DEMOGRAPHIC DIFFERENCES IN MASSACHUSETTS ALL PAYER CLAIMS DATA (MA APCD) BEFORE AND AFTER GOBEILLE

Sylvia D. Hobbs, MPH, Anne Medinus, PhD

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CENTER FOR HEALTH INFORMATION AND ANALYSIS

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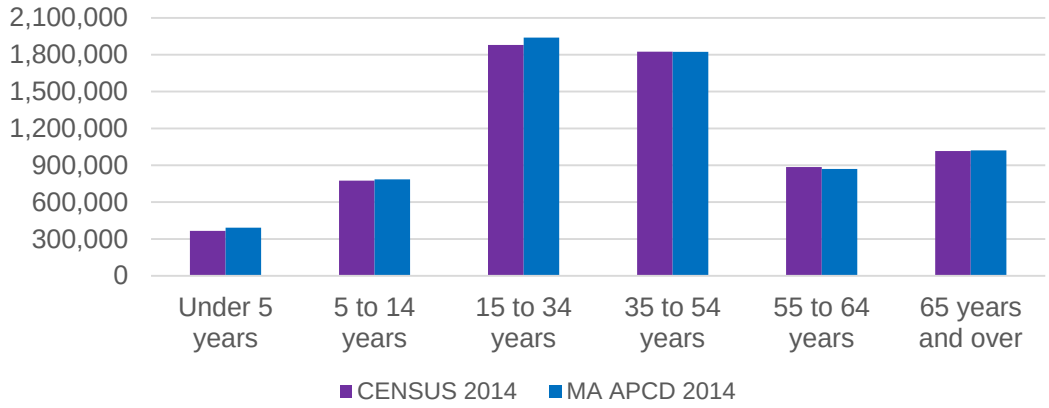
Population-Based Data and the MA APCD

Applicants for the MA APCD are generally aware of the well published preemptive effect the federal Employment Retirement Income and Security Act of 1974 (ERISA) which regulates employee benefit plans had in the ***Gobeille*** *v. Liberty Mutual* case wherein 2016 the U.S. Supreme Court's deemed ERISA superseded Vermont's APCD reporting requirement. As a consequence in Massachusetts, at the end of 2017, approximately 1.75 million self-insured beneficiaries (that is, 75% of the self-insured) were no longer in the MA APCD.

Prior to ***Gobeille***, a frequently stated scientific rationale by researchers applying for the MA APCD was that the MA 2006 Health Care Reform Law resulted in nearly 98% of MA residents having health insurance coverage, consequently the MA APCD represented a unique foundation for empirical research demographically representative of the entire population within the MA geographic boundaries. Indeed, as you can see in ***Figure 1***, there was a very close alignment between the MA Census 2014 population estimate and pre-Gobeille year 2014 MA APCD (both public and private) insurance beneficiaries by age group who were Massachusetts residents with medical coverage.

Figure 1. Close 2014 Pre-Gobeille Alignment between MA Census Estimate and MA APCD Population by Age Group



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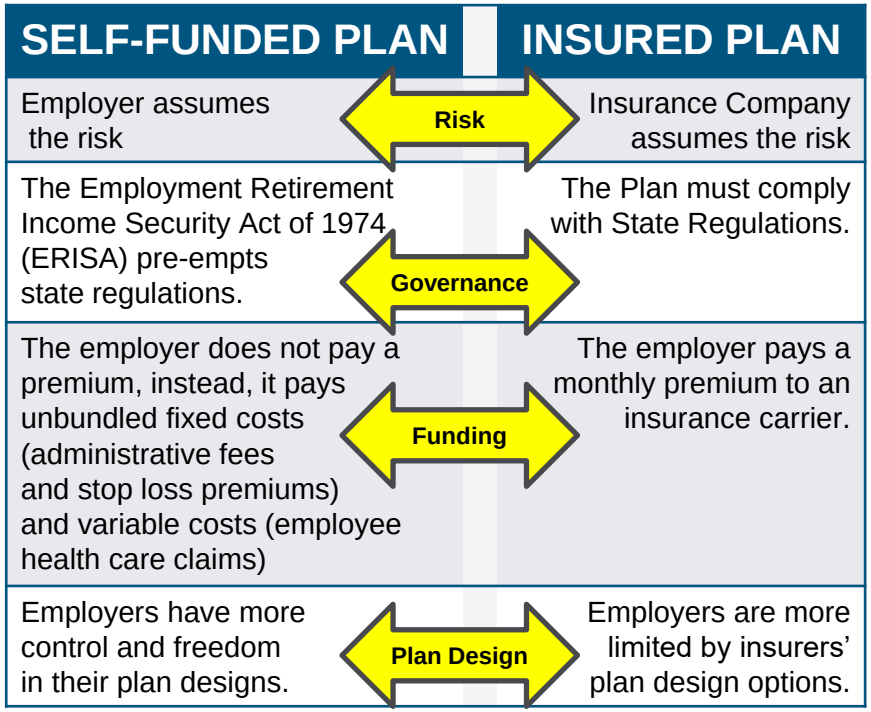
Questions Raised by Data Applicants in the Aftermath of Gobeille

Even though applicants are aware of *Gobeille vs. Liberty Mutual*, a common question asked is "**what is self-insurance?"** In answering this question, some applicants become aware that their institution has a self-funded plan and that they could potentially explain to the carrier the utility to the applicant institution (the carrier's client) of having their data submitted.



What is Self-Insurance?

As defined by the Bureau of Labor Statistics, the concept of "self-insurance" is a self-funding coverage mechanism of employer sponsored health insurance plans where employers directly assume the major cost of health insurance for their employees. Some self-insured employer plans bear the entire risk. Other self-insured employers insure against large claims by purchasing stop-loss coverage. Some self-insured employers contract with insurance carriers or third party administrators for claims processing and other administrative services; other self-insured plans are self-administered. Minimum Premium Plans (MPP) are included in the self-insured health plan category. All types of plans (Conventional Indemnity, PPO, EPO, HMO, POS, and PHOs) can be financed on a self-insured basis. Employers may offer both self-insured and fully insured plans to their employees.

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Questions Raised by Data Applicants in the Aftermath of Gobeille

How to Identify the Self-Insured in the MA APCD

Given the differences in medical, dental, and pharmacy claims volume due to Gobeille and the differences in beneficiaries in the member eligibility file, data applicants ask how to stratify data by the self-insured. The following fields can be used:

APCD ID CODE – Enrollment Type – Included in ME134, MC241, PC120, DC067

Value	Description
1	FIG - Fully-Insured Commercial Group Enrollee
2	SIG - Self-Insured Group Enrollee
3	GIC - Group Insurance Commission Enrollee
4	MCO - MassHealth Managed Care Organization Enrollee
5	Supplemental Policy Enrollee
6	ICO – Integrated Care Organization or SCO – Senior Care Option
7	ACO – Accountable Care Organization Enrollee
0	Unknown / Not Applicable

COVERAGE TYPE – Type of Policy Covering Member ME029

Value	Description
ASW	Self-funded plans that are administered by a third-party administrator, where the employer has purchased stop-loss, or group excess, insurance coverage
ASO	Self-funded plans that are administered by a third-party administrator, where the employer has not purchased stop-loss, or group excess, insurance coverage
STN	Short-term, non-renewable health insurance
UND	Plans underwritten by the insurer
OTH	Any other plan. Insurers using this code shall obtain prior approval.

Questions Raised by Data Applicants in the Aftermath of Gobeille

The MA APCD Release Documentation on the CHIA website clearly explains that "*due to the Supreme Court decision, Gobeille v. Liberty Mutual, the self-insured plans are severely reduced starting 2016*", consequently some applicants do in advance ask, "**How severe?**" Yet other applicants, once they receive the data, nevertheless still ask, "**Why are data missing? Is something wrong with the extract?**" For applicants who have been approved to receive both private and public payer data, the impact on medical claims volume is *less severe*, with a 15% decrease in medical claims volume (*see Fig. 1 below*). However, for applicants using only private payer data, the impact is ***quite severe***, with an overall 27% decrease in medical claims volume (*See Fig. 2 below*).

Fig 1. MA APCD Medical Claims Total Volume (Private and Public) by Incurred Year

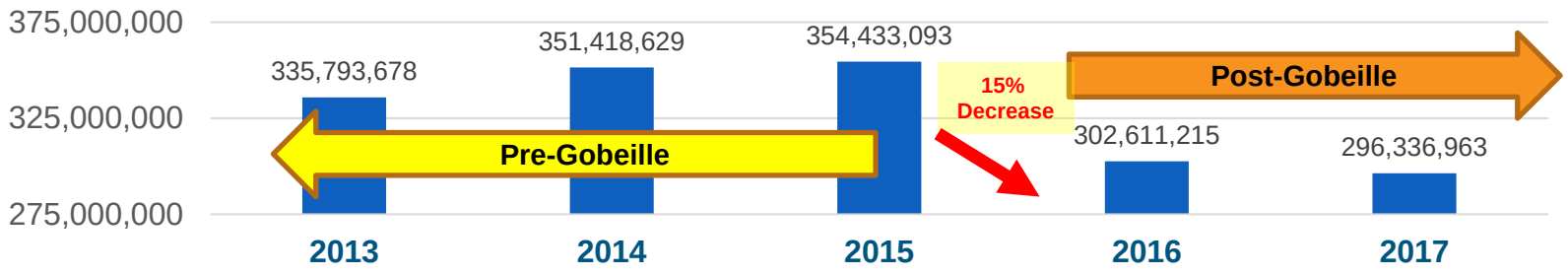
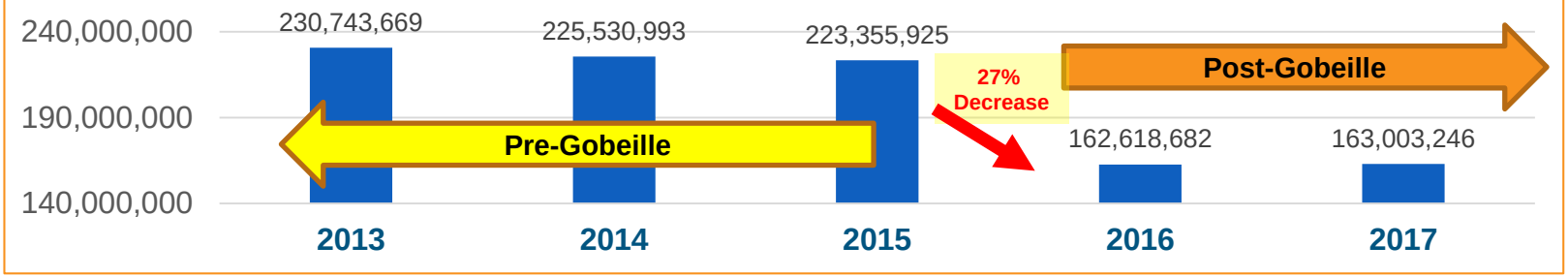


Fig 2. MA APCD Medical Claims Total Volume (Private) by Incurred Year



Questions Raised by Data Applicants in the Aftermath of Gobeille

During the MA APCD application review process, some proposed study plans limit their focus to specific demographic groups. Data applicants consequently ask:

- How does the 75% drop from 2.3 million self-insured beneficiaries in the MA APCD before 2016 to 563,000
- in 2018 and 27% drop in medical claims volume impact my proposed study?

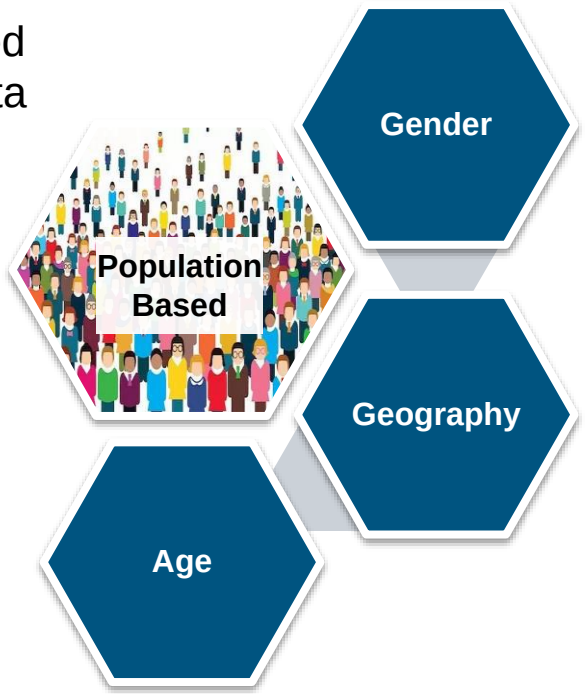
- Does the impact of ***Gobeille*** on the population distribution differ by specific age, gender, and geographic levels?

- How should I describe my study's denominator?

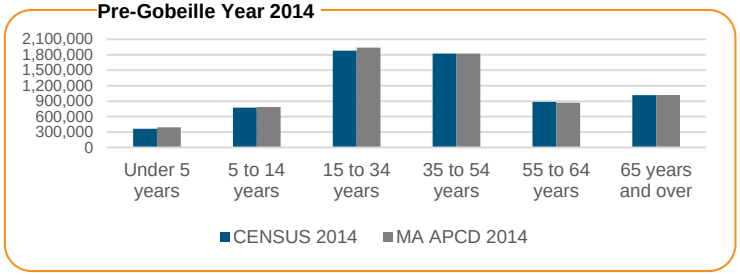
- Does the impact of ***Gobeille*** differ by care setting?

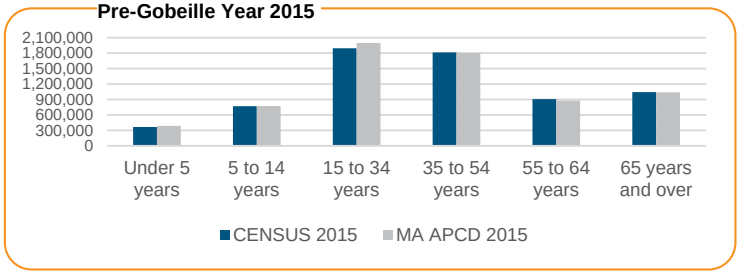
- Should I use the administrative case mix data instead of the MA APCD?

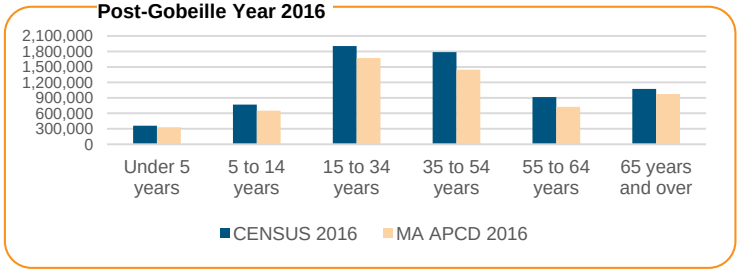
- Should I use both the administrative case mix data and the MA APCD?

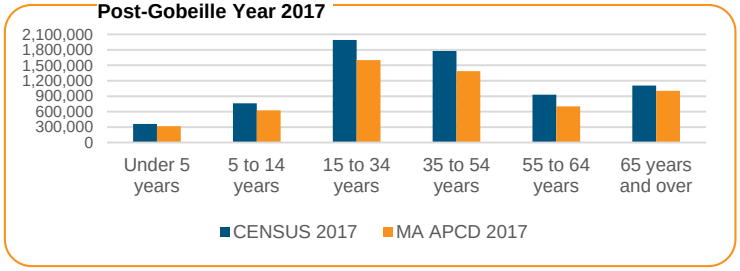


MA APCD (Public and Private) Beneficiaries with Medical Coverage and Census Pre- and Post-Gobeille Age Group Comparison

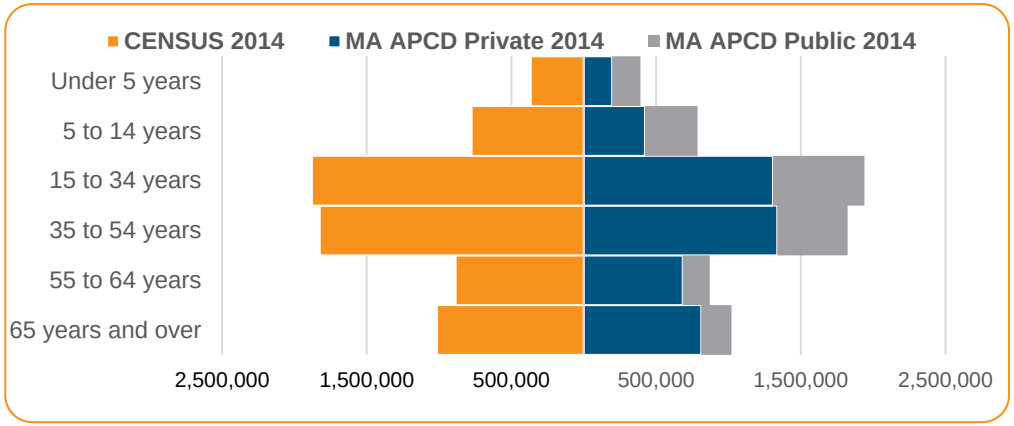


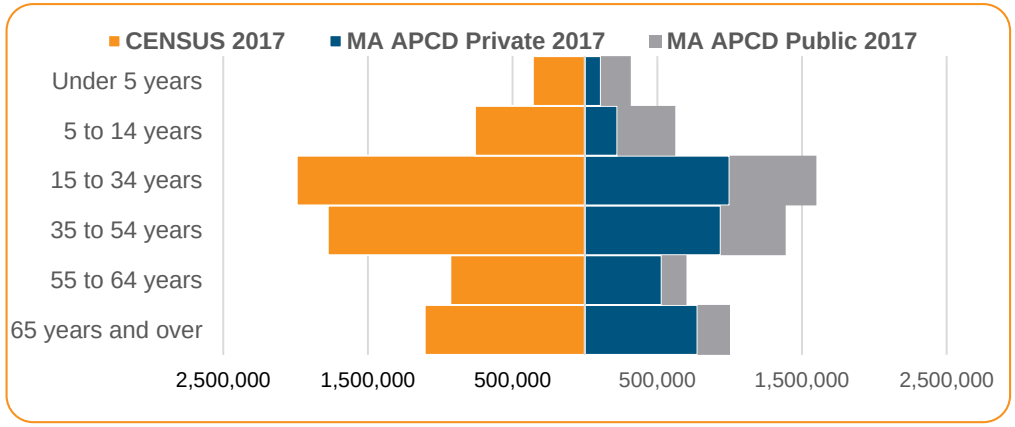




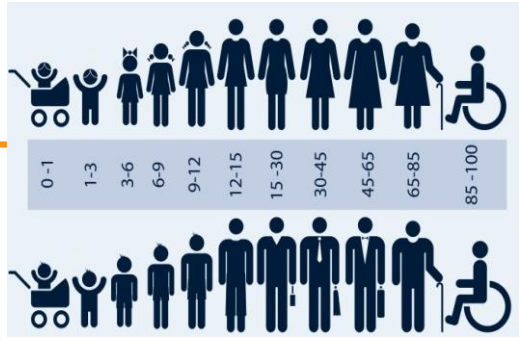


In comparing the Census population estimates for Massachusetts by age-group to the MA APCD pre-Gobeille to post-Gobeille using combined public and private payers, age group differences are evident but less pronounced.

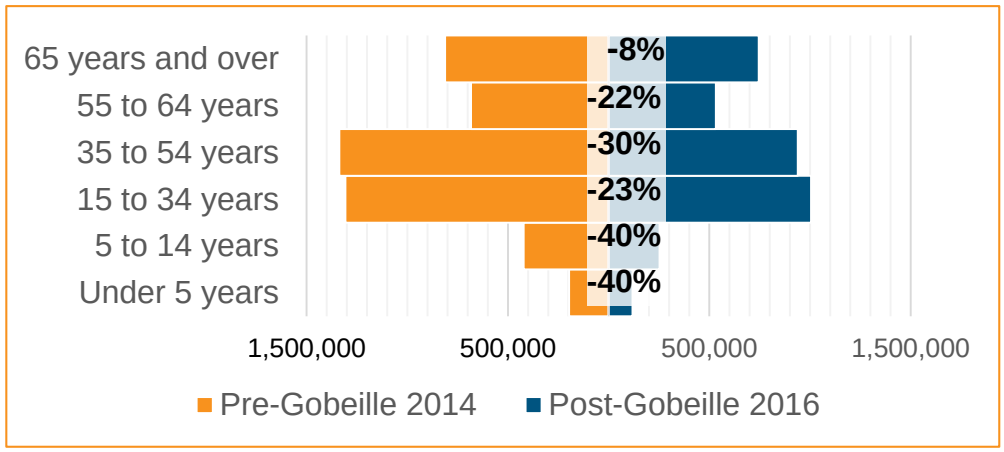




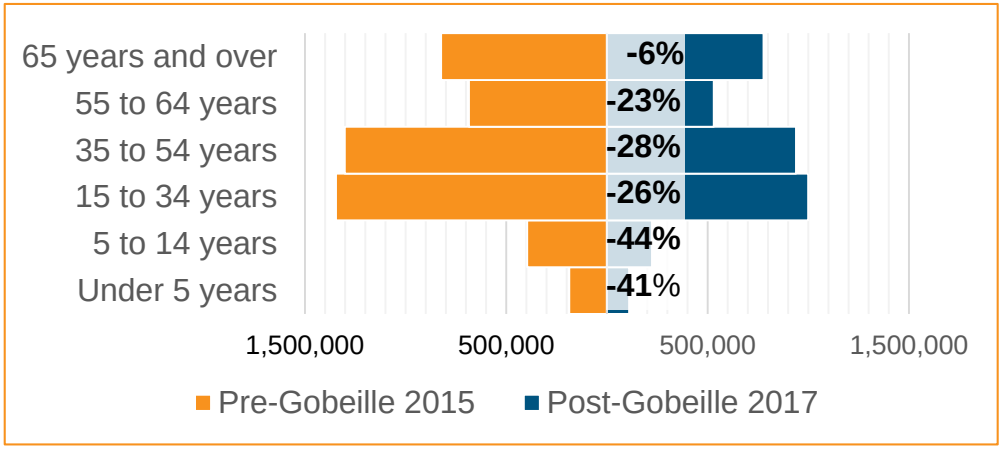
MA APCD Private Payer Pre- and Post-Gobeille Age Group Comparison



MA APCD Private Payer Pre-Gobeille 2014 compared to Post-Gobeille 2016



MA APCD Private Payer Pre-Gobeille 2015 compared to Post-Gobeille 2017



When the public payer beneficiaries are removed and the comparison is limited to pre- and post Gobeille private payer beneficiaries, the age group differences are quite pronounced:

- **Highest for the pediatric population** ages 14 years old and younger (40% and greater)
- **Lowest for the senior population** ages 65 years and older (8% and lower)

Example of High Impact on Pediatric Population

FY2014 to 2016 MA APCD Asthma Outpatient Pediatric Primary Care Report (Ages 2 to 17 years old)

(Note: Fiscal Year used to align with ICD-10-CM implementation)

OUTPATIENT PRIMARY CARE FY2014	Private Insurance		Public Insurance	
ICD-Code	# of PCP Visits	# of Distinct Patients	# of PCP Visits	# of Distinct Patients
All ICD-9-CM	265,393	150,598	345,898	151,933
493.0X, 493.1X, 493.2X, 493.8X, 493.9X Principal DX	9,674	7,067	19,303	12,165
493.0X, 493.1X, 493.2X, 493.8X, 493.9X Associated DX	6,990	5,723	13,993	10,494
OUTPATIENT PRIMARY CARE FY2015	**Private Insurance**		**Public Insurance**	
ICD-Code	# of PCP Visits	# of Distinct Patients	# of PCP Visits	# of Distinct Patients
All ICD-9-CM	338,518	185,176	407,794	180,660
493.0X, 493.1X, 493.2X, 493.8X, 493.9X Principal DX	10,090	7,467	19,994	13,055
493.0X, 493.1X, 493.2X, 493.8X, 493.9X Associated DX	7,773	6,310	17,724	13,118
OUTPATIENT PRIMARY CARE FY2016	**Private Insurance**		**Public Insurance**	
ICD-Code	# of PCP Visits	# of Distinct Patients	# of PCP Visits	# of Distinct Patients
All ICD-10-CM	143,316	79,697	434,394	186,554
J45, J45.2X, J45.3X, J45.4X, J45.5X, J45.90X, J45.99X Principal DX	4,236	3,081	20,289	13,098
J45, J45.2X, J45.3X, J45.4X, J45.5X, J45.90X, J45.99X Associated DX	3,812	3,140	19,112	13,984

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GENDER

In evaluating the total volume of distinct beneficiaries in the Member Eligibility file for all self-insured enrollees by gender regardless of state of residency (*see Fig. 1 below*), the percent drop for females from calendar year 2015 to calendar year 2016 was 68.1% vs 68.4% for males. State residency did not meaningfully impact the difference between males and females. For MA residents (*see Fig. 2 below*), the decrease was 56.9% for females vs. 57.7% for males. For non-MA residents (*see Fig. 3 below*), the decrease was 91.6% for females vs. 91.3% for males.

Fig 1. Distinct Beneficiaries Count for All Self-Insured Enrollees by Gender*

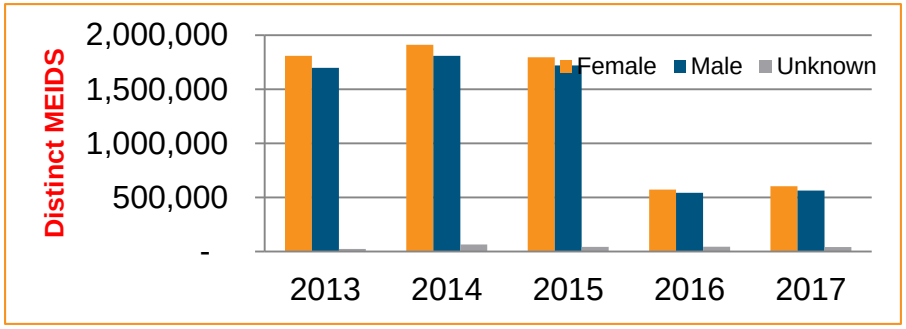


Fig 2. Count for MA Resident Self-Insured Enrollees by Gender*

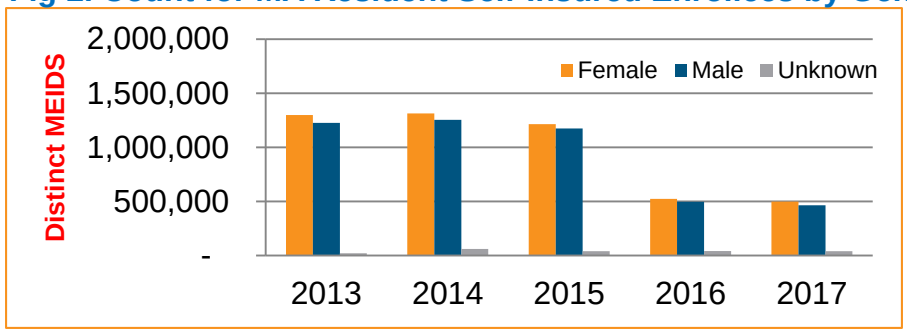
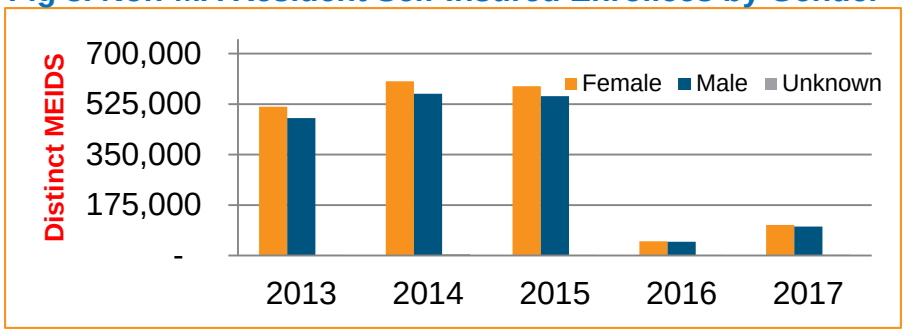
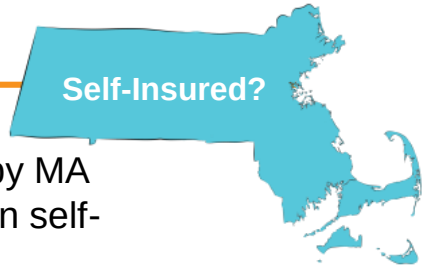


Fig 3. Non-MA Resident Self-Insured Enrollees by Gender*



**Note: The gender category "Other" was not included due to self-insured enrollee volume < 11*

Massachusetts Residents compared to Non-Residents

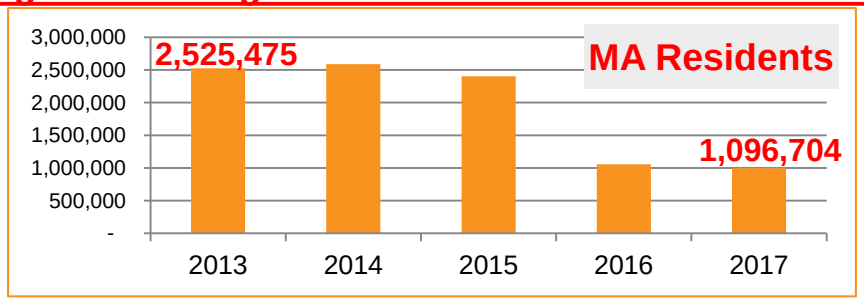


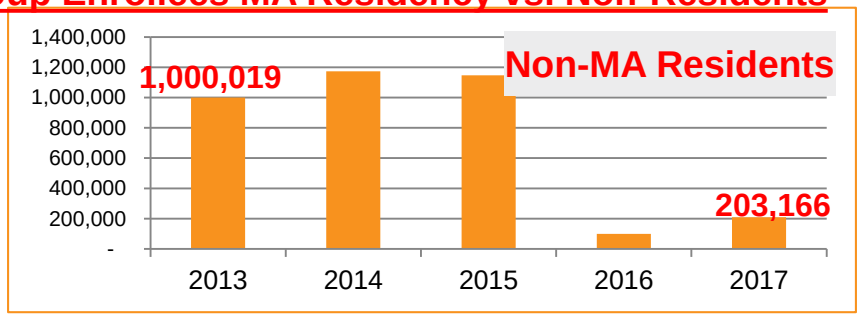
Although the volume of MA residents in MA APCD remains higher than non-MA residents (*see Fig. 1 below*) , a distinct count of beneficiaries in the Member Eligibility file stratified by MA residency and APCD ID Code enrollment categories reveals a larger proportional drop in in self-insured non-MA residents than self-insured MA residents (*see Table 1 below*).

Table 1. Distribution of Distinct Members by APCD ID Code Enrollee Category for MA Residents

APCD ID CODE	2013	2014	2015	2016	2017
Unknown / Not Applicable - MA	22.796%	24.394%	25.188%	29.939%	30.387%
Unknown / Not Applicable - not MA	1.479%	1.111%	1.163%	0.885%	1.424%
Fully-Insured Commercial Group - MA	24.279%	23.504%	23.256%	27.338%	27.540%
Fully-Insured Commercial Group - not MA	7.500%	6.948%	6.205%	7.737%	8.029%
Self-Insured Group Enrollee - MA	18.154%	17.839%	16.634%	**8.917%**	**8.240%**
Self-Insured Group Enrollee - not MA	7.189%	8.084%	7.932%	**0.843%**	**1.735%**
Group Insurance Commission - MA	2.819%	2.932%	2.601%	3.667%	2.951%
Group Insurance Commission - not MA	0.257%	0.270%	0.173%	0.355%	0.214%
MassHealth Managed Care Organization - MA	12.746%	12.101%	12.633%	16.405%	15.020%
MassHealth Managed Care Organization - not MA	0.156%	0.151%	0.157%	0.217%	0.178%
Supplemental Policy Enrollee - MA	2.389%	2.342%	2.857%	2.601%	3.155%
Supplemental Policy Enrollee - not MA	0.233%	0.215%	0.759%	0.172%	0.326%
Integrated Care Organization or Senior Care Option - MA	0.004%	0.110%	0.439%	0.789%	0.797%
Integrated Care Organization or Senior Care Option - not MA	0.000%	0.000%	0.002%	0.004%	0.004%
Accountable Care Organization - MA	0.000%	0.000%	0.000%	0.131%	0.000%
Accountable Care Organization - not MA	0.000%	0.000%	0.000%	0.000%	0.000%
TOTAL DISTINCT MEMBER LINK EIDS	13,911,141	14,516,889	14,452,024	11,831,014	12,085,306

Figure 1. Change in Annual Volume of Self-Insured Group Enrollees MA Residency vs. Non-Residents





RESULTS

- For each pre-Gobeille year, the percent total population difference between the MA APCD population and Census estimate for Massachusetts remained less than 2%.
- Post-Gobeille, the percent total population difference between the MA APCD vs Census estimate widened to 24%.
- The percent post-Gobeille decrease by self-insured enrollment type was highest for non-Massachusetts residents.
- The magnitude of difference in decrease between males and females (residents or non-residents) was not meaningful, both were equally high (> 50%).
- Applicants should be warned of pronounced age-group differences in decreases and how population-level data deficiencies impact having a fully representative count routinely used for epidemiologic inference

CONCLUSION

- Future efforts to maximize the post-Gobeille utility of the all payer claims data should continue to assess variation in population decreases at the geographic and age-group level that may impact the magnitude of expected population for specific types of demographically targeted studies
- The care setting for data used should be assessed so that the applicant understands the difference between the MA APCD and administrative case mix data
- Applicants and their institutions are in a unique position to ask their carriers to participate in submitting their institutions data to the MA APCD.

Contact

For questions, please contact:

- Sylvia D. Hobbs, MPH, Manager of Data Strategy
- 617-872-8111
- sylvia.hobbs@state.ma.us