

## HHS COVID Data Adoption, January 2022

### Data Collection and Submission Project

This document provides information about the current Health and Human Services (HHS) COVID data, along with Juvare's offerings to expedite configuration and automatic submissions, instructions to stand up reporting, and suggestions to streamline data collection. Updates to this document are completed as revisions to the dataset are introduced.

### Data Submission

Juvare provides daily auto-submissions to HHS for hospitals that subscribe to our auto-submission service. If you subscribe to this service, we capture a snapshot of your data at 4:30 PM ET and submit it directly to TeleTracking. All revisions are incorporated into the submissions. If you do not subscribe to this service, we encourage to contact your Client Success Manager (CSM) to learn more and enroll.

### Data Validation

To support successful data submissions, EMResource performs data validation tests on all updates to HHS data. As a result, when saving HHS data, if the validation test fails, you are presented with a validation error. For example, if the number entered for adult ICU beds is greater than the current number of total ICU beds, an error message states: *The number of adult ICU beds (14) cannot be greater than the total number of ICU beds (12)*. The error message is displayed as an alert, but it does not prevent your update. So, you can make corrections immediately or wait until a later time.

Validation error messages are available on the "Resource Validation Report" for Regional Administrators and other users. However, users only see the messages for their own hospitals. Please note, some validation errors will result in failed submissions, and some will prevent the successful submission of one or more fields.

### January 2022 Revisions

In January 2022, ten new fields were added to the HHS dataset. These fields are now available in EMResource. Revisions and implementation plans are specified below.

#### Revision Summary

New fields added to the dataset include:

- HHS: HHS ID
- HHS: All Inpatient Pediatric Beds
- HHS: Pediatric Inpatient Bed Occupancy
- HHS: Pediatric ICU beds

- HHS: Pediatric ICU Bed Occupancy
- HHS: Hospitalized ICU Ped confirmed-positive COV
- HHS: Prev day ped admits confirmed COV 0-4
- HHS: Prev day ped admits confirmed COV 5-11
- HHS: Prev day ped admits confirmed COV 12-17
- HHS: Prev day ped admits confirmed COV unknown

**Note:** API clients that want to add the new fields to existing APIs should contact their third-party interface partners and the Juvare Support Center ([support@juvare.com](mailto:support@juvare.com)) for assistance.

## New Fields

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

Standard Status Type	Definition	XML
HHS: HHS ID	The HHS-assigned facility ID. If multiple facilities report under the same CCN, each individual facility will have a unique HHS ID.	hhs_id
HHS: All Inpatient Pediatric Beds	Total number of pediatric beds in the facility that are currently set-up, staffed and able to be used for a patient within the reporting period. This count includes occupied and unoccupied inpatient pediatric beds including both PICU and med-surge beds (beds in which medical or surgical pediatric patients may be routinely placed). Include any surge/hallway/overflow beds that are open for use for a patient, regardless of whether they are occupied or available. This count excludes NICU, newborn nursery beds, and outpatient surgery beds.	all_pediatric_inpatient_beds
HHS: Pediatric Inpatient Bed Occupancy	Total number of set-up and staffed inpatient pediatric beds that are occupied by a patient. Includes both PICU and med-surge beds (beds in which medical or surgical pediatric patients may be routinely placed). Include any occupied surge/hallway/overflow beds that are open for use. This count excludes NICU, newborn nursery, and outpatient surgery beds.	all_pediatric_inpatient_bed_occupied

Standard Status Type	Definition	XML
HHS: Pediatric ICU Beds	Total number of pediatric ICU beds in the facility that are currently set-up, staffed and are or could be used for a patient within the reporting period. This count includes occupied and unoccupied ICU beds, including any ICU beds that are, or could be, staffed and used for a pediatric patient. This count excludes NICU, newborn nursery, and outpatient surgery beds.	total_staffed_pediatric_icu_beds
HHS: Pediatric ICU Bed Occupancy	Total number of set-up and staffed pediatric ICU beds occupied by a patient. This count excludes NICU, newborn nursery, and outpatient surgery beds.	staffed_pediatric_icu_bed_occupancy
HHS: Hospitalized ICU Ped confirmed-positive COV	Total number of pediatric ICU beds occupied by laboratory confirmed positive COVID-19 patients. This count excludes NICU, newborn nursery, and outpatient surgery beds	staffed_icu_pediatric_patients_confirmed
HHS: Prev day ped admits confirmed COV 0-4	Enter the number of patients, by age group, who were admitted to an inpatient or ICU bed on the previous calendar day who had laboratory-confirmed COVID-19 at the time of admission.	Prev_Conf_0_4
HHS: Prev day ped admits confirmed COV 5-11	Enter the number of patients, by age group, who were admitted to an inpatient or ICU bed on the previous calendar day who had laboratory-confirmed COVID-19 at the time of admission.	Prev_Conf_5_11
HHS: Prev day ped admits confirmed COV 12-17	Enter the number of patients, by age group, who were admitted to an inpatient or ICU bed on the previous calendar day who had laboratory-confirmed COVID-19 at the time of admission.	Prev_Conf_12_17
HHS: Prev day ped admits confirmed COV unknown	Enter the number of patients, by age group, who were admitted to an inpatient or ICU bed on the previous calendar day who had laboratory-confirmed COVID-19 at the time of admission.	Prev_Conf_Ped_unknown

## Status Type Configuration

After these fields are added to your regions, you can configure the new status types that correspond to the field groupings.

## To configure the status types

1. Navigate to **Setup > Views > Customize Resource Detail View**.
2. If needed, create a new section.
3. Click **Save**.
4. Navigate to **Setup Status Types** and *take advantage of the new bulk status change functionality* to select the settings that apply.
5. Use the filter to locate the new status types and select the checkbox for each status type.
6. At the top, click **Bulk Status Change**.
7. Set the shared attributes as appropriate.
  - Required settings:
    - Indicate the **Roles with Update Rights**.
    - Select the **Resource Types** that will be reporting the status types.
  - Recommended settings:
    - **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**.
8. Click **Save**.
9. Optionally, you can change the **Name** and **Description** fields to meet regional needs by editing each **Status Type**.

**Note:** You may want to consider removing the “HHS:” prefix from the status type label.

## Data Collection - Events

After the new status types are configured, you 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 this information.
  - a. **Template Name** (for example, HHS: Influenza).
  - b. **Description** (for example, 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).
  - e. **Standard Event Type** (for example, Safety).
  - f. **Alert Audio**.
  - g. **Multi-Region**, if appropriate.
  - h. **Resource Types**.
  - i. **Status Types** (filter on the section).
4. Click **Save**.
5. When the setup is complete, navigate to **Event > Event Management** to launch the event instance.

### **To add status types to an event template for inclusion in future events**

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

For assistance with these procedures, contact the Juvare Support Center ([support@juvare.com](mailto:support@juvare.com)).

## **Dataset**

Data elements can be grouped into discreet categories. We recommend that EMResource status type groups mirror the data element groupings to facilitate configuration and support meaningful presentations. The standard dataset has been configured and the status types listed in this document are identified by their standard status type name, along with the “HHS” prefix for easy identification.

**Note:** Pay special attention to elements in the lists below that are marked Required, New, or Inactive.

## Identifiers/Consent

The following hospital identifiers are included.

- 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 – **(Required for clients participating in the submission service)** This identification is assigned to the facility by the solution that is collecting the data on behalf of HHS. To enable a fast response, we will enter this ID on behalf of the client, but hospitals must confirm accuracy prior to opting-in to data submission.
- HHS: TeleTracking Opt-In – **(Required for clients participating in the submission service)** This field must be set to “Yes” for a hospital’s data to be included in our auto-submissions.
- HHS: HHS ID – **(New)** The HHS-assigned facility ID. If multiple facilities report under the same CCN, each individual facility will have a unique HHS ID.

## Hospital Bed/Vent Information

The following hospital capacity and occupancy data is included.

- HHS: All Hospital Beds – **(Inactive)** 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 ICU, ED, and observation).
- HHS: All Adult Hospital Beds – **(Inactive)** 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 – Subset of “All Hospital Inpatient Beds”.
- HHS: All Inpatient Pediatric Beds – **(New)** 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 – Subset of “All Hospital Inpatient Beds Occupancy”.
- HHS: Pediatric Inpatient Bed Occupancy – **(New)** Subset of “HHS: 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: Pediatric ICU Beds (New) – Subset of “HHS: All Inpatient Pediatric Beds” and “HHS: ICU Beds”.
- HHS: ICU Bed Occupancy – Total number of staffed inpatient ICU beds that are occupied.
- HHS: Adult ICU Bed Occupancy – Subset of “Adult ICU Bed Occupancy”.

- HHS: Pediatric ICU Bed Occupancy – **(New)** Subset of “HHS: Pediatric Inpatient Bed Occupancy” and “HHS: ICU Bed Occupancy”.
- HHS: Total Mechanical ventilators – **(Inactive)** 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 – **(Inactive)** 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 – 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 – Subset of “Total ICU adult suspected/confirmed positive”.
- HHS: Hospitalized ICU Ped confirmed-positive COV – **(New)** Subset of “HHS: Pediatric ICU Bed Occupancy”.
- 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 – **(Inactive)** 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 – **(Inactive)** Subset of “ED/Overflow”.
- HHS: Previous Day Deaths – **(Inactive)** 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 – Total number of patient visits to the ED that were seen on the previous calendar day regardless of reason for visit.

- HHS: Prev Day COVID Related ED Visits – Total number of ED visits that 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 is included.

- HHS: Prev day adult admits confirmed COV [age bracket] – **(Required for clients participating in the submission service)** 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.
  - 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] – **(Required for clients participating in the submission service)** 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.
  - 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.

## Previous Day's COVID Confirmed Admissions - Pediatric

This data group include:

HHS: Prev day peds admits confirmed COV [age bracket] – **(Required for clients participating in the submission service)** The number of patients who were admitted to a pediatric inpatient bed on the previous calendar day who had confirmed COVID-19 at the time of admission for the following age brackets.

- 0-4
- 5-11
- 12-17
- Unknown

## Staffing

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

- 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 Practitioners
  - Pharmacists and Pharmacy Techs
  - Physicians
  - Respiratory Therapists
  - Temporary Staff

## Supplies

There are three associated fields for most of the supplies.

- 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 ventilators and PPE categories.
- 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		
Vent meds				
N95 masks		X		X
PAPRs and Other Resp				X
Surgical Masks		X		X
Eye Protection		X		X
Single use gowns		X		X
Exam Gloves		X		X
Launderable gowns				
Nasal pharyngeal swabs				
Nasal swabs				
Viral transport media				

## 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 – **(Inactive)**
- HHS: Influenza Confirmed Prev Day's Deaths – **(Inactive)**
- HHS: Influenza and COV Conf Prev Day Deaths – **(Inactive)**

## Therapeutics

There are eight therapeutic fields; however, it is anticipated that this set will expand over time.

- HHS: Therapeutics Casirivimab/Imdevimab on Hand
- HHS: Therapeutics Casirivimab/Imdevimab Used
- HHS: Therapeutics Bamlanivimab on Hand – **(Inactive)**
- HHS: Therapeutics Bamlanivimab Used – **(Inactive)**
- HHS: Therapeutics Bamlan/Etesevimab on Hand
- HHS: Therapeutics Bamlan/Etesevimab Used
- HHS: Therapeutics Sotrovimab on Hand
- HHS: Therapeutics Sotrovimab Used

## Vaccinations

There are seven vaccination fields; however, it is anticipated that this will expand over time.

- HHS: Vaccination: Staff Prev Week Doses
- HHS: Vaccination: Staff Not Vaccinated
- HHS: Vaccination: Staff One Dose in Series
- HHS: Vaccination: Staff Completed Series
- HHS: Vaccinations: Total Hospital Staff
- HHS: Vaccinations: Patients One Dose in Series
- HHS: Vaccination: Patients Completed Series

## Data Presentation

Since there is a large amount of data that will be queried simultaneously, 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 Images below show how multiple, well-labeled events can be used to target specific data types and manage the data collection.

Update 2: Hurricane EEI Reporting		HHS: Supplies		Update 1: Remdesivir		Confirmed COVID Admissions		Suspected COVID Admissions		COVID Hospital Capacity		COVID Patients		Staffing Shortage		Influenza	
Hospitals	Hospital	ED Status	NEDOCS	Bed Capacity: Psych	Bed Capacity: Med Surg	ED Wait Time (Min)	Comment										
Alaska Native Medical Center	Normal	ED Recovery	73 - Busy	32	205	9											
Alaska Regional Hospital	Normal	Open	27 - Normal	0	70	14											
Bellevue Hospital	Full	Alert - Specialty Closure	80 - Busy	20	155	14	No General Surgery   ready										
Cape Coral Hospital	Full	Open	15 - Normal	10	5	10	test comments for demo										
Fawcett Memorial Hospital	Nearing Capacity	Closed	102 - Overcrowded	20	220	27	Holding multiple patients in the ED   ED at ...										
Gulf Coast Hospital	Evacuated	Open	17 - Normal	0	55	0	No additional comments										
Joint Base Elmendorf-Richardson Hospital	Normal	Alert - Specialty Closure	94 - Busy	8	15	12	Obstetrics										
Lee Memorial Hospital	Normal	Open	109 - Overcrowded	3	30	5											
Lehigh Regional Medical Center	Nearing Capacity	Alert - Specialty Closure	159 - Severe	20	120	24	NEDOCS Comments...										
Physicians Regional Med Cntr	Normal	Open	19 - Normal	0	30	8											
Providence Alaska Medical Center	Evacuated	Open	342 - Disaster	0	110	25											
Summary	N/A	N/A	N/A	113	1,015	148											

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			
<small>Created By: Springfield Administrator @ 07/15/20 00:32            Please update the HHS-required COVID patient information daily by 1600 hrs.   <a href="#">Event Details</a>   <a href="#">Phone Notifications</a></small>																			
#	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 Ctr	--	--	--	--	--	--	--	--	--	--	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			