CENTER FOR HEALTH INFORMATION AND ANALYSIS

MASSACHUSETTS
CASE MIX

HOSPITAL EMERGENCY DEPARTMENT DATA (EDD)

FISCAL YEAR 2018
DOCUMENTATION MANUAL

CHIA.

Massachusetts Case Mix
FY2018 Emergency Department Data

USER GUIDE

Table of Contents

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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 FY2018 Emergency Department Database (EDD) includes emergency department visits that occurred between October 1, 2017 and September 30, 2018. Facilities reported a total of 2,445,500 visits.

The FY2018 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 [http://www.chiamass.gov/regulations] or by faxing a request to CHIA at 617-727-7662.

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 FY2018 EDD are as follows:

- **Quarter 1:** October 1, 2017 - December 31, 2017
- **Quarter 2:** January 1, 2018 – March 31, 2018
- **Quarter 3:** April 1, 2018 – June 30, 2018
- **Quarter 4:** July 1, 2018 – September 30, 2018

CHIA reviewed 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 was based upon the presence of one or more errors per visit for the facility's quarterly submission. CHIA checked for valid codes, correct formatting, and presence of the required data elements. If one percent or more of the visits were rejected, CHIA rejected the entire submission.

Each facility received a quarterly error report about 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 was 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 have been 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 and did not result in an outpatient observation stay or the 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 a triage or screening. Data users interested in visits that resulted in an observation stay should use the outpatient observation database (FY2018 OOD). Data users interested in visits that resulted in an inpatient admission should use the hospital inpatient discharge database (FY2018 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.

EDD Verification Report Process

CHIA sends each facility a verification report on their visit data to maintain and improve the quality of data submissions. The Verification Report process gives the facilities the opportunity to review the data they provided to CHIA and affirm data accuracy.

CHIA produces facility specific Verification Reports at year-end. CHIA asks each facility to review and verify a summary of their submissions. 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 admission type, admission source, patient race, and disposition.

Facilities must affirm that reported data is accurate or identify any discrepancies on the year-end Verification report. Facilities certify the accuracy 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 Verification Report data is accurate and represents the facility's case mix profile.

B: A facility indicates that the Verification Report data is accurate except for the discrepancies noted. If any data discrepancies exist, CHIA would request that the facility provide a written explanation of the discrepancies.

Users interested in the FY2018 EDD Verification Reports should contact CHIA at CaseMix.data@state.ma.us. Please indicate the fiscal year of the Verification Report, the dataset name, and if you need information for a specific facility or set of facilities.

Part B: Applying For and Using CHIA Data

Researchers interested in receiving CHIA data should follow the instructions below to receive access to the data. Due to the custom nature of each data request, limited information about how to use the CHIA data is provided. Users needing additional assistance applying for data or using the data should contact CHIA at CaseMix.data@state.ma.us.

How to Apply for the Data

To obtain a copy of the Data Use Agreement and/or other documents, applicants should visit CHIA's Case Mix website at http://www.chiamass.gov/chia-data/.

1. Applicants should follow the links to the forms that correspond to the data (Case Mix) and application (Government or Non-Government) that is appropriate to the data request.

2. For FY2018 data, Non-Government applicants can request a pre-configured Limited Data Set (LDS). The LDS is designed to protect patient confidentiality while ensuring analytic value.

Securing CHIA Data Prior to Use

Approved data recipients or agents are obliged by the application and confidentiality agreement to secure the FY2018 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 FY2018 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 FY2018 EDD consists of up to 9 Microsoft Access Database (.mdb) files or 10 SAS files (.sas7bdat). Each file name has a suffix of "_Full_AAAA_BBBB". AAAA indicates the specific view of the data. BBBB indicates whether the data is from an LDS or Government dataset.

- The main FIPA_EDD_2018_**Visit** (table name: Visit), contains one record per ED visit. The unique identifier on this table is the RecordType20ID.

- FIPA_EDD_2018_**Service** (table name: Service)**,** contains one record per service code (HCPCS or CPT) reported for each visit. The Visit table (RecordType20ID) has a one-to-many relationship with this table.

- FIPA_EDD_2018_**DiagnosisCode** (table name: Diagnosis), contains one record per diagnosis reported for each visit. The Visit table (RecordType20ID) has a one-to-many relationship with this table.

- FIPA_EDD_2018_**ProcedureCode** (table name: Procedure), contains one record per procedure for each visit. The Visit table (RecordType20ID) has a one-to-many relationship with this table.

- FIPA_EDD_2018_**Organization** (table name: OrgIDs) contains one record per ED organization. This table can be used to lookup facility names, EMS region, and teaching status.

- FIPA_EDD_2018_**PayerCategory** (table name: Payer) contains one record per ED payer.

- FIPA_EDD_2018_**SubmissionLog** (table name: SubmissionLog) contains one record per quarter for each of the ED facilities filing data.

- FIPA_EDD_2018_**Error Log** (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_2018_**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

CHIA uses MS Access as a convenient data transport format. Most data users import the EDD into SQL, STATA™, SPSS™, SAS™, or R for analysis or data management. To accommodate the expanding one-to-many relationship between the main discharge table and other tables, FY2018 EDD files contain multiple tables linked by the **RecordType20ID** field. The Organization table can be linked to columns on the Visit table using the organization fields.

Any additional questions can be addressed by contacting CHIA at CaseMix.data@state.ma.us.

Part C: Data Elements

The purpose of the following section is to 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@state.ma.us.

About the Limited Data Set (LDS)

The pre-configured Limited Data Set (LDS) is designed to release minimally necessary data protected under a Data Use Agreement while ensuring analytic utility. The "core" data elements are available to all users (non-government and government). Users wishing to add to the "core" elements must indicate this by selecting from the list of "buy-ups". An applicant can 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 approves the request based on the project description. CHIA makes an additional set of core elements available only to government users. Government users must specifically identify requested Government-Only elements in their application.

Master Data Elements List

For the FY2018 EDD, CHIA provides a master data elements list by table. Not every user has access to every data element – some are reserved for limited dataset buy-ups or for government use. All users have access to the "CORE" data. Users who choose limited dataset buy-ups may receive access to some "LDS" elements. Only government users may have access to the "GOV" or "GOV- SPEC" fields. Users interested in purchasing the data should visit the CHIA website for instructions.

VISIT TABLE—CORE ELEMENTS

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

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 TABLE—CORE ELEMENTS

ConditionPresent
DiagnosisCode
PrincipalIndicator
RecordType20ID
Sequence

PROCEDURE TABLE—CORE ELEMENTS

ProcedureCode
RecordType20ID
Sequence

SERVICE SUMMARY TABLE—CORE ELEMENTS

InpatientVisits	OutpatientObservationVisits	SubmissionQuarter
ObservationBeds	ServiceSiteSummaryKey	TotalEDBeds
OrgID	SubmissionControlID	TotalRegisteredVisits
		TreatmentBeds

ORGANIZATION TABLE—CORE ELEMENTS

City	OrganizationName	Total ED Beds
DateInactive	OrganizationNumber	TotalRegisteredVisits
EMSRegion	OrganizationTypeID	TreatmentBeds
GroupName	TeachingStatus	
OrganizationGroupId	Type	

PAYER CATEGORIES—CORE ELEMENTS

ManagedCareCode	PayerSourceCode
MCareMCaidPrivCode	PayerSourceDefinition
PayerCategory	PayerType

Age LDS

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

1. Age is calculated to be the rounded integer value – of the difference between Date of Birth and Discharge date.
2. Age is zero when less than 1 year.
3. If Age is valid and < 90, then AgeLDS = Age;
4. If Age is valid and > 89 and <= 115, AgeLDS = 999
5. If Age is missing, negative value, or value > 115, then AgeLDS = null

Diagnosis and Procedure Codes

CHIA organizes the procedure and diagnosis fields into three tables—Visit, Diagnosis, and Procedure. The Visit table contains the Primary Diagnosis code (which cannot be an E-code). All secondary diagnosis and all procedure codes are contained on the Diagnosis and Procedure tables, respectively. Indicator codes are available for each secondary diagnosis of 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 e-codes.

Organization Identifiers (ORGID)

FY2018 EDD contained four organization identifier fields:

- **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 (Whidden Hospital).
- **Massachusetts Transfer Hospital Organization ID (IdOrgTransfer):** is the Organization ID for the facility from which a patient is transferred. If the patient was transferred from outside of Massachusetts, the IdOrgTransfer would 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.

TABLE1: ORGANIZATION IDENTIFICATION

PRINCIPAL DATA ELEMENTS :	ORGID FIELDS
	IdOrgFiler
	IdOrgHosp
	IdOrgSite
	IdOrgTransfer
Rules	The Organization Table will contain 1 record for every valid OrgId reported.

CODE	DESCRIPTION/ORGANIZATION NAME
1	Anna Jaques Hospital
2	Athol Memorial Hospital
3	North Shore Medical Center – Union Campus
4	Baystate Medical Center
5	Baystate Franklin Medical Center
6	Baystate Mary Lane Hospital
7	Berkshire Health System - Berkshire Campus
8	Fairview Hospital
10	Beth Israel Deaconess Medical Center - East Campus
16	Boston Medical Center
22	Brigham and Women's Hospital

25	Signature Healthcare - Brockton Hospital
27	Cambridge Health Alliance
39	Cape Cod Hospital
40	Falmouth Hospital
41	Steward - Norwood Hospital
42	Steward - Carney Hospital
46	Children's Hospital Boston
49	MetroWest Medical Center - Framingham Campus
50	Cooley Dickinson Hospital
53	Beth Israel Deaconess Hospital - Needham
57	Emerson Hospital
59	Brigham and Women's - Faulkner Hospital
62	Steward - Good Samaritan Medical Center - Brockton Campus
66	Hallmark Health System - Lawrence Memorial Hospital Campus
68	Harrington Memorial Hospital
71	Health Alliance Hospitals, Inc.
73	Heywood Hospital
75	Steward - Holy Family Hospital
77	Holyoke Medical Center
79	Beth Israel Deaconess – Plymouth (Jordan)
81	Lahey Clinic -- Burlington Campus
83	Lawrence General Hospital
85	Lowell General Hospital – Main Campus
88	Martha's Vineyard Hospital
89	Massachusetts Eye and Ear Infirmary
91	Massachusetts General Hospital
97	Milford Regional Medical Center
98	Beth Israel Deaconess – Milton
99	Steward - Morton Hospital
100	Mount Auburn Hospital

101	Nantucket Cottage Hospital
104	Tufts-New England Medical Center
105	Newton-Wellesley Hospital
106	Baystate Noble Hospital
109	Northeast Health System - Addison Gilbert Campus
110	Northeast Health System - Beverly Campus
114	Steward - Saint Anne's Hospital
115	Lowell General - Saints Campus
116	North Shore Medical Center, Inc. - Salem Campus
119	Mercy Medical Center - Springfield Campus
122	South Shore Hospital
123	Southcoast Hospitals Group - Charlton Memorial Campus
124	Southcoast Hospitals Group - St. Luke's Campus
126	Caritas Steward - St. Elizabeth's Medical Center
127	MetroWest - Saint Vincent Hospital
129	Sturdy Memorial Hospital
130	UMass Memorial Medical Center - Memorial Campus
131	UMass Memorial Medical Center - University Campus
132	Health Alliance - Clinton Hospital
133	Marlborough Hospital
138	Lahey Winchester Hospital
139	Baystate Wing Memorial Hospital
141	Hallmark Health System - Melrose-Wakefield Hospital Campus
142	Cambridge Health Alliance - Whidden Memorial Campus
143	Cambridge Health Alliance - Somerville Campus
145	Southcoast Health- Tobey Campus
457	MetroWest Medical Center - Leonard Morse Campus
4448	Lahey Clinic North
11466	Holy Family at Merrimack Valley
11467	Nashoba Valley Medical Center

Data Limitations

The EDD was derived from patient visit summaries, which can be traced to information gathered upon ED registration or from information entered by admitting 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,
- Medical record coding, consistency, and/or completeness,
- Extent of facility data processing capabilities,
- Flexibility of facility data processing systems,
- Varying degrees of commitment to quality of merged case mix and charge data,
- 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. Users with questions about new data elements or changes in coding from year to year should contact CHIA at CaseMix.data@state.ma.us.

Data Dictionary

FY2018 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 ("Government")
- *Type of Data:* describes if the data element is Categorical, Ordinal, 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 associated with other information
- *Description:* is a longer explanation of the data element and its limitations

Users of the data with additional questions about any specific data element should contact CHIA at CaseMix.data@state.ma.us.

Active

Short description:	CHIA processing field.
Primary table:	Submission
Availability to users:	CORE
Type of Data:	Categorical
Format:	N
Length:	3
Description:	CHIA indicator of quarterly submission status.

AgeLDS

Short description:	Age of the patient.
Primary table:	Visit
Availability to users:	CORE
Type of Data:	Continuous
Format:	NN
Length:	3
CHIA derived:	Yes
Description:	Age of the patient as calculated by CHIA. Rounded up to the nearest integer. Patients younger than 1 year or older than 89 years have their ages grouped. 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:	Visit
Availability to users:	GOV
Type of Data:	Identifier
Description:	Reported by ED facility. May be present if patient arrived by ambulance.

Charges

Short description:	Facility reported costs for a visit.
Primary table:	Visit
Availability to users:	CORE
Type of Data:	Currency
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
Description:	Name of the municipality in which the emergency department is located.

ConditionPresent

Short description:	Flags whether the diagnosis was present on admission.
Primary table:	Diagnosis
Availability to users:	CORE
Type of Data:	Categorical
Length:	2
Description:	Indicates the onset of a diagnosis preceded or followed by admission. There is a present on admission (POA) indicator for every diagnosis and E-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:	NNN
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:	Visit
Availability to users:	CORE
Type of Data:	Categorical
Format:	VARCHAR
Length:	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
P	Patient met personal physician in the emergency department (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
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-Y849) and supplemental codes: (Y90-Y99) (place of injury, activity, status).
Reference table:	Standard ICD-9-CM or ICD-10-CM Diagnosis Codes

DischargeDate

Short description:	Date patient left emergency department.
Primary table:	Visit
Availability to users:	LDS
Type of Data:	Date
Format:	YYYYMMDD
Length:	8
Description:	Calendar date of discharge from the ED.

DischargeDay

Short description:	Day of the month on which the patient was discharged from ED.
Primary table:	Visit
Availability to users:	CORE
Type of Data:	Date
Format:	DD
Length:	3
Description:	Calendar day of discharge from ED. Only values between 1 and 31 are valid.

DischargeDateMM

Short description:	Month in which patient was discharged from ED.
Primary table:	Visit
Availability to users:	LDS
Type of Data:	Date
Format:	MM
Length:	6
Description:	Month of discharge 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:SS
Description:	Time at which the patient was discharged from the ED. Hours in military time (0-24 hours). Only values between 00:00:00 and 24:59:59 are valid.

EDVisitID

Short description:	Facility specific unique visit key.
Primary table:	Visit
Linking tables:	Service
Availability to users:	CORE
Type of Data:	Identifier
Description:	Facility specific identifier for visit. Used to link between tables. Users should use this field, along with the facility identifiers to associate visit data. The value is non-unique within the database as other facilities may use the same key for different visits.

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.

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:	6
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 [http://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
Y	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:	1
Description:	This flag indicates that the patient was homeless at the time of visit.
Summary statistics	Table 11
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:	Visit
Availability to users:	GOV-SPEC
Type of Data:	Identifier
Format:	VARCHAR
Length:	17
Description:	Facility unique number associated with all billing for the visit.

ICD Indicator

Short description:	ICD version
Primary table:	Visit
Availability to users:	CORE
Type of Data:	Categorical
Length:	2
Description:	Indicates if the diagnoses, e-codes, and procedure codes are ICD-10-CM/PCS or ICD-9-CM
Summary statistics:	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:	Categorical
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:	Categorical
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:	Categorical
Length:	8
Description:	The Organization ID for the site where the patient received ED care.
Reference table:	Table 1

IdOrgTransfer

Short description:	IDOrgTransfer indicates where patient was transferred from.
Primary table:	Visit
Availability to users:	CORE
Type of Data:	Categorical
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
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:	Visit
Availability to users:	GOV
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 identifiers to her infant or assignment of a spouse's unique identifiers to a patient. Invalid data uses the code UHIN="4".

LegCHIAPatientUHIN

Short description: Patient's unique id.

Primary table: Visit

Availability to users: GOV

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 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 days in the hospital..

Primary table: Visit

Availability to users: CORE

Type of Data: Continuous

Format: NNN

Length: 4

CHIA derived: Yes

Description: Count of hours between the admitting 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

TypeofData: Categorical

CHIA derived: Yes

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

Reference table:

MedicalRecordNumber

Short description:	Visit identifier assigned by the facility
Primary table:	Visit
Availability to users:	GOV
Type of Data:	Identifier
Format:	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.

MCareMCaidPrivCode

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:	

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:	NN
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 Admitting 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 description:	CHIA derived error field
Primary table:	SubmissionLog
Linking tables:	ErrorLog
Availability to users:	CORE
Type of Data:	Continuous
Description:	Count of ED records that failed CHIA intake.

NumberOfEDVisitsPassed

Short description:	CHIA derived error field
Primary table:	SubmissionLog
Linking tables:	ErrorLog
Availability to users:	CORE
Type of Data:	Continuous
CHIA derived:	Yes
Description:	Count of ED records that passed CHIA intake.

NumberOfEDVisits

Short description:	Count of the number of ED visits for that facility in that quarter, including any inpatient or observation visits not captured in this database
Primary table:	SubmissionLog
Linking tables:	ErrorLog
Availability to users:	CORE
Type 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

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.

OrgId

Short description: Unique identifier for ED facility. Linkage across tables and fiscal years.

Primary table: Organization

Linking tables: Visit

Availability to users: CORE

Type of Data: Categorical

Description: ED facility specific identifier.

Reference table: Table 1

OrganizationGroupID

Short description: System ID.

Primary table: Organization

Availability to users: CORE

Type 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: Org IDS

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:	1
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:	Visit
Availability to users:	GOV
Type of Data:	Open Text
Format:	VARCHAR
Length:	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".

OtherPhyisicanNumber

Short description:	Unique identifier of a non-attending physician.
Primary table:	Visit
Availability to users:	LDS
Type of Data:	Identifier
Description:	Physician's state license number (BORIM #) 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.

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 ER.
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:	CHIA processing field
Primary table:	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

PayerSourceCode

Shortdescription:	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 city of residence for the patient.
Primary table:	Visit
Availability to users:	LDS
Type of Data:	Open Text
Format:	VARCHAR
Length:	25
Description:	Primary city of residency for patient.

PermanentPatientCountryLDS

Short description:	Permanent country of residence for the patient.
Primary table:	Visit
Availability to users:	CORE
Type of Data:	Open Text
Format:	VARCHAR
Length:	2
Description:	Primary country of residency for patient.

PermanentPatientStateLDS

Short description:	Permanent state of residence for the patient.
Primary table:	Visit
Availability to users:	CORE
Type of Data:	Categorical
Length:	2
Description:	Primary state of residency for patient.
Reference table:	Table 6

PermanentPatientZIP3CodeLDS

Short description:	3-digit zip code of the patient's permanent residence.
Primary table:	Visit
Availability to users:	CORE
Type of Data:	Zipcode
Format:	NNN
Length:	9

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:	Visit
Availability to users:	LDS
Type of Data:	Zipcode
Format:	NNNNN
Length:	9
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 state license number (BORIM #) 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.

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 admission.
Primary table:	Visit
Availability to users:	CORE
Type of Data:	Categorical
Length:	1
Description:	Indicates that principal condition was present on admission.
Reference table:	Table 3

PrincipalDiagnosisCode

Short description:	ED Determined ICD-10-CM code for the Condition that led to the admission 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 admission of the patient for hospital 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 admission 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:	Present on admission indicator
Primary table:	Visit
Availability to users:	CORE
Type of Data:	Categorical
Description:	Flag indicating that principal e-code condition was present on admission. 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

Shortdescription:	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:	CORE
Type of Data:	Date
Format:	QQ
Length:	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:	Visit
Availability to users:	CORE
Type of Data:	Identifier
Format:	VARCHAR
Length:	1
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 admission to the emergency department
Primary table:	Visit
Availability to users:	LDS
Type of Data:	Date
Format:	YYYYMMDD
Length:	8
Description:	Calendar date of admission to the emergency department.

RegistrationDay

Short description:	Day patient was admitted to ED
Primary table:	Visit
Availability to users:	LDS
Type of Data:	Date
Format:	DD
Description:	Two digit date of admission to the emergency department. Only values between 1 and 31 are valid.

RegistrationMonthMM

Short description:	Month of admission to ED
Primary table:	Visit
Availability to users:	LDS
Type of Data:	MM
Description:	Month in which the patient was admitted to the emergency department. Only values between 1 and 12 are valid.

RegistrationTime

Short description:	Time stamp indicating when the patient was admitted to the ED
Primary table:	Visit
Availability to users:	GOV
Type of Data:	Time
Format:	HH:MM:SS
Length:	6
Description:	Time at which patient was admitted to the emergency department. Hours in military time (0-24). Only values between 00:00:00 and 24:59:59 are valid.

RegistrationYear

Short description:	Year of admission to the ED
Primary table:	Visit
Availability to users:	CORE
Type of Data:	Date
Format:	YYYY
Length:	4
Description:	Year patient was admitted to ED. As data is in Fiscal years, valid values may be 2017 and 2018.

SecondarySourceOfPayment

Short description:	Secondary payer for the visit.
Primary table:	Visit
Availability to users:	CORE
Type of Data:	Categorical
Length:	4
Description:	Secondary payer for this visit. Please note that the values are in "text" format and may have duplicate numbers due to spaces.
Referencetable:	Table 5

SecondarySourceOfVisit

Short description:	Secondary cause of the visit to the emergency room.
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) codes indicate the source of originating, referring, or transferring the patient to the ED.

Sequence

Short description:	Order of visits during a fiscal year
Primary table:	Visit
Linking tables:	Service
Availability to users:	CORE
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 admission 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) Level II 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 sources of visit codes (Source of Visit and Secondary Source of Visit) that indicate the source of 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
Linking tables:	
Availability to users:	CORE
Type of Data:	Categorical

SubmissionControlID

Short description:	Unique per facility-quarter-submission. Key to link from the Visit table.
Primary table:	Visit
Availability to users:	CORE
Type of Data:	Identifier
Format:	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 description:	CHIA flag.
Primary table:	ErrorLog
Availability to users:	CORE
Type 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 (2017-2018) 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

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
Format:	VARCHAR
Length:	25
Description:	MA city in which the patient temporarily resides.

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:	Visit
Availability to users:	CORE
Type of Data:	ZIP code
Format:	NNN
Length:	9
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:	Visit
Availability to users:	LDS
Type of Data:	ZIP code
Format:	NNNNN
Length:	9
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:	Visit
Availability to users:	GOV
Type of Data:	Zipcode
Format:	NNNNNNNNN
Length:	9
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 possible 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 admission 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: Visit

Availability to users: CORE

Type of Data: Date

Format: YY

Description: Calendar Year the data was submitted.

Longer Reference Tables

FY2018 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@state.ma.us.

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 M
M	Walk-In/Self-Referral
T	Transfer from Another Institution's Ambulatory Surgery (SDS)
Y	Within Hospital Ambulatory Surgery Transfer (SDS Transfer)
Z	Information Not Available – Newborn
E	EMS Transport
A	Normal Delivery
B	Premature Delivery
C	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
Y	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	PayerType
	ManagedCareCode
	MCareMCaidPrivCode
Rules	All other values invalid.

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

TABLE 5.   PAYER SOURCE

Data Elements	PayerSourceCode
	PayerSourceDefinition
	Secondary SourceOfPayment
	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

STATE/POSSESSION	ABBREVIATION
Alabama	AL
Alaska	AK
American Samoa	AS
Arizona	AZ
Arkansas	AR
California	CA
Colorado	CO
Connecticut	CT
Delaware	DE
District of Columbia	DC
Federated States of Micronesia	FM
Florida	FL
Georgia	GA
Guam	GU
Hawaii	HI
Idaho	ID

STATE/POSSESSION	ABBREVIATION
Illinois	IL
Indiana	IN
Iowa	IA
Kansas	KS
Kentucky	KY
Louisiana	LA
Maine	ME
Marshall Islands	MH
Maryland	MD
Massachusetts	MA
Michigan	MI
Minnesota	MN
Mississippi	MS
Missouri	MO
Montana	MT
Nebraska	NE
Nevada	NV
New Hampshire	NH
New Jersey	NJ
New Mexico	NM
New York	NY
North Carolina	NC
North Dakota	ND
Northern Mariana Islands	MP
Ohio	OH
Oklahoma	OK
Oregon	OR
Palau	PW
Pennsylvania	PA

STATE/POSSESSION	ABBREVIATION
Puerto Rico	PR
Rhode Island	RI
South Carolina	SC
South Dakota	SD
Tennessee	TN
Texas	TX
Utah	UT
Vermont	VT
Virgin Islands	VI
Virginia	VA
Washington	WA
West Virginia	WV
Wisconsin	WI
Wyoming	WY

Part D. Data Notes / Caveats

At the time of this publication the following data notes or caveats were present. Data notes or caveats will not be regularly updated in this Documentation Manual.

- **HealthAlliance (ORG ID 71) / Clinton (ORG ID 132) Hospitals** – HealthAlliance Hospital merged with Clinton Hospital on 10/1/2017 becoming UMass HealthAlliance- Clinton Hospital, an acute hospital with two campuses. The newly merged facility, UMass HealthAlliance-Clinton Hospital (ORG ID 71), assumed all medical record reporting for Clinton Hospital (ORG ID 132) for all quarters in the FY18 reporting period.

Prior to releasing the Final FY2018 Hospital Outpatient Emergency Department Visit Data, 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:

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- MetroWest Medical Center - Framingham Campus & Leonard Morse Hospital (ORG ID 49) & St. Vincent's Hospital (ORG ID 127):
    - Noted a concern with the Top 20 Patient Zip Codes Frequency Report understating their primary service area by not including Temporary US Patient Zip Codes.
- Southcoast Hospitals Group –Charlton Memorial Campus (ORG ID 123), St. Luke's Campus (ORG ID 124) and Tobey Campus (ORG ID 145):
    - Noted discrepancies in Homeless Indicator and Visits by Ethnicity for all quarters of FY18. ED visits were incorrectly categorized on the EDD profile reports as "Not homeless" and an ethnicity of "Unknown".
- Steward Norwood Hospital (ORG ID 41):
    - Noted timing of file submissions for quarter 3 & quarter 4 of FY18 contributed to the inability to validate the data reported in the EDD profile report.
- Steward St. Anne's (ORG ID 114), Carney Hospital (ORG ID 42) and Norwood Hospital (ORG ID 41):
    - Noted timing of file submissions for quarter 1, quarter 2 & quarter 3 of FY18 contributed to the inability to validate the data reported in the EDD profile report.
- Sturdy Memorial Hospital (ORG ID 129):
    - Noted discrepancies in Source of Visits for all quarters of FY18. EMS Transport visits were understated and Walk in /Self-Referral visits were overstated due to the coding of the rate value of the admit source.