MA Center for Health Information & Analysis

Case Mix User Workgroup

October 23, 2018

Agenda

- **Announcements**
    - Updates on FY17 Case Mix Data Release
    - Updates to Prior Releases (FY2015-2017)
- **Additional Info on Summarized Data Reports**
- **User Questions:**
    - ✓ Race Count by Encrypted UHIN
    - ✓ Injury Codes for Bite Wounds
- **Website Updates**
- **Q&A**

Case Mix FY17 Release Calendar

CURRENT RELEASE TIMEFRAMES FOR EACH FILE:

- Inpatient (HIDD)

    JUNE [Fixed and Completed]

- Emergency Department (ED)

    MID NOVEMBER

- Outpatient Observation (OOD)

    LATE NOVEMBER

Updates to Prior Releases

- **FY2015** - One hospital has resubmitted data due to approximately 3400 missing birth discharges.

    READY THIS WEEK

- **FY2016** – Two hospitals resubmitted data to include approximately 700 missing behavioral health inpatient discharges.

    FIXED

- **FY2017** – (A) One hospital had a data conversion issue, where Zip Code was reported as '00000' for approximately 5400 discharges. The data was resubmitted; (B) An anomaly was discovered in the Payer Source Code and Payer Type Code data where values were erroneously removed from the released data. This is being corrected.

    IN PROCESS OF FIXING REMAINING FILES

Case Mix FY17 Data Release

CHIA.

REPEAT APPLICANTS

- For those applicants with previously approved projects who indicated they would like to receive data annually, we began accepting **Certificates of Continued Need and Compliance** (Exhibit B of your DUA) starting on **May 1st**.

- After receiving this, we will send you an invoice for the FY17 data and release data to you once payment is received and the data is ready

- If you are making any changes to your project, you must go through the amendment process first

Case Mix FY17 Data Release

NEW APPLICANTS / NEW PROJECTS

- We will continue to accept new applications on a rolling basis.
- If you are requesting FY17 data, just click the box for "Subscription" on p. 3 of the application form:

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. Specify below the dataset(s) and year(s) of data requested for this Project, and your justification for requesting *each* dataset. Data prior to 2004 is not available.

☐ Hospital Inpatient Discharge Data
☐2004 ☐2005 ☐2006 ☐2007 ☐2008 ☐2009 ☐2010 ☐2011 ☐2012 ☐2013 ☐2014 ☐2015 ☐ 2016
Describe how your research objectives require Inpatient Discharge data:

QUESTIONS?

Summarized Data Reports

- CHIA has updated our [Data Release Regulations](#) to allow for *Summarized Data Reports*

- Will contain only aggregate data (data summaries) and De-identified Data, sourced from MA APCD and Case Mix data

  - Examples of Summarized Data Reports include: counts; totals; rates per thousand; index values; and other standardized metrics.

  - Will be subject to CHIA's cell suppression policy (no cell less than 11 will be displayed)

- Request form can be found on the MA APCD Application Documents page: http://www.chiamass.gov/application-documents

Summarized Data Reports

- In determining whether to compile such a report, CHIA will consider the **public interest served**, the **availability of its resources**, the **complexity** of the request, and **privacy concerns** (i.e. that there is no more than a minimal risk to individual privacy in the public release of the report)

- Submit the request via the new form – please provide as much information as you can, including mock-ups of what you expect the reports to look like

  o   Data Use Agreement and Data Management Plan not required

- The Executive Director (or his/her designee) will approve or deny such requests. Such approval/denial is final and not subject to further review or appeal.

- A support/production fee of $140/hour will be charged

What goes into creating a report?

Summarized Data Reports take, on average, **10 hours** of CHIA resource time to complete.

Steps include:

1) Initial review to determine feasibility and spot potential issues

2) Additional review and revisions with applicant to determine final specifications

3) Final review and Approval to proceed with the report request

4) Create documentation, including code, on steps to complete request

5) Independent code review and QA of results

6) Create documentation for the recipient

7) Produce final cut of data / report results

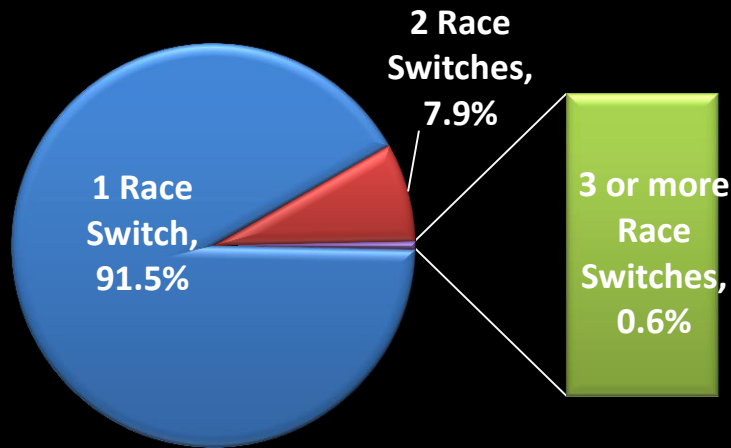# Most Common Issues When Applying for Summarized Report Data from CHIA

- Data requested on application does not match data columns in report template
- Data requested from Case Mix or MA APCD do not exist (remember to check online documentation)
- Data requested from Case Mix only exists in MA APCD
- Data requested from MA APCD only exists in Case Mix
- Codes (ICD-9-CM, ICD-10-CM, HCPCS, CPT, NDC, etc.) are not provided to determine the specifications for report
- Applicants requesting geographic aggregation stratify by a high number of covariates requiring extensive cell suppression
- Data is requested by non-government researcher that is only available to government researchers
- Applicant is not available for technical teleconference for application and report revisions
- Applicant is available for technical teleconference, but forgets to make revisions afterwards

Question: I am calculating discharge rates by Race1 using two years of inpatient hospital discharge data. I noticed several instances where a patient's unique encrypted UHIN was associated with a different Race1. Do patients switch the race they report frequently in the inpatient hospital discharge data?

RACE

Answer: *No, the race does not frequently switch for patients who are admitted for inpatient care. As a test, we evaluated the reporting of Race1 data over a 10 year period (**from FY2008 through FY2017**) for 6.85 million inpatient discharge records with a valid encrypted UHIN. The 6.85 million hospitalizations represented 2,523,202 distinct UHINs with only 4.4% (i.e. 111,187 patients over a 10 year period) switching race on readmission. Of the 111,187 patients who switched race, 65,098 switched between "UNKNOWN" and a known race. Please note, the switching between races did not always constitute a single switch to a different race, but 8.5% switched more than once. In Figure 1 below, you will see that while the largest proportion of patients (91.5%) switched race once, 7.9% switched race twice and 0.6% switch race 3 times or more.*

Figure 1. The Frequency of Race Switching for the 4% of Patients who Switched Race of a 10-year Period

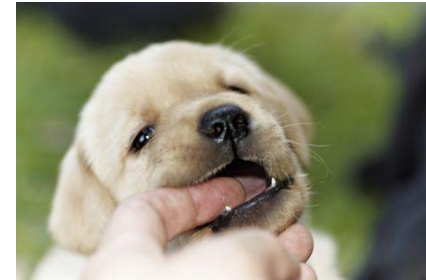
Imputing Race for Unknowns

Some researchers conducting longitudinal research requiring race calculations, when finding instances where an encrypted UHIN has race UNKNOWN/blank, determine if the UNKNOWN/blank race encrypted UHIN has ever switched from or to a known race. If there has been switching and the known race has a higher frequency (reported 10 times) than the UNKNOWN/blank race (reported 1 time) then they will impute race to the UNKNOWN from the known race.

Question: *I am in the process of applying for NIH grant to use the Case Mix data to conduct pediatric injury surveillance. ICD-10-CM expanded the number of cause diagnosis codes related to injury wounds from bites and I want to be able to provide information in my grant narrative on whether hospitals are using the full range of bite related codes.*

Answer: *Yes, the hospitals appear to be using the full range of the ICD-10-CM bite codes. We looked at the outpatient emergency department data (ED) for FY2016 to determine the extent to which bite codes were being used and **for one year alone, 444 different ICD-10-CM bite codes were for used** for over 30,000 bite related ED visits. The codes include bite related **W-Codes (See Table 1 below)** and extensive use of **S-Codes.***

Table 1. FY2016 Outpatient ED Visit Top ICD-10-CM W-Codes related to Bites

ICD-10-CM Code	Full Description	Rank
W57XXXA	Bitten or stung by nonvenomous insect and other nonvenomous arthropods, initial encounter	1
W540XXA	Bitten by dog, initial encounter	2
W5501XA	Bitten by cat, initial encounter	3
W540XXD	Bitten by dog, subsequent encounter	4
W5501XD	Bitten by cat, subsequent encounter	5
W5581XA	Bitten by other mammals, initial encounter	6
W5321XA	Bitten by squirrel, initial encounter	7
W5381XA	Bitten by other rodent, initial encounter	8
W57XXXD	Bitten or stung by nonvenomous insect and other nonvenomous arthropods, subsequent encounter	9
W5311XA	Bitten by rat, initial encounter	10
W5301XA	Bitten by mouse, initial encounter	11
W5551XA	Bitten by raccoon, initial encounter	12
W5511XA	Bitten by horse, initial encounter	13
W5541XA	Bitten by pig, initial encounter	14
W6101XA	Bitten by parrot, initial encounter	15
W5651XA	Bitten by other fish, initial encounter	16
W6191XA	Bitten by other birds, initial encounter	17
W503XXD	Accidental bite by another person, subsequent encounter	18
W5541XD	Bitten by pig, subsequent encounter	19
W5581XD	Bitten by other mammals, subsequent encounter	20
W5531XA	Bitten by other hoof stock, initial encounter	21
W5911XA	Bitten by nonvenomous snake, initial encounter	22
W540XXS	Bitten by dog, sequela	23
W5501XS	Bitten by cat, sequela	24
W5551XD	Bitten by raccoon, subsequent encounter	25
W5681XA	Bitten by other nonvenomous marine animals, initial encounter	26
W5901XA	Bitten by nonvenomous lizards, initial encounter	27
W5301XD	Bitten by mouse, subsequent encounter	28
W6151XA	Bitten by goose, initial encounter	29

Where can I find old User Workgroup presentations?

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

CHIA Data » MA APCD » MA APCD and Case Mix User Workgroup Information

MA APCD and Case Mix User Workgroup Information

These webinar workgroups bring together users of CHIA's APCD and Case Mix data with CHIA's in-house experts to discuss analytical techniques, issues with the data, and quality of the data. CHIA also uses these webinars to make announcements regarding new data releases, enhancements, and features. Each meeting features a segment where CHIA staff answer common questions from data users and field live questions from webinar participants.

Please register for one or both of these separate registration links. All meetings take place on Tuesday afternoons at 3:00 p.m.

Case Mix Workgroup Meeting Dates	MA APCD Workgroup Meeting Dates
NEXT MEETING Tuesday, March 28, 2017 3:00 PM - 4:00 p.m.	**NEXT MEETING** Tuesday, April 25, 2017 3:00 PM - 4:00 p.m.
Case Mix Workgroup Registration	MA APCD Workgroup Registration

Previous MA APCD / Case Mix Meeting Materials

MA APCD Tuesday, February 28, 2017
- Presentation (PDF) | PPT

Case Mix Tuesday, January 24, 2017
- Presentation (PDF) | PPT

NEW! Updates to the User Workgroup Webpage

User Support slides and tutorials are now available to view and download separately from the presentations.

We will continue to update this page as new presentations happen from month to month.

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

USER SUPPORT APCD SLIDES:

- Enrollment Volumes in APCD 6.0 Post Gobeille April 2017 (PDF) | PPT
- How to Distinguish Inpatient from Outpatient APCD Claims April 2017 (PDF) | PPT
- Member PCP ID vs Attributed PCP ID June 2017 (PDF) | PPT
- Volume of MA Residents Claims in Other New England States June 2017 (PDF) | PPT
- Between File Linkages in the MA APCD Aug 2017 (PDF) | PPT
- Pharmaceutical Data in MA APCD vs Case Mix Jan 2018 (PDF) | PPT
- Financial Data in MA APCD vs Case Mix Jan 2018 (PDF) | PPT
- Alternative Medicine Claims in the MA APCD March 2018 (PDF) | PPT
- Hospice Claims in the MA APCD March 2018 (PDF) | PPT
- New Linking Variables in MA APCD Release 6.0 March 2018 (PDF) | PPT
- Blank Enrollment Dates Explanation ME042 May 2018 (PDF) | PPT

USER SUPPORT CASE MIX SLIDES:

- 3 Digit vs 5 Digit Population Counts in MA May 2017 (PDF) | PPT
- Difference Between Primary and Secondary Payer Type and Source May 2017 (PDF) | PPT
- Differences in Completeness of UHIN Data July 2017 (PDF) | PPT
- ICD 9 to ICD 10 Changes Sept 2017 (PDF) | PPT
- 3 Digit Zip Code Volume and Geographic Distribution Nov 2017 (PDF) | PPT
- History of Changes to Case Mix Data Nov 2017 (PDF) | PPT
- Diagnosis and Procedure Code Volume Post-ICD10 Switch June 2018 (PDF) | PPT

TUTORIALS

- What DRG versions are available in CHIA Inpatient Case Mix Data? (PDF)
- Baby Delivery Records – Which DRG is Best? (PDF)
- How to Count Patients Admitted from the ED in the HDD File (PDF)
- How to Determine if a Patient Died Using Case Mix (PDF)

Updated Case Mix White Paper

Our white paper containing an updated overview of the Case Mix data base was posted last June.

Available on the Case Mix website or via this link:
http://www.chiamass.gov/assets/Uploads/casemix/Case-Mix-Whitepaper.pdf

OVERVIEW OF THE MASSACHUSETTS
ACUTE HOSPITAL CASE MIX DATABASES

JUNE 2018

Questions?

- Questions related to APCD : (apcd.data@state.ma.us)

- Questions related to Case Mix: (casemix.data@state.ma.us)

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

Call for Topics and Presenters

If there is a **TOPIC** that you would like to see discussed at an MA APCD or Case Mix workgroup, contact Adam Tapply [adam.tapply@state.ma.us]

If you are interested in **PRESENTING** at an MA APCD or Case Mix workgroup, contact Adam Tapply [adam.tapply@state.ma.us]

> You can present remotely from your own office, or in-person at CHIA.