

CHIA USER WORKGROUP

Don Kirkwood (Manager of Data Release and Procurement)

Sylvia Hobbs (Associate Director of Data Strategy and User Support)

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Agenda

- Announcements:
 - MA APCD Release CY 2021 Updates
 - **New!** MA APCD Release CY 2022 Available
 - Update to the MA APCD Application
 - FY22 Case Mix Release Updates
- Website Updates
- User Support Questions
 - MemberLinkEIDs
 - Type of Bill on Facility Claims
 - Duplicate Data
 - ED Volume in Case Mix Data and Hospital Profile Reports
 - Behavioral Health Hospitals
 - Alcohol-Related Disorders
 - Gobeille Impact on Latest Release
 - MA APCD and Case Mix Payer Type Comparison
- Q&A

MA APCD Calendar Year 2021

- Available for request
- Applicants with *approved projects* that require updated MA 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 medical, pharmacy, and dental claims incurred between **January 1, 2017, and December 31, 2021, and it includes six (6) months of run-out (paid claims through June 30, 2022)**. In addition to claims data, the release contains relevant reference files including member eligibility, providers, products, and benefit plans.

MA APCD Calendar Year 2022

- **NEW!** MA APCD Calendar Year 2022 Available for request
- **Calendar Year (CY) 2022 data** holds data collected from health insurance payers licensed to operate in the Commonwealth of Massachusetts. The data includes on health care activity that occurred from January 1, 2018, through December 31, 2022. MA APCD CY 2022 includes medical, pharmacy, and dental claims incurred between January 1, 2018, and December 31, 2022. This release includes six (6) months of run-out (paid claims through June 30, 2023). This data encompasses public and private payers as well as fully-insured and self-insured plans. Keep mind that due to the Supreme Court decision, *Gobeille v. Liberty Mutual*, the self-insured plans are severely reduced starting in 2016. This release also includes MassHealth Medicaid data in the MA APCD for the period of calendar years 2018-2022.

Updates to the MA APCD Application

When applying for CHIA data, always check the website to download and use the most recent version of the data request application. For example, the MA APCD application was last revised in December 2023 to update the full year date ranges available for purchase.

See application excerpt below.

V. DATASETS REQUESTED

The Massachusetts All-Payer Claims Database (“APCD”) is comprised of medical, pharmacy, and dental claims and information from the member eligibility, provider, and product files that are collected from health insurance payers licensed to operate in the Commonwealth of Massachusetts. This information encompasses public and private payers as well as data from fully-insured and self-insured plans. APCD data are refreshed and updated annually and made available to approved data users. For more information about APCD Data, including available years of data and a full list of elements in the database please refer to layouts, data dictionaries and similar documentation included on [CHIA’s website](#).

Data requests are typically fulfilled on a one time basis, however; certain Projects may require future years of data that will become available in a subsequent release. Projects that anticipate a need for future years of data may request to be considered for a subscription. Approved subscriptions will receive, upon request, the same data files and data elements included in the initial Release annually or as available. Please note that approved subscription requests are subject to the Data Use Agreement, and subject to the limitation that the Data can be used only in support of the approved Project.

1. Please indicate below whether this is a one-time request, or if the described Project will require a subscription.
 One-Time Request **OR** Subscription
2. CHIA is currently filling requests for claims data from 2016 to 2022. Requests made outside of these years may not be fulfilled by CHIA and will be considered on a case-by-case basis. Please specify the years of data that are being requested: _____.



Updates to the MA APCD Application (continued)

In addition, the December 2023 revision to MA APCD application specifies that the member ZIP code geographic data is now only released at the level of one ZIP code per person per year based on the member's ZIP code reported in the member's earliest submission year month.

See application excerpt below.

Exhibit A: CHIA Government All-Payer Claims Data Application

December 2023

ZIP code and state geographic subdivisions are available for Massachusetts residents and providers only. Small population ZIP codes are combined with larger population ZIP codes. One ZIP Code per person (MEID) per year has been assigned based on the ZIP code/state reported in the member eligibility record's earliest submission year month. If the record does not have an MEID, assignment is based on distinct OrgID/Carrier Specific Unique Member ID.

Non-Massachusetts ZIP codes and state codes except for CT, MA, ME, NH, NY, RI, and VT are suppressed.



Case Mix FY2022 Release

CURRENT RELEASE TIMEFRAMES FOR EACH FILE:

- Hospital Inpatient Discharge Data (HIDD)

FY2022 Now Available for Request

- Outpatient Emergency Department Visit Data (ED)

FY2022 Now Available for Request

- Outpatient Observation Stay Data (OOD)

FY2022 Now Available for Request

- Applicants with *approved projects* using previous years data (e.g., FY 20, FY21) that require newly available year(s) of case mix data (e.g., FY 22) 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 MA 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 data extracts and releases.
- You can also sign up to receive updates on the status of MA APCD and case mix data requests and data release information by filling out the form at the following link:
<https://lp.constantcontactpages.com/su/NYBm5Bs>

Website Release Updates (continued)

Links to examples of resultant research using CHIA data can be found at the following link: <https://www.chiamass.gov/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@chiamass.gov and/or casemix.data@chiamass.gov.

2023


Investigator and Organization	Article Title	Publication	Full Citation	Data Application
Godwin K. Osei-Poku, Betsy Lehman Center, Julia C. Prentice, Betsy Lehman Center & Boston University, et al.	Risk of Severe Maternal Morbidity in Birthing People With Opioid Use Disorder	Women's Health Issues	Osei-Poku GK, Prentice JC, Peeler M, Bernstein S, Iverson RE, Schiff DM. Risk of Severe Maternal Morbidity in Birthing People With Opioid Use Disorder. Women's Health Issues. 2023 Jul 7.	BLC-related project
Hannah James, Christopher Koller, Laura Nasuti, David Auerbach, Ira Wilson, Health Policy Commission & Brown University	Comparing ambulatory commercial spending in Rhode Island and Massachusetts, 2016–2019	Health Services Research	James HO, Koller C, Nasuti LJ, Auerbach DI, Wilson IB. Comparing ambulatory commercial spending in Rhode Island and Massachusetts, 2016–2019. Health Services Research. 2023 May 12.	HPC-related project
Katie Moynihan, Urbano França, David Casavant, Robert Graham, Michael McManus, Boston Children's Hospital	Hospital Access Patterns of Children With Technology Dependence	Pediatrics	Moynihan K, França UL, Casavant DW, Graham RJ, McManus ML. Hospital access patterns of children with technology dependence. Pediatrics. 2023 Apr 1;151(4):e2022059014.	The long-term impact of pediatric conditions in Massachusetts
Mark Shepard, Ethan Forsgren, Harvard University, National Bureau	Do insurers respond to active purchasing? Evidence from the Massachusetts health	Journal of Risk and Insurance	Shepard M, Forsgren E. Do insurers respond to active purchasing? Evidence from the Massachusetts health insurance exchange. Journal of Risk and Insurance.	Prices, Incentives, and Hospital-Physician Integration

USER QUESTIONS

Question: I am trying to track patients in the APCD. Why do I get inconsistent results when I use the Memberlinkid and the Carrier Specific Unique Member Id?

Answer: CHIA created a Master Patient Index that assigns a single unique surrogate key (memberlinkid) to each person, regardless of how many different carriers have submitted data about that person. Not all records will have an MEID.

The Carrier Specific Unique Member ID is a member ID specific to a carrier.



Question: What is the proper way to interpret the values of the Type of Bill on Facility (MC036)?

Answer: MC036 defines the type of bill on the facility claim. Type of Bill on Facility (MC036) should only be used if the Type of Claim is Facility (MC094 = 002). The leading zero is dropped. The first digit is the type of facility, and the second digit is where in the facility the service was provided.

For example, if Type of Bill = 11, the first 1 digit represents “Hospital” and the second 1 digit represents “Inpatient”. Similarly, if Type of Bill = 13, this would be interpreted as a Hospital Outpatient bill since the first digit represents “Hospital” and the second digit, ‘3’ represents “Outpatient”. This follows the National Uniform Billing Committee (NUBC) specifications. More information can be found here: <https://www.nubc.org/>.

Question: We noticed from a recently published Tech Appendix that there's a step that involves identifying duplicates for the same hospitalization. But based on the Case Mix white paper, it seems that each line in the Case Mix HIDD is a unique hospitalization. We're wondering if the de-duplication process was before data releases. Do we have to worry about duplicates in the Case Mix data we have?

Answer: Acute Care Hospitals are required to submit discharge data to CHIA in accordance with 957 CMR 8.00. A RecordType20ID is assigned to each unique discharge. Through this process, the file does not contain duplicate discharge records. In addition, hospitals verify the submission data midyear and at the end of the year. The Case Mix White Paper is available here:

<https://www.chiamass.gov/assets/Uploads/casemix/Case-Mix-Whitepaper.pdf>

The researcher is referencing the technical appendix here:

<https://www.chiamass.gov/assets/docs/r/pubs/2023/Pediatric-Readmissions-Technical-Appendix-2023.pdf>

Both the adult and pediatric readmissions analyses conducted by CHIA are originally based on methodology that relies on claims data. While the program was adapted for use with Case Mix data, our goal was to maintain fidelity to the original program as much as possible. This deduplication step is required as part of the overall methodology for readmissions analysis but is not reflective of the integrity of Case Mix data or the existence of a large number of duplicate visits in HIDD, EDD, or OOD data.

Question: We recently saw a report on Provider Profile on the CHIA website and realized that the provider profile for the ED data for a hospital in that report is different from the raw numbers we received from CHIA.

Answer: The source of the emergency department data you received is CHIA's Case Mix data. The hospital profile report sources data from the Hospital Cost Report, the Hospital Discharge Database, and the Hospital Standardized Financial Statement Database.

Additionally, the FY 2020 Hospital Profile report on the CHIA website is based on each hospital's Fiscal Year data reported on their cost report. So, a hospital whose Fiscal Year ends on June 30th, for instance, details the hospital's experience from July 1, 2019 to June 30, 2020. The FY 2020 Emergency Department case mix data are based on the Hospital Fiscal Year October 1, 2019 to September 30, 2020.

Behavioral Health Hospitals

Question: The case mix hospital filing specifications available on the CHIA's website indicate that CHIA is currently collecting case mix data from non-acute behavioral health hospitals. What is the difference between the inpatient behavioral health hospitals submitting case mix data and inpatient behavioral health hospitals submitted by insurance carriers available in the Massachusetts All Payer Claims Date?

Answer: If you review CHIA's FY2022 **Introduction to Non-acute Hospitals** available online at: <https://www.chiamass.gov/assets/docs/r/hospital-profiles/2022/FY22-Massachusetts-Hospital-Profiles-INTRO-to-Non-Acute-Hospital-Cohort.pdf>, you will find a list of private behavioral health hospitals in Massachusetts licensed by the Department of Mental Health for psychiatric services and by the Department of Public Health for substances abuse services. **See below.** The 13 Massachusetts hospitals in the list below are currently submitting data for the new case mix behavioral health inpatient discharge database.

Behavioral health hospitals are licensed by DMH for psychiatric services and by DPH for substance abuse services.

Behavioral Health Hospital Cohort page B1

Arbour Hospital	Miravista Behavioral Health Center
Arbour-Fuller Hospital	Southcoast Behavioral Hospital
Arbour-HRI Hospital	Taravista Behavioral Health
Bournewood Hospital	Walden Behavioral Care
Haverhill Pavilion Behavioral Health Hospital	Westborough Behavioral HealthCare Hospital
Hospital for Behavioral Medicine	Westwood Lodge Pembroke
McLean Hospital	

continued



Behavioral Health Hospitals

Answer (continued): *The Massachusetts All Payer Claims Data (MA APCD) includes claims data for all care settings regardless of geographic boundaries. This includes the inpatient behavioral health data from the 13 hospitals listed on the previous slide, but also from state operated facilities listed below with behavioral health beds (see below) and inpatient behavioral health hospitals in other states such as Natchaug Hospital in Connecticut and Butler Hospital in Rhode Island.*

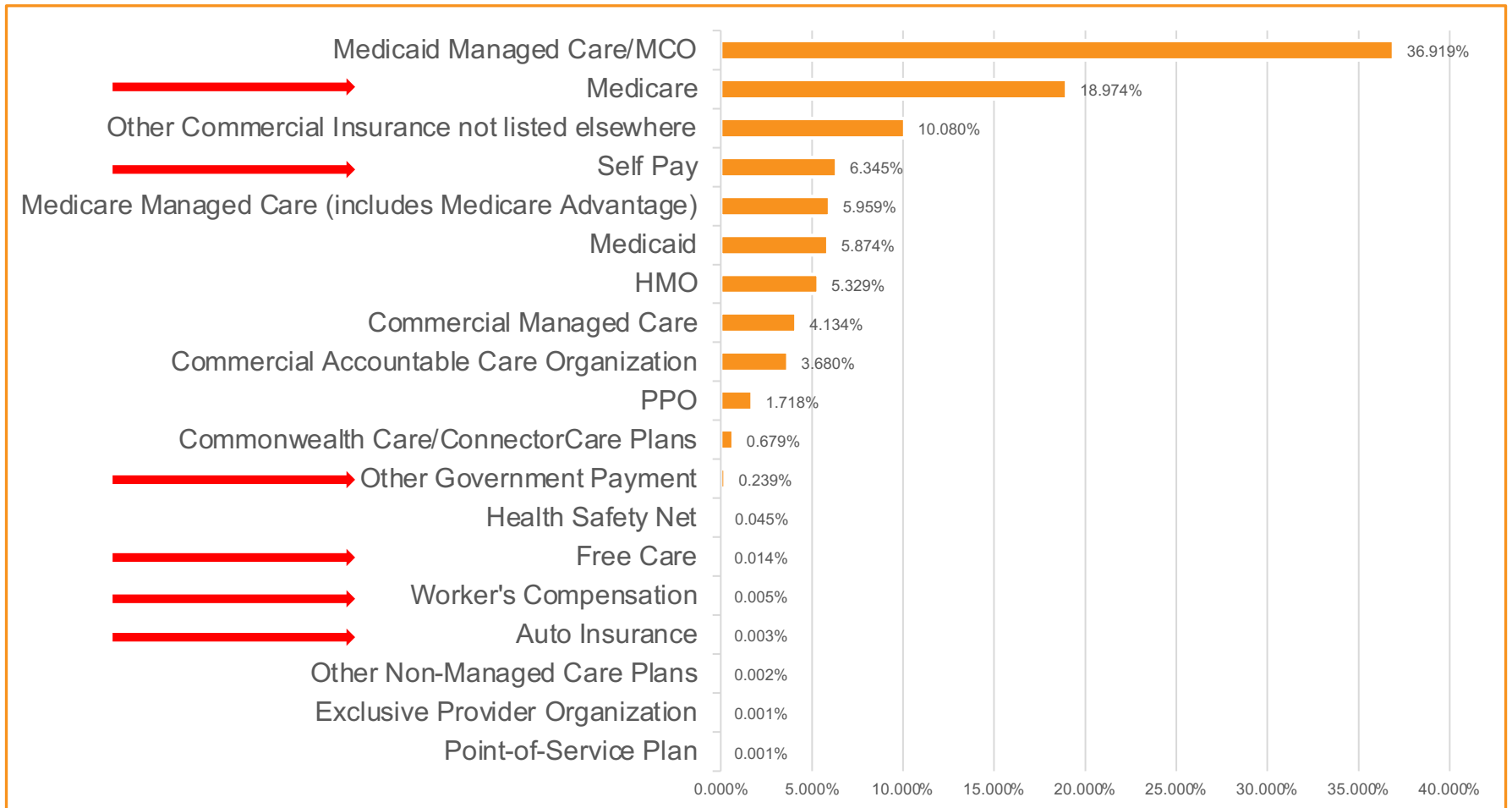
State Operated Facilities page B5 and B6

Department of Mental Health Facilities	Department of Public Health Facilities
Cape Cod and Islands Community Mental Health Center	Lemuel Shattuck Hospital
Corrigan Mental Health Center	Pappas Rehabilitation Hospital for Children
Solomon Carter Fuller Mental Health Center	Tewksbury Hospital
Taunton State Hospital	Western Massachusetts Hospital
Worcester State Hospital	

When analyzing inpatient behavioral health care, it is important to keep in mind that the some of the Massachusetts Hospitals submitting acute care case mix data also have licensed behavioral health beds. As of December 12, 2023, the Massachusetts Department of Mental Health lists 65 sites as having licensed inpatient behavioral health beds, see: <https://www.mass.gov/doc/dmh-licensed-hospital-list-1/download>

Answer (continued): Although the MA APCD encompasses a vast array of inpatient behavioral health care facilities, it is important for data users to be aware of the limitations regarding the types of payers included and the count of beneficiaries who are self-insured. When examining the scope of payer types represented in the behavioral health case mix data collected thus far, it is evident that a significant proportion of patients are covered by payer types not accounted for in the MA APCD. This includes Medicare-Fee-for-Service and self-insured categories. Figure 1 below illustrates with red arrows the payer types present in the case mix behavioral health data that are absent from the MA APCD

Figure 1. FY2018 through FY202 Case Mix Inpatient Behavioral Health Payers by Frequency of Discharges



The most recent behavioral health study using the MA APCD is entitled **Transitions in Health Insurance Among Continuously Insured Patients with Schizophrenia** published this year in the journal **Schizophrenia** available at the following link: <https://www.nature.com/articles/s41537-024-00446-4>



Schizophrenia

ARTICLE OPEN



Transitions in health insurance among continuously insured patients with schizophrenia

Brittany L. Ranchoff¹, Chanup Jeung², John E. Zeber¹, Gregory E. Simon³, Keith M. Ericson^{4,5}, Jing Qian¹ and Kimberley H. Geissler²

Changes in health insurance coverage may disrupt access to and continuity of care, even for those who remain insured. Continuity of care is especially important in schizophrenia, which requires ongoing medical and pharmaceutical treatment. However, little is known about continuity of insurance coverage among those with schizophrenia. The objective was to examine the probability of insurance transitions for individuals with schizophrenia who were continuously insured and whether this varied across insurance types. The Massachusetts All-Payer Claims Database identified individuals with schizophrenia aged 18–64 who were continuously insured during a two-year period between 2014 and 2018. A logistic regression estimated the association of having an insurance transition – defined as having a change in insurance type – with insurance type at the start of the period, adjusting for age, sex, ZIP code in the lowest quartile of median income, and ZIP code with concentrated poverty. Overall, 15.1% had at least one insurance transition across a 24-month period. Insurance transitions were most frequent among those with plans from the Marketplace. In regression adjusted results, individuals covered by the traditional Medicaid program were 20.2 percentage points [pp] (95% confidence interval [CI]: 24.6 pp, 15.9 pp) less likely to have an insurance transition than those who were insured by a Marketplace plan. Insurance transitions among individuals with schizophrenia were common, with more than one in six people having at least one transition in insurance type during a two-year period. Given that even continuously insured individuals with schizophrenia commonly experience insurance transitions, attention to insurance transitions as a barrier to care access and continuity is warranted.

Schizophrenia (2024)10:25; <https://doi.org/10.1038/s41537-024-00446-4>

INTRODUCTION

Access to care and continuity of care is important for people with schizophrenia¹, which requires ongoing medical and pharmaceutical treatment. Schizophrenia is a chronic severe mental illness with an estimated prevalence between 0.25% and 0.64% in the United States (US)². In the US, healthcare access is strongly connected to health insurance coverage³. Health insurance is a key component of timely access to care, timely diagnosis, and ongoing treatment. Non-elderly adults with schizophrenia have high rates of public insurance coverage (e.g. Medicaid, Medicare, or

insurance type and coverage gaps, especially longer gaps, are associated with more healthcare utilization that might indicate crisis or deterioration, such as inpatient visits and emergency room visits, including among individuals with schizophrenia or serious mental illness^{13–19}. Additionally, longer enrollment with an insurer may create incentives for insurers to provide better preventive care that may not have immediate impacts but be cost-saving in the future; if enrollees are frequently changing insurance types or plans, these incentives for insurers are blunted^{20,21}

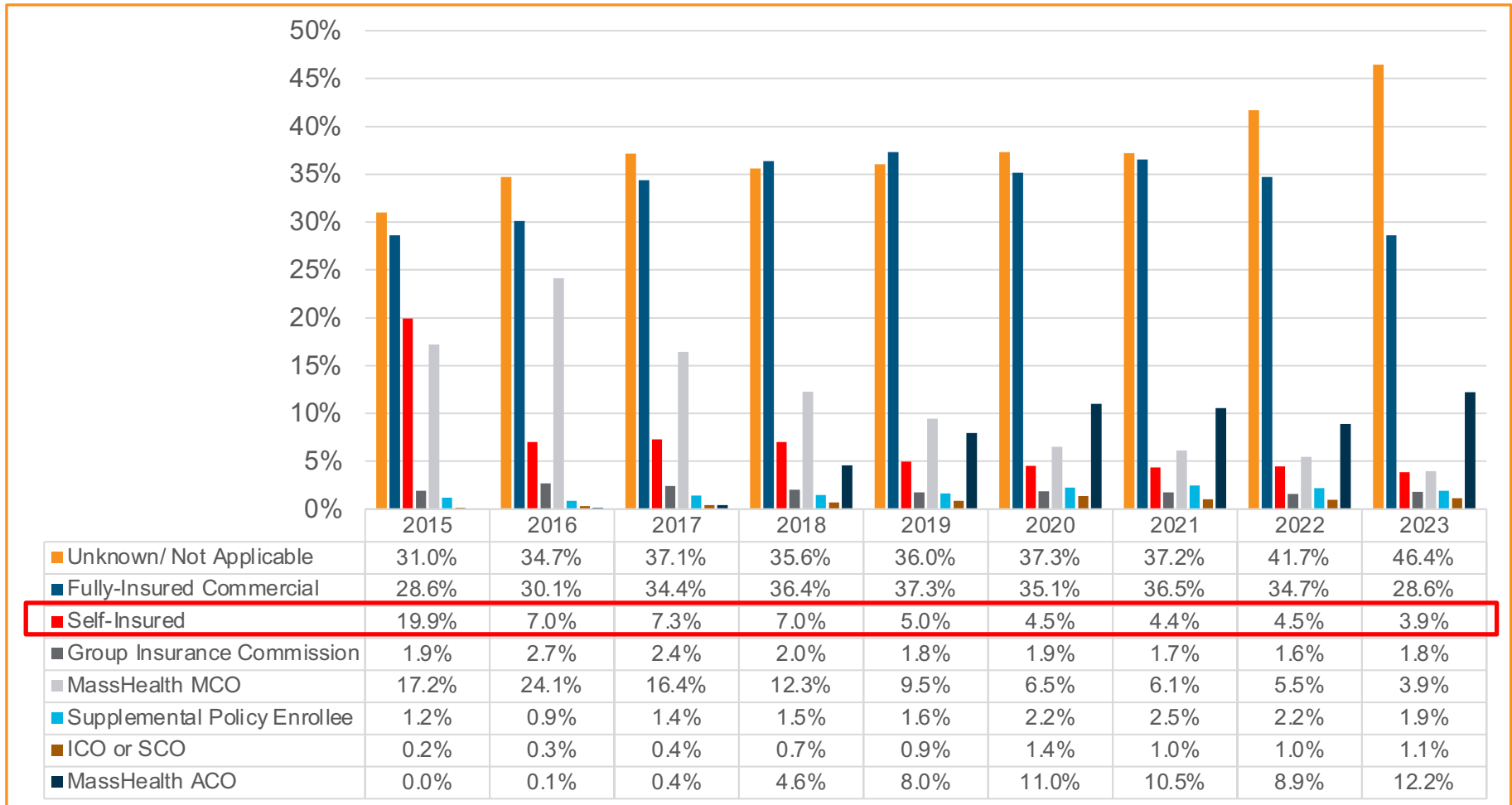
Citation for this article: Ranchoff, B.L., Jeung, C., Zeber, J.E. et al. Transitions in health insurance among continuously insured patients with schizophrenia. *Schizophr* 10, 25 (2024). <https://doi.org/10.1038/s41537-024-00446-4>

Question: Due to the impact of Gobeille versus Liberty Mutual, I understand that the MA APCD does not contain full reporting by self-insured employers. Has that impact decreased on increased?



Answer: As your can see in Figure 1 below, during the pre-Gobeille year 2015, the self-insured represent 19.9% of all eligibility records, in 2023 the proportion has decreased to 3.9%.

Figure 1. 2015 through 2023 Proportion of Self-Insured Records in the MA APCD Member Eligibility Table



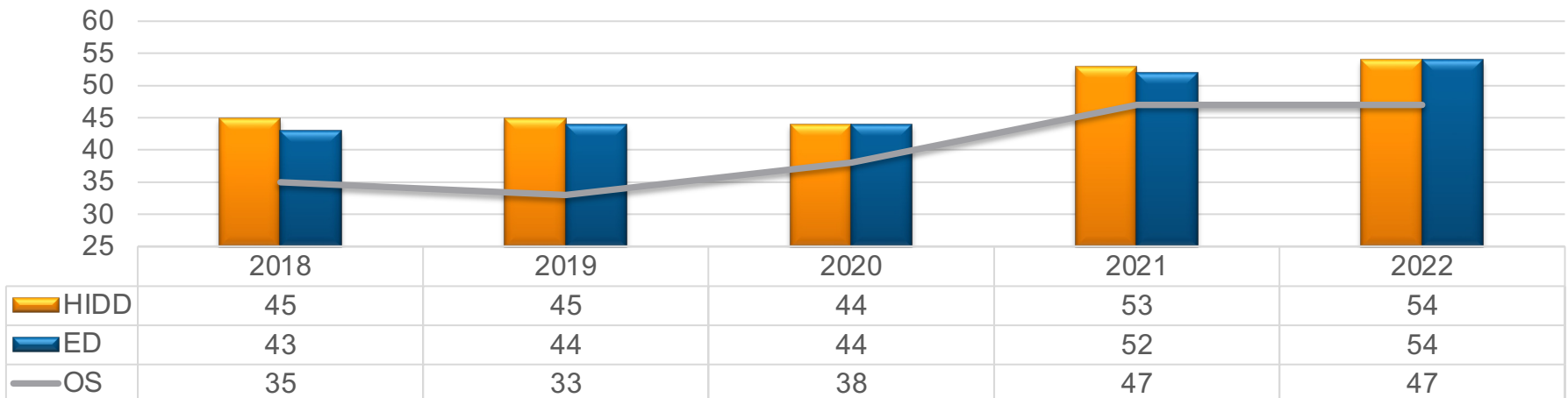
Alcohol Related Disorders

Question: During last month's webinar, updates in ICD-10-CM which increased the magnitude of granularity in specific substance use disorder diagnosis codes was discussed. I have been using publicly available CDC data to analyze the increase in alcohol related deaths and would like information on the use of more granular coding in principal and associated diagnosis codes for alcohol related disorders.

Answer: Likewise, for cannabis disorders discussed last month, there has been a surge in data submitters maximizing the utility of more granular ICD-10-CM codes for alcohol related disorders. There are **74 diagnosis codes in ICD-10-CM in the F10 range for alcohol related disorders**. In reviewing the extent to which data submitters increased using the range of coding options for alcohol related disorders from FY2018 to FY2022, there was a 17% increase in use of distinct codes in hospital inpatient discharge data (HIDD), a 20% increase in outpatient emergency department visit data (ED), and a 26% increase in observation stay (OS) **See Figure 1 below.**

Figure 1. FY2022 Increase in Use of Distinct ICD-10-CM Diagnosis Codes for Alcohol Related Disorders

HIDD ED OS



continued



Table 1. ICD-10-CM ‘F10’ Range Top 10 Codes

Rank	HIDD Top 10 Alcohol Diagnoses
1	Alcohol dependence with withdrawal, unspecified
2	Alcohol abuse, uncomplicated
3	Alcohol dependence, uncomplicated
4	Alcohol dependence with intoxication, unspecified
5	Alcohol dependence with withdrawal delirium
6	Alcohol dependence with withdrawal, uncomplicated
7	Alcohol dependence, in remission
8	Alcohol abuse with intoxication, unspecified
9	Alcohol abuse, in remission
10	Alcohol abuse with withdrawal, unspecified
Rank	OS Top 10 Alcohol Diagnoses
1	Alcohol abuse, uncomplicated
2	Alcohol abuse with intoxication, unspecified
3	Alcohol dependence, uncomplicated
4	Alcohol dependence with intoxication, unspecified
5	Alcohol dependence with withdrawal, unspecified
6	Alcohol abuse, in remission
7	Alcohol dependence, in remission
8	Alcohol abuse with intoxication, uncomplicated
9	Alcohol dependence with intoxication, uncomplicated
10	Alcohol dependence with withdrawal, uncomplicated
Rank	ED Top 10 Alcohol Diagnoses
1	Alcohol abuse with intoxication, unspecified
2	Alcohol abuse, uncomplicated
3	Alcohol abuse with intoxication, uncomplicated
4	Alcohol dependence, uncomplicated
5	Alcohol dependence with intoxication, unspecified
6	Alcohol use, unspecified with intoxication, uncomplicated
7	Alcohol dependence with intoxication, uncomplicated
8	Alcohol use, unspecified with intoxication, unspecified
9	Alcohol dependence with withdrawal, unspecified
10	Alcohol dependence with withdrawal, uncomplicated

Alcohol Related Disorders

Answer (continued): In ranking the top ten alcohol ICD-10-CM ‘F10’ related diagnoses by care setting (See Table 1), alcohol dependence with withdrawal delirium only appears in the top ten diagnosis for inpatient care, and alcohol dependence in remission and abuse in remission only appear in the top ten for inpatient care and observation day. “Alcohol use” cases without dependence or abuse only appear in the top ten diagnosis for emergency department care. There are also ICD-10-CM ‘Y90’ codes which specifically record toxicology results for **blood alcohol levels** (see Table 2 below) and codes in the range of ‘O354*’ and ‘O9931*’ for the **complicating effect of alcohol use on different trimesters of pregnancy**.

Table 2. ICD-10-CM Codes for Blood Alcohol Levels

DX Code	Description
Y90	Evidence of alcohol involvement determined by blood alcohol level
Y900	Blood alcohol level of less than 20 mg/100 ml
Y901	Blood alcohol level of 20-39 mg/100 ml
Y902	Blood alcohol level of 40-59 mg/100 ml
Y903	Blood alcohol level of 60-79 mg/100 ml
Y904	Blood alcohol level of 80-99 mg/100 ml
Y905	Blood alcohol level of 100-119 mg/100 ml

Where can I find past User Workgroup Presentations?

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

CHIA Data User Workgroup Meeting Presentations

2023 Schedule and Presentations	
Tuesday, January 25, 2023 <ul style="list-style-type: none">• Presentation (PDF) PPT	Tuesday, February 28, 2023 <ul style="list-style-type: none">• Presentation (PDF) PPT
Tuesday, March 28, 2023 <ul style="list-style-type: none">• Presentation (PDF) PPT	Tuesday, April 25, 2023 <ul style="list-style-type: none">• Presentation (PDF) PPT
Tuesday, July 25, 2023 <ul style="list-style-type: none">• Presentation (PDF) PPT	Tuesday, December 5, 2023 <ul style="list-style-type: none">• Presentation (PDF) PPT

- [See archive of previous presentations](#)

USER SUPPORT MATERIALS

Linking Claims Data to Member Eligibility ZIP Code Data (March 2023)

- [Claims Linkage to ME One ZIP Code per Year Table \(PDF\)](#) | [PPT](#)

User Support MA APCD Slides

- [Ambulatory Surgery Centers - May 2021 \(PDF\)](#) | [PPT](#)
- [Trauma Centers - May 2021 \(PDF\)](#) | [PPT](#)
- [Medicare - March 2021 \(PDF\)](#) | [PPT](#)

When is the next User Group meeting?

- The next User Group will meet Tuesday March 26, 2024.
- <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

CHIA still receives a high volume of email from data users who do not include their IRBNet ID. If you are in the process of or have already submitted a data application to CHIA through IRBNet <https://www.irbnet.org/release/home.html>, due to the volume of email CHIA receives, please remember to always include your IRBNET ID# in the subject line of your email. Doing so facilitates tracking your application and expediting responses to any questions.