

Dialysis Component Analysis Manual

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Monthly review of NHSN data is recommended to ensure all data have been reported accurately and completely. Quarterly data review is recommended to detect trends in your facility and provide feedback to your staff for quality improvement.

With NHSN analysis, dialysis facilities can:

- Calculate risk-stratified dialysis event rates (e.g., vascular access infections)
- Benchmark against all NHSN facilities reporting dialysis events
- Use a variety of reports to inform quality improvement decisions

Types of NHSN Reports

Line Listing – displays a list of details entered on the corresponding NHSN form (e.g., Dialysis Events, Denominators for Dialysis Events, etc)

Frequency Table – displays the count and percent of occurrence of types of Dialysis Events in the form of a table

Pie Chart – displays the count and percent of occurrence of types of Dialysis Events in the form of a chart

Run Chart – displays the count and percent of occurrence of types of Dialysis Events over time in the form of a chart

Rate Table – displays the count and percent of occurrence of types of Dialysis Events per 100 patient-months

SIR – displays the ratio of observed bloodstream infections to predicted bloodstream infections and the values used to calculate that ratio

Components of a Rate

Rates are calculated by dividing the number of dialysis events by the estimated number of patients at risk for a dialysis event during the month, multiplied by 100 to determine the rate of dialysis events per 100 patient-months. Typically, rates are stratified by vascular access type since it is a known risk factor.

$$rate = \frac{Dialysis\ Events\ (numerator)}{Patient - Months\ (denominator)} \times 100$$

To calculate rates for a period of time that exceeds one month, the monthly numerators are pooled (summed) and divided by the pooled monthly denominators, and multiplied by 100.

Comparison statistics

NHSN rate tables and run charts provide aggregate rates combined from all facilities reporting according to the Dialysis Event Protocol. These aggregate rates can be used as a comparison for facilities. In addition to the aggregate rate, comparison statistics are provided (when possible) to indicate the statistical significance of any potential difference between facility and aggregate data.

These comparison statistics include:

- **p-value:** a measure of statistical significance that indicates the probability that any difference between the facility's rates and NHSN aggregate rates is due only to chance.

- Typically, a p-value of <0.05 is considered a statistically significant difference. A p-value of <0.05 means that there is a greater than a 95% chance that the two rates being compared are truly different from each other.
- **Percentile:** a value that indicates where the facility’s rate ranks within the distribution of all NHSN facility-specific rates.
 - The 50th percentile, also known as the median, indicates average performance: half of facilities have lower rates and half of facilities have higher rates.
 - The lower the percentile, the better the facility is performing relative to other facilities reporting to NHSN. For example, a rate in the 10th percentile indicates that the facility’s rate is lower than (=better than) 90% of other facilities that reported data to NHSN.

How to Run an NHSN Report with Default Report Settings

From the NHSN navigation bar, select “Analysis”

1. Generate new data sets
 - “Data sets” are the files that NHSN uses to create reports for your facility or group. Generating new data sets ensures reports include complete, up-to-date information.
 - Each user is responsible for generating his or her own analysis data sets.
 - Data sets may take several minutes to generate, but the user can work elsewhere in NHSN while data sets are generating or minimize the application and check back later.

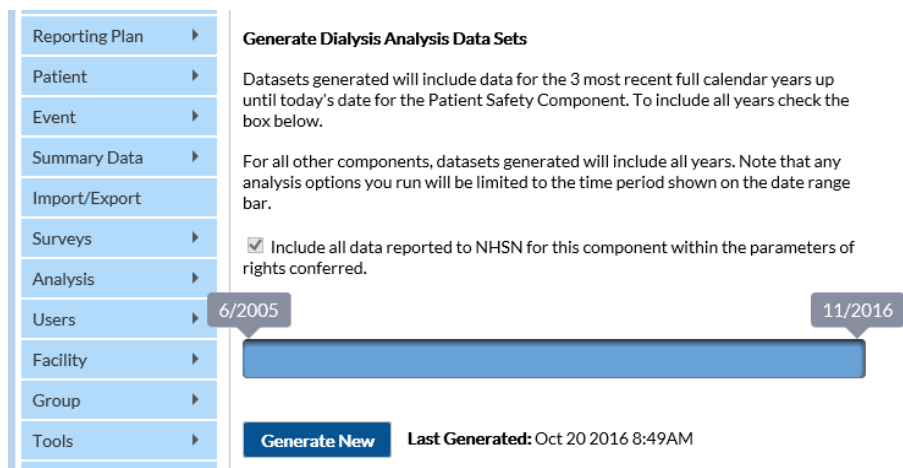


Figure 1. Generating Data Sets—All users are responsible for generating their own data sets in Analysis by following these steps: (1) Click ‘Analysis,’ (2) Click ‘Generate Datasets,’ (3) Click ‘Generate New.’

2. Click ‘Reports’ from the Analysis section of the navigation menu

- All report templates in the Dialysis Component are located under the following folders:
 - Dialysis Events
 - Prevention Process Measures
 - Central Line Insertion Practices
 - Patient Vaccination
 - Data Quality
 - CMS Reports
 - Advanced
3. On the Analysis Reports screen, click a folder to open it and then select the name of a report. Press “Run Report” to see that report appear with its default settings.
- The report will open in a new window, so allow pop-ups from *.cdc.gov.

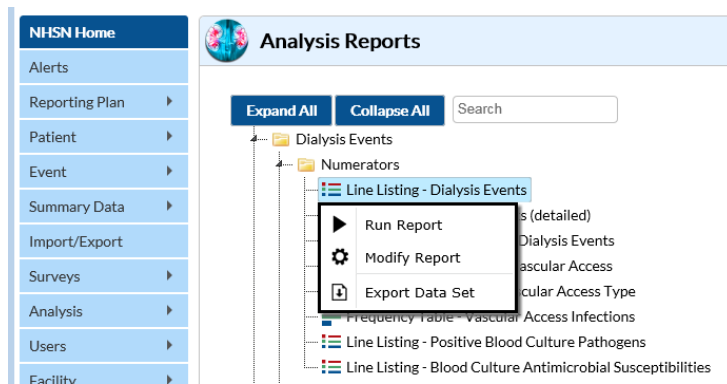


Figure 2. Reports are organized in a “treeview,” and can be run individually by clicking “Run Report” after clicking on the report’s name.

How to Modify an Existing NHSN Report

Prior to running a report, users can optionally modify the report so that the output is tailored to their needs. On the Analysis Reports screen:

1. Locate the report that needs to be modified from the list of existing reports and click “Modify Report” to navigate to the modification screen.

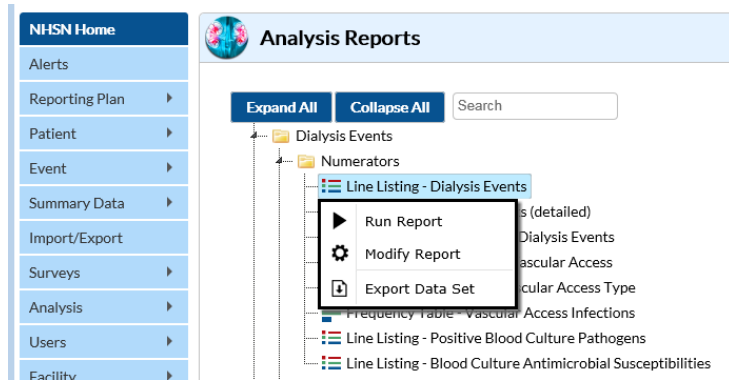


Figure 3. Modifying a Report—Navigating to the modify screen of a report requires the user to click “Modify Report” after clicking the name of the report.

2. On the modify screen, users can:
 - Filter the report by time period (Time Period)
 - Filter the report by values of available variables (Filters)
 - Specify variables displayed on the report and in what order they appear (Display Variables and Sort Variables)
 - Specify how the report will aggregate data by choosing a “Page by variable” (Display Options)

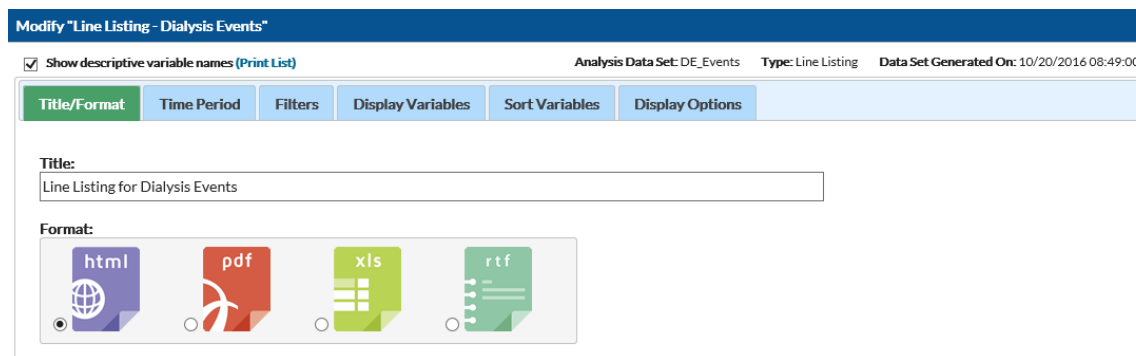


Figure 4. Modify Screen—The modify screen allows users to tailor the report to the user’s preferences. On this first tab, Title/Format, a user can change the title and format (i.e., HTML, PDF, Excel, RTF) of the report.

Filtering by Time Period:

To filter a report by time period, click the Time Period tab and select a Date Variable from the drop-down menu.

Modify "Line Listing - Dialysis Events"

Show descriptive variable names (Print List) Analysis Data Set: DE_Events Type: Line Listing Data Set Generated On: 10/20/2016 08:49:00

Title/Format Time Period Filters Display Variables Sort Variables Display Options

Time Period:

Date Variable Beginning Ending

Event Date

Enter Date variable/Time period at the time you click the Run button

Figure 5. Selecting a Date Variable—Based on the data that the user is interested in, the user can filter by the most applicable date variable. For example, if a user is trying to capture events by the date they occurred, the Event Date variable should be selected. Different “Date Variable” options are available for selection for different reports.

1. Input values under “Beginning” and “Ending” to specify the time period over which the report should capture data. As shown in Figure 6, the user has specified that the report should capture all data for events that occurred on and between June 10, 2016 and December 1, 2016.

Modify "Line Listing - Dialysis Events"

Show descriptive variable names (Print List) Analysis Data Set: DE_Events Type: Line Listing Data Set Generated On: 10/20/2016 08:49:00

Title/Format Time Period Filters Display Variables Sort Variables Display Options

Time Period:

Date Variable Beginning Ending

Event Date 06/10/2016 12/01/2016

Enter Date variable/Time period at the time you click the Run button

Figure 6. Specifying a Time Period—Choosing a specific time period allows the user to capture data within that time period and view only that data in the final report output. The format of the time period is dependent upon the syntax of the date variable chosen (e.g., Event Date = **MM/DD/YYYY**, Event ~ Yr/Qtr = **YYYYQ#**, where # is 1-4).

2. To clear the time period filter, click the “Clear Time Period” button to the right.

Note: Some reports have a check box on the Time Period tab that states, “Enter Date variable/ Time period at the time you click the Run button.” If you check that box and press “Save,” then each time you run the report you will be prompted to enter the time period before the report will generate.

Enter Date variable/Time period at the time you click the Run button

Figure 7. Enter the time period at the moment you press “Run” instead of selecting the time period on the Modify screen.

Filtering by Specific Selection Criteria:

1. To capture certain selection criteria in your report, select a variable from the drop-down menu under the Filters tab.
2. Select a variable from the drop-down menu and a second drop-down menu of operators will appear.
 1. Select 'equal' to display a list of results that exactly match the value(s) you enter.
 2. Select 'not equal' to display a list of results that are different from the value(s) you enter.
 3. Select 'in' to display a list of results that include the value(s) you enter (such as a list of possible responses to a question or a list of facility identifiers).
 4. Select 'not in' to display a list of results that do not include the value(s) you enter.
 5. Select 'less' to display a list of results that have a value less than the value you entered.
 6. Select 'less or equal' to display a list of results that have a value less than or equal to the value you entered.
 7. Select 'greater' to display a list of results that have a value greater than the value you entered.
 8. Select 'greater or equal' to display a list of results that have a value greater than or equal to the value you entered.
 9. Select 'between' to display a list of results greater than the first value you entered and less than the second value.

Note: Options 5-9 are only found in reports that include count variables (e.g., Number of AVF, Number of BSIs, etc).

Modify "Line Listing - Dialysis Events"

Show descriptive variable names ([Print List](#)) Analysis Data Set: DE_Events Type: Line Listing Data Set Generated On: 10/20/2016 08:49:00

Title/Format Time Period **Filters** Display Variables Sort Variables Display Options

Additional Filters:

AND OR

AND OR

CMS Certification Number in 123456 , 789101

Figure 8. Filters—Users can run a report that includes specific parameters which are variable-specific (e.g., select 'CMS Certification Number' and then enter the CCNs of the facilities you want to be included in the report – use the plus button to include more CCNs).

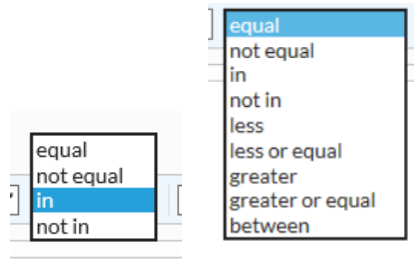


Figure 9. Filter Operators

1. Click the 'Add group' button to add an additional filter.
2. Select 'AND' to return a list of results that meet both the first and second filter criteria. For a longer list of results, select 'OR' to return a list of results that meet the first selection criteria or the second selection criteria but don't necessarily meet both.

The screenshot shows the 'Modify Line Listing - Dialysis Events' interface. At the top, there is a blue header with the title 'Modify Line Listing - Dialysis Events'. Below the header, there is a navigation bar with tabs: 'Title/Format', 'Time Period', 'Filters' (selected), 'Display Variables', 'Sort Variables', and 'Display Options'. The 'Filters' tab is active, showing a section for 'Additional Filters' with 'Show' and 'Clear' buttons. Below this, there are two filter rules defined. The first rule is 'Access Type' equal to 'Fistula'. The second rule is 'Positive Blood Culture' equal to 'Y'. The 'AND' operator is selected for the group of filters. There are 'Add group', 'Add rule', and 'Delete' buttons for each rule and for the group.

Figure 10 – Specifying two selection criteria. In order to setup the table so that the parameters of each criteria are met simultaneously (e.g., to capture dialysis events where the patient had a fistula AND also experienced a positive blood culture), click 'AND.'

Modify "Line Listing - Dialysis Events"

Show descriptive variable names ([Print List](#)) Analysis Data Set: DE_Events Type: Line Listing Data Set Generated On: 10/20/2016 08:49:00

Title/Format Time Period **Filters** Display Variables Sort Variables Display Options

Additional Filters:

AND OR

AND OR

Access Type equal Fistula

AND OR

Positive Blood Culture equal Y

Figure 11 – Specifying two selection criteria. In order to setup the table to capture data based on two criteria separately (e.g., to capture dialysis events where the patient had a fistula OR experienced a positive blood culture), click ‘OR.’

3. Once the appropriate selection criteria have been chosen, click “Run” at the bottom of the screen.

Specifying Variables and Adjusting Display Order:

1. To specify the variables that display, click the Display Variables tab. In the Selected Variables column, you will see the list of variables that are set to display by default and their display order. In the Available Variables column, you will see the list of all variables available to display in alphabetical order (with the old/outdated variables on top).

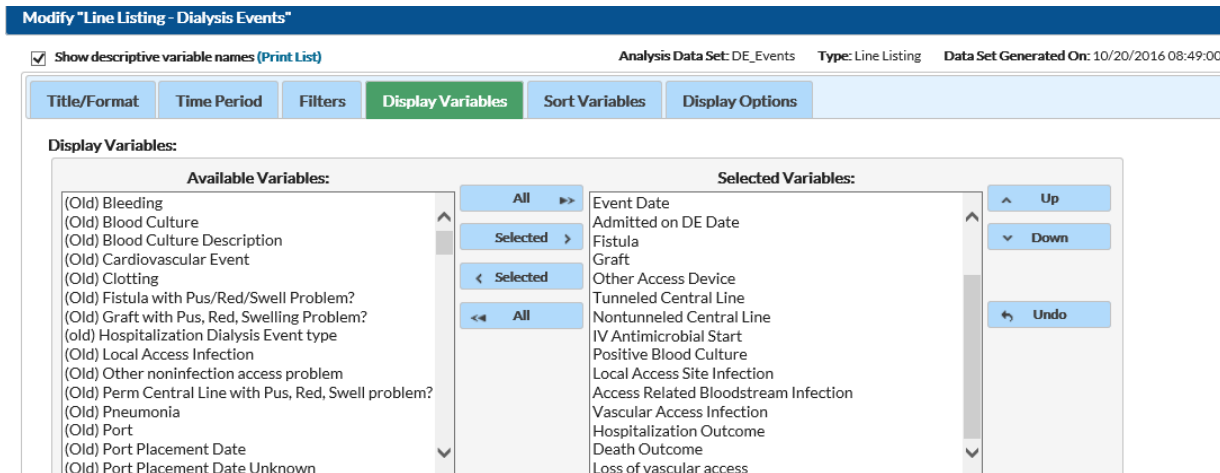


Figure 12. Modifying a Report to Specify Variables and Adjust Display Order—Users may want to see data from variables collected on the form that do not appear by default in the corresponding report, or users may want to see fewer variables than appear by default, or may want to change the display order.

2. To make an available variable appear in the report, click the name of the variable in the Available Variables column and click ‘Selected >’ to move that variable into the Selected Variables column. To make a selected variable no longer appear in the report, click the name of the variable in the Selected Variables column and click ‘< Selected’ to move that variable into the Available Variables column.
3. Once the variable of interest is included in the Selected Variables column, you can adjust the display order by clicking the name of the variable and then clicking the ‘Up’ or ‘Down’ buttons to change the display order.

Choosing Sort Variables:

Selecting a sort variable will cause all the results in the report to be stratified within 1 table based on that variable (e.g., Event Date oldest to newest or CMS Certification Number smallest to largest).

1. To sort a report by one or more sort variables, click the Sort Variables tab.

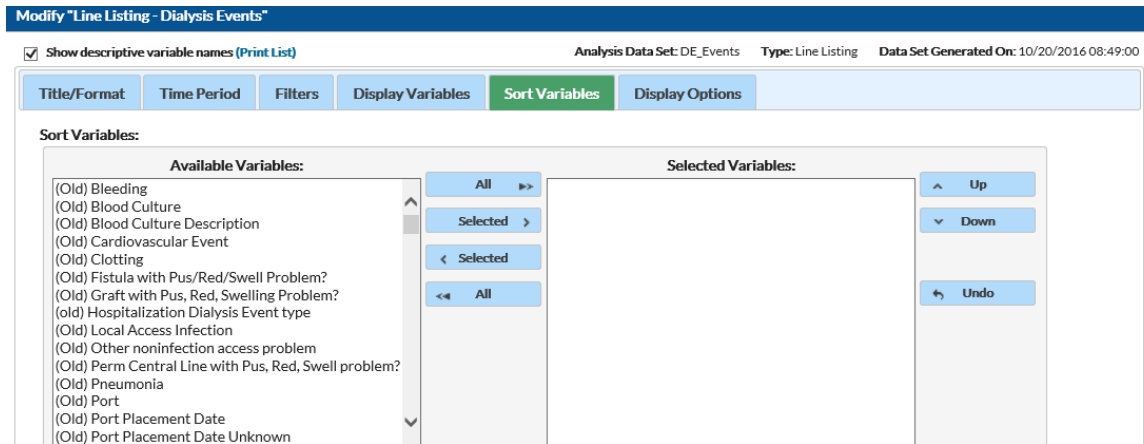


Figure 13. Specifying Sort Variables allows you to sort a report by one or more variables.

2. Select a sort variable by clicking the name of a variable in the Available Variables column and clicking ‘Selected >’ to move that variable name into the Selected Variables column.
3. Once modifications have been made to the report, click “Run” at the bottom of the modify screen.
4. To change the report back to its default settings, click the “Reset” button at the bottom of the modify screen.

Choosing Display Options (Page By Variables):

Selecting a ‘page by’ variable will have different effects in different types of reports. In a line listing report, the ‘page by’ variable will separate the results in the report into separate tables based on the results of that variable (e.g., all the results for July 2016 in one table and August 2016 in a separate table, or all the results for CCN 123456 in one table and the results for CCN 234567 in a separate table). In a rate table report, the ‘page by’ variable will aggregate the results by the variable selected (e.g., calculate the facility’s rate by 3-month period or by 12-month period).

1. To select a ‘Page by’ variable, select a variable from the pull-down menu on the Display Options tab.

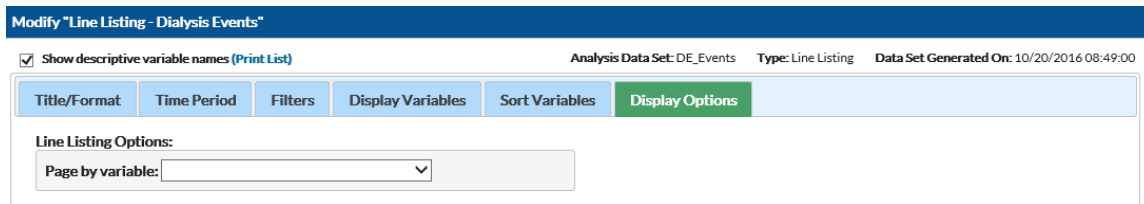


Figure 14. Selecting a “Page by Variable”

2. After all desired modifications have been made to the report, click “Run” at the bottom of the modify screen.

How to Export an NHSN Report

Data can be exported from NHSN into preferred software (e.g., Excel, SAS). There are two options to export data: (1) export the entire dataset without any filters or default settings applied or (2) export data from a report with the modifications you have created.

Export a Dataset:

1. An entire dataset can be exported by clicking ‘Export Data Set’ when selecting the report template’s name on the Analysis Reports screen.

Export Data with Modifications:

1. Reports can also be exported after they have been modified by clicking ‘Export’ at the bottom of the report’s Modify screen.

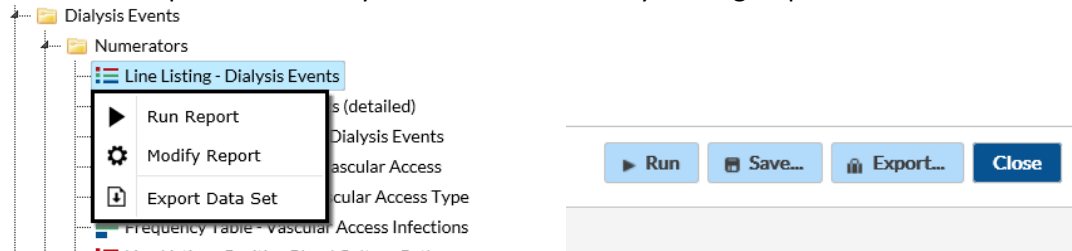


Figure 15. Exporting Output Data Sets—Exporting data allows the user to view and analyze data outside of NHSN.

Customizing Reports Overview

Following the modification steps described in the previous section, users can customize existing report templates. By following those steps to save a modified existing report, users can run their custom report without re-setting the filters. Once a modified existing report is saved, the report will appear in the My Custom Reports folder within the same folder as the template report.

Alternatively, users can build a custom report from scratch, combining variables from one or more datasets. To create a custom report from scratch, users will select the ‘Create New Custom Report’ from the My Custom Reports folder and follow the steps described later in this section. Custom reports, whether modified from existing reports or created from scratch, can be published and shared with other users at the group level. The Published Reports folder contains reports from group-level users customized for the particular group’s needs.

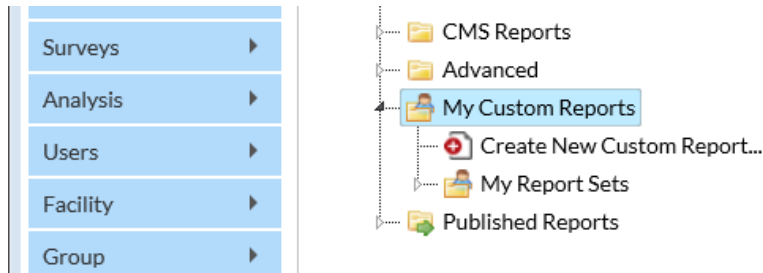


Figure 16. Locate the ‘My Custom Reports’ folder on the Analysis Reports screen

Saving a Modified Existing Report as a Custom Report

Customizing an existing report can be useful for groups or facilities who want to regularly view a specified subset of data that is part of an existing report template.

1. After modifications have been made on the Modify screen for a specific report, click “Save” at the bottom of the screen.
2. In the pop-up window, enter a new Analysis Report Name. Click “Save.”

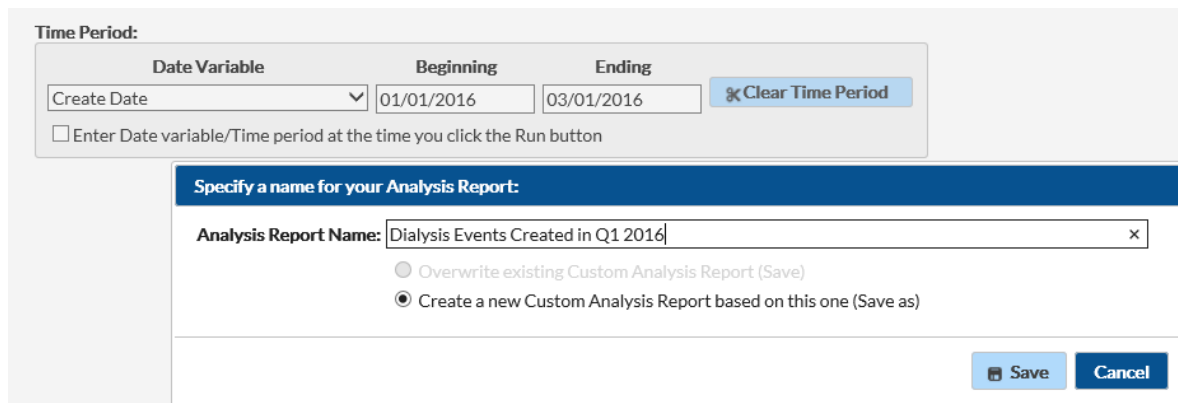


Figure 17. Renaming Existing Report—In this example, the report has been modified to only capture events created in the first quarter of 2016. The modified report is being saved as a custom report so it can be run with these modifications in the future. The name is changed from the existing report’s name to a new name and saved as a new Custom Analysis Report that will appear in the My Custom Reports folder.

3. You may edit a saved custom report by clicking ‘Modify Report’ after selecting the report’s name from the My Custom Reports folder. Upon making additional modifications (e.g., changing the time period or adding/removing a facility from the Filters tab), you would again click “Save’ on the Modify screen but then you have the option to either overwrite the custom report you already saved by checking the box ‘Overwrite existing Custom

Analysis Report (Save)' or changing the name to save the newly modified custom report separately by checking 'Create a new Custom Analysis Report based on this one (Save as).'

Creating a New Custom Report from Scratch – Including Only 1 Dataset:

Creating a brand new custom report from scratch allows a user to build a report based on one dataset (see the dataset list on page 18) with the variables and filters of interest.

1. On the Analysis Reports screen, select the My Custom Reports folder and click Create New Custom Report.

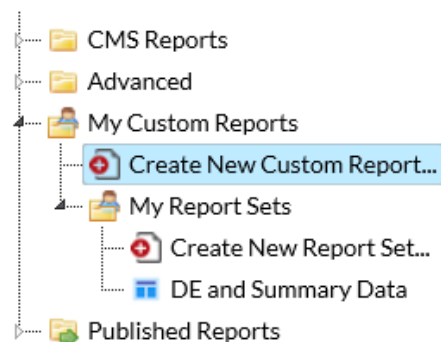


Figure 18. Create a custom report (based on 1 dataset) from scratch.

2. Select an Analysis Data Set from the list. A description of the data included in each dataset can be found in the section beginning on page 18. Once a dataset is selected, pick a type of report from the 'Type' drop-down menu. The types of reports will vary based on the dataset selected. A description of the report types can be found on page 2.

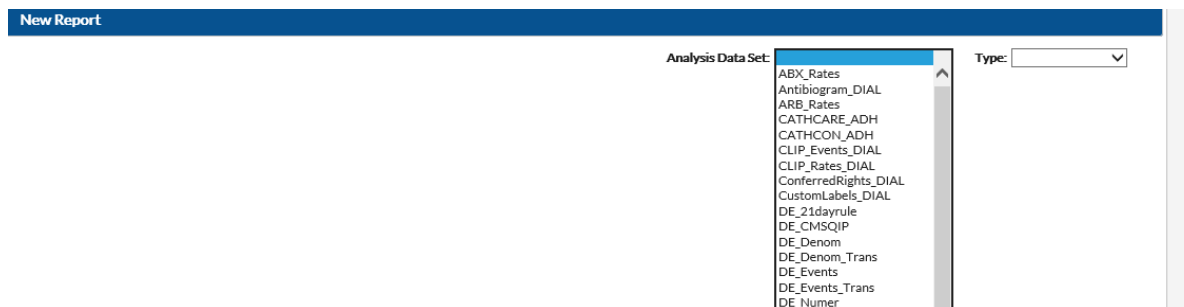


Figure 19. Choose one analysis data set and report type for the custom report.

3. Select the time period, filters, sort variables, and variables to display as described in the previous section on modifying an existing report.
4. Once all modifications have been made, click “Save” at the bottom of the screen. Enter a new name to save the report. If modifying an existing custom report, you have the option to not change the name in order to overwrite the previous report. The new report will be found under the “My Custom Reports” folder.

Creating a Custom Report from Scratch – Including More than 1 Dataset:

Creating a new report set is another way users can create custom reports that are tailored to their preferences. Creating a new report set allows users to create a single report that includes data from more than one dataset. For example, variables from the Outpatient Dialysis Center Practices Survey can appear alongside variables collected on the Dialysis Event form. A description of each dataset can be found in the section beginning on page 18.

1. On the Analysis Reports screen, open the My Custom Reports folder and My Report Sets sub-folder. Click “Create New Report Set.”

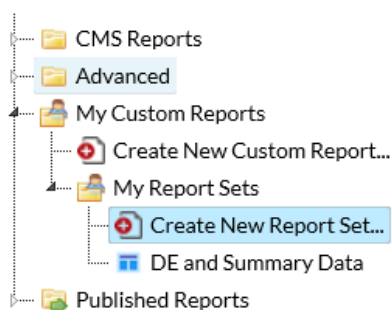


Figure 20. Creating a Custom Report from Scratch – Including More than 1 Data Set

2. Click “Add Report” and then check the box(es) of report name(s) to be included in the report. Click the “Select” button to add the report(s) with box(es) checked to the custom report.

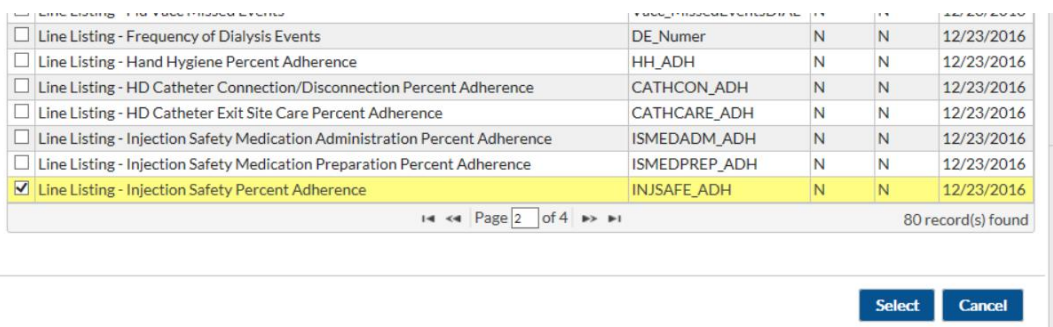






Figure 21. Check the box of the report name/analysis dataset name of interest and then press “Select.”

Report Set

Title:
Report Set

Format:

Show descriptive variable names

Reports:

Selected Reports:

Line Listing - Antibiogram
 Line Listing - Injection Safety Percent Adherence
 Line Listing - Dialysis Practices Survey v. 8.3 - 8.5 (for 2015 - 2016)

Figure 22. Add reports whose variables will be included in the custom report. In this example, variables will be included from the antimicrobial susceptibilities entered on Dialysis Event forms, injection safety observations, and the Outpatient Dialysis Center Practices Survey.

3. In order to incorporate modifications in the custom report, such as time period or variable filters, select each report name separately and click the “Modify” button.

Format:

html
 pdf
 xls
 rtf

Show descriptive variable names

Reports:

Selected Reports:

Line Listing - Antibiogram
 Line Listing - Injection Safety Percent Adherence
 Line Listing - Dialysis Practices Survey v. 8.3 - 8.5 (for 2015 - 2016)

+ Add Reports

^ Up
 v Down
 ⚙ Modify
 🗑 Remove

Figure 23. Determine the filters that will be applied to each selected report’s output.

4. Make modifications as described previously (Modify Existing Report section) and click “Save” to return to the previous screen to apply filters to other selected reports.
5. Once all modifications have been made, click “Save” to save the custom report. The report will then appear under the “My Report Sets” sub-folder. Click “Run” to run the report.

Publishing Custom Reports and Report Sets

Users can publish custom reports that they create by clicking the “Publish” button at the bottom of the custom report modify screen or by clicking “Publish Report” after clicking on the name of the custom report. Publishing a custom report will allow other group users to view the report with the selected modifications. Any time a custom report (or published report) is modified, those changes will need to be saved (either with a new name or overwriting the former report) and published again in order for other groups users to view the report with the new modifications. Published reports appear in the “Published Reports” folder.

Template Reports and Analysis Data Set List

The tables below specify the titles, descriptions, and corresponding data set name of all report available in the Dialysis Component.

Location: Dialysis Events folder/ Numerators sub-folder

Report Type	Report Name	Report Description	Analysis Data Set
Line Listing	Dialysis Events	Each row displays information about a specific event reported, such as patient's vascular access type(s), dialysis event type(s), and outcomes.	DE_Events
Line Listing	Dialysis Events (detailed)	In addition to the above, each row displays event information including if the patient is transient; the location of pus, redness, or swelling; and problems associated with the event.	DE_Events
Line Listing	Frequency of Dialysis Events	Indicates the count and percent of access-related bloodstream infections (ARBSI) and local access site infections (LASI), per calendar month.	DE_Numer
Pie Chart	LASI Affected Vascular Access	Displays the count and percentage of local access site infections attributed to each vascular access type among all local access site infections reported for the facility.	DE_Events
Frequency Table	LASI Vascular Access Type	Indicates the count and percentage of local access site infections (LASI) by	DE_Events

Report Type	Report Name	Report Description	Analysis Data Set
		vascular access type, per calendar quarter.	
Frequency Table	Vascular Access Infections	Indicates the count and percentage of vascular access infections (VAI) by infection type (i.e., access-related bloodstream infection or local access site infection), per calendar quarter.	DE_Events
Line Listing	Positive Blood Culture Pathogens	Each row indicates the suspected source, the microorganism(s) identified, and the outcomes for each positive blood culture reported to NHSN.	DE_Events
Line Listing	Blood Culture Antimicrobial Susceptibilities	Each row indicates the patient's vascular access type, the microorganism(s) identified, and antimicrobial susceptibility information for each positive blood culture reported to NHSN.	Antibiogram_DIAL

Location: Dialysis Events folder/ Denominators sub-folder

Report Type	Report Name	Report Description	Analysis Data Set
Line Listing	All DE Denominators	Each row summarizes the month's number of maintenance hemodialysis outpatients, stratified by vascular access type.	DE_Denom
Pie Chart	Vascular Access Type by Patient-Months	Displays the count of patient-months and the aggregate percent of	DE_Denom_Trans

Report Type	Report Name	Report Description	Analysis Data Set
		patient-months by vascular access type. The secondary pie chart indicates the count and percent of patient-months attributed to each vascular access type and is stratified by location.	
Run Chart	Vascular Access Distribution of Patient-Months	This chart graphs the percentage of patient-months per highest infection risk vascular access per calendar month.	DE_Denom_Trans

Location: Dialysis Events folder/ Rates sub-folder

Report Type	Report Name	Report Description	Analysis Data Set
Rate Table	IV Antimicrobial Start Data	Each row provides the facility rate of IV antimicrobial starts by vascular access type per calendar quarter. Includes NHSN aggregate data (in yellow) for comparison.	ABX_Rates
Run Chart	IV Antimicrobial Start Data	Each chart graphs the facility rate of IV antimicrobial starts per vascular access type for each calendar month of NHSN reporting.	ABX_Rates
Rate Table	IV Vancomycin Start Data	Each row provides the facility rate of IV vancomycin starts by vascular access type per calendar quarter. Includes NHSN aggregated data (in yellow) for comparison.	Vanc_Rates

Report Type	Report Name	Report Description	Analysis Data Set
Run Chart	IV Vancomycin Start Data	Each chart graphs the facility rate of IV vancomycin starts per vascular access type for each calendar month of NHSN reporting.	Vanc_Rates
Rate Table	Local Access Site Infection Data	Each row provides the facility rate of local access site infection (LASI) by vascular access type per calendar quarter. LASIs are attributed to the highest risk vascular access listed on each dialysis event form entered during the month, regardless of at which vascular access site pus, redness, or increased swelling was observed. NHSN aggregate data are not yet available for this dialysis event.	LASI_Rates
Run Chart	Local Access Site Infection Data	Each chart graphs the facility rate of local access site infection (LASI) per vascular access type for each calendar month of NHSN reporting. LASIs are attributed to the highest risk vascular access listed on each dialysis event form entered during the month, regardless of at which vascular access site pus, redness, or increased swelling was observed.	LASI_Rates



Report Type	Report Name	Report Description	Analysis Data Set
Rate Table	Bloodstream Infection Data	Each row provides the facility rate of blood stream infections (BSI) by vascular access type per calendar quarter. Includes NHSN aggregate data (in yellow) for comparison.	PBC_Rates
Run Chart	Bloodstream Infection Data	Each chart graphs the facility rate of bloodstream infections (BSI) per vascular access type for each calendar month of NHSN reporting.	PBC_Rates
Rate Table	Access Related Bloodstream Infection	Each row provides the facility rate of access related bloodstream infection (ARBSI) by vascular access type per calendar quarter. Includes NHSN aggregate data (in yellow) for comparison.	ARB_Rates
Run Chart	Access Related Bloodstream Infection	Each chart graphs the facility rate of access related bloodstream infection (ARBSI) per vascular access type, over each calendar month of NHSN reporting.	ARB_Rates
Rate Table	Vascular Access Infection Data	Each row provides the facility rate of vascular access infection (VAI) by vascular access type per calendar quarter.	VAI_Rates

Report Type	Report Name	Report Description	Analysis Data Set
Run Chart	Vascular Access Infection Data	Each chart graphs the facility rate of vascular access infections (VAI) per vascular access type, over each calendar month of NHSN reporting.	VAI_Rates

Location: Dialysis Events > Outcomes > CDC Defined Output

Report Type	Report Name	Report Description	Analysis Data Set
Pie Chart	Death by Event Type	Indicates the count and percentage of deaths reported as the outcome, stratified by dialysis event type or infection type (i.e., 1) access related bloodstream infections; 2) IV antimicrobial starts; 3) local access site infections; 4) positive blood cultures; 5) pus, redness, and increased swelling events; and 6) vascular access infections).	DE_Events_Trans
Pie Chart	Hospitalized by Event Type	Indicates the count and percentage of hospitalizations reported as the outcome, stratified by dialysis event types or infection type (i.e., 1) access related bloodstream infections; 2) IV antimicrobial starts; 3) local access site infections; 4) positive blood cultures; 5) pus, redness, and increased swelling events;	DE_Events_Trans

Report Type	Report Name	Report Description	Analysis Data Set
		and 6) vascular access infections).	

Location: Prevention Process Measures> Prevention Process Measures > CDC Defined Output

Report Type	Report Name	Report Description	Analysis Data Set
Line Listing	Line Listing – All Prevention Process Measures	Each row provides the number of successful opportunities and number of total opportunities observed by month for each prevention process measure.	PPM_Summary
Line Listing	Hand Hygiene % Adherence	Each row provides the number of successful hand hygiene opportunities, total number of hand hygiene opportunities, and hand hygiene percent adherence per month.	HH_ADH
Line Listing	HD Catheter Connection/Disconnection % Adherence	Each row provides the number of catheter connection/disconnection successful observations, total number of catheter connection/disconnection observations, and catheter connection/disconnection percent adherence per month.	CATHCON_ADH
Line Listing	HD Catheter Exit Site Care % Adherence	Each row provides the number of successful	CATHCARE_ADH

Report Type	Report Name	Report Description	Analysis Data Set
		catheter exit site care observations, total number of catheter exit site care observations, and catheter exit site care percent adherence per month.	
Line Listing	AV Fistula/Graft Cannulation/Decannulation % Adherence	Each row provides the number of AVFG cannulation/decannulation successful opportunities, total number of AVFG cannulation/decannulation opportunities, and AVFG cannulation/decannulation percent adherence per month.	FGCANN_ADH
Line Listing	Dialysis Station Routine Disinfection % Adherence	Each row provides the number of successful dialysis station routine disinfection opportunities, total number of dialysis station routine disinfection opportunities, and dialysis station routine disinfection percent adherence per month.	DISINFECT_ADH
Line Listing	Injection Safety % Adherence	Each row provides the number of successful injection safety opportunities, total number of injection safety opportunities, and injection safety percent adherence per month.	INJSAFE_ADH
Line Listing	Injection Safety Medication	Each row provides the number of successful	ISMEDPREP_ADH



Report Type	Report Name	Report Description	Analysis Data Set
	Preparation Percent Adherence	injectable medication preparation opportunities, total number of opportunities, and percent adherence calculations.	
Line Listing	Injection Safety Medication Administration Percent Adherence	Each row provides the number of successful injectable medication administration opportunities, total number of opportunities, and percent adherence calculations.	ISMEDADM_ADH

Location: Central Line Insertion Practices folder/ CLIP sub-folder

Report Type	Report Name	Report Description	Analysis Data Set
Line Listing	All CLIP Events	Each row provides details of each CLIP event that occurred at a facility.	CLIP_Events_DIAL
Frequency Table	Hand Hygiene by Occupation	Indicates the count and percent of personnel that did and did not perform hand hygiene prior to CLIP events, stratified by occupation.	CLIP_Events_DIAL
Bar Chart	All CLIP Events	Chart indicates the count and percent of CLIP event reporting facilities that adhered to the CLIP bundle per month when CLIP events occurred.	CLIP_Events_DIAL
Pie Chart	All CLIP Events	Chart indicates the count and percent of CLIP event reporting facilities that	CLIP_Events_DIAL

Report Type	Report Name	Report Description	Analysis Data Set
		adhered to the CLIP bundle by location.	
Rate Table	All Practice Adherence	Each table provides rates per location for: 1) hand hygiene adherence; 2) mask barrier; 3) gown barrier; 4) drape barrier; 5) gloves barrier; 6) cap barrier; 7) prep dry; 8) chlorhexidine gluconate skin prep; 9) use of alcohol skin prep; 10) use of povidone iodine skin prep; and 11) CLIP bundle adherence per calendar month.	CLIP_Rates_DIAL

Location: Patient Vaccination folder/ Influenza sub-folder

Report Type	Report Name	Report Description	Analysis Data Set
Line Listing	Flu Vacc Declination Data	Each row displays data about dialysis patient influenza vaccination declination events. The report includes patient dialysis modality and personal or medical reasons for declining vaccination.	Vacc_RateDIAL2
Line Listing	Flu Vacc Administration Data	Each row displays data about dialysis patient influenza vaccination administration events. The report includes details about patient dialysis modality, vaccine subtype administered (seasonal or	Vacc_EventsDIAL

Report Type	Report Name	Report Description	Analysis Data Set
		non-seasonal), manufacturer description, product description, and route of administration.	
Line Listing	All Flu Vacc Events	Each row displays data about all dialysis patient influenza vaccination events and includes details such as patient dialysis modality and whether the vaccine was administered or declined by the patient.	Vacc_EventsDIAL
Line Listing	Flu Vacc Denominators Data	Each row displays data about seasonal or non-seasonal influenza denominators reported to NHSN per month. Details include flu vaccination subtype, and number of patients per patient modality (hemodialysis, home hemodialysis, and peritoneal dialysis).	Vacc_denomDIAL
Line Listing	Flu Vacc Missed Events	Displays the number of patients entered in the denominator but have not yet had a vaccination event reported	Vacc_MissedEventsDIAL
Rate Table	Flu Vacc Adherence	Each table provides vaccination adherence among patients of different dialysis modalities during each calendar quarter.	Vacc_RateDIAL

Report Type	Report Name	Report Description	Analysis Data Set
		Table 1 provides details of adherence among all dialysis patients. Table 2 provides details of adherence among medically eligible dialysis patients. And Table 3 provides details of adherence among medically eligible and willing dialysis patients.	
Rate Table	Flu Vacc Declination	Each table provides vaccination declination rates for patients of different dialysis modalities during each calendar quarter. Table 1 provides declination rates for all dialysis patients. Table 2 provides declination rates for patients who declined vaccination for personal reasons. And Table 3 provides declination rates for patients who declined vaccination for medical reasons.	Vacc_EventsDIAL

Location: Data Quality folder/ Dialysis Event Surveillance sub-folder

Report Type	Report Name	Report Description	Analysis Data Set
Line Listing [†]	Percent of Dialysis Events to Review	Each column indicates the % of dialysis events that may need to be reviewed for errors in a given month.	DE_Prcntreview

[†] Group-level output option only

Report Type	Report Name	Report Description	Analysis Data Set
Line Listing [†]	Dialysis Events to Review	Each row indicates an event that need to be reviewed for potential errors in regards to what type of dialysis event was not reported (i.e., No positive blood culture reported at the same time as an IV antimicrobial start event).	De_toreview
Line Listing [†]	DE 21 Day Rule Checks	Each row indicates a potential 21-day rule violation among dialysis events of the same type.	DE_21dayrule
Line Listing [†]	0 Dialysis Events (Any Type) for 3 Months or More	Each row displays the number of months when no dialysis events were reported and the number of consecutive months when no dialysis events were reported to NHSN.	DE_3ormore_months
Line Listing [†]	0 IV Antimicrobial Starts for 3 or More Months	Each row displays the number of months when no IV antimicrobial start events were reported and the number of consecutive months when no IV antimicrobial start events were reported to NHSN.	DE_noEventABX

Report Type	Report Name	Report Description	Analysis Data Set
Line Listing [†]	0 Positive Blood Cultures for 3 or More Months	Each row displays the number of months when no positive blood culture events were reported and the number of consecutive months when no positive blood culture events were reported to NHSN.	DE_noEventBldCult
Line Listing [†]	0 Pus, Redness, Swelling Events for 3 or More Months	Each row displays the number of months when no pus, redness, swelling events were reported and the number of consecutive months when no pus, redness, swelling events were reported to NHSN.	DE_noEventPRS
Line Listing [†]	0 PBCs Collected Outside Clinic for 3 or More Months	Each row indicates the number of months when no positive blood cultures were collected outside of the dialysis clinic (i.e., number of months when no positive blood cultures were collected in the Hospital/Emergency Department or another location).	DE_noPBCCollOut

Location: CMS Reports folder/ QIP sub-folder

Report Type	Report Name	Report Description	Analysis Data Set
Line Listing	CMS ESRD QIP Rule	Each row indicates whether minimum monthly Dialysis Event reporting criteria	DE_CMSQIP

Report Type	Report Name	Report Description	Analysis Data Set
		have been met for the Centers for Medicare and Medicaid Services (CMS) End Stage Renal Disease (ESRD) Quality Incentive Program (QIP) NHSN Dialysis Event reporting measure.	

Location: Advanced folder/ Patient-level Data sub-folder

Report Type	Report Name	Report Description	Analysis Data Set
Line Listing	All Patients	Each row displays demographic and personal information (including name, date of birth, and other personal identifiers) of patients entered into NHSN for dialysis surveillance.	Patients_DIAL

Location: Advanced, > Event-level Data > CDC Defined Output

Report Type	Report Name	Report Description	Analysis Data Set
Line Listing	All Events	Each displays details of all events (DE, CLIP, FLUVAXDP, and custom) reported to NHSN. Details include the patient's date of birth, gender, event ID, event date, event type, location, patient ID and facility organization ID.	Events_DIAL
Frequency Table	All Events	This table indicates the count and percent of event type (DE, CLIP, FLUVAXDP, and custom) occurring	Events_DIAL

Report Type	Report Name	Report Description	Analysis Data Set
		within each calendar quarter.	
Bar Chart	All Events	This bar chart provides the count and percentage of all DE, CLIP, FLUVAXDP, and custom events reported to NHSN by location.	Events_DIAL
Pie Chart	All Events	Each chart indicates the count and percentage of events (DE, CLIP, FLUVAXDP, and custom) reported to NHSN, stratified by location.	Events_DIAL

Location: Advanced folder/ Summary-level Data sub-folder

Report Type	Report Name	Report Description	Analysis Data Set
Line Listing	All Summary Data	Each row indicates monthly summary data that were reported to NHSN. Report output includes details about monthly patient census/denominator data, months in which no dialysis events were reported, counts of all prevention process measure opportunities and successes, and patient influenza vaccination subtypes.	Summary_DIAL
Line Listing	All PPM Summary Data	Each row indicates months in which summary data for each of the Prevention Process Measures module were reported to NHSN.	PPM_Summary

Location: Advanced folder/ Plan Data sub-folder

Report Type	Report Name	Report Description	Analysis Data Set
Line Listing	Reporting Plans	Each row indicates whether each surveillance option on a Monthly Reporting Plan was selected for a given month (i.e., “Dialysis event surveillance in-plan? – [Y/N]”).	Plan_DIAL

Location: Advanced folder/ Pathogen-level Data sub-folder

Report Type	Report Name	Report Description	Analysis Data Set
Line Listing	Antibiogram	Each row provides information such as the microorganism(s) identified and drug susceptibility(s) for any antibiotics used to treat a patient, whose positive blood culture event was reported to NHSN.	Antibiogram_DIAL

Location: Advanced folder/ Facility-level Data sub-folder

Report Type	Report Name	Report Description	Analysis Data Set
Line Listing	Dialysis Practices Survey v. 8.3 (for 2015)	Each row includes data for the 2015 Outpatient Dialysis Practices Survey entered for the facility. Data included in this report reflect facility practices as of the first week of February 2015.	DialysisSurvey_2015
Line Listing	Dialysis Practices Survey v. 8.1 (for 2014)	Each row includes data for one 2014 Outpatient Dialysis Practices Survey entered for the facility. Data included in	DialysisSurvey_2014

Report Type	Report Name	Report Description	Analysis Data Set
		this report reflect facility practices as of the first week of February 2014.	
Line Listing	Dialysis Practices Survey v. 7.1 (for 2013)	Each row includes data for the 2013 Outpatient Dialysis Practices Survey entered for the facility. Data included in this report reflect facility practices as of the first week of January 2013.	DialysisSurvey_2013
Line Listing	Facility Enrollment Data	Each row provides information about the facility's enrollment into NHSN, including the most currently assigned CMS Certification Number (CCN), component followed, facility type, enrollment date, facility status, and individual user who enrolled the facility in NHSN.	Facility_DIAL
Line Listing	Conferred Rights	Each row provides facility-level data regarding the conferred rights template that was accepted. Report output includes what data are being shared with group users and group user rights regarding the shared data, and the time period in which group users can view the shared data.	ConferredRights_DIAL

Report Type	Report Name	Report Description	Analysis Data Set
Line Listing	Custom Field Variable Names	Each row provides information about custom variables that have been added to forms in NHSN. The report displays the variable name and the corresponding name of the custom field that was created by the user.	CustomLabels_DIAL

NHSN Dialysis Data Dictionary and Quick Reference Guides

The NHSN Dialysis Data Dictionary is a comprehensive resource that NHSN users can use to become familiar with variables included in Dialysis Component reports. The Data Dictionary includes each variable name, its corresponding variable label, plausible values, the analysis dataset(s) in which the variable is found, and any applicable algorithms for derived variables.

A list of variable names can be found at the top of every report’s Modify screen. Click “Print list” next to “Show descriptive variable names.”

Quick reference guides and the Dialysis Component Data Dictionary can be found under the “Analysis Resources to Create Reports” on the Dialysis Event homepage: <http://www.cdc.gov/nhsn/dialysis/event/index.html>