EMResource® Information

HHS COVID Data Set Adoption, December 2020
Updated December 14, 2020

Data Collection and Submission Project

On Wednesday, July 13, 2020, hospitals were informed of changes in reporting requirements, including:

- Reporting recipient, changed from the CDC to HHS
- The data set itself, which differs significantly and includes around 110 fields

This document will provide information about the specific data, Juvare offerings to expedite configuration and automatic submissions, instructions on standing up reporting, and suggestions to streamline data collection. This document will be updated as revisions are introduced.

Data Submission

Juvare is currently providing daily auto-submissions to HHS for its EMResource clients. For clients subscribing to this service, Juvare submits a snapshot of data taken at 4:30pm ET to TeleTracking. All revisions are incorporated into submissions. Clients not already taking advantage of this offering are encouraged to contact their Client Success Manager (CSM) to learn more about this option or to arrange for this service.

Data Validation

To support successful data submissions EMResource performs data validation tests on HHS data updates for hospitals that have opted-in to Juvare's auto-submission service. Upon saving a value that fails a validation test (e.g., the number entered for the number of **adult ICU beds** is greater than the current number of **total ICU beds**), the user is presented with the validation error statement, in this example: *The number of adult ICU beds (14) cannot be greater than the total number of ICU beds (12).* Users can choose to make any corrections immediately or wait until a later time. Validation statements display as an alert, they do not prevent updates. Hospital users and Regional Administrators are also able to navigate to the "Resource Validation Report" that displays all current validation error statements. Hospital users only see validation error statements for their own hospital(s). Please note that some validation errors will result in failed submissions and some will prevent the successful submission of one or more fields.

December 2020 Revisions

The December 9th, 2020 therapeutics fields have been added to this document.

Revision Summary

Four therapeutics-related numeric fields have been added to the HHS data set, specifically:

- Casirivimab/Imdevimab Courses on Hand
- Casirivimab/Imdevimab Courses Administered in Last Week
- Bamlanivimab Courses on Hand
- Bamlanivimab Courses Administered in Last Week

The revisions and implementation plans are specified below.

New Fields

To support the changes, the following standard status types have been added to all regions currently using EMResource for HHS COVID data set queries. The XML string is included to support potential API changes.

Standard Status Type	Definition	XML
HHS: Therapeutics Casirivimab/Imdevimab on Hand	The number of Casirivimab/ Imdevimab. courses currently in inventory.	on_hand_supply_Therapeutic_A_vials
HHS: Therapeutics Casirivimab/Imdevimab Used	The number of Casirivimab/ Imdevimab courses used in the previous calendar week in an inpatient, ED, overflow, or outpatient location, such as an urgent care, infusion center, or outpatient clinic.	previous_week_Therapeutic_A_vials_used
HHS: Therapeutics Bamlanivimab on Hand	The number of Bamlanivimab courses currently in inventory.	on_hand_supply_Therapeutic_B_vials
HHS: Therapeutics Bamlanivimab Used	The number of Bamlanivimab courses used in the previous calendar week in an inpatient, ED, overflow, or outpatient location, such as an urgent care, infusion center, or outpatient clinic.	previous_week_Therapeutic_A_vials_used

Status Type Configuration

Once added to your region(s), you can configure the newly added status types.

- It is suggested that you configure status type sections that correspond to the field groupings.
  - Navigate to **Setup** > **Views** > **Customize Resource Detail View**
  - Create new section (e.g., HHS: Therapeutics)
  - Save
- Navigate to **Setup Status Types** and *take advantage of the new bulk status change functionality* to select the settings that will apply to each.
- Use the filter to locate the new status types and check the checkbox to the left of each status type's name.
- Scroll to the top and click **Bulk Status Change**
- Set the desired shared attributes:
  - Recommended settings include:
    - **Event-only** (requires an active event)
    - **Status Type Visibility**: "Allow regions with mutual data sharing agreements to view this status type"
    - Select the appropriate **Section**
    - Some regions select **Exempt from Must Update** for large data collections, so users aren't immediately prompted to update.
    - Some regions expire status values at a specific time daily by including a setting for **Users must update status daily for**:
    - **Display Summary Totals**
  - The following settings are required
    - Indicate the **Roles with Update Rights**
    - Select the **Resource Types** that will be reporting the status types
  - Save
- You can also Edit the **Name** and **Description** fields to meet regional needs by editing each **Status Type**. You may want to consider removing the "HHS:" prefix from the status type label.

Please contact the Juvare Support Center for assistance needs (support@juvare.com) .

Data Collection - Events

Once the new status types are configured, they can be added to a new or existing event template and/or active event instance. If added to an event template the new status types will be included in future event instances. Status types can be immediately incorporated into an existing event query by adding to the event instance itself. Please review the **Data Presentation** section below for suggestions on how to manage this large data collection.

Event Template

To create a new event template:

1. Navigate to **Event** > **Event Setup**
2. Click **Create New Event Template**
3. Enter:
   a. **Template Name** (e.g., HHS: Influenza)
   b. **Description** (e.g., Use this template to query hospitals for the HHS influenza data set)
   c. **Default Event Title** (for the event instance)

       d. Default Event Information (for the event instance)
4. Select:
    a. **Standard Event Type** (e.g., Safety)
    b. **Alert Audio**
    c. **Multi-Region**, if appropriate
    d. **Resource Types**
    e. **Status Types** (filter on the section)
5. Save
6. Once the setup is complete, you can navigate to **Event** > **Event Management** to launch the event instance.

To add status types to an event template for inclusion in future event instances:

7. Navigate to **Event** > **Event Setup**
8. Edit the event template
9. Search for and add the new status types
10. Save

Event Instance

To add status types to an actively running event for immediate query update:

1. Navigate to **Event** > **Event Management**
2. Edit the event instance
3. Search for and add the new status types
4. Save
5. Consider also adding to the event template for future query needs (reference the above procedure)

Please contact the Juvare Support Center for assistance needs (support@juvare.com) .

Data Set

The data elements can be grouped into discreet categories. It is suggested that EMResource status type groups mirror these groupings to facilitate configuration and support meaningful presentations. We have configured the standard data set. The status types listed in this document are identified by their standard status type name, which are prefixed with "HHS" for easy identification.

Identifiers/Consent

The following hospital identifiers are included. **The bolded items are required for participation in Juvare auto-submission to HHS**.

- HHS: CCN – This is the hospital's CMS certification number
- HHS: NHSN Org ID – This is the hospital's National Healthcare Safety Net organization ID
- **HHS: TeleTrack ID – Only for clients for whom we will be auto-submitting data. This is the identifier assigned to the facility by the system that is collecting the data on behalf of HHS.** To enable a fast response, Juvare staff will enter this ID on behalf of client but hospitals must confirm accuracy prior to opting-in to data submission.
- **HHS: TeleTracking Opt-In – Only for clients for whom we will be auto-submitting data. this must be set to "Yes" for a hospital's data to be included in our auto-submissions.**

Hospital Bed/Vent Information

Many of these data elements are more statis in nature so would not require regular updates. Hospital capacity and occupancy data include:

- HHS: All Hospital Beds - Total number of all staffed inpatient and outpatient beds in your hospital, including all overflow and surge/expansion beds used for inpatients and for outpatients (includes all ICU, ED, and observation).
- HHS: All Adult Hospital Beds – This is a subset of "All Hospital Beds"
- HHS: All Hospital Inpatient Beds - Total number of staffed inpatient beds in your hospital including all overflow and surge/expansion beds used for inpatients (includes all ICU beds).
- HHS: Adult Hospital Inpatient Beds – This is a subset of "All Hospital Inpatient Beds"
- HHS: All Hospital Inpatient Beds Occupancy - Total number of staffed inpatient beds that are occupied.
- HHS: Adult Hospital Inpatient Bed Occupancy – This is a subset of "All Hospital Inpatient Beds Occupancy"
- HHS: ICU Beds - Total number of staffed inpatient ICU beds.
- HHS: Adult ICU Beds – This is a subset of "ICU Beds"
- HHS: ICU Bed Occupancy - Total number of staffed inpatient ICU beds that are occupied.
- HHS: Adult ICU Bed Occupancy – This is a subset of "Adult ICU Bed Occupancy"
- HHS: Total Mechanical ventilators - The total number (in use and not in use) of all mechanical ventilators, including adult, pediatric, neonatal ventilators, anesthesia machines and portable/transport ventilators available in the facility. Include BiPAP machines if the hospital uses BiPAP to deliver positive pressure ventilation via artificial airways.
- HHS: Mechanical ventilators in use - the total number of mechanical ventilators in use at the time the data is collected, including adult,

COVID Patient Information

The following data is related to the facility's patients.

- HHS: Total hospitalized adult suspected/confirmed - Patients currently hospitalized in an adult inpatient bed who have laboratory-confirmed or suspected COVID-19.
- HHS: Hospitalized adult confirmed-positive COVID – This is a subset of "Total hospitalized adult suspected/confirmed"
- HHS: Hospitalized Peds Confirmed/Suspected COVID - Patients currently hospitalized in a pediatric inpatient bed, including NICU, who are suspected or laboratory-confirmed-positive for COVID-19.
- HHS: Hospitalized ped confirmed-positive COVID – This is a subset of "Hospitalized Peds Confirmed/Suspected COVID"
- HHS: Hospitalized and ventilated COVID patients - Patients currently hospitalized in an adult, pediatric or neonatal inpatient bed who have suspected or laboratory-confirmed COVID-19 and are on a mechanical ventilator
- HHS: Total ICU adult suspected/confirmed positive - Patients currently hospitalized in an adult ICU bed who have suspected or laboratory-confirmed COVID-19.
- HHS: Hospitalized ICU adult confirmed-positive COV – This is a subset of "Total ICU adult suspected/confirmed positive"
- HHS: Hospital Onset - Total current inpatients with onset of suspected or laboratory-confirmed COVID-19 fourteen or more days after admission for a condition other than COVID-19.
- HHS: ED/Overflow - Patients with suspected or laboratory-confirmed COVID-19 who currently are in the Emergency Department (ED) or any overflow location awaiting an inpatient bed.
- HHS: ED/Overflow and Ventilated – This is a subset of "ED/Overflow"
- HHS: Previous Day Deaths - Number of patients with suspected or laboratory-confirmed COVID-19 who died on the previous calendar day in the hospital, ED, or any overflow location.

- HHS: Prev Day Total ED Visits - Enter the total number of patient visits to the ED who were seen on the previous calendar day regardless of reason for visit.
- HHS: Prev Day COVID Related ED Visits - Enter the total number of ED visits who were seen on the previous calendar day who had a visit related to COVID-19 (meets suspected or confirmed definition or presents for COVID diagnostic testing).

Previous Day's COVID Confirmed Admissions

This data group includes:

- HHS: Prev day adult admits confirmed COV [age bracket] - The number of patients who were admitted to an adult inpatient bed on the previous calendar day who had confirmed COVID-19 at the time of admission for the following age brackets. **This data group is required for submission.**
  - 18-19
  - 20-29
  - 30-39
  - 40-49
  - 50-59
  - 60-69
  - 70-79
  - 80+
  - Unknown
- HHS: Prev Day Peds Confirmed COV Admits - The number of pediatric patients who were admitted to an inpatient bed on the previous calendar day who had confirmed COVID-19 at the time of admission

Previous Day's COVID Suspected Admissions

This data group includes:

- HHS: Prev day adult admits suspected COV [age bracket] - The number of patients who were admitted to an adult inpatient bed on the previous calendar day who had suspected COVID-19 at the time of admission for the following age brackets. **This data group is required for submission**.
  - 18-19
  - 20-29
  - 30-39
  - 40-49
  - 50-59
  - 60-69
  - 70-79
  - 80+
  - Unknown
- HHS: Prev Day Peds Suspected COV Admits - The number of pediatric patients who were admitted to an inpatient bed on the previous calendar day who had suspected COVID-19 at the time of admission

Remdesivir

Remdesivir-related data includes:

- HHS: Previous day's Remdesivir Used - Number of Remdesivir vials used on the previous calendar day in an inpatient, ED, and/or overflow location
- HHS: Current Inventory of Remdesivir - the number of Remdesivir vials in inventory at 11:59pm on the previous calendar day in the hospital pharmacy

Staffing

The following fields include the opportunity to identify staffing shortage type. Fields include:

- HHS: Critical Staffing Shortage Today, Yes/No, if yes, select all that pertain:
  - Environmental Services
  - Nurses
  - Other Critical Healthcare Personnel
  - Other Licensed Independent Practitioners
  - Pharmacists and Pharmacy Techs
  - Physicians
  - Respiratory Therapists
  - Temporary Staff
- HHS: Critical Staffing Shortage within one week, Yes/No, if yes, select all that pertain:
  - Environmental Services
  - Nurses
  - Other Critical Healthcare Personnel
  - Other Licensed Independent Practioners
  - Pharmacists and Pharmacy Techs
  - Physicians
  - Respiratory Therapists
  - Temporary Staff

Supplies

There are three associated fields for most of the supplies (see table below):

- Number on Hand - Number of individual units (or "eaches") available in the facility on the date of data collection.
- Days of Supply - Days of supply in stock for ventilator supplies and each PPE category.
- Able to obtain/maintain 3-day supply – This is a multi status type

Item	Number on Hand	Days of Supply (discreet day ranges)	Able to Obtain	Maintain 3 days
Vent supplies		X	X	X
Vent meds			X	X
N95 masks	X	X	X	X
PAPRs and Other Resp	X		X	X
Surgical Masks	X	X	X	X
Eye Protection	X	X	X	X

Item	Number on Hand	Days of Supply (discreet day ranges)	Able to Obtain	Maintain 3 days
Single use gowns	X	X	X	X
Exam Gloves	X	X	X	X
Launderable gowns	X		X	
Nasal pharyngeal swabs				X
Nasal swabs				X
Viral transport media				X

Influenza

There are six influenza-related numeric fields:

- HHS: Influenza Hospitalized Confirmed
- HHS: Influenza Prev Day's Admissions
- HHS: Influenza Confirmed in ICU
- HHS: Influenza and COVID Total Confirmed
- HHS: Influenza Confirmed Prev Day's Deaths
- HHS: Influenza and COV Conf Prev Day Deaths

Therapeutics

There are four therapeutic fields. Note: it is anticipated that this field set will expand over time.

- HHS: Therapeutics Casirivimab/Imdevimab on Hand
- HHS: Therapeutics Casirivimab/Imdevimab Used
- HHS: Therapeutics Bamlanivimab on Hand
- HHS: Therapeutics Bamlanivimab Used

Data Presentation

Because of the large amount of data that will be simultaneously queried, consider grouping subsets of related data into individual event templates. This will help minimize horizontal scrolling, provide meaningful displays, and facilitate locating fields for updating and viewing needs. The screen shot below shows how the use of multiple, well-labeled events can be used to target specific data types and manage the data collection:

This type of event configuration supports role-based update needs. For example, hospital staffing personnel can simply click to the "COVID Patients" event instance to update facility staffing information:

| | Update 2: Hurricane EEI Reporting | HHS: Supplies | Update 1: Remdesivir | Confirmed COVID Admissions | Suspected COVID Admissions | COVID Hospital Capacity | COVID Patients | Staffing Shortage | Influenza |

Created By: Springfield Administrator @ 07/15/20 00:32
Please update this HHS-required COVID patient information daily by 1600 hrs. | Event Details | Phone Notifications

Hospitals	Confirmed COVID in ICU	HHS: Suspected COVID in ICU	Total adult suspected/confirmed	Adult confirmed-positive COVID	Hospitalized Peds Confirmed/Suspect	Hospitalized ped confirmed-positive	Hospitalized and ventilated COVID	Adult ICU Confirmed/Suspected COVID	ICU adult confirmed-positive COVID	Hospital Onset COVID	ED/OVERFLOW	ED/OVERFLOW and VENTILATED	Previous Day COVID Deaths	Prev Day Total ED Visits	Prev Day COVID Related ED Visits	Comment	Last Update	By User
Bellevue Hospital	15	12,000	10	12	58	0	0	19	17	0	8	4	0	0	0		16 Sep 06:11	Springfield Administrator
Cape Coral Hospital	15	0	7	18	0	0	0	0	0	0	8	0	0	0	0		22 Sep 12:15	Curtis McDonald
Fawcett Memorial Hospital	--	--	--	--	--	--	--	--	--	--	2	0	--	--	--		28 Apr 18:53	Springfield Administrator
Gulf Coast Hospital	0	3	3	1	0	0	0	2	0	0	0	0	0	0	0		03 Sep 14:39	Juvare Demo User
Lee Memorial Hospital	--	--	--	--	--	--	--	--	--	--	4	0	--	--	--		01 May 09:51	Springfield Administrator
Lehigh Regional Medical Center	--	--	--	--	--	--	--	--	--	--	0	0	--	--	--		01 May 09:54	Springfield Administrator
Physicians Regional Med Cntr	--	--	--	--	--	--	--	--	--	--	5	0	--	--	--		01 May 09:55	Springfield Administrator
Summary	N/A	N/A	20	31	58	0	0	21	17	0	27	4	0	0	0			