

CHIA USER WORKGROUP

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Agenda

- Announcements:
 - APCD Release CY 2021 Updates
 - FY21 Case Mix Release Projections
- Website Updates
- User Support Questions
 - The use of occurrence codes to determine place of injury risk
 - The completeness of Unique Identifiers in case mix data before and after the pandemic
- Q&A

MA APCD CY 2021

- Available for request
- Applicants with *approved projects* that require updated APCD data (CY 2021 Data) should submit to CHIA a completed Exhibit B (*Certificate of Continued Need and Compliance*) of the Data Use Agreement. After submitting a completed Exhibit B you will receive an invoice (if applicable) for the requested data. Upon payment of the invoice the order for the data will be placed.
- **CY 2021 Data** includes data on services from January 2017 – December 2021 with six months of claim runout.

Case Mix FY21 Release

CURRENT RELEASE TIMEFRAMES FOR EACH FILE:

- Inpatient (HIDD)
Available for request
- Emergency Department (ED)
Available for request
- Outpatient Observation (OOD)
Available for request
- Applicants with *approved projects* that require newly available year(s) of Case Mix Data (e.g., FY 19) should submit to CHIA a completed Exhibit B (*Certificate of Continued Need and Compliance*) of the Data Use Agreement. After submitting a completed Exhibit B you will receive an invoice (if applicable) for the requested data. Upon payment of the invoice the order for the data will be placed.



Website Release Updates

- Updates on the production of APCD and Case Mix databases and status of data requests are now posted to CHIA's website!
 - **Aim #1** is to provide weekly or bi-weekly status update on CHIA data products as they are in development.
 - **Aim #2** is to provide applicants with information about expected fulfillment status for individual data requests.
 - Request IDs will be communicated to Data Requestors via email.
- Please visit <http://www.chiamass.gov/status-of-data-requests/> to see the current status of releases.

USER QUESTIONS

Question: I am conducting prevention research categorizing types of anatomic injuries (ICD-10-CM ‘S-Codes’) most likely to occur in different activity settings. I want to maximize the utility of ICD-10-CM ‘Y92’ and ‘Y93’ occurrence codes intended to measure this . What is the completeness of occurrence code reporting in case mix data whenever the principal diagnosis is an ICD-10-CM ‘S-code’ anatomic injury?

Answer: During the six-year period from FY2016 through FY2021, there were a total of 13,797,588 outpatient emergency department (ED) visits at Massachusetts acute care hospitals. Patients with an ICD-10-CM ‘S-code’ principal diagnosis of injury accounted for 20% of ED visits (n=2,732,703) and 80% of those patients had an accompanying occurrence code in the ICD-10-CM range Y92 through Y93 (n=2,182,302). Many of the ‘Y92’ and ‘Y93’ codes used in the patient records lack specificity with regards to the activity associated with the injury. See Table 1 below of Top 25 activity codes used.

Table 1. FY2016 through FY2021 Top 25 Settings for Outpatient ED Injury Visits

Y-Code	Description
Y9289	Other specified places as the place of occurrence of the external cause
Y9389	Activity, other specified
Y929	Unspecified place or not applicable
Y92009	Unspecified place in unspecified non-institutional (private) residence as the place of occurrence of the external cause
Y92410	Unspecified street and highway as the place of occurrence of the external cause
Y939	Activity, unspecified
Y9301	Activity, walking, marching and hiking
Y9367	Activity, basketball
Y9302	Activity, running
Y92219	Unspecified school as the place of occurrence of the external cause
Y9366	Activity, soccer
Y92414	Local residential or business street as the place of occurrence of the external cause
Y92008	Other place in unspecified non-institutional (private) residence as the place of occurrence of the external cause
Y9355	Activity, bike riding
Y9269	Other specified industrial and construction area as the place of occurrence of the external cause
Y9361	Activity, american tackle football
Y92003	Bedroom of unspecified non-institutional (private) residence as the place of occurrence of the external cause
Y93G1	Activity, food preparation and clean up
Y92002	Bathroom of unspecified non-institutional (private) residence as the place of occurrence of the external cause
Y92480	Sidewalk as the place of occurrence of the external cause
Y9239	Other specified sports and athletic area as the place of occurrence of the external cause
Y92000	Kitchen of unspecified non-institutional (private) residence as the place of occurrence of the external cause
Y92098	Other place in other non-institutional residence as the place of occurrence of the external cause
Y92007	Garden or yard of unspecified non-institutional (private) residence as the place of occurrence of the external cause
Y92129	Unspecified place in nursing home as the place of occurrence of the external cause

continued



Answer (continued): More specificity in occurrence setting injury risk is gained by stratifying the ED data by demographic populations of interest. For example, for infants under 1 year old, the top injury settings were in the kitchen and bedroom (See Table 2 below) . For teenagers ages 13 to 19, school and different sporting activity settings are in the top 10. While the emergency department data has a high volume of injury data with a high rate of completeness for Y-codes, the ‘Y-codes’ are less complete in the inpatient data. The inpatient coding average rate of completeness is 42% versus the ED rate of 80%.

Table 2. Top 10 Settings for Outpatient ED Injury Visits for Infants Age ‘0’

Y-code	Description
Y92000	Kitchen of unspecified non-institutional (private) residence as the place of occurrence of the external cause
Y92003	Bedroom of unspecified non-institutional (private) residence as the place of occurrence of the external cause
Y92008	Other place in unspecified non-institutional (private) residence as the place of occurrence of the external cause
Y92009	Unspecified place in unspecified non-institutional (private) residence as the place of occurrence of the external cause
Y92098	Other place in other non-institutional residence as the place of occurrence of the external cause
Y9289	Other specified places as the place of occurrence of the external cause
Y929	Unspecified place or not applicable
Y9301	Activity, walking, marching and hiking
Y9389	Activity, other specified
Y939	Activity, unspecified

Table 2. Top 10 Settings for Outpatient ED Injury Visits for Teenagers Ages 13 to 19

Y-Code	Description
Y92009	Unspecified place in unspecified non-institutional (private) residence as the place of occurrence of the external cause
Y92219	Unspecified school as the place of occurrence of the external cause
Y92410	Unspecified street and highway as the place of occurrence of the external cause
Y9289	Other specified places as the place of occurrence of the external cause
Y929	Unspecified place or not applicable
Y9361	Activity, american tackle football
Y9366	Activity, soccer
Y9367	Activity, basketball
Y9389	Activity, other specified
Y939	Activity, unspecified

Question: I am conducting readmissions analysis. In prior years, I noticed a deterioration in the completeness of inpatient UHINs. What is the current quality of the UHIN and of the Medicaid IDs in the inpatient case mix data?

Answer: The inpatient UHINs have generally been 80% complete. During the pandemic, there was a deterioration in valid data necessary to create a UHINs (see Table 1 below). However, the completeness of valid Medicaid IDs has improved significantly, over 99% of the inpatient discharge records which list MassHealth as the payer have submitted a Medicaid ID (See Table 2 below).

Table 1. FY2014 through FY2021 Average Percent Invalid UHIN Data by Inpatient Discharge Month

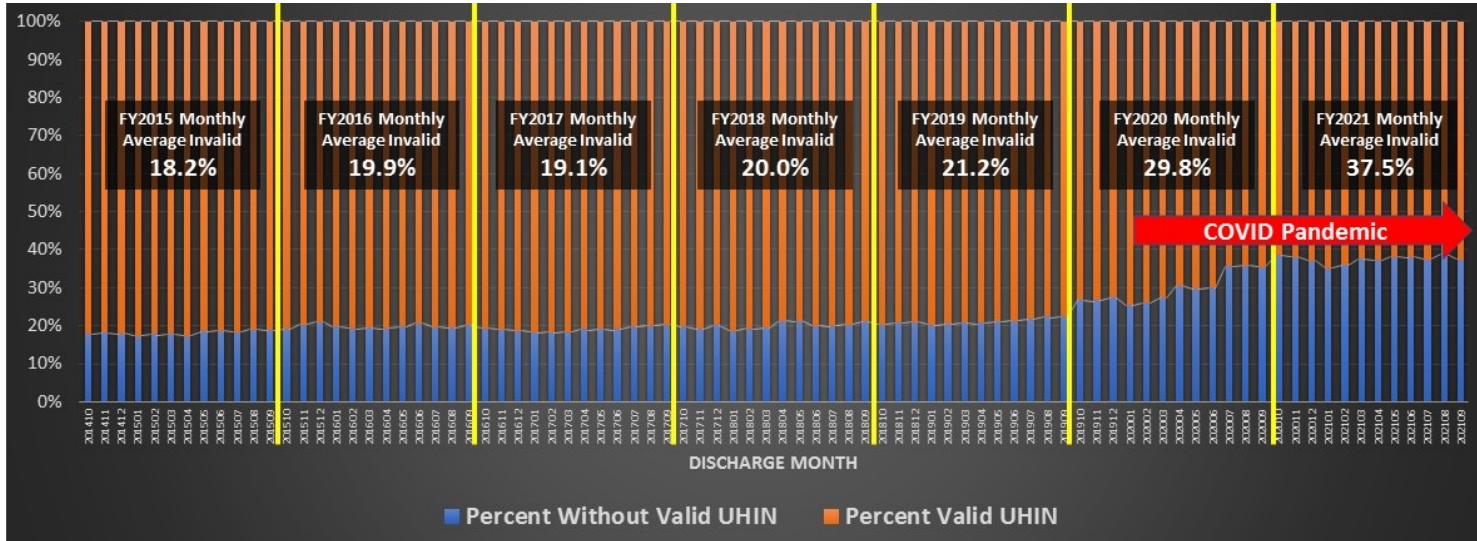
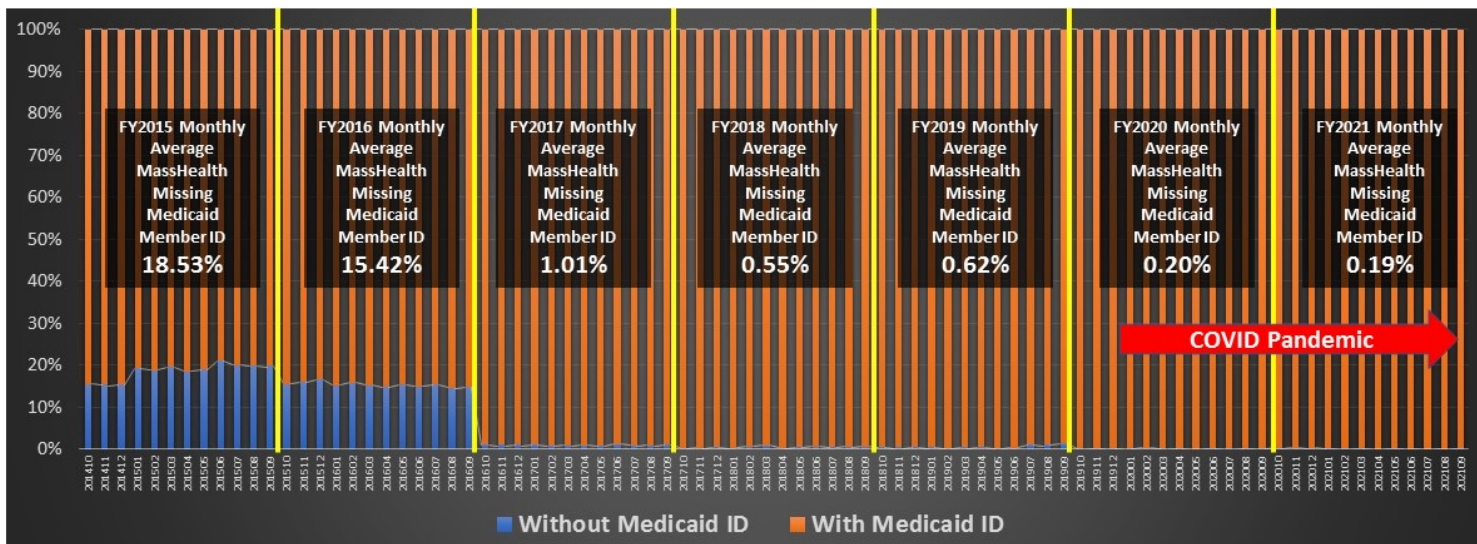


Table 1. FY2014 through FY2021 Average Percent Missing Medicaid ID by Inpatient Discharge Month



Answer (continued): Even though the outpatient emergency department has a higher volume of patient data, the deterioration of UHINs during in the ED and observation stay data was not as pronounced as the inpatient discharge data. In fact, following the first year of the pandemic, there was an 1.8% improvement in valid UHINs in the ED data (See Table 1 below). Moreover, a hospital submitting poor quality inpatient UHIN data was not a predictor of poor ED UHIN data. For example, in FY2021, one hospital had 28% invalid UHINs for 16,654 inpatient discharges. However, for that same period, the hospital had only 11% invalid UHINs on 40,798 emergency department patients.

Table 1. Comparison of Person Invalid UHINs in Case Mix Data for FY2015 through FY2021

Outpatient Emergency Department Visits



Outpatient Observation Stays



Inpatient Hospital Discharges

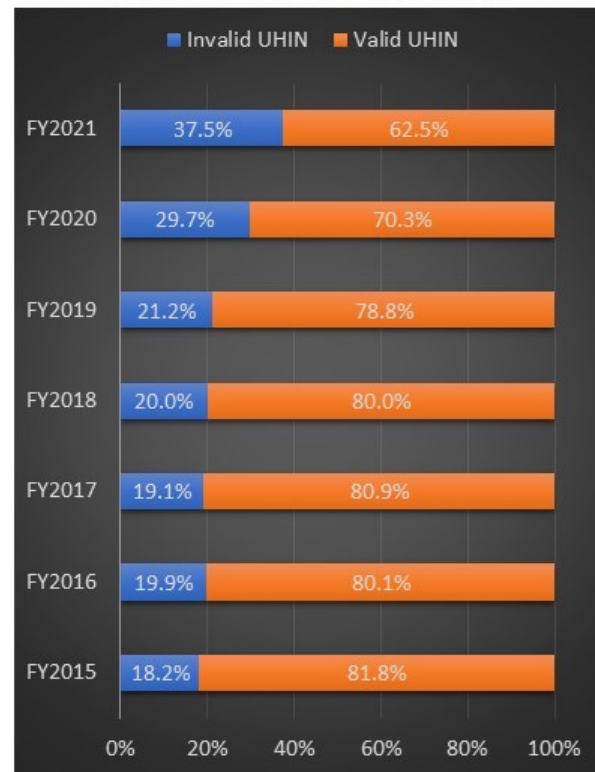
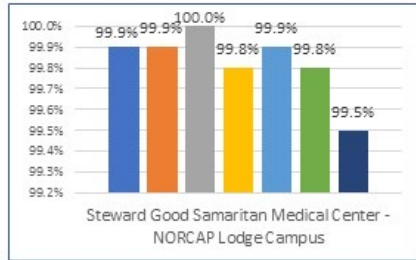
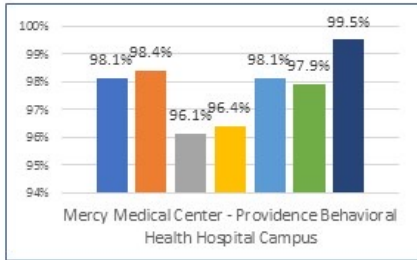
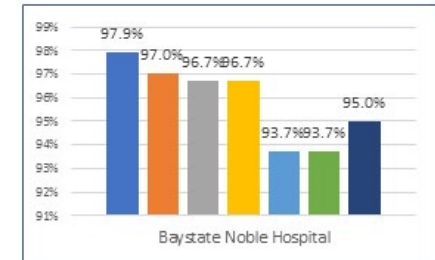
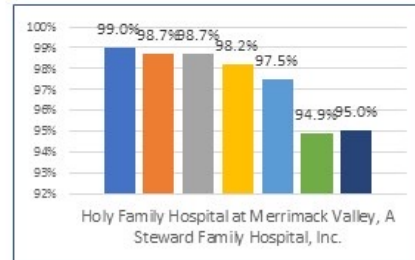
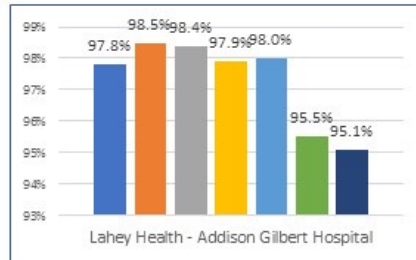
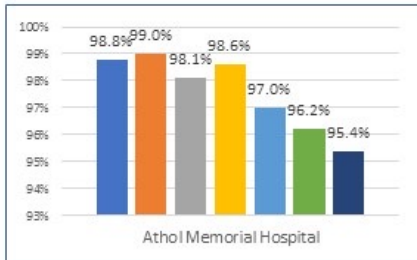
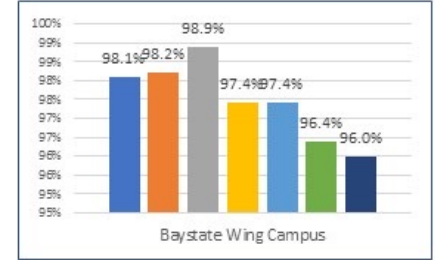
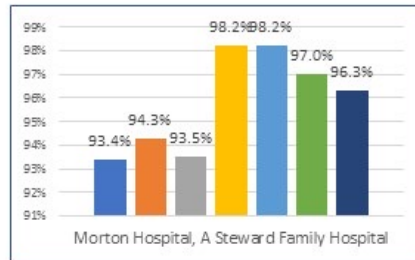
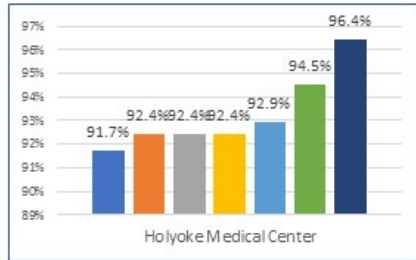
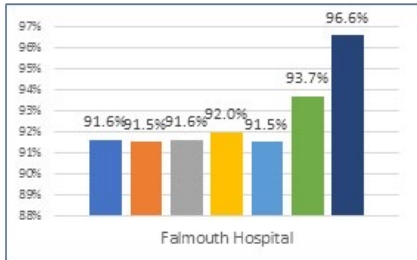


Figure 1. High Quality Inpatient UHINs submitted FY2015 through FY2021

FY2015 FY2016 FY2017 FY2018 FY2019 FY2020 FY2021



Answer (continued): The lack of availability of data necessary to create a valid UHIN is not pervasive in at all hospitals submitted inpatient data. It is important to note that over the past six years, some hospitals have consistently submitted over 90% valid UHIN data. With some hospitals not only collecting over 90% valid UHINs but improving from collecting 91% UHINs to collecting 96%.



Where can I find past User Workgroup Presentations?

- <http://www.chiamass.gov/ma-apcd-and-case-mix-user-workgroup-information/>

MA APCD / Case Mix Meeting Presentations

2019 Presentations	
2019 MA APCD Presentations	2019 Casemix Presentations
<p>MAAPCD Tuesday, November 26, 2019</p> <ul style="list-style-type: none">• Presentation (PDF) Word	<p>Please Note:</p> <p>The Case Mix Workgroup Meeting for December 2019 was cancelled.</p>
<p>MAAPCD Tuesday, September 24, 2019</p> <ul style="list-style-type: none">• Presentation (PDF) PPT	<p>Case Mix Tuesday, October 22, 2019</p> <ul style="list-style-type: none">• Presentation (PDF) PPT
<p>MAAPCD Tuesday, July 23, 2019</p> <ul style="list-style-type: none">• Presentation (PDF) PPT	<p>Case Mix Tuesday, August 27, 2019</p> <ul style="list-style-type: none">• Presentation (PDF) PPT

When is the next User Group meeting?

- The next User Group will meet Tuesday March, 28.
- <http://www.chiamass.gov/ma-apcd-and-case-mix-user-workgroup-information/>

Resultant Research Using CHIA Data

- <https://www.chiamass.gov/resultant-research-using-chia-data>



[CHIA Data](#) » [Resultant Research Using CHIA Data](#)

Resultant Research Using the MA APCD and CHIA's Case Mix Data

The table below contains a sample of external research publications using CHIA's MA APCD and Case Mix data (by year of publication). Case Mix specific research is highlighted in gray. If you have questions please email apcd.data@state.ma.us and/or casemix.data@state.ma.us.

Questions?

- Questions related to MA APCD:
apcd.data@chiamass.gov
- Questions related to Case Mix:
casemix.data@chiamass.gov

REMINDER: Please include your **IRBNet ID#**, if you currently have a project using CHIA data.