CENTER FOR HEALTH INFORMATION AND ANALYSIS

# Massachusetts Case Mix

Hospital Emergency Department Data (EDD)

Fiscal Year 2021

**Documentation Manual** 



## Massachusetts Case Mix FY 2021 Hospital Emergency Department Data

### **USER GUIDE**

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## **Executive Summary**

Each quarter, Massachusetts facilities provide to CHIA data collected from emergency departments about visits that did not end in an inpatient admission or outpatient observation stay. The FY2021 Emergency Department Database (EDD) includes emergency department visits that occurred between October 1, 2020 and September 30, 2021. Facilities reported a total of 1,945,554 visits.

The FY2021 EDD Guide provides general information about CHIA's most recent emergency department holdings. This information includes high level data notes (data collection, data application, and use) and a codebook (data element list, data dictionary, reference tables, and summary statistics).

## Part A. Data Collection

Select facilities in Massachusetts are required to submit ED visit data to CHIA under 957 CMR 8.00 - APCD and Case Mix Data Submission and Regulation 957 CMR 5.00: Health Care Claims, Case Mix and Charge Data Release Procedures. Researchers can access EDD regulations by visiting CHIA's web site at https://www.chiamass.gov/regulations.

**957 CMR 8.00 - APCD and Case Mix Data Submission** requires facilities to submit visit data to CHIA 75 days after each quarter. The quarterly reporting intervals for the FY2021 EDD are as follows:

- Quarter 1: October 1, 2020 December 31, 2020
- Quarter 2: January 1, 2021 March 31, 2021
- Quarter 3: April 1, 2021 June 30, 2021
- Quarter 4: July 1, 2021 September 30, 2021

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 visit 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 visits are rejected, CHIA rejects the entire quarterly submission.

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

#### **Defining Emergency Department**

Regulation 105 CMR 130.020 defines what types of facilities are considered "Emergency Departments" and what is (and is not) a visit. The Hospital Uniform Reporting Manual (HURM) defines additional emergency services and also defines the regulations for emergency services under Massachusetts General Laws. Functional reporting permits comparisons among facilities with varied organizational structures which can be found in the HURM, Chapter III, § 3242.

An emergency department is defined as a department of a hospital or an off-site health care facility that provides emergency services as defined in 105 CMR 130.020. The emergency department must be listed on the license of the hospital and qualify as a Satellite Emergency Facility as defined in 105 CMR 130.820 through 130.836.

#### **Visits in Other CHIA Databases**

Any visit for which the patient was registered in the emergency department that did not result in an outpatient observation stay or an inpatient admission at the reporting facility is considered an emergency department visit. A visit occurs even if the only service provided to a registered patient is triage or screening. Data users interested in visits that resulted in an observation stay should use the outpatient observation database (FY2021 OOD). Data users interested in visits that resulted in an inpatient admission should use the hospital inpatient discharge database (FY2021 HIDD). Both the OOD and HIDD databases have an "ED Indicator" flag which identifies care that begins in the ED. The "Source of Admission" codes in OOD and HIDD and "Revenue" codes in HIDD can be used to identify stays or discharges that included emergency department services. In addition, as of FY2017, the OOD contains ED registration and ED discharge date for boarding

time for ED visits that result in an observation stay, likewise HIDD contains ED registration and ED discharge date and boarding time for ED visits that result in an inpatient hospital admission.

#### **EDD Verification Report Process**

CHIA sends each facility a profile report of their visit 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 not limited to, the number of visits per month and breakouts by type of visit, source of visit, patient race, and patient disposition.

Facilities must affirm that reported data is accurate and complete or identify any discrepancies on the year-end verification cycle. 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 FY2021 EDD 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 use request, limited information covering all data uses is provided by CHIA. Data applicants needing additional assistance on the application process 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: https://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 for data recipients 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 EDD on CD-ROMs. Data users must be able to meet the following Hardware and CD requirements. Users must also be able to read and download the data files to their back office.

#### **Hardware Requirements:**

- CD ROM Device
- Encrypted Hard Drive with 2.0 GB of space available

#### **Data Use**

The FY2021 EDD consists of Microsoft Access Database (.mdb) files or SAS files (.sas7bdat). Each file name will have a suffix of "\_Full\_AAAA\_BBBB." AAAA indicates the specific view of the data. BBBB indicates if the data is an LDS or Government dataset.

- The main FIPA\_EDD\_2021\_**Visit** (table name: Visit), contains one record per ED visit. The unique identifier on this table is the RecordType20ID.
- FIPA\_EDD\_2021\_**Service** (table name: Service), contains one record per service code (HCPCS or CPT) reported for each visit and service line item charges rounded to the nearest dollar. The Visit table (RecordType20ID) has a one-to-many relationship with this table.
- FIPA\_EDD\_2021\_**DiagnosisCode** (table name: DiagnosisCode), contains one record per ICD-10-CM diagnosis code reported for each visit. The Visit table has a one-to-many relationship with this table by linking the RecordType20ID.
- FIPA\_EDD\_2021\_**ProcedureCode** (table name: ProcedureCode), contains one record per procedure code (CPT or ICD-10-PCS) for each visit. The Visit table has a one-to-many relationship with this table by linking the RecordType20ID.
- FIPA\_EDD\_2021\_**Organization** (table name: Organization) contains one record per ED organization. This table can be used to lookup facility names, EMS region, and teaching status.
- FIPA\_EDD\_2021\_PayerCategory (table name: PayerCategory) contains one record per ED payer.
- FIPA\_EDD\_2021\_**SubmissionLog** (table name: Submission Log) contains one record per quarter for each of the ED facilities filing data.
- FIPA\_EDD\_2021\_**ErrorLog** (table name: ErrorLog) contains records by quarter and by fiscal year on the number of records that pass and fail and the reason for fail by IdOrgFiler.
- FIPA\_EDD\_2021\_**ServiceSummary** (table name: ServiceSummary), contains one record per quarter per facility. The Visit table (RecordType20ID) has a many-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. To accommodate the one-to-many relationship between the main ED Visit table and Services, DiagnosisCode and ProcedureCode tables, all four tables contain a RecordType20ID field. The RecordType20ID field is a unique identifier used to link the main Visit table to Services, Diagnoses and Procedures tables. The OrgID field in the Organization table can be linked to columns on the Visit table fields that contain Organization ID numbers (IdOrgFiler, IdOrgSite, IdOrgHosp and IdOrgTransfer).

## 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 about the data, 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 FY2021 EDD, 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 approved government use. All approved data applicants have access to the "CORE" data. Data applicants who choose limited dataset buy-ups may receive 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.

#### VISIT TABLE—CORE ELEMENTS

AgeLDS	LengthOfStayHours	RegistrationMonth
Charges	NewbornAgeWeeks	RegistrationYear
DaysBetweenVisits	OtherCareGiver	SecondaryPayerType
DepartureStatus	PermanentPatientCountryLDS	SecondarySourceOfPayment
DischargeDay	PermanentPatientStateLDS	SecondarySourceOfVisit
DNRStatus	PrimaryPayerType	SexLDS
EDVisitID	PrimarySourceOfPayment	SourceOfVisit
EmergencySeverity	PrincipalConditionPresent	SubmissionControlID
HispanicIndicator	PrincipalDiagnosisCode	TemporaryPatientStateLDS
Homeless	PrincipalECode	Transport
IdOrgFiler	PrincipalECodeConditionPresent	TypeOfVisit
IdOrgHosp	ProcedureCodingType	VisitPassed
IdOrgSite	RecordType20ID	
IdOrgTransfer	RegistrationDay	

#### VISIT TABLE—LDS ELEMENTS

DischargeDate	PermanentPatientCityLDS	RegistrationMonthMM
DischargeDateMM	PermanentPatientZIP3CodeLDS	TemporaryPatientCityLDS
Ethnicity1	PermanentPatientZIP5CodeLDS	TemporaryPatientZIP3CodeLDS
Ethnicity2	PhysicianNumber	TemporaryPatientZIP5CodeLDS
LegacyCHIAMothersUHIN	Race1	VisitSequence
LegancyCHIAPatientUHIN	Race2	
OtherPhysicianNumber	RegistrationDate	

#### **VISIT TABLE—GOVERNMENT-ONLY ELEMENTS**

AmbulanceRunSheet	OtherEthnicity
DischargeTime	OtherRace
HospitalBillNumber	PatientBirthDate
MedicaidMemberID	RegistrationTime
MedicalRecordNumber	

## DIAGNOSIS CODE TABLE—CORE ELEMENTS

ConditionPresent

DiagnosisCode

PrincipalIndicator

RecordType20ID

Sequence

## PROCEDURE CODE TABLE—CORE ELEMENTS

ProcedureCode

RecordType20ID

Sequence

## SERVICES CODE TABLE – CORE ELEMENTS

ServiceLineItem

RecordType20ID

ServiceLineItemCharges

#### SERVICE SUMMARY TABLE—CORE ELEMENTS

InpatientVisits	SubmissionControlID
ObservationBeds	SubmissionQuarter
OrgID	TotalEDBeds
OutpatientObservationVisits	TotalRegisteredVisits
ServiceSiteSummaryKey	TreatmentBeds

#### ORGANIZATION TABLE—CORE ELEMENTS

City	OrganizationName
DateInactive	OrganizationNumber
EMSRegion	OrganizationTypeID
GroupName	TeachingStatus
OrganizationGroupId	Туре

#### PAYER CATEGORY—CORE ELEMENTS

PayerManagedCareCode	PayerSourceCode
PayerMCareMCaidPrivCode	PayerSourceDefinition
PayerCategory	PayerTypeCode
Description	PayerTypeAbbreviation
PayerTypeDescription	

#### **Organization Table**

The "Organization" table contains 1 record for every valid Orgld reported in the ED visit database. Referenced Orgld's include: IdOrgFiler, IdOrgHosp, IdOrgSite, and IdOrgTransfer data elements in the ED database. The Orglds referenced in FY2021 EDD are listed in Table 1.

#### **Table 1. ORGANIZATION IDENTIFICATION**

Principal Data Element: ORGID FIELDS

Other Data Elements: IdOrgFiler

IdOrgHosp IdOrgSite IdOrgTransfer

Rules: The Organization Table will contain 1

record for every valid Orgld reported in the ED visit database. The following

table lists Facilities only for submissions in a recent year.

Note: The organization table contains information on all organizations submitting data and other organizations transferring patients to organizations. Below is a list of the 66 organizations submitting emergency data in FY2021.

ORGID	ORGANIZATION NAME	ED Visit Volume
1	Anna Jaques Hospital	16,925
2	Athol Hospital	9,330
4	Baystate Medical Center	64,984
5	Baystate Franklin Medical Center	16,961
6	Baystate Mary Lane Outpatient Center, Satellite Emergency Facility	5,479
7	Berkshire Health System - Berkshire Campus	41,240
8	Fairview Hospital	10,462
10	Beth Israel Deaconess Medical Center - East Campus	22,191
16	Boston Medical Center	85,185
22	Brigham and Women's Hospital	34,825
25	Signature Healthcare - Brockton Hospital	40,791
27	Cambridge Health Alliance – Cambridge Hospital Campus	28,267
39	Cape Cod Hospital	54,263
40	Falmouth Hospital	23,359
42	Steward - Carney Hospital	27,024

ORGID	ORGANIZATION NAME	ED Visit Volume
46	Children's Hospital Boston	34,999
49	MetroWest Medical Center - Framingham Campus	29,895
50	Cooley Dickinson Hospital	25,030
53	Beth Israel Deaconess Hospital - Needham	15,187
57	Emerson Hospital	22,090
59	Brigham and Women's - Faulkner Hospital	21,498
62	Steward - Good Samaritan Medical Center - Brockton Campus	38,847
68	Harrington Memorial Hospital	18,717
71	Health Alliance – Leominster Campus	27,210
73	Heywood Hospital	19,044
75	Steward - Holy Family Hospital	34,612
77	Holyoke Medical Center	33,553
79	Beth Israel Deaconess – Plymouth (Jordan)	25,455
81	Lahey Hospital & Medical Center Burlington Campus	27,596
83	Lawrence General Hospital	43,026
85	Lowell General Hospital – Main Campus	36,349
88	Martha's Vineyard Hospital	14,110
89	Massachusetts Eye and Ear Infirmary	19,540
91	Massachusetts General Hospital	71,050
97	Milford Regional Medical Center	38,865
98	Beth Israel Deaconess - Milton	23,906
99	Steward - Morton Hospital	33,590
100	Mount Auburn Hospital	13,660
101	Nantucket Cottage Hospital	9,702
104	Tufts-New England Medical Center	27,185
105	Newton-Wellesley Hospital	43,211
106	Baystate Noble Hospital	21,737
109	Lahey Health - Addison Gilbert Campus	9,088

ORGID	ORGANIZATION NAME	ED Visit Volume
110	Lahey Health - Beverly Campus	29,952
114	Steward - Saint Anne's Hospital	34,306
115	Lowell General - Saints Campus	29,575
116	North Shore Medical Center, Inc Salem Campus	48,410
119	Mercy Medical Center - Springfield Campus	58,777
122	South Shore Hospital	64,096
123	Southcoast Hospitals Group - Charlton Memorial Campus	43,105
124	Southcoast Hospitals Group - St. Luke's Campus	54,659
126	Steward - St. Elizabeth's Medical Center	18,998
127	Saint Vincent Hospital	40,798
130	UMass Memorial Medical Center - Memorial Campus	24,990
131	UMass Memorial Medical Center - University Campus	40,188
132	Health Alliance - Clinton Hospital	10,954
133	Marlborough Hospital	19,630
138	Lahey Winchester Hospital	30,533
139	Baystate Wing Memorial Hospital	20,767
141	Melrose-Wakefield Healthcare - Melrose-Wakefield Hospital Campus	22,156
142	Cambridge Health Alliance - Everett (Whidden) Hospital Campus	36,539
145	Southcoast Hospitals Group - Tobey Campus	15,097
457	MetroWest Medical Center - Leonard Morse Campus	249
4448	Lahey Medical Center, Peabody	13,420
11466	Steward - Holy Family at Merrimack Valley	17,789
11467	Steward - Nashoba Valley Medical Center	10,524
_		

#### **Organization of the Diagnosis and Procedure Codes**

CHIA organizes the procedure and diagnosis fields into four tables—Visit, Diagnosis, Procedure (CPT-4 or ICD-10-CM procedure codes) and Services (CPT-4 or HCPCS procedure codes). The Visit table contains the first diagnosis code on the record (which cannot be an ICD-10-CM external cause code V00-Y99). All other diagnosis and all procedure codes are contained in the Diagnosis and Procedure tables, respectively. Indicator codes are available for each secondary diagnosis or procedure code and are based on order in which those codes were sent to CHIA.

Diagnoses and procedures are ordered as submitted by emergency departments 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.

#### **Organization Identifiers (OrgID)**

FY2021 EDD 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 ED visit data to CHIA.
- Massachusetts Site Organization ID (IdOrgSite): The Organization ID for the site where the patient received ED 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.

Most facilities provide emergency care at only one location. Therefore, they are considered to have a single campus or site, and need to summarize their data only once. However, facilities may have submitted data about care provided at multiple sites. CHIA requires the latter to summarize their data separately.

#### 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 > 0 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 EDD is derived from patient visit summaries, which can be traced to information gathered upon ED registration or from information entered by registering and attending health professionals into the medical record. The quality of the EDD 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 registration
- 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. In order to maintain consistency across years, users may need 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**

FY2021 EDD 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
- Reference table: indicates if a Categorical data element has a set of valid values that are associated with other information
- *Description:* is a longer explanation of the data element and its limitations
- Summary statistics: links to frequencies or means for that data element

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

#### **Active**

**Short Description**Primary Table:
CHIA processing field.
SubmissionLog

Availability to Users: CORE
Type of Data: Categorical
Format: Varchar
Length: 3

**Description:** CHIA indicator of quarterly submission status.

#### **AgeLDS**

**Short Description** Age of the patient.

Primary Table:

Availability to Users:

CORE
Type of Data:

Continuous
Format:

Integer

Length:

CHIA derived:

Yes

**Description:** Age of the patient as calculated by CHIA. Rounded up to the nearest integer. Age is

zero when patient is younger than 1 year and age is 999 when patient is older than 89 years. 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.

#### **AmbulanceRunSheet**

**Short Description** EMS ambulance run sheet number.

Primary Table:

Availability to Users:

GOV

Type of Data:

Identifier

Varchar

**Description:** Reported to ED facility. May be present if patient arrived by the ground or air

ambulance. The unique identifier automatically assigned by the ambulance agency

for each Patient Care Report.

#### Charges

**Short Description** Facility reported costs for a visit.

Primary Table: Visit
Availability to Users: CORE
Type of Data: Currency

Format: Integer

**Description:** The grand total of charges associated with the patient's emergency department visit.

The total charge amount is rounded to the nearest dollar. A charge of \$0 is not permitted unless the patient has a special Departure Status reported by facility.

**Summary statistics:** Table 7

#### City

**Short Description** Municipality in which the emergency department is located.

Primary Table: Organization
Availability to Users: CORE
Type of Data: Categorical
Format: Varchar

**Description:** Name of the municipality in which the emergency department is located.

#### **ConditionPresent**

**Short Description** Flags whether the diagnosis was present on visit.

Primary Table: Diagnosis
Availability to users: CORE
Type of Data: Categorical

Length:

Format: Varchar

**Description:** Indicates the onset of a diagnosis preceded or followed by the ED visit. There is a

present on visit indicator for every diagnosis and external cause-code.

Reference table: Table 3

#### **DateInactive**

**Short Description** Date in which facility was inactive as an ED.

Primary Table: Organization
Availability to users: CORE
Type of Data: Date

**Description:** Date in which facility was inactive as an ED.

#### **DaysBetweenVisits**

Short Description CHIA derived field to allow for easy calculation of number of days between ED visits.

Primary Table: Visit

Availability to users: CORE

Type of Data: Continuous

Format: Integer Length: 4

**Description:** This CHIA calculated field indicates the number of days between each ED Visit for

applicable patients. That is, a match with the UHIN only is used to make a

determination that a patient has a revisit. The calculation is Date of Visit 2 - Date of

Visit 1.

**Summary statistics:** Table 7

### **DepartureStatus**

Short Description Standardized departure status

Primary Table:

Availability to users:

Type of Data:

Format:

Length:

Visit

CORE

Categorical

Varchar

1

**Description:** CHIA defined departure status as reported by ED facility. This field identifies the

disposition and destination of the patient after departure from the ED.

Summary Statistics: Table 8

Reference Table:

CODE	DESCRIPTION
1	Routine (i.e. to home or usual place of residence)
3	Transferred to Other Facility
4	Against Medical Advice (AMA)
6	Eloped
8	Within Hospital Clinic Referral
9	Dead on Arrival (DOA) (with or without resuscitative efforts in the ED)
0	Died during ED Visit
Р	Patient met personal physician in the ED (not seen by staff)

#### DiagnosisCode

**Short Description** ICD-10-CM code for each diagnosis reported by the facility.

Primary Table: Diagnosis
Availability to users: CORE
Type of Data: Categorical

Format: Varchar Length: 7

**Description:** ICD-10-CM Associated Diagnosis. Excludes the decimal point. May be an External

Cause Code or an Associated or Supplemental External Cause Code IF the Principal External Cause Code is present. Associated External Cause Codes may be: ICD-10-CM (V00-Y89) and Supplemental Codes: (Y90-Y99) (place of injury, activity, status).

Reference table: Standard ICD-10-CM Diagnosis Codes

#### DischargeDate

Short Description Date patient left ED

Primary Table: Visit
Availability to users: LDS
Type of Data: Date

Format: YYYYMMDD

Length: 8

**Description:** Calendar date of patient departure from the ED.

#### DischargeDay

**Short Description** Day of the month when patient leftED.

Primary Table:

Availability to users:

Type of Data:

Format:

DDD

Length:

Visit

CORE

Date

Date

**Description:** Calendar day of departure from ED. Only values are abbreviated days of week (Mon,

Tue, Wed, Thu, Fri, Sat, Sun). Field is blank if discharge date is NULL.

### **DischargeDateMM**

**Short Description** Month of year when patient left ED.

Primary Table: Visit
Availability to users: LDS
Type of Data: Date
Format: MM
Length: 2

**Description:** Month of year when patient departed from ED. Only two-digit values are valid.

### DischargeTime

**Short Description** Time stamp indicating when the patient departed the ED.

Primary Table: Visit
Availability to users: GOV
Type of Data: TIME
Format: HH:MM

**Description:** Time when patient departed from the ED is hours and minutes in military time. Time

ranges from 0000 to 2359.

#### **DNRStatus**

**Short Description** Patient had physician order not to resuscitate or patient receiving palliative care only.

Primary Table:

Availability to users:

Type of Data:

Format:

Visit

LDS

Ordinal

Integer

**Description:** A status indicating that the patient had a physician order not to resuscitate or the

patient had a status of receiving palliative care only.

Reference table: CODE DESCRIPTION

CODE	DESCRIPTION
1	DNR order written
2	Comfort measures only
3	No DNR order or comfort measures ordered

#### **EDVisitID**

**Short Description** Facility specific unique visit key.

Primary Table:

Linking tables:

Availability to users:

Type of Data:

Visit

Service

CORE

Identifier

**Description:** Facility specific unique identifier for each visit record. Used to link between tables.

Users should use this field, along with the facility identifiers to associate visit data. The total volume of ED visit records will always equal the total volume of unique ED

visit IDs.

#### **EmergencySeverity**

**Short Description** Facility calculated measure of severity.

Primary Table: Visit
Availability to users: CORE

Type of Data: Categorical

**Description:** Patient's score on the Emergency Severity Index, as described in Gilboy N, Tanabe

T, Travers D, Rosenau AM. Emergency Severity Index (ESI): A Triage Tool for Emergency Department Care, Version 4. Implementation Handbook 2012 Edition. AHRQ Publication No. 12-0014. Rockville, MD. Agency for Healthcare Research and

Quality. November 2011 ". It employs a five-level scale. It may be reported on

Record Type 20 as an alternative to, or in addition to, the Type of Visit. Regardless of whether the ESI or the Type of Visit is reported; it should reflect the initial assessment of the patient, and not a subsequent revision of it due to information gathered during

the course of the emergency department visit.

Summary Statistics: Table 9

#### **EMSRegion**

**Short Description** Emergency response region (I-V) where facility is located.

Primary Table: Organization

Availability to users: CORE

Type of Data: Categorical

**Description:** Massachusetts emergency region code. For additional information on EMS Regions,

see: https://www.mass.gov/service-details/ems-regions-in-massachusetts

### **ErrorCategory**

**Short Description** Indicates what the error was on a visit 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 visit record. Used for processing.

#### **ErrorDescription**

**Short Description** Standardized Description of the reported error.

Primary Table: ErrorLog

Availability to users: CORE

Type of Data: Categorical

CHIA derived: Yes

**Description:** CHIA flag for a reported error in data. Used for processing.

#### **Ethnicity 1, Ethnicity 2**

**Short Description** Standardized, facility reported ethnicity.

Primary Table: Visit
Availability to users: LDS

Type of Data: Categorical

Length:

**Description:** Primary (Ethnicity 1) or Secondary (Ethnicity 2) ethnicity as reported by the provider.

CHIA's Provider community utilizes the full list of standard ethnicity codes, per the

Center for Disease Control found at:

https://www.cdc.gov/nchs/data/dvs/Race\_Ethnicity\_CodeSet.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

#### HispanicIndicator

**Short Description** Indicates whether patient was Hispanic.

Primary Table: Visit
Availability to users: CORE
Type of Data: Categorical

Length: 1

**Description:** A flag for patients of Hispanic/Latino/Spanish culture or origin regardless of race.

Summary Statistics: Table 10

#### Reference table:

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

#### HomelessIndicator

**Short Description** Indicates whether the patient was homeless.

Primary Table: Visit

Availability to users: CORE

Type of Data: Categorical

Length:

**Description:** This flag indicates that the patient was homeless at the time of visit.

Summary Statistics: Table 11

Reference table:

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

#### HospitalBillNumber

**Short Description** Unique patient billing record number.

Primary Table: Visit

Availability to users: GOV-SPEC Type of Data: Identifier Format: VARCHAR

Length: 17

**Description:** Facility unique number associated with billing for the patient's visit.

#### **ICD Indicator**

Short DescriptionICD versionPrimary Table:VisitAvailability to users:COREType of Data:Categorical

**Description:** Indicates if the diagnoses, external cause codes, and procedure codes are

ICD-10-CM/PCS or ICD-9-CM

Reference table: Table 12

**IdOrgFiler** 

**Short Description** ID number of the facility that submitted ED claims.

Primary Table: Visit

Linking tables: SubmissionLog

ErrorLog

Availability to users: CORE

Type of Data: Identifier

**Description:** The Organization ID for the facility that submitted the ED visit data to CHIA.

Reference table: Table 1

**IdOrgHosp** 

**Short Description** Facility identifier.

Primary Table: Visit
Availability to users: CORE
Type of Data: Identifier

Length: 8

**Description:** The Organization ID for the main facility affiliation.

Reference table: Table 1

**IdOrgSite** 

**Short Description** Facility identifier.

Primary Table: Visit
Availability to users: CORE
Type of Data: Identifier

Length: 8

**Description:** The Organization ID for the site where the patient received ED care.

Reference table: Table 1

IdOrgTransfer

**Short Description** Indicates where patient was transferred from.

Primary Table: Visit

Availability to users: CORE

Type of Data: Identifier

Length: 10

**Description:** 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.

Reference table: Table 1

**FieldName** 

**Short Description** Name of the data element that caused the error.

Primary Table: ErrorLog
Availability to users: CORE
Type of Data: Categorical

**Description:** Name of the data element that caused the error. Used for processing.

**GroupName** 

**Short Description** Name of the system running the ED facility.

Primary Table: Organization
Availability to users: CORE
Type of Data: Open Text

**Description:** System that owns or runs the emergency department.

**InpatientVisits** 

**Short Description** A count of ED visits that resulted in inpatient visit per each submission (facility-

Quarter).

Primary Table: ServiceSummary

Availability to users: CORE

Type of Data: Continuous

Format: Integer

**Description:** A count of ED visits that resulted in inpatient visit per each submission (facility-

Quarter). Does not correspond to any visits in the database.

LegCHIAMothersUHIN

**Short Description** Patient's mother's unique id.

Primary Table:

Availability to users:

Type of Data:

Identifier

Format:

Varchar

Length:

9

CHIA derived:

Yisit

LDS

Identifier

Varchar

Varchar

**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. If 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 identifiers to her infant or assignment of a spouse's unique identifiers to a patient. Invalid data uses the code UHIN="4".

#### **LegCHIAPatientUHIN**

**Description:** 

Short Description Patient's unique id.

Primary Table:

Availability to users:

Type of Data:

Format:

Length:

Visit

LDS

Identifier

Varchar

9

CHIA derived: No

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. If 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 identifiers to her infant or assignment of a spouse's unique identifiers to a patient. Invalid data uses the code UHIN="4".

## LengthOfStayHours

**Short Description** Count of hours in the ED.

Primary Table:

Availability to users:

CORE

Type of Data:

Continuous

Format:

Integer

Length:

4

CHIA derived:

Yes

**Description:** Count of hours between the registration and discharge time for an ED visit.

**Summary statistics:** Table 7

#### ManagedCareCode

**Short Description** Payer code indicating HMO.

Primary Table: PayerCategory

Availability to users: CORE

Type of Data: Categorical

CHIA derived: Yes

**Description:** Subset of payer codes that indicate a managed care plan paid for the visit.

#### MedicalRecordNumber

**Short Description** Patient Visit identifier assigned by the facility

Primary Table:

Availability to users:

GOV

Type of Data:

Identifier

Varchar

Length:

10

**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.

#### MedicaidMemberID

**Short Description** Patient's MassHealth unique ID.

Primary Table: Visit

Availability to users: GOV

Type of Data: Identifier

**Description:** Unique MassHealth Identifier of a patient.

#### **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: Integer

Length: Yes

**Description:** Age in weeks for children younger than 53 weeks of age who are admitted to the ED.

Weeks are calculated from the Registration Date - the DOB, and then rounded to the nearest week. Only values between 0 and 52 are valid. All other values are invalid.

Summary Statistics: Table 7

#### **NumberOfEDVisitsFailed**

Short DescriptionCHIA derived error fieldPrimary Table:DataSubmissionLog

Linking tables:ErrorLogAvailability to users:COREType of Data:Continuous

**Description:** Count of ED records that failed CHIA intake.

#### **NumberOfEDVisitsPassed**

Short DescriptionCHIA derived error fieldPrimary Table:DataSubmissionLog

Linking tables:ErrorLogAvailability to users:COREType of Data:ContinuousCHIA derived:Yes

**Description:** Count of ED records that passed CHIA intake.

#### **NumberOfEDVisits**

**Short Description**Count of total ED visits for that facility in that quarter, including any inpatient

admissions with as the source of admission and observation stays originating from

the ED which are not captured in the ED visit database.

Primary Table: DataSubmissionLog

Linking tables:ErrorLogAvailability to users:COREType of Data:Continuous

**Description:** Total number of registered ED Visits occurring during the reporting period that

resulted in inpatient admission (whether preceded by observation stay or not).

#### **NumberOfErrors**

**Short Description** Count of errors in submission.

Primary Table: ErrorLog
Availability to users: CORE
Type of Data: Continuous

**Description:** Count of errors in submission.

#### **ObservationBeds**

**Short Description** Count of observation beds for the ED facility.

Primary Table: ServiceSummary

Availability to users: CORE

Type of Data: Continuous

Format: Integer

**Description:**Beds located in a distinct area within or adjacent to the emergency department, which

are intended for use by observation patients. Facilities include only beds that are set

up and equipped on a permanent basis to treat patients. They should not

include temporary use of stretchers, gurneys, etc.

#### Orgld

**Short Description** Unique identifier for ED facility. Linkage across tables and fiscal years.

Primary Table: Organization

Linking tables:VisitAvailability to users:COREType of Data:IdentifierFormat:Integer

**Description:** ED facility specific identifier.

Reference table: Table 1

#### **OrganizationGroupID**

Short DescriptionSystem IDPrimary Table:OrganizationAvailability to users:COREType of Data:Identifier

**Description:** Code indicating the system that runs the emergency room.

Reference table: Table 1

#### **OrganizationName**

**Short Description** Name of ED facility.

Primary Table: Organization
Linking tables: SubmissionLog

ErrorLog

Availability to users: CORE
Type of Data: Open Text
Format: Varchar
Length: 30

**Description:** ED facility specific name.

Reference table: Table 1

#### **OrganizationNumber**

**Short Description** ORGID of the facility that owns the emergency room.

Primary Table: Organization
Availability to users: CORE
Type of Data: Identifier

**Description:** ORGID of the facility that owns the emergency room.

Reference table: Table 1

#### OrganizationTypeID

**Short Description** Analogue to ORGID.

Primary Table: Organization
Availability to users: CORE
Type of Data: Categorical
Description: See ORGID.
Reference table: Table 1

#### **OtherCareGiver**

**Short Description** Indicates if the patient had a caregiver.

Primary Table: Visit
Availability to users: CORE
Type of Data: Categorical

Length:

**Description:** This data element 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.

Summary Statistics Reference table:

#### Table 13

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

#### **OtherEthnicity**

**Short Description** Non-standard patient ethnicity designations.

Primary Table:

Availability to users:

GOV

Type of Data:

Format:

Length:

Visit

GOV

Open Text

Varchar

20

**Description:** Patient's ethnicity as entered by the facility. Other ethnicity is an open text field.

for reporting additional ethnicities when ethnicity 1 or ethnicity 2 equals "R9", or

"Other ethnicity".

### **OtherPhysicianNumber**

**Short Description** Unique identifier of a non-attending physician.

Primary Table: Visit
Availability to users: LDS
Type of Data: Identifier

**Description:** Physician's Massachusetts board of registration in medicine (BORIM license

number for physician other than the ED physician who provided services related to this visit. Reported if the physician's involvement in the patient's ED Visit is captured in the facility's electronic information systems or "DENSG", "PODTR", "OTHER", "MIDWIF", "NURSEP" or "PHYAST" for Dental Surgeon, Podiatrist, Other (i.e. non-permanent licensed physicians), Midwife, Nurse Practitioner, or Physician's Assistant

respectively.

#### **OtherRace**

**Short Description** Non-standard patient race designations.

Primary Table: Visit
Availability to users: GOV

Type of Data: Open Text
Format: Varchar
Length: 15

**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", or "Other Race".

### **OutpatientObservationVisits**

**Short Description** Count of the number of Observation visits that began in the ED.

Primary Table: ServiceSummary

Availability to users: CORE

Type of Data: Continuous

**Description:** Indicates that the patient was admitted from the facility's outpatient observation

department or had prior outpatient utilization. Does not correspond to any other data

in the database.

#### **Passed**

**Short Description**Primary Table:
CHIA processing field
SubmissionLog

Availability to users: CORE

Type of Data: Categorical

**Description:** CHIA indicator of quarterly submission status.

#### **PatientBirthDate**

**Short Description** Patient Date of Birth

Primary Table: Discharge
Availability to users: GOV
Type of Data: Date

Format: YYYYMMDD

Length: 8

**Description:** Calendar date of patient's birth

#### **PayerCategory**

**Short Description** Standardized association of a payer with a type of insurance.

Primary Table: PayerCategory

Availability to users: CORE

Type of Data: Categorical

**Description:** A standardized payer code. MA payers are identified in advance of the payment

cycle. This field captures the specific differences between those payers. The payer

table is extensive.

Reference table: Table 5

#### PayerMCareMCaidPrivCode

**Short Description** Payer code indicating Medicare/MassHealth.

Primary Table: PayerCategory

Availability to users: CORE

Type of Data: Categorical

CHIA derived: Yes

Payer Type

**Description:** Subset of payer codes that indicate Medicare or MassHealth paid for the visit.

Reference table: Table 5

#### **PayerSourceCode**

**Short Description** Standardized payer source code.

Primary Table: PayerCategory

Availability to users: CORE

Type of Data: Categorical

**Description:** A standardized source of payment code (different than payer code). Most MA payers

are identified in advance of the payment cycle. This field captures the specific

differences between those payers. The payer table is extensive.

**Reference table:** Table 5

#### **PayerSourceDefinition**

**Short Description** Description of the standardized payer source codes.

Primary Table: PayerCategory

Availability to users: CORE

Type of Data: Categorical

**Description:** A description for use with standardized payer codes. Most MA payers are identified in

advance of the payment cycle. This field captures the specific differences between

those payers. The payer table is extensive.

Reference table: Table 5

#### **PayerType**

**Short Description** Categorical. Type of Payer.

Primary Table: PayerCategory

Availability to users: CORE

Type of Data: Categorical

**Description:** Indicates the type of organization or individual who is payer.

**Reference table:** Table 5

#### **PermanentPatientCityLDS**

**Short Description** Permanent municipality of residence for the patient.

Primary Table:

Availability to users:

Type of Data:

Format:

Length:

Visit

LDS

Open Text

Varchar

25

**Description:** Primary municipality of residency for patient.

#### **PermanentPatientCountryLDS**

**Short Description** Permanent country of residence for the patient.

Primary Table:

Availability to users:

Type of Data:

Format:

Length:

Visit

CORE

Categorical

Varchar

2

**Description:** Permanent country of residency for patient reported using International Standards

Organization (ISO - 3166) 2-digit country code

#### **PermanentPatientStateLDS**

**Short Description** Permanent state of residence for the patient.

Primary Table: Visit

Availability to users: CORE

Type of Data: Categorical

Length: 2

**Description:** Permanent state of residency for patient reported using USPS 2-digit state

abbreviation.

Reference table: Table 6

#### PermanentPatientZIP3CodeLDS

**Short Description** 3-digit ZIP code of the patient's permanent residence.

Primary Table:

Availability to users:

Type of Data:

Format:

Length:

Visit

CORE

ZIP code

Varchar

3

**Description:** First three digits of patient's permanent ZIP code. ZIP codes are not standardized

and this field is as reported from a nine-digit ZIP code. For LDS users only, if the

patient state is not in Massachusetts or a state bordering Massachusetts

(Connecticut, Maine, New Hampshire, New York, Vermont or Rhode Island) ZIP

codes are set to zeros (0s) and the state is removed.

#### PermanentPatientZIP5CodeLDS

**Short Description** 5-digit ZIP code of the patient's permanent residence.

Primary Table:

Availability to users:

Type of Data:

Format:

Length:

Visit

LDS

ZIP code

Varchar

5

**Description:** First five digits of patient's permanent zip code. ZIP codes are not standardized

and this field is as reported from a nine-digit ZIP code. For LDS users only, if the

patient state is not in Massachusetts or a state bordering Massachusetts

(Connecticut, Maine, New Hampshire, New York, Vermont or Rhode Island) ZIP

codes are set to zeros (0s) and the state is removed.

#### **PhysicianNumber**

**Short Description** Uniquely identifies the attending physician.

Primary Table: Visit
Availability to users: LDS
Type of Data: Identifier

**Description:** Physician's Massachusetts Board of Registration in Medicine(BORIM) license

number for the ED Physician who provided services related to this visit. Report if the physician's involvement in the patient's ED Visit is captured in the facility's electronic information systems or "DENSG", "PODTR", "OTHER", or "MIDWIF" for Dental Surgeon, Podiatrist, "MIDWIF", "NURSEP" or "PHYAST" for Dental Surgeon, Podiatrist, Other (i.e. nonpermanent licensed physicians), Midwife, Nurse

Practitioner, or Physician's Assistant respectively.

### **PrimaryPayerType**

**Short Description** Primary payer type for the visit.

Primary Table: Visit

Availability to users: CORE

Type of Data: Categorical

**Description:** Patient's expected primary payer type for the ED Visit. Report the single character

text code indicating the type of payer who has primary responsibility for the payment

of the services related to the ED visit.

Reference table: Table 4

### **PrimarySourceofPayment**

**Short Description** Primary payer for the visit.

Primary Table: Visit

Availability to users: CORE

Type of Data: Categorical

**Description:** Primary payer for the ED Visit. Please note that for Source of Payment, the values

are in "text" format and may have duplicate numbers due to spaces in the field.

Reference table: Table 5

### **PrincipalConditionPresent**

**Short Description** Flag indicating that principal condition was present on visit.

Primary Table: Visit
Availability to users: CORE
Type of Data: Categorical

Length: 1

**Description:** Indicates that principal condition was present on visit.

Reference table: Table 3

### PrincipalDiagnosisCode

**Short Description** ED Determined ICD-10-CM code for the Condition that led to the visit to the ED.

Primary Table: Visit

Availability to users: CORE

Type of Data: Categorical

Length: 7

**Description:** The ICD diagnosis code corresponding to the condition established after study to be

chiefly responsible for the visit of the patient for ED care.

Reference table: Standard ICD-10-CM Diagnosis Codes

### **PrincipalECode**

**Short Description** ICD-10-CM V00-Y99 code for the external cause that led to the visit to the ED.

Primary Table: Visit

Availability to users: CORE

Type of Data: Categorical

**Description:** This data element describes the principal external cause of injuries, poisonings, and

adverse effects using ICD-10-CM codes. ED determined. In addition to the dedicated external cause Code field, facilities record additional external cause Codes in the

associated diagnosis fields for conditions having multiple causes.

Reference table: Standard ICD-10-CM V00-Y99 Codes

### PrincipalECodeConditionPresent

Short Description External Cause Present on visit indicator

Primary Table: Visit

Availability to users: CORE

Type of Data: Categorical

**Description:** Flag indicating that principal ICD-10-CM external cause condition was present on

visit.Determined by the emergency department.

Reference table: Table 3

### PrincipalIndicator

Short Description Indicates principal condition

Primary Table: Diagnosis
Availability to users: CORE
Type of Data: Categorical

**Description:** Indicates if the diagnosis code was principal or secondary. Each diagnosis record has

this field.

#### **ProcedureCode**

**Short Description** Code for each significant procedure reported by the facility.

Primary Table: Procedure
Availability to users: CORE
Type of Data: Categorical

Length: 7

**Description:** The ICD-10-PCS or Current Procedural Terminology (CPT) code corresponding to

procedures which carry an operative or anesthetic risk or require highly trained

personnel, special equipment or facilities. Should be used in conjunction with

Procedure Coding Type.

Reference table: ICD-10-PCS Procedure Codes or CPT codes

### **ProcedureCodingType**

Short Description Indicates the type of procedure code

Primary Table: Procedure

Availability to users: CORE

Type of Data: Categorical

**Description:** Indicates if the code is an ICD-10-PCS code, Current Procedural Terminology (CPT)

code, or Healthcare Common Procedure Coding System (HCPCS) code.

#### Quarter

**Short Description** Quarter of submission. **Primary Table:** SubmissionLog

Availability to users:COREType of Data:DateFormat:QQLength:8

**Description:** Quarter in which the visit was submitted to CHIA.

# Race1, Race2

**Short Description** Standardized, facility reported race.

Primary Table: Visit
Availability to users: LDS

Type of Data: Categorical

Length: 6
CHIA derived: No

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	

### RecordType20ID

**Short Description** Unique key to link from Visit table.

Primary Table:

Availability to users:

CORE

Type of Data:

Identifier

Varchar

Length:

CHIA derived:

Yes

**Description:** Indicator for Record Type '20'. Required for every ED Visit. Only one allowed per ED

Visit. ED Visit specific record identifier used to link data about a specific visit across CHIA data tables. Users should use this identifier with facility IDs and Discharge ids

to capture a unique record.

### RegistrationDate

Short Description Date of ED registration

Primary Table: Visit
Availability to users: LDS
Type of Data: Date

Format: YYYYMMDD

Length:

**Description:** Calendar date of emergency department registration.

# RegistrationDay

**Short Description** Day of the week patient was registered in the ED

Primary Table: Visit

Availability to users:

Type of Data:

Date

DDD

**Description:** Three character abbreviation foremergency department registration Day. Only values

Mon, Tue, Wed, Thu, Fri, Sat, and Sun. If registration date is null, the registration day

is blank..

### RegistrationMonthMM

Short Description ED registration month of the year

Primary Table: Visit
Availability to users: LDS
Type of Data: MM

**Description:** Month in which the patient was registered in the emergency department. Only values

between 1 and 12 are valid.

### RegistrationTime

**Short Description** Time stamp indicating of patient's ED registration

Primary Table:

Availability to users:

Type of Data:

Format:

HH:MM:

Length: 6

**Description:** Time at which the patient was registered in the ED is hours and minutes in military

time. Time ranges from 0000 to 2359.

### RegistrationYear

Short Description Year of ED registration

Primary Table:

Availability to users:

Type of Data:

Format:

Length:

Visit

CORE

Type of Data:

Pate

YYYY

4

**Description:** Year patient was registered in the ED. As data is in Fiscal years, valid values may be

2020 and 2021.

## **SecondaryPayerType**

**Short Description** Secondary payer type for the visit.

Primary Table: Visit
Availability to users: CORE
Type of Data: Categorical

**Description:** Patient's expected secondary payer type for the ED Visit. Report the single character

text code indicating the type of payer who has seconday responsibility for the

payment of the services related to the ED visit.

Reference table: Table 4

### **SecondarySourceOfPayment**

**Short Description** Secondary payer for the visit.

Primary Table: Visit

Availability to users: CORE

Type of Data: Categorical

Length:

**Description:** Secondary payer for this visit. Please note that the values are in "text" format and

may have duplicate numbers due to spaces.

Reference table: Table 5

### **SecondarySourceOfVisit**

**Short Description** Secondary cause of the visit to the ED.

Primary Table: Visit
Availability to users: CORE
Type of Data: Categorical

**Description:** The two sources of visit codes (Source of Visit and Secondary Source of Visit)

indicate the source originating, referring, or transferring the patient to the ED.

#### Sequence

**Short Description** Order of visits during a fiscal year

Primary Table:

Linking tables:

Availability to users:

Type of Data:

Continuous

CHIA derived: Yes

**Description:** This calculated field indicates the chronological order of ED visits for patients with

multiple ED visits. A match with the UHIN only, is used to make the determination that a patient has had multiple visits. The Sequence Number uses the following data conventions: (1) The sequence number is calculated by sorting the file by UHIN and visit date (in ascending order). (2) The sequence number is then calculated by incrementing a counter for each UHIN's set of visits. A sequence number of "1"

indicates the first ED visit for the UHIN in that fiscal year. (3) If a UHIN has two visits on the same day, the visit date is used as the secondary sort key. (4) If the UHIN is undefined (not reported, unknown or invalid), the sequence number is set to zero.

#### ServiceID

**Short Description** CHIA identifier for a revenue code.

Primary Table: Service
Availability to users: CORE
Type of Data: Identifier

**Description:** CHIA identifier for a revenue code.

#### ServiceLineItem

**Short Description** CHIA description of service field.

Primary Table: Service
Availability to users: CORE
Type of Data: Ordinal

**Description:** Service Line Items are the Current Procedural Terminology (CPT) or Healthcare

Common Procedure Coding System (HCPCS) codes used to bill for specific items and services provided by the emergency department during the visit. In addition, the code DRUGS is used to report provision of any drugs for which there are no specific HCPCS codes available. Likewise, SPPLY is used to report any supplies for which there are no specific HCPCS codes available. Since units of service are not collected in the database, it is possible that the item or service which a reported service line item code represents was actually provided to the patient more than once during the

visit.

### **ServiceSiteSummaryKey**

Short Description CHIA identifier.

Primary Table: ServiceSummary

Availability to users: CORE

Type of Data: Identifier

#### **SexLDS**

Short Description Indicates gender

Primary Table: Visit

Availability to users: CORE

Type of Data: Categorical

Length: 1
CHIA derived: No

**Description:** Gender flag as assigned by emergency department.

Summary statistics: Table 14

Reference table:

CODE	DESCRIPTION
M	Male
F	Female
U	Unknown

#### **SourceOfVisit**

**Short Description** How a patient reached the ED.

Primary Table: Visit

Availability to users: CORE

Type of Data: Categorical

**Description:** The two source of visit codes (Source of Visit and Secondary Source of Visit) that

indicate the source originating, referring, or transferring the patient to the ED. Reporting patterns for the Source of Visit data element may vary widely and, as a

result, may not be reliable.

**Summary statistics:** Table 15 **Reference table:** Table 2

### **SubmissionActive**

Short Description CHIA processing field

Primary Table: ErrorLog
Availability to users: CORE
Type of Data: Categorical

#### **SubmissionControllD**

**Short Description** Unique per facility-quarter-submission. Key to link from the Visit table.

Primary Table:

Availability to users:

CORE

Type of Data:

Identifier

Varchar

Length:

4

CHIA derived:

No

**Description:** Unique ID for a facility's submission of data to CHIA. Usually one Submission Control

ID is associated with a facility's quarterly submission.

### **SubmissionPassed**

Short DescriptionCHIA flag.Primary Table:ErrorLogAvailability to users:COREType of Data:Categorical

**Description:** Indicates that visit was submitted to CHIA and passed.

# SubmissionPassedFlag

Short Description CHIA derived field

Primary Table: Visit
Availability to users: CORE
Type of Data: Categorical

Length: 4

#### **SubmissionQuarter**

**Short Description** Indicates the quarter (1-4) in which the record was submitted to CHIA.

Primary Table: ErrorLog
Availability to users: CORE
Type of Data: Date

**Description:** Quarter in which the visit was submitted to CHIA.

#### **SubmissionYear**

**Short Description** Year in which the visit was submitted to CHIA.

Primary Table: ErrorLog
Availability to users: CORE
Type of Data: Date

**Description:** Indicates the year (2020-2021) in which the record was submitted to CHIA.

### **TeachingStatus**

**Short Description** Indicates if the ED facility was located in a teaching facility.

Primary Table: Organization
Availability to users: CORE
Type of Data: Categorical

**Description:** Indicates whether the ED is part of an academic facility or engaged in health

professional education.

## **TemporaryPatientCityLDS**

Format:

**Short Description** Current municipality of residence for a patient, if different from permanent residence.

Primary Table: Visit
Availability to users: LDS
Type of Data: Open Text

Length: 25

**Description:** Massachusetts municipality in which the patient temporarily resides.

**VARCHAR** 

### **TemporaryPatientStateLDS**

**Short Description** Current state of residence for a patient, if different from permanent residence.

Primary Table: Visit

Availability to users: CORE

Type of Data: Categorical

Length: 2

**Description:** Indicates "MA" if the patient temporarily resides in Massachusetts.

Reference table: Table 6

# TemporaryPatientZIP3CodeLDS

**Short Description**Current 3-digit ZIP code of patient residence, if different from permanent residence.

Primary Table:

Availability to users:

Type of Data:

Format:

Length:

Visit

CORE

ZIP code

Varchar

3

**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 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 is not in Massachusetts or a state bordering Massachusetts (Connecticut, Maine, New Hampshire, New York, or Rhode Island)

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:

Availability to users:

Type of Data:

Format:

Length:

Visit

LDS

ZIP code

Varchar

5

**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 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 is not in Massachusetts or a state bordering

Massachusetts (Connecticut, Maine, New Hampshire, New York, or Rhode Island)

ZIP codes are set to zeros (0s) and the state is removed.

## **TemporaryPatientZIPCode**

**Short Description** Patient's ZIP code

Primary Table:

Availability to users:

GOV

Type of Data:

Format:

Length:

Visit

GOV

ZIP code

Varchar

5

**Description:** ZIP code of patient's temporary Massachusetts address. CHIA does not alter or

standardize the values in this field.

#### **TotalEDBeds**

**Short Description** Total number of ED beds for a facility-submission-quarter.

Primary Table: ServiceSummary

Availability to users: CORE

Type of Data: Continuous

**Description:** Sum of all ED beds in the facility.

#### **TotalCharges**

**Short Description**Total charges associated with ED visits in a Facility-Submission-Quarter.

Primary Table: Service Linking tables: Service

SubmissionLog

Availability to users: CORE

Type of Data: Continuous

**Description:** Sum of charges for the visit.

### **TotalRegisteredVisits**

**Short Description** Total number of ED visits for a facility in a quarter.

Primary Table: ServiceSummary

Availability to users: CORE

Type of Data: Continuous

**Description:** Total number of ED visits for a facility in a quarter.

#### **Transport**

**Short Description** How the patient reached the ED.

Primary Table: Visit

Availability to users: CORE

Type of Data: Categorical

**Description:** The patient's mode of transport to the emergency department.

Summary Statistics: Table 16

### **TreatmentBeds**

**Short Description** Number of beds in ED facility.

Primary Table: ServiceSummary

Availability to users: CORE

Type of Data: Continuous

**Description:** Unique identifier for ED facility. Linkage across tables and fiscal years. This data

element measures the normal capacity of emergency departments. ED Treatment Beds include only those beds in the emergency department that are set up and equipped on a permanent basis to treat patients. It does not include the temporary use of gurneys, stretchers, etc. Including stretchers, etc. would overestimate facilities' physical capacity to comfortably treat a certain volume of emergency department patients, although CHIA recognizes that in cases of overcrowding, emergency

departments may need to employ temporary beds.

#### Type

**Short Description** Indicates the type of facility where visit occurred.

Primary Table: Organization
Availability to users: CORE
Type of Data: Categorical

**Description:** Categorizes emergency rooms by facility type.

### **TypeofVisit**

**Short Description** Indicates the type of visit.

Primary Table: Visit
Availability to users: CORE
Type of Data: Categorical

**Description:** Facilities indicate whether the visit was Emergency, Urgent, Non-Urgent, Newborn, or

Unavailable.

**Summary statistics:** Table 17

Reference table:

CODE	DESCRIPTION
1	Emergency
2	Urgent
3	Non-Urgent
4	Newborn
5	Information Unavailable

#### **VisitPassed**

Short Description CHIA flag.

Primary Table: Visit

Availability to users: CORE

Type of Data: Categorical

CHIA derived: Yes

### **VisitSequence**

**Description** CHIA flag. Used for processing

**Short description:** Order in which visits occurred for a patient.

Primary Table: Visit
Availability to users: LDS
Type of Data: Ordinal
CHIA derived: Yes

**Description:** This calculated field indicates the chronological order of ED visits for patients with

multiple ED visits. A match with the UHIN only, is used to make the determination that a patient has had multiple visits. The Sequence Number uses the following data conventions: (1) The sequence number is calculated by sorting the file by UHIN and visit date (in ascending order). (2) The sequence number is then calculated by incrementing a counter for each UHIN's set of visits. A sequence number of "1"

indicates the first visit for the UHIN in that fiscal year. (3) If a UHIN has two visits on the same day, the visit date is used as the secondary sort key. (4) If the UHIN is undefined (not reported, unknown or invalid), the sequence number is set to zero.

### Year

**Short description** Indicates year of submission.

Primary Table:

Availability to users:

Type of Data:

Format:

Visit

CORE

Date

YY

**Description:** Calendar Year the data was submitted.

### **Longer Reference Tables**

FY2021 EDD has 20 standard reference tables. These relate to categorical variables driven by the Emergency Department Data 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 2. VISIT SOURCE**

Data Elements: SourceOfVisit

SecondarySourceofVisit

Rules: All other values are invalid

Newborns have a special source of

visit table (see below).

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
М	Walk-In/Self-Referral
Т	Transfer from Another Institution's Ambulatory Surgery (SDS)
Υ	Within Hospital Ambulatory Surgery Transfer (SDS Transfer)
Е	EMS Transport

SRCVISIT CODE	FOR NEWBORN
Z	Information Not Available – Newborn
A	Normal Delivery
В	Premature Delivery
С	Sick Baby
D	Extramural Birth

# **Table 3. CONDITION PRESENT**

Principal Data Element: PrimaryConditionPresent

Other Data Elements: ConditionPresent

ConditionPresentECode

Rules: All other values invalid.

**Last Updated:** 1/31/2018

CODE	DESCRIPTION
Υ	Yes

Υ	Yes
N	No
U	Unknown
W	Clinically undetermined
1	Not applicable (only valid for NCHS official published list of not applicable ICD-9-CM or ICD-10-CM codes for POA flag)
[Blank]	Not applicable (only valid for NCHS official published list of not applicable ICD-9-CM or ICD-10-CM codes for POA flag)

# **Table 4. PAYER TYPE**

**Data Elements:** Payer Type

Payer Type 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
В	MCD-MC	Medicaid Managed Care
5	GOV	Other Government Payment
6	BCBS	Blue Cross
С	BCBS-MC	Blue Cross Managed Care
7	COM	Commercial Insurance
D	COM-MC	Commercial Managed Care
8	НМО	НМО
9	FC	Free Care
0	OTH	Other Non-Managed Care Plans
E	PPO	PPO and Other Managed Care Plans Not Elsewhere Classified
Н	HSN	Health Safety Net
J	POS	Point-of-Service Plan
К	EPO	Exclusive Provider Organization
Т	Al	Auto Insurance
Q	ComCare	Commonwealth Care/ConnectorCare Plans
Z	DEN	Dental Plans

PAYER TYPE CODE	PAYER TYPE ABBREVIATION	PAYER TYPE DEFINITION
N	None	None (Valid only for Secondary Payer)

### **Table 5. PAYER SOURCE**

Data Elements: PayerSourceCode

PayerSourceDefinition SecondarySourceOfPayment

PayerCategory

PrimarySourceOfPayment

Rules: All other values are invalid

Some codes are valid as Secondary

Source of Payment

Refer to complete listing at: CHIA Payer Source Codes

### **Table 6. STATE**

**Data Elements:** PermanentPatientStateLDS

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
СТ	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 2021 EDD. Release Notes published on the CHIA website at <a href="https://www.chiamass.gov/case-mix-data/">https://www.chiamass.gov/case-mix-data/</a>. Data notes will not be regularly updated in this Documentation Manual.

- Sturdy Memorial Hospital (Org Id 129) did not submit quarterly EDD for FY21.
- Cambridge Health Alliance closed their Emergency Department at Somerville Hospital (Org Id 143) on April 30, 2020. EDD is not reported for FY21.
- Steward Norwood Hospital (Org Id 41) temporarily closed on June 29, 2020 due to flooding. EDD is not reported for FY21.
- Leonard Morse Hospital (Org Id 457), a campus of MetroWest Medical Center, closed their Emergency Department on October 25, 2020. EDD is only reported for quarter 1.
- Baystate Mary Lane Outpatient Center and Satellite Emergency facility (Org Id 6) permanently closed on June 3, 2021. Services were consolidated to Baystate Wing Hospital (Org Id 139). EDD is only reported for the first three quarters of FY21.
- Steward Health Care Hospitals do not currently collect patient information on Homeless Status. This is being evaluated for future collection.
- Boston Medical Center Menino Pavilion Campus (Org Id 16) included a date of birth of 19000101 on over 220 patient ED visits. This date is used as a default if unknown at ED admission.
- Boston Medical Center Menino Pavilion Campus (Org Id 16) and UMass Memorial Health Hospitals are reporting "OTHER" in the attending and/or operating physician data field. This is currently under investigation.
- Baystate Medical Center (Org Id 4) overstated the number of ED visits associated with insurer Health New England (HNE) due to a mapping issue which included HNE Medicaid and Medicare products. Resubmissions were not able to be included in the Final EDD FY21 release. Below is a summary of the corrected ED visits.

SOURCE OF PAYMENT	REPORTED ED VISITS	ACTUAL ED VISITS
24 – HEALTH NEW ENGLAND	13,842	3,779
134 – MEDICARE HMO - OTHER	1,186	1,500
311 – OTHER ACO	0	9,749

Prior to releasing the Final FY 2021 EDD, CHIA provides the hospitals with a profile of the data submitted. Providers may resubmit data or provide written feedback to CHIA. Below is a summary of some of the key feedback received:

- Athol Hospital (Org Id 2):
  - Noted some inaccurate reporting for Source of Visit and Patient Zip Code. Due to a system conversion on February 1, 2021, two different systems of patient records were combined to create quarter 2 data. This resulted in data dictionary/mapping issues including Source of Visit. The majority of patients seen in the ER are Walk-Ins/Self-Referrals but quarter 2 reporting understated these visits and overstated Direct Physician Referrals.
- Baystate Medical Center (Org Id 4):
  - Noted the annual decline in Payer Type Medicaid Managed Care reflects a more appropriate reclassification to Medicaid Accountable Care.

- Berkshire Medical Center (Org Id 7):
  - Noted all patients are incorrectly reported as not Hispanic/Latino/Spanish. This is currently under investigation.
- Beth Israel Deaconess Hospital Milton (Org Id 98):
  - Noted a reporting issue for Top 10 Ethnicity Status in quarters 1 and 2. All patients not identified as "American" were incorrectly categorized as "Other Ethnicity".
- Beth Israel Deaconess Hospital Needham (Org Id 53):
  - Noted increased ED visits attributed to new patient activity due to the closure of Steward Norwood Hospital.
  - Noted the inclusion of additional ethnicity options in their EHR system resulted in category shifts.
  - Noted fluctuation in payer types due to mapping changes required to adhere to CHIA's updated FY21 specifications.
- Fairview Hospital (Org Id 8):
  - o Noted all patients are incorrectly reported as not Hispanic/Latino/Spanish. This is currently under investigation.
- Heywood Hospital (Org Id 73):
  - Noted some inaccurate reporting with Source of Visit and Patient Zip Code. Due to a system conversion on February 1, 2021, two different systems of patient records were combined to create quarter 2 data. This resulted in data dictionary/mapping issues including Source of Visit. The majority of patients seen in the ER are Walk-Ins/Self-Referrals but quarters 2, 3 and 4 understated these visits and overstated Direct Physician Referrals.
- Holyoke Medical Center (Org Id 77):
  - Due to an EHR system conversion, data issues were identified that are currently being investigated:
  - Noted incorrect registration workflow instructions for Type of Visit resulted in > 99% ED visits reported as Emergency and 0% reported as Non-Urgent.
  - o Noted all Walk-In/Self Referrals ED visits are erroneously included as Direct Physician Referrals.
  - Noted all patients are incorrectly reported as not Hispanic/Latino/Spanish.
  - Noted a misinterpretation of Patient Departure Status specifications resulted in patients that eloped from an ED visit being incorrectly reported as met in the ED by personal physician and not seen by staff.
- Lawrence General Hospital (Org Id 83):
  - Noted staff retraining on the collection of Race and Ethnicity data resulted in improved reporting of these data fields in FY21.
  - Noted > 99% of patients are incorrectly reported as not Hispanic/Latino/Spanish which does not align with their patient population. This is currently under investigation.
  - Noted Source of Visit reported as "Information Not Available" is currently under investigation.
- MelroseWakefield Hospital (Org Id 141):
  - Noted increase in Patient Departure Status Eloped is due to the high wait times experienced in the ED during COVID-19 surges. Patients left without being seen.
- Milford Regional Medical Center (Org Id 97):
  - Noted decline in Source of Visit Direct Physician referrals is due to the COVID-19 pandemic since more patients came directly to the ED from home.
  - Noted patients not reporting Hispanic Status at registration, an optional field.
  - Noted the increase in Unknown Ethnicity is due to the high volume of ED visits due to COVID-19.
  - Noted EHR system conversion resulted in reporting shifts in some data fields.
- Signature Healthcare Brockton Hospital (Org Id 25):
  - Noted discrepancies with Top 10 Patient Zip Code for the town of East Bridgewater and some Top 10
     Service Line Item Codes when compared to hospital records. CHIA was able to validate the submitted data.
- Steward Health Care Hospitals:

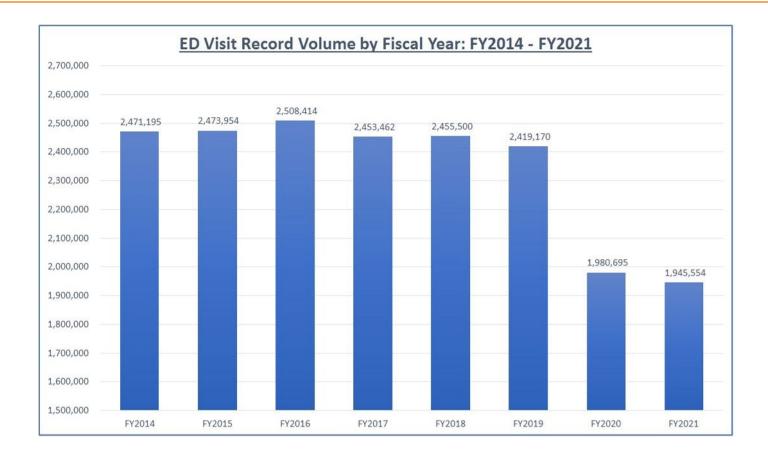
 Noted discrepancies with Payer Type. The number of ED visits that include Self Pay as the insurer are overstated. Some of these visits should have been reported as Health Safety Net insurance plans.

The following hospitals resubmitted data prior to finalizing the FY 2021 EDD release available in July 2022.

- Athol Hospital (Org Id 2) resubmitted guarters 3 and 4 to correct source of visit.
- Cape Cod Hospital (Org Id 39) resubmitted all quarters to correct discharge date, source of visit, race, ethnicity, payer type, payer source, homeless indicator, and hospital service site summary.
- Falmouth Hospital (Org Id 40) resubmitted all quarters to correct discharge date, source of visit, race, ethnicity, payer type, payer source, homeless indicator, and hospital service site summary.
- Lahey Addison Gilbert Hospital (Org Id 109), Lahey Beverly Hospital (Org Id 110), Lahey Hospital & Medical Center Burlington (Org Id 81) and Winchester Hospital (Org Id 138) resubmitted all quarters to correct first and last names on some duplicate patient records.
- Martha's Vineyard Hospital (Org Id 88) resubmitted all quarters to correct Medicaid Managed Care and Commercial payer codes.
- Massachusetts General Hospital (Org Id 91) resubmitted quarters 1, 2 and 3 to correct Medicare payer codes.
- Mount Auburn Hospital (Org Id 100) resubmitted all quarters to include attending and/or operating physician license numbers previously reported as "OTHER".
- North Shore Medical Center Salem Campus (Org Id 116) resubmitted all quarters to correct payer codes and patient ethnicity.

#### **ED Visit Volume**

The Final FY2021 EDD release contains a lower volume of visit records than previous years.



Data users should update their ICD-10-CM/PCS lookup tables to include new FY2021 diagnosis codes downloadable from CMS at: https://www.cms.gov/medicare/icd-10/2021-icd-10-cm

From FY2016 to FY2021, there has been a decrease in the proportion of children ages 9 and younger seeking care in the ED. Below is a comparison of the ED visit volume by age group distribution from FY2016 to FY2021.

# FY2016 to FY2021 Massachusetts ED Visit Volume by Age Group Distribution

