QBS User Guide

Table of Contents

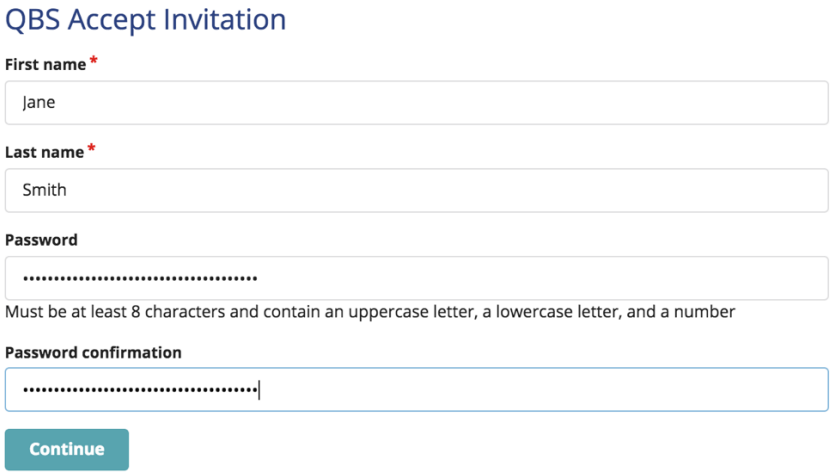
Getting Started

Once a user invites you to QBS, you will receive an email invitation with a button for signing in for the first time.

Signing in for the first time

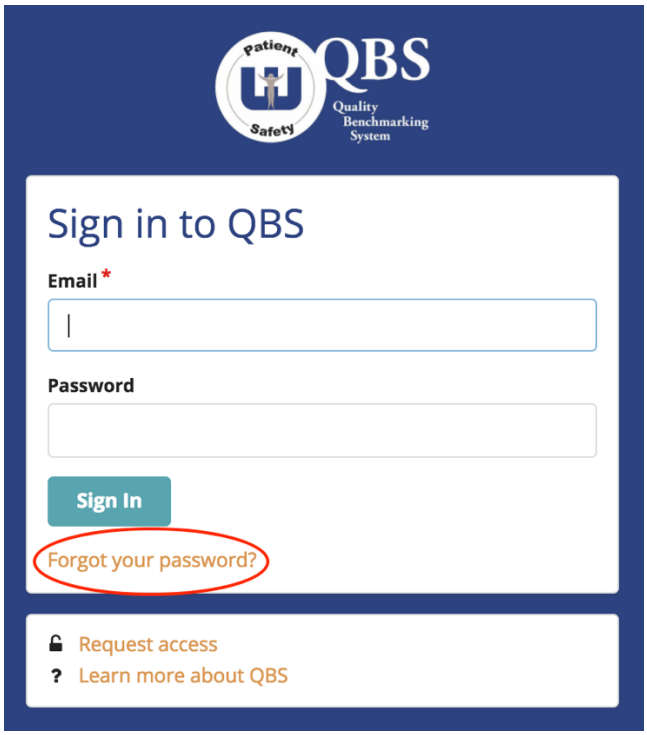
1. Locate your QBS invitation within your email and click the “Accept invitation” button. You will be redirected to a registration page specific to your email address.

2. Verify your first name and last name are spelled correctly and enter a password meeting the complexity requirements in both the “Password” and “Password confirmation” field. Click the “Continue” button.



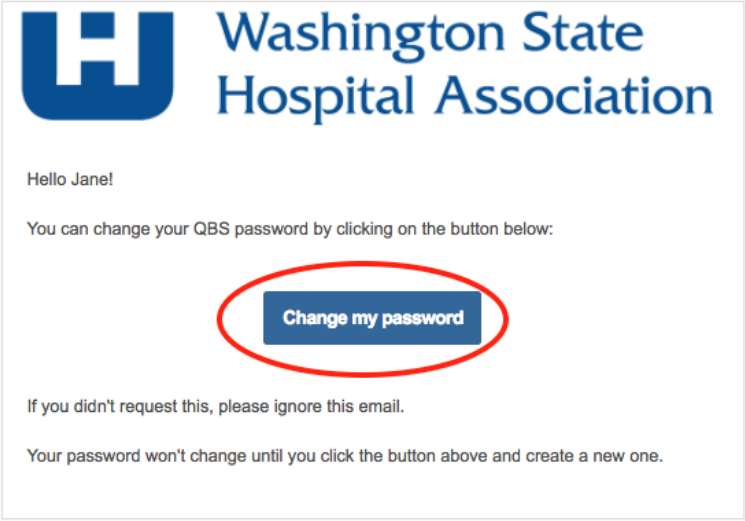
Resetting your password if you forget

1. Click the “Forgot your password?” link on the QBS sign in page.

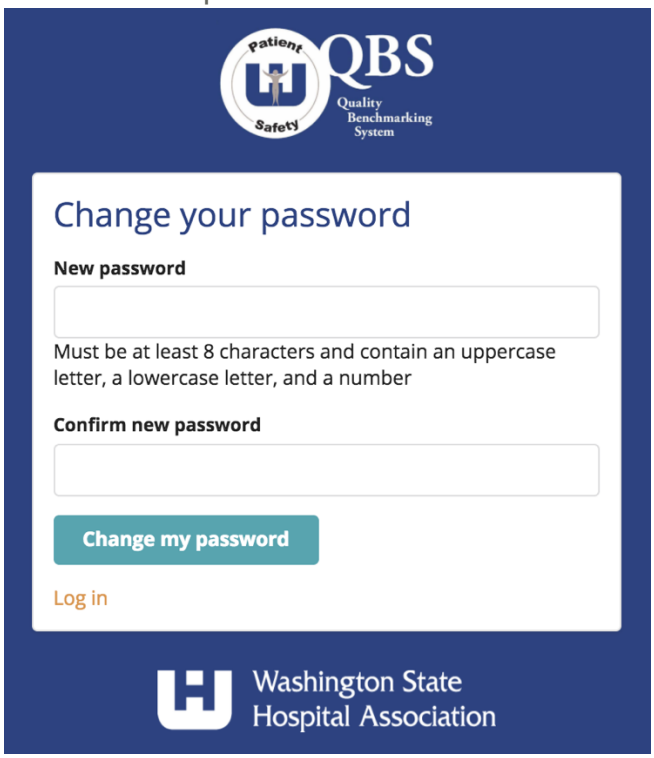


2. Enter the email address used to sign in to QBS and click the “Send me reset password instructions”. A reset password email will be sent to the address within a few minutes.

3. Locate the QBS password reset mailing in your email and click the “Change my password” button. You will then be redirected to the QBS password reset screen.



4. Enter a new password meeting the complexity requirement in both the “New password” and “Confirm new password” fields and click “Change my password”.



5. Click the “Change my password” button and you will be signed in to QBS automatically.

User Access

User Authorizations: Access to the system is controlled by the concept of an authorization, which defines both the level of access and a user's role at this level of access. There are three broad levels of access within QBS:

1. WSHA-level
2. Facility System-level (System level)
3. Facility-level.

Within these three levels of access, a user can have one and only one role:

1. Administrator
2. Data Entry
3. Read-only

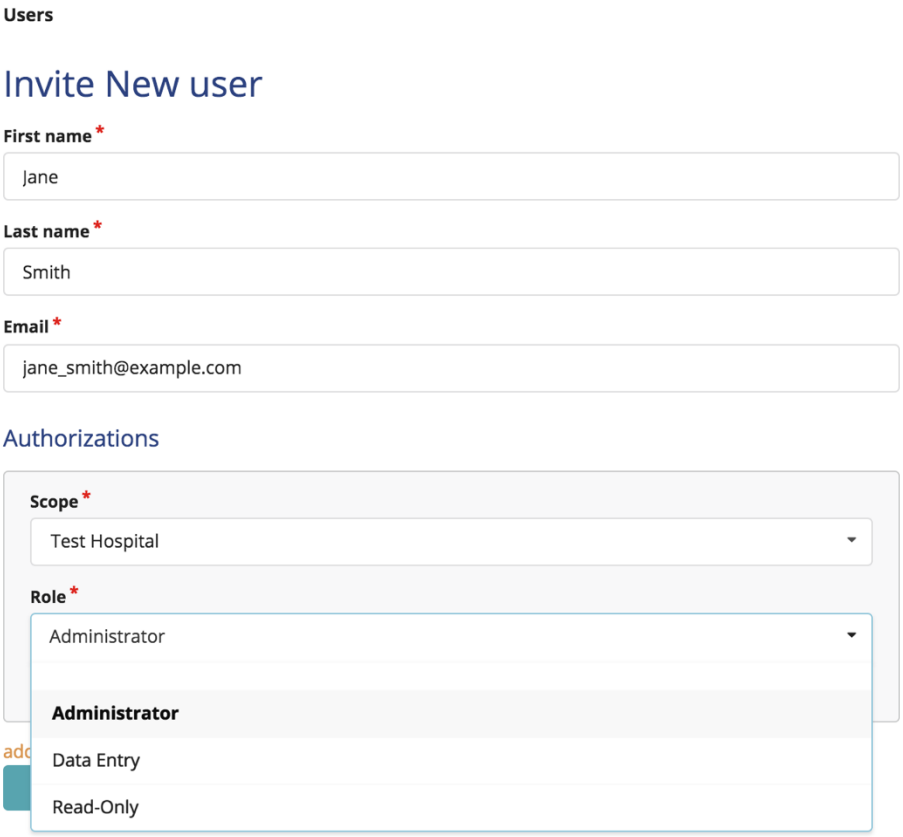
For example, a user could have a Facility-level authorization with an administrator role at Faciilty A and a Facility-level authorization with a read-only role at Facility B. Another example of a combination of user authorizations would be a System-level authorization with an administrator role at Facility System A and a Facility-level authorization with a read-only role at Facility X.

Each user can have more than one authorization at any of the three levels of access. If a user possesses authorizations at multiple levels, they will be given access at the higher of the two.

User Management: If a user has an administrator role at any of the three levels, they will be able to manage users at the associated level of access. For example, a user with a facility-level administrator authorization will be able to manage/invite other users to his or her facility. Similarly, a user with a system-level administrator authorization will be able to manage/invite other users at his or her facility system and any facilities associated with the facility system.

Inviting/Authorizing a New User

1. Sign in to QBS as a user with at least one authorization with an administrator-level role.
2. Select Admin > Users from the navigation menu.
3. Click "Invite User" button.
4. Enter all desired fields (required fields are marked with an asterisk). If a user can manage users at more than one facility, he or she will see a "Scope" selection, which allows them to select the appropriate level of access (e.g. WSHA, Facility System, or Facility). Each QBS user must have a unique email address.
5. Click the "Create User" button. An email invitation will be sent to the user. If a user has already been invited and he or she is being assigned authorizations to a new facility, instead of an invitation, they will receive an email notification about the new authorizations received.



Deactivated Users

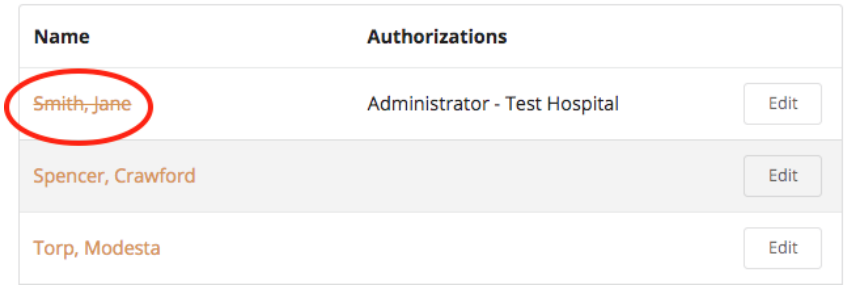
If a user is authorized to manage another user, they can deactivate that user. If a deactivated user is currently signed in when he or she is deactivated, they lose the ability to access QBS pages and will no longer be able to sign in. A deactivated user will remain on the “Users” list for 30 days after their deactivation date. After this point, the user will no longer be shown on the “Users” list.

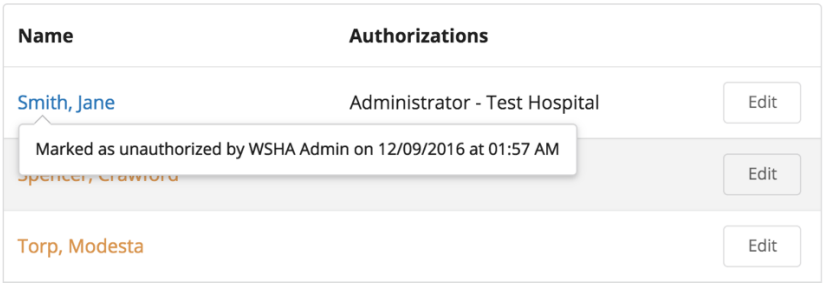
If a user is re-invited into QBS while in a deactivated state, a new account will be created for that user. The only deactivated account cannot be re-activated.

Deactivating a user

1. Select Admin > Users from the navigation menu.
2. Click on the “Edit” button next to any user.
3. Click the “Deactivated” checkbox

4. Click the “Update User” button
5. If you now select Admin > Users from the navigation menu, the deactivated user’s name will be crossed out. If you hover over their name, it will show a tooltip with information on how they were deactivated.



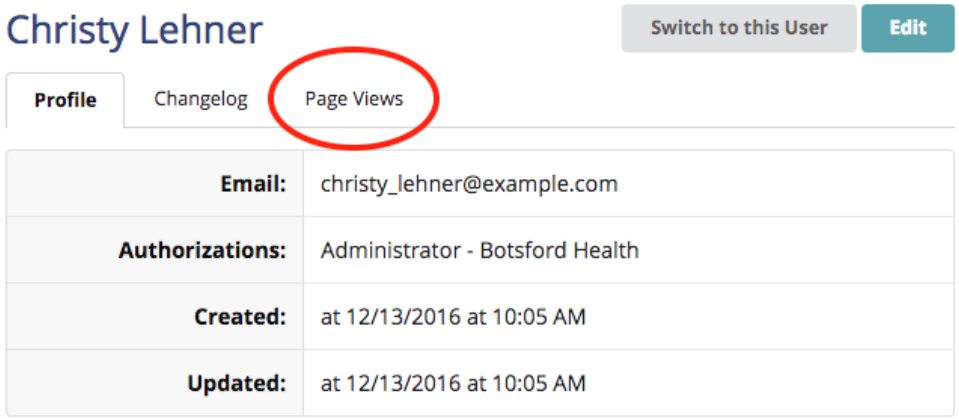


Page Views

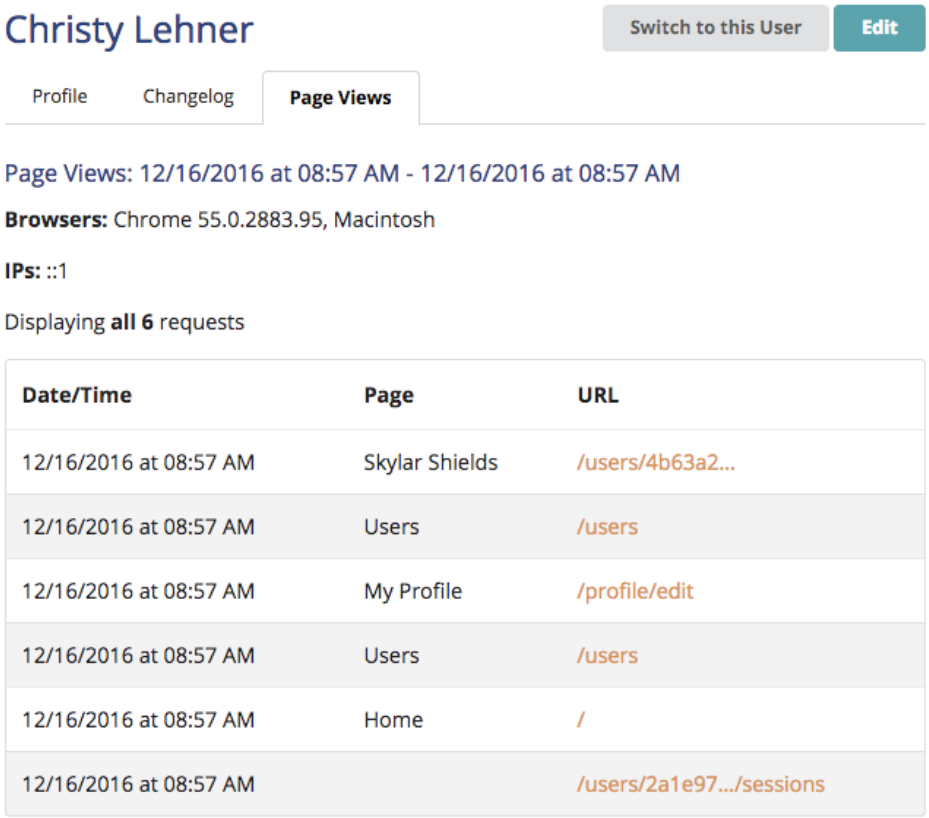
Administrators can view the page views of a QBS user they can manage. The date/time, page title (if available), and URL of a visit can be viewed. Additionally, the web browser, operating system, and IP address of the user are also available.

Examining a User’s Page Views

1. Select Users from the navigation menu and click on the name of any user.
2. Click the “Page Views” tab:



3. Notice the user's page view data is now visible:

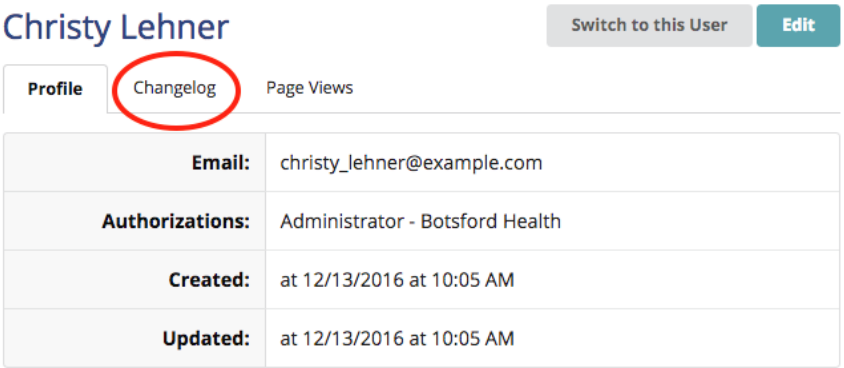


Changelog

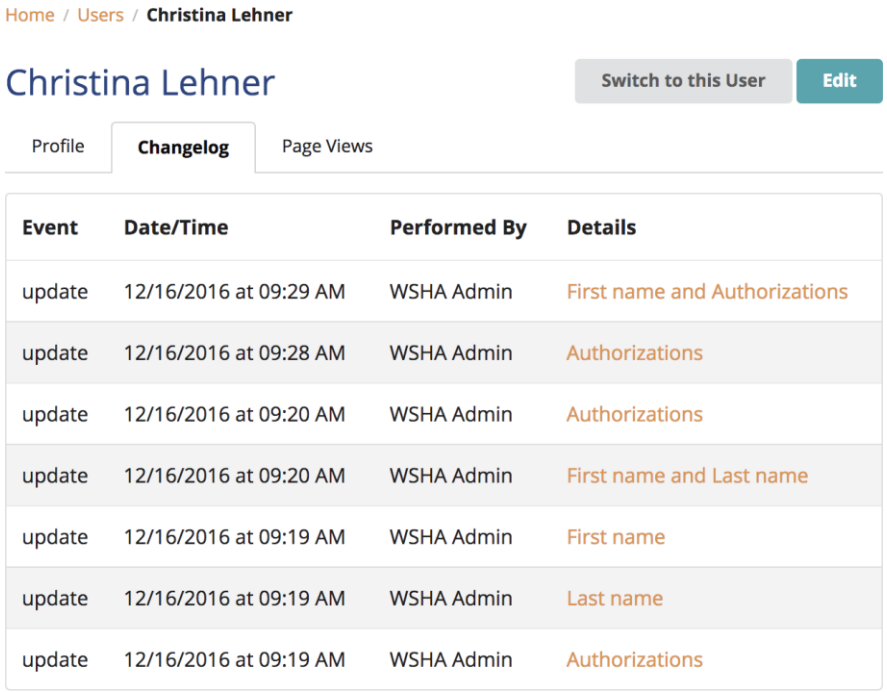
When a user's account information or authorizations to access facilities are changed, the changes and the user performing the change are logged in QBS. Administrators can view the changes made to user accounts they manage.

Viewing the Changelog for a User

1. Select Users from the navigation menu and click on the name of any user.
2. Click the “Changelog” tab:



3. Notice that a summary of the changes made to a user’s account are now visible. More specific details of a change can be viewed by clicking on a link in the details column.



Event	Date/Time	Performed By	Details
update	12/16/2016 at 09:29 AM	WSHA Admin	First name and Authorizations
update	12/16/2016 at 09:28 AM	WSHA Admin	Authorizations
update	12/16/2016 at 09:20 AM	WSHA Admin	Authorizations
update	12/16/2016 at 09:20 AM	WSHA Admin	First name and Last name
update	12/16/2016 at 09:19 AM	WSHA Admin	First name
update	12/16/2016 at 09:19 AM	WSHA Admin	Last name
update	12/16/2016 at 09:19 AM	WSHA Admin	Authorizations

4. Click on the details of a change. Notice that new additions are **bolded** and changes are ~~crossed out~~. In the example below, a change was made by the WSHA Admin to the user’s first name (“Christy” was changed to “Christina”). Additionally, the user’s authorizations to access specific facilities also changed. In this case, the user’s authorization to access Ernser Hospital’s data as an Administrator was removed and she was granted the authorization to access Davis General’s data as an Administrator.

Christina Lehner

Performed by WSHA Admin on 12/16/2016 at 09:29 AM

Attribute	Before	After
Last name	Lehner	Lehner
First name	~~Christy~~	**Christina**
Email	christy_lehner@example.com	christy_lehner@example.com
Deactivation		
Authorizations	~~Ernser Hospital - Administrator~~	**Davis General Administrator**

Active User Account Emails

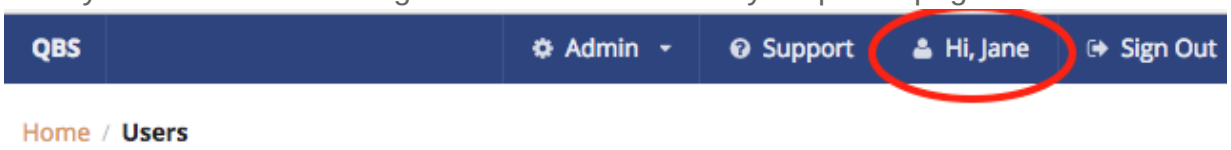
On a quarterly basis, a user report will be sent via email to all users currently authorized to invite other users. A user currently authorized to invite other users can also manually send him or herself an emailed copy of the list via the User Profile Page.

The emailed user list for a user with a WSHA-level authorization (Data-Entry role and above) will display all active (non-deactivated) WSHA-level users. The user list for all other users will display the active users he or she can manage.

Emailing Yourself a User List

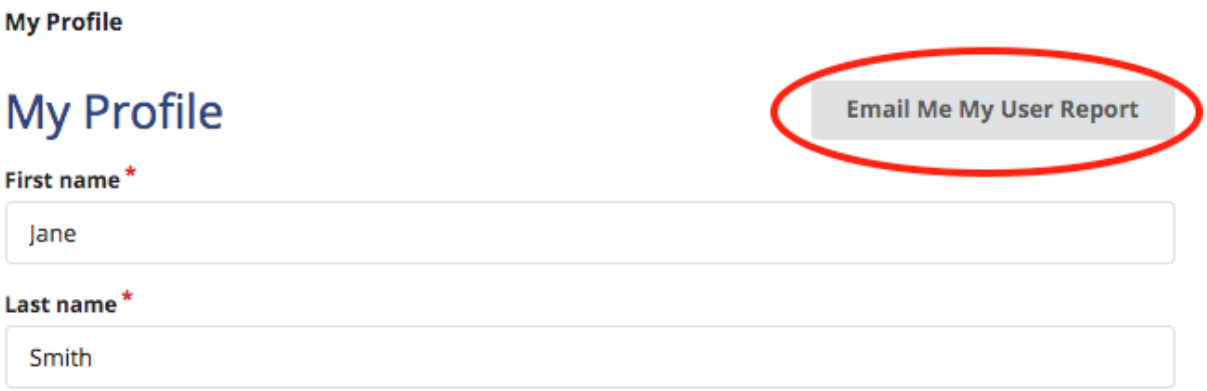
To support the testing process, we've added a button to manually trigger the delivery of this email, so you don't need to wait for the first day of a quarter. This will be removed before the application goes live.

1. Click your name in the Navigation bar to be taken to your profile page.



Home / **Users**

2. Click the "Email Me My User Report" button.



3. Within a few minutes, the user should receive the user report via email. For users included in the reports, details are provided around its account information and authorizations.

Washington State Hospital Association

Hello Jane,

The table below shows the active QBS users your account can manage. Please review the list to ensure the user accounts have been properly defined.

Name	Email	Last Sign In	Facility/Role
Jane Smith	jane_smith@example.com	None	Wilkinson System - Administrator
Orland Homenick	orland_homenick@example.com	None	Marvin Hospital - Read-Only
Shanna Zulauf	shanna_zulauf@example.com	None	Bradtke Medical Center - Data Entry
Waino Schuster	waino_schuster@example.com	None	Bradtke Medical Center - Read-Only

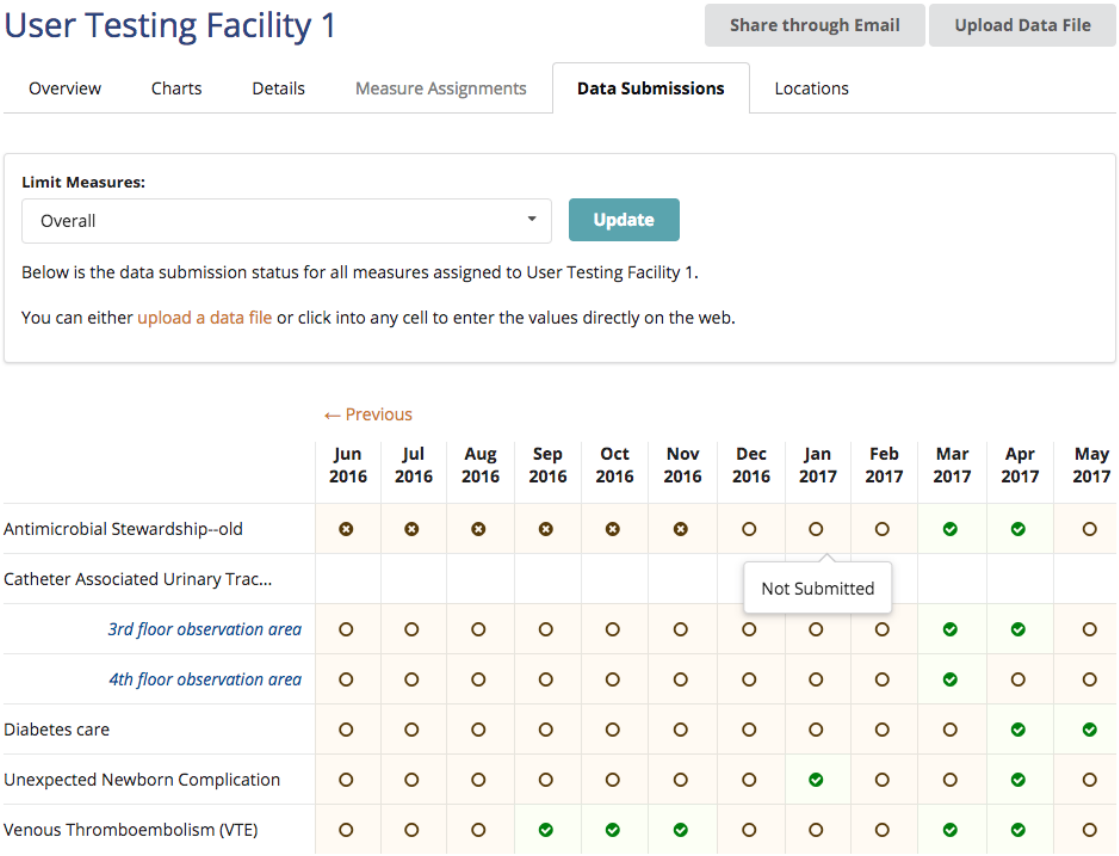
Data Submission via the Web Interface

QBS automatically calculates the measures and reporting periods requiring data submissions needed for facilities based on a facility's measure assignments. As a reminder, facility measure assignments are created in QBS via an initiative or are directly assigned to a facility.

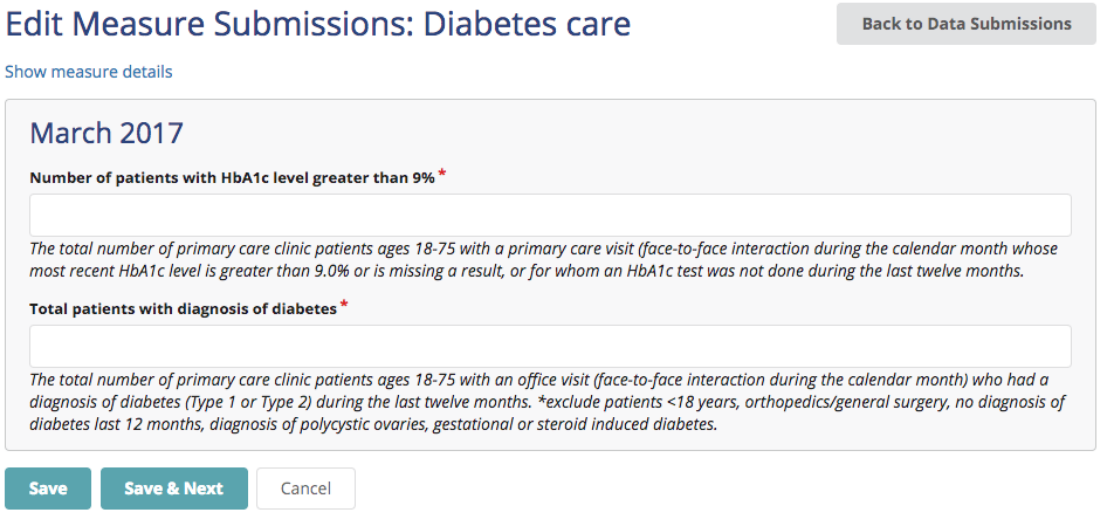
QBS visually displays the status of submissions via a colored grid showing whether data has been submitted for a period.

Viewing/Submitting Facility Data Submissions via the Web Interface

1. Navigate to a facility page and click the "Data Submissions" tab. You will be presented with a grid of colored circles, each representing the data submission status for a measure and corresponding reporting period. When hovering over a circle, QBS will provide an explanatory tooltip indicating the status of the period's data submission.



2. To enter or modify data, click any of the circles to be brought to a data entry screen. The data entry screen displays fields for each of the data elements associated with the measure.



3. Supplementary information on a measure can be viewed by clicking the “Show measure details” link.

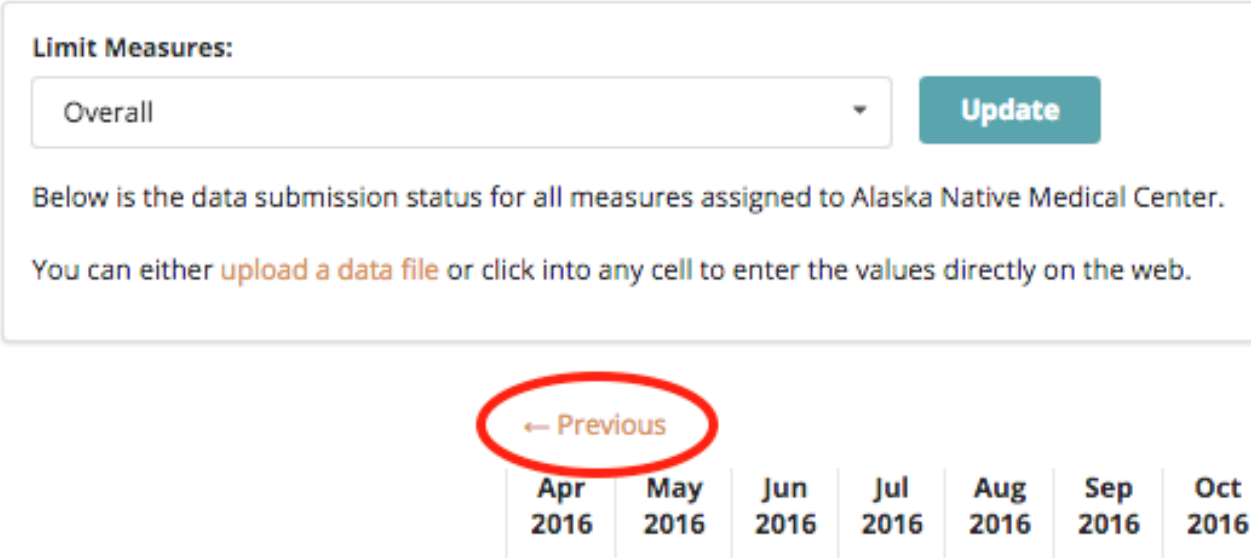
4. To enter data, populate ALL of the data element fields and click either “Save” or “Save & Next”. The “Save” button will attempt to save the data element values and will bring you to the data submissions page. The “Save & Next” button will attempt to save the data element values and take you to the next available reporting period for the measure.

   Note that ALL data elements must be populated in order for a data submission to be saved within QBS.

As a reminder, the validations associated with a measure can be either soft or hard. Soft validations display a warning and require explicit confirmation for saves of data element values not meeting the validation criteria. Hard validations prevent the save of data element values not meeting the validation criteria.

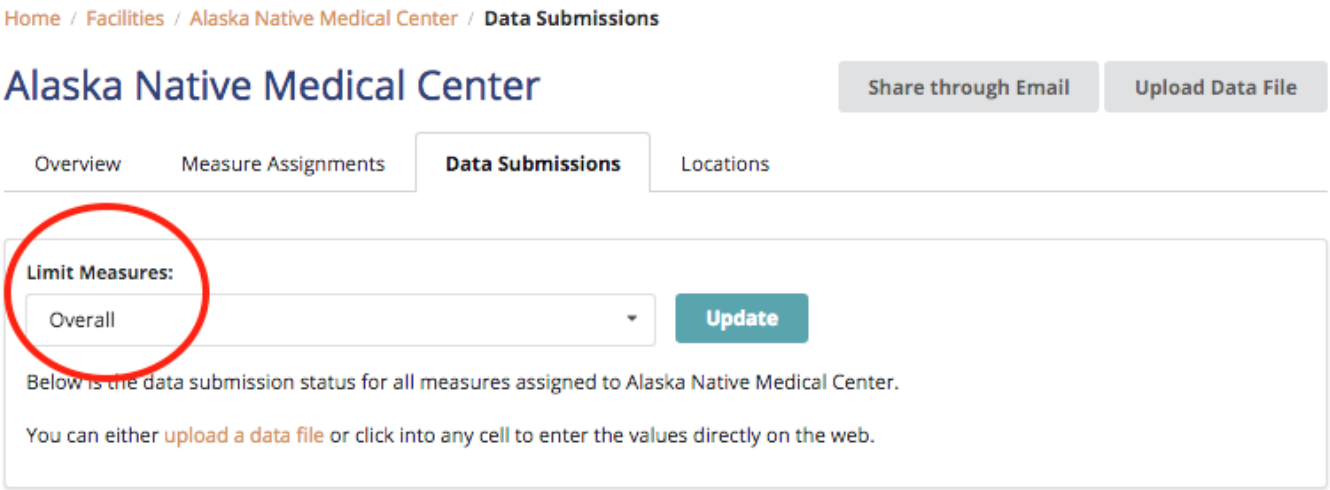
Viewing Submissions for Different Time Periods

A facility's data submission grid displays a year's worth of data at a time. If additional data is available, "Previous" and "Next" links will be visible above the grid, which will refresh the table with older or newer data as appropriate.



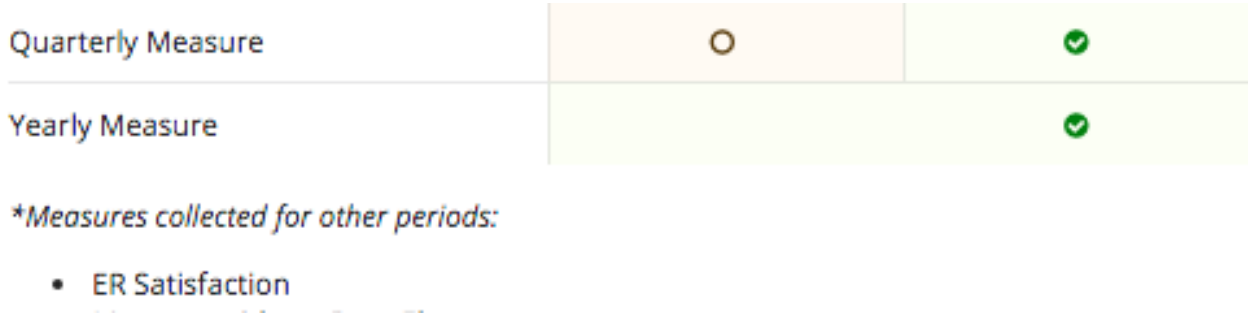
Viewing Data Submissions by Initiative or Strategy

QBS allows the viewing of data submissions limited to a specific initiative or strategy. At the top of the data submissions page, an option called "Limit Measures" exists. Select a dropdown option and click the "Update" button to refresh the page.

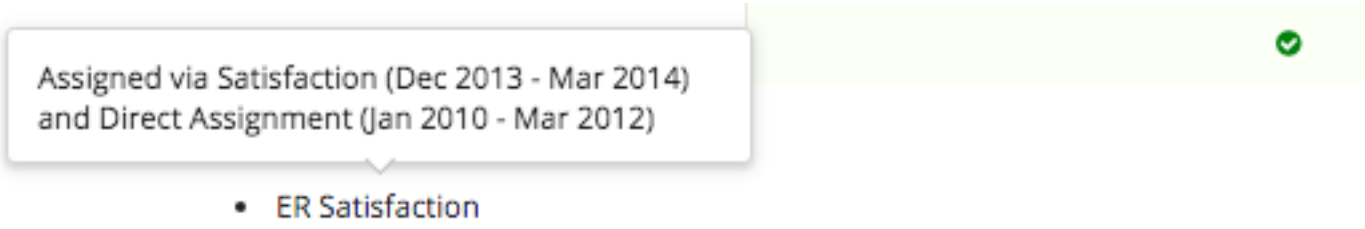


Measures Assigned for a Period Not Shown

On some occasions, data collection will be assigned for a period which is not visible on the page. If this occurs, the bottom of the page will note these measures.



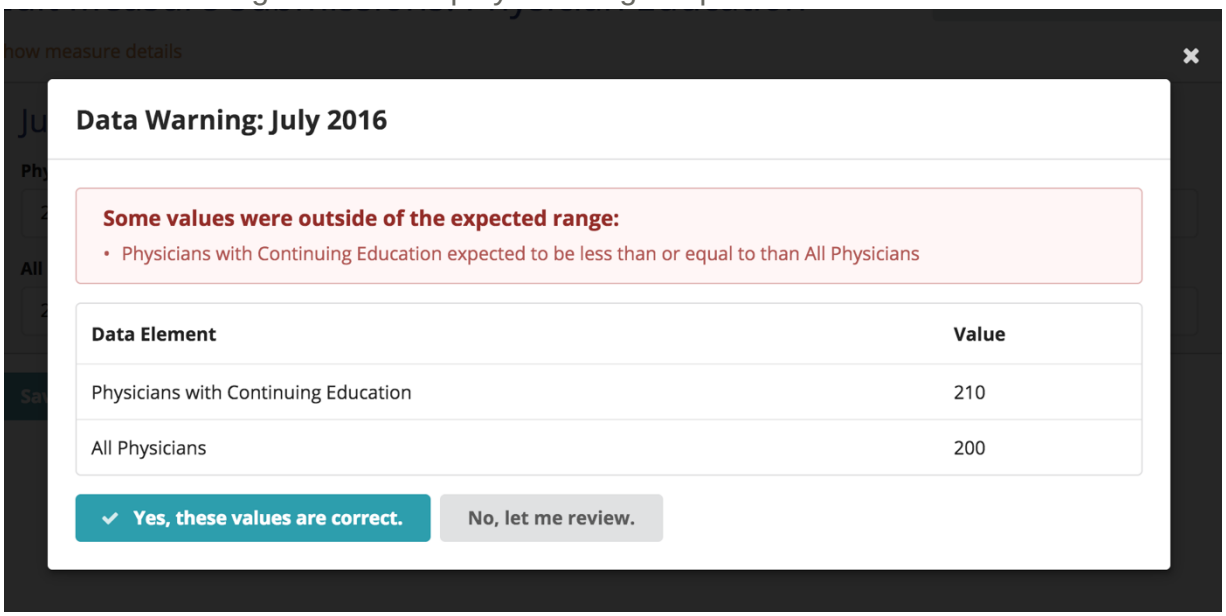
A tooltip detailing how the measure is assigned will appear if the cursor is placed over the measure's name.



Soft Validations and Data Submissions via the Web Interface

1. If one or more data elements have been populated that do not meet the criteria of soft validation(s), QBS will require explicit confirmation the values should indeed be submitted. In the example below, a save has been attempted, but it does not meet the soft validation

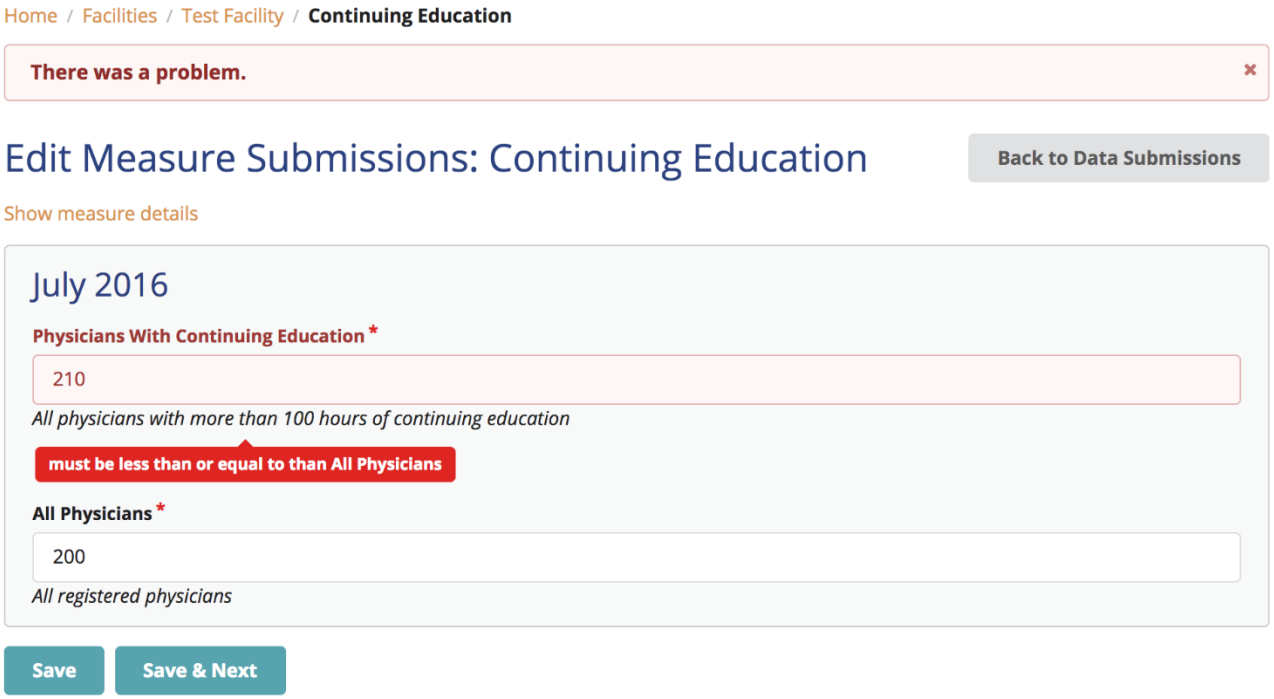
criteria. A message box will display detailing the problematic values.



2. To go forward with saving the values, click “Yes, these values are correct”. To review the provided values before attempting another save, click “No, let me review.”

Hard Validations and Data Submissions via the Web Interface

1. If one or more data elements have been populated that validate a measure’s a hard validation(s), QBS will prevent the offending data element values from being saved until the validation criteria is met.



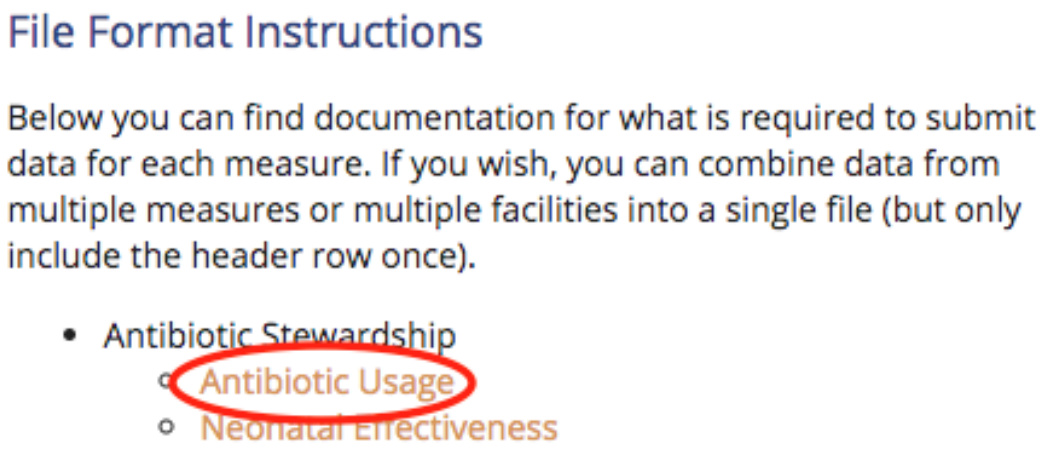
Data Submission via a CSV File

Your facilities will eventually will be assigned to submit data for various measures. QBS allows the import of data submissions for multiple facilities via the upload of a comma-separated-value (CSV) file. QBS provides automated documentation around how to format the CSV file for each of the assigned measures.

Note that data submissions do not have to be uploaded separately by facility or measure id, but can be uploaded altogether as a single file.

Uploading a File

1. Click “Upload Data” in the navigation menu.
2. If you’re unsure how to format the file, you can click on any of the measures under “File Format Instructions” and will be redirected to a page with detailed instructions on how to populate the file for that measure. (This upload instruction page is customized for the user viewing; showing the facilities/locations that the user can submit data for and which have been assigned the measure). Additionally, the upload instructions will allow you to download a sample CSV file pre-populated for a single reporting entity.



Home / Upload Data / **File Format: Antibiotic Usage**

Antibiotic Usage: Upload Instructions

Sample File

qbs_identifier	location_identifier	measure_identifier	start_date	end_date	data_element_identifier	value
57		antibiotic_usage	02/01/2017	02/28/2017	antibiotic_days	0
57		antibiotic_usage	02/01/2017	02/28/2017	nicu_days	20
57		antibiotic_usage	02/01/2017	02/28/2017	familial_satisfaction	40
57		antibiotic_usage	02/01/2017	02/28/2017	mortality_outcomes	60

Download as CSV

File Layout

All files submitted to QBS must be in Comma Separated Value (CSV) format. Construct with the following **columns**, with one row per data element value submitted:

qbs_identifier The QBS Identifier for the facility you are submitting for:

3. Click the “Choose File” button to select a CSV for upload.

Home / **Upload Measure Submission**

Upload Data

Measure submission data can be imported into QBS by uploading a Comma Separated Value (CSV) file. Click the 'Choose File' button below to select a file for uploading.

File: *

Choose File No file chosen

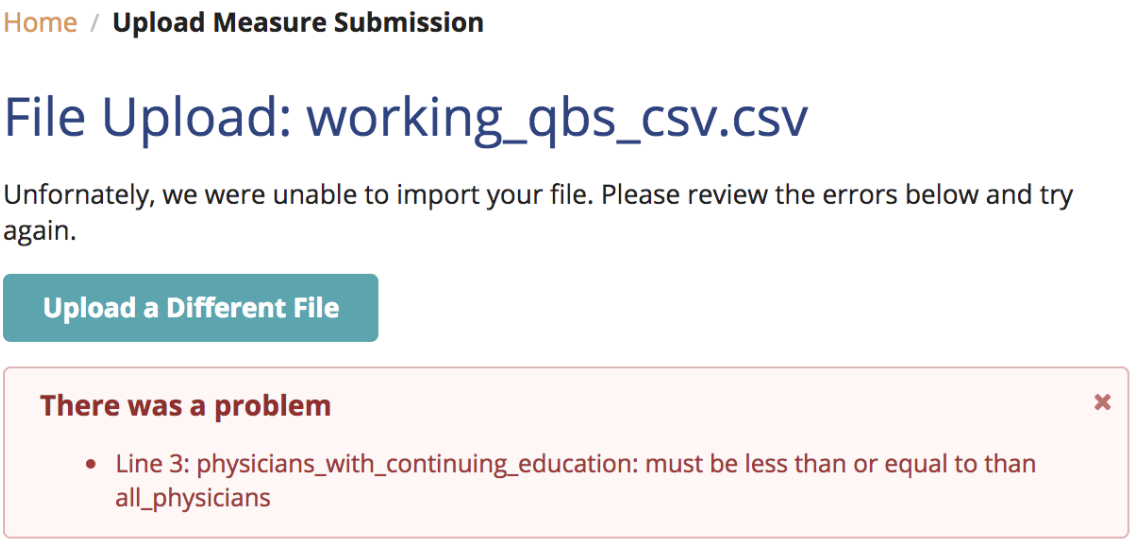
Override Lock Policies

No

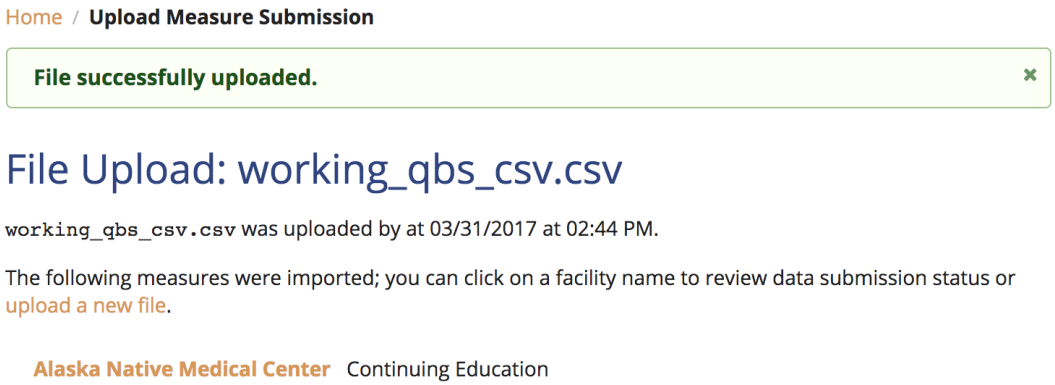
Submission lock policies for all measures will be ignored if 'Yes' is selected

Upload

4. If you are a WSHA-level data entry user, an option is available for overriding lock policies. Select “Yes” if you would like to override any lock policies that restrict the submission of older data.
5. Click the “Upload Button”
6. If one or more rows contain erroneous data, QBS will provide a set of error messages detailing the issues encountered and changes needing to be made to the file. Make the requested modifications to the file, click the “Upload a Different File” button, choose the new file for uploading, and click “Upload” once again.



7. After resolving all the errors, QBS will provide a record of the measures submitted for each facility.



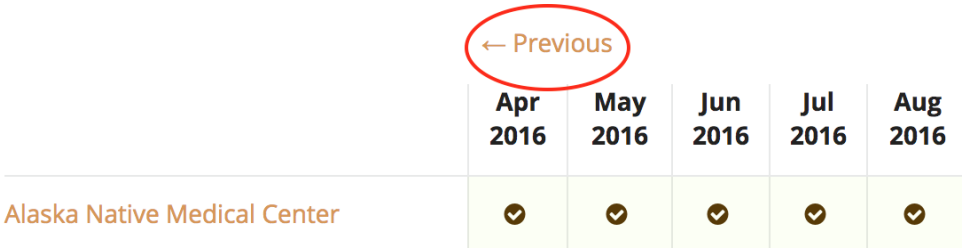
Viewing Data Submission Status

Facility data submissions can be viewed from multiple perspectives in QBS. Submissions can be viewed at the following levels:

1. By All Facilities (visible to users who can submit data for multiple facilities)
2. By Initiative (WSHA only)
3. By Measure (WSHA only)

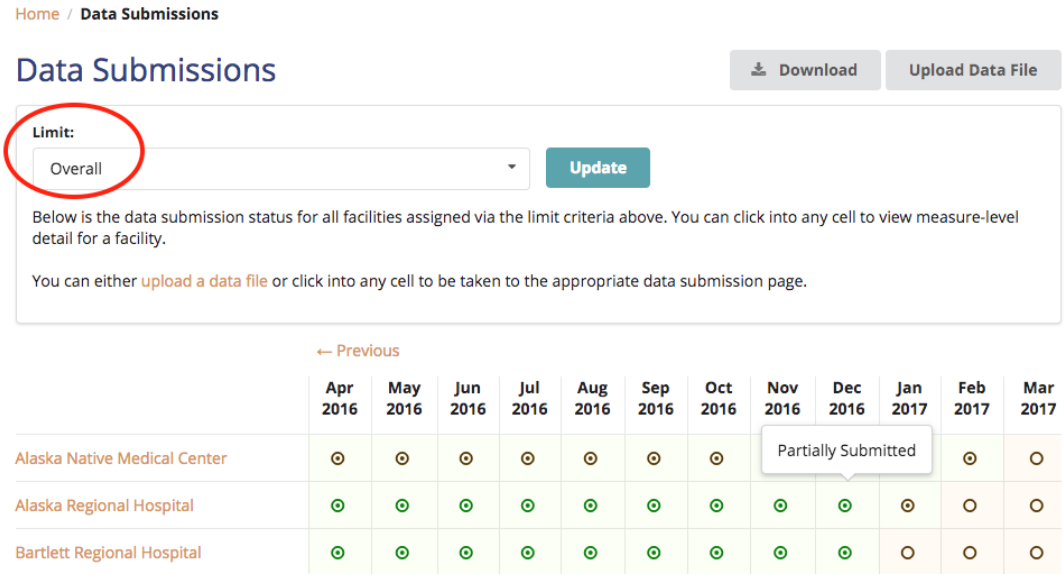
Each of these data submission screens will show a grid representing completeness. Upon hovering over cells in the grid, messages will appear indicating the status of the data submissions for the facility and time period in question (indicating messages like “partially complete”, “complete with warnings”, etc.). By clicking into a cell, more granular submission detail is visible. If a filter has been applied limiting the display to a single measure, by clicking into a cell, the page will redirect the user to the web interface for entering data for the measure.

If additional data is available, “Previous” and “Next” links will be visible above the grid, which will refresh the table with older or newer data as appropriate.



Data Submissions by All Facilities

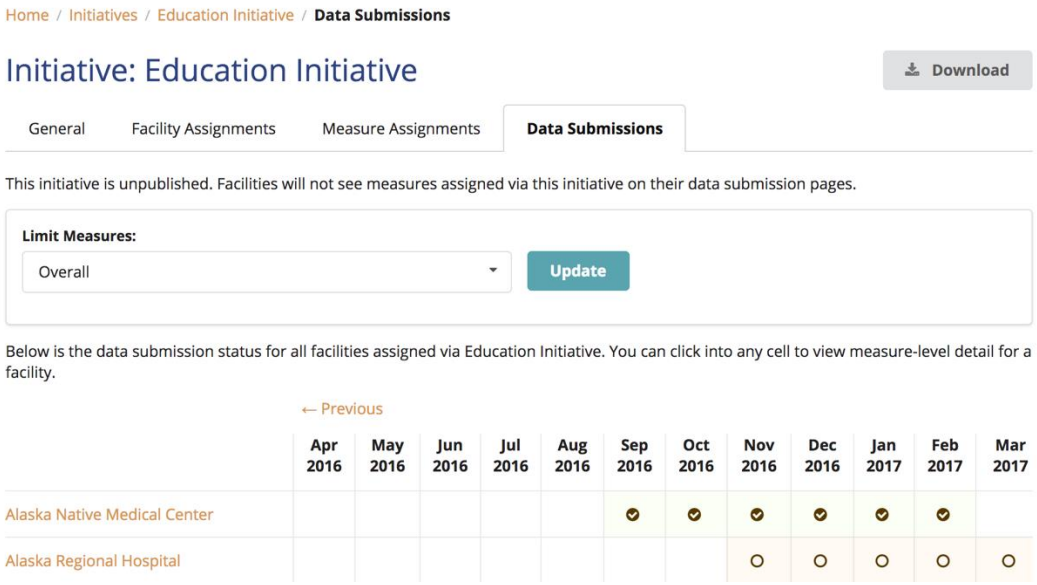
1. Sign in to QBS as a facility/system user who can submit data for multiple facilities. After signing in, a grid of facilities and dates will be visible. The grid will show a series of cells representing overall completeness for each facility’s measure assignments in the aggregate.
2. At the top of the page, an option exists for filtering to a facility’s completion pertaining to a particular initiative or a facility’s completion pertaining to a particular measure.



Data Submissions by Initiative

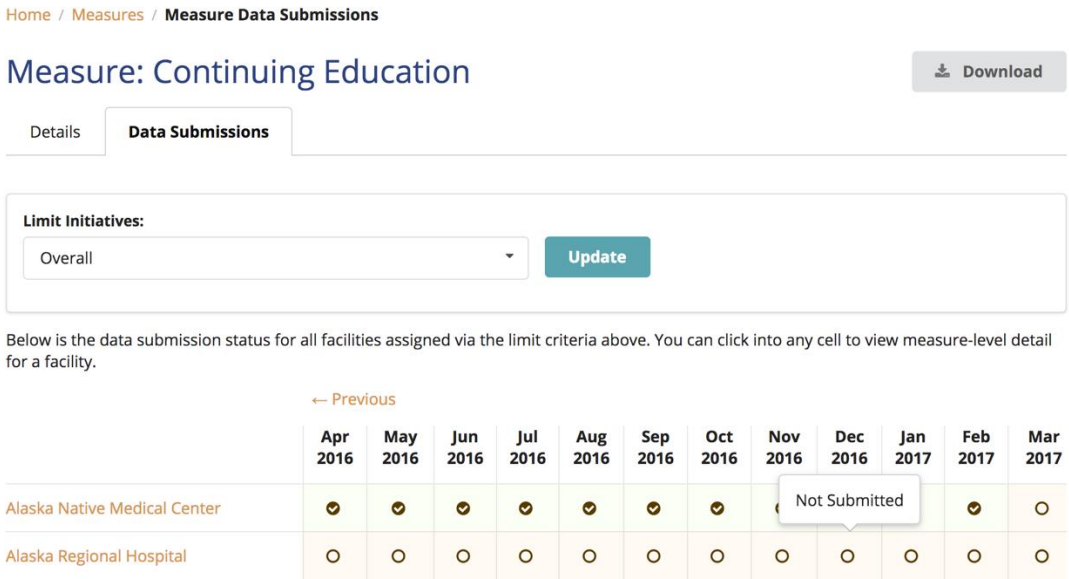
3. Navigate to Admin > Initiatives
4. Click the name of any initiative
5. Click the “Data Submissions” tab at the top of the page
6. When the page loads, a grid of facilities and dates will be visible. The grid will show a series of cells representing the completeness of **ALL** measure assignments by facility for the initiative selected.
7. At the top of the page, an option exists for filtering by measures <u>assigned within</u> the initiative (not all measures in QBS). If an option is selected and the “Update” button is clicked, the

page will show a new list of facilities filtered to measure assignments from the selected initiative.



Data Submissions by Measure

1. Navigate to Admin > Measures
2. Click the name of any measure
3. Click the “Data Submissions” tab at the top of the page
4. When the page loads, a grid of facilities and dates will be visible. The grid will show a series of cells representing the completeness of **ALL** of the measure assignments related to the measure selected.
5. At the top of the page, an option exists for filtering by measure assignments that have occurred either via an initiative or assignments that have been made directly to facilities (the “Direct Assignment” option).

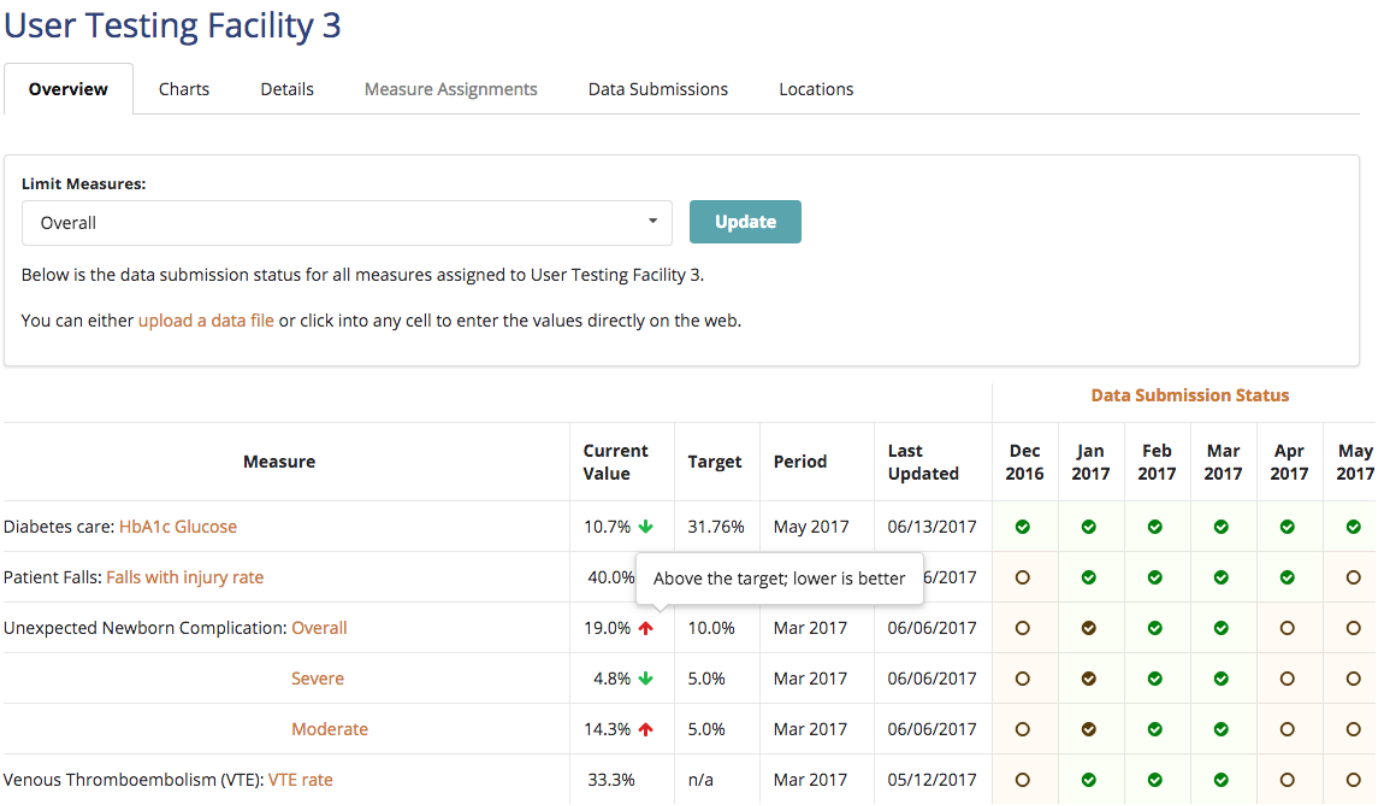


Facility Overview Page

A high-level overview of any facility in QBS can be accessed via the Facility Overview tab. This page provides an at-a-glance view of the facility's most recent activity—its data submission, performance relative to specified measure targets, the times of recent submissions, and data submission status for the last few months.

Viewing the Facility Overview Page

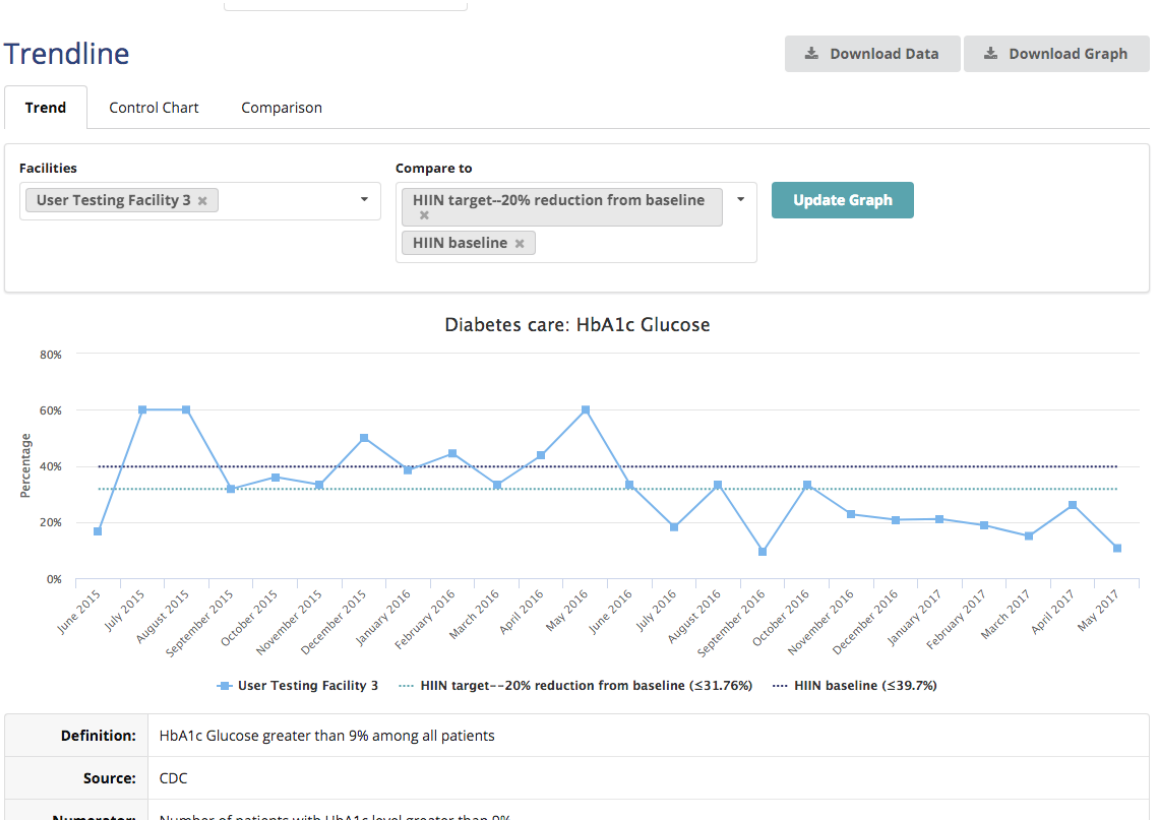
1. If you only have access to a single facility in QBS, you'll automatically be brought to the facility overview page upon signing in. If you have access to multiple facilities, you can reach this page by clicking on the name of any facility upon signing in. If you are a WSHA user, you can search for any facility and click on its name or via the navigation menu at *Admin* > *Facilities* and then clicking on a facility name.
2. Note that a series of data columns are visible on the page:
    a. **Current Value**: The most recently submitted value
    b. **Target**: If a target has been specified for the measure by QBS administrators, it will be displayed here.
    c. **Period**: The period of the last data submission pertaining to the measure (this value will vary depending on whether the measure has a yearly, quarterly, or monthly reporting frequency)
    d. **Last Updated**: The date of the last data submission for the measure
    e. **Data Submission Status Columns**: The data submission status for the last few months. If you are authorized to submit data for the facility, you can click a cell to be taken directly to the data submission web form.



					Data Submission Status					
Measure	Current Value	Target	Period	Last Updated	Dec 2016	Jan 2017	Feb 2017	Mar 2017	Apr 2017	May 2017
Diabetes care: HbA1c Glucose	10.7% ↓	31.76%	May 2017	06/13/2017	✓	✓	✓	✓	✓	✓
Patient Falls: Falls with injury rate	40.0%			6/2017	○	✓	✓	✓	✓	○
Unexpected Newborn Complication: Overall	19.0% ↑	10.0%	Mar 2017	06/06/2017	○	✓	✓	✓	○	○
Severe	4.8% ↓	5.0%	Mar 2017	06/06/2017	○	✓	✓	✓	○	○
Moderate	14.3% ↑	5.0%	Mar 2017	06/06/2017	○	✓	✓	✓	○	○
Venous Thromboembolism (VTE): VTE rate	33.3%	n/a	Mar 2017	05/12/2017	○	✓	✓	✓	○	○

Viewing a Trendline

3. Navigate to a facility overview page
4. Click the name of any measure and you will be redirected to a trendline page displaying the facility's performance over time.



5. If your QBS user account has access to multiple facilities, the trendline can be configured to show multiple facilities simultaneously via the "Facilities" select option. If benchmark or baseline options are available, they can be selected via the "Compare To" select option. Note that multiple facilities and multiple compare to options can be selected simultaneously.
6. Once the desired graph configuration options have been specified, click "Update Graph" to redisplay the graph.

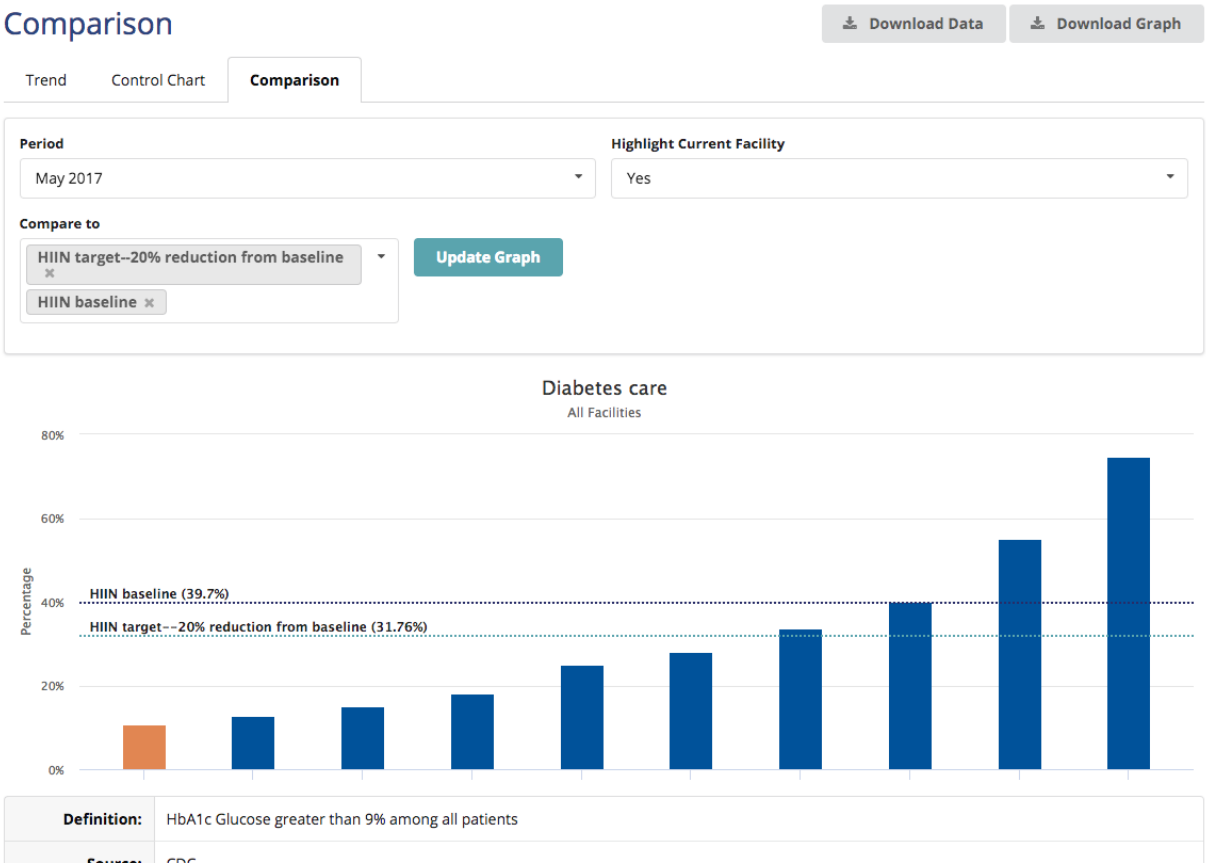
Viewing a Control Chart

1. Navigate to a facility overview page
2. Click the name of any submeasure that has been assigned a control chart type and you will be taken to the trendline page.
3. Click the “Control Chart” tab at the top of the page
4. From here you can generate a control chart for one facility at a time. The control limits will inform the user at to whether their performance is different than during the baseline period. In addition, benchmarks may be added to the graph and the graph can be downloaded as a PNG.

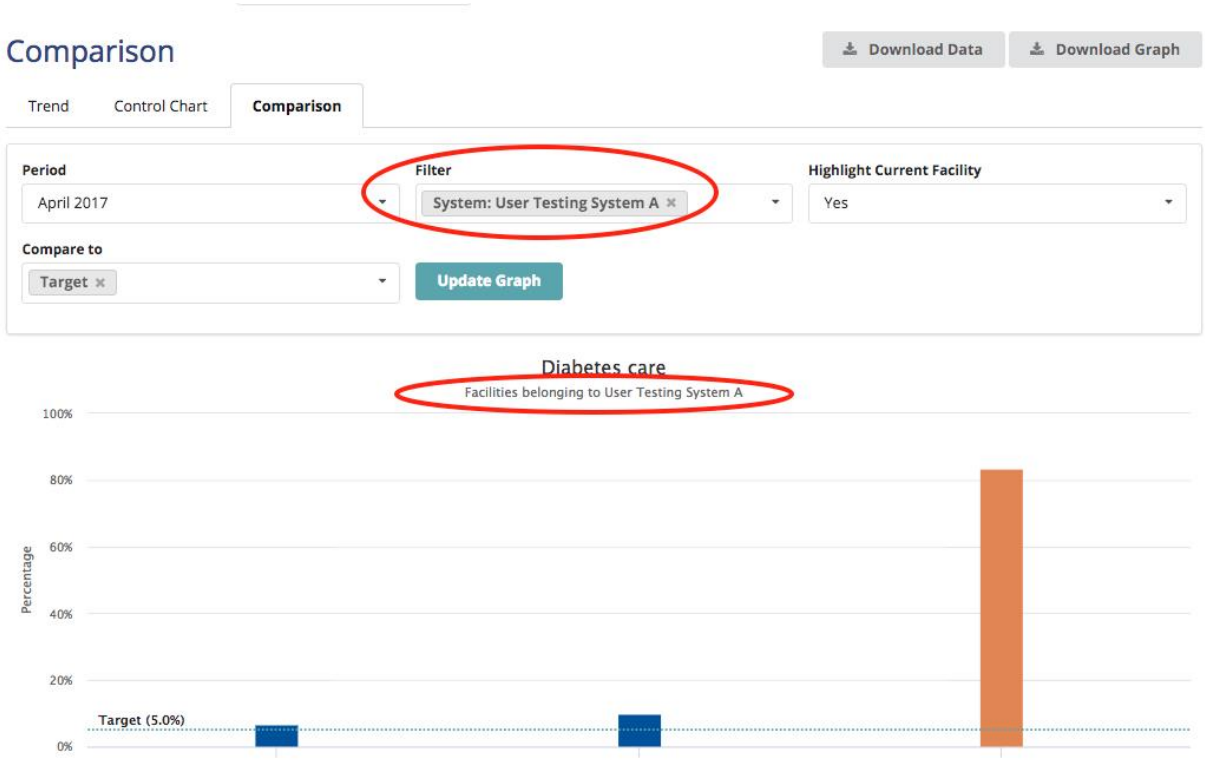
Viewing a Comparison Graph

5. Navigate to a facility overview page
6. Click the name of any submeasure and you will be take to the trendline page.

7. Click the “Comparison” tab at the top of the page and you will be redirected to a comparison page displaying the facility’s results for a single period in comparison to other hospitals.



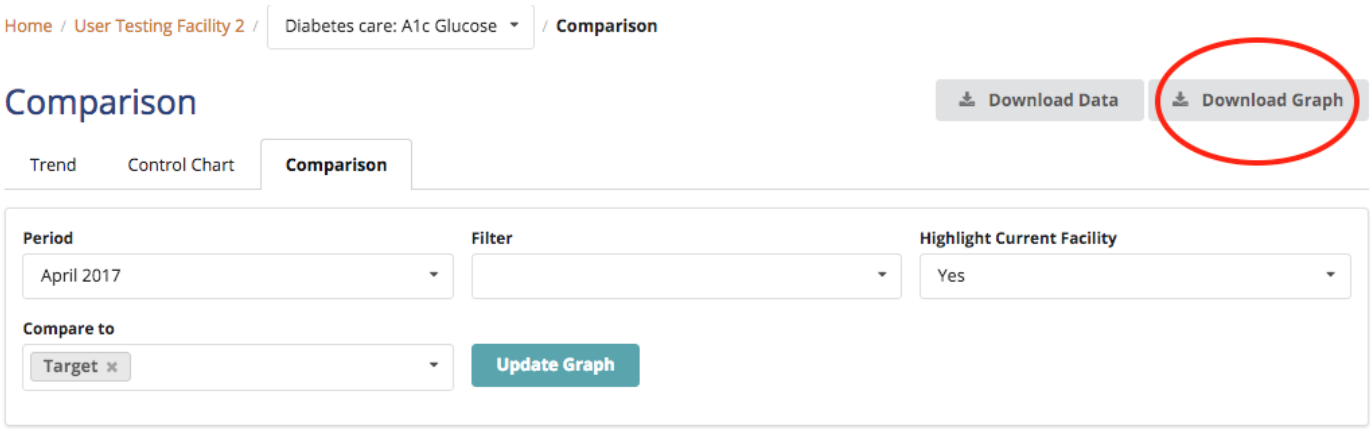
8. Depending on your access within QBS, various options are available for configuring the graph and allow for the filtering of the data such that the selected facility can be cross-compared against other facilities based on a range of criteria (other systems, other initiatives, and other facility taxonomies). As an example, in the “Facilities” dropdown, we’ll select all facilities that belong to User Testing System A and click “Update Graph”. Note that the page refreshes and below the measure’s title is a description of the filter being applied to the graph.



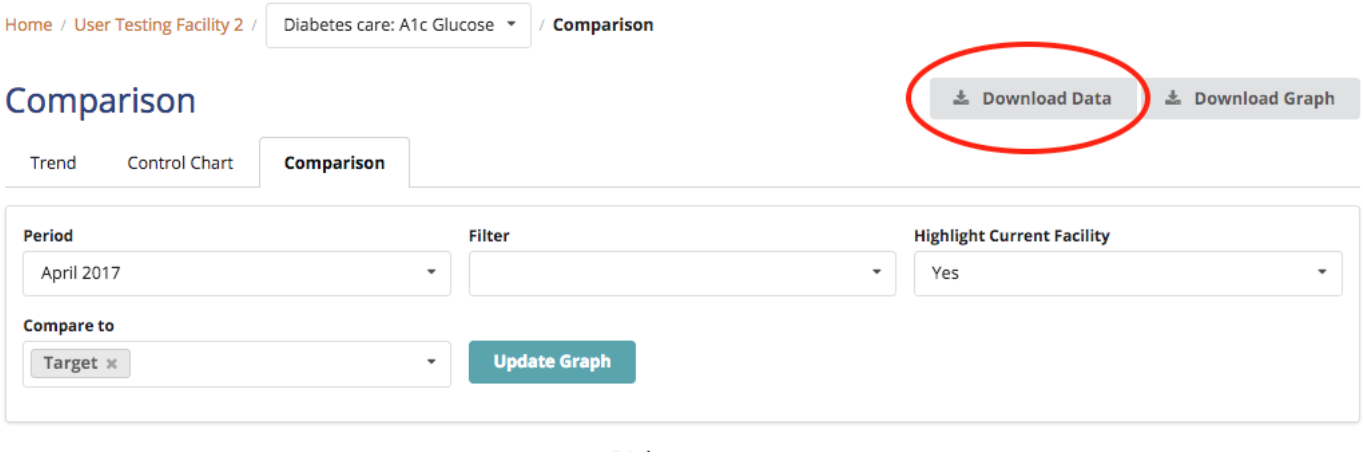
9.

Downloading Graph Data

Graph data can be downloaded as a PNG by clicking the upside-down triangle in the upper right corner of graph pages.



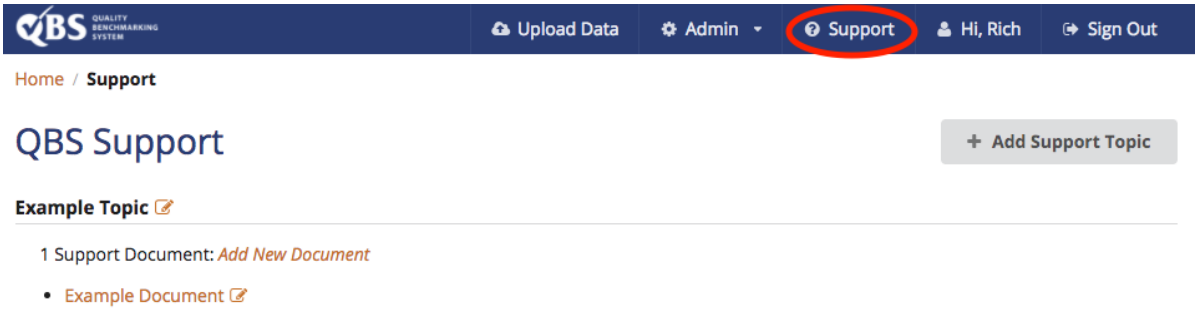
Graph data can also be downloaded as a comma-separated-value file (CSV) for further analysis by clicking the “Download” button in the upper right corner of the screen.



Support Documents

Administrators have the ability to create Support Documents, which contain an uploaded file or a link to an external resource. A document must be associated with a single support topic—as such, at least one Support Topic must exist before creating a document.

Facility users can view Support Documents by clicking the Support link in the navigation bar.

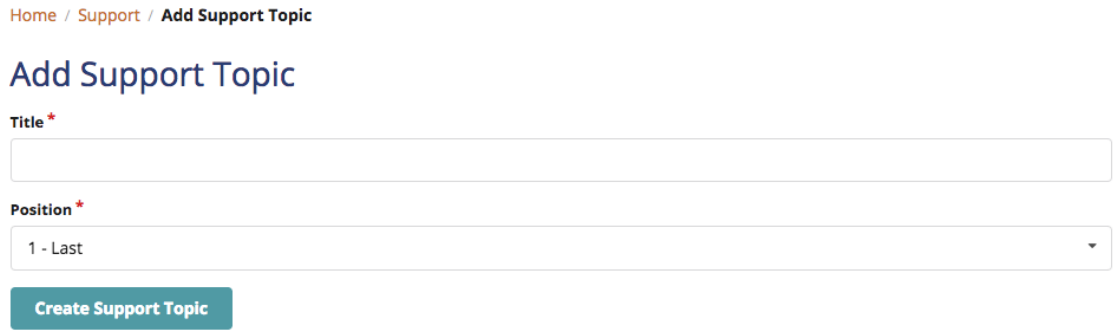


Creating a Support Topic

1. Sign in to QBS as a user with at least one WSHA-level authorization.
2. Select Admin > Support Documents from the navigation menu.

3. Click “Add Support Topic” button.

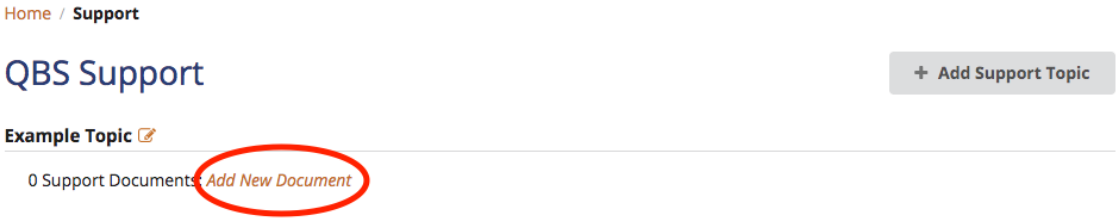
4. Enter all desired fields (required fields are marked with an asterisk).



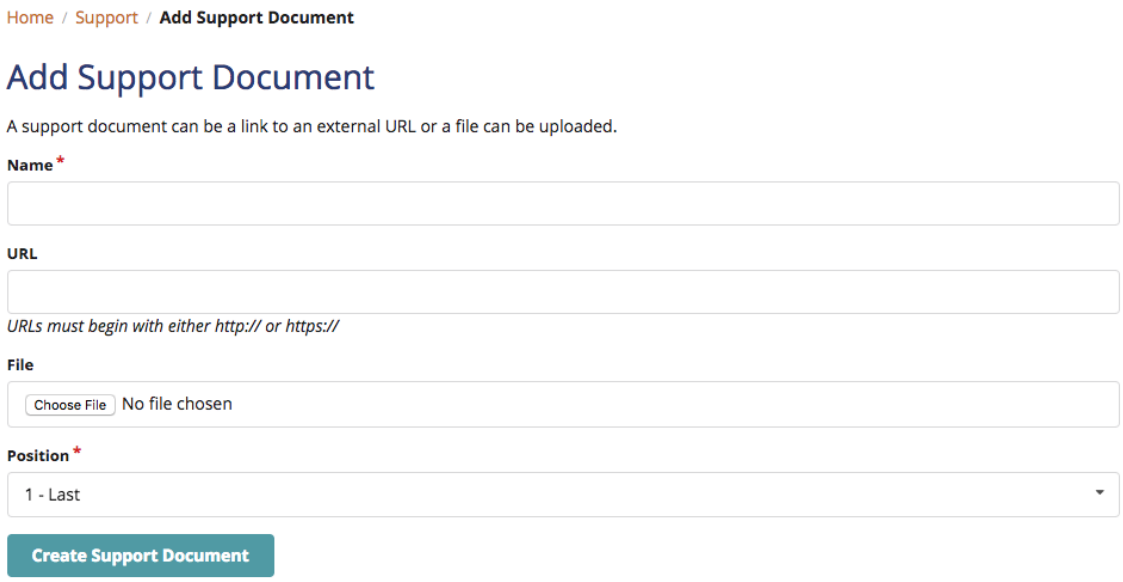
5. Click the “Create Support Topic” button.

Creating a Support Document

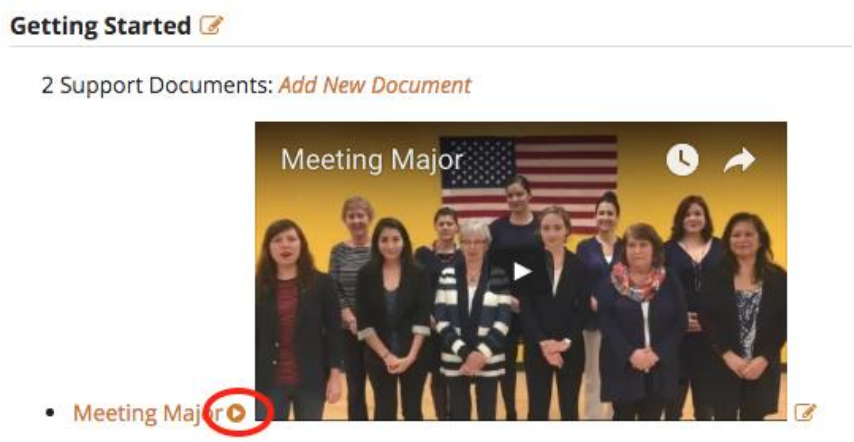
1. Sign in to QBS as a user with at least one WSHA-level authorization.
2. Select Admin > Support Documents from the navigation menu.
3. (Optional) Create a Support Topic for the document if a relevant topic does not exist.
4. Click “Add New Document”.



5. Enter all desired fields (required fields are marked with an asterisk). You can enter a web address in the URL field **or** upload a file from your computer by clicking “Choose File”. If you enter the URL to a *YouTube* video, QBS will automatically detect the video and it will be viewable directly from the QBS homepage.



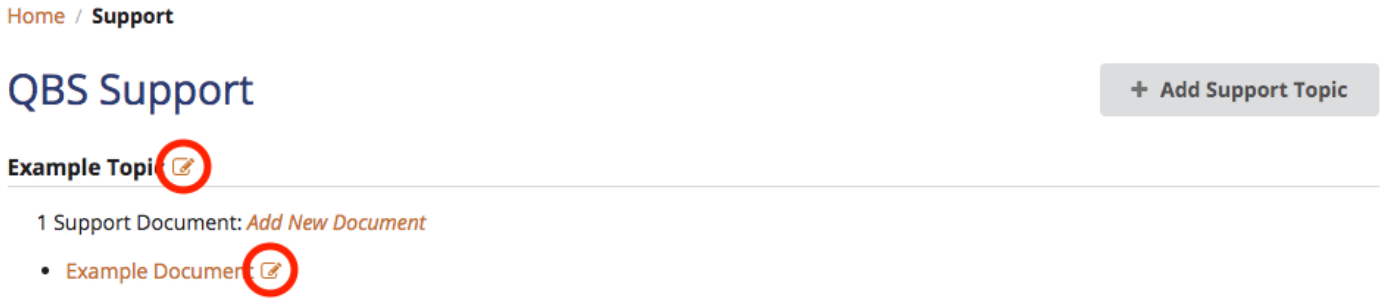
6. Click “Create Support Document”
7. Note that if the URL was a link to a YouTube video, a play icon will be visible next to the support document’s name. If the icon is clicked, the video will appear inline and can be viewed directly in the browser window.



Editing a Support Topic or Support Document

1. Sign in to QBS as a user with at least one WSHA-level authorization.
2. Select Admin > Support Documents from the navigation menu.

3. Click the edit icon next to the Support Topic or Support Document that you wish to edit.



4. Update all desired fields (required fields are marked with an asterisk) and click “Update Support Topic” or “Update Support Document”.

Redshift Syncing

On an ongoing basis, QBS sends both facility and measure submission extract data to Redshift. As a WSHA user, extracts and extract generation history can be viewed.

Viewing the Redshift Extract History

1. Select Admin > Redshift Sync from the navigation menu. Note that if an extract file had no data, it is hidden by default—to view these hidden files, you can click the “Show periods with no changes” link.

Downloading a Redshift Extract

1. Select Admin > Redshift Sync from the navigation menu.
2. Click the “Line Count” link for any extract file with data to download it.