Health Tracker Product Guide

Overview

The Patient and Consumer Health Portal offers a Patient Generated Health Data feature titled the Health Tracker. This feature allows portal users to view history and trends of tracked measures relating to their health. That data is either gathered and submitted by a third party single interface (e.g., Validic) acting as a conduit for a variety of mobile health applications (e.g., iHealth, Fitbit, etc.), or entered manually by the portal user.

The primary features of Patient Generated Health Data, or Health Tracker, are:

- Users may select from a customer-defined set of health measures eligible to track. Once selected, values for each measure will be gathered and presented to portal users via the Health Tracker feature on the Portal. The following measures are supported:
    - Blood glucose
    - Blood pressure
    - Calories burned
    - Distance
    - Height
    - Oxygen Saturation
    - Pulse
    - Steps
    - Weight
- Measurements may be gathered and integrated automatically from the following external applications:
    - Biomedtrics
    - BodyTrace
    - Fitbit
    - Fitbug
    - FitLinxx ActiPressure
    - FitLinxx ActiScale
    - FitLinxx Pebble
    - Garmin Wellness
    - iHealth
    - Jawbone Up
    - Misfit Wearables
    - Movable
    - MovesApp
    - Lumo
    - Qardio
    - Telcare
    - Withings

- For non-aggregated measures (eg Calories Burned, Distance, and Steps) values may also be entered manually on the portal.
- History of values for a given measure will be displayed in an interactive reverse chronological list, associated with a dynamic graph.

Networking Setup

Customer's Background Job Server and Web Server

In order to use the interfaces required for the Health Tracker feature, access to api.validic.com, app.validic.com, and api-client.validic.com is required. This is usually a change to the firewall done by the customer's IT staff or their hosting service. The specific IPs are as follows:

NOTE: IP addresses may change/expand as Validic expands their servers. (Note: ACS should work with Validic on keeping this list current)

API

- 52.8.123.218 (api-1.validic.com)
- 52.8.177.218 (api-2.validic.com)
- 52.9.6.199 (api-3.validic.com)
- 52.9.72.110 (api-4.validic.com)

API-CLIENT

- 52.8.102.142 (api-client-0.validic.com)
- 52.8.126.145 (api-client-1.validic.com)

APP

- 52.9.83.30 (app-0.validic.com)
- 52.9.83.71 (app-1.validic.com)
- 52.9.32.87 (app-2.validic.com)

PUSH-NOTIFICATIONS

- 52.9.31.10 (push-ext-0.validic.com)
- 52.8.244.19 (push-ext-1.validic.com)

Additionally, SHA-2 integration must be supported by MEDITECH.

Background Job Process

The “RetrievePGHDValidic” background job is required to retrieve data from Validic. If it is not running, restart the background job daemon.

NOTE: The background jobs are not directly linked to the Toolbox Parameters settings and should be disabled independently in the event that a customer does not wish to use Health Tracker. To fully disable the Health Tracker feature, two actions must be taken:

- In the Toolbox Parameters, the Enable Health Tracker field must be set to No.
- The PGHD background jobs must be disabled.

Client Side Certificates

Client side certificates are a way of adding another level of security between the client requesting data from a PGHD vendor and the PGHD vendor's server (Validic). The client in this case will usually be a server at the enterprise’s site but could be any machine requesting PGHD data.

The enterprise's IT staff creates a TLS key pair and a Certificate Signing Request (CSR). The CSR is sent to Validic for signing. Once it is signed, then the IT staff installs the bundled keys and signed certificate on all machines that need to make requests to Validic. These machines currently are the background job server, the web server, and the network services server.

We strongly recommend using client side certificates especially in the customer's live environment. The certificates must be set up by the customer (under our instructions if needed). For security reasons we do not want to have knowledge of the keys and passwords used in creating the certificates.

Configuring the Environment

Initializing PhmPghd Objects

To populate the options available on the Health Tracker page in the PHM Toolbox Parameters, a few PhmPghd objects must be initialized

Meditech Staff > FOC > Manage Source Code

- App: PHM
    - Object: PhmPghdApp
        - Source Code: PhmPghdApp.Initialize.S
        - **Initialize all Apps except Homelink**
    - Object: PhmPghdItem

- Source Code: PhmPghdItem.Initialize.S
- Initialize all Items.
- Object: PhmPghdSource
  - Source Code: PhmPghdSource.Initialize.S
  - Initialize all Sources.

PHM Toolbox Parameters

There is a new parameter on the Features page that affects the Health Tracker feature.

- Enable Health Tracker

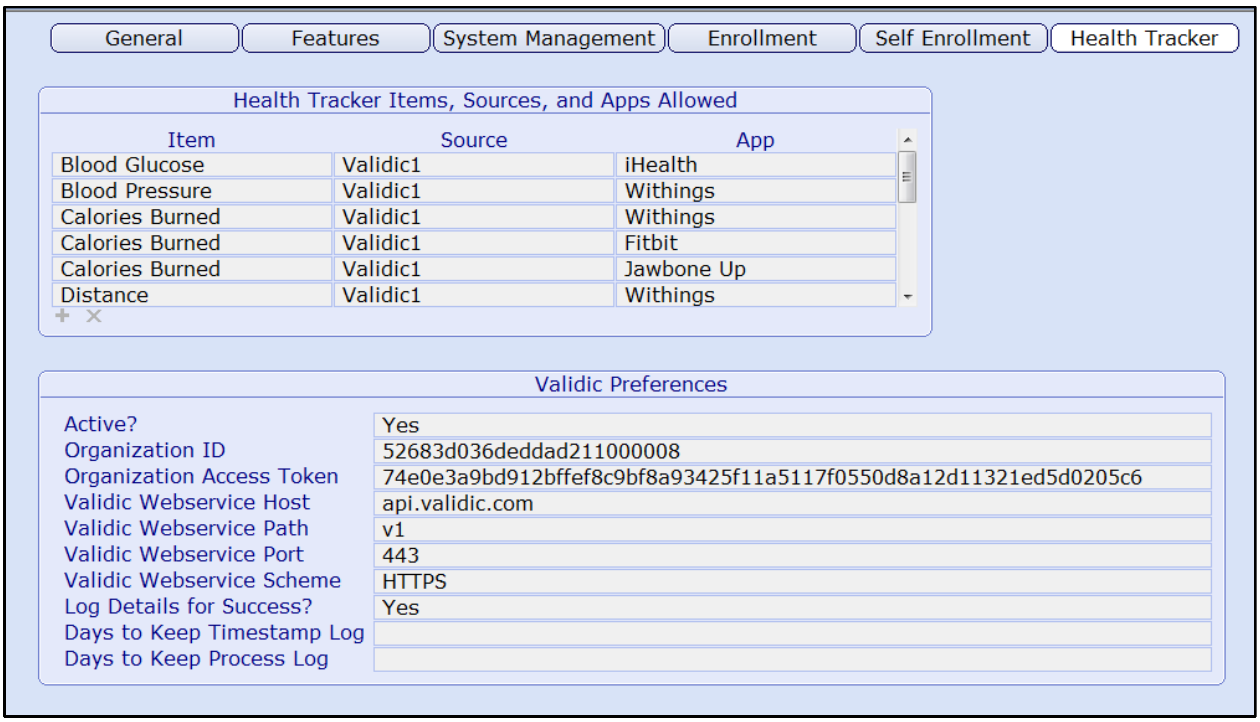
Toolbox Parameters: Enable Health Tracker

This parameter can be set to "Yes, for all patients", "Yes, for select patients", or "No". If this parameter is set to No, the Health Tracker page will not be displayed or accessible on either the Desktop or Smartphone Patient Portal. The new Health Tracker page within the Toolbox Parameters will also not be accessible.

If this parameter is set to "Yes, for all patients" or "Yes, for select patients", a new Health Tracker page will be available in the PHM Toolbox Parameters.

- If this parameter is set to "Yes, for all patients", the Health Tracker page will be accessible on the Desktop and Smartphone portals via the Home page for all patients
- If this parameter is set to "Yes, for select patients", the Health Tracker page will be accessible on the Desktop and Smartphone portals via the Home page only for those patients that have been specifically configured with the ability to access this feature.

Toolbox Parameters: Health Tracker page



Log Details for Success - (default = "N")

If set to "Y", even if there are no errors, the warnings and successes will still be inserted into the Process Log.

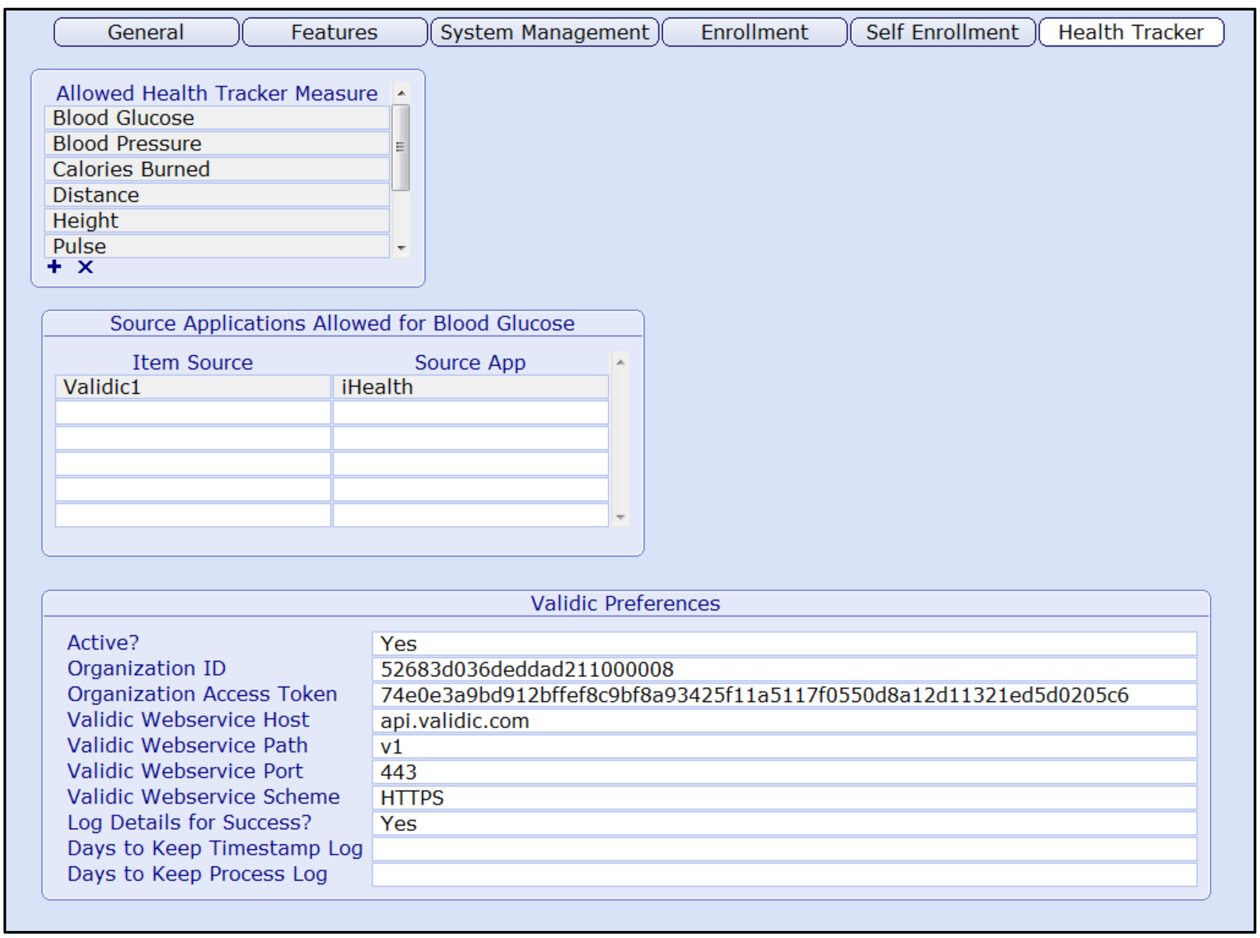
Days to Keep Timestamp Log - (default = 90)

There is a log that gets updated with the current time every time data is requested of Validic. This log is used to avoid asking for data from Validic we already know about. This is how long to hold a history of changes to this marker.

Days to Keep Process Log - (default = 60)

This log holds the information about what we did with entries received from Validic. It shows how many and what types of entries were received, and logs errors when we were unable to file away the data internally. An example of its usefulness is that it can be used to see why data from Validic was rejected and not inserted into the PGHD database. This is the log file the program "Phmpghd.BgProcess.LogViewer.S" uses to display data.

The Health Tracker page facilitates the management of the Health Tracker feature as manifested on the Patient Portal. Specifically, this page contains the indexes by which the measures eligible to be tracked are defined, as well as the potential application and interface sources of each measure, and a panel containing preferences for each interface.

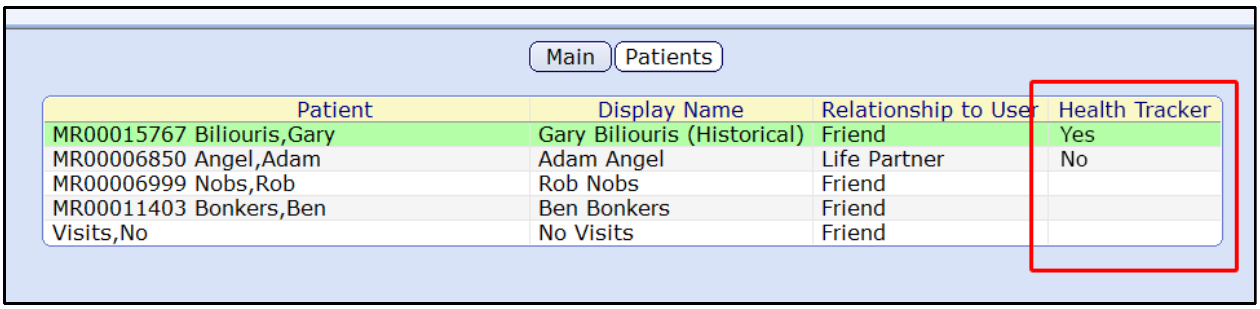


- The following information is provided by ACS:
  - Organization ID
  - Organization Access Token
- The following information is configured by IT during networking setup:

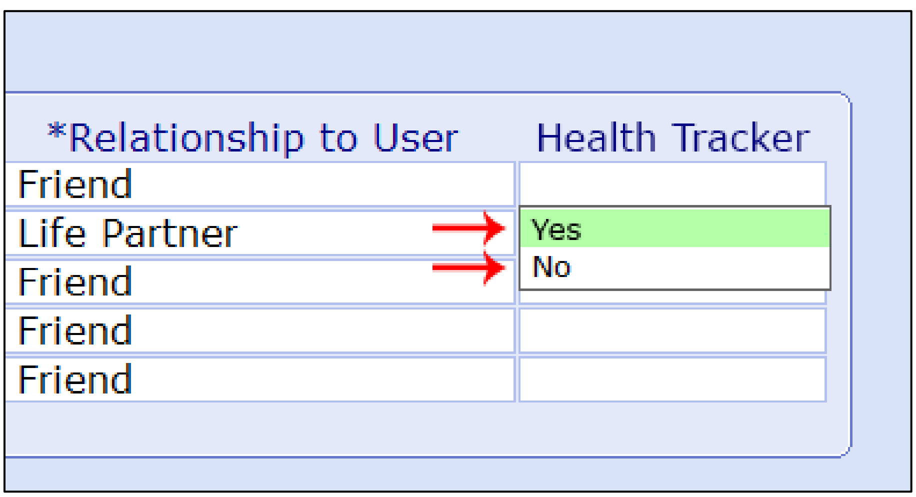
- Validic Webservice Host
- Validic Webservice Path
- Validic Webservice Port
- Validic Webservice Scheme

Enabling the Health Tracker feature for select patients

When Enable Health Tracker is set to "Yes, for select patients" in the PHM Toolbox Parameters, an additional field is available in the Manage Users routine on the Patients page. This field is used to enable the Health Tracker feature at the patient level.



The field, which appears under a new column titled "Health Tracker", determines whether or not the Health Tracker is presented to the portal user when accessing the associated patient. If the field is set to No or left blank, the feature will not be available for that patient.



This additional column is suppressed in both View and Edit mode if Enable Health Tracker is set to "No" or "Yes, for all patients".

NOTE: If Enable Health Tracker is left blank, set to "No", or "Yes, for all patients" in the Toolbox parameters, these patient-specific settings will be ignored in favor of the global parameter.

Content Parameters

With the Health Tracker product come a number of new Content Parameter entries that populate on the desktop and smartphone portal Health Tracker pages.

- HEALTHTRACKER: Displayed on the desktop portal Health Tracker page.
- HEALTHTRACKERHISTORY: Displayed on the desktop portal Health Tracker History page.
- HEALTHTRACKERSETTINGS: Displayed on the desktop portal Health Tracker Settings page.
- HEALTHTRACKERSETTINGSMOBILE: Displayed on the smartphone portal Health Tracker Settings page.
- HEALTHTRACKERAPPSELECTION: Displayed on the desktop and smartphone portal Health Tracker App Selection page.

Health Portal User Experience

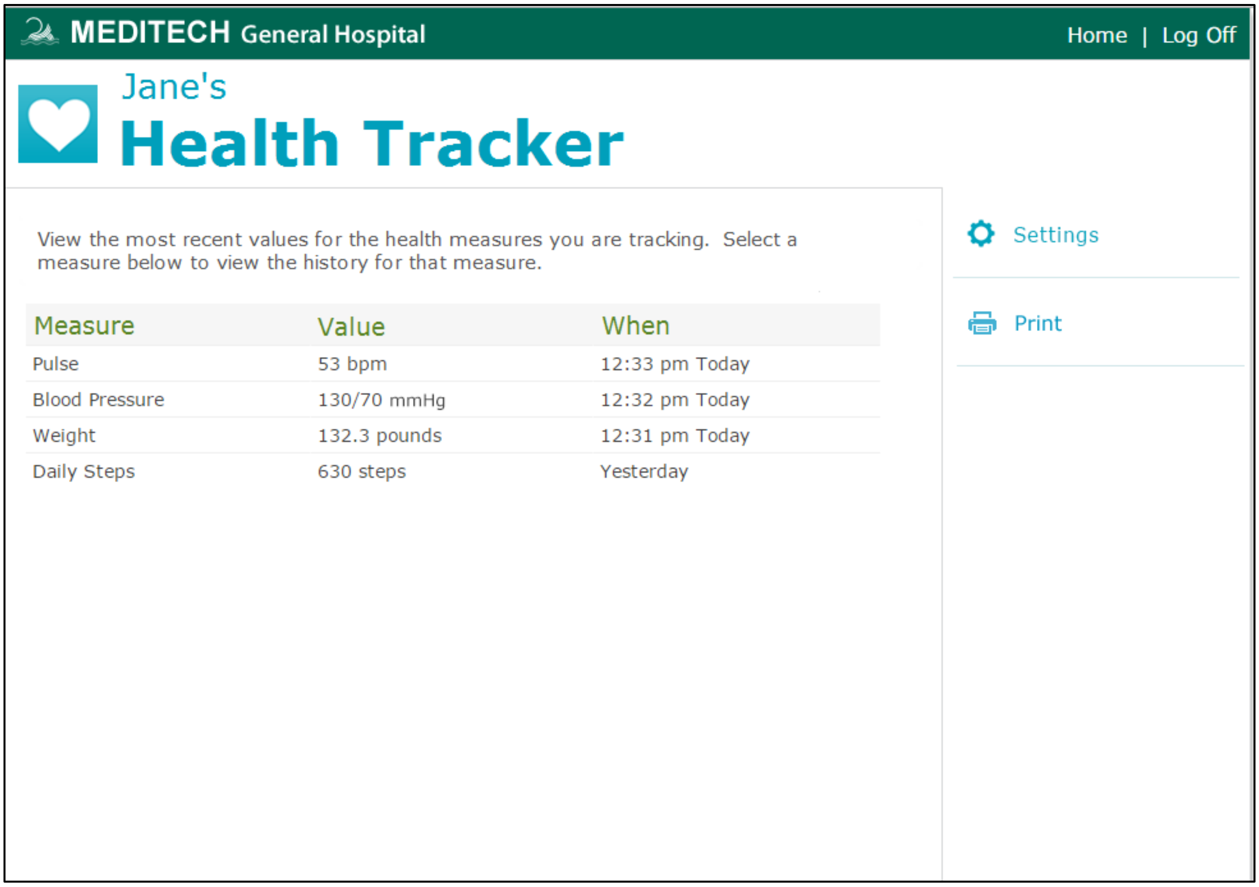
The Patient and Consumer Health Portal provides a user interface through which the tracked health measures can be reviewed, in the form of a new page family titled Health Tracker. In order to access this feature, the Enable Health Tracker field in the Toolbox Parameters must be set to 'Yes, for all patients' or 'Yes, for select patients'.

Desktop Portal

To access the Health Tracker page, the user will click on a new button on the Home page labeled 'Health Tracker'. This Health Tracker button replaces the previously existing Medications button; however, the Medications pages will still be accessible via the Health Record page. If the Health Tracker feature is not enabled, the Medications button will be displayed.

Health Tracker page

The Health Tracker page displays a snapshot of all health measures the portal user has chosen to track. Users can customize what measures show up on this page by checking off the desired measures on the Settings page.



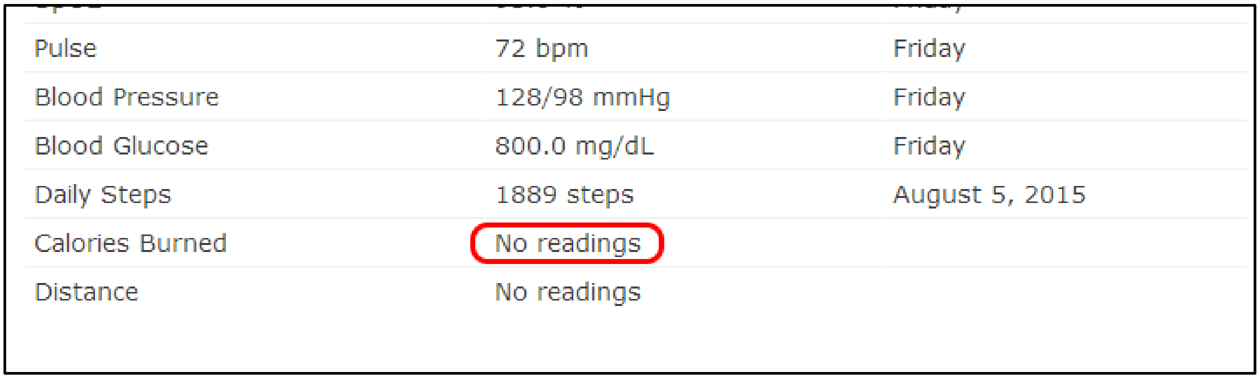
At the top of the page, there is a set of text instructions driven by the HEALTHTRACKER entry in the Content Parameters dictionary. This text can either be the standard text delivered with the product, or custom text developed by the MEDITECH customer, depending on what is defined in that dictionary.

Upon entry, the measures are listed in reverse chronological order based on the date and time of the most recent value. Each row in the table displays information specific to the measure:

- Name of the measure
- Most recent value available for the associated measure, along with the units
- Time the value was recorded.

This information is populated underneath three columns labeled 'Measure', 'Value', and 'When'. Portal users may also click on these columns to sort the rows alphabetically.

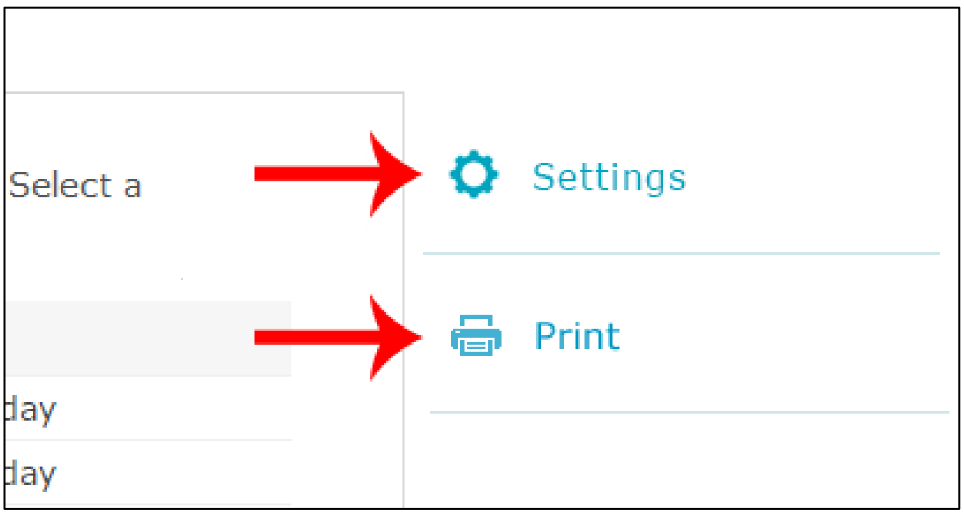
The measures displayed on the Health Tracker page are those that have been manually selected by the user. If a measure has been selected, but no values have yet been documented, the Value column will display "No readings". No timestamp will be displayed in this case.



Pulse	72 bpm	Friday
Blood Pressure	128/98 mmHg	Friday
Blood Glucose	800.0 mg/dL	Friday
Daily Steps	1889 steps	August 5, 2015
Calories Burned	No readings	
Distance	No readings	

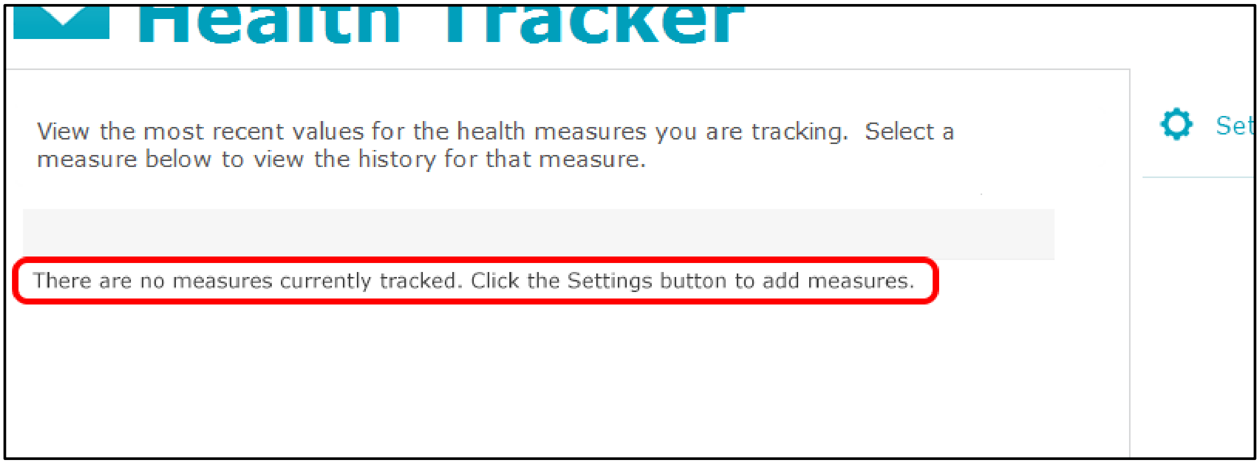
Clicking on the row for a given measure will take the user to the History page for that measure.

There are two navigation buttons displayed on the right-hand side:



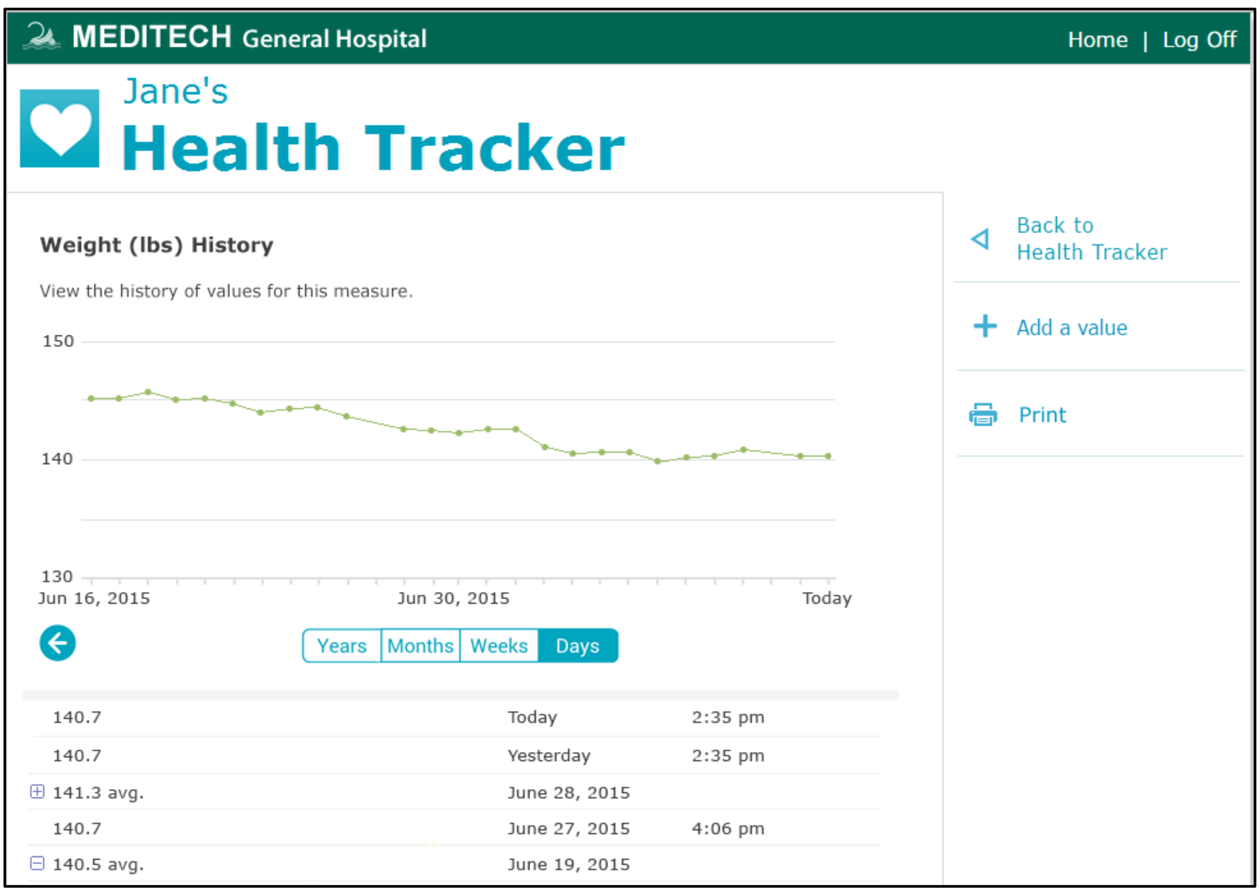
- **Settings**: This button will take the user to the Settings page, where the user can choose what measures they wish to track, and navigate to additional configuration routines
- **Print**: This button will open a print-friendly version of the Health Tracker page, and launches the browser's Print dialogue.

If no measures have been selected, a prompt is displayed in lieu of the table: "There are no measures currently tracked. Click the Settings button to add measures."



History page

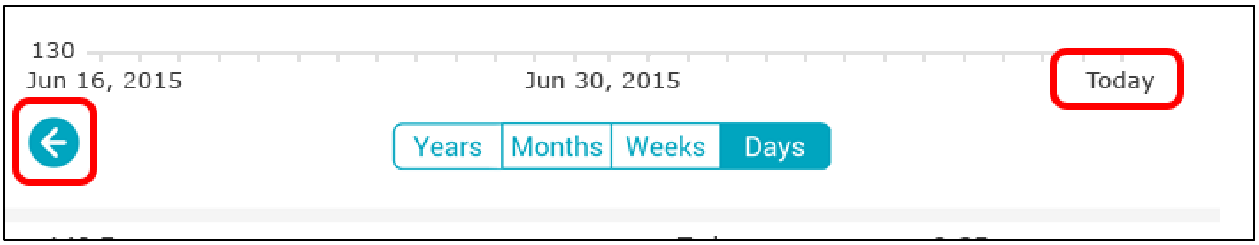
The Health Tracker History page displays an interactive graph that demonstrates the trend of the selected measure, as well as a complete history of values in reverse chronological order.



At the top of the page, there is a set of text instructions driven by the HEALTHTRACKERHISTORY entry in the Content Parameters dictionary. This text can either be the standard text delivered with the product, or custom text developed by the MEDITECH customer, depending on what is defined in that dictionary.

Under the instructions, the graph is displayed. Users can change the resolution of the graph; in other words, the graph can be zoomed in or out by the user via the "Years", "Months", "Weeks", and "Days" toggle beneath the graph. Users can also use the left and right arrows underneath the graph to move forward and backward in time. This allows users to analyze the trend over time.

However, navigation through the graph cannot move past the current day. The right-hand arrow will be suppressed once today's date is represented as the leftmost point on the graph.



Beneath the graph and resolution toggle, a complete history of values is displayed in reverse chronological order. The values will be grouped and averaged by intervals driven by the toggle–i.e., if viewing the Months resolution, each row will represent an average of all values documented per month (An average for all values in July will be displayed in the row for July, an average for all values documented in June will be displayed in the row for June, and so forth).

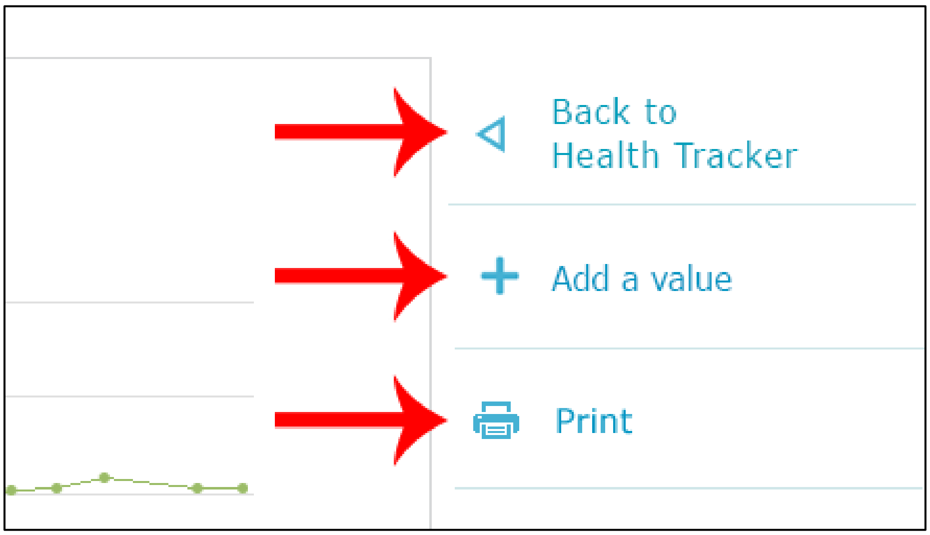
These averaged rows behave like collapsed accordions, so that each can be expanded to show the complete list of discrete values associated with that interval (e.g., one year, one month, one week, or one day).

This method of organization helps to align the value list to what is graphed above, since the value of each point on the graph will match the value of one (collapsed) row.

Users can click on the ⊞ icon to expand the row, and see a complete list of discrete values for that day, week, month, or year (depending on the selected toggle).

Complete details for each discrete value can be reviewed by clicking on the row for that value to access the Value Details window.

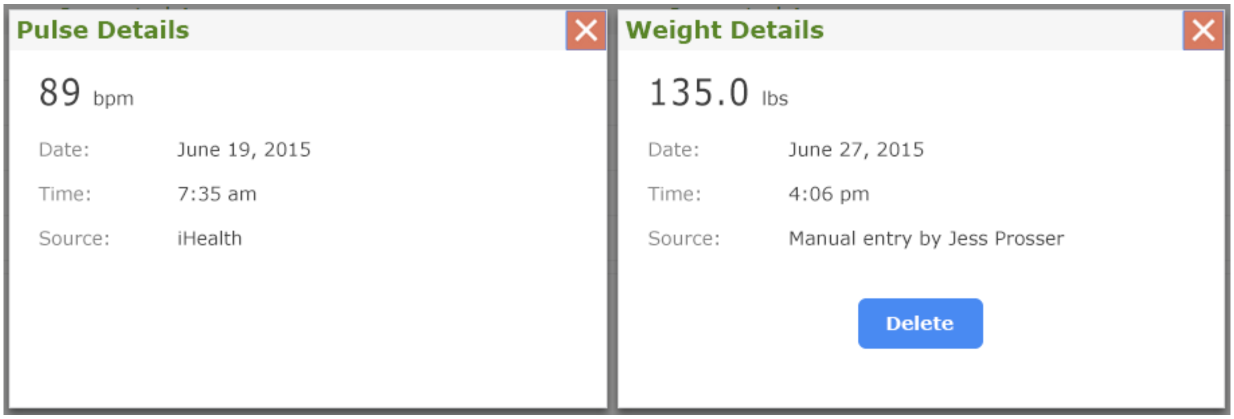
There can be either two or three navigation buttons displayed on the right-hand side:



- **Back to Health Tracker**: This button will take the user back to the Health Tracker page.
- **Add a value**: The button will pop up the Add Value window.
    - This button is suppressed for aggregated measures such as Daily Steps, Calories Burned, and Distance.
- **Print**: This button will open a print-friendly version of the Health Tracker History page, and launches the browser's Print dialogue.

Value Details window

When a user clicks on a value row on the History page, the Value Details window will pop up. This window contains all available information about the selected value.

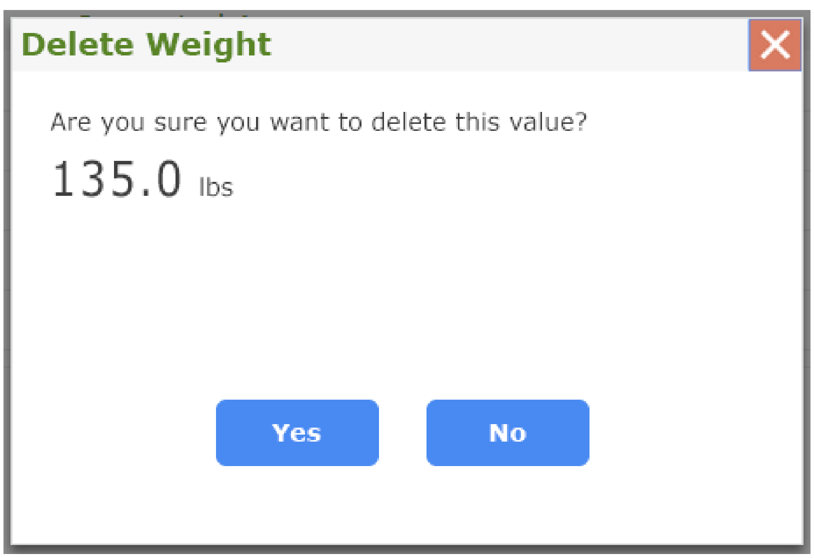


The Value Details window displays all the information associated to the selected value that is available and relevant:

- Date and time the value was recorded
    - NOTE: Time is not displayed for aggregated measures such as Daily Steps, Calories Burned, and Distance.
- Source of the value (i.e., was the value entered manually, or gathered from a mobile app)

If the value was entered manually, there will be an option to delete it. For values that were collected from mobile apps, the Delete button is not available; users will have to delete those values using the mobile app.

After clicking the Delete button, a confirmation will be displayed.



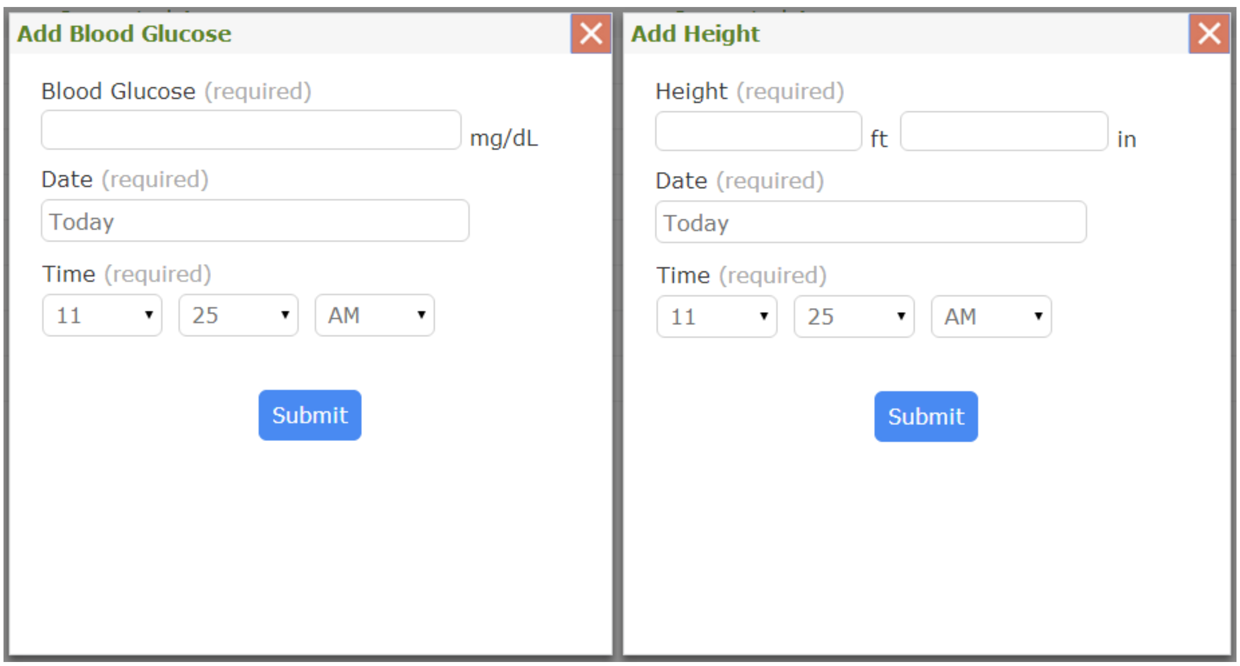
At this point, users can click Yes, click No, or close the window. The value will be permanently deleted ONLY if the user clicks 'Yes'. If the user clicks 'No' or closes the window, the value will not be deleted.

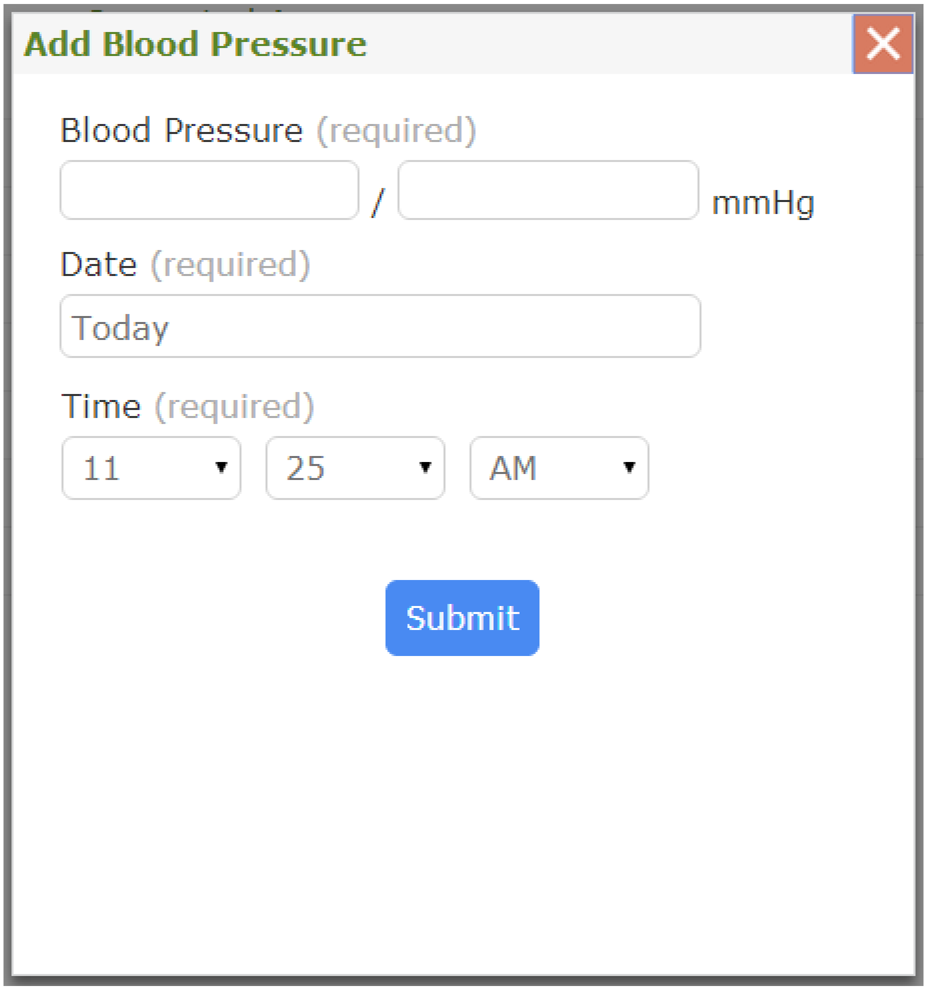
- If the Yes button is clicked, the user will be returned to the History page for the selected measure. The deleted value will no longer be displayed in the history of values or represented in the graph.
- If the No button is clicked, the user will be returned to the Value Details window.
- If the Delete Value window is closed, the user will be returned to the History page for the selected value. The value will not have been deleted in this case.

NOTE: Once the 'Yes' button is clicked, the deleted value cannot be recovered; however, it can be re-entered manually.

Add Value window

The Add Value window contains a form to be filled out by the user when entering a value manually.





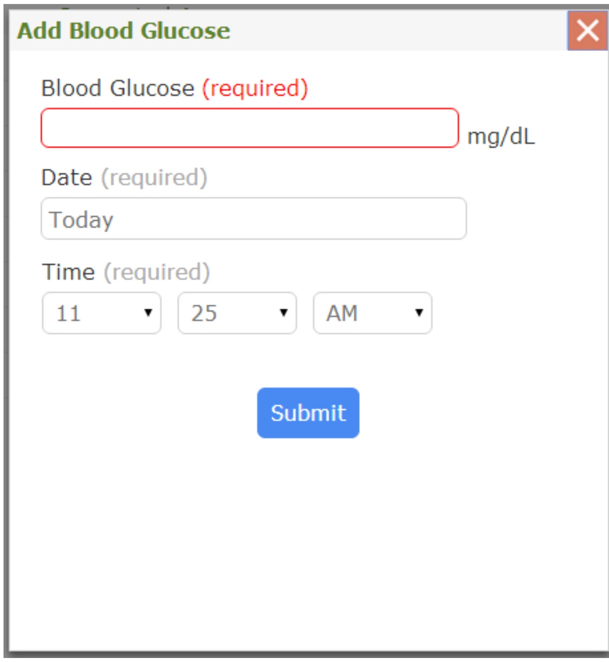
The Add Value window form requires the following information:

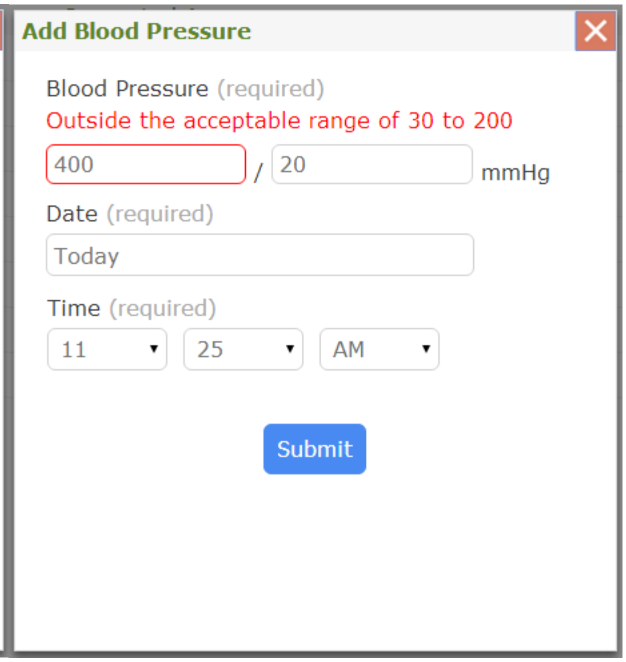
- Value
- Date
- Time

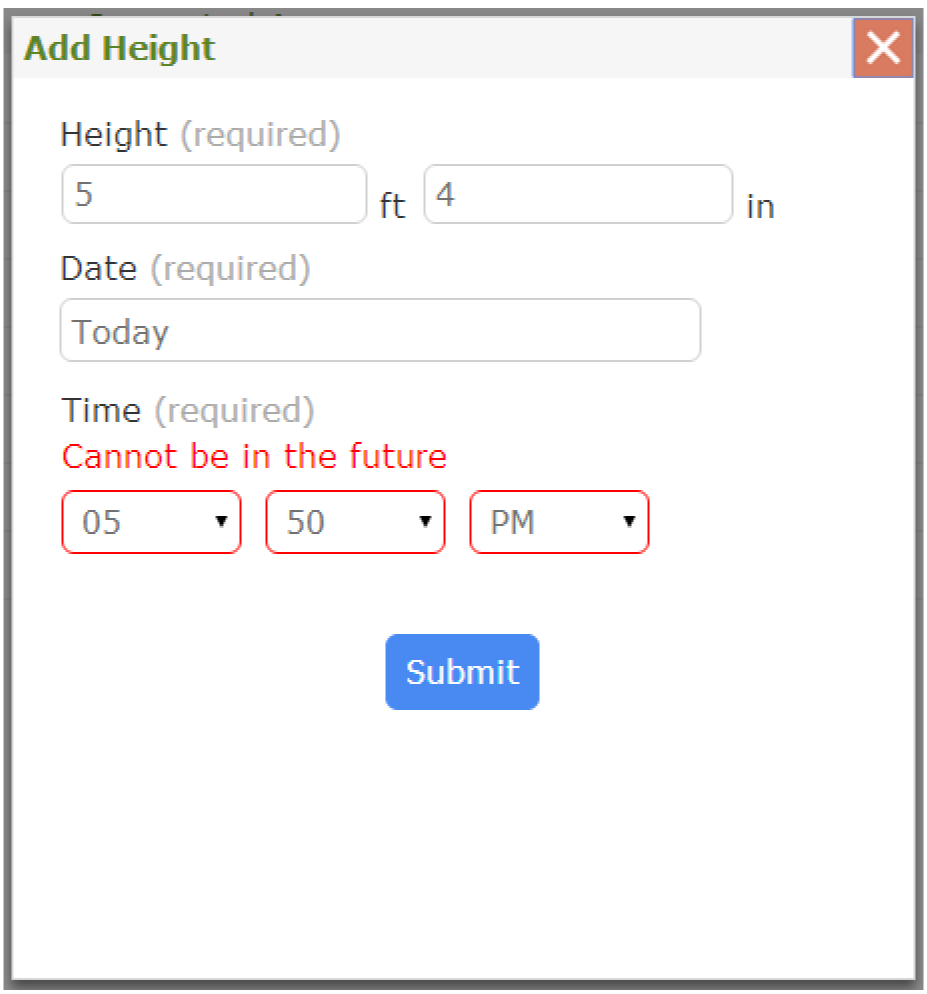
Additionally, there are a set of integrity checks in place to prevent users from entering values in error.

- Users cannot submit the form without entering a value.
- An acceptable range has been defined for each measure type. Values outside the acceptable range will trigger an error.
- Values can cannot be entered for a date or time in the future.

If any of these checks fail when the user clicks 'Submit', an error message will be displayed.


Add Blood Glucose
Blood Glucose (required)
mg/dL
Date (required)
Today
Time (required)
11
25
AM
Submit

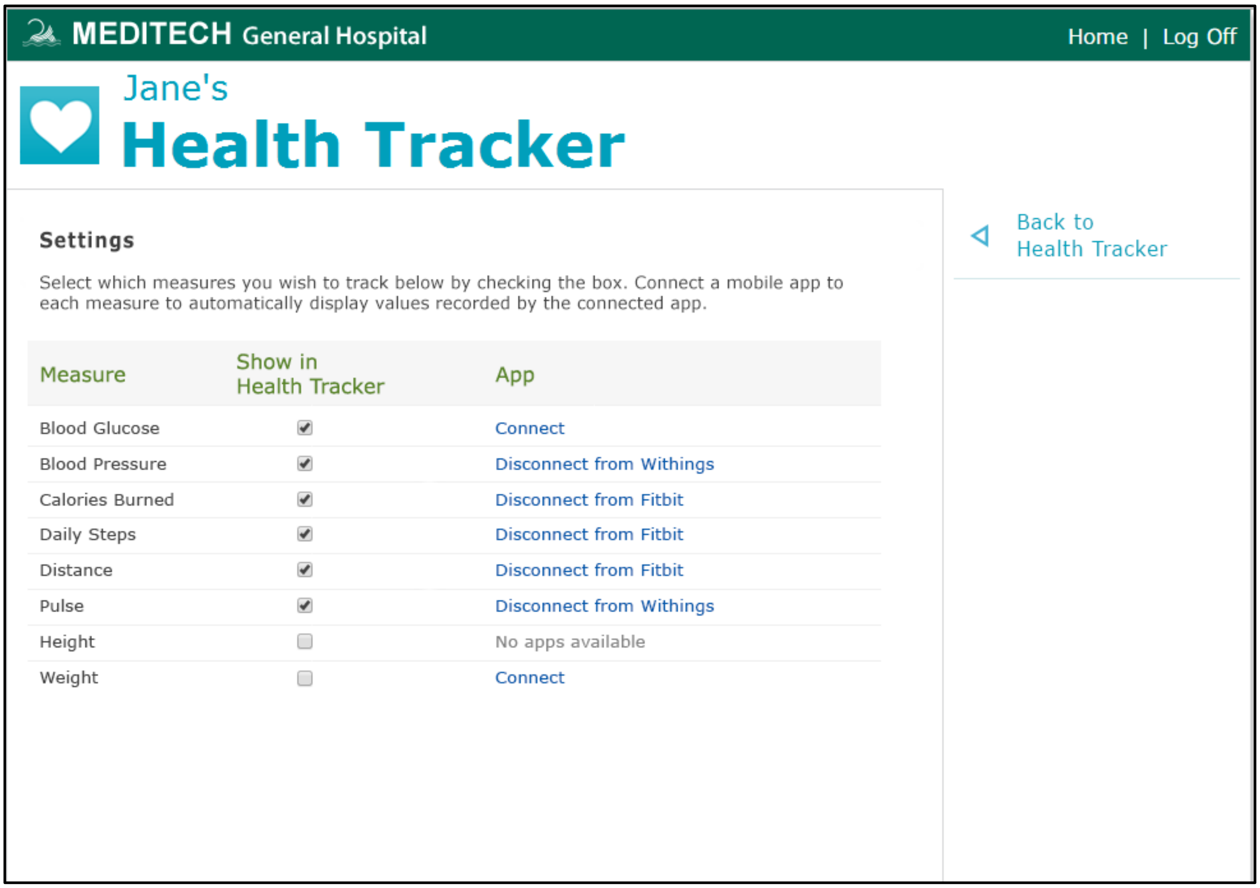

Add Blood Pressure
Blood Pressure (required)
Outside the acceptable range of 30 to 200
400
/
20
mmHg
Date (required)
Today
Time (required)
11
25
AM
Submit


Add Height
Height (required)
5
ft
4
in
Date (required)
Today
Time (required)
Cannot be in the future
05
50
PM
Submit

Once the 'Submit' button is clicked and there are no errors, the user is returned to the History page, and the value will now be included in the history and represented in the graph.

Settings page

The Settings page displays a widget containing all measures that have been configured in the Toolbox parameters and can be selected by the user for tracking. Users can check or uncheck measures to determine which are included on the Health Tracker page.



Portal users can also use the Connect and Disconnect links in this widget to link or un-link measures to a specific mobile application.

At the top of the page, there is a set of text instructions driven by the HEALTHTRACKERSETTINGS entry in the Content Parameters dictionary. This text can either be the standard text delivered with the product, or custom text developed by the MEDITECH customer.

Upon entry, the measures are listed in alphabetical order, with checked measures appearing before unchecked measures. Each row in the table displays information specific to the measure:

- Name of the measure

- A checkbox, used to select or unselect a measure to show on the Health Tracker page
- Either the Connect or Disconnect link, depending on whether the measure is currently connected to an app, and the mobile app currently used to record data for the measure, if one has been connected.
    - If the measure cannot be connected to any apps, this column will display a prompt: "No apps available"

This information is populated underneath columns labeled 'Measure', 'Show in Health Tracker', and 'App'.

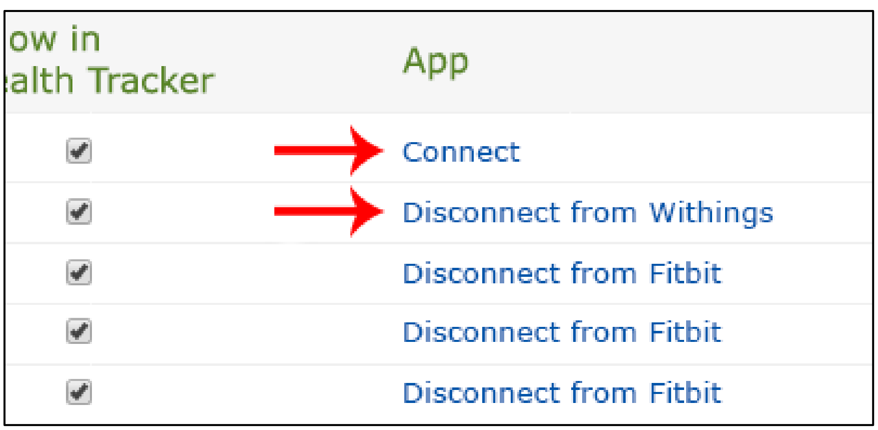
There is one navigation button displayed on the right-hand side:

- **Back to Health Tracker**: This button will take the user back to the Health Tracker page.

Checkbox behavior

- Only those measures that are checked off will be included on the Health Tracker page
- Any measure that has not been checked off will not appear on the Health Tracker page, even if there is a history of values for that measure.
- Any amount of measures can be checked or unchecked.
- If the user connects an app to an unselected measure (i.e., the measure is not checked off upon entry to the Settings page), the measure will be automatically checked off.

Connecting to an app



Users can connect an app to a measure that has no apps currently connected by clicking the Connect link. Clicking the Connect link will take the user to the App Selection page. If a measure has a connected app, users can click the Disconnect link to immediately un-link the app.

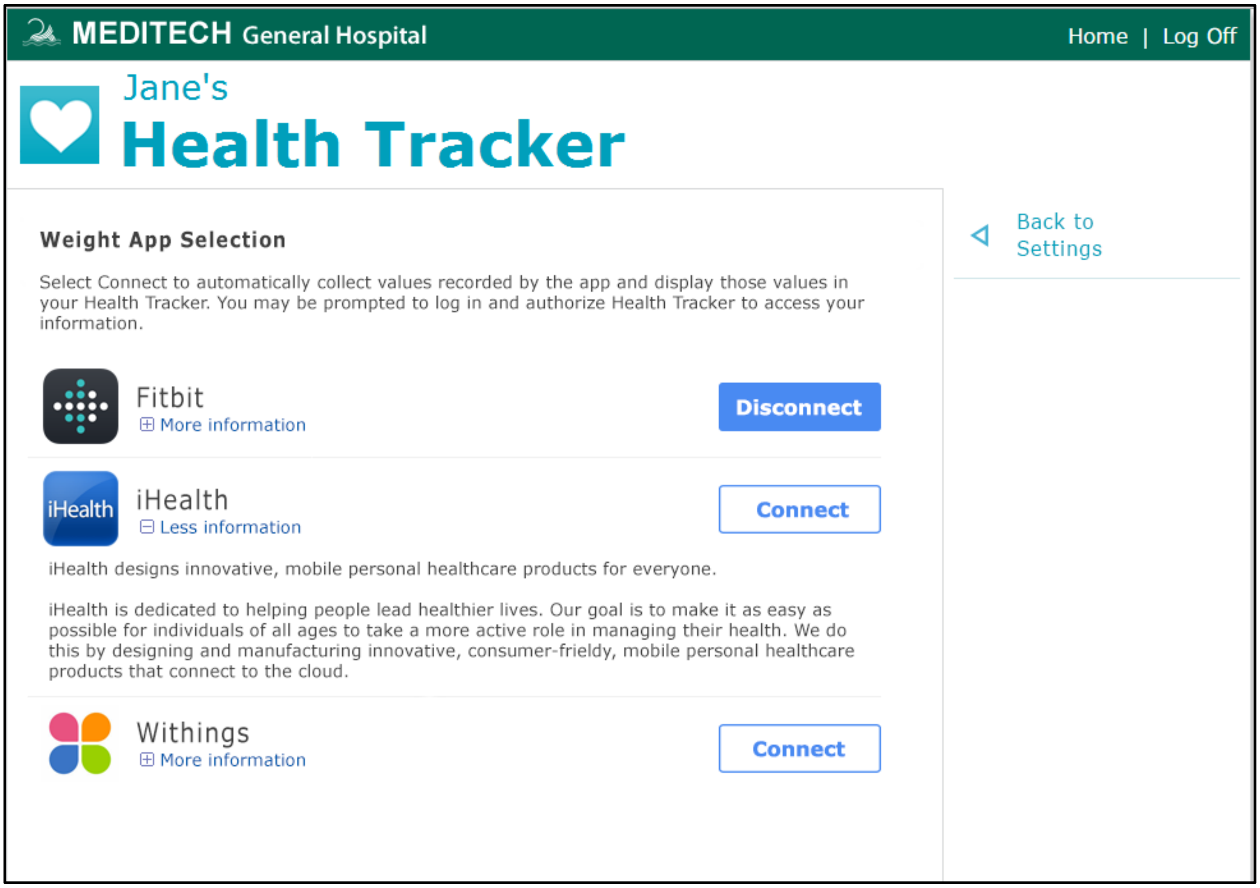
- A variety of apps are available that can be connected to measures. See Overview for a complete list.

- If a user connects an app to a measure, any values recorded by that app will automatically flow to the Health Tracker, and be integrated into the history of values for that measure.
- Some measures may not be eligible to connect to an app. This may occur because none of the apps are configured to track that particular measurement type.

- A measure cannot be connected to more than one app. However, the same app can be connected to multiple measures.

App Selection page

The App Selection page contains a list of all apps that can be connected to the selected measure. Users can click the Connect button to initiate the connection process, or click Disconnect to sever the existing connection between the measure and an app. The widget also contains additional marketing prompts related to each app. These prompts are initially hidden, but can be viewed by clicking each app's 'More Information' link, which will expand the row to display the information.



At the top of the page, there is a set of text instructions driven by the HEALTHTRACKERAPPSELECTION entry in the Content Parameters dictionary. This text can either be the standard text delivered with the product, or custom text developed by the MEDITECH customer.

All supported apps that can record values for the selected measure are displayed here in alphabetical order, with the currently connect app sorted to the top of the list. Each row in the list contains information associated with a specific app:

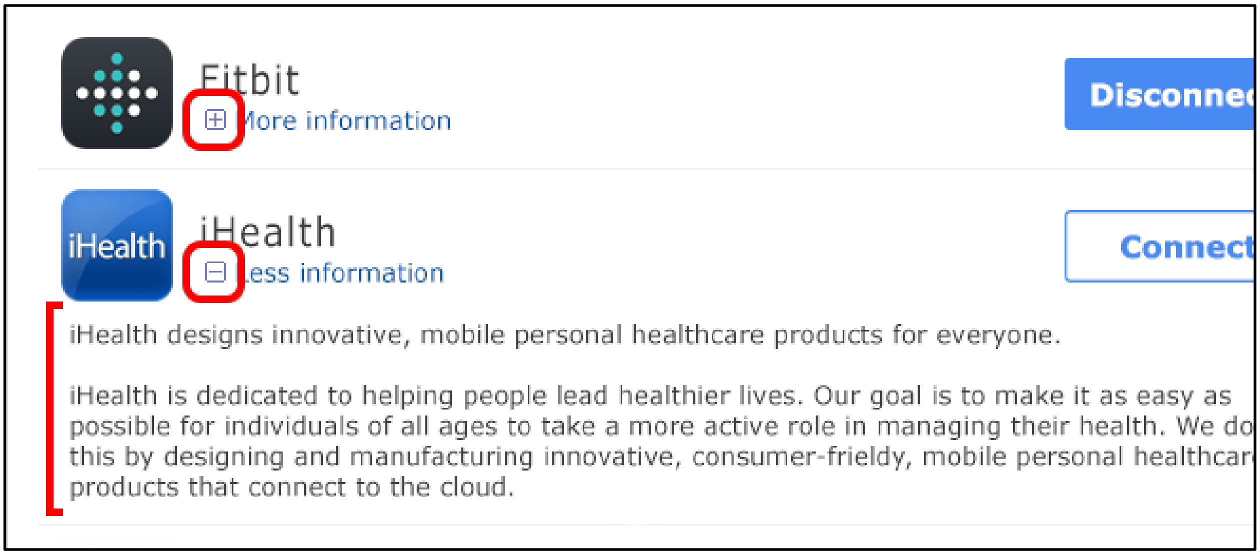
- A branding icon (the image is provided by the third-party interface that facilitates communication between Health Tracker and each app, e.g., Validic)
- Name of the app
- A More/Less Information link which, when clicked, displays a brief description, typically framed as a marketing advertisement for the app (the text is provided by the third-party interface that facilitates communication between Health Tracker and each app, e.g., Validic)
- A Connect button (if the app is not currently connected to the measure) or Disconnect button (if the app is currently connected to the measure)

There is one navigation button displayed on the right-hand side:

- **Back to Settings**: This button will take the user back to the Settings page.

Viewing app information

Each app has additional information associated that can be viewed under the More Information link. Upon entry to the page, all information will be collapsed, but users can expand these sections by clicking on the expand icon or More Information link text to read the description.

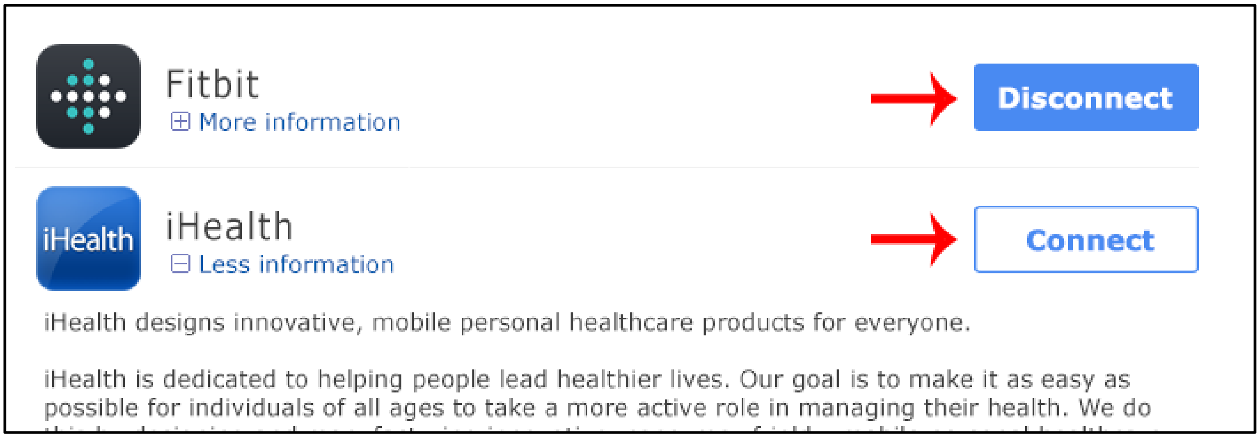


- When the accordion is collapsed, the description is not displayed. The link reads "More information" and uses a icon to indicate that the section can be expanded.
- When the accordion is expanded, the description is displayed underneath the app label and connection button. The link reads "Less information" and uses a icon to indicate that the section can be collapsed.

Connecting and disconnecting apps

The App Selection page allows the user to connect an app to the measure selected on the previous page (i.e., the measure for the row that contained the Connect link that was clicked on). No more than one app may be connected on this page. Apps that are not currently connected to the selected measure will display a button in the "Connect" state, while an app that is currently connected to the selected measure will display a button in the "Disconnect" state.

If there is an app currently connected, it will be automatically sorted to the top of the list.



Users can click the Connect button to establish a connection between the selected measure and the app of choice.

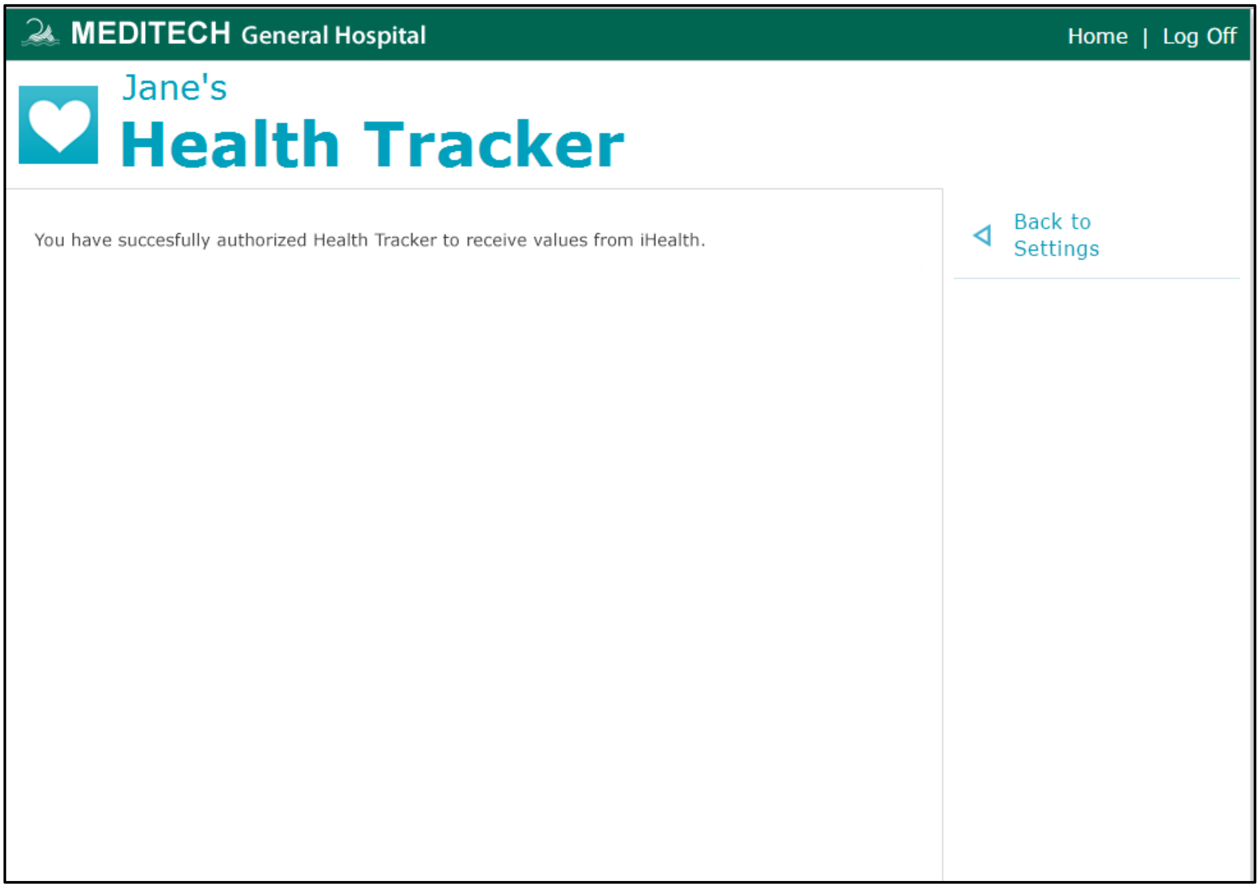
- Part of the connection process requires that the user has authorized Health Tracker to receive data from the desired app. If that has not yet been completed, when Connect is clicked, the user will be prompted to perform the authorization routine, which typically consists of logging in to the patient account for the app and accepting an agreement. Users will be routed back to this page when they have completed that process.
- If Health Tracker has already been authorized to receive data from the desired app, the connection will be made immediately. Once an app has been successfully connected, the button will change to the "Disconnect" state.
- If there was an app connected upon entry to the page, and a different app is connected, the button for the previously connected app will now be displayed in the "Connect" state–in other words, the previous app will be disconnected. If an app is automatically disconnected from a measure, and there are no other measures connected to the app, an automatic process will also rescind the authorization for Health Tracker to receive data from that app. As a result, if the user attempts to connect that app again, the authorization process must be performed again. This behavior is designed to minimize the continued unnecessary transmission of Protected Health Information (PHI).

Users can click the Disconnect button to sever the connection between the selected measure and an app.

- Once an app has been disconnected, any future values recorded by the app for the selected measure will not be displayed in the Health Tracker.
- If an app is disconnected from a measure, and there are no other measures connected to the app, an automatic process will also rescind the authorization for Health Tracker to receive data from that app. As a result, if the user attempts to connect that app again, the authorization process must be performed again. This behavior is designed to minimize the continued unnecessary transmission of Protected Health Information (PHI).

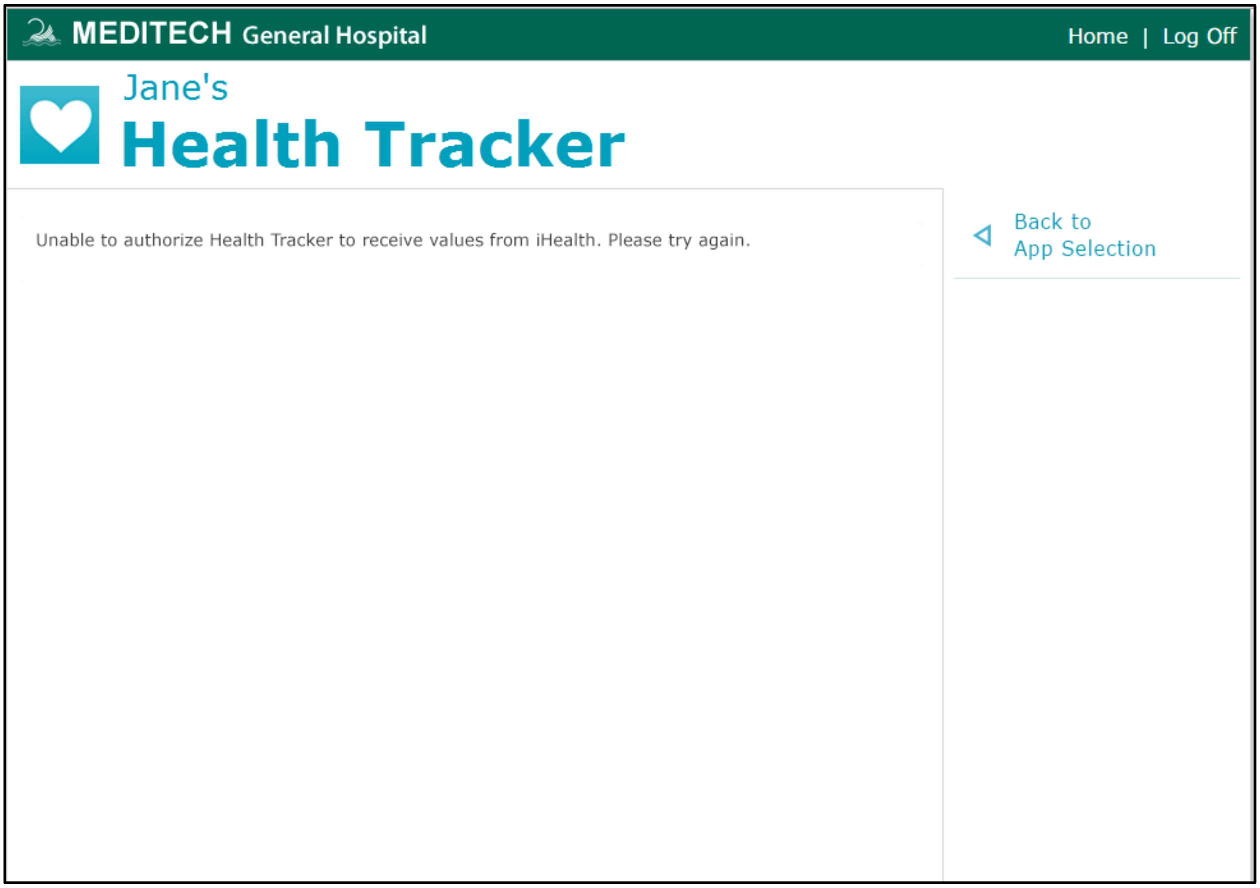
App Authorization

After the user successfully authorizes Health Tracker to receive data from a new app, they will be automatically routed back to their portal session. A confirmation message will be displayed upon re-entry:



At this point, users can click Back to Settings to return to the Settings page.

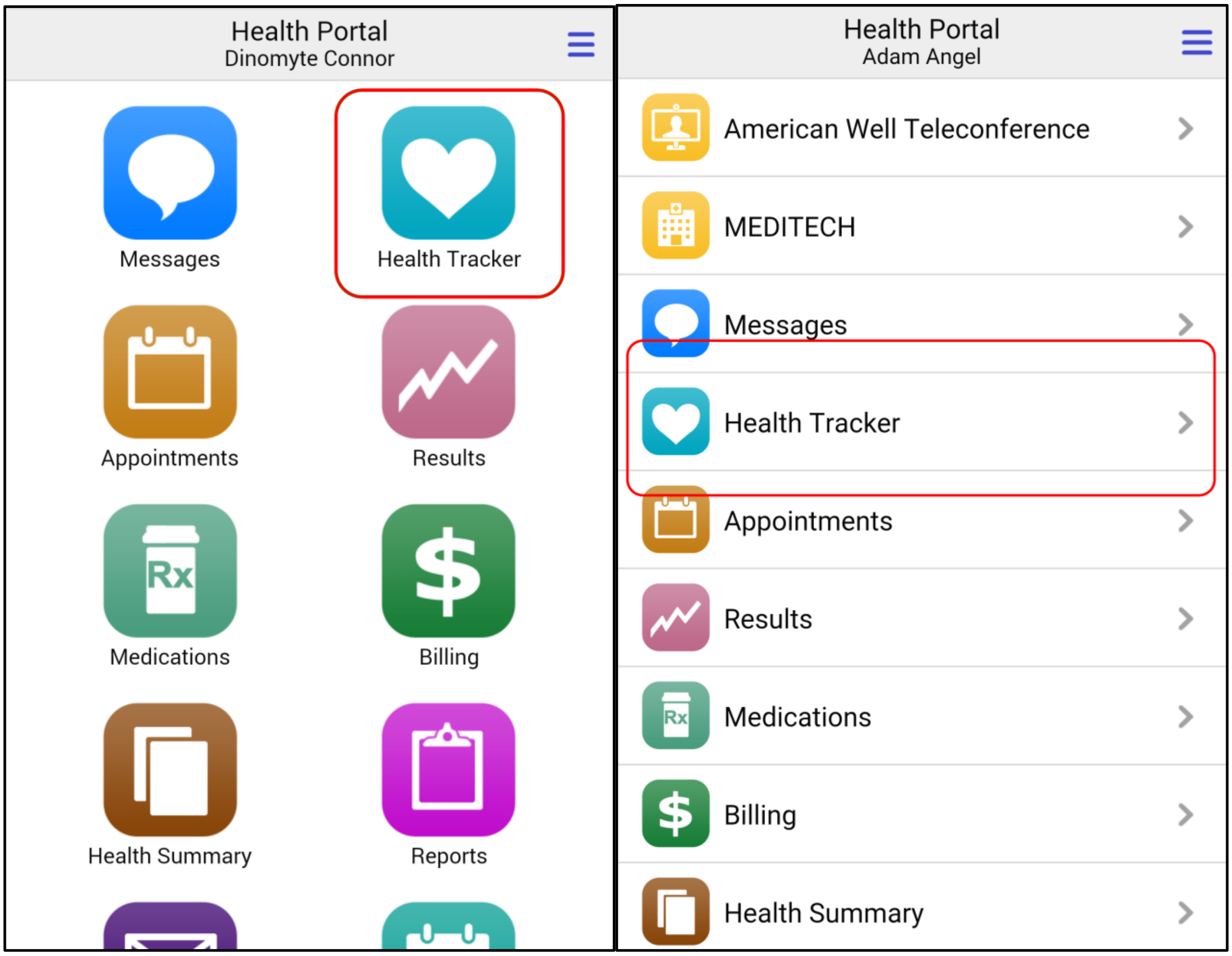
In the case of a failure to authorize, the user will see a different message and be prompted to retry:



Users can click Back to App Selection from this page to return to the App Selection page and retry the authorization process if desired.

Smartphone Portal

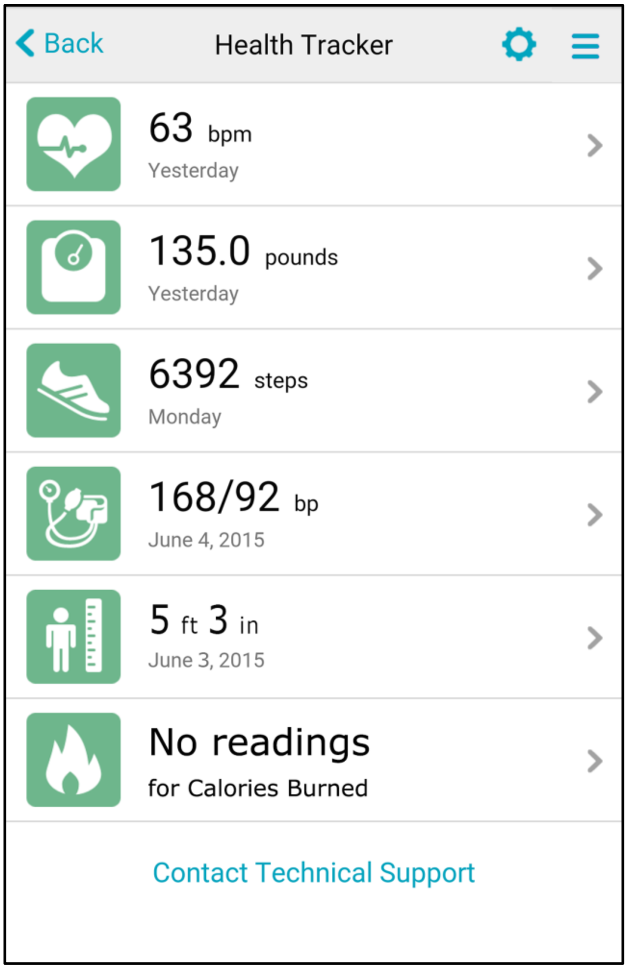
On the Home page, the user will find a new page icon labeled ‘Health Tracker’ toward the top of their list of pages.



Touching this new page icon will take the user to the Health Tracker page, which displays a list of tracked health measures along with the most recent documented value.

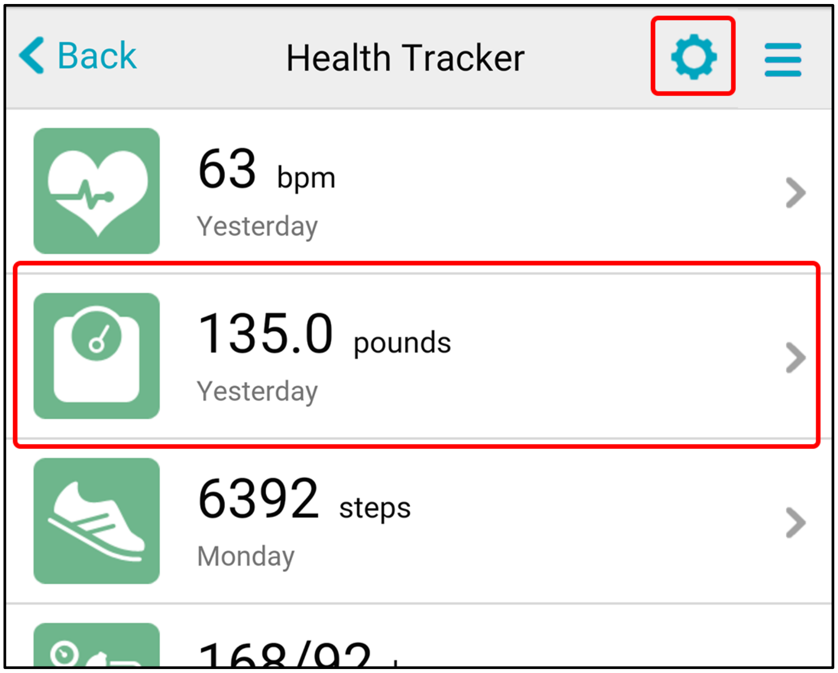
Health Tracker page

The Health Tracker page displays a snapshot of all health measures the portal user has chosen to track.



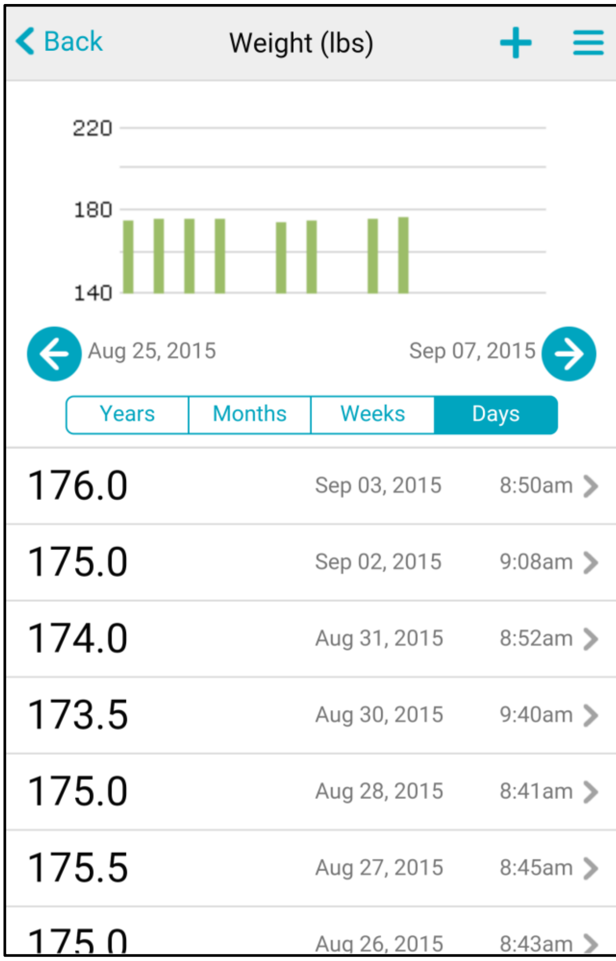
- The measures are listed in reverse chronological order based on the date and time of the most recent value.
- Each row in the list displays the most recent value available for the associated measure, as well as the relative time the value was recorded (e.g., “Today” if the value was documented on today’s date, “Yesterday” if the value was documented on the previous date, etc.).
- If no values have yet been recorded for one of these measures, a prompt is displayed in lieu of the most recent value: "No readings for [measure name]". No timestamp is displayed in this case.

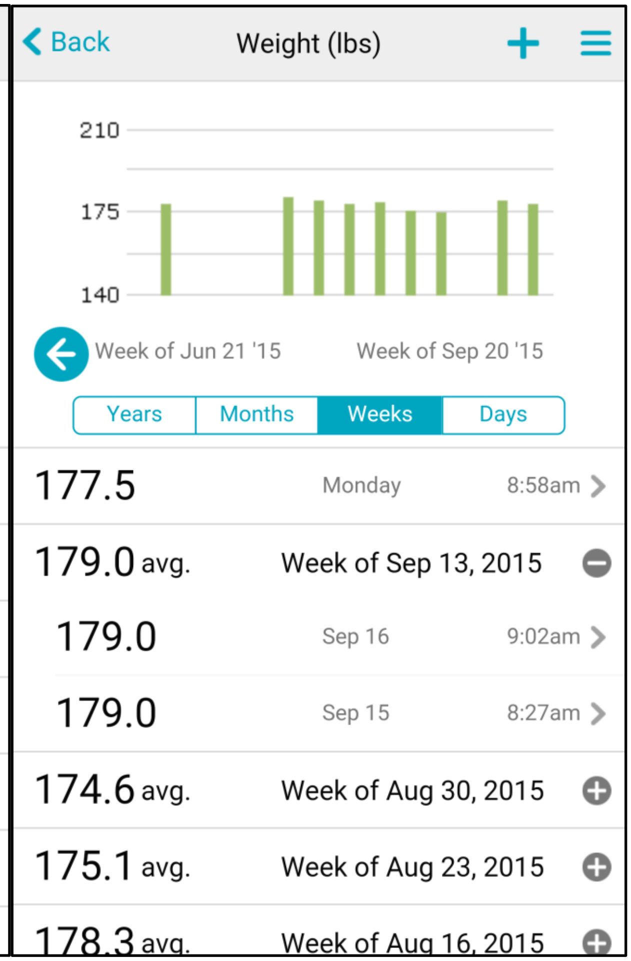
Touching the row for a measure will take the user to the History page for that measure. Alternatively, users can touch the gear icon in the page header to reach the Settings page, where they define what measures are tracked and what app is linked to each measure.

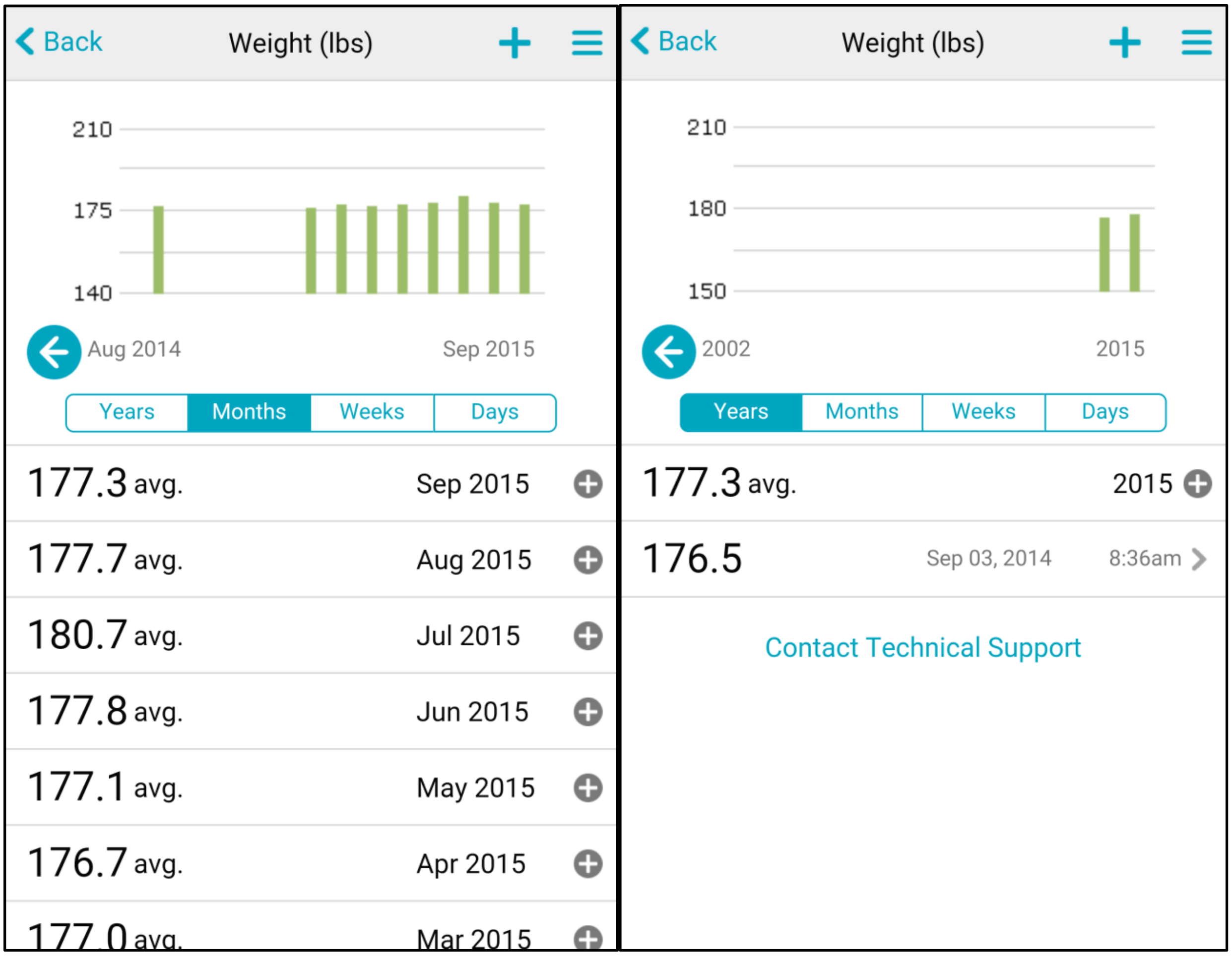


History page

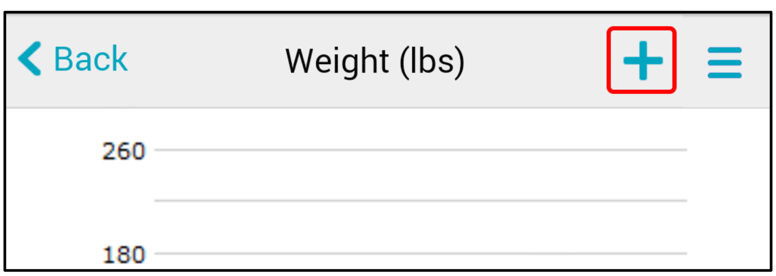
The Health Tracker History page is where the user will find most of the valuable trending information related to the selected measure.


Back
Weight (lbs)
220
180
140
Aug 25, 2015
Sep 07, 2015
Years
Months
Weeks
Days
176.0 Sep 03, 2015 8:50am
175.0 Sep 02, 2015 9:08am
174.0 Aug 31, 2015 8:52am
173.5 Aug 30, 2015 9:40am
175.0 Aug 28, 2015 8:41am
175.5 Aug 27, 2015 8:45am
175.0 Aug 26, 2015 8:43am


Back
Weight (lbs)
210
175
140
Week of Jun 21 '15
Week of Sep 20 '15
Years
Months
Weeks
Days
177.5 Monday 8:58am
179.0 avg. Week of Sep 13, 2015
179.0 Sep 16 9:02am
179.0 Sep 15 8:27am
174.6 avg. Week of Aug 30, 2015
175.1 avg. Week of Aug 23, 2015
178.3 avg. Week of Aug 16, 2015

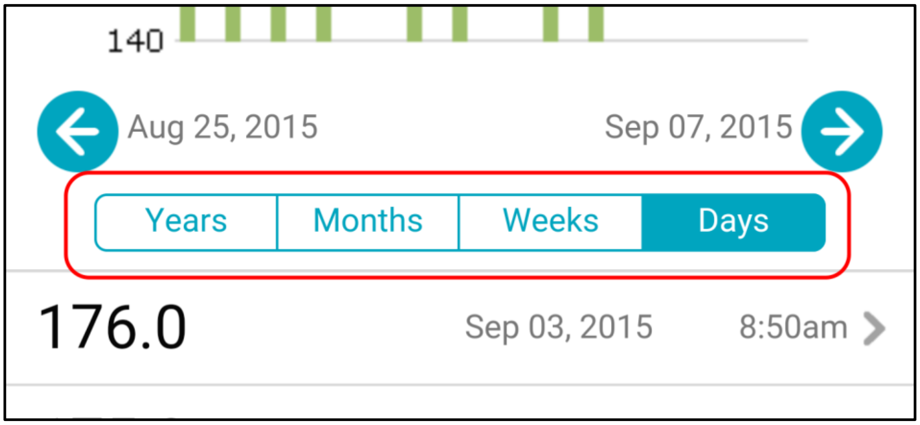


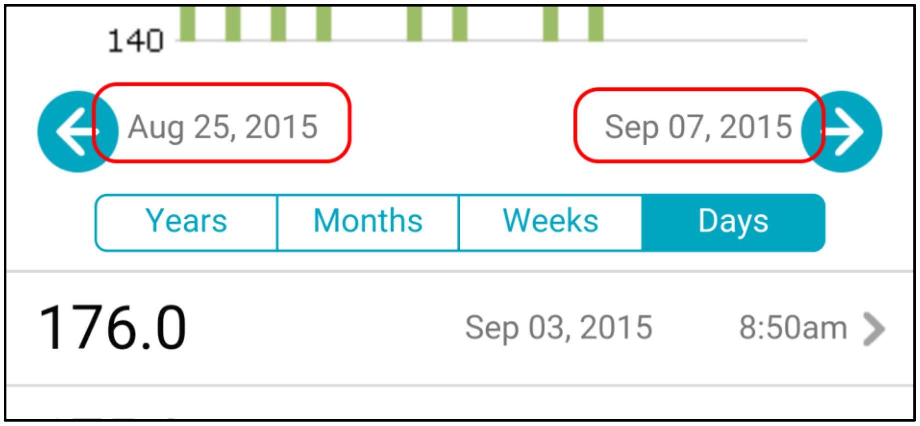
On this page, users can review the full history of values for the measure selected from the Health Tracker page. Additionally, users can touch the plus icon in the page header to manually add a value for the selected measure.



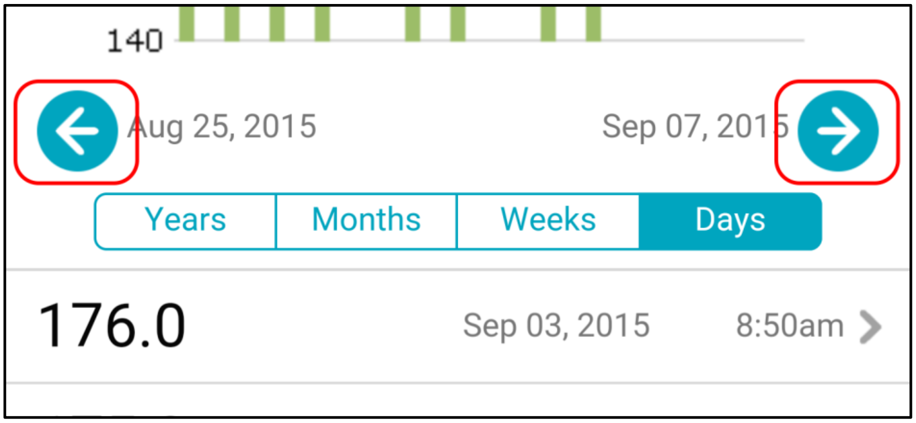
NOTE: Users may only add values to non-aggregated measure types. Manual entry is not available for aggregated measure types such as Daily Steps, Calories Burned, etc.

The topmost area of this page contains a dynamic graph of values, the resolution of which can be changed as desired. The resolution is driven by the highlighted toggle below the graph, and the period of time displayed in the graph is represented by the timestamp labels on the left and right ends of the x-axis. On entry, the graph will load such that the most recent recorded value is represented as the rightmost point on the x-axis.

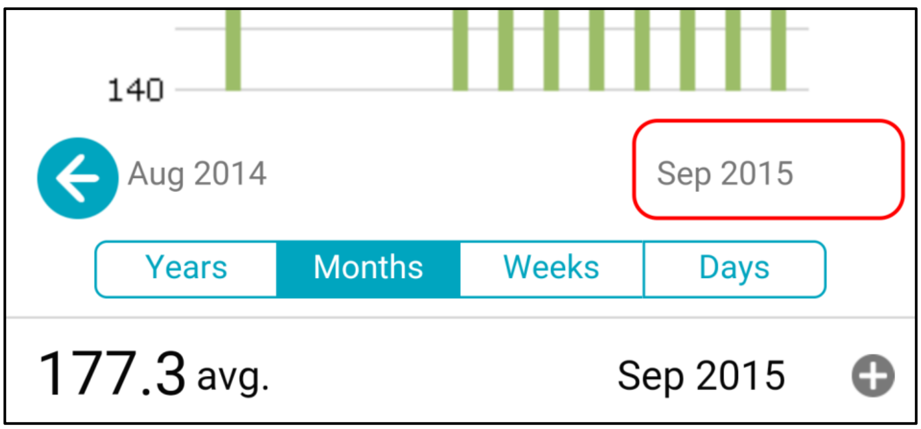




To change the resolution of the graph, the user can touch the toggle that corresponds with the desired resolution (e.g., Years, Months, Weeks, Days). To navigate through the timeframe represented in the graph, the user can touch the left and right facing arrows to move backward and forward in time. The timestamp labels directly next to those icons identify the beginning and end of the displayed time period to keep the user oriented within the graph. These labels will change dynamically as the user navigates left and right.

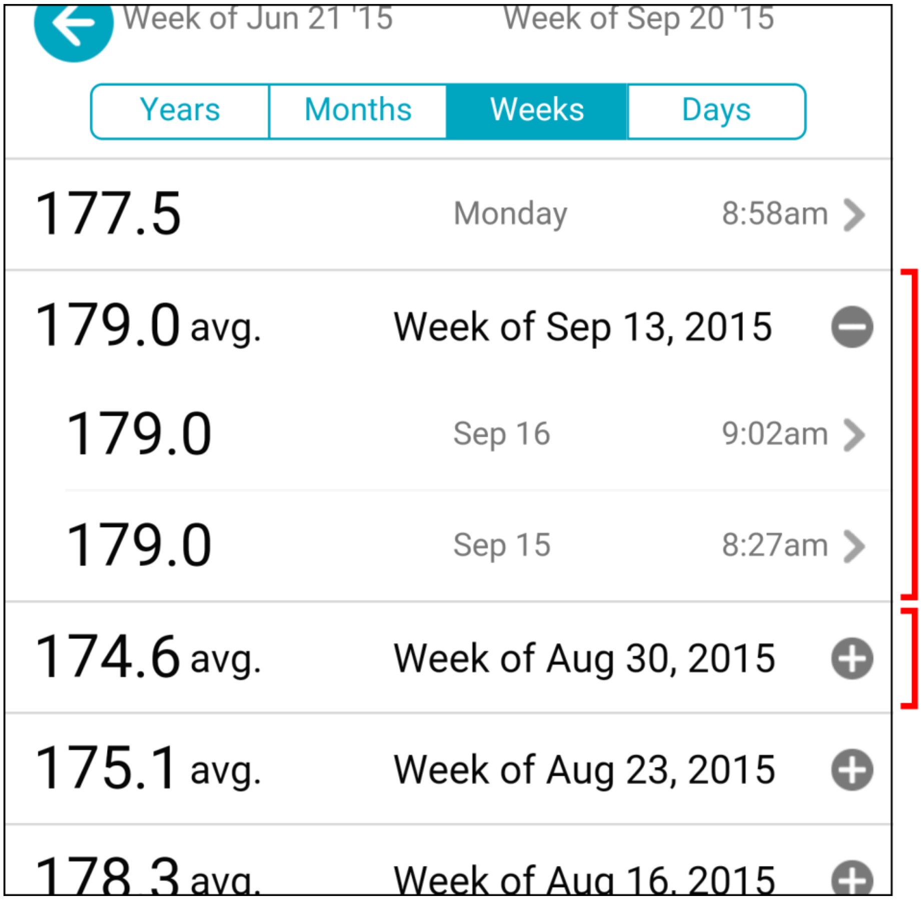


If the user navigates forward in time to the point that the current point in time is represented (i.e., Today or Now), the right facing arrow will be suppressed and further navigation in that direction is no longer possible.



Beneath the graph and resolution toggle, a complete history of values is displayed in reverse chronological order. The values will be grouped and averaged by intervals driven by the toggle–i.e., if viewing the Months resolution, each row will represent an average of all values documented per month (An average for all values in July will be displayed in the row for July, an average for all values documented in June will be displayed in the row for June, and so forth).

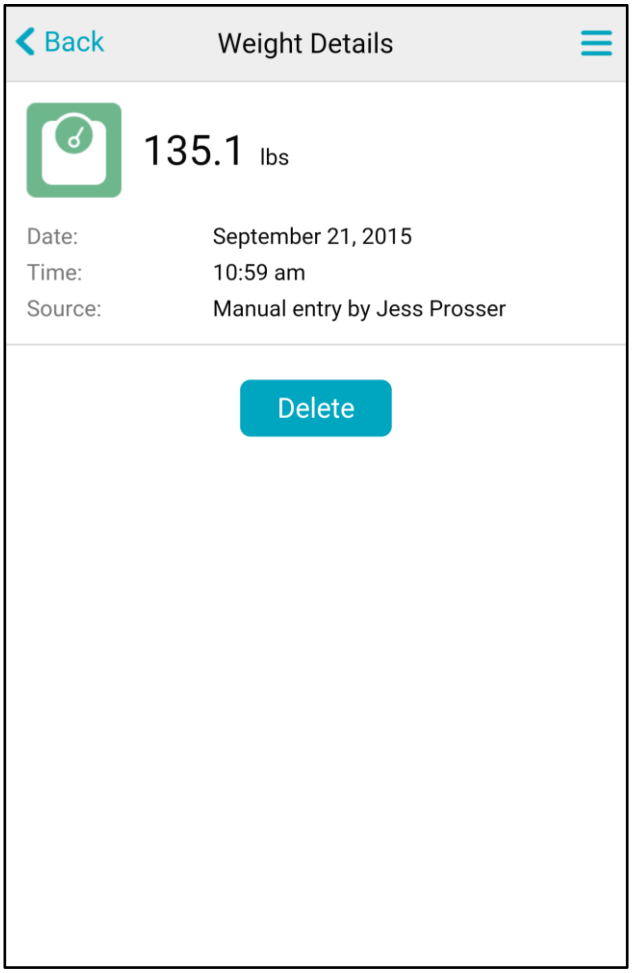
These averaged rows behave like collapsed accordions, so that each can be expanded to show the complete list of discrete values associated with that interval (e.g., one year, one month, one week, or one day).



Touching an averaged row will expand or collapse the interval, depending on its current state. Touching a discrete value's row will take the user to the Value Details page.

Value Details page

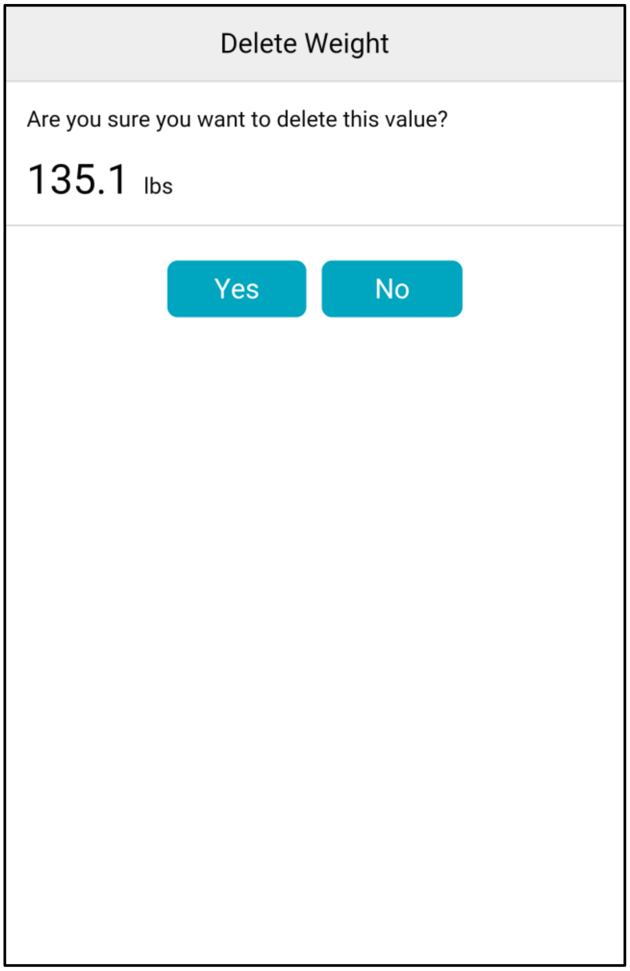
The Value Details page displays all available information associated with the selected value. If the value was entered manually, users are provided the option to delete the value.



The information displayed on this page includes the following:

- Value
- Date and time of the value
    - NOTE: Time will not be displayed for aggregated measures, such as Daily Steps, Calories Burned, and Distance.
- Source (i.e., whether the value was gathered from a particular app, or entered manually)

For manually entered values, a Delete button is displayed at the bottom. If touched, the user will be taken to a confirmation page.



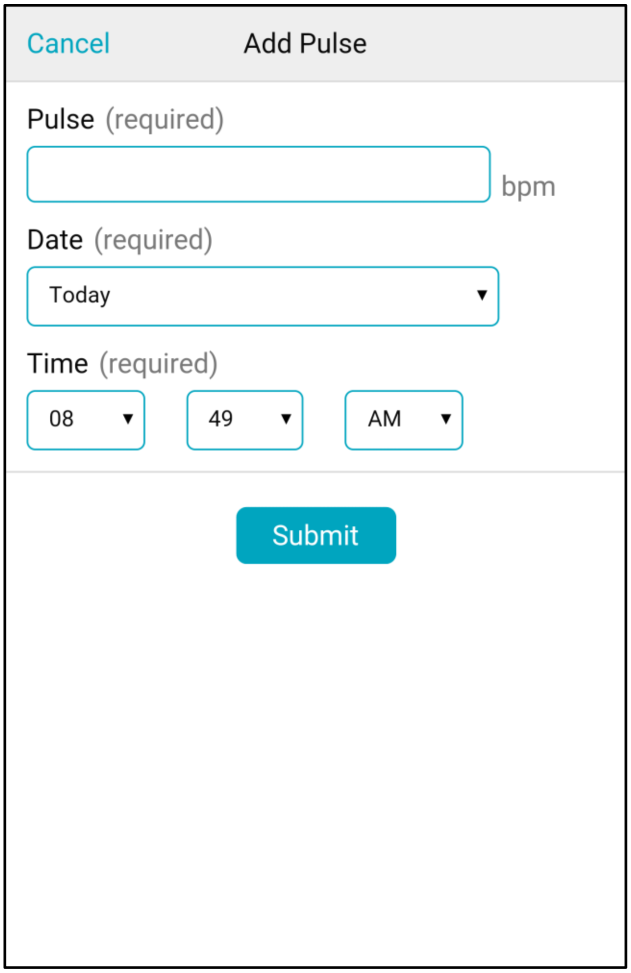
The Back and Menu icons are not available on this page. Instead, users must either touch Yes or No to proceed.

- If Yes is touched, the user will be returned to the History page and the value will be permanently deleted.
- If No is touched, the user will be returned to the Value Details page. The value will not be deleted.

NOTE: Once the 'Yes' button is touched, the deleted value cannot be recovered; however, it can be re-entered manually.

Add Value page

The Add Value page provides a short form to be filled out by the user when entering a value manually.



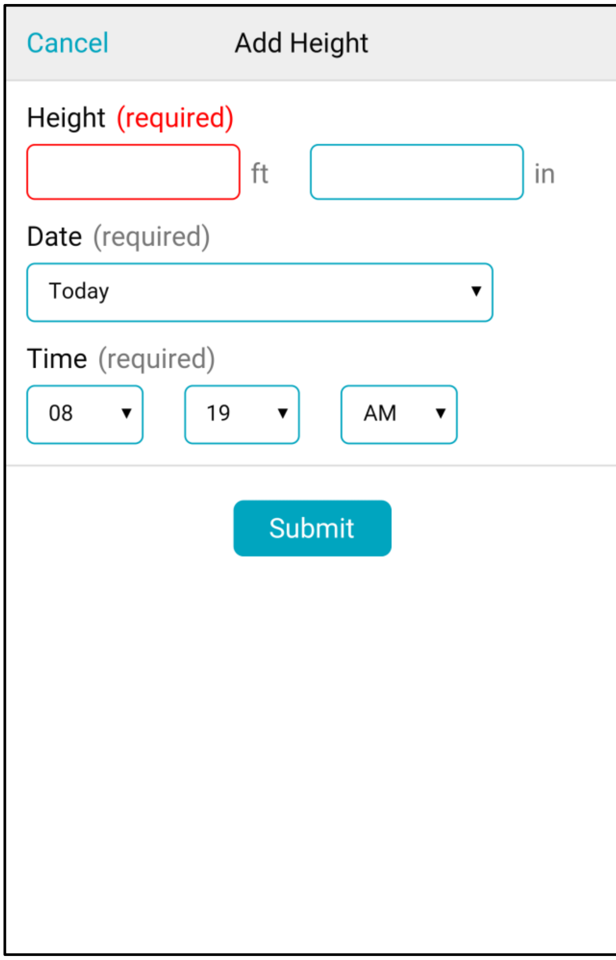
The Add Value form requires the following information:

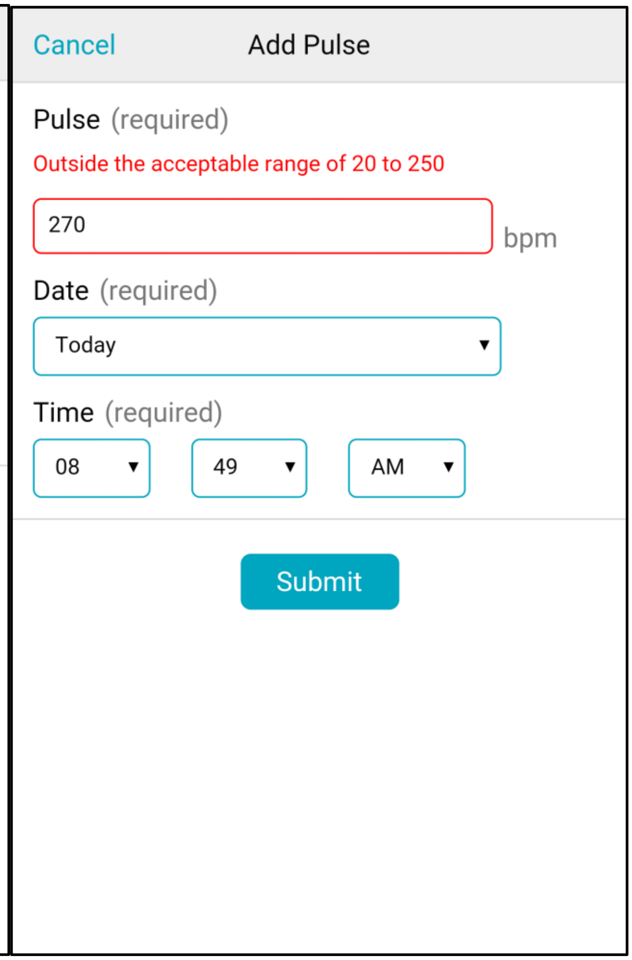
- Value
- Date and time

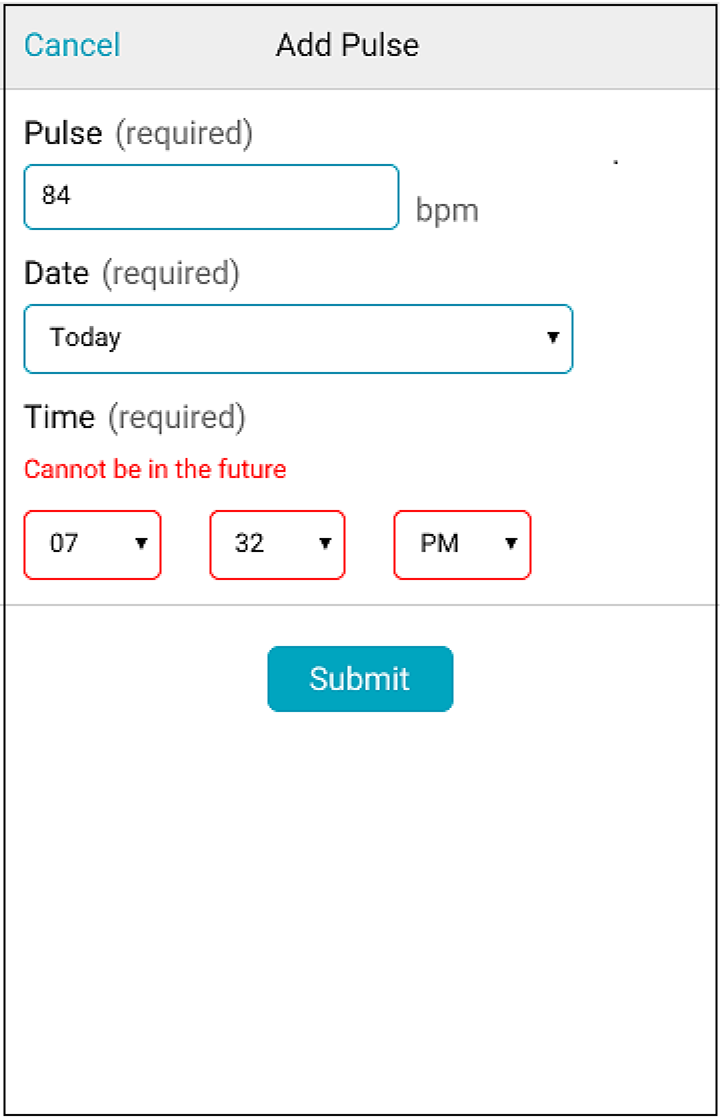
There are a set of integrity checks in place to prevent users from entering values in error.

- Users cannot submit the form without entering a value.
- Acceptable ranges have been defined for each measure type. Values outside the defined range will trigger an error.
- Values can cannot be entered for a date or time in the future.

If any of these checks fail when the user clicks 'Submit', an error message will be displayed.


Cancel
Add Height
Height (required)
ft
in
Date (required)
Today
Time (required)
08
19
AM
Submit

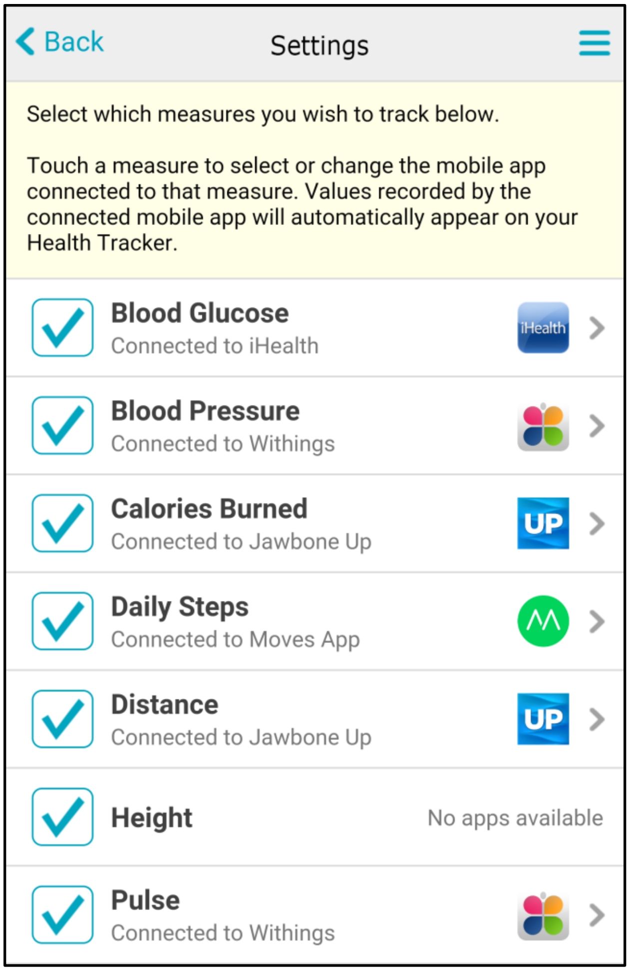

Cancel
Add Pulse
Pulse (required)
Outside the acceptable range of 20 to 250
270
bpm
Date (required)
Today
Time (required)
08
49
AM
Submit



Once the 'Submit' button is touched and there are no errors, the user is returned to the History page. The value will now be included in the history and represented in the graph.

Settings page

The Settings page dispalys a list of all measures that have been configured in the Toolbox parameters and can be selected by the user for tracking. Users can check or uncheck measures to determine which are included on the Health Tracker page.



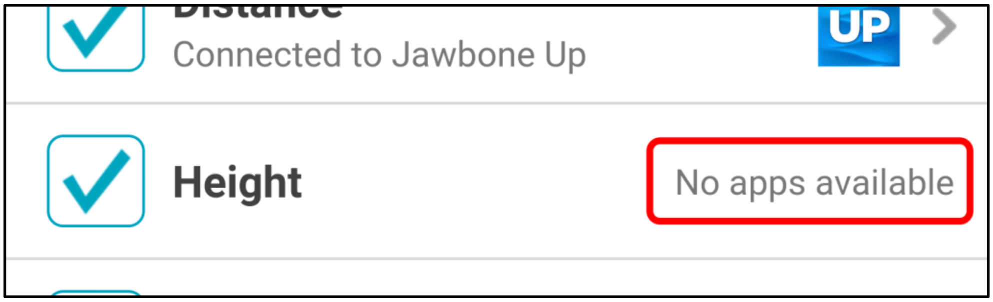
Portal users can also touch each row to reach the App Selection page, where each measure can be connected to a specific mobile application.

At the top of the page, there is a set of text instructions driven by the HEALTHTRACKERSETTINGSMOBILE entry in the Content Parameters dictionary. This text can either be the standard text delivered with the product, or custom text developed by the MEDITECH customer.

Upon entry, the measures are listed in alphabetical order, with checked measures appearing before unchecked measures. Each row displays information specific to the measure:

- A checkbox, used to select or unselect a measure for tracking
- Name of the measure
- The mobile app currently used to record data for the measure, if one has been connected.

Some measures may not be eligible to connect to an app. This may occur because none of the apps are configured to track that particular measurement type. If the measure cannot be connected to any apps, a prompt will be displayed: "No apps available"

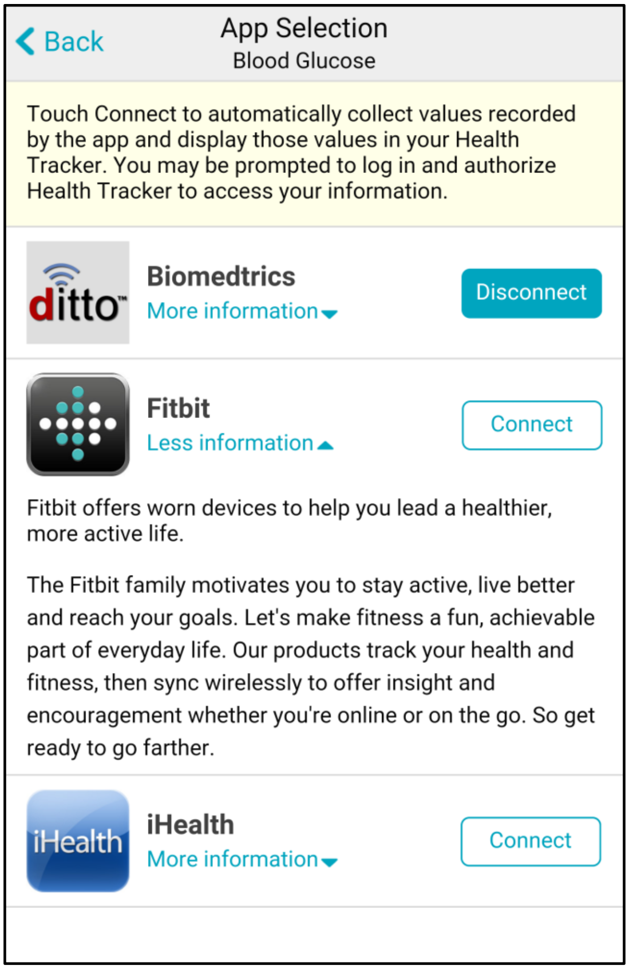


Checkbox behavior

- Only those measures that are checked off will be included on the Health Tracker page
- Any measure that has not been checked off will not appear on the Health Tracker page, even if there is a history of values for that measure.
- Any amount of measures can be checked or unchecked.
- If the user connects an app to an unselected measure (i.e., the measure is not checked off upon entry to the Settings page), the measure will be automatically checked off.

App Selection page

The App Selection page contains a list of all apps that can be connected to the selected measure. Users can touch the Connect button to initiate the connection process, or touch Disconnect to sever the existing connection between the measure and an app. The page also contains additional marketing prompts related to each app.



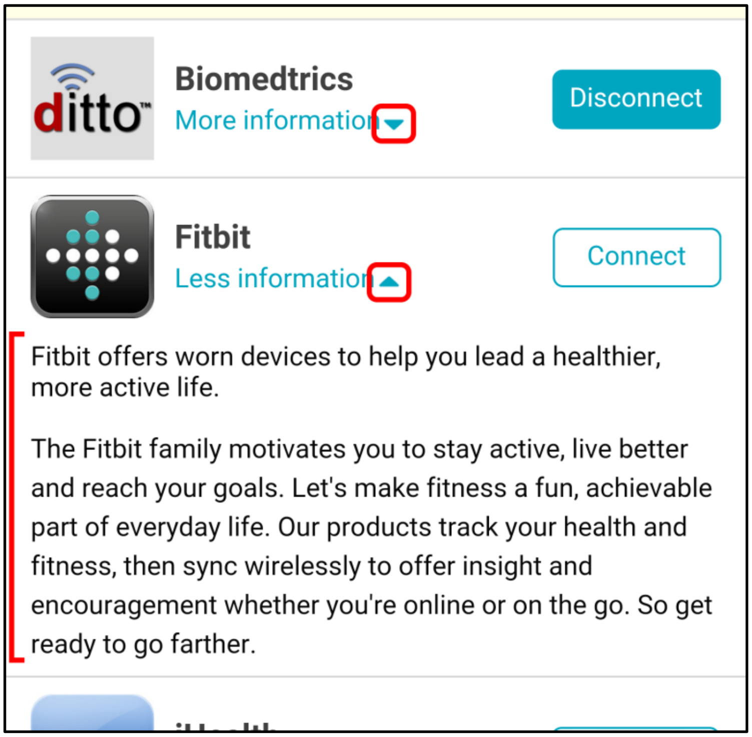
At the top of the page, there is a set of text instructions driven by the HEALTHTRACKERAPPSELECTION entry in the Content Parameters dictionary. This text can either be the standard text delivered with the product, or custom text developed by the MEDITECH customer.

All supported apps that can record values for the selected measure are displayed here in alphabetical order. Each row in the list contains information associated with a specific app:

- A branding icon (the image is provided by the third-party interface that facilitates communication between Health Tracker and each app)
- Name of the app
- A More/Less Information accordion which, when expanded, displays a brief description, typically framed as a marketing advertisement for the app (the text is provided by the third-party interface that facilitates communication between Health Tracker and each app)
- A Connect button (if the app is not currently connected to the measure) or Disconnect button (if the app is currently connected to the measure)

Viewing app information

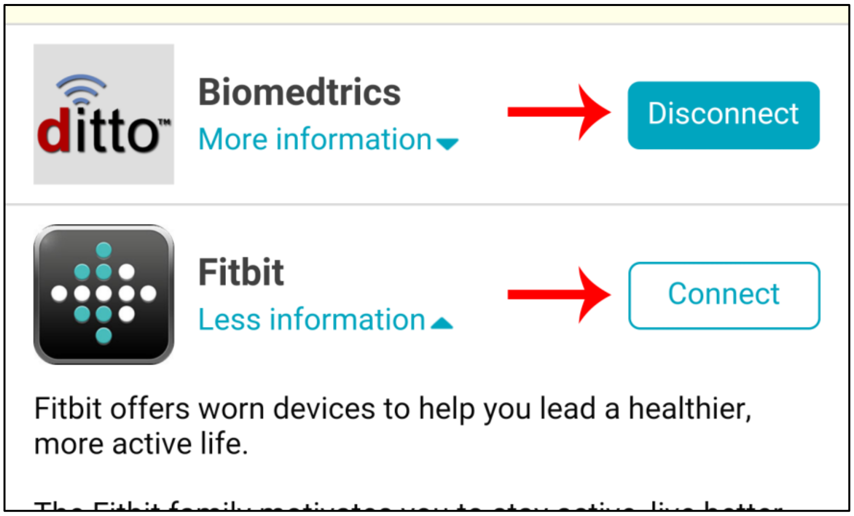
Each app has additional information associated that can be viewed under the More Information accordion. Upon entry to the page, all accordions will be collapsed, but users can expand these accordions by clicking on the expand/collapse icon or link text to read the description.



- When the accordion is collapsed, the description is not displayed. The link reads "More information" and uses a downward-pointing arrow to indicate that the section can be expanded.
- When the accordion is expanded, the description is displayed underneath the app label and connection button. The link reads "Less information" and uses an upward-pointing arrow to indicate that the section can be collapsed.

Connecting and disconnecting apps

Since this page allows the user to connect an app to the measure selected on the previous page, no more than one app may be connected on this page. Apps that are not currently connected to the selected measure will display a button in the "Connect" state, while an app that is currently connected to the selected measure will display a button in the "Disconnect" state.



Users can click the Connect button to establish a connection between the selected measure and the app of choice.

- Part of the connection process requires that the user has authorized Health Tracker to receive data from the desired app. If that has not been completed yet, the user will be prompted to perform the authorization routine, which typically consists of logging in to the patient account for the app and accepting an agreement.
- If Health Tracker has already been authorized to receive data from the desired app, the connection will be made immediately. Once an app is been successfully connected, the button will change to the "Disconnect" state.
- If there was an app connected upon entry to the page, and a different app is connected, the button for the previously connected app will now be displayed in the "Connect" state–in other words, the previous app will be disconnected. If an app is automatically disconnected from a measure, and there are no other measures connected to the app, an automatic process will also rescind the authorization for Health Tracker to receive data from that app. As a result, if the user attempts to connect that app again, the authorization process must be performed again. This behavior is designed to minimize the continued transmission of unnecessary Protected Health Information (PHI).

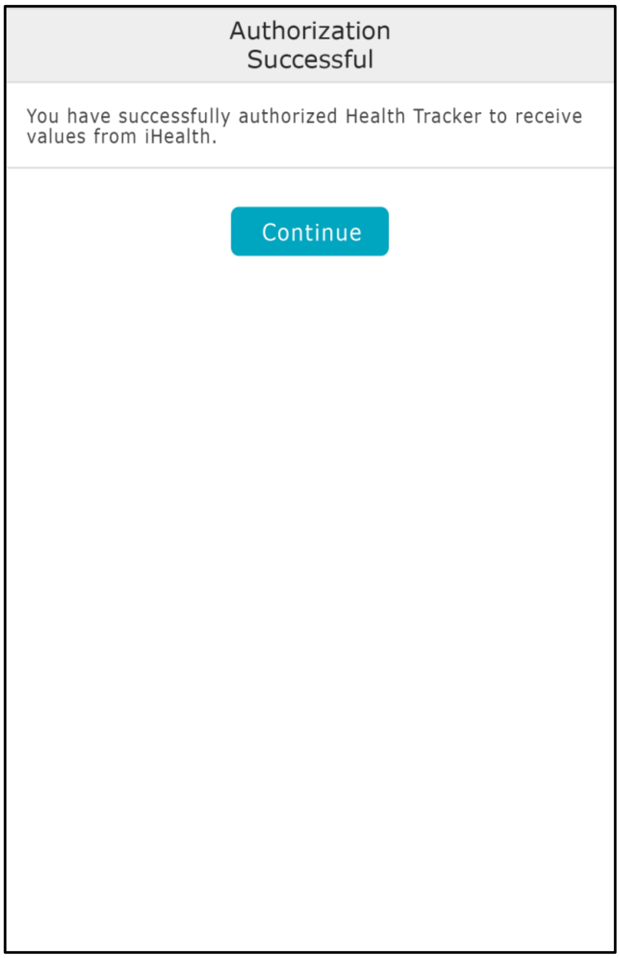
Users can click the Disconnect button to sever the connection between the selected measure and an app.

- Once an app has been disconnected, any future values recorded by the app for the selected measure will not be displayed in the Health Tracker.
- If an app is disconnected from a measure, and there are no other measures connected to the app, an automatic process will also rescind the authorization for Health Tracker to receive data from that app. As a result, if the user attempts to connect that app again, the

authorization process must be performed again. This behavior is designed to minimize the continued transmission of unnecessary Protected Health Information (PHI).

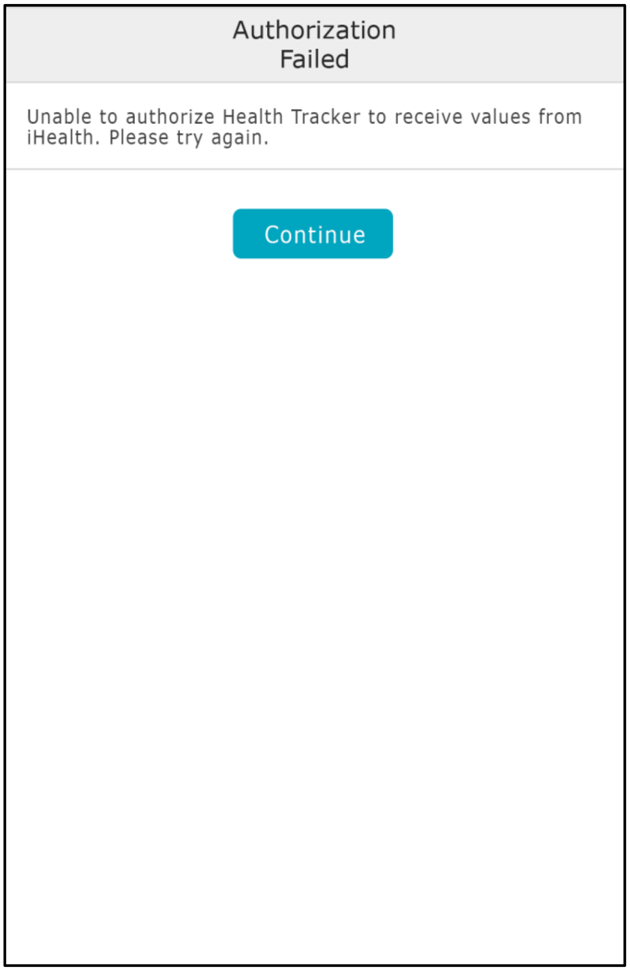
App Authorization

After the user successfully authorizes Health Tracker to receive data from a new app, they will be automatically routed back to their portal session. A confirmation message will be displayed upon re-entry:



At this point, users can touch Continue to return to the Settings page.

In the case of a failure to authorize, the user will see a different message and be prompted to retry:



Users can touch Continue from this page to return to the App Selection page and retry the authorization process if desired.

Audit Trail

All Health Tracker Pages are logged on the M-AT and 5x Audit Trails:

Desktop portal logs:

- Health Tracker
- Health Tracker Print
- Health Tracker History
- Health Tracker History Print
- Health Tracker Value Details
- Health Tracker Delete Value Confirmation
- Health Tracker Add Value
- Health Tracker Settings

- Health Tracker App Selection
- Health Tracker Authorization Success
- Health Tracker Authorization Failure

Smartphone portal logs:

- Smartphone Health Tracker
- Smartphone Health Tracker History
- Smartphone Health Tracker Value Details
- Smartphone Health Tracker Delete Value Confirmation
- Smartphone Health Tracker Add Value
- Smartphone Health Tracker Settings
- Smartphone Health Tracker App Selection
- Smartphone Health Tracker Authorization Success
- Smartphone Health Tracker Authorization Failure

Title	Health Tracker Product Guide	**Version**	1
Document Status		**Effective Date**	11/18/2015
Published by	Jess Prosser, Software Tester, Product Development Group	**Published Date**	
Approved by		**Approved Date**	
Archived Version:			