



2017 NYSDOH Tableau Sepsis Audit Reports—User Guide¹

¹ Aligns with the June 20, 2018 live WebEx: Recording of the event is available at <https://ny.sepsis.ipro.org/>

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Tableau

Tableau is software which enables data visualization focused on business intelligence. The New York State Department of Health (NYSDOH) audit report uses the FREE version of Tableau (tableau reader).

As a data visualization tool, Tableau products are useful in business analysis by creating various charts and figures with different dimensions according to the user's requirements.

Tableau products include Tableau Desktop, Tableau Online, Tableau Server, Tableau Reader, etc. to satisfy different business and analytical demands. Among them, Tableau Desktop and Tableau Reader can be used locally. You can manipulate your data with the free version.

Why Tableau?

Tableau has great advantages compared to earlier reports using Word and Excel. Both the charts and data can be shown together in Tableau. They can be manipulated together by controllers, which will save a lot of time from searching hundreds of columns in Excel file for specific data points.

Audit results are shown in the Tableau which makes interpretation more intuitive. For example, the data will be in 'red' if the audit indicated disagreement with the hospital reported data.

The Sepsis Audit Report can be navigated through the different headings at the top of the report display; it is therefore easy to find results for each review category.

Tableau Products

Tableau Desktop

Tableau Desktop is paid software that has the ability to connect to various databases (e.g., Excel, Access, SAS, etc.). Desktop allows for the creation of real-time visualizations, such as charts and figures to satisfy various query demands, as well as, the creation of worksheets, dashboards and stories to satisfy different presentation demands.

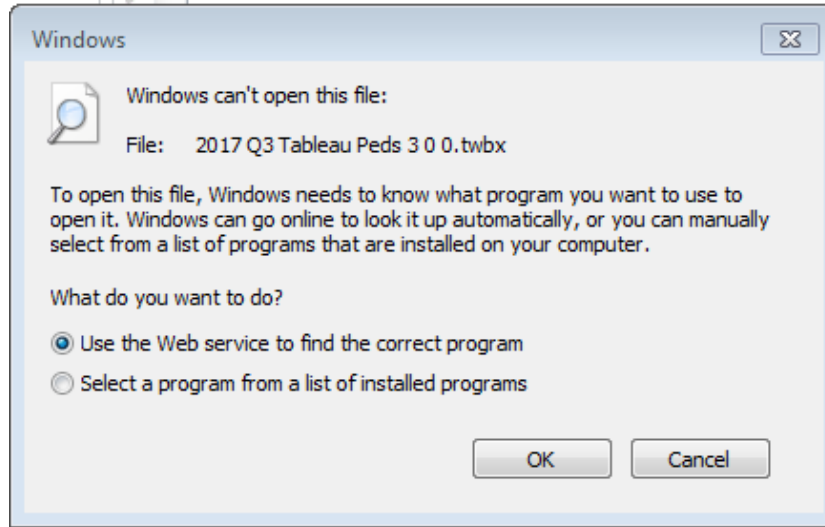
Tableau Reader

Tableau Reader is free software, which is recommended for you to use to view the Sepsis Audit Reports. Reader allows for any dashboard given by a client to be open. Reader provides open and interactive data visualizations built in Tableau Desktop, without the ability to edit the data source given by the Tableau workbook owner.

Opening your Tableau Audit Report

If you are unsure if you have Tableau downloaded on your computer, click on the Tableau file.

If you do not have Tableau at all (e.g. Tableau Reader) then you will see the following message:



Downloading the Free Software

If you do not have software that can open a dashboard, please copy the following address to a browser to download a free Tableau Reader.

<https://www.tableau.com/products/reader/download>

If the address is unavailable, search 'Tableau Reader' in Google and download it from the Tableau official website.

[Tableau.com | Download Tableau Reader | Free & Fully Interactive](https://www.tableau.com/products/reader/download) ←

www.tableau.com/Products/Tableau-Reader

Open Visualizations Built in **Tableau Desktop** With **Tableau Reader**. Try it Free!

Free Training · Mobile Analytics · Interactive Reports · Drag & Drop · Free Trial · Big Data Analytics

Services: Interactive Dashboards, Live Visualizations, Connect to Any Data, Actionable Insights, Intuitiv...

Tableau Training Videos

Browse our List of Free Tableau Training Videos & Tutorials.

Tableau Video Demo

Get the Most out of Your Data. Watch the Free Tableau Video Demo!

2017 Gartner MQ Leader

See Why Tableau is a Leader in the BI Magic Quadrant for the 5th Year

Classroom Training

Instructor-led Classroom Training Offered Across the Globe.

The first time you open a Tableau workbook using Tableau Reader, the following window may be seen. Complete the registration and continue on to use the free Tableau Reader.

Activate Tableau Reader

Registration
Please complete all fields for the registered user.

First Name Last Name Organization

Email

Postal Code

Country/Region State/Province

Register

Data Source for the Sepsis Initiative Audit Report

The data sources for the audit include hospital reported sepsis data as submitted to the clinical data portal at the time of sample selection. Hospitals may have revised data since the sample was selected therefore be sure to review data carefully when making corrections. Your hospital submitted data was compared to the hospital submitted medical record to validate the findings.

The Tableau workbooks '2017 Audit report for Adults' and the '2017 Audit report for Pediatrics' provide the case-level audit results. The performance of the "Hospital Name" in this User Guide has been faked.

The 'Audit Report' in each workbook includes overall New York State findings, all variables' performance and audit results for each case and each variable.

The Layout and Navigation of the Tableau Reader Sepsis Audit Report

The Tableau Workbook consists of several pages:

The first few pages are covers, introductions and the overall New York State findings.

The following page is the agreement of all variables for the hospital. You can use the controller on the right to select any data element you are interested in.

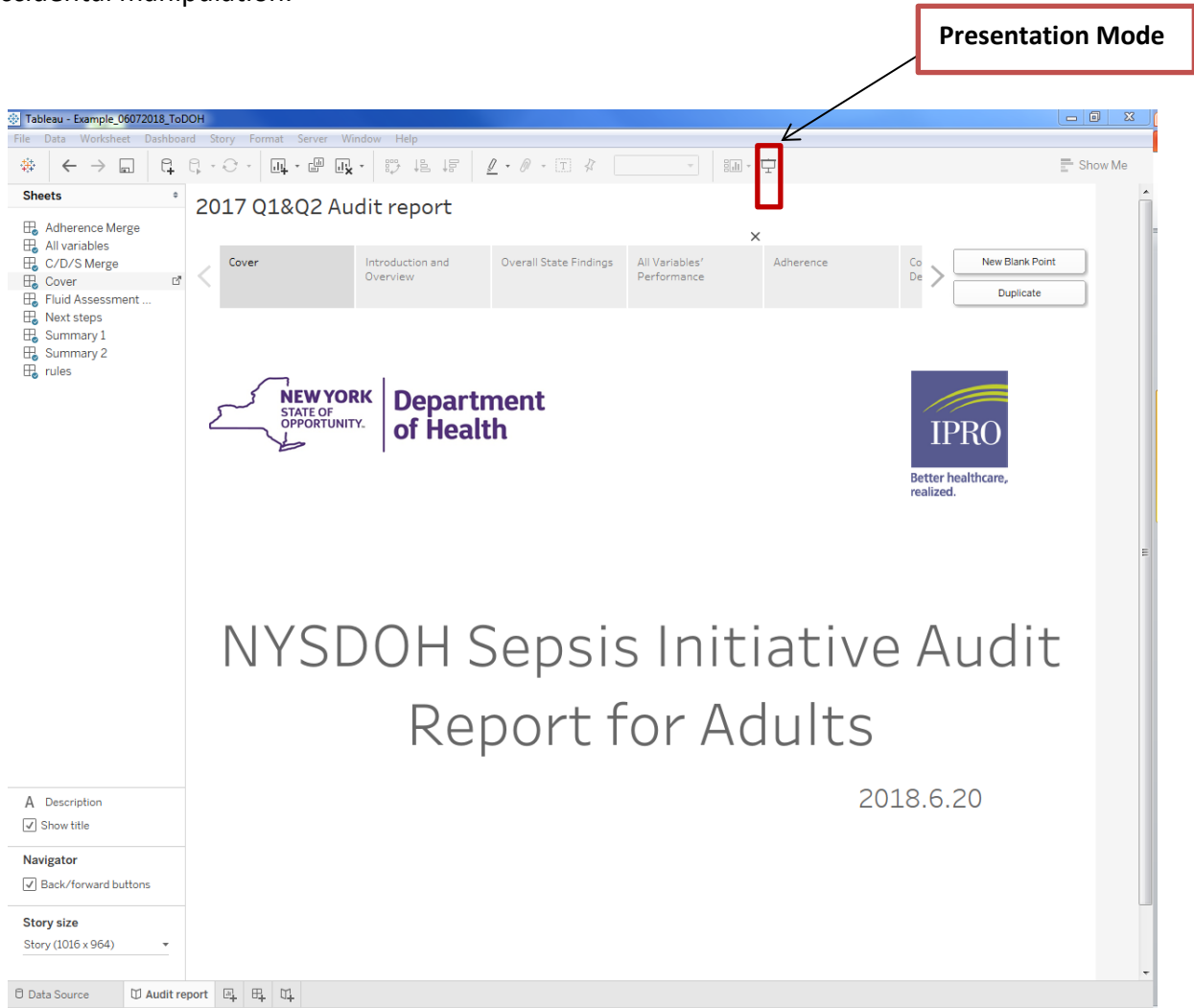
The next few pages are the agreement of variables along with the case-level audit result separated by the Dataset segment.

There is page with information about denominators, which can help you to understand how the percentage and denominators were calculated.

The final page includes suggestions for actions that you may need to take after viewing the audit report.

Report Images

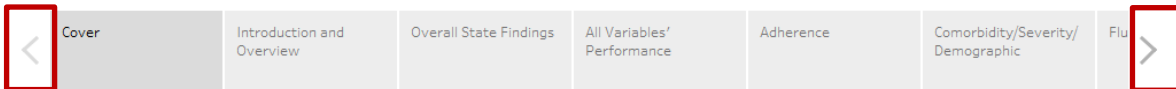
The following image shows what will be seen when opening the Tableau workbook the first time. Please click the button on the upper right or press 'F7' on the keyboard to view the report in "Presentation Mode." It can help you to avoid incorrectly displaying data due to accidental manipulation.



Navigating within the Report

After you are in the Presentation Mode, you can use the forward and backward buttons to move between pages. Or you can just click the heading name along the top to jump to the page you would like to view.

2017 Q1&Q2 Audit report



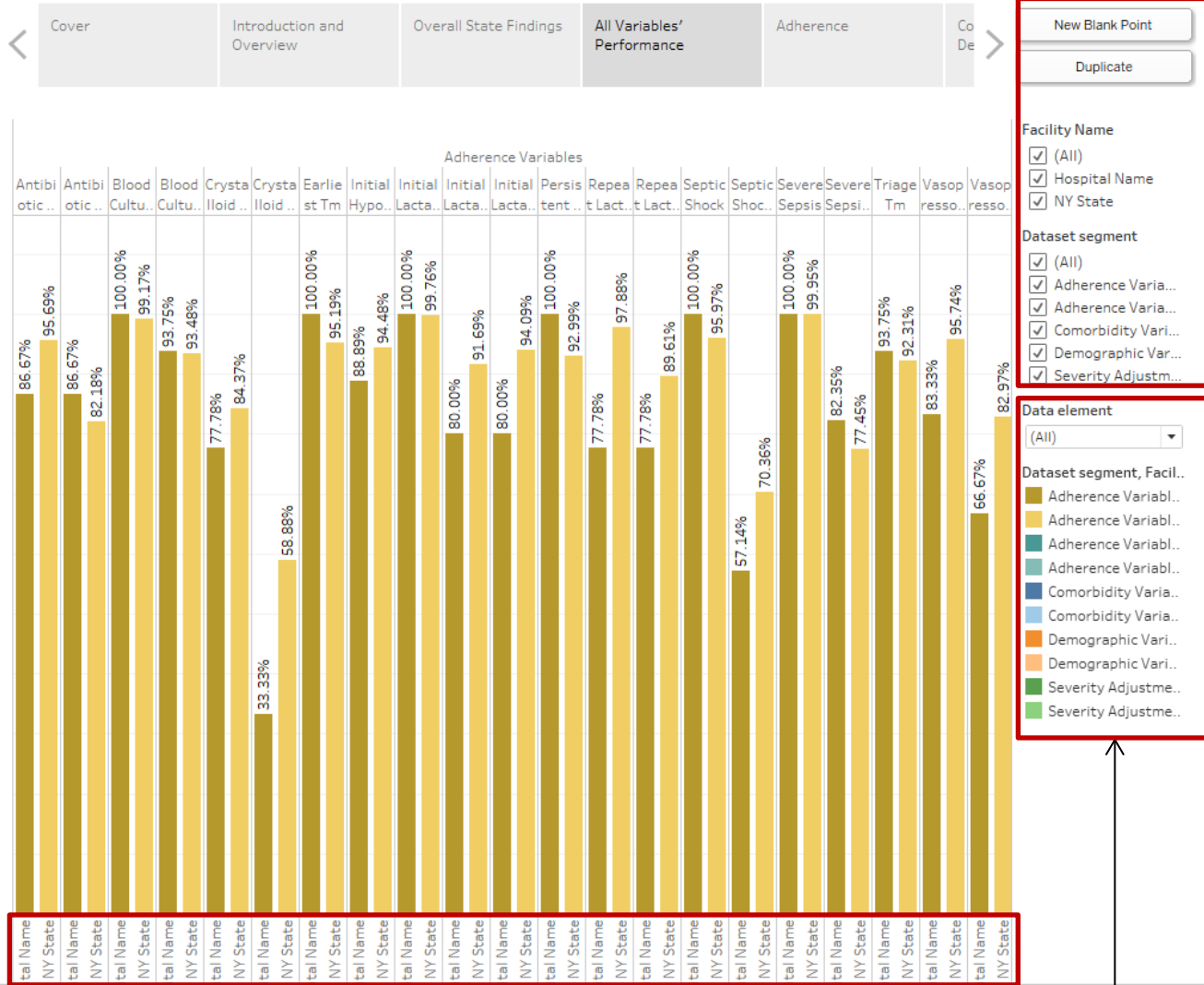
NYSDOH Sepsis Initiative Audit Report for Adults

2018.6.20

Filtering within Tableau

Conditions can be selected in the filter zone according to the user's demand.

2017 Q1&Q2 Audit report



Filters of Facility Names, Dataset segment and Data element.

Use the scroll bar to view all bar charts.

Color coded for each dataset segment/category.

Use this section to select the data element you would like to view.

2017 Q1&Q2 Audit report

Navigation: < Cover Introduction and Overview Overall State Findings All Variables' Performance **Adherence** Comorbidity/Severity/Demographic Flu >

Adherence Variables

Antibiotic Administration		Antibiotic Administration Tm	
Hospital 0001	NY State	Hospital 0001	NY State
86.67%	95.69%	86.67%	82.18%

SSD	UPI	PCN	Adherence
1	ABCDEF0000	123456789	1: Antibiotic administered 1 6/2/2017 10:43 1
	BCDEFG0001	234567891	1: Antibiotic administered 1 5/15/2017 1:16 1
	CDEFGH000	345678912	1: Antibiotic administered 1 6/3/2017 20:56 1
	DEFGHI0003	456789123	1: Antibiotic administered 1 5/6/2017 16:20 1
	EFGHIJ0004	567891234	1: Antibiotic administered 1

Adherence

- Antibiotic Adminis...
- Blood Culture
- Crystalloid Fluid A...
- Earliest Tm
- Initial Hypotension
- Initial Lactate
- Persistent Hypote...
- Repeat Lactate
- Septic Shock

Facility Name: Hospital 0001
 SSD: 1
 PCN: 234567891
 UPI: BCDEFG0001
 Adherence Comment: Initial lactic acid was 7.8

For each cell, the first and third lines (if applicable) are your hospital's reported data; the second and fourth lines are the audit results. "1" represents that the audit findings agreed with your data and "2" represents that the audit findings disagreed with your data. The fifth line, if applicable, is the audit results corrected data as found in the medical record. Note that this will not always be provided. Corrected data is provided for adherence variables, triage datetime, and protocol initiated place.

If a medical record does not seem to substantiate either severe sepsis present or septic shock (variable header SSD), then all data following this validation would be incorrect and may not be presented individually.

If you didn't report data for a variable (such as skip pattern variable), then the data variable will display 'missing' or will be blank.

Initial lactate levels are in the right side of the first lines and the audit results of that are just below them.

When you put your mouse on the table, the comments will show up. However, the comments are for many variables, so you may need to look at them thoroughly to find the information you want.

For case level data, all errors are shown in red text.

Instructions to read and interpret the table.

Case-level Results

2017 Q1&Q2 Audit report

Navigation: Cover | Introduction and Overview | Overall State Findings | All Variables' Performance | **Adherence** | Comorbidity/Severity/Demographic | Flu

Adherence Variables

Antibiotic Administration		Antibiotic Administration Tm	
Hospital 0001	NY State	Hospital 0001	NY State
86.67%	95.69%	86.67%	82.18%

Antibiotic Administr... | Antibiotic Administr... | Antibiotic Administr... | Antibiotic Administr...

SD	UPI	PCN	Adherence
ABCDEF0000	123456789	1	1: Antibiotic administered 6/2/2017 10:43 1
BCDEFG0001	234567891	1	1: Antibiotic administered 5/15/2017 1:16 1
CDEFGH000	345678912	1	1: Antibiotic administered 6/3/2017 20:56 1
DEFGHI0003	456789123	1	1: Antibiotic administered 5/6/2017 16:20 1
EFGHIJ0004	567891234	1	1: Antibiotic administered

Adherence

- Antibiotic Adminis...
- Blood Culture
- Crystalloid Fluid A...
- Earliest Tm
- Initial Hypotension
- Initial Lactate
- Persistent Hypote...
- Repeat Lactate
- Septic Shock

Facility Name: Hospital 0001
SD: 1
CN: 234567891
PI: BCDEFG0001
Adherence Comment: Initial lactic acid was 7.8

The case-level audit result of the selected data element.

Performance of the selected variables (hospital and NYS).

When you put your mouse on a cell, the comments about this case will show.

For each cell, the first and third lines (if applicable) are your hospital's reported data; the second and fourth lines are the audit results. "1" represents that the audit findings agreed with your data and "2" represents that the audit findings disagreed with your data. The fifth line, if applicable, is the audit results corrected data as found in the medical record. Note that this will not always be provided. Corrected data is provided for adherence variables, triage datetime, and protocol initiated place.
 If a medical record does not seem to substantiate either severe sepsis present or septic shock (variable header SSD), then all data following this validation would be incorrect and may not be presented individually.
 If you didn't report data for a variable (such as skip pattern variable), then the data variable will display 'missing' or will be blank.
 Initial lactate levels are in the right side of the first lines and the audit results of that are just below them.
 When you put your mouse on the table, the comments will show up. However, the comments are for many variables, so you may need to look at them thoroughly to find the information you want.
 For case level data, all errors are shown in red text.

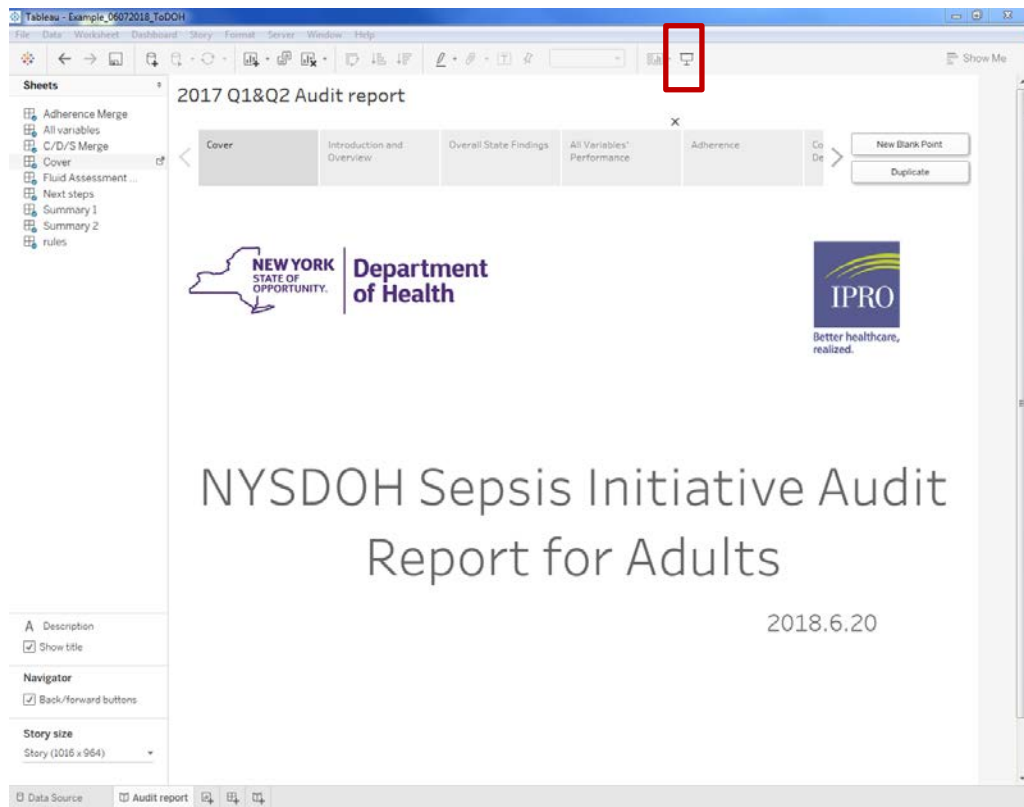
Use the Tableau Audit Report to Query

Ways to use the Tableau workbook will be introduced through the following example.

Case Example:

Use the Tableau workbook to see how your hospital performed in 'Initial lactate level' relevant variables. The example will start from the first time opening the dashboard to the required results showing up.

1. After opening the Tableau file, use Presentation Mode to view (click the button at the top right or press F7 on the keyboard).



- Use the forward button to move to the “Adherence” page. Or just click the heading of “Adherence” to jump to the page.

2017 Q1&Q2 Audit report

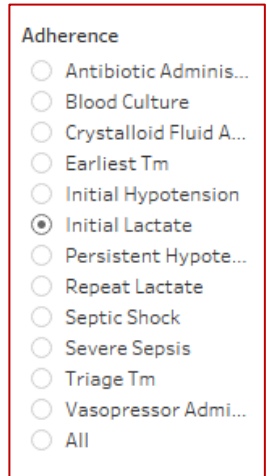
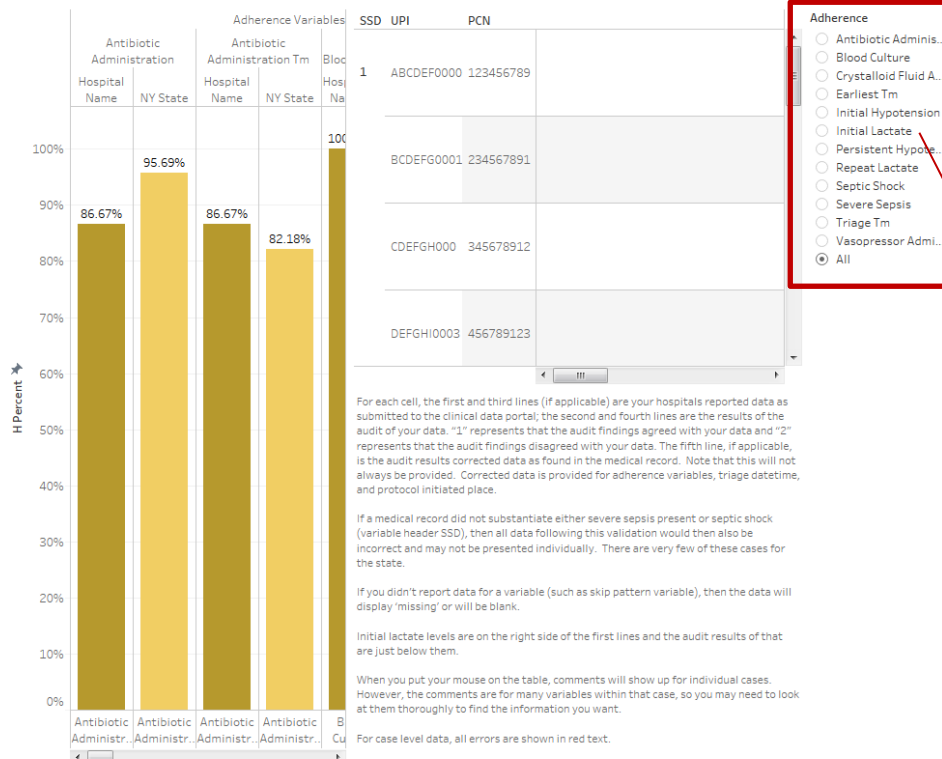
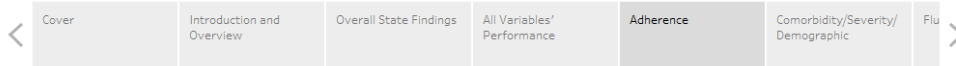


NYSDOH Sepsis Initiative Audit Report for Adults

2018.6.20

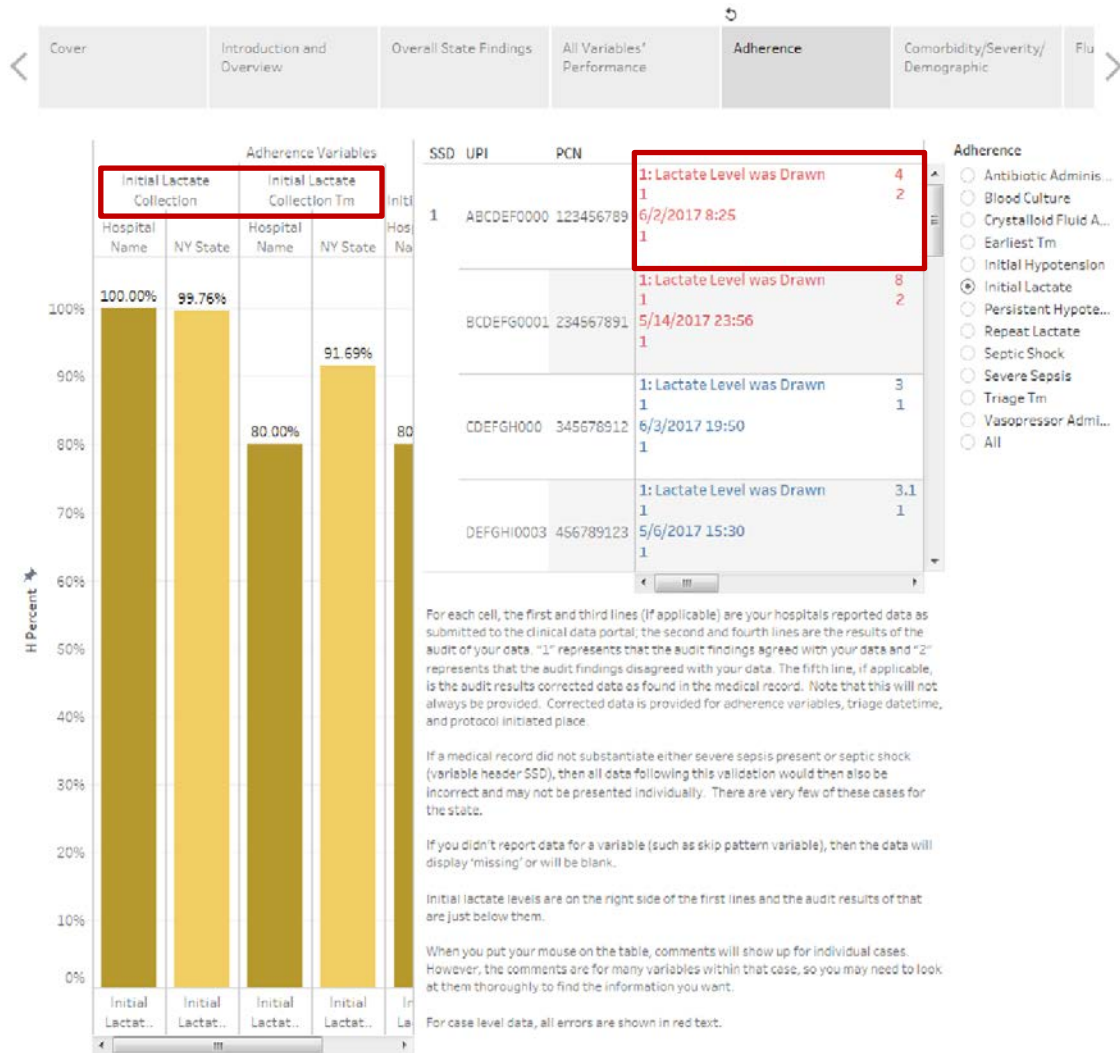
- Select “Initial Lactate” from the list of options under Adherence”

2017 Q1&Q2 Audit report



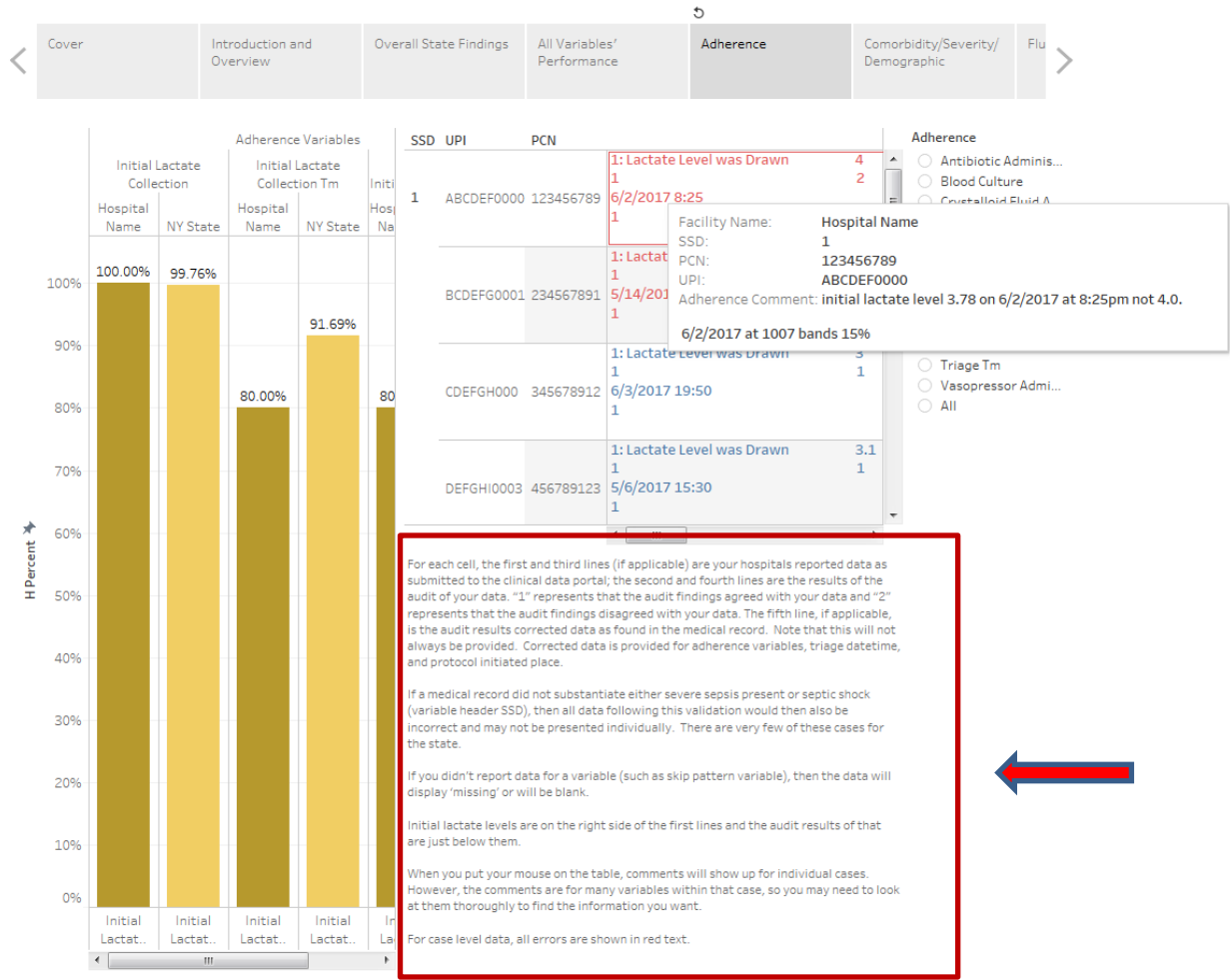
- Now the agreement of the Initial Lactate collection, Initial Lactate collection time, and Initial Lactate level are shown.

2017 Q1&Q2 Audit report



5. Be sure to read the instructions to understand what the data in the table above mean.

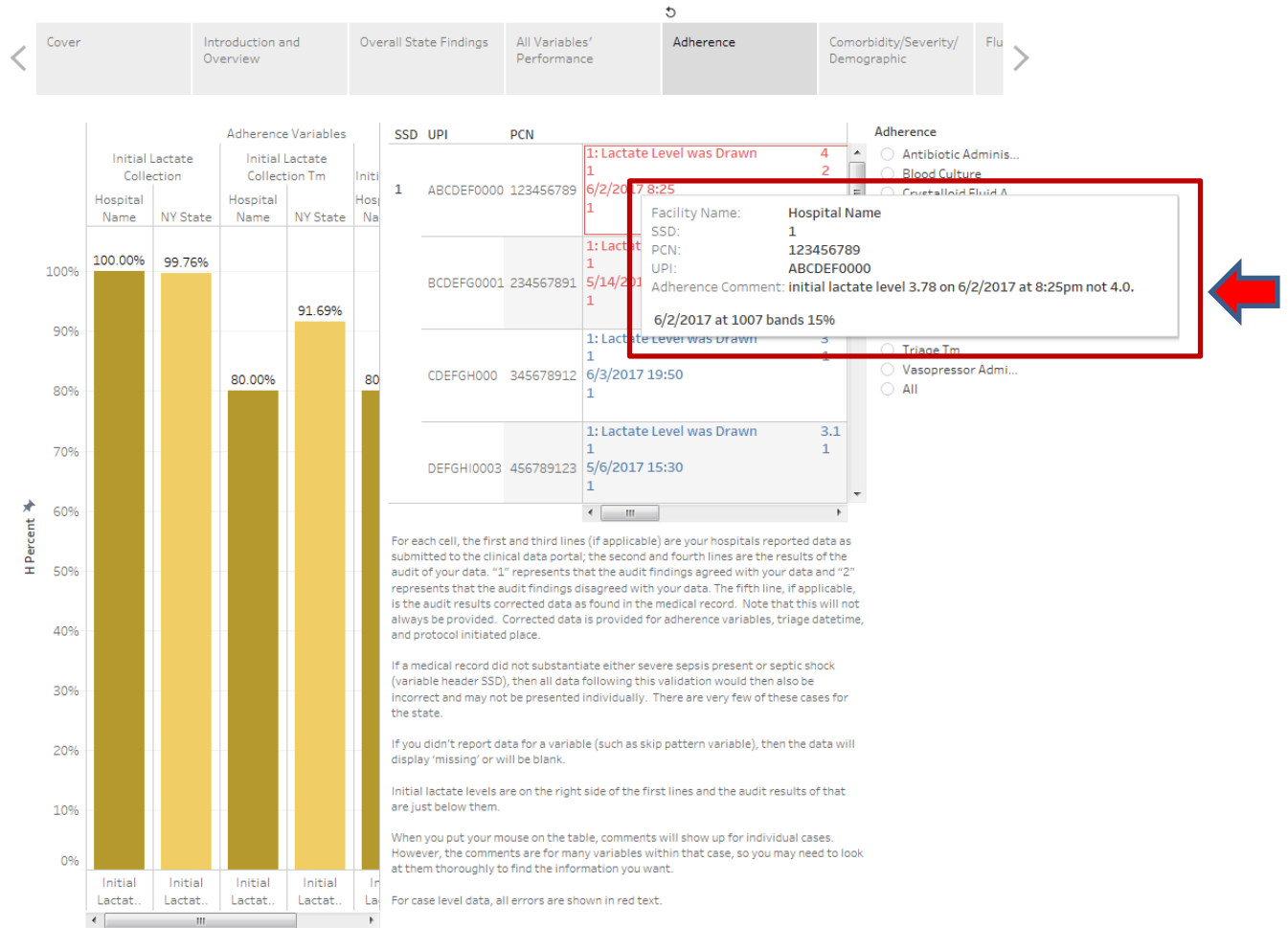
2017 Q1&Q2 Audit report



6. Put your mouse on a case that shows discrepancy; the detail comment will be shown.

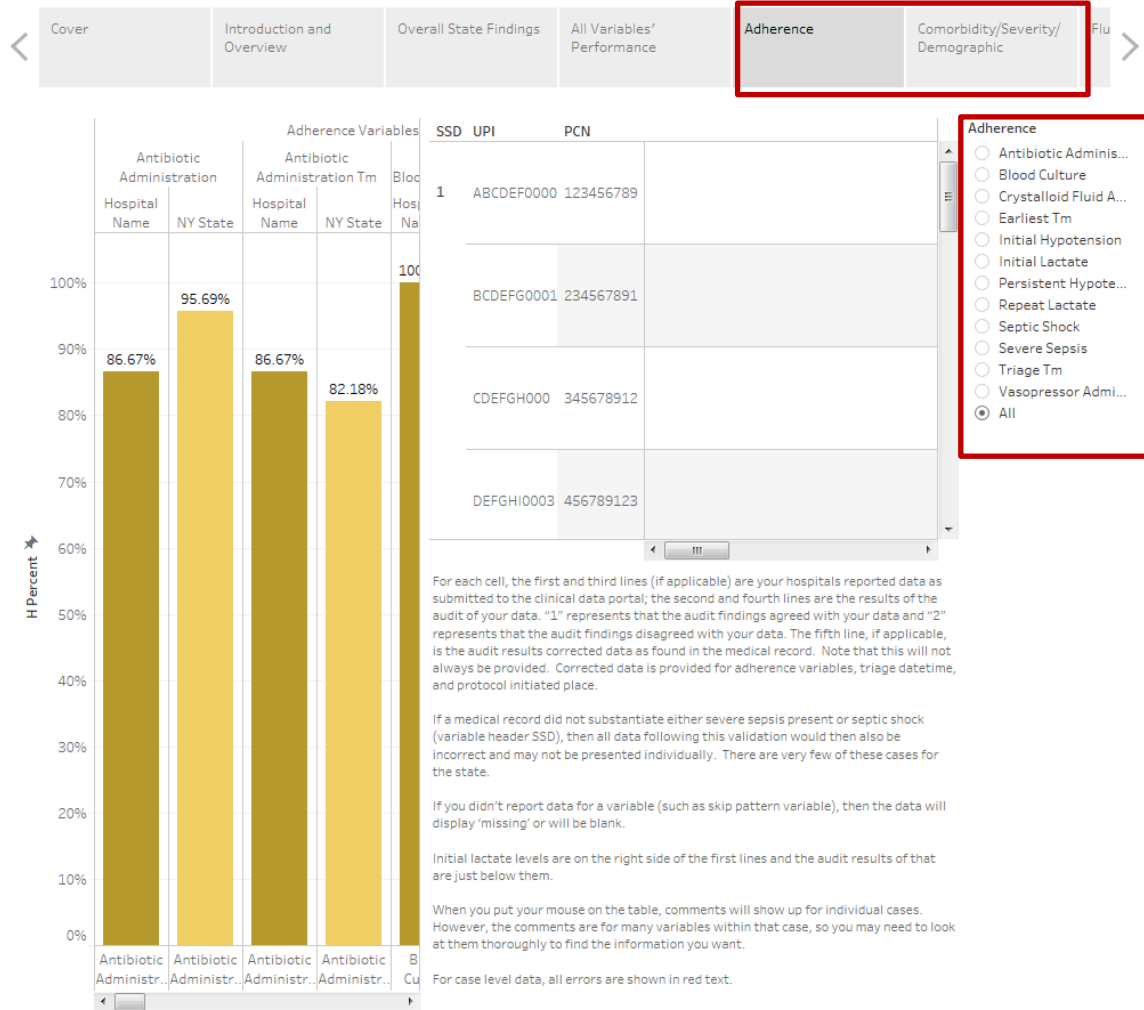
Please Note: The comments are for many variables within that case, so you may need to look at them thoroughly to find the information you want.

2017 Q1&Q2 Audit report



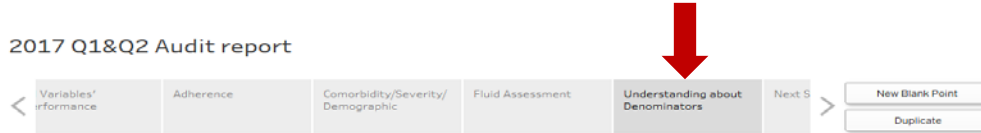
7. You can feel free to select the data segment (different pages) and data element you are interested to view.

2017 Q1&Q2 Audit report



Understanding Denominators

If this is your first time viewing your report, we recommend you read the “Understanding about Denominators” page first, which can help you to understand how the performance was calculated. To view the “Understanding about Denominators” page, please follow the same steps as if viewing the “Adherence” page.



Understanding about Denominators

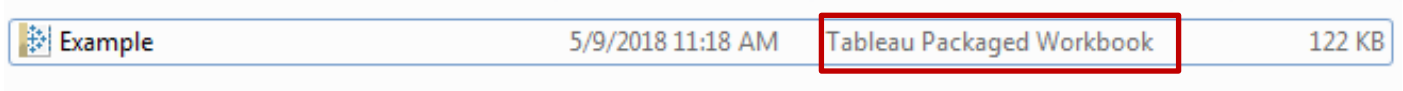
As you may notice, denominators for the variables are not identical. Different data elements were selected for different quarters. In addition, please consider the following when evaluating results:

1. For adherence variables, the cases will be counted in the denominators only when you reported ‘yes’ on the relevant variable. For example, Initial Lactate Collection Datetime and Initial Lactate Collection share the same condition “Initial Lactate Collection = “1: Lactate Level was Drawn”. Initial Lactate Level shares conditional answering in data collection with Initial Lactate Collection. Persistent Hypotension shares conditional answering with Initial Hypotension.
2. For the other variables, if you didn’t report data (as a result of a skip pattern such as not giving an antibiotic and therefore not needing to answer a datetime or antibiotic selection) the case is not counted in the denominator.
3. If a medical record does not seem to substantiate either severe sepsis present or septic shock (variable header SSD = 2), it will not be calculated in the performance because all data for these few instances would then be incorrect. However, the case will still be displayed.

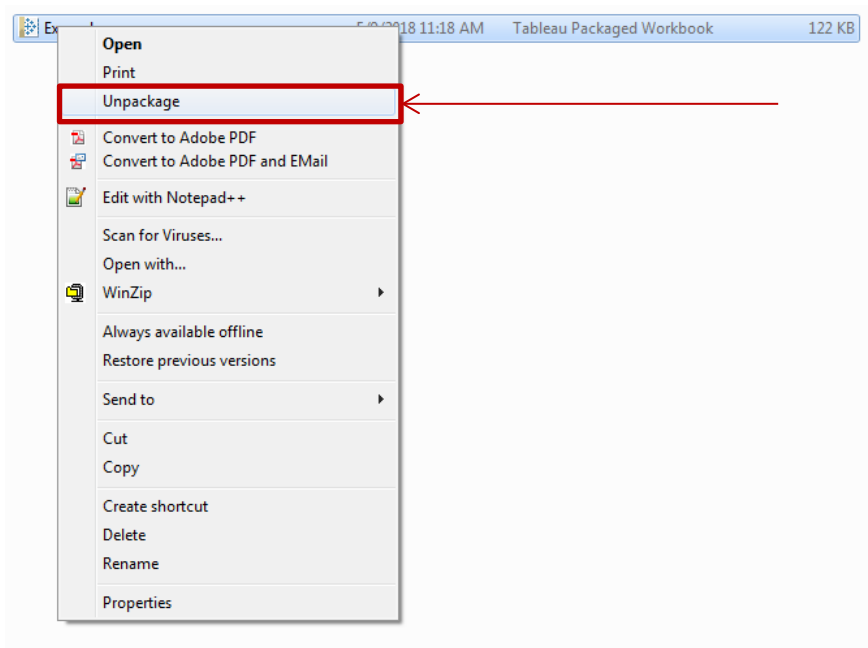
Extracting Tableau Audit Reports to Excel

To view the audit result in Excel, please use the following steps:

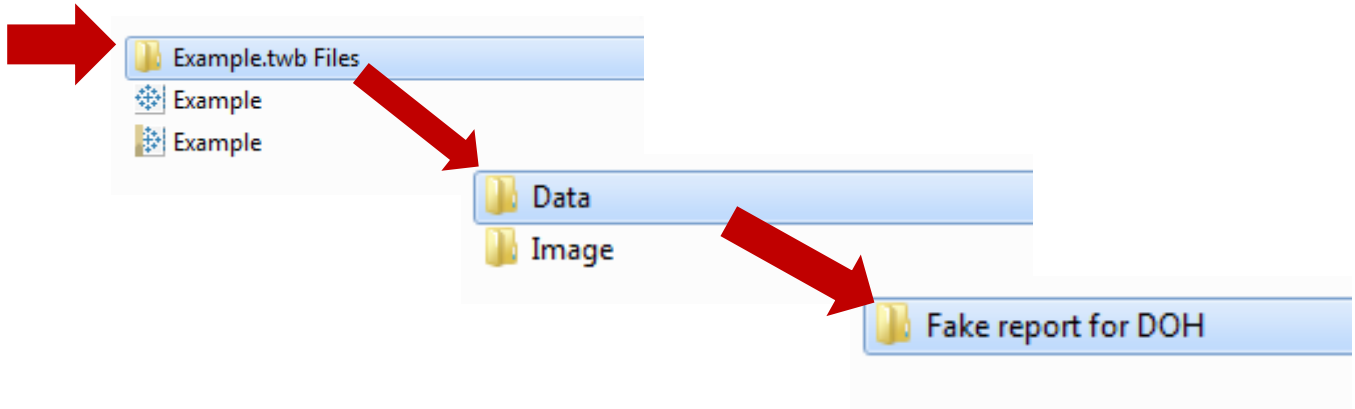
1. Make sure the workbook is in Tableau Packaged Workbook type



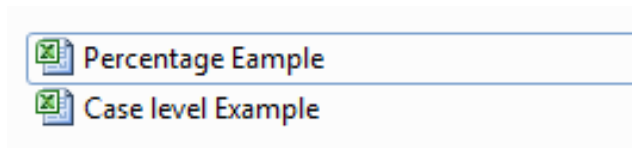
2. Right click the file and select “Unpackage”



3. Two more files will be created, select the File folder

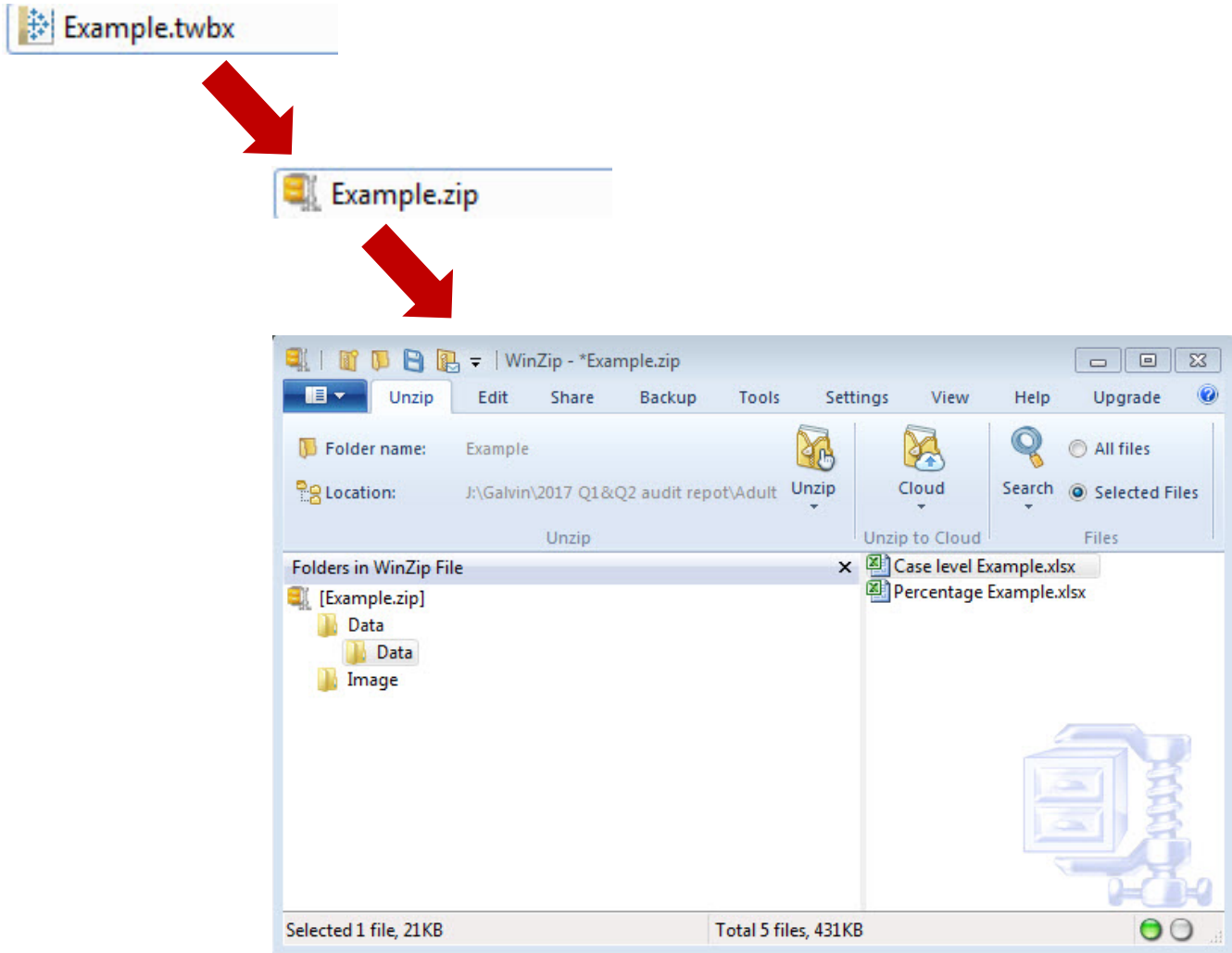


4. Then you will see two excel files. One is the performance of variables and the other is the case-level audit results.



5. If you do not see the option “Unpackage” when you right click on the file, you can rename the file with a “.zip” extension to convert the file to a zip file. (For example, from “Example.twbx” to “Example.zip”)

Then double click on the new file, which will allow you to view the excel files in a regular zip file.



Need Assistance?

If you need help extracting your files or have other questions, please submit a helpdesk ticket at <https://ny.sepsis.ipro.org/support>