

NHSN Connectivity Initiative: Hospital Bed Capacity Project

Import File Specifications Reference Guide

Updated: June 13, 2025

Implemented: September 20, 2024

Use the specifications outlined in this reference guide when transmitting data to bed capacity data to CDC's National Healthcare Safety Network (NHSN) as part of the NHSN Connectivity Initiative: Hospital Bed Capacity Project for collection dates 9/20/2024 and going forward. Additional resources (including full reporting guidance and data dictionary) the NHSN Connectivity Initiative: Hospital Bed Capacity Project are available here: <https://www.cdc.gov/nhsn/bed-capacity/index.html>.

Please note:

- All files transmitted must be in JSON format.
- For all integer fields listed in the table below, please report a non-null value (including zero). If the bed type of not applicable to your hospital, please report 9999.

Column Name	ID	Column Description	Status	Format	Valid Values	Business Rules
orgID	1a	NHSN Org ID	Required*	Integer	i.e., 12345	Facility identifier – required for all imports, including groups
collectionDate	1b	Collection date	Required*	Datetime	i.e. 2025-05-27T12:45:37.000	Enter the date and time for which the counts and responses in the transmission apply.
ExtractionDate	1c	Extraction date	Required*	Datetime	i.e., 2025-05-27T12:45:37.000	Enter the date and time at which the data and responses were extracted from the hospital source system.

Column Name	ID	Column Description	Status	Format	Valid Values	Business Rules
Context	1d	Hospital or facility-within-facility or subunit of facility for which record applies	Required*	Character	HOSP IPF IRF CH OTH	Unit- or location-level reporting indicator – required for all imports, including groups. Only report inpatient rehabilitation facility (IRF) if the facility has an active IRF location enrolled in NHSN. Only report inpatient psychiatric facility (IPF) if the facility has an active IPF location enrolled in NHSN. Children's (CH) and other (OTH) contexts available for separate reporting of pediatric or other unit-specific data if desired, but not required.
ReportingStatus	1e	Status for each facility at the time of record submission	Required*	String	ActiveCMS ActiveNoCMS Test Inactive	
AllBedsOccupied	2a	All beds census	Required[†]	Integer		Must be <= Sum (3a. AdultTotalOccupied, 8a. PedsTotalOccupied, 13a. SpecialtyTotalOccupied)
AllBedsUnoccupied	2b	All beds unoccupied	Required[†]	Integer		Must be <= Sum (3b. AdultTotalUnoccupied, 8b. PedsTotalUnoccupied, 13b. SpecialtyTotalUnoccupied) [§]
AdultTotalOccupied	3a	Adult total census	Required[†]	Integer		Must be <= 2a. AllBedsOccupied [§]
AdultTotalUnoccupied	3b	Adult total unoccupied	Required[†]	Integer		Must be <= 2b. AllBedsUnoccupied [§]
AdultICUOccupied	4a	Adult intensive care unit (ICU) census	Required[†]	Integer		Must be <= 3a. AdultTotalOccupied [§]
AdultICUUnoccupied	4b	Adult intensive care unit (ICU) unoccupied	Required[†]	Integer		Must be <= 3b. AdultTotalUnoccupied [§]
AdultICULOCOcupied	4c	Adult intensive care unit (ICU) - level of care (LOC) census	Required	Integer		Must be <= 4a. AdultICUOccupied [§]
AdultNonICUOccupied	4d	Adult non-intensive care unit (non-ICU) census	Required	Integer		Must be <= 3a. AdultTotalOccupied [§]
AdultNonICUUnoccupied	4e	Adult non-intensive care unit (non-ICU) unoccupied	Required	Integer		Must be <= 3b. AdultTotalUnoccupied [§]
AdultPCUOccupied	5a	Adult progressive care unit (PCU) census	Required	Integer		Must be <= 3a. AdultTotalOccupied [§]

Column Name	ID	Column Description	Status	Format	Valid Values	Business Rules
AdultPCUUnoccupied	5b	Adult progressive care unit (PCU) unoccupied	Required	Integer		Must be <= 3b. AdultTotalUnoccupied [§]
AdultMTMSOccupied	6a	Adult medicine telemetry/medicine surgery acute care (MTMS) bed census	Required	Integer		Must be <= 3a. AdultTotalOccupied [§]
AdultMTMSUnoccupied	6b	Adult medicine telemetry/medicine surgery acute care (MTMS) bed unoccupied	Required	Integer		Must be <= 3b. AdultTotalUnoccupied [§]
AdultObsOccupied	7a	Adult observation census	Required	Integer		Must be <= 3a. AdultTotalOccupied [§]
AdultObsUnoccupied	7b	Adult observation unoccupied	Required	Integer		Must be <= 3b. AdultTotalUnoccupied [§]
PedsTotalOccupied	8a	Pediatric total census	Required [†]	Integer		Must be <= 2a. AllBedsOccupied [§]
PedsTotalUnoccupied	8b	Pediatric total unoccupied	Required [†]	Integer		Must be <= 2b. AllBedsUnoccupied [§]
PedsICUOccupied	9a	Pediatric intensive care unit (ICU) census	Required [†]	Integer		Must be <= 8a. PedsTotalOccupied [§]
PedsICUUnoccupied	9b	Pediatric intensive care unit (ICU) unoccupied	Required [†]	Integer		Must be <= 8b. PedsTotalUnoccupied [§]
PedsICULOCOccupied	9c	Pediatric intensive care unit - level of care (LOC) census	Required	Integer		Must be <= 9a. PedsICUOccupied [§]
PedsNonICUOccupied	9d	Pediatric non-intensive care unit (non-ICU) census	Required	Integer		Must be <= 8a. PedsTotalOccupied [§]
PedsNonICUUnoccupied	9e	Pediatric non-intensive care unit (non-ICU) unoccupied	Required	Integer		Must be <= 8b. PedsTotalUnoccupied [§]
PedsPCUOccupied	10a	Pediatric progressive care unit (PCU)census	Required	Integer		Must be <= 8a. PedsTotalOccupied [§]
PedsPCUUnoccupied	10b	Pediatric progressive care unit (PCU) unoccupied	Required	Integer		Must be <= 8b. PedsTotalUnoccupied [§]
PedsMTMSOccupied	11a	Pediatric medicine telemetry/medicine surgery acute care bed (MTMS) census	Required	Integer		Must be <= 8a. PedsTotalOccupied [§]
PedsMTMSUnoccupied	11b	Pediatric medicine telemetry/medicine surgery acute care bed (MTMS) unoccupied	Required	Integer		Must be <= 8b. PedsTotalUnoccupied [§]
PedsObsOccupied	12a	Pediatric observation census	Required	Integer		Must be <= 8a. PedsTotalOccupied [§]
PedsObsUnoccupied	12b	Pediatric observation unoccupied	Required	Integer		Must be <= 8b. PedsTotalUnoccupied [§]
SpecialtyTotalOccupied	13a	Specialty total census	Required	Integer		Must be <= 2a. AllBedsOccupied [§]

Column Name	ID	Column Description	Status	Format	Valid Values	Business Rules
SpecialtyTotalUnoccupied	13b	Specialty total unoccupied	Required	Integer		Must be <= 2b. AllBedsUnoccupied [§]
SpecialtyNonCribOccupied	14a	Specialty (non-crib) census	Required	Integer		Must be <= 13a. SpecialtyTotalOccupied [§]
SpecialtyNonCribUnoccupied	14b	Specialty (non-crib) unoccupied	Required	Integer		Must be <= 13b. SpecialtyTotalUnoccupied [§]
OBOccupied	15a	Specialty obstetrics census	Required [†]	Integer		Must be <= 13a. SpecialtyTotalOccupied [§]
OBUncupied	15b	Specialty obstetrics unoccupied	Required [†]	Integer		Must be <= 13b. SpecialtyTotalUnoccupied [§]
NICUOccupied	16a	Specialty neonatal intensive care unit (NICU) census	Required [†]	Integer		Must be <= Sum (17a. NICU1Occupied, 17c. NICU2Occupied, 17e. NICU3Occupied, 17g. NICU3PlusOccupied, 17i. NICU4Occupied) Or/and Must be <= 13a. SpecialtyTotalOccupied [§]
NICUUnoccupied	16b	Specialty neonatal intensive care unit (NICU) unoccupied	Required [†]	Integer		Must be <= Sum (17b. NICU1Unoccupied, 17d. NICU2Unoccupied, 17f. NICU3Unoccupied, 17h. NICU3PlusUnoccupied, 17j. NICU4Unoccupied) Or/and Must be <= 13a. SpecialtyTotalUnoccupied [§]
NICU1Occupied	17a	Specialty neonatal intensive care unit (NICU) level 1 census	Required	Integer		Must be <= 13a. SpecialtyTotalOccupied [§]
NICU1Unoccupied	17b	Specialty neonatal intensive care unit (NICU) level 1 unoccupied	Required	Integer		Must be <= 13b. SpecialtyTotalUnoccupied [§]
NICU2Occupied	17c	Specialty neonatal intensive care unit (NICU) level 2 census	Required	Integer		Must be <= 13a. SpecialtyTotalOccupied [§]
NICU2Unoccupied	17d	Specialty neonatal intensive care unit (NICU) level 2 unoccupied	Required	Integer		Must be <= 13b. SpecialtyTotalUnoccupied [§]
NICU3Occupied	17e	Specialty neonatal intensive care unit (NICU) level 3 census	Required	Integer		Must be <= 13a. SpecialtyTotalOccupied [§]
NICU3Unoccupied	17f	Specialty neonatal intensive care unit (NICU) level 3 unoccupied	Required	Integer		Must be <= 13b. SpecialtyTotalUnoccupied [§]
NICU3PlusOccupied	17g	Specialty neonatal intensive care unit (NICU) level 3 plus census	Required	Integer		Must be <= 13a. SpecialtyTotalOccupied [§]
NICU3PlusUnoccupied	17h	Specialty neonatal intensive care unit (NICU) level 3 plus unoccupied	Required	Integer		Must be <= 13b. SpecialtyTotalUnoccupied [§]
NICU4Occupied	17i	Specialty neonatal intensive care unit (NICU) level 4 census	Required	Integer		Must be <= 13a. SpecialtyTotalOccupied [§]
NICU4Unoccupied	17j	Specialty neonatal intensive care unit (NICU) level 4 unoccupied	Required	Integer		Must be <= 13b. SpecialtyTotalUnoccupied [§]

Column Name	ID	Column Description	Status	Format	Valid Values	Business Rules
NurseryOccupied	17k	Specialty nursery census	Required [†]	Integer		Must be <= 13a. SpecialtyTotalOccupied [§]
NurseryUnoccupied	17l	Specialty nursery unoccupied	Required [†]	Integer		Must be <= 13b. SpecialtyTotalUnoccupied [§]
AdultPsychOccupied	18a	Specialty adult psychiatric census	Required [†]	Integer		Must be <= 13a. SpecialtyTotalOccupied [§]
AdultPsychUnoccupied	18b	Specialty adult psychiatric unoccupied	Required [†]	Integer		Must be <= 13b. SpecialtyTotalUnoccupied [§]
PedsPsychOccupied	19a	Specialty pediatric psychiatric census	Required [†]	Integer		Must be <= 13a. SpecialtyTotalOccupied [§]
PedsPsychUnoccupied	19b	Specialty pediatric psychiatric unoccupied	Required [†]	Integer		Must be <= 13b. SpecialtyTotalUnoccupied [§]
RehabOccupied	20a	Specialty rehabilitation census	Required [†]	Integer		Must be <= 13a. SpecialtyTotalOccupied [§]
RehabUnoccupied	20b	Specialty rehabilitation unoccupied	Required [†]	Integer		Must be <= 13b. SpecialtyTotalUnoccupied [§]
SurgeActiveTotalOccupied	21a	Surge total active census	Required [†]	Integer		
SurgeActiveTotalUnoccupied	21b	Surge total active unoccupied	Required [†]	Integer		
SurgeInactiveTotalUnoccupied	22a	Surge total inactive unoccupied	Required	Integer		
SurgeActiveICUOccupied	23a	Surge intensive care unit (ICU) active census	Required [†]	Integer		Must be <= 21a. SurgeActiveTotalOccupied [§]
SurgeActiveICUUnoccupied	23b	Surge Intensive care unit Active Unoccupied	Required [†]	Integer		Must be <= 21b. SurgeActiveTotalUnoccupied [§]
SurgeInactiveICUUnoccupied	24a	Surge intensive care unit (ICU) inactive unoccupied	Required	Integer		Must be <= 22a. SurgeInactiveTotalUnoccupied [§]
SurgeActiveNonICUOccupied	25a	Surge non-intensive care unit (ICU) active census	Required	Integer		Must be <= 21a. SurgeActiveTotalOccupied [§]
SurgeActiveNonICUUnoccupied	25b	Surge non-intensive care unit (ICU) active unoccupied	Required	Integer		Must be <= 21b. SurgeActiveTotalUnoccupied [§]
SurgeInactiveNonICUUnoccupied	26a	Surge non-intensive care unit inactive unoccupied	Required	Integer		Must be <= 22a. SurgeInactiveTotalUnoccupied [§]
BurnOccupied	27a	Burn bed census	Required	Integer		Must be <= 2a. AllBedsOccupied [§]
BurnUnoccupied	27b	Burn bed unoccupied	Required	Integer		Must be <= 2b. AllBedsUnoccupied [§]
NegativePressureOccupied	28a	Negative pressure bed census	Required	Integer		Must be <= 2a. AllBedsOccupied [§]
NegativePressureUnoccupied	28b	Negative pressure unoccupied	Required	Integer		Must be <= 2b. AllBedsUnoccupied [§]

Column Name	ID	Column Description	Status	Format	Valid Values	Business Rules
AdultEDCensus	29a	Adult emergency department total census	Required	Integer		Must be <= 29e. TotalEDCensus [§]
AdultEDAdmittedCensus	29b	Adult emergency department admitted census	Required	Integer		Must be <= 29f. TotalEDAdmittedCensus [§]
PedsEDCensus	29c	Pediatric emergency department census	Required	Integer		Must be <= 29e. TotalEDCensus [§]
PedsEDAdmittedCensus	29d	Pediatric emergency department admitted census	Required	Integer		Must be <= 29f. TotalEDAdmittedCensus [§]
TotalEDCensus	29e	Total emergency department census	Required	Integer		
TotalEDAdmittedCensus	29f	Total emergency department admitted census	Required	Integer		Must be <= 29e. TotalEDCensus [§]

*These fields cannot be left blank or NULL; valid values are required for data to be successfully transmitted and accepted by the NHSN application.

[†]These fields can be used to fulfill certain requirements for reporting to NHSN's [Hospital Respiratory Data \(HRD\)](#) module; fields cannot be left blank or NULL to populate in the HRD module (valid values passing the specified business rules for each field must be submitted for successful mapping and populating in HRD).

[§]If values reported for fields fail validation based on the specified business rule, data will not be rejected from the application (business rules represent 'soft' validation); NHSN team summarizes all data and records that fail each specified soft validation rule and provides a report after each reporting week for follow up and review/mitigation as needed. Note that if data fail the validation rule, data will be excluded from inclusion in downstream products including HRD reporting requirements.

Sample Logic checks:

Adult beds

Occupied:

- 3a. $\text{AdultTotalOccupied} > 2a. \text{AllBedsOccupied}$
- 4a. $\text{AdultICUOccupied} > 3a. \text{AdultTotalOccupied}$
- 4d. $\text{AdultNonICUOccupied} > 3a. \text{AdultTotalOccupied}$
- 4c. $\text{AdultICULOCOccupied} > 4a. \text{AdultICUOccupied}$
- 5a. $\text{AdultPCUOccupied} > 3a. \text{AdultTotalOccupied}$
- 6a. $\text{AdultMTMSOccupied} > 3a. \text{AdultTotalOccupied}$
- 7a. $\text{AdultObsOccupied} > 3a. \text{AdultTotalOccupied}$
- 18a. $\text{AdultPsychOccupied} > 13a. \text{SpecialtyTotalOccupied}$

Unoccupied:

- 3b. $\text{AdultTotalUnoccupied} > 2b. \text{AllBedsUnoccupied}$
- 4b. $\text{AdultICUUnoccupied} > 3b. \text{AdultTotalUnoccupied}$
- 4e. $\text{AdultNonICUUnoccupied} > 3b. \text{AdultTotalUnoccupied}$
- 5b. $\text{AdultPCUUnoccupied} > 3b. \text{AdultTotalUnoccupied}$
- 6b. $\text{AdultMTMSUnoccupied} > 3b. \text{AdultTotalUnoccupied}$
- 7b. $\text{AdultObsUnoccupied} > 3b. \text{AdultTotalUnoccupied}$
- 18b. $\text{AdultPsychUnoccupied} > 13b. \text{SpecialtyTotalUnoccupied}$

Pediatric beds

Occupied:

- 8a. $\text{PedsTotalOccupied} > 2a. \text{AllBedsOccupied}$
- 9a. $\text{PedsICUOccupied} > 8a. \text{PedsTotalOccupied}$
- 9d. $\text{PedsNonICUOccupied} > 8a. \text{PedsTotalOccupied}$
- 9c. $\text{PedsICULOCOccupied} > 9a. \text{PedsICUOccupied}$
- 10a. $\text{PedsPCUOccupied} > 8a. \text{PedsTotalOccupied}$
- 11a. $\text{PedsMTMSOccupied} > 8a. \text{PedsTotalOccupied}$
- 12a. $\text{PedsObsOccupied} > 8a. \text{PedsTotalOccupied}$
- 19a. $\text{PedsPsychOccupied} > 13a. \text{SpecialtyTotalOccupied}$

Unoccupied:

- 8b. $\text{PedsTotalUnoccupied} > 2b. \text{AllBedsUnoccupied}$
- 9b. $\text{PedsICUUnoccupied} > 8b. \text{PedsTotalUnoccupied}$
- 9e. $\text{PedsNonICUUnoccupied} > 8b. \text{PedsTotalUnoccupied}$
- 10b. $\text{PedsPCUUnoccupied} > 8b. \text{PedsTotalUnoccupied}$
- 11b. $\text{PedsMTMSUnoccupied} > 8b. \text{PedsTotalUnoccupied}$
- 12b. $\text{PedsObsUnoccupied} > 8b. \text{PedsTotalUnoccupied}$
- 19b. $\text{PedsPsychUnoccupied} > 13b. \text{SpecialtyTotalUnoccupied}$

Specialty beds

Occupied:

Sum (17a. NICU1Occupied; 17c. NICU2Occupied; 17e. NICU3Occupied; 17g. NICU3PlusOccupied; 17i. NICU4Occupied) > 16a. NICUOccupied
 13a. SpecialtyTotalOccupied > 2a. AllBedsOccupied
 16a. NICUOccupied > 13a. SpecialtyTotalOccupied
 17a. NICU1Occupied > 13a. SpecialtyTotalOccupied
 17c. NICU2Occupied > 13a. SpecialtyTotalOccupied
 17e. NICU3Occupied > 13a. SpecialtyTotalOccupied
 17g. NICU3PlusOccupied > 13a. SpecialtyTotalOccupied
 17i. NICU4Occupied > 13a. SpecialtyTotalOccupied
 17k. NurseryOccupied > 13a. SpecialtyTotalOccupied
 15a. OBOccupied > 13a. SpecialtyTotalOccupied
 20a. RehabOccupied > 13a. SpecialtyTotalOccupied
 14a. SpecialtyNonCribOccupied > 13a. SpecialtyTotalOccupied

Unoccupied:

Sum (17b. NICU1Unoccupied; 17d. NICU2Unoccupied; 17f. NICU3Unoccupied; 17h. NICU3PlusUnoccupied; 17j. NICU4PlusUnoccupied) > 16b. NICUUnoccupied
 13b. SpecialtyTotalUnoccupied > 2b. AllBedsUnoccupied
 16b. NICUUnoccupied > 13b. SpecialtyTotalUnoccupied
 17b. NICU1Unoccupied > 13b. SpecialtyTotalUnoccupied
 17d. NICU2Unoccupied > 13b. SpecialtyTotalUnoccupied
 17f. NICU3Unoccupied > 13b. SpecialtyTotalUnoccupied
 17h. NICU3PlusUnoccupied > 13b. SpecialtyTotalUnoccupied
 17j. NICU4Unoccupied > 13b. SpecialtyTotalUnoccupied
 17l. NurseryUnoccupied > 13b. SpecialtyTotalUnoccupied
 15b. OBUncoccupied > 13b. SpecialtyTotalUnoccupied
 20b. RehabUnoccupied > 13b. SpecialtyTotalUnoccupied
 14b. SpecialtyNonCribUnoccupied > 13b. SpecialtyTotalUnoccupied