CDC \(Training Resources\)](#)

[Dialysis Component Analysis Manual \(cdc.gov\)](#)

[Steps to Review NHSN Dialysis Event Surveillance Data \(cdc.gov\)](#)

[NHSN Dialysis Event Bloodstream Infection \(BSI\) Report Quick Reference \(cdc.gov\)](#)

[Guide to the NHSN Dialysis Event Surveillance BSI SIR Measure \(cdc.gov\)](#)

[NHSN Report for CMS ESRD QIP \(cdc.gov\)](#)

[Analysis Resources | NHSN | CDC](#)

[NHSN ServiceNow Portal \(https://sams.cdc.gov\)](https://sams.cdc.gov)

Thank you!

For more information, contact CDC
1-800-CDC-INFO (232-4636)
TTY: 1-888-232-6348 www.cdc.gov

The findings and conclusions in this report are those of the authors and do not necessarily represent the official position of the Centers for Disease Control and Prevention.

