

CHIA Data User Workgroup

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May 27, 2025

Agenda

➤ Announcements:

- New - FY2024 Hospital Inpatient Discharge Data Now Available
- MA APCD CY2023 Now Available for Request
- Reminder of CHIA's YouTube Video on Data Use Obligations
- MDPH's Health Care Capacity Interactive Dashboard

➤ Data User Support Questions

- Decrease in Inpatient Procedures for Obesity
- Update on Patterns of Social Life Disruption Coding
- Safety Device Coding for Traumatic Injuries
- Shift in Inpatient Special Charges

➤ Q&A

Announcements

FY2024 Hospital Inpatient Discharge Data Now Available



New - FY2024 HIDD Data, Documentation, and Release Notes Now Available

The FY2024 HIDD is now available. The documentation and release notes are also now available online. Before accessing the FY2024 HIDD, review the case mix documentation and release notes. The documentation contains a data overview, including data element list, data dictionary, reference tables, and summary statistics. The release notes contain information directly submitted by hospitals explaining data anomalies. Remember to review documentation and release notes before accessing data. The targeted date for the FY2024 Emergency Department Data is August 2025, and FY2024 Observation Stay Data is September 2025. All FY 2023 Case Mix databases are available for application.

Documentation and Release notes available at
<https://chiamass.gov/case-mix-data>

Case Mix Products	Target	Actual	Status
Case Mix FY2024 (October 1, 2023 - September 30, 2024)			
Hospital Inpatient Discharge Data (HIDD)	June 2025	May 2025	Available
Outpatient Emergency Department Data (EDD)	August 2025	-	In Process
Outpatient Observation Stay Data (OSD)	September 2025	-	In Process

Case Mix Documentation

Hospital Inpatient Discharge Database (HIDD)

- FY24 Documentation Manual (PDF)
- FY24 Release Notes (PDF)

Emergency Department Database (EDD)

- FY23 Documentation Manual (PDF) | Word
- FY23 Release Notes (PDF) | Word

Outpatient Observation Database (OOD)

- FY23 Documentation Manual (PDF) | Word
- FY23 Release Notes (PDF) | Word

Case Mix Documentation Archive

MA APCD CY2023 Now Available

CY2023 MA APCD is now available and includes medical, pharmacy and dental claims incurred between January 1, 2021, and December 31, 2023. It includes a six months of run-out (paid claims through June 30, 2024). In addition to claims data, the release includes associated member eligibility, providers, products, and benefit plans. Applicants already approved for MA APCD CY2022 who require CY2023 should submit to CHIA a completed Exhibit B (*Certificate of Continued Need and Compliance*) of the DUA. Afterwards, you will receive an invoice (if applicable) for the requested data. Upon payment of the invoice the order for the data will be placed. As with case mix data, before accessing the MA APCD remember to review documentation on the releases available at:

<https://www.chiamass.gov/ma-apcd/>

Documentation and Release notes available at

<https://chiamass.gov/ma-apcd>

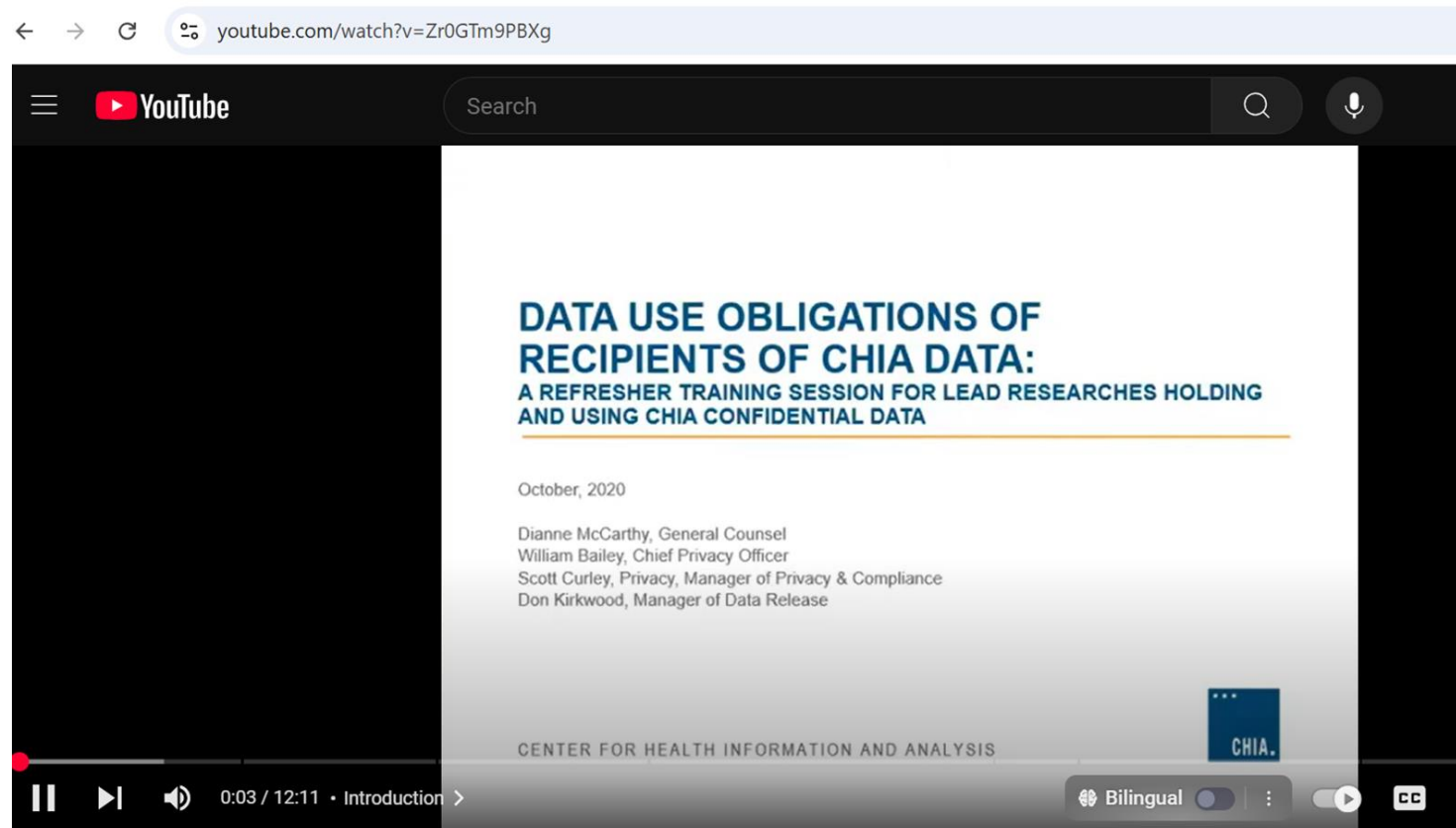
Before accessing the CY2023 MA APCD, review the documentation guide and release notes for important highlights and updates to the data. For example, in this release, CHIA's substance use disorder filter was updated to include fourteen new codes within the ranges in the 2018 CMS SUD filter.

MAAPCD Calendar Year 2023 Documentation

- [MAAPCD CY 2023 Documentation Guide](#)
- [MAAPCD CY 2023 Release Notes](#)
- [MAAPCD Government Data Specifications Workbook](#)
- [MAAPCD Non-Gvnt. Data Specifications Workbook \(Limited Data Set-LDS\)](#)
- [MAAPCD CY 2023 MPI Data Exclusion Overview](#)
- [MAAPCD Master Patient Index](#)

Reminder of CHIA's YouTube Channel

Data users should review CHIA's short 12-minute YouTube video by CHIA's Legal Unit on the Data Use Obligations of Recipients of CHIA Data: A Refresher Training Session for Lead Researchers Holding and Using CHIA Confidential Data at: <https://www.youtube.com/watch?v=Zr0GTm9PBXg>



Data Use Obligations of Recipients of CHIA Data

MDPH's Health Care Capacity Interactive Dashboard

Available at: <https://www.mass.gov/info-details/health-care-capacity-interactive-dashboard>

The dashboard is updated by 5:00 pm on the third Wednesday of each month.



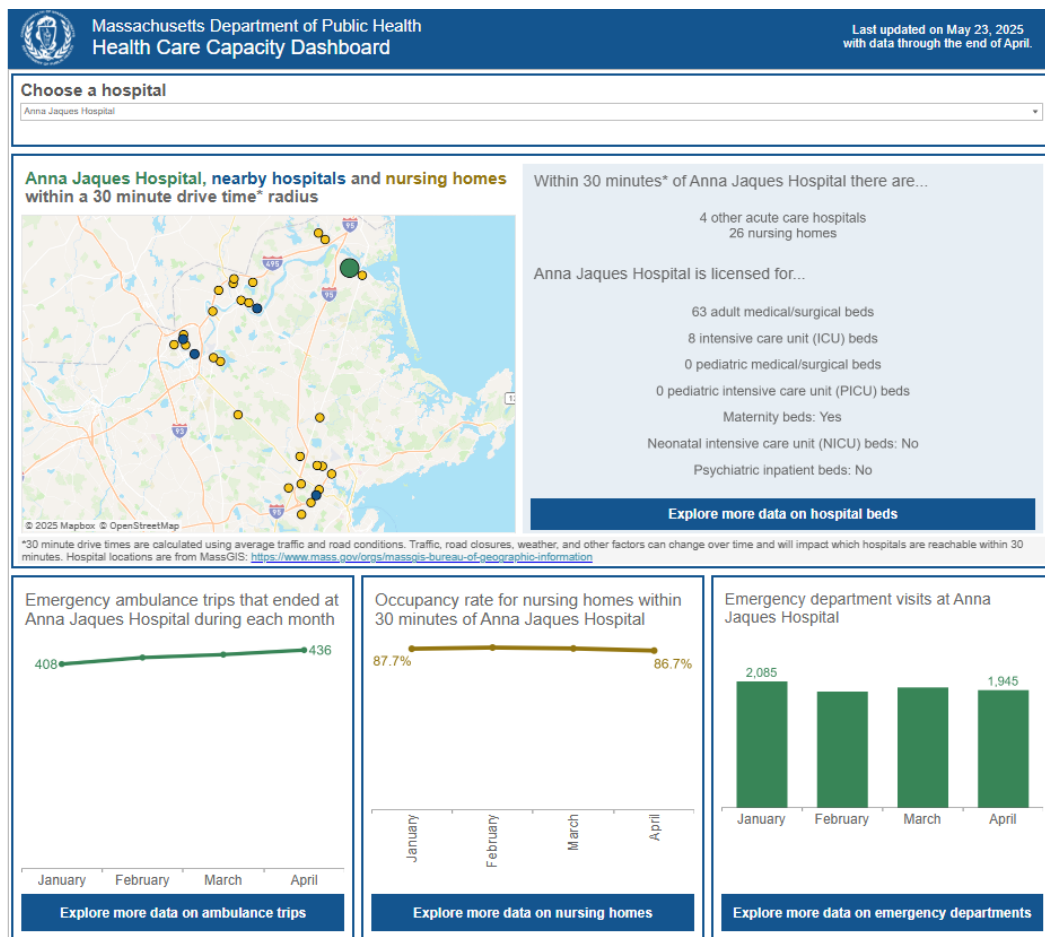
At a previous webinar, data users had questions about hospital beds. The Massachusetts Department of Public Health has an innovative, interactive dashboard which enables monitoring the full continuum of care, from prehospital emergency ambulance utilization to inpatient hospital destinations and surrounding nursing facility bed availability. This data-driven tool enables users to conduct geographic analyses of licensed bed availability type, emergency department utilization, and surrounding nursing home occupied and bed availability. One of the many analytic utilities of the dashboard lies in supporting dynamic, user selected views of resource availability across the healthcare infrastructure.

Key Attributes of Interactive Dashboard

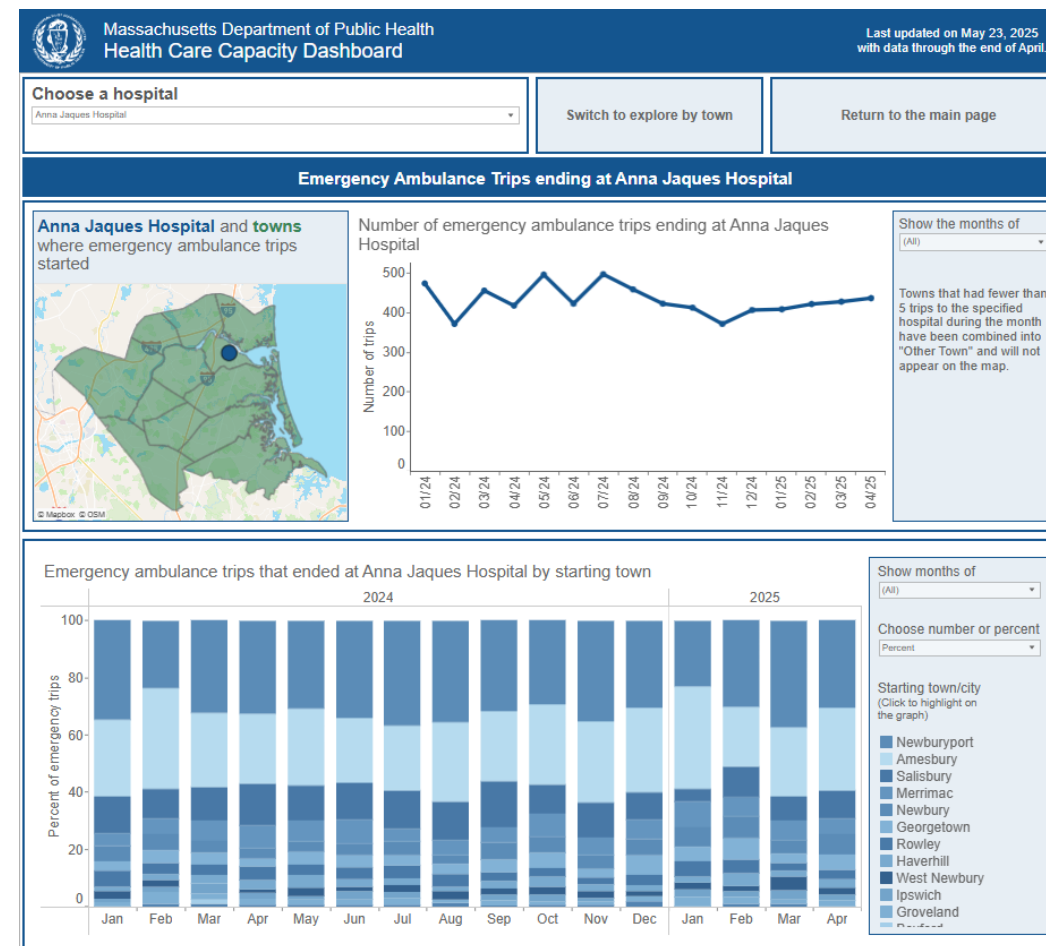
- The inpatient beds page shows a graph of beds broken down by the type of care provided: adult medical/surgical, adult intensive care unit (ICU), pediatric medical/surgical, and pediatric intensive care unit. It also shows a chart of average daily occupied medical/surgical beds by month and compares the yearly average with the previous year at the selected hospital and compared to hospitals within a 30-minute drive time radius.
- The ambulance trip page shows the number of emergency ambulance trips by destination hospital or starting community.
- The nursing home page shows the average occupied and available beds at nursing homes with a 30-minute drive time of the selected hospital. Users can browse through the nursing homes, filter to display nursing homes by the CMS star rating, and display metrics such as average residents per day, occupancy rates, and staffing measures.
- The emergency department page shows the number of ED visits at your chosen hospital and a chart of ED visits year over year by month compared to hospitals within a 30-minute drive time radius.

MDPH's Health Care Capacity Interactive Dashboard

Available at: <https://www.mass.gov/info-details/health-care-capacity-interactive-dashboard>



Only Massachusetts acute care hospitals and licensed skilled nursing facilities are included in this dashboard. Acute care hospitals are defined as those licensed under MGL Chapter 111, section 51 and which contain a majority of medical-surgical, pediatric, obstetric, and maternity beds. Hospitals that are closed are not included, but hospitals that are temporarily closed with plans to reopen are included. Sources: Division of Health Care Facility Licensure and Certification, Bureau of Infectious Disease and Laboratory - Syndromic Surveillance Program, Ambulance Trip Registry Information System, and the National Healthcare Safety Network. Created by the Massachusetts Department of Public Health, Office of Health Care Strategy and Planning.



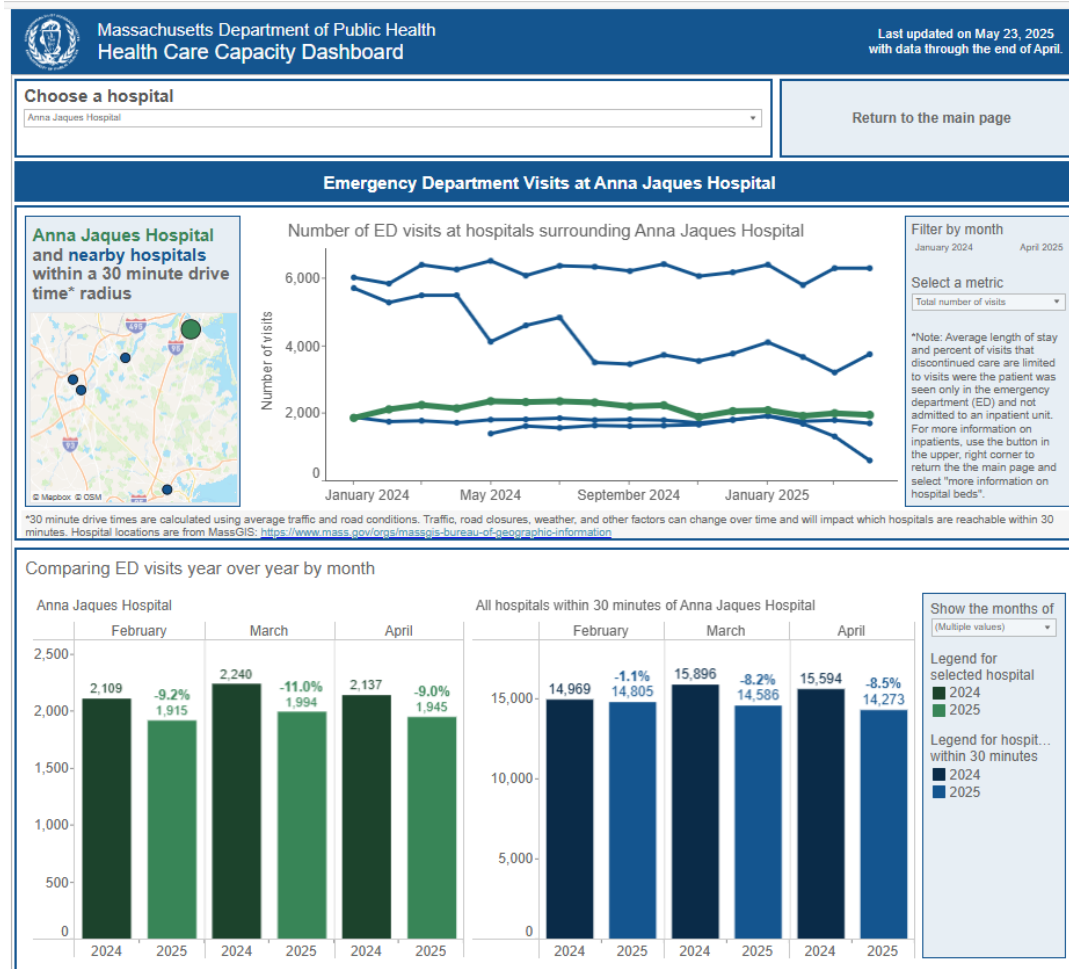
Towns that had fewer than 5 runs to the specified hospital during the month have been combined into "Other Town"

Source: Massachusetts Ambulance Trip Record Information System (MATRIS). Learn more at: <https://www.mass.gov/info-details/massachusetts-ambulance-trip-record-information-system-matris>

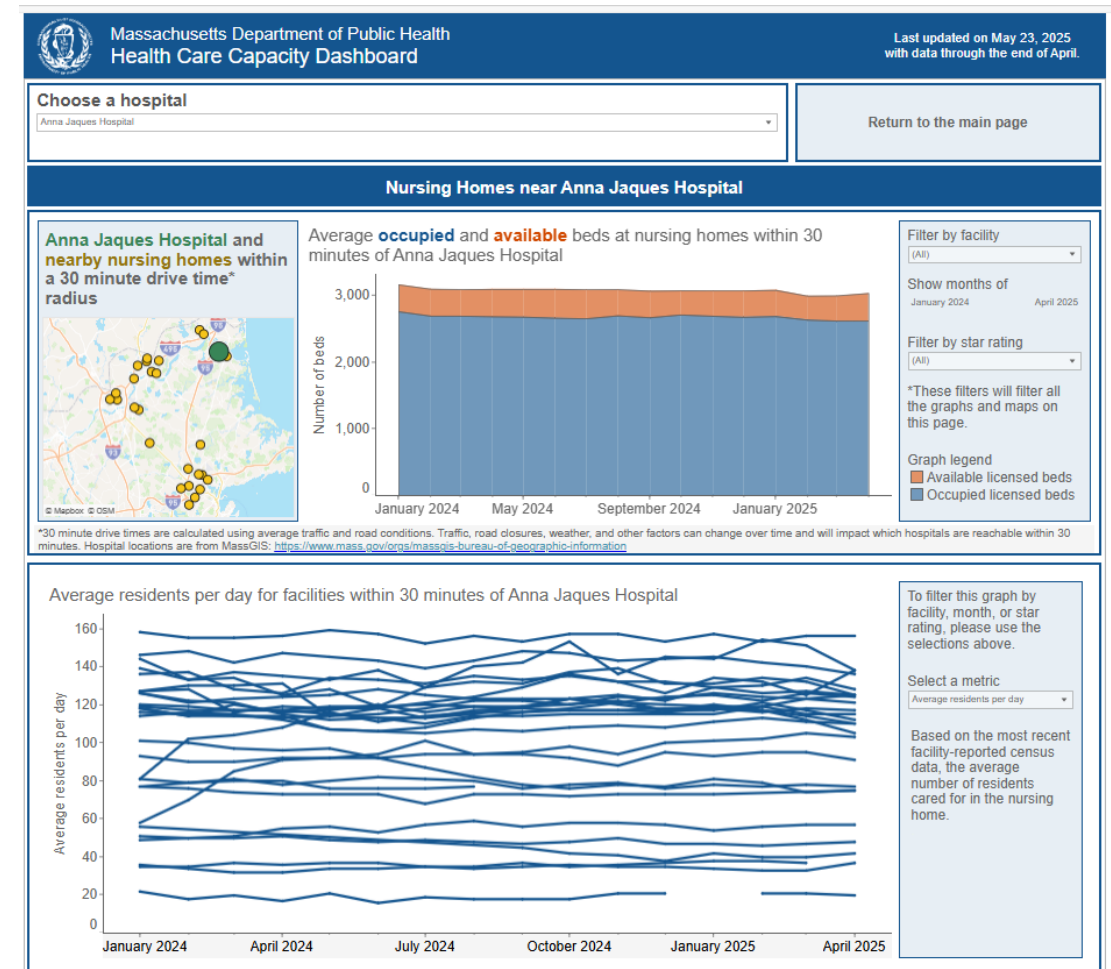
Created by the Massachusetts Department of Public Health, Office of Health Care Strategy and Planning

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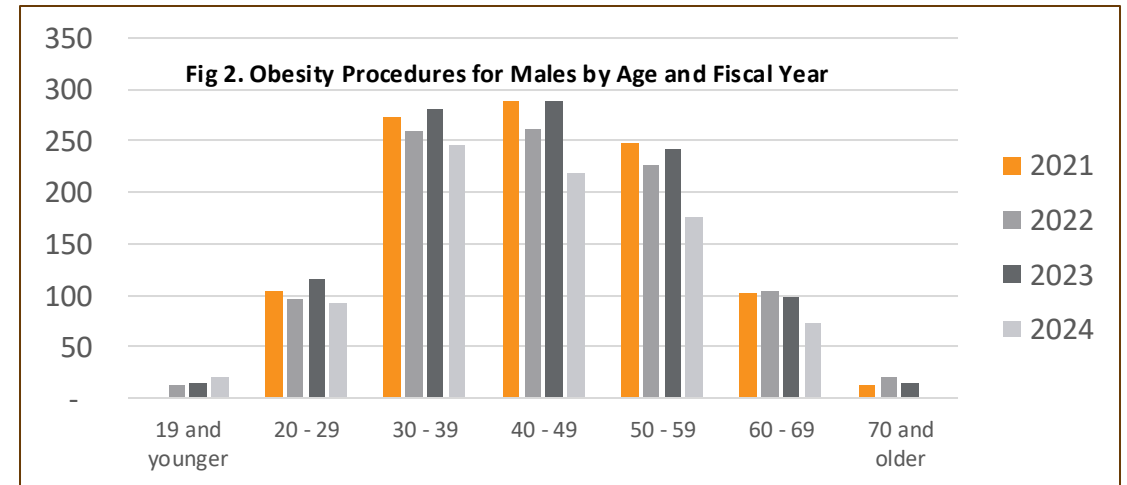
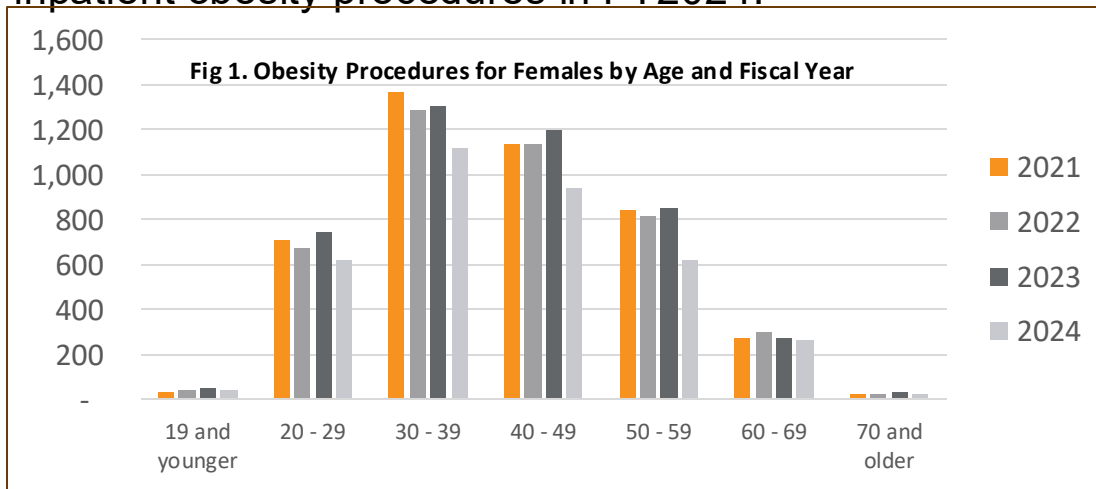
Nursing homes with fewer than 5 average residents per month have been suppressed. Source: Centers for Medicare and Medicaid, Payroll Based Daily Nurse Staffing and COVID-19 Nursing Home Data Facilities self-report metrics directly to CMS. Learn more at: <https://data.cms.gov/quality-of-care/payroll-based-journal-daily-nurse-staffing> and <https://data.cms.gov/covid-19/covid-19-nursing-home-data>. For the full list of data citations and data notes, download the data file using the button above. Created by the Massachusetts Department of Public Health, Office of Health Care Strategy and Planning.

Data User Support Questions

Question: I am applying for the Massachusetts All-Payer Claims Database (MA APCD) to analyze the increased utilization of glucagon-like peptide-1 receptor agonists, such as semaglutide, marketed under the brand names Ozempic and Wegovy for obesity reduction. Is there any indication in the case mix hospital inpatient discharge data (HIDD) that there has been a reduction in surgical weight loss procedures?



Answer: Unlike the MAAPCD, HIDD has a more complete scope of payer types, including fully out-of-pocket self-pay, employer self-insured claims, and Medicare fee-for-service. As such, HIDD provides a more representative count of inpatient obesity surgeries. The newly released FY2024 HIDD indicates a marked decline in inpatient weight loss procedures across all adult age groups, with the sole exception of patients aged 19 and younger. Among females, the most pronounced reduction from FY2021 to FY2024 occurred in the 50–59 age group, which experienced a 26.2% decline in procedural volume (see Figure 1). Among males, the greatest relative decrease, 29.1%, was observed in the 60–69 age group (see Figure 2). Although male procedure volumes remain comparatively low, the 19-and-younger male age group demonstrated the most significant increase, rising from a suppressed count (fewer than 11 procedures in FY2021) to 20 inpatient obesity procedures in FY2024.



Question: As part of my study of morbid obesity, I am analyzing disruptions in social life, such as caregiver burdens, interpersonal conflicts, and household stressors that might manifest within medical claims data for both the primary beneficiary and their associated caregivers and family. To support this analysis, is there evidence that providers are submitting claims for social life disruption and support system-related challenges?



Answer: Because approximately 85% of the medical claims MA APCD are for outpatient care, more than case mix, the MA APCD is the most suitable source for analyzing outpatient counseling utilization associated with social life disruption diagnosis codes, which are typically addressed in ambulatory behavioral health and primary care settings. For example, the MA APCD captures telehealth counseling, primary care office counseling, group and family therapy sessions occurring in behavioral health clinics. Some but not all the codes for social life disruption to explore in the MA APCD are listed below.

DX Code	Social Life Disruption Code Description	Example Use Case
Z63.0	Problems in relationship with spouse or partner	Patient reporting ongoing marital conflicts affecting mental health
Z63.1	Problems in relationship with in-laws	Tension in household due to conflicts with in-laws
Z63.5	Disruption of family by separation or divorce	Recent separation resulting in emotional and housing instability
Z63.6	Dependent relative needing care at home	Caregiver burden due to aging parent with dementia
Z63.7	Other stressful life events affecting family and household	Job loss or death in family causing strain in household
Z63.72	Alcoholism and drug addiction in family	Substance abuse by sibling leading to home disruption
Z63.79	Other stressful life events	Multiple familial stressors not classified elsewhere
Z60.0	Problems of adjustment to life-cycle transitions	Retirement or children leaving home causing identity crisis
Z60.2	Problems related to living alone	Feelings of isolation after spouse's death
Z60.3	Acculturation difficulty	Immigrant patient facing difficulties adjusting to new culture
Z60.4	Social exclusion and rejection	Teen facing bullying and exclusion at school
Z60.5	Target of (perceived) adverse discrimination and persecution	Patient believes they are treated unfairly due to background
Z60.8	Other problems related to social environment	Combination of stressors from social setting not otherwise specified
Z65.8	Other specified problems related to psychosocial circumstances	Catch-all for complex social disruptions impacting care

Question: I am preparing a data request for the MA APCD and Case Mix datasets to examine the use of safety devices, such as seat belts, helmets, airbags, and life jackets, among pediatric patients (ages 21 and younger) who experience traumatic injuries. Could you please confirm whether these datasets include structured data fields or diagnosis/external cause codes that capture safety device utilization at the time of injury, and if so, specify where such information is typically recorded?

Safety Device Coding



Answer: Both CHIA's MAAPCD and Case Mix datasets include safety device indicators in associated and external cause diagnosis codes; however, these indicators are limited in scope and dependent on accurate and complete coding at the **point of billing**. **See Table 1 below.** In contrast, the Massachusetts Department of Public Health's Erwin Hirsch Trauma Registry offers a more clinically and analytically robust resource for evaluating traumatic injuries, particularly with respect to safety device utilization and contextual injury factors. See: <https://www.mass.gov/trauma-services-in-massachusetts> The Trauma Registry collects a rich set of clinically abstracted fields that go well beyond what is available in claims data. These include precise injury date, work-relatedness, detailed alcohol and drug screening results, and granular blood alcohol concentration (ETOH/BAC Level) data points critical for temporal and behavioral analyses. Most notably, the registry captures multiple layers of injury mechanism coding (primary, secondary, and tertiary ICD-10 external cause codes), along with a dedicated location of injury field (ICD-10 Location Code), enabling more nuanced stratification of injury scenarios.

Furthermore, the registry explicitly records whether safety devices were used, through fields such as Protective Device Equipment, Protective Devices, Restraint 1 & 2, offering clarity that is often lacking or obscured in billing datasets. Coupled with occupation and industry data fields, vital signs, the registry supports advanced injury surveillance, population risk profiling, and policy-relevant injury prevention research, this level of clinical analyses that are not fully feasible using APCD or Case Mix data alone.

Table 1. Safety Device Coding Description	
DX Codes	
V40.4XXA	Car occupant injured in collision, seat belt used, initial encounter
V47.5XXA	Driver of agricultural vehicle injured, seat belt used, initial encounter
V49.40XA	Car occupant injured in unspecified accident; seat belt use unspecified
V90.2XXA	Drowning from merchant ship fall, wearing flotation device
V90.7XXA	Drowning from other watercraft, wearing flotation device
V90.8XXA	Drowning from specified water transport, wearing flotation device
V20.4XXA	Motorcycle rider injured, wearing helmet, initial encounter
V27.4XXA	Powered two-wheeler rider injured, helmet used, initial encounter
V28.4XXA	Three-wheeled vehicle occupant injured, helmet used, initial encounter
V40.5XXA	Car occupant injured, airbag deployed, initial encounter

Answer: For water incidents that involve the United States Coast Guard, the Coast Guard has a **MISSILE file**, short for **Marine Information for Safety and Law Enforcement**, which is a centralized data system used by the Coast Guard to log marine incidents, including search and rescue (SAR) missions such as retrieval of drowning victims. When the Coast Guard retrieves a drowning victim, the MISSILE file typically includes a structured record containing operational, situational, and demographic data relevant to the incident. This data is collected for operational accountability, safety analysis, and legal reporting. While MISSILE is not a public-facing system, portions of the data may be shared with the National SAR Database, state government data users and municipal agencies, medical examiners, and are sometimes non-government FOIA-accessible in redacted form. Some key unredacted data elements may include:

Safety Device Coding



- Incident type (e.g., person in water, drowning, body recovery)
- Location (latitude/longitude, water body, shoreline markers)
- Life jacket worn? (Y/N)
- Medical condition upon retrieval (e.g., unresponsive, deceased)
- Presumed cause of drowning (e.g., boating accident, fall overboard, suicide, unknown)
- Responding Coast Guard units (vessel/aircraft ID)
- Search patterns used (e.g., expanding square, parallel sweep)
- Duration of search
- Environmental conditions (e.g., sea state, weather, water temperature)
- Use of technology (FLIR, sonar, drones, etc.)
- Body found/recovered?
- Time and location of recovery
- Transported to (hospital, morgue, shore)
- Pronounced dead by (authority)
- Agencies notified or involved (e.g., local police, ME/C, DHS)
- Suspected foul play?
- Drug/alcohol use suspected or confirmed

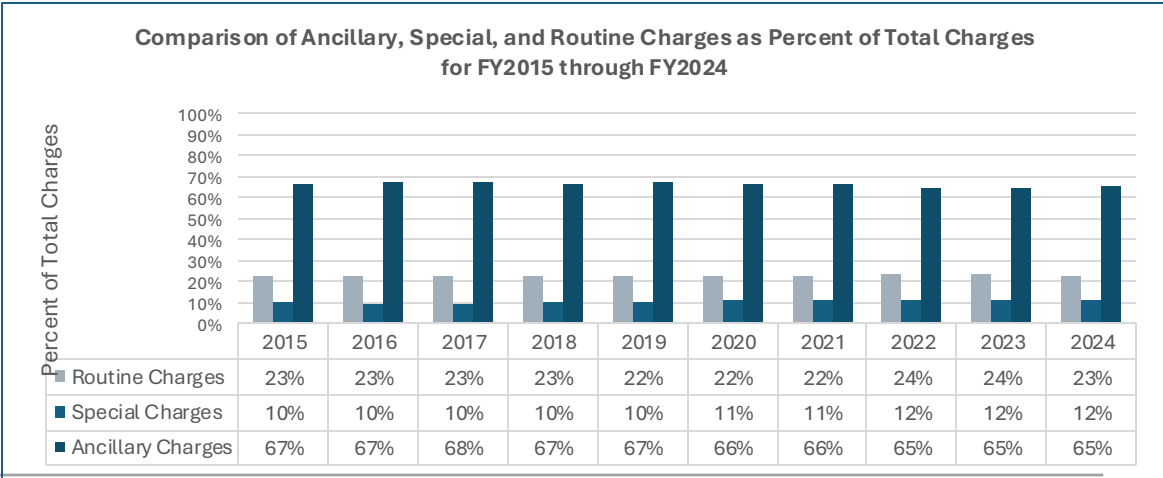


Question: I have been analyzing HIDD obtained from AHRQ HCUP and observed a notable increase in the proportion of total hospital charges attributed to "special charges" between FY2019 and FY2020 suggesting a possible shift in billing practices or an increase in the use of high-cost, non-routine services. I am now considering applying for FY2024 HIDD directly from CHIA and would like to determine whether this upward trend in the proportion of special charges has persisted in more recent data available through the state’s discharge dataset.



Answer: Yes, from 2015 to 2024, the **proportion of total hospital charges** attributed to special charges increased from 9.95% to 11.67%, representing a 1.72 percentage point rise, indicating a gradual shift toward higher utilization or billing of non-routine, special services in inpatient care. The HIDD main discharge table contains four charge fields: routine charges, special charges, ancillary charges, and all total charges. Consistently each year, ancillary charges constitute the highest proportion of the total charges. CMS defines ancillary charges as, “professional services by a hospital or other inpatient health program. These may include x-ray, drug, laboratory, or other services.” CMS defines routine charges as, “services included by the provider in a daily service charge, sometimes referred to as the "Room and Board" charge. They include the regular room, dietary and nursing services, minor medical and surgical supplies, medical social services, psychiatric social service.” Each year over 90% of special care charges are for different levels of intensive care utilization, including newborn ICU.

Year	Routine Charges	Special Charges	Ancillary Charges	Total Charges
2024	\$8,432,460,933	\$4,258,380,600	\$23,803,209,156	\$36,494,050,689
2023	\$7,985,564,477	\$3,983,958,532	\$22,031,604,707	\$34,001,127,716
2022	\$7,524,609,037	\$3,716,610,210	\$20,819,608,836	\$32,060,828,083
2021	\$6,966,170,484	\$3,489,491,835	\$20,586,910,261	\$31,042,572,580
2020	\$6,419,739,353	\$3,215,372,990	\$19,017,940,841	\$28,653,053,184
2019	\$6,539,530,884	\$3,016,068,410	\$19,674,237,567	\$29,229,836,861
2018	\$6,229,745,403	\$2,809,882,244	\$18,280,449,080	\$27,320,076,727
2017	\$5,887,655,148	\$2,479,900,849	\$17,405,752,503	\$25,773,308,500
2016	\$5,664,763,025	\$2,389,925,727	\$16,600,712,637	\$24,655,401,389
2015	\$5,254,785,399	\$2,260,491,102	\$15,192,788,916	\$22,708,065,417



When is the next Data User Group meeting?

- The next User Group will meet Tuesday, June 24, 2025.
- <http://www.chiamass.gov/ma-apcd-and-case-mix-user-workgroup-information/>

Questions?

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