Massachusetts Case Mix

Outpatient Observation Data (OOD)

Fiscal Year 2024

Documentation Manual

CHIA.

Massachusetts Case Mix
FY 2024 Outpatient Observation Data

USER GUIDE

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Executive Summary

Each quarter, Massachusetts facilities provide to the Center for Health Information and Analysis (CHIA) data collected from outpatient observation units about patient stays that did not end in an inpatient admission. Data on observation stay patients who were admitted to the same acute inpatient facility at which their observation stay occurred can be found in the FY 2024 Hospital Inpatient Discharge Database (HIDD). The FY 2024 Outpatient Observation Database (OOD) includes observation stays that occurred between October 1, 2023, and September 30, 2024. Facilities reported a total of 218,034 stays.

The FY 2024 OOD Guide provides general information about CHIA's most recent outpatient observation data holdings. This information includes high level data notes (data collection, data application, use and FAQs) and a codebook (data element, data dictionary, reference tables, and summary statistics).

Part A. Data Collection

Select facilities in Massachusetts are required to submit outpatient observation stay data to CHIA under regulation *957 CMR 8.00 - APCD and Case Mix Data Submission*. Researchers can access OOD regulations by visiting CHIA's web site at **http://www.chiamass.gov/regulations**.

957 CMR 8.00 - APCD and Case Mix Data Submission requires acute care hospitals to submit inpatient discharge data to CHIA 75 days after each quarter. The quarterly reporting intervals for the FY 2024 OOD are as follows:

- **Quarter 1: October 1, 2023 – December 31, 2023**

- **Quarter 2: January 1, 2024 – March 31, 2024**

- **Quarter 3: April 1, 2024 – June 30, 2024**

- **Quarter 4: July 1, 2024 – September 30, 2024**

CHIA reviews each facility's quarterly data for compliance with *957 CMR 8.00 - APCD and Case Mix Data Submission* using a one percent error rate. The one percent error rate is based upon the presence of one or more errors per stay for the facility's quarterly submission. CHIA checks for valid codes, correct formatting, and presence of the required data elements. If one percent or more of the stays are rejected, CHIA rejects the entire submission.

Each facility receives a quarterly error report displaying invalid stay information. Quarterly data that does not meet the one percent compliance standard must be resubmitted by the reporting facility until the standard is met.

Data Sources

Any stay for which the patient was admitted to observation, but which did not result in an inpatient admission of the patient at the reporting hospital, is included in FY 2024 OOD. Observation services may include monitoring, assessment, and short term treatment before determining whether a patient requires further hospital inpatient treatment or step-down monitoring of a patient discharged from inpatient care. An observation stay may occur even if the only service provided is the short term use of a bed to a registered patient for triage or screening. Observation services are further defined in the Hospital Uniform Reporting Manual (HURM), Chapter III, § 3241.

Observation Stays Originating from Emergency Department Visits

FY 2024 outpatient Emergency Department (ED) visits which result in an observation stay at the reporting hospital are not included in the reporting hospital's FY 2024 ED visit data. Observation stays that began in the reporting hospital's ED now report in the OOD stay record, the patient's ED registration and discharge date and times associated with the observation stay which originated from an ED visit. While the source of admission codes and ED Flag fields are also used to indicate observation stays originating from an ED Visit, there has been more consistency and completeness in the reporting of the ED registration and ED discharge fields for such stays.

Based on the Observation stay records populating the ED registration/discharge date fields (n=193,246) and records which indicated inside hospital ED as the source but omitted ED registration information (n=22), 88.6% of observation stays originate from ED visits.

Observation Stays Resulting in Inpatient Admissions

If the patient was admitted to inpatient care, observation services were reported as inpatient observation services and included in the reporting hospital's inpatient discharge data (HIDD) and not in the FY 2024 OOD. Data users interested in observation stays that result in an inpatient admission should use the FY 2024 HIDD. The HIDD database has an "Observation Indicator" flag which identifies admissions that include an observation stay. Their ED Registration and Discharge Dates and Time are also included in the HIDD database.

OOD Verification Report Process

CHIA sends each facility a report with their observation stay data to maintain and improve the quality of their data submissions. The Verification Report process gives the facilities the opportunity to review the data they have provided to CHIA and affirm data accuracy and completeness.

CHIA produces facility specific Verification Reports at year-end. CHIA asks each facility to review and verify the data contained within the report. Each Verification Report has a series of frequency tables for selected data elements that include, but are not limited to, the number of stays per month and breakouts by admission type, admission source, patient race, and patient disposition.
Facilities must affirm that reported data was accurate or identify any discrepancies. Facilities certify the accuracy and completeness of their data by completing a Verification Report Response form. CHIA accepts two response types from facilities:

A: A facility indicates its agreement that the data appearing on the Verification Report is accurate and that it represents the facility's case mix profile.

B: A facility indicates that the data on the report is accurate except for the discrepancies noted. If any data discrepancies exist, CHIA requests that facilities provide written explanations of the discrepancies.

Users interested in the FY 2024 OOD Verification Reports should contact CHIA at **casemix.data@chiamass.gov**. Please indicate the fiscal year of the Verification Report, the dataset name, and if the information is needed for a specific facility or set of facilities.

Part B: Applying for and Using CHIA Data

Researchers interested in receiving approval to access CHIA data should follow the instructions below to apply for the data. Due to the custom nature of each data request, limited information covering all data uses is provided. Data applicants needing additional assistance applying for data or using the data should contact CHIA at **casemix.data@chiamass.gov**.

How to Apply for the Data

- To obtain a copy of the Application Form, Data Use Agreement, Data Management Plan and/or other documents required for application, go to: **http://www.chiamass.gov/chia-data/**

- Follow the links to the forms that correspond to the data (Case Mix, MA APCD) and application type (Government, Non-Government) that are appropriate to the data request.

- Information on the Hospital Case Mix and Charge Data Fee Schedule is available at the following link: **https://www.chiamass.gov/assets/docs/g/chia-ab/1705.pdf**

- All application documents must be submitted to CHIA and are managed through IRBNet.org. Instructions for submitting application materials through IRBNet are available on the following link: **https://www.chiamass.gov/assets/Uploads/data-apps/Application-Submission-IRBNet-Tutorial.pdf**

- Non-Government applicants can request approval to use a pre-configured Limited Data Set (LDS), designed to protect patient data confidentiality while ensuring analytic utility. This streamlined dataset also improves CHIA's ability to deliver the data efficiently.

- The data contained in Case Mix databases include personal information and Protected Health Information, the release of which is restricted by state and federal laws and regulations. The application process has been designed to help applicants prepare applications that will allow for the release of data while protecting patient privacy. For this reason, applicants should familiarize themselves with CHIA's APCD and Case Mix Data Release Regulation (957 CMR 5.00) and the forms and other background information referenced above.

Securing CHIA Data Prior to Use

Approved data recipients or agents are obliged by the application and confidentiality agreement to secure the data in a manner that protects the confidentiality of the records and complies fully with the terms of CHIA's Data Use Agreement. All data obtained from CHIA must reside on an encrypted hard drive and/or secure network.

Data Delivery

CHIA delivers OOD electronically via Secure File Transfer Protocol (SFTP). Users must also be able to read and download the data files to their back office.

Hardware Requirements:

Encrypted Hard Drive with 2.0 GB of space available.

Data Use

The FY 2024 Case Mix OOD consists of ASCII text files (txt), Microsoft Access Database files (.mdb) or SAS files (.sas7bdat). Each file name will have a suffix of "_Full" or "_Full_AAAA." Full indicates a full year or final release. AAAA indicates whether the data is from an LDS or Government dataset.

- The main FIPA_OOD_2024_**Observation** (table name: Observation), contains one record per observation stay.
- FIPA_OOD_2024_**Organization** (table name: Organization) contains one record per organization reported. This table is the look-up table for hospitals and transfer destination organization identifiers. This table can be used to look up all facility names and hospital teaching status.
- FIPA_OOD_2024_**SubmissionLog** (table name: SubmissionLog) contains one record per quarter for each of the observation facilities filing data.
- FIPA_OOD_2024_**ErrorLog** (table name: ErrorLog) contains records by quarter and by fiscal year for the number of records passed and failed and the reason for fail by IdOrgFiler.
- FIPA_OOD_2024_**MEID_Mapping** (tablename: MEIDMapping), contains one record per RecordType20ID. The Observation table (RecordType20ID) has a one-to-one relationship with this table.

Linking Files

Historically, case mix data users receive a Microsoft Access version of the data. Many users import the data into SQL, STATA™, SPSS™, SAS™, or R for analysis or data management. Organization Ids should be used to link facility data.

Part C: Data Elements

The following section should provide the user with an explanation of some of the data. For more information about specific data elements, facility reporting thresholds, or other questions, please contact CHIA at **casemix.data@chiamass.gov**.

About the Limited Data Set (LDS)

The pre-configured Limited Data Set (LDS) is designed to protect patient data confidentiality while ensuring analytic utility. All approved data applicants receive the "core" data elements. Data applicants seeking approval to add to the "core" elements must indicate this by selecting from the list of "buy-ups." An applicant could use the "Buy-up" process to receive more granular data. For example, the user can request a "buy-up" to a 5-digit patient ZIP code instead of a 3 digit patient ZIP code. CHIA must review buy-up requests and may approve the request based on the project description. CHIA makes an additional set of core elements available only to government data applicants. Government data applicants must specifically identify requested Government-Only elements in their application and provide justification for their request.

Master Data Elements List

For the FY 2024 OOD, CHIA provides a master data elements list by table. Not every approved data applicant has access to every data element – some are reserved for limited dataset buy-ups or for government use. All approved data applicants have access to the "CORE" data. Data applicants who choose limited dataset buy-ups may have access to some "LDS" elements. Only government data applicants may request the "GOV" fields. Data applicants interested in purchasing the data should visit the CHIA website for instructions.

OBSERVATION TABLE-CORE ELEMENTS

AgeLDS	IdOrgSite	Secondary PayerType
AssocConditionPresentCode1-10	IdOrgTransfer	SecondarySourceOfPayment
AssociatedDiagnosisCode1-15	LengthOfStayHours	SecondarySourceOfVisit
AssociatedProcedureCode1-3	NewbornAgeWeeks	SexLDS
Charges	OtherCareGiver	SourceOfVisit
CPTCode1-10	PermanentPatientCountryLDS	SubmissionControlID
DepartureStatus	PermanentPatientStateLDS	SubmissionQuarter
DaysBetweenObsStays	PermanentPatientZIP3CodeLDS	SubmissionYear
ED_Flag	PrimaryPayerType	TemporaryPatientStateLDS
HispanicIndicator	PrimarySourceOfPayment	TemporaryPatientZIP3CodeLDS
HomelessIndicator	PrincipalConditionPresent	TypeOfVisitObs
ICDIndicator	PrincipalDiagnosisCode	VisitPassed

IdOrgFiler	PrincipalProcedureCode	NumberOfHoursInED
IDOrgHosp	RecordType01ID	

OBSERVATION TABLE-LDS ELEMENTS

AssociatedProcedureCode1Date-3Date	LegacyCHIAPatientUHIN	PrincipalProcedureCodeYYYYMM
AssociatedProcedureCode1YYYYMM-YYYYMM	LegacyCHIAPhysicianNumber	Race1
DischargeDate	LegacyCHIAOtherPhysicianNumber	Race2
DischargeMonth	ObservationSequence	RegistrationDate
DischargeYear	OtherPhysicianNumber	RegistrationMonth
EmergencyDepartmentRegistrationDate	PermanentPatientCityLDS	RegistrationYear
Ethnicity1	PermanentPatientZIP5CodeLDS	SurgeonAssociatedProcedure1-3
Ethnicity2	PhysicianNumber	TemporaryPatientCityLDS
LegacyCHIAMothersUHIN	PrincipalProcedureCodeDate	TemporaryPatientZip5CodeLDS

OBSERVATION TABLE-GOVERNMENT-ONLY ELEMENTS

EmergencyDepartmentDischargeHour	EmergencyDepartmentRegistrationTime	OtherRace
EmergencyDepartmentDischargeMinute	HospitalBillNumber	PatientBirthDate
EmergencyDepartmentDischargeTime	MedicaidMemberID	RegistrationTime
EmergencyDepartmentRegistrationHour	MedicalRecordNumber	
EmergencyDepartmentRegistrationMinute	OtherEthnicity	

SUBMISSION TABLE

Active	OrgName	SubmissionControlID
IdOrgFiler	Passed	TotalCharges
NumberofObservations	Quarter	Year

ERROR LOG TABLE

ErrorCategory	NumberofErrors	SubmissionActive
ErrorDescription	NumberofObservations	SubmissionControlID
ErrorLogKey	NumberofObservationsFailed	SubmissionQuarter
FieldName	NumberofObservationsPassed	SubmissionPassed
IdOrgFiler	OrgName	SubmissionYear

ORGANIZATION TABLE

City	OrganizationNumber	State
DateInactive	OrganizationTypeID	Type
GroupName	OrgID	
OrganizationGroupID	OrgName	

MEID MAPPING-CORE ELEMENTS

SubmissionControlID
IdOrgFiler
RecordType01ID
MemberMDMID

MEID MAPPING-GOVERNMENT ONLY ELEMENTS

SubmissionControlID
IdOrgFiler
RecordType01ID
MemberMDMID
MedicalRecordNumber

The Member Master Data Management ID (MemberMDMID)

CHIA has created a new patient identifier that allows analysts to link patients within and across hospitals. The process assigns a single unique surrogate key to each person, regardless of how many different hospitals have submitted data about the person. The Master Data Management (MDM) technique employs an industry-leading MDM software solution, IBM Initiate Master Data Service. CHIA has designed and implemented a case mix-specific record linkage algorithm within the IBM Initiate software that operates on obfuscated PII. The MemberMDMID provides a way to identify patients using a unique identifier that is not personally identifiable. The MemberMDMID's provide the researchers' the ability to track patients across time, hospital sites of service, case mix products, and payers. Due to enhanced inclusion of non-releasable obfuscated PII as part of the algorithm processing, the MemberMDMID has a higher completeness than the legacy CHIA patient UHIN. **See Table 1 below**.

Table 1. FY2024 Observation Stay Comparison of Completeness UHINs to MemberMDMIDs

DISCHARGE MONTH	TOTAL OBSERVATION STAYS	TOTAL STAYS MISSING UHINs	TOTAL STAYS MISSING MEMBERMDMID
Oct-23	18,812	5,318	4
Nov-23	17,651	5,185	11
Dec-23	17,529	5,079	0
Jan-24	17,674	5,219	0
Feb-24	16,979	4,903	1
Mar-24	18,259	5,419	4
Apr-24	18,251	5,451	6
May-24	19,063	5,608	2
Jun-24	17,703	5,027	1
Jul-24	18,826	5,520	1
Aug-24	19,280	5,614	1
Sep-24	18,007	5,227	5

Organization of the Diagnosis and Procedure Codes

For FY 2024 OOD, CHIA organizes the procedure (CPT-4 or ICD-10-PCS) and diagnosis (ICD-10-CM) fields into one main OOD table (see figure below). Diagnoses and procedures are ordered as submitted to CHIA. CHIA does not require the order of diagnoses and procedures to be medically relevant. CHIA does not affirm or confirm the medical relevancy of the principal diagnosis, procedure, or external cause codes.

Relationship between Diagnosis Codes and Procedure Codes in Case Mix Data

OOD Single Table One-to-One Relationship

Outpatient Observation Stay Data Table
RecordType01ID
Principal Diagnosis Code
Principal E Code
Associated Diagnosis Codes 1 through 15
Principal Procedure Code
Associated Procedure Codes 1 through 3
CPT Codes 1 through 10

HIDD Multiple Table One-to-Many Relationship

Discharge Table
RecordType20ID
Primary Diagnosis Code
Principal E Code
Principal Procedure Code

Diagnosis Codes Table
RecordType20ID
Unlimited Diagnosis Codes

Procedure Codes Table
RecordType20ID
Unlimited Procedure Codes

Services Table
RecordType20ID
Unlimited Revenue Codes

ED Visit Multiple Table One-to-Many Relationship

ED Visit Table
RecordType20ID
Primary Diagnosis Code
Principal E Code

Diagnosis Codes Table
RecordType20ID
Unlimited Diagnosis Codes

Procedure Codes Table
RecordType20ID
Unlimited Procedure Codes

Services Table
RecordType20ID
Unlimited Service Line Items

Registration Date, Discharge Date and Observation Time

The *Registration Date, Discharge Date* and *Observation Time* reflect the actual date and time that the patient visit began and was discharged from the OOD. Default values, such as 11:59 PM of the day the patient was registered, were unacceptable. Time was reported as military time, and valid values include 0000 through 2359.

ED Registration and Discharge Date and Time Data

If the Observation Stay was due to a transfer from the hospital's internal Emergency Department, then providers were asked to include the ED registration and discharge dates and times. For FY 2024, release of this data is limited to Government recipients only. Time was reported as military time, and valid values include 0000 through 2359.

Organization Identifiers (OrgID)

FY 2024 OOD contains four organization identifier fields. These fields are a CHIA assigned unique code for each Massachusetts facility:

- **Massachusetts Filer Organization ID (IdOrgFiler):** The Organization ID for the facility that submitted the observation unit data to CHIA.
- **Massachusetts Site Organization ID (IdOrgSite):** The Organization ID for the site where the patient received outpatient observation care.
- **Massachusetts Hospital Organization ID (IdOrgHosp):** The Organization ID for the main hospital affiliation. For example, 3108 (Cambridge Health Alliance) is the IdOrgHosp for the IdOrgSite 142 (Everett Hospital).
- **Massachusetts Transfer Hospital Organization ID (IdOrgTransfer):** The Organization ID for the facility from which a patient is transferred. If the patient is transferred from outside of Massachusetts, the IdOrgTransfer will be 9999999.

Age LDS

If the date of birth and admission date are valid, then CHIA calculated Age LDS in years. The calculation was as follows:

- Age is calculated to be the rounded integer value – of the difference between Date of Birth and Discharge date.
- If Age is valid and < 1 year, then AgeLDS = 0.
- If Age is valid and =>1 year and < 90 years, then AgeLDS = a year between 1 and 89
- If Age is valid and > 89 and <= 115, AgeLDS = 999
- If Age is missing, negative value, or value > 115, then AgeLDS = null

Discretion should be used whenever a questionable age assignment is noted. Researchers are advised to consider other data elements in their analysis of this field.

Data Limitations

The OOD is derived from outpatient observation stay summaries, which can be traced to information gathered upon registration or from information entered by admitting and attending health professionals into the medical record. The quality of the OOD depends on facility data collection policies and coding practices of the medical record staff.

Information may not be entirely consistent from facility to facility due to differences in:

- Collection and verification of patient supplied information before or at admission,
- Update to information following forensic autopsy,
- Medical record coding, consistency, and/or completeness,
- Extent of facility data processing capabilities,
- Flexibility of facility data processing systems,
- Capacity of financial processing system to record late occurring charges on CHIA's electronic submission,
- Non-comparability of data collection and reporting.

Historical Data Elements

Users of multiple years of Case Mix data should be careful when merging multiple years of data. To maintain consistency across years, it may be necessary to merge some codes used for specific data elements. For example, keep in mind the transition from

ICD-9-CM to ICD-10-CM/PCS which began in FY2015 (October 2015) and the change in race/ethnicity coding rubric which began in FY2007 (October 2007). Users with questions about new data elements or changes in coding from year to year should contact CHIA at **casemix.data@chiamass.gov**.

Data Dictionary

FY 2024 OOD data dictionary provides metadata for the following attributes:

- *Data Element:* name as it appears in the file
- *Short description:* to help users understand what the element contains
- *Primary table:* the main table (MS ACCESS) or file (SAS) that the data element will appear in
- *Linking tables:* other tables that contain the data element
- *Availability to users:* indicates if the data is available to all users ("CORE"), a buy-up ("LDS"), or available only to government ("GOV")
- *Type of Data:* describes if the data element is Categorical, Ordinal, Currency, an Identifier, Continuous, Date/Time, or Open Text
- *Format:* indicates if the data is formatted in a specific fashion
- *CHIA derived or calculated:* indicates if the field was created by CHIA
- *Description:* is a longer explanation of the data element and its limitations
- *Reference table:* indicates if a Categorical data element has set of valid values that are associated with other information
- *Summary statistics:* links to frequencies or means for that data element

Users of the data with additional questions about any specific data element should contact CHIA at **casemix.data@chiamass.gov**.

Active

Short Description:	CHIA processing field.
Primary Table:	SubmissionLog
Availability to Users:	CORE
Type of Data:	Categorical
Format:	Varchar
Description:	CHIA indicator of quarterly submission status.

AgeLDS

Short Description:	Age of the patient.
Primary Table:	Observation
Availability to Users:	CORE
Type of Data:	Continuous

Format:	YYY
CHIA Derived:	Yes
Description:	Age of the patient as calculated by CHIA based on the registration date and patient's birth date. If either field is null, the calculated age will be blank. The calculated age is rounded up to the nearest integer.
	Patients younger than 1 year or older than 89 years have their ages grouped.
	Patients younger than 1 year old are grouped as '0'.
	Patients older than 89 years are grouped as '999'.
	Discretion should be used whenever a questionable age assignment is noted. Researchers are advised to consider other data elements in their analysis of this field.

AssocConditionPresentCode1-10

Short Description:	Flags whether the diagnosis was present on admission to Observation unit.
Primary Table:	Observation
Availability to Users:	CORE
Type of Data:	Categorical
CHIA Derived:	No
Description:	A qualifier for each diagnosis code indicating the onset of diagnosis preceded or followed by admission. These flags indicate the onset of a diagnosis preceded or followed by admission. There is a POA indicator for 96% of the diagnosis and external cause codes. There are instances where the diagnosis code is exempt from POA indicator reporting. In some of these instances, instead of using the POA exemption indicator of '1', the data submitter has left the POA indicator blank.

AssociatedDiagnosisCode1-15

Short Description:	ICD-10-CM code for each diagnosis reported by the facility. Up to 15 associated diagnoses in FY 2024.
Primary Table:	Observation
Availability to Users:	CORE
Type of Data:	Categorical
Format:	VARCHAR
Description:	ICD-10-CM Associated Diagnosis.
Reference Table:	Standard ICD-10-CM Diagnosis Codes

AssociatedProcedureCode1-3

Short Description:	ICD-10-PCS codes for each associated significant procedure reported by the facility. Up to 3 ICD-10-PCS procedures in FY 2024.
Primary Table:	Observation

Availability to Users:	CORE
Type of Data:	Categorical
Format:	VARCHAR
Description:	Patient's significant procedure, as reported in FL 74 of the UB-04. ICD code (exclude decimal point).
Reference Table:	Standard ICD-10-PCS Procedure Codes

AssociatedProcedureCode1Date-3Date

Short Description:	The date on which this procedure was performed
Primary Table:	Observation
Availability to Users:	LDS
Type of Data:	Date
Format:	YYYYMMDD
Description:	Calendar date that 1st non-primary procedure was performed.

AssociatedProcedureCode1YYYYMM-3YYYYMM

Short Description:	Month and Year in which this procedure was performed
Primary Table:	Observation
Availability to Users:	LDS
Type of Data:	Date
Format:	YYMM
Description:	Month and year that 1st non-primary procedure was performed.

Charges

Short Description:	Facility reported costs for a stay.
Primary Table:	Observation
Availability to Users:	CORE
Type of Data:	Currency
Format:	Integer
Description:	This is the grand total of charges associated with the patient's Observation stay. The total charge amount should be rounded to the nearest dollar. A charge of $0 is not permitted unless the patient has a special Departure Status reported by facility.

City

Short Description:	Municipality in which the Observation unit is located.
Primary Table:	Organization
Availability to Users:	CORE

Format:	Varchar
Type of Data:	Categorical
Description:	City in which Observation facility is located.

CPTCode1-10

Short Description:	CPT Code for each significant procedure reported by the facility. Up to 10 Procedures in FY 2024.
Primary Table:	Observation
Availability to Users:	CORE
Type of Data:	Categorical
Reference Table:	Standard CPT codes

DateInactive

Short Description:	Date in which facility was inactive as an Observation facility.
Primary Table:	Organization
Availability to Users:	CORE
Type of Data:	Date
Format:	YYYMMDD
Description:	Date in which facility was inactive as an Observation facility.

DaysBetweenObsStays

Short Description:	Number of days between Observation stays as calculated by CHIA.
Primary Table:	Observation
Availability to Users:	CORE
Type of Data:	Continuous
Format:	NNN
CHIA derived:	Yes
Description:	Count of calendar days between Observation stays for a unique patient. Patients were identified using their encrypted patient ID (field name PT_ID). The calculation is Date of stay 2 - Date of stay 1.

DepartureStatus

Short Description:	Standardized discharge status.
Primary Table:	Observation
Availability to Users:	CORE
Type of Data:	Categorical
Format:	N

Description: CHIA defined discharge status as reported by Observation facility. This field identifies the disposition and destination of the patient after discharge from Observation.

Reference Table:

CODE	DESCRIPTION
1	Routine
2	Admission to Hospital
3	Transferred
4	Against medical advice (AMA)
5	Expired

DischargeDate

Short Description: Date of discharge from Observation.
Primary Table: Observation
Availability to Users: LDS
Type of Data: Date
Format: YYYYMMDD
Description: Calendar date of discharge from Observation.

DischargeMonth

Short Description: Month in which patient was discharged from Observation.
Primary Table: Observation
Availability to Users: LDS
Type of Data: Date
Format: MM
Description: Month of discharge from Observation. Only two-digit values are valid.

DischargeYear

Short Description: Year in which patient was discharged from Observation.
Primary Table: Observation
Availability to Users: LDS
Type of Data: Date
Format: YYYY
Description: Year of discharge from Observation unit.

ED_Flag

Short Description:	Flag indicating stay began in Emergency Department.
Primary Table:	Observation
Availability to Users:	CORE
Type of Data:	Categorical
Format:	N
Description:	Indicates whether an observation stay began in the Emergency Department.
Reference Table:	

CODE	DESCRIPTION
0	Not admitted to observation from the emergency department (ED)/no ED visit(s) on this record
1	Not admitted to observation from the emergency department but ED visit(s) reflected in this record
2	Admitted to observation from the emergency department

EmergencyDepartmentRegistrationDate

Short Description:	Date of patient registration to the hospital's Emergency Department.
Primary Table:	Observation
Availability to Users:	GOV
Type of Data:	Date
Format:	YYYYMMDD
Description:	Calendar date of registration to the ED.

EmergencyDepartmentRegistrationTime

Short Description:	Time of patient registration in the hospital's Emergency Department.
Primary Table:	Observation
Availability to Users:	GOV
Type of Data:	Time
Format:	HH:MM
Description:	Time at which patient was registered in the emergency department. Hours in military time (0-24 hours). Only values between 0000 and 2359 are valid.

EmergencyDepartmentDischargeDate

Short Description:	Date of patient discharge from the hospital's Emergency Department.
Primary Table:	Observation
Availability to Users:	GOV
Type of Data:	Date
Format:	YYYYMMDD
Description:	Calendar date of discharge from the ED.

EmergencyDepartmentDischargeTime

Short Description:	Time of patient discharge from the hospital's Emergency Department.
Primary Table:	Observation
Availability to Users:	GOV
Type of Data:	Time
Format:	HH:MM
Description:	Time at which patient was discharged from the emergency department. Hours in military time (0-24 hours). Only values between 0000 and 2359 are valid.

ErrorCategory

Short Description:	Indicates the error on a stay record.
Primary Table:	ErrorLog
Availability to Users:	CORE
Type of Data:	Categorical
CHIA Derived:	Yes
Description:	CHIA flag that indicates what the error was on a stay record.. Used for processing.

ErrorDescription

Short Description:	Standardized description of the reported error.
Primary Table:	ErrorLog
Availability to Users:	CORE
Type of Data:	Open Text
Description:	CHIA flag for a reported error in data.. Used for processing.

ErrorLogKey

Short Description:	Unique identifier of each error.
Primary Table:	ErrorLog
Availability to Users:	CORE

Type of Data: Identifier
Description: Unique identifier of each error.

Ethnicity1, Ethnicity2

Short Description: Standardized, facility reported ethnicity.
Primary Table: Observation
Availability to Users: LDS
Type of Data: Categorical
CHIA Derived: No
Description: OOD includes two main fields to report Ethnicity: Ethnicity 1 and Ethnicity 2.
                             The ethnicity codes are based on the CDC Race and Ethnicity Code Set available on CHIA's website at: **https://www.chiamass.gov/assets/docs/p/case-mix/FY25-Case-Mix-Submission-Guides/CDC-Ethnicity-Codes.pdf** and the specific codes listed below.

Reference Table:

CODE	DESCRIPTION
AMERCN	American
BRAZIL	Brazilian
CVERDN	Cape Verdean
CARIBI	Caribbean Island
PORTUG	Portuguese
RUSSIA	Russian
EASTEU	Eastern European
OTHER	Other Ethnicity
UNKNOW	Unknown/Not Specified

FieldName

Short Description: Name of the data element that caused the error.
Primary Table: ErrorLog
Availability to Users: CORE
Type of Data: Open Text
Description: Name of the data element that caused the error. Used for processing.

GroupName

Short Description: Name of the system running the Observation unit.
Primary Table: Organization
Availability to Users: CORE
Type of Data: Open Text
Description: System that runs or owns the Observation facility.

HispanicIndicator

Short Description: Indicates whether patient was Hispanic.
Primary Table: Observation
Availability to Users: CORE
Type of Data: Categorical
Description: A flag for patients of Hispanic/Latino/Spanish culture or origin regardless of race.
Reference Table:

CODE	DESCRIPTION
Y	Patient is Hispanic/Latino/Spanish.
N	Patient is not Hispanic/Latino/Spanish.

HomelessIndicator

Short Description: Indicates whether the patient was homeless.
Primary Table: Observation
Availability to Users: CORE
Type of Data: Categorical
Description: This flag indicates that the patient was homeless at the time of stay. Data users studying homelessness are advised to also review the ICD-10-CM diagnosis codes. There are instances when diagnosis code Z59.0 (homelessness) is reported in the case mix data and the homeless indicator is not reported.

Reference Table:

CODE	DESCRIPTION
Y	Patient is known to be homeless.
N	Patient is not known to be homeless.

HospitalBillNumber

Short Description:	Unique patient billing record.
Primary Table:	Observation
Availability to Users:	GOV
Type of Data:	Identifier
Format:	Varchar
Description:	Facility unique number associated with all billing for the stay.

ICDIndicator

Short Description:	ICD version
Primary Table:	Observation
Availability to Users:	CORE
Type of Data:	Categorical
Description:	Indicator for 10-CM/PCS diagnoses, external cause codes, and procedure codes
Reference Table:	

CODE	DESCRIPTION
0	ICD-10-CM/PCS Code

IdOrgFiler

Short Description:	ID number of the facility that submitted Observation claims.
Primary Table:	Observation
Linking Tables:	SubmissionLog
	ErrorLog
Availability to Users:	CORE
Type of Data:	Categorical
Description:	The Organization ID for the facility that submitted the Observation stay data to CHIA.
Reference Table:	Table 3

IDOrgHosp

Short Description:	Facility identifier.
Primary Table:	Observation
Availability to Users:	CORE
Type of Data:	Categorical
Description:	The Organization ID for the main facility affiliation.
Reference Table:	Table 3

IdOrgSite

Short Description:	Facility identifier.
Primary Table:	Observation
Availability to Users:	CORE
Type of Data:	Categorical
Description:	The Organization ID for the site where the patient received Observation care.
Reference Table:	Table 3

IdOrgTransfer

Short Description:	Indicates where patient was transferred from.
Primary Table:	Observation
Availability to Users:	CORE
Type of Data:	Categorical
Description:	Organization ID for the facility from which a patient is transferred. If the patient was transferred from outside of Massachusetts, the IdOrgTransfer will be 9999999.
Reference Table:	Table 3

LegacyCHIAMothersUHIN

Short Description:	Patient's mother's unique id.
Primary Table:	Observation
Availability to Users:	LDS
Type of Data:	Identifier
Format:	VARCHAR
Length:	9
CHIA Derived:	Yes
Description:	CHIA generated unique identifier of a newborn's mother. For newborns or for infants less than 1 year old, CHIA derives a unique ID for the patient's mother. This unique ID allows a newborn visit to be associated with a Mother's visit. Linkable across records and fiscal years. Each patient is given by CHIA a Unique Health Information Number (UHIN), which is a surrogate key that can link patients over time and across facilities. The data element is blank, a single dash (-) appears in the UHIN field. It is valid for facilities to report that the unique patient identifier is unknown. In these cases, the UHIN appears as '000000001'. The utility of the UHIN field is dependent on the reporting data. For a small number of facilities, little or no UHIN data exists, as these institutions failed to report patients' uniquely identified information. Other facilities reported the same data repeatedly, resulting in numerous admissions for one UHIN. In other cases, the demographic information (age, sex, etc.) was not consistent when a match did exist with the UHIN. Some explanations for this include assignment of a mother's unique identifier to her infant or assignment of a spouse's unique identifier to a patient. Invalid data uses the code UHIN=' --------4'

LegacyCHIAPatientUHIN

Short Description:	Patient's unique id.
Primary Table:	Observation
Availability to Users:	LDS
Type of Data:	Identifier
Format:	VARCHAR
Length:	9
CHIA Derived:	No
Description:	CHIA generated unique identifier of the patient. Linkable across records and fiscal years. Each patient is given by CHIA a Unique Health Information Number (UHIN), which is a surrogate key that can link patients over time and across facilities. The data element is blank, a single dash (-) appears in the UHIN field. It is valid for facilities to report that the unique patient identifier in unknown. In these cases, the UHIN appears as '000000001'. The utility of the UHIN field is dependent on the reporting data. For a small number of facilities, little or no UHIN data exists, as these institutions failed to report patients' uniquely identified information. Other facilities reported the same data repeatedly, resulting in numerous admissions for one UHIN. In other cases, the demographic information (age, sex, etc.) was not consistent when a match did exist with the UHIN. Some explanations for this include assignment of a mother's unique identifier for her infant or assignment of a spouse's unique identifier to a patient. Invalid data uses the code UHIN='--------4'.

LegacyCHIAPhysicanNumber

Short Description:	Unique identifier of the attending physician.
Primary Table:	Observation
Availability to Users:	LDS
Type of Data:	Identifier
Description:	Identifier for the Observation Physician who provided services related to this stay. Report if the physician's involvement in the patient's Observation stay was captured in the facility's electronic information systems.

LegacyCHIAOtherPhysicanNumber

Short Description:	Unique identifier of a non-attending physician.
Primary Table:	Observation
Availability to Users:	LDS
Type of Data:	Identifier

Description: Identifier for physician other than the Observation Physician who provided services related to this stay. Report if the physician's involvement in the patient's Observation stay was captured in the facility's electronic information systems.

LengthOfStayHours

Short Description: Count of hours spent in the Observation unit.
Primary Table: Observation
Availability to Users: CORE
Type of Data: Continuous
Format: NNN
CHIA Derived: Yes
Description: Count of hours between the registration and discharge time for an Observation stay.

MedicaidMemberID

Short Description: Patient's MassHealth unique ID.
Primary Table: Observation
Availability to Users: GOV
Type of Data: Identifier
Description: Unique MassHealth Identifier of a patient.

MedicalRecordNumber

Short Description: Stay identifier assigned by the facility.
Primary Table: Observation
Availability to Users: GOV
Type of Data: Identifier
Description: The unique number assigned to each patient within the hospital that distinguishes the patient and the patient's hospital record(s) from all others in that institution.

MemberMDMID

Short Description: Unique surrogate key for each person.
Primary Table: MEID Mapping
Availability to users: Core
Type of Data: Identifier
Description: CHIA generated single unique surrogate key for each person.

NewbornAgeWeeks

Short Description:	Age of children younger than age 1. Valid values are 1-52.
Primary Table:	Visit
Availability to Users:	CORE
Type of Data:	Continuous
Format:	NN
CHIA Derived:	Yes
Description:	Age in weeks for children younger than 53 weeks of age who were admitted for Observation. Weeks are calculated from the Admitting Date - the DOB, and then rounded to the nearest week. Only values between 0 and 52 are valid. All other values are invalid.

NumberOfErrors

Short Description:	Count of errors in submission from Observation.
Primary Table:	ErrorLog
Availability to Users:	CORE
Type of Data:	Continuous
Description:	CHIA processing field.

NumberOfObservations

Short Description:	Count of Observation stay records for a facility in a quarter.
Primary Table:	SubmissionLog
Linking Table:	ErrorLog
Availability to Users:	CORE
Type of Data:	Continuous
Description:	Total number of registered observation stays occurring during the reporting period.

NumberOfObservationsFailed

Short Description:	Count of Observation stay records that failed CHIA intake.
Primary Table:	ErrorLog
Availability to Users:	CORE
Type of Data:	Continuous
Description:	Count of observation stay records that failed CHIA intake.

NumberOfObservationsPassed

Short Description:	Count of observation stay records that passed CHIA intake.
Primary Table:	ErrorLog

Availability to Users: CORE
Type of Data: Continuous
Description: Count of observation stay records that passed CHIA intake.

ObservationSequence

Short Description: Order in which observation stays occurred for a patient.
Primary Table: Observation
Availability to Users: LDS
Type of Data: Continuous
CHIA Derived: Yes
Description: Numeric order of observation stays in Massachusetts for a patient based on the patient's social security number.

OrganizationGroupID

Short Description: Code indicating the system that runs the Observation unit.
Primary Table: Organization
Availability to Users: CORE
Type of Data: Categorical
Description: Code indicating the system that runs the Observation unit.
Reference Table: Table 3

OrganizationNumber

Short Description: ORGID of the facility that owns the Observation unit.
Primary Table: Organization
Availability to Users: CORE
Type of Data: Categorical
Description: Identifier of the facility that owns the Observation unit.
Reference Table: Table 3

OrganizationTypeID

Short Description: Analogue to all the organization identifiers.
Primary Table: Organization
Availability to Users: CORE
Type of Data: Categorical
Description: Organization ID that can be linked to all "IdOrg" fields.
Reference Table: Table 3

OrgID

Short Description:	Facility identifier.
Primary Table:	Organization
Availability to Users:	CORE
Type of Data:	Open Text
Description:	CHIA assigned identifier for a facility.
Reference Table:	Table 3

OrgName

Short Description:	Name of Observation facility.
Primary Table:	Organization
Linking Tables:	SubmissionLog
	ErrorLog
Availability to Users:	CORE
Type of Data:	Open Text
Description:	Facility name.

OtherCareGiver

Short Description:	Indicates if the patient had a caregiver.
Primary Table:	Observation
Availability to Users:	CORE
Type of Data:	Categorical
Description:	Indicates the type of primary caregiver responsible for the patient's care other than the attending physician, operating room physician, or nurse midwife as specified in the Regulation. Other caregiver codes include resident, intern, nurse practitioner, and physician assistant.
Reference Table:	

CODE	DESCRIPTION
1	Resident
2	Intern
3	Nurse Practitioner
4	Not Used
5	Physician Assistant

OtherEthnicity

Short Description:	Non-standard patient ethnicity designation.
Primary Table:	Observation
Availability to Users:	GOV
Type of Data:	Open Text
Description:	Patient's ethnicity as entered by the facility. Other ethnicity is an open text field for reporting any additional ethnicities when Ethnicity 1 or Ethnicity 2 equals "OTHER-Other Ethnicity".

OtherPhysicianNumber

Short Description:	Unique identifier of a non-attending physician.
Primary Table:	Observation
Availability to Users:	LDS
Type of Data:	Identifier
Description:	Physician's state license number (BORIM #) for physician other than the Observation Physician who provided services related to the stay. Report if the physician's involvement in the patient's Observation stay was captured in the facility's electronic information systems. If BORIM is unable, then must be "DENSG", "PODTR", "OTHER", "NURSEP", "PHYAST" or "MIDWIF".

OtherRace

Short Description:	Non-standard patient race designation.
Primary Table:	Observation
Availability to Users:	GOV
Type of Data:	Open Text
Description:	Patient's Race as entered by the facility. Other Race is an open text field for reporting additional races when Race 1 or Race 2 equals "R9 -Other Race".

Passed

Short Description:	CHIA processing field.
Primary Table:	SubmissionLog
Availability to Users:	CORE
Type of Data:	Continuous
Description:	Count of observation stay records that passed CHIA processing.

PatientBirthDate

Short Description:	Patient date of birth.
Primary Table:	Observation
Availability to Users:	GOV
Type of Data:	Date
Format:	YYYYMMDD
Description:	Calendar date of patient's birth.

PermanentPatientCityLDS

Short Description:	Permanent city of residence for the patient.
Primary Table:	Observation
Availability to Users:	LDS
Type of Data:	Categorical
Description:	Primary city of residency for patient.

PermanentPatientCountryLDS

Short Description:	Permanent country of residence for the patient.
Primary Table:	Observation
Availability to Users:	CORE
Type of Data:	Categorical
Description:	Primary country of residency for patient. The LDS populates PermanentPatientCountryLDS for only the countries of US, CA and MX which covers 99% of the records. The other country values for 1% of the records are suppressed.

PermanentPatientStateLDS

Short Description:	Permanent state of residence for the patient.
Primary Table:	Observation
Availability to Users:	CORE
Type of Data:	Categorical
Description:	Primary state of residency for patient. Only values in the reference table are valid. While patients from all states have received observation stay care, the LDS populates the PermanentPatientStateLDS field for only the states of MA, NH, RI, CT, ME, VT, and NY which covers 98% of the records. The other state values for 2% of the records are suppressed.

PermanentPatientZIP3CodeLDS

Short Description:	3-digit ZIP code of the patient's permanent residence.
Primary Table:	Observation
Availability to Users:	CORE
Type of Data:	ZIP code
Format:	NNN
Description:	First three digits of patient's permanent ZIP code. ZIP codes were not standardized and this field was as reported from a nine-digit ZIP code.

PermanentPatientZIP5CodeLDS

Short Description:	5-digit ZIP code of the patient's permanent residence.
Primary Table:	Observation
Availability to Users:	LDS
Type of Data:	ZIP code
Format:	NNNNN
Description:	First five digits of patient's permanent ZIP code. ZIP codes were not standardized and this field was as reported from a nine-digit ZIP code.

PhysicianNumber

Short Description:	Unique identifier of the attending physician.
Primary Table:	Observation
Availability to Users:	LDS
Type of Data:	Identifier
Description:	Physician's state license number (BORIM #) for the Observation Physician who provided services related to this stay. Report if the physician's involvement in the patient's Observation stay was captured in the facility's electronic information systems. If BORIM is unable, then must be "DENSG", "PODTR", "OTHER", "NURSEP", "PHYAST" or "MIDWIF".

PrimaryPayerType

Short Description:	Primary payer type for the stay.
Primary Table:	Observation
Availability to Users:	CORE
Type of Data:	Categorical
Description:	Patient's expected primary payer type for the Observation stay. Report the single character text code indicating the type of payer who has primary responsibility for the payment of the services related to the Observation stay.
Reference Table:	Table 4 and online at CHIA website: **Payer Codes** (Excel)

PrimarySourceOfPayment

Short Description: Primary payer for the stay.
Primary Table: Observation
Availability to Users: CORE
Type of Data: Categorical
Description: Primary payer for the Observation stay.
Reference Table: Online at CHIA website: **Payer Codes** (Excel)

PrincipalConditionPresent

Short Description: Flag indicating that principal condition was present on admission.
Primary Table: Observation
Availability to Users: CORE
Type of Data: Categorical
Description: Indicates that principal condition was present on admission.
Reference Table: Table 2

PrincipalDiagnosisCode

Short Description: ICD-10-CM code for the condition that led to the admission to the Observation unit.
Primary Table: Observation
Availability to Users: CORE
Type of Data: Categorical
Description: The condition established after study to be chiefly responsible for occasioning the admission of the patient to the observation unit. Facility determined.
Reference Table: Standard ICD-10-CM Diagnosis Codes

PrincipalProcedureCode

Short Description: ICD-10-PCS code for the principal procedure in the Observation unit stay.
Primary Table: Observation
Availability to Users: CORE
Type of Data: Categorical
CHIA Derived: No
Description: The chief procedure performed in the Observation unit. Facility determined.
Reference Table: Standard ICD-10-PCS Procedure Codes

PrincipalProcedureCodeDate

Short Description: Date of the principal Procedure.
Primary Table: Observation
Availability to Users: LDS
Type of Data: Date
Format: YYYYMMDD
Description: Calendar date of principal procedure. There are instances when observation stay patients do not have a principal procedure and therefore, the principal procedure code date field is blank. An anomaly in the FY 2024 OOD release is that many of these blank date fields are populated with 19000101. Since no principal procedure is associated with this date, 19000101 can be recoded as NULL.

PrincipalProcedureCodeYYYYMM

Short Description: Month and Year of the principal procedure.
Primary Table: Observation
Availability to Users: LDS
Type of Data: Date
Primary Table: Observation
Availability to Users: CORE
Type of Data: Categorical
Description: Indicates that principal condition was present at admission. There are instances when observation stay patients do not have a principal procedure and therefore, the principal procedure code date field is blank. An anomaly in the FY 2024 OOD release is that many of these blank date fields are populated with 190001. Since no principal procedure is associated with this date, 190001 can be recoded as NULL.

Quarter

Short Description: Quarter of submission.
Primary Table: SubmissionLog
Availability to Users: CORE
Type of Data: Date
Description: Quarter in which the observation stay was submitted to CHIA.

Race1, Race2

Short Description: Standardized, facility reported race.
Primary Table: Observation
Availability to Users: LDS
Type of Data: Categorical

Description: CHIA has adopted federal Office of Management and Budget standard race and ethnicity values that are consistent with CDC standards.

Reference Table:

CODE	DESCRIPTION
R1	American Indian/Alaska Native
R2	Asian
R3	Black/African American
R4	Native Hawaiian or other Pacific Islander
R5	White
R9	Other Race
UNKNOW	Unknown

RecordType01ID

Short Description: Stay identifier.
Primary Table: Observation
Availability to Users: CORE
Type of Data: Identifier
Description: Stay identifier used for CHIA processing.

RegistrationDate

Short Description: Date of admission to the Observation unit.
Primary Table: Observation
Availability to Users: LDS
Type of Data: Date
Format: YYYYMMDD
Description: Calendar date of admission to Observation.

RegistrationMonth

Short Description: Month of admission to the Observation unit.
Primary Table: Observation
Availability to Users: LDS
Type of Data: Date
Format: MM

Description: Month in which the patient was admitted to Observation. Only values between 1 and 12 are valid.

RegistrationTime

Short Description: Time stamp indicating when the patient was admitted to the Observation unit.
Primary Table: Observation
Availability to Users: GOV
Type of Data: Time
Format: HH:MM
Description: Time at which the patient was admitted to Observation. Hours in military time (0-24 hours). Only values between 0000 and 2359 are valid.

RegistrationYear

Short Description: Year of admission to the Observation unit.
Primary Table: Observation
Availability to Users: LDS
Type of Data: Date
Format: YYYY
Description: Year patient was admitted to Observation. Valid values may be 2023 and 2024.

SecondaryPayerType

Short Description: Secondary payer for the Observation stay.
Primary Table: Observation
Availability to Users: CORE
Type of Data: Categorical
Description: Patient's expected secondary payer type for the Observation stay. Report the single character text code indicating the type of payer who has secondary responsibility for the payment of the services related to the Observation stay.
Reference Table: Table 4 and online at CHIA website: **Payer Codes** (Excel)

SecondarySourceOfPayment

Short Description: Secondary payer for the Observation stay.
Primary Table: Observation
Availability to Users: CORE
Type of Data: Categorical
Description: Secondary payer for the observation stay.
Reference Table: Online at CHIA website: **Payer Codes** (Excel)

SecondarySourceOfVisit

Short Description:	Secondary cause of the Observation stay.
Primary Table:	Observation
Availability to Users:	CORE
Type of Data:	Categorical
Description:	The two sources of stay codes (Source of stay and Secondary Source of stay) which indicate the source originating, referring or transferring the patient to Observation. Please note that the terms "visit" and "stay" are used interchangeably for observation services.
Reference Table:	Table 1

SexLDS

Short Description:	Indicates gender.
Primary Table:	Observation
Availability to Users:	CORE
Type of Data:	Categorical
Description:	Gender flag as assigned by the observation unit.
Reference Table:	

CODE	DESCRIPTION
M	Male
F	Female
U	Unknown

SourceOfVisit

Short Description:	How a patient reached the Observation unit.
Primary Table:	Observation
Availability to Users:	CORE
Type of Data:	Categorical
CHIA Derived:	No
Description:	The two sources of stay codes (Source of Visit and Secondary Source of Visit) which indicate the source originating, referring or transferring the patient to Observation. Reporting patterns for the Source of Visit data element may vary widely and, as a result, may not be reliable. Please note that the terms "visit" and "stay" are used interchangeably for observation services.
Reference Table:	Table 1

State

Short Description:	Facility state.
Primary Table:	Organization
Availability to Users:	CORE
Type of Data:	Categorical
Description:	State in which reporting facility is located.
Reference Table:	Table 5

SubmissionActive

Short Description:	CHIA processing field.
Primary Table:	ErrorLog
Availability to Users:	CORE
Type of Data:	Identifier
Description:	CHIA flag. Used for processing.

SubmissionControlID

Short Description:	Unique per facility-quarter-submission identifier. Key link from the stay table.
Primary Table:	Observation
Linking Tables:	SubmissionLog
	ErrorLog
Availability to Users:	CORE
Type of Data:	Identifier
Description:	Unique id for a facility's submission of data to CHIA. Usually one Submission Control ID is associated with a facilities' quarterly submission.

SubmissionPassed

Short Description:	CHIA flag.
Primary Table:	ErrorLog
Availability to Users:	CORE
Type of Data:	Identifier
Description:	Indicates that observation stay data was submitted to CHIA and passed.

SubmissionQuarter

Short Description:	Indicates the quarter (1-4) in which the record was submitted to CHIA.
Primary Table:	Observation
Linking Tables:	ErrorLog

Availability to Users:	CORE
Type of Data:	Categorical
Description:	Quarter in which the observation stay data was submitted to CHIA.

SubmissionYear

Short Description:	Year in which the observation stay data was submitted to CHIA.
Primary Table:	Observation
Linking Tables:	ErrorLog
Availability to Users:	CORE
Type of Data:	Categorical
Description:	Indicates the year (2023-2024) in which the record was submitted to CHIA.

SurgeonAssociatedProcedure1-3

Short Description:	ICD-10-PCS or CPT code for each significant procedure reported by the facility. Up to 3 procedures in FY 2024.
Primary Table:	Observation
Availability to Users:	LDS
Type of Data:	Categorical
Description:	Patient's significant procedure, as reported in FL 74 of the UB-04. ICD code (exclude decimal point).
Reference Table:	Standard ICD-10-PCS Procedure Codes

TemporaryPatientCityLDS

Short Description:	Current municipality of patient residence, if different from permanent residence.
Primary Table:	Observation
Availability to Users:	LDS
Type of Data:	Categorical
Description:	MA City in which the patient temporarily resides.

TemporaryPatientStateLDS

Short Description:	Current state of patient residence, if different from permanent residence.
Primary Table:	Observation
Availability to Users:	CORE
Type of Data:	Categorical
Description:	Indicates "MA" if the patient temporarily resides in Massachusetts.

TemporaryPatientZip3CodeLDS

Short Description:	Current 3-digit ZIP code of patient residence, if different from permanent residence.
Primary Table:	Observation
Availability to Users:	CORE
Type of Data:	ZIP code
Format:	NNN
Description:	First three digits of patient's temporary, Massachusetts ZIP code. ZIP codes are not standardized and this field is as reported from a nine-digit ZIP code. The Limited Data Set (LDS) supports selection of 3-character ZIP Code or 5- character ZIP Code for approval by CHIA. Government users may be able to request a 9-character ZIP Code. For LDS users only, if the patient state was not in Massachusetts or a state bordering Massachusetts (Connecticut, Maine, New Hampshire, New York, Rhode Island or Vermont), ZIP codes are set to zeros (0s) and the state is removed.

TemporaryPatientZip5CodeLDS

Short Description:	Current 5-digit ZIP code of patient residence, if different from permanent residence.
Primary Table:	Observation
Availability to Users:	LDS
Type of Data:	ZIP code
Format:	NNNNN
Description:	First five digits of patient's temporary, Massachusetts ZIP code. ZIP codes are not standardized and this field is as reported from a nine-digit ZIP code. The Limited Data Set (LDS) supports selection of 3-character ZIP Code or 5-character ZIP Code for approval by CHIA. Government users may be able to request a 9-character ZIP Code. For LDS users only, if the patient state was not in Massachusetts or a state bordering Massachusetts (Connecticut, Maine, New Hampshire, New York, Rhode Island or Vermont), ZIP codes are set to zeros (0s) and the state is removed.

TotalCharges

Short Description:	Total charges associated with Observation stay(s) in a Facility-Submission-Quarter.
Primary Table:	SubmissionLog
Availability to Users:	CORE
Type of Data:	Currency
Description:	Sum of charges for the submission.

Type

Short Description:	Indicates the type of facility where stay occurred.
Primary Table:	Organization

Availability to Users:	CORE
Type of Data:	Categorical
Description:	Categorizes observation stays by facility type. Curated by CHIA.

TypeOfVisitObs

Short Description:	Indicates the type of stay.
Primary Table:	Observation
Availability to Users:	CORE
Type of Data:	Categorical
Description:	Facilities indicate whether the stay was Emergency, Urgent, Non-Urgent, Newborn, or Unavailable.

Reference Table:

CODE	DESCRIPTION
1	Emergency
2	Urgent
3	Elective
4	Newborn
5	Information Not Available

VisitPassed

Short Description:	CHIA flag.
Primary Table:	Observation
Availability to Users:	CORE
Type of Data:	Identifier
Description:	CHIA flag. Used for processing.

Year

Short Description:	Indicates year of submission.
Primary Table:	SubmissionLog
Availability to Users:	CORE
Type of Data:	Categorical
Format:	YY
Description:	Calendar Year the data was submitted.

Longer Reference Tables

FY 2024 OOD has several standard reference tables. These relate to categorical variables driven by the Outpatient Observation Database Submission Guide. Some of the tables have been integrated into the data dictionary. This section contains longer tables used by multiple data elements. Users of the data with additional questions about any specific Reference table should contact CHIA at **casemix.data@chiamass.gov**.

Table 1. SOURCE OF VISIT

Principal Data Element:	SourceOfVisit
Other Data Elements:	SecondarySourceofVisit
Rules:	All other values are invalid

CODE	DESCRIPTION
0	Information Not Available
1	Direct Physician Referral
2	Within Hospital Clinic Referral
3	Direct Health Plan Referral/HMO Referral
4	Transfer from Acute Care Hospital
5	Transfer from a Skilled Nursing Facility (SNF)
6	Transfer from Intermediate Care Facility (ICF)
7	Outside Hospital Emergency Room Transfer
8	Court/Law Enforcement
9	Other
F	Transfer from a Hospice Facility
L	Outside Hospital Clinic Referral
M	Walk-In/Self-Referral
R	Inside Hospital ER Transfer
T	Transfer from Another Institution's Ambulatory Surgery (SDS)
W	Extramural Birth
Y	Within Hospital Ambulatory Surgery Transfer (SDS Transfer)

Table 2. CONDITION PRESENT

Principal Data Element: Principal ConditionPresent

Rules: All other values invalid.

CODE	DESCRIPTION
Y	Yes
N	No
U	Unknown
W	Clinically undetermined
1	Exempt
A	Not applicable

Table 3. ORGANIZATION

Data Elements: IdOrgFiler
                            IdOrgHosp
                            IdOrgSite
                            IdOrgTransfer
                            OrgID

Note: The organization table contains information on all organizations submitting data and other organizations transferring patients to organizations. Below is a list of the 69 organizations submitting observation data in FY 2024.
See Part D: Data Notes for additional information on data submitters.

CODE	DESCRIPTION	OBSERVATION STAYS
1	Anna Jaques Hospital	1,528
2	Athol Memorial Hospital	269
4	Baystate Medical Center	11,058
5	Baystate Franklin Medical Center	1,454
7	Berkshire Medical Center - Berkshire Campus	3,159
8	Fairview Hospital	226
10	Beth Israel Deaconess Medical Center - East Campus	8,852
16	Boston Medical Center - Menino Pavilion Campus	14,427
22	Brigham and Women's Hospital	7,937

CODE	DESCRIPTION	OBSERVATION STAYS
25	Signature Healthcare Brockton Hospital	380
27	Cambridge Health Alliance - Cambridge Hospital Campus	1,513
39	Cape Cod Hospital	5,493
40	Falmouth Hospital	1,513
42	Steward Carney Hospital	406
46	Boston Children's Hospital	9,997
49	MetroWest Medical Center - Framingham Campus	1,285
50	Cooley Dickinson Hospital	1,753
51	Dana-Farber Cancer Institute	29
53	Beth Israel Deaconess Hospital - Needham	2,243
57	Emerson Hospital	2,160
59	Brigham and Women's Faulkner Hospital	4,306
62	Steward Good Samaritan Medical Center - Brockton Campus	2,147
68	Harrington Memorial Hospital	1,937
71	HealthAlliance - Leominster Campus	2,175
73	Heywood Hospital	1,691
75	Steward Holy Family Hospital	1,061
77	Holyoke Medical Center	503
79	Beth Israel Deaconess Hospital - Plymouth	6,042
81	Lahey Hospital & Medical Center, Burlington	3,266
83	Lawrence General Hospital	3,580
85	Lowell General Hospital	3,495
88	Martha's Vineyard Hospital	608
89	Massachusetts Eye and Ear Infirmary	574
91	Massachusetts General Hospital	19,630
97	Milford Regional Medical Center	4,852
98	Beth Israel Deaconess Hospital - Milton	2,412
99	Morton Hospital, A Steward Family Hospital	1,138

CODE	DESCRIPTION	OBSERVATION STAYS
100	Mount Auburn Hospital	2,855
101	Nantucket Cottage Hospital	329
103	New England Baptist Hospital	74
104	Tufts Medical Center	3,007
105	Newton-Wellesley Hospital	6,376
106	Baystate Noble Hospital	2,116
109	Lahey Health - Addison Gilbert Hospital	681
110	Lahey Health - Beverly Hospital	2,864
114	Steward Saint Anne's Hospital	906
115	Lowell General Hospital – Saints Campus	3,184
116	North Shore Medical Center - Salem Campus	6,975
119	Mercy Medical Center - Springfield Campus	2,739
122	South Shore Hospital	6,637
123	Southcoast Hospitals Group - Charlton Memorial Campus	4,839
124	Southcoast Hospitals Group - St. Luke's Campus	7,986
126	Steward St. Elizabeth's Medical Center	958
127	Saint Vincent Hospital	2,555
129	Sturdy Memorial Hospital	3,378
130	UMass Memorial Medical Center - Memorial Campus	3,039
131	UMass Memorial Medical Center - University Campus	7,147
132	HealthAlliance-Clinton Hospital Campus	212
133	Marlborough Hospital	1,794
138	Winchester Hospital	2,468
139	Baystate Wing Campus	1,331
141	MelroseWakefield Hospital Campus – MelroseWakefield Healthcare	3,458
142	Cambridge Health Alliance - Everett Hospital Campus	1,797
145	Southcoast Hospitals Group - Tobey Hospital Campus	2,027
4448	Lahey Medical Center, Peabody	296

CODE	DESCRIPTION	OBSERVATION STAYS
6963	Shriners Hospitals for Children Boston	34
11466	Holy Family Hospital at Merrimack Valley, A Steward Family Hospital	229
11467	Nashoba Valley Medical Center, A Steward Family Hospital	453
21965	North Adams Regional Hospital	191

Table 4. PAYER TYPE

Principal Data Element: PayerType

Other Data Elements: ManagedCareCode
                             MCareMCaidPrivCode

Rules: All other values are invalid

PAYER TYPE CODE	PAYER TYPE ABBREVIATION	PAYER TYPE DEFINITION
1	SP	Self-Pay
2	WOR	Worker's Compensation
3	MCR	Medicare
F	MCR-MC	Medicare Managed Care
4	MCD	Medicaid
B	MCD-MC	Medicaid Managed Care
5	GOV	Other Government Payment
6	BCBS	Blue Cross
7	COM	Commercial Insurance
D	COM-MC	Commercial Managed Care
8	HMO	HMO
9	FC	Free Care
0	OTH	Other Non-Managed Care Plans
E	PPO	PPO and Other Managed Care Plans Not Elsewhere Classified
H	HSN	Health Safety Net
J	POS	Point-of-Service Plan
K	EPO	Exclusive Provider Organization
T	AI	Auto Insurance
N	None	None (Valid only for Secondary Payer)
Q	ComCare	Commonwealth Care/ConnectorCare Plans

PAYER TYPE CODE	PAYER TYPE ABBREVIATION	PAYER TYPE DEFINITION
Z	DEN	Dental Plans
S	SCO/ICO	Senior Care Options / Integrated Care Organization
A	MCD-ACO	Medicaid Accountable Care Organization
C	COM-ACO	Commercial Accountable Care Organization

Table 5. STATE

Principal Data Element:	PermanentPatientStateLDS
Other Data Elements:	TemporaryPatientStateLDS
Rules:	All other values are invalid Must be present when Patient Country is 'US' Must be valid U.S. postal code for state

CODE	DESCRIPTION
CT	Connecticut
ME	Maine
MA	Massachusetts
NH	New Hampshire
NY	New York
RI	Rhode Island
VT	Vermont

Note: The LDS includes only the states listed above. The default code of XX is used for any other state or U.S. possession.

Part D. Data Notes

At the time of this publication the following data notes were present. As data findings occur, CHIA will update the FY 2024 OOD Release Notes published on the CHIA website at **https://www.chiamass.gov/case-mix-data/**. Data notes will not be regularly updated in this Documentation Manual.

- North Adams Regional Hospital (Org Id 21965) opened in March 2024 and is designated a critical access hospital.
- Signature Healthcare Brockton Hospital (Org Id 25) temporarily closed as of February 7, 2023, due to a transformer fire and did not submit quarterly OOD files for FY 2024 Quarter 1 through Quarter 3. This site reopened August 13, 2024, and submitted for Quarter 4 FY 2024.
- Steward Health Care closed two sites on August 31, 2024: Nashoba Valley Medical Center, A Steward Family Hospital (Org Id 11467) and Steward Carney Hospital (Org Id 42). Also, Steward Norwood Hospital (Org Id 41) is currently considered a closed facility since this site's license was not renewed in November 2024.

Note: In October 2022, the Board of Registration in Medicine (BORIM) implemented a new online system that required a change in the physician license number from 6 to 7-digits. CHIA specifications only allowed a fixed length physician license number of 6-digits. To address this reporting issue, CHIA implemented a short-term solution for FY 2023 and FY 2024 with the use of a new code, "BORIM7" when the patient record required a 7-digit physician license number. Although this new code was reported by hospitals, it is not present (NULL) in the Final FY 2024 OOD Release. This issue has been resolved for FY 2025 with the expansion of the BORIM license number field length.

FY 2024 – Provider Specific Notes

Prior to releasing the Final FY 2024 OOD data, CHIA provides the hospitals with a profile of the data submitted. Providers may resubmit data or may provide written feedback to CHIA. Below is a summary of some of the key feedback received.

- Berkshire Medical Center – Berkshire Campus (Org Id 7):
  - Noted total volume decreased 10% from FY 2023 to FY 2024 due to the March 28, 2024 opening of North Adams Regional Hospital as a new site within the same hospital system.
- Beth Israel Deaconess Medical Center - East Campus (Org Id 10):
  - Noted significant volume shifts in reported Patient Source and Type of Admission categories directly related to new Electronic Medical Record (EMR) conversion in June 2024 with plans for ongoing education and adjustments to improve accuracy.
- Boston Medical Center – Menino Pavilion Campus (Org Id 16):
  - Noted trending increase in FY 2024 total volume due to a change in reporting of ED observation encounters beginning January 2024. Upon review of CHIA data reporting requirements, Boston Medical Center reclassified their reporting of certain Emergency Department (ED) observation encounters as Outpatient Observation stays. CHIA expects only Outpatient Observation Data (OOD) to be reported for patients who receive observation services and are not admitted. Boston Medical Center recognized a coding issue with this shift in reporting which resulted in some long lengths of stay in observation. This issue was identified after finalizing FY 2024 OOD but is currently being reviewed and a resolution is expected for FY 2025.

- Harrington Memorial Hospital (Org Id 68):
    - Noted reporting category volume shifts for Source and Type of Admission attributed to Epic conversion in October 2023 and UMass Memorial Medical Center system-wide data standardization.
- MetroWest Medical Center (Org Id 49) and Saint Vincent Hospital (Org Id 127):
    - Noted EMR conversion in June 2023 created data mapping challenges which continued into FY 2024.
- Tufts Medical Center (Org Id 104) and MelroseWakefield Hospital Campus (Org Id 141):
    - Noted an increase in Quarter 4 Outpatient Observation stays as some Physician Assistants may have been overly conservative with keeping patients in an Observation class. This reporting is being monitored but both hospitals report observation rates are at acceptable levels.
- Winchester Hospital (Org Id 138):
    - Noted 31% decrease in FY 2024 total volume due to updated hospital policies and procedures for classifying Inpatient versus Observation admissions.

The following hospitals resubmitted data prior to finalizing the FY 2024 OOD release available in August 2025.

- Athol Memorial Hospital (Org Id 2) and Heywood Hospital (Org Id 73) resubmitted Quarter 1 to include patient SSN data which is required to create CHIA generated Unique Health Information Numbers (UHIN).
- Baystate Medical Center (Org Id 4), Baystate Franklin Medical Center (Org Id 5), Baystate Noble Hospital (Org Id 106) and Baystate Wing Campus (Org Id 139) resubmitted Quarter 2 to correct Hispanic Status data mapping.
- Boston Children's Hospital (Org Id 46) resubmitted Quarter 4 to correct Source of Admission, Principal Procedure Code and Zip Code data mapping related to a system conversion in June 2024.
- Cape Cod Hospital (Org Id 39) resubmitted quarters 1-4 to correct payer mapping.
- Falmouth Hospital (Org Id 40) resubmitted quarters 1-4 to correct payer mapping and quarter 1 to correct discharge volumes.
- Lawrence General Hospital (Org Id 83) resubmitted Quarter 3 to correct Hispanic Status data mapping.
- MetroWest Medical Center (Org Id 49) and Saint Vincent Hospital (Org Id 127) resubmitted quarters 1-4 to correct Departure Status mapping.
- Harrington Memorial Hospital (Org Id 68), HealthAlliance - Leominster Campus (Org Id 71), UMass Memorial Medical Center - Memorial Campus (Org Id 130), UMass Memorial Medical Center - University Campus (Org Id 131), HealthAlliance - Clinton Hospital Campus (Org Id 132) and Marlborough Hospital (Org Id 133) resubmitted quarters 1-4 to include patient SSN data which is required to create CHIA generated Unique Health Information Numbers (UHIN) and to correct payer mapping.

Part E. Frequently Asked Questions

Question: What is the clinically defined temporal duration of an observation stay? While my understanding is that emergency department visits generally do not extend beyond 24 hours; does a similar temporal constraint apply to observation stays?

Answer: No, CMS indicates that observation stays typically are not expected to exceed a duration of 48 hours.
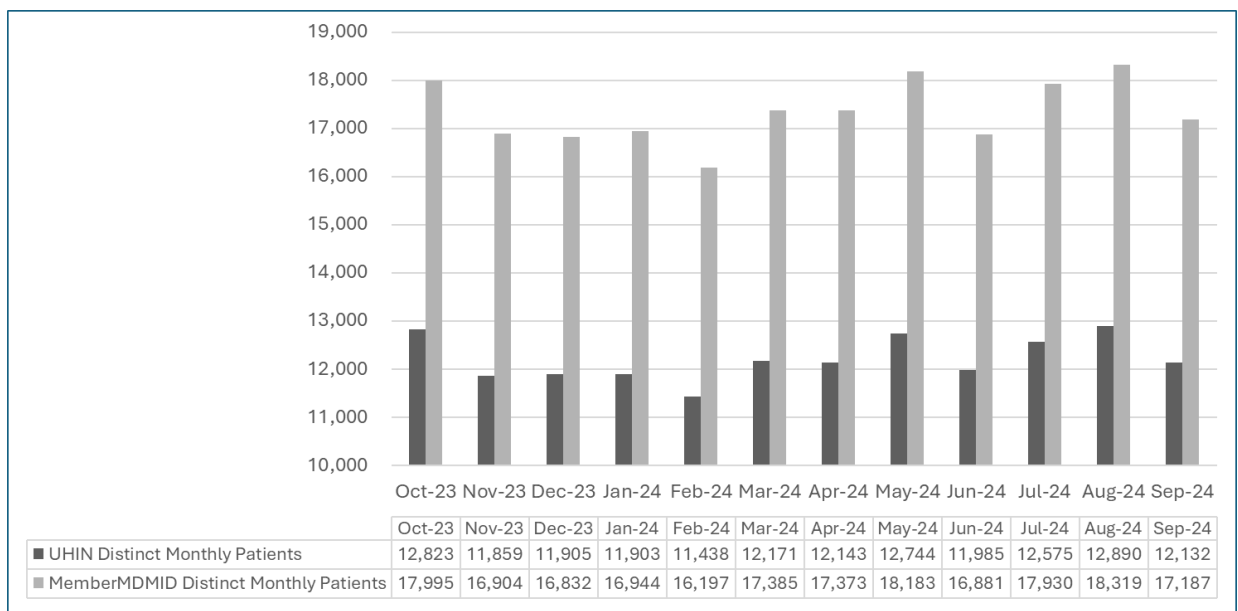See: **https://www.cms.gov/regulations-and-guidance/guidance/transmittals/downloads/r42bp.pdf**
See: **https://www.cms.gov/medicare-coverage-database/view/lcd.aspx?LCDId=34552**
In Massachusetts FY 2024 observation stay data, 54.3% of observation stays were less than or equal to 24 hours, 30.2% were over 24 hours and 48 hours or less, and 15.5% were over 48 hours.

Question: What is the difference between using the UHIN for distinct monthly patient counts and the MemberMDMID?

Answer: The FY 2024 observation stay data shows a consistent gap between patient counts derived from distinct UHINs and those from distinct MemberMDMIDs. Across the fiscal year, UHIN-based counts averaged about 12,214 distinct patients per month, while MemberMDMID-based counts averaged 17,344 distinct patients per month, with an average monthly percent difference of 29.6%. See Figure 1 below. This trend highlights a steady undercount by UHINs relative to MemberMDMIDs, suggesting that reliance on legacy UHINs alone may lead to an approximate 30% underestimation of the true distinct monthly patient volume.

Figure 1. FY2024 Comparison of Distinct Monthly Patient Volume with UHINs and MemberMDMIDs

	Oct-23	Nov-23	Dec-23	Jan-24	Feb-24	Mar-24	Apr-24	May-24	Jun-24	Jul-24	Aug-24	Sep-24
UHIN Distinct Monthly Patients	12,823	11,859	11,905	11,903	11,438	12,171	12,143	12,744	11,985	12,575	12,890	12,132
MemberMDMID Distinct Monthly Patients	17,995	16,904	16,832	16,944	16,197	17,385	17,373	18,183	16,881	17,930	18,319	17,187

Question: The Massachusetts Department of Public Health's Board of Registration in Medicine (BORIM) made changes to the length in the physician license numbers, how did CHIA address the reporting issue in FY2024 data, and what is the plan for resolving it in FY 2025?

Answer: As mentioned above on page 47, BORIM expanded physician license numbers from 6 to 7 digits prompting CHIA to use a temporary "BORIM7" code for FY 2023–2024, this issue will be resolved in FY 2025 with an expanded field length. The table below lists the physician fields, and the number of records impacted by the temporary use of "BORIM7"

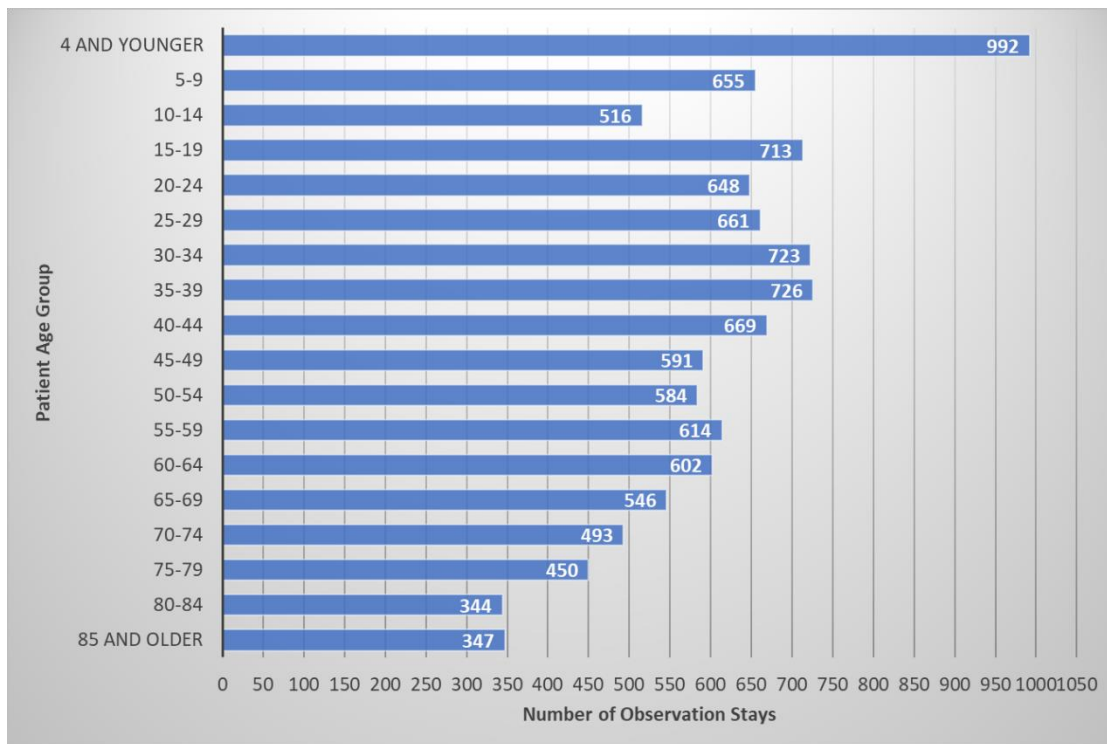## FY2024 Fields and Number of Records impacted by BORIM7

Physician Number	701
Other Physician Number	8,084
SurgeonAssociatedProcedure1	145
SurgeonAssociatedProcedure2	62
SurgeonAssociatedProcedure3	27

Question: In the context of my research focusing on disparities, what are the trends and hospital-level patterns in blanks and unknown ("UNKNOW") reporting for the Race1 field in Observation Stay records from FY 2020 through FY 2024?

Answer: Over the past five fiscal years (FY2020 through FY2024), the proportion of records with blanks in the Race1 field has been negligible, with FY2020 through FY2023 having less than 15 blanks, while FY2024, though still negligible, showing an uptick to 80 records with blanks (**see table below**). Seventy-eight percent of all Race1 blanks were attributable to IdOrgSite 139 (Baystate Wing Campus). For the same period, the code for unknown ("UNKNOW") in the Race1 field has consistently represented 4% of stay records. However, in FY2024, there was an increase to 5% of the stay records. Eighteen percent of all observation stay Race1 unknowns were attributable to IdOrgSite 46 (Boston Children's Hospital). The percent distribution of unknowns for all hospitals by age group shows the largest concentration of unknown race reporting in patients ages 4 and younger, which accounts for 9.1% of all unknowns, disproportionately higher than other age groups which cluster between 5–7% unknowns. **See Figure 2**.

Five Year Comparison of Observation Stay Patient Volume by Race1 Code

RACE 1	FY 2024	FY 2023	FY 2022	FY 2021	FY 2020
Blank	80	8	9	13	10
R1	561	516	331	288	285
R2	6,535	6,644	7,045	7,035	5,765
R3	27,286	24,331	19,061	19,143	18,480
R4	217	197	146	141	121
R5	153,138	161,334	140,664	140,612	139,720
R9	19,260	18,665	12,002	12,217	11,455
UNKNOW	10,957	9,522	7,841	7,308	7,731
Total Observations	**218,034**	**221,217**	**187,099**	**186,757**	**183,567**

Figure 2. FY2024 Volume of Observation Stays with Unknown Race by Age Group

Question: What does the value 19000101 represent in the principal procedure date?

Answer: In the Principal Procedure Code Date, there are 186,117 records with dates of 19000101 - these are NULL values. In any date field, during ETL, if a date is submitted as NULL it flows through as missing and remains NULL, but if it is submitted as a **blank string**, the processing engine coerces it into the default base date of **19000101**, causing an artificial value to appear instead of a true null. This anomaly consequently also impacts 'PrincipalProcedureCodeYYYYMM' which defaults to **190001**.

Question: In the previous year's data, I noticed anomalies in the temporal sequence of ED Registration and Discharge Dates. In the FY2024 data, how often does the ED Registration Date occur after the Observation Stay Begin Date in the data?

Answer: According to CHIA's Outpatient Observation Stay filing specifications, when present, the ED Registration Date must be less than or equal to the ED Discharge Date. While the specifications establish a clear temporal sequence between the ED Registration Date and ED Discharge Date, they do not explicitly define a temporal sequence between the ED Registration Date and the Observation Stay Begin and End Dates. Data users analyzing temporal sequence in continuum of care should take important note that there are instances in 1.12% (n=2,433) of observation stay records where the ED Registration Date is greater than the Observation Stay 'Begin Date'.

Question: I apply for and obtain both the outpatient emergency department visit data and observation stay data and have noticed several instances where licensed bed counts are not explicitly reported in hospital site summaries. If hospitals omit licensed bed counts from their site summaries, what alternative datasets (for example, CMS Cost Reports, AHA Annual Survey) would you recommend for obtaining bed capacity at each site?

Answer:

See: **https://www.mass.gov/info-details/health-care-facilities-in-massachusetts**. This is the link to Massachusetts Department of Public Health's Bureau of Health Care Safety and Quality health care facilities dashboard which is updated quarterly. This website contains a link to a master data file spreadsheet which lists licensed beds by facility type, facility name, community, bed effective date, bed type, code, description, and bed count.