



# MA Center for Health Information & Analysis

## Case Mix User Workgroup

September 27, 2016

# Agenda

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- Announcements
  - Update on the status of Case Mix FY15 readiness
- Application Reminders
- CHIA Answers to User Questions
- Q&A

# Case Mix FY15 Release Update



- We are accepting applications for all FY15 Case Mix files now.  
\*CURRENT\* RELEASE TIMEFRAMES FOR EACH FILE:  
[Applies to Non-Gov't Requests Only]
  - Fixed Inpatient (HIDD) File with **5-digit zip codes** for “neighboring states”  
**END OF SEPTEMBER**
  - Emergency Department (ED) ready  
**END OF OCTOBER**
  - Outpatient Observation (OOD) ready  
**TBD**

# Case Mix FY15 Release Update

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- Apply for all files now and we will fulfill them as they become available.
- FY15 Case Mix data in LDS format
- FY04-FY14 available in old “Levels” format (can request on the same application form)
- FY15 Release Documentation should be posted soon

# Revised Application Forms



Posted here: <http://www.chiamass.gov/case-mix-application-documents/>

The screenshot shows the CHIA website interface. At the top left is the CHIA logo. To its right are navigation links: "HEALTH INFORMATION AND ANALYSIS", "CHIA DATA", and "ABOUT CHIA". A search bar is located in the top right corner. Below the navigation is a horizontal menu with five items: "MA APCD", "Case Mix Data", "Hospital and Other Provider Data", "Information for Data Submitters", and "Other Data". The "Case Mix Data" item is highlighted. Below the menu, the breadcrumb "CHIA Data » Case Mix Application Documents" is displayed. The main heading is "Case Mix Application Documents". Underneath, there is a section titled "Case Mix Fee Schedule Update" with a bullet point linking to "Administrative Bulletin 15-07: 957 CMR 5:00: Health Care Claims, Case Mix and Charge Data Release Procedures (PDF) | Word (Effective June 1, 2015)". This is followed by a section titled "Application Materials for Government Entities Requesting Case Mix Data:" with two bullet points: "Case Mix Application Form - Government Entities (PDF) | Word" and "Governmental Entity Data Use Agreement (PDF) | Word". Next is a section titled "Application Materials for Non-Government Entities Requesting Case Mix Data:" with four bullet points: "Fee Remittance or Fee Waiver Request Form (PDF) | Word", "Case Mix Request Form: Non-Government (PDF) | Word", "Data Management Plan with Minimum Security Requirements (PDF) | Word", and "Data Use Agreement (PDF) | Word". At the bottom, there is a "PLEASE NOTE:" section with a link to "Important Information for Non-Governmental Requests for APCD and Case Mix Data (PDF) | Word". A final note states: "Note: APCD application documents are located here."

# MA APCD Release 5.0

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## Timeline:

- Apply for data NOW – application forms are posted on the APCD website:  
<http://www.chiamass.gov/application-documents/>
- Data is ready for release now
- Release documentation (including full data specifications and release documentation) has been posted to the APCD website:  
<http://www.chiamass.gov/ma-apcd/>
- No change in fees or fee waiver provisions with this release

# Application Reminders

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1. Don't forget to upload CVs/Resumes for the "core project team" (even if you've previously been approved for data)
2. Don't forget to upload your Research Methodology
3. Don't forget to upload IRB documentation (even if it's been determined that you are not subject to IRB review)
4. If you're uploading new/revised forms after your initial submission, don't forget to re-lock your project so we know that new materials are ready for review



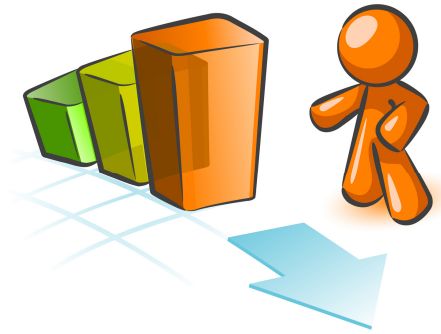
**QUESTIONS?**





# **QUESTIONS SUBMITTED BY USERS**

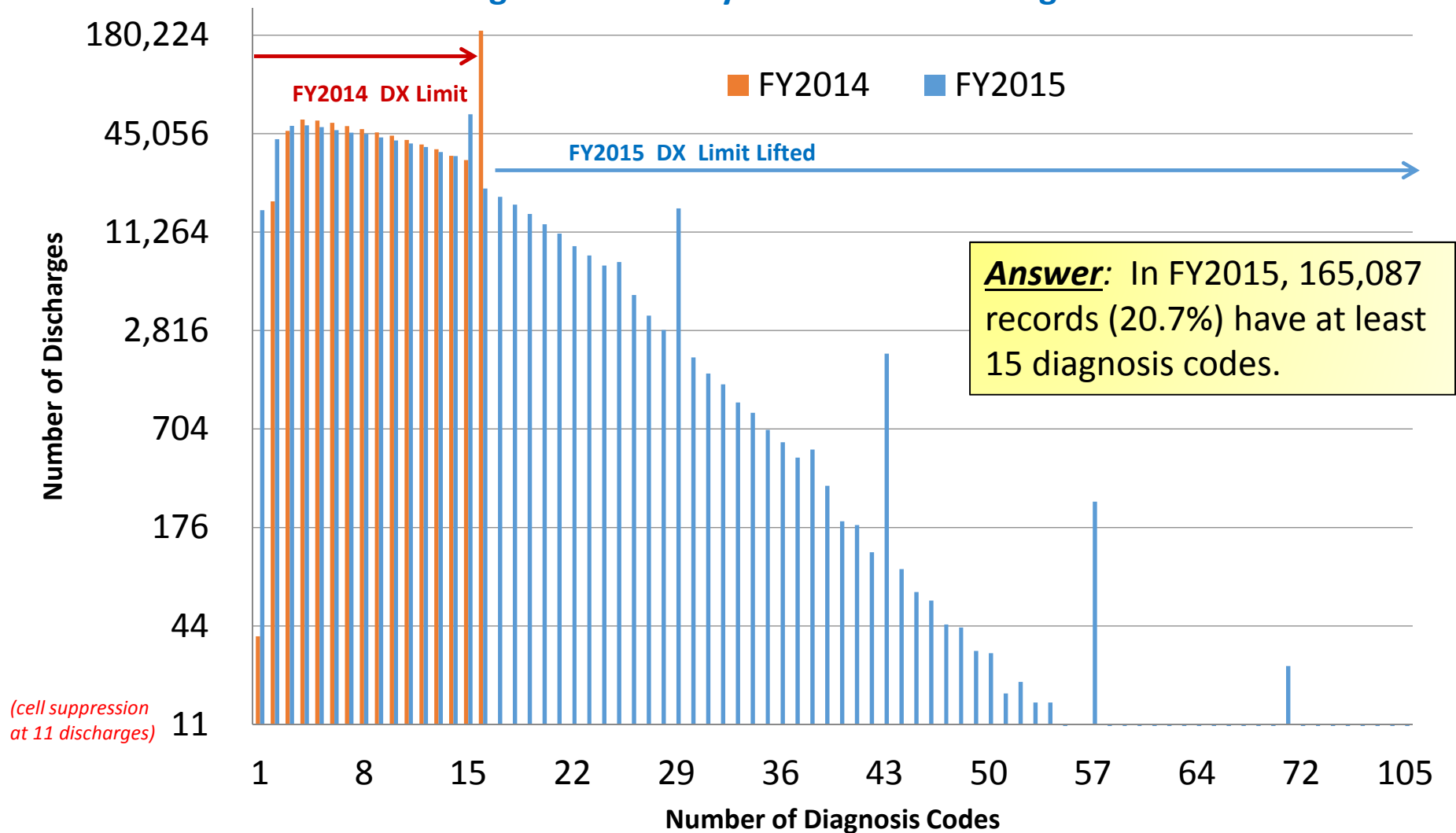
**Question:** Both CHIA and AHRQ HCUP State Inpatient Data Administrators have been asked whether the numeric order of associated diagnosis and procedure codes in Hospital Inpatient Discharge Data (HIDD) ranks medical relevancy?



**Answer:** Diagnosis and procedure codes hospitals collect in administrative data are primarily for billing based on the Centers for Medicare & Medicaid Services (**CMS**) and the [National Uniform Billing Committee](#) approved **UB-04 (also known as the CMS-1450)** claim form data elements. States have collected additional data elements not on the UB-04, such as race and ethnicity, to serve the needs of Government agencies and researchers. The Federal Agency for Health Research and Quality (AHRQ) has advised users of State HIDD that, unlike a clinical registry, no broad statement can be made about the **medical relevancy** of the ordering of billing data diagnosis codes for secondary use. Payers have specific billing rules which vary. For example, a Medicare rule in the use of diagnosis codes is that the sign/symptoms that prompt the ordering of diagnostic tests should be used in the absence of a diagnosis. Payers may also have specific types of code edits associated with **medical necessity** or changes in those edits associated with different payment models, such as bundled payments.

**Question:** In comparison to FY2014 HIDD, what percentage of discharge records in FY2015 of had 15 or more diagnosis codes?

**Comparison of FY2014 to FY2015 HIDD Distribution of the Number of Diagnosis Codes by Number of Discharges**

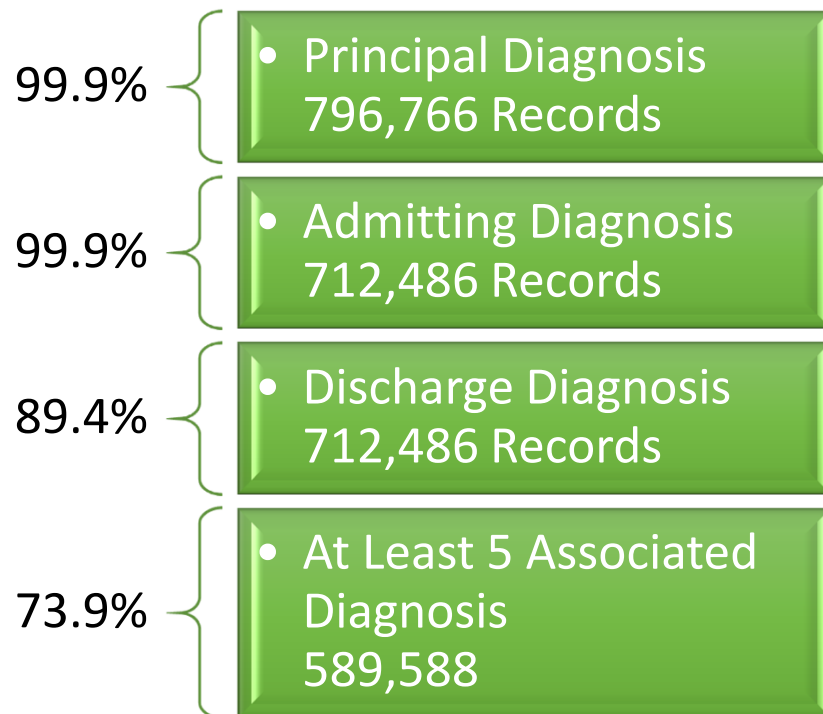


**Question:** FY2015 HIDD contains principal, admitting diagnosis and discharge diagnosis. Are these diagnosis fields populated for all records and are the diagnosis fields ever populated with the same diagnosis codes?

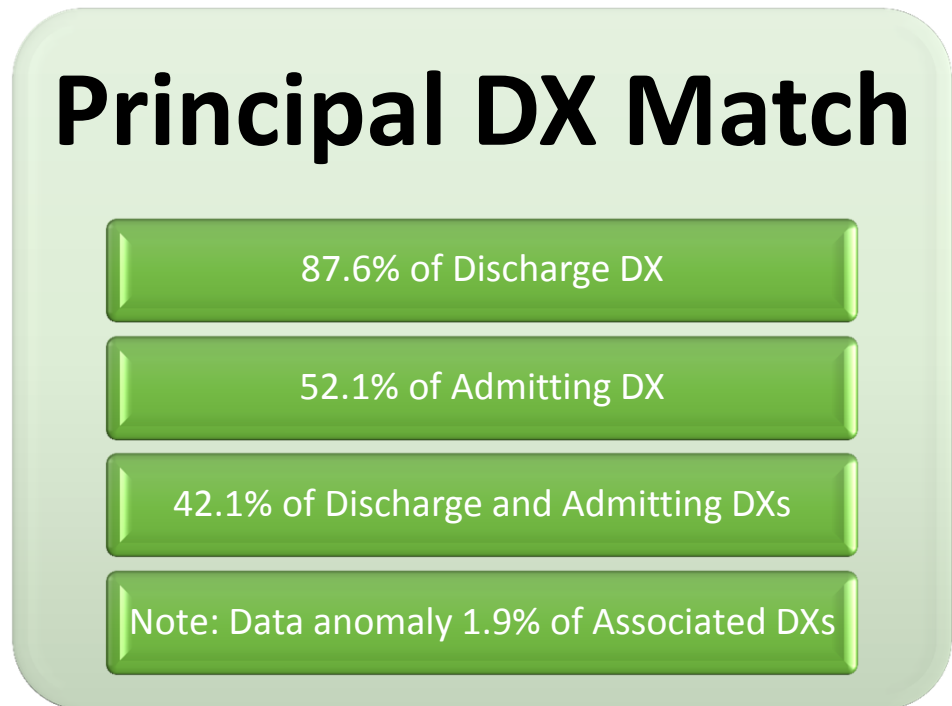


**Answer:** No, the fields are not populated for all records. The FY2015 HIDD contains 796,835 discharge records, 0.01% do not have a principal or admitting diagnosis and 10.6% do not have a discharge diagnosis. Yes, there are instances when the principal diagnosis field matches the other diagnosis fields with the highest match (87.6%) with the discharge diagnosis.

**Percent Completeness of Diagnosis Codes**



**Percent Match Between Principal DX and other DX Codes**



**Question:** With the lifting of the limit on diagnosis codes, did E-Code information increase on the types of activities performed while injured?



**Answer:** Yes, injuries of 792 different types of activities and mechanisms appear in the FY2015 data. Below is an example of how specific these activities are.

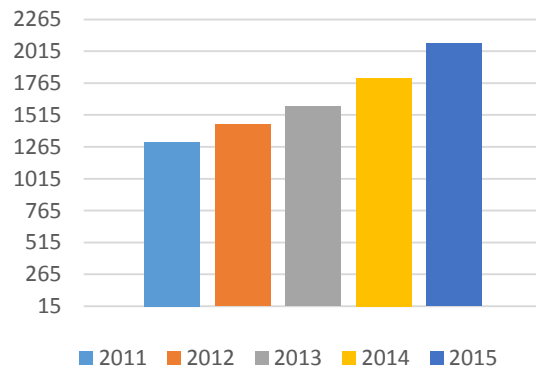
American flag or touch football	Racquet and hand sports	Rough housing and horseplay
American tackle football	Rappelling	Spectator at an event
Baseball	Residential relocation	Civilian activity done for income or pay
Basketball	Roller skating (inline) and skateboarding	Military activity
Bike riding	Rowing, canoeing, kayaking, rafting and tubing	Animal care
Bowling	Rugby	Climbing, rappelling and jumping off
Boxing	Running	Computer technology and electronic devices
Building and construction	Snow (alpine) (downhill) skiing, snowboarding	Other cooking and grilling
Cheerleading	Soccer	Dancing and other rhythmic movements
Climbing base jumping	Surfing, windsurfing and boogie boarding	External motion
Cooking and baking	Swimming	Ice and snow
Cross country skiing	Trampoline	Cardiorespiratory exercise
Digging, shoveling and raking	Underwater diving and snorkeling	Muscle strengthening exercises
Floor mopping and cleaning	Vacuuming	Sports and athletics played as a team or group
Food preparation and clean up	Walking an animal	Sports and athletics played individually
Frisbee	Walking, marching and hiking	Person providing caregiving
Gardening and landscaping	Water skiing and wake boarding	Property/land maintenance
Golf	Water sliding	Water and watercraft
Grilling and smoking food	Wrestling	External cause status
Grooming and shearing an animal	Yoga	Specified sports and athletics activities
Gymnastics	Aerobic and step exercise	Free weights
Horseback riding	Calisthenics	Other household maintenance
Ice hockey	Caregiving involving bathing	Other personal hygiene activity
Ice skating	Caregiving involving lifting	Pilates
Lacrosse and field hockey	Exercise machines for cardiorespiratory conditioning	Push-ups, pull-ups, sit-ups
Laundry	Exercise machines for muscle strengthening	Personal bathing and showering
Mountain/rock/wall climbing	Martial arts	Physical games generally associated with school recess

**Question:** After the Institute of Medicine Report on Dying in America, Medicare proposed paying providers for time spent counseling do-no-resuscitate (DNR) and palliative care patients. In FY2015, was any change seen in data on DNR and comfort care patients?

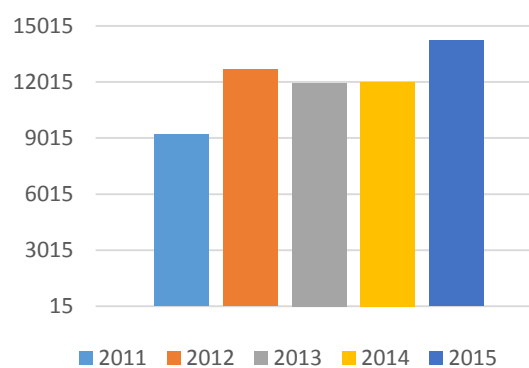


**Answer:** Yes, there was an 18.5% increase in use of the flag for DNR patients and 15% increase in comfort care patients. Also, the quality of data improved. Blanks decreased by 8% and confirmation that the patient did not have DNR or comfort care improved by 27%

Comfort Care Measures Only



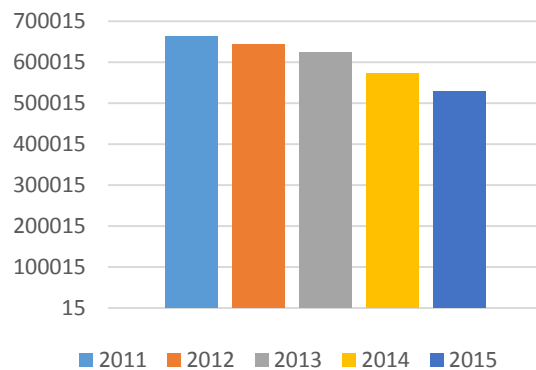
Do-Not-Resuscitate Order



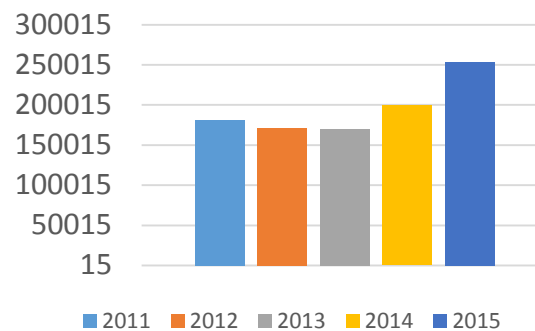
**Please Take Important Note**

The Flag fields (such as DNR status and Homelessness status) should not be used alone when there are also V-Codes to describe conditions and circumstances. For example, in FY2015, using V4986 you will find 60,387 distinct discharges (mostly Medicare patients) coded as Do Not Resuscitate.

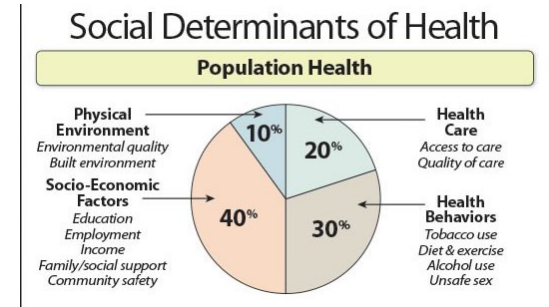
Decrease in Blanks



Increase in Confirming No DNR or Comfort Care



**Question:** Aside from gender, race/ethnicity, and ZIP Code, are there other data in the FY2015 that can be used to analyze the social determinants of health?



**Answer :** The lifting of diagnosis codes increased the availability of V-Codes related to the social determinants of health. Aside from child birth related codes and other medical conditions, below are some of the top V-Codes from men and women in FY2015 related to the social determinants of health.

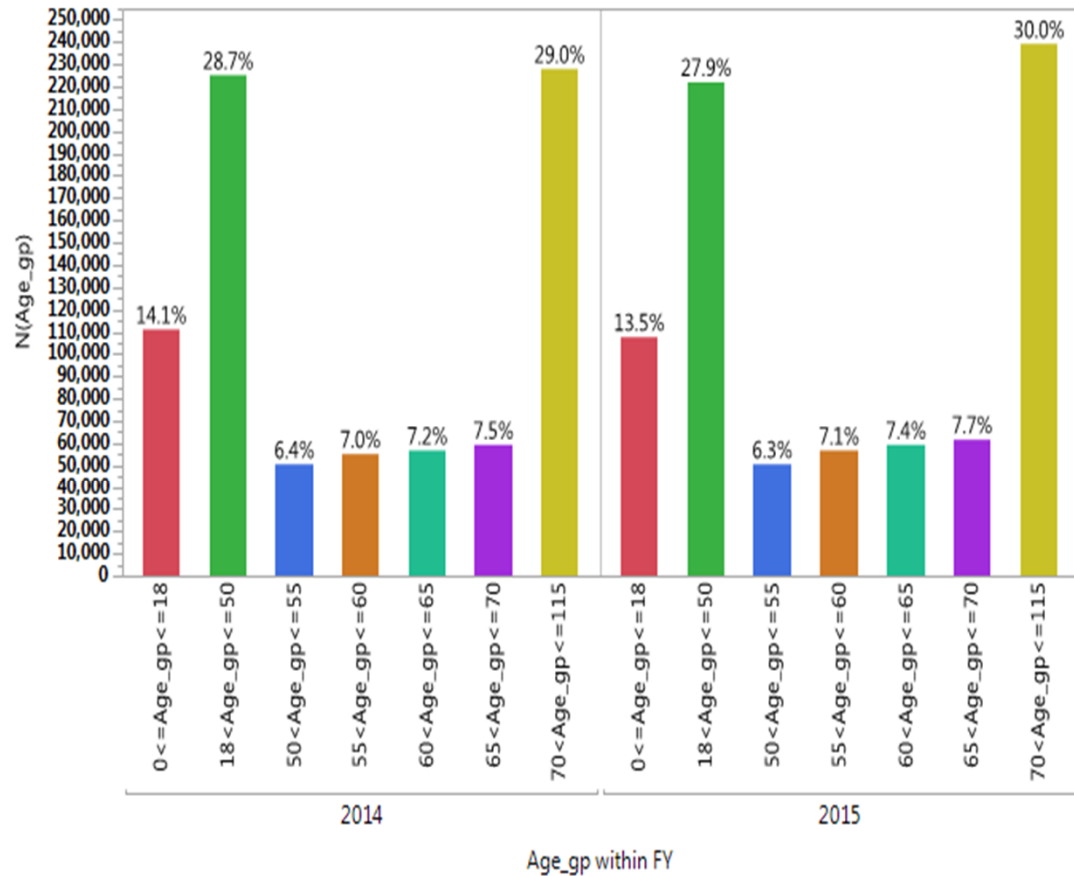
V- Code	Description	Females	Males
V1582	Personal history of tobacco use, presenting hazards to health	51234	59067
V4986	Do not resuscitate status	37231	25134
V6284	Suicidal ideation	10654	11388
V667	Encounter for palliative care	10283	9582
V8541	Body Mass Index 400-449, adult	10799	5930
V600	Lack of housing	3587	7846
V8542	Body Mass Index 450-499, adult	5728	2641
V620	Unemployment	2570	4157
V8543	Body Mass Index 500-599, adult	4288	2086
V603	Person living alone	3244	2146
V463	Wheelchair dependence	2544	2163
V8539	Body Mass Index 390-399, adult	1917	1167
V8530	Body Mass Index 300-309, adult	1530	1404
V8531	Body Mass Index 310-319, adult	1472	1388
V8525	Body Mass Index 290-299, adult	918	939
V4984	Bed confinement status	941	735
V8544	Body Mass Index 600-699, adult	989	536
V1584	Personal history of contact with and (suspected) exposure to asbestos	86	1133
V6285	Homicidal ideation	361	839
V1542	Personal history of emotional abuse, presenting hazards to health	794	372

**Question:** Was there a decrease in inpatient discharges by any specific age group?

**Answer:** The largest decrease was for the age group 18 years old and younger.

### Number of Discharges by Patients' Age Groups Comparison for FY 2014 (N=785,485) and FY 2015 (796,835)

FY	Age_gp	N
2014	0 <= Age_gp <= 18	110980
	18 < Age_gp <= 50	225091
	50 < Age_gp <= 55	50443
	55 < Age_gp <= 60	55176
	60 < Age_gp <= 65	56721
	65 < Age_gp <= 70	59169
	70 < Age_gp <= 115	227905
2015	0 <= Age_gp <= 18	107617
	18 < Age_gp <= 50	222073
	50 < Age_gp <= 55	50515
	55 < Age_gp <= 60	56650
	60 < Age_gp <= 65	59194
	65 < Age_gp <= 70	61642
	70 < Age_gp <= 115	239142



Age\_gp    0 <= Age\_gp <= 18    18 < Age\_gp <= 50    50 < Age\_gp <= 55    55 < Age\_gp <= 60    60 < Age\_gp <= 65    65 < Age\_gp <= 70    70 < Age\_gp <= 115



# Questions?

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- Questions related to APCD :  
([apcd.data@state.ma.us](mailto:apcd.data@state.ma.us))
- Questions related to Case Mix:  
([casemix.data@state.ma.us](mailto: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

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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](mailto: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](mailto:adam.tapply@state.ma.us)]

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