

**2016 Actuarial Analysis of NH Premium
Assistance Program**

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Table of Contents

Section Title	Page Number
1. Introduction _____	4
2. Individual Market Key Findings _____	5
3. Additional Analyses _____	13
4. Considerations and Limitations _____	15
5. Qualifications _____	15
6. Conclusions _____	15



List of Figures

Figure	Page Number
FIGURE 1: 2016 INDIVIDUAL MARKET MEMBER MONTH DISTRIBUTION _____	5
FIGURE 2: 2016 NON- PAPER AND PAPER ALLOWED CLAIMS PMPM _____	6
FIGURE 3: 2016 NON-PAPER AND PAPER AGE DEMOGRAPHICS _____	7
FIGURE 4: 2016 NON-PAPER AND PAPER AGE FACTOR _____	8
FIGURE 5: 2016 NON-PAPER ON EXCHANGE PLAN OFFERINGS _____	9
FIGURE 6: 2016 NON-PAPER AND PAPER INDUCED DEMAND FACTORS _____	10
FIGURE 7: 2016 NON-PAPER AND PAPER ALLOWED CLAIMS PMPM ADJUSTED FOR AGE AND INDUCED DEMAND _____	11
FIGURE 8: 2016 NON-PAPER AND PAPER INPATIENT FACILITY AND PHARMACY CLAIMS _____	13
FIGURE 9: 2016 PLAN LEVEL RISK SCORES _____	14

1. Introduction

The expansion of Medicaid through the Premium Assistance Program (PAP) has greatly increased membership in New Hampshire's individual health insurance market. In December 2015, the month prior to the expansion of Medicaid, New Hampshire's individual market covered 56,000 residents. In December 2016, one year after the implementation of PAP, the individual market covered 98,000 people, an increase of 42,000 members, or 75%. In April 2017, there were 109,000 New Hampshire residents covered in the individual market of which 102,000 are individual market single risk pool members and 7,000 are grandfathered and transitional members. Approximately 43,000 of these members were enrolled through the PAP program, representing 42% of individual market single risk pool membership.¹

With a full year (2016) of data available, the state can understand how the inclusion of the NH PAP population within the individual market has impacted insurance premiums. Each year, Gorman Actuarial (GA) analyzes information for the insured markets by collecting data from the insurers through the Annual Hearing process for the New Hampshire Insurance Department (NHID). The report and Annual Hearing are presented in the fall of each year. This year, NHID has made a special request to analyze the PAP population and to produce a short report on the results to be presented in the summer. In addition, GA will be providing an additional report that models various scenarios for 2018 as the individual market landscape could be very different compared to 2016 and historical results may not be the best predictor of future effects. For example, with Minuteman's exiting of the individual market, the Non-PAP population may experience significant risk deterioration.

GA has relied on information provided by the insurance carriers. Due to the shortened timeline, GA was not able to verify and validate all data. However, most of the key information has been validated against other data sources. If the information provided is inaccurate, our findings may need to be revised. However, GA believes the results from this report are directionally correct.

¹ Annual Hearing Data (Preliminary for 2016 & 2017) supplemented with CMS reports and monthly QHP enrollment reports.

2. Individual Market Key Findings²

- **42% of the 2016 individual market consists of the PAP population.**

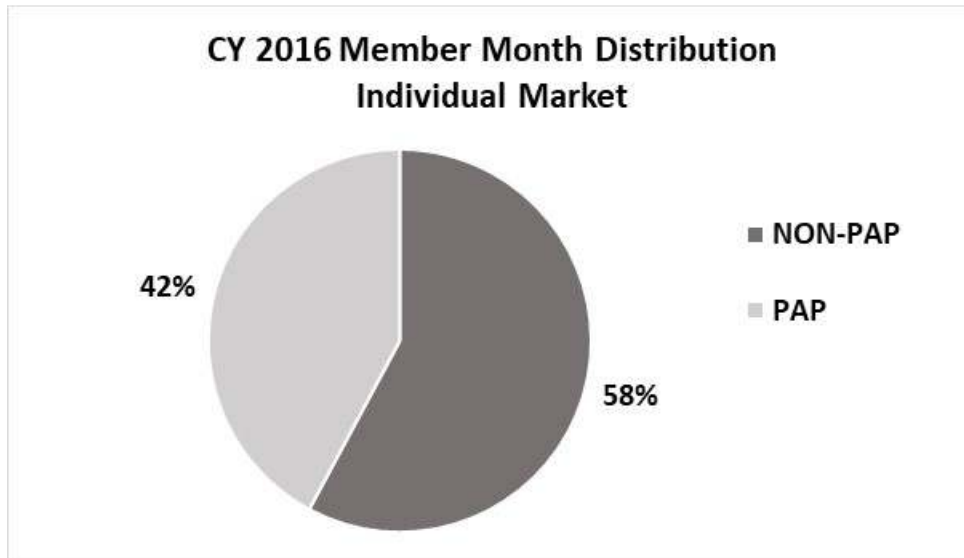


Figure 1: 2016 Individual Market Member Month Distribution

As shown in **Figure 1**, 58% of the individual market was not part of the PAP program. This distribution was calculated using member month data. The figure excludes grandfathered and transitional members which are not part of the individual market single risk pool.

² Throughout the remainder of this report, the individual market refers to the population included in the single risk pool individual market and therefore excludes grandfathered and transitional members.

- **The average PAP population’s medical costs are 26% higher than the average Non-PAP population.**

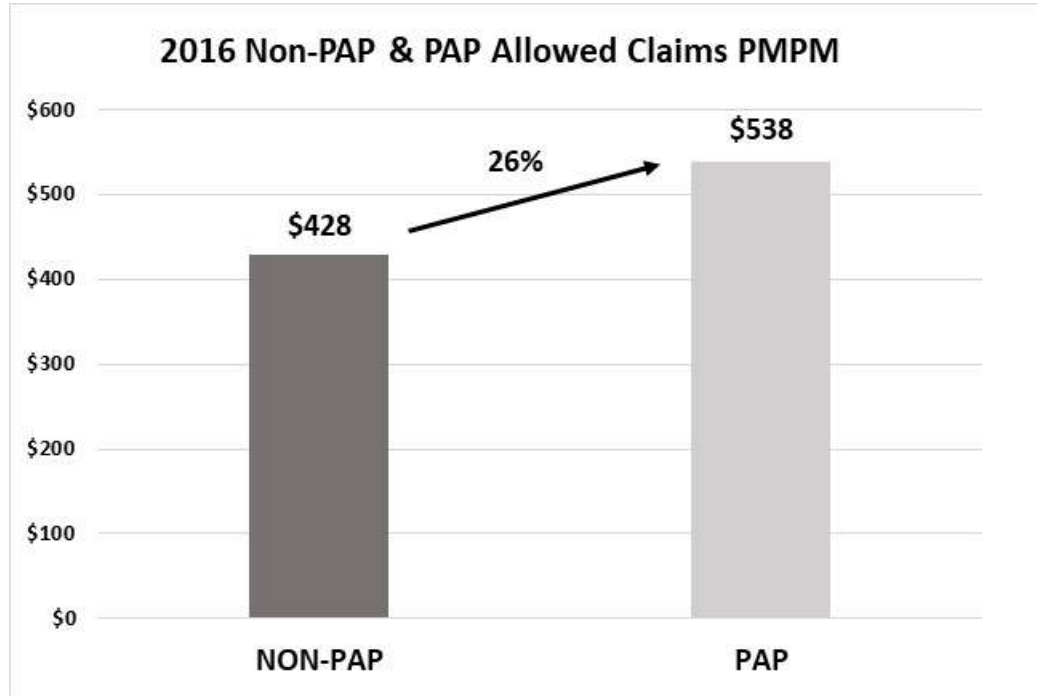


Figure 2: 2016 Non- PAP and PAP Allowed Claims PMPM

GA summarized claims costs for the PAP population and the Non-PAP population for each insurance carrier and then across the market. The claims costs include the insurer share of medical expense as well as the member cost sharing. This is referred to as the allowed claims costs. These costs were divided by member months to calculate a PMPM. As shown above, the PMPM costs for the PAP population is \$538 and for the Non-PAP population it is \$428, a difference of \$110 PMPM or 26%.

- **The PAP population is much younger than the Non-PAP population.**

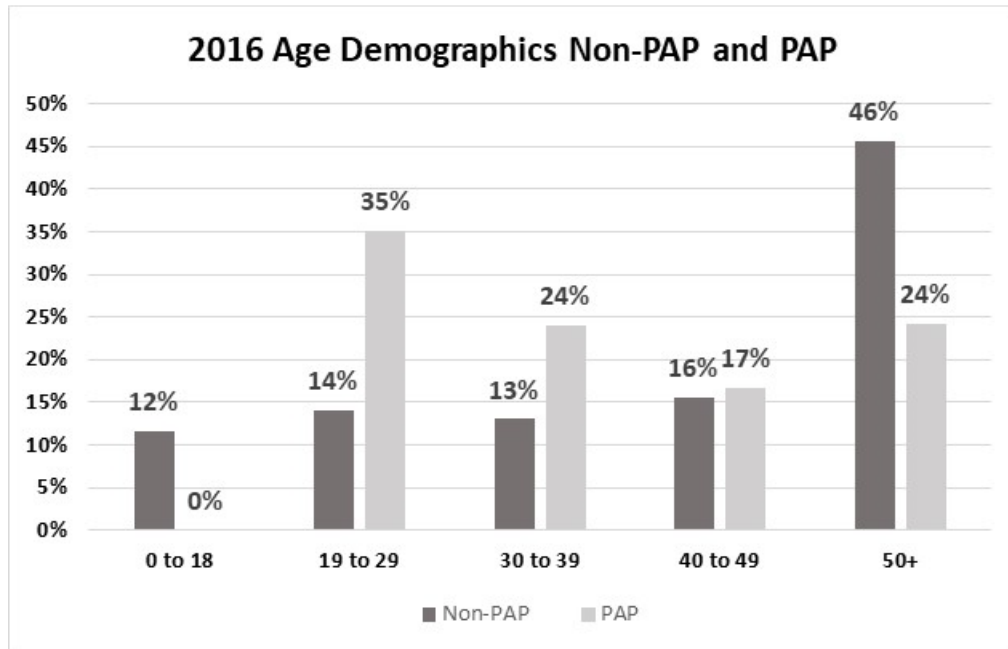


Figure 3: 2016 Non-PAP and PAP Age Demographics

As shown in **Figure 3**, there are no children enrolled in the PAP program. However, 59% of the PAP population is under the age of 40 contrasted with 39% of the Non-PAP population. 46% of the Non-PAP population is over the age of 50 compared to only 24% of the PAP population. The age differences in these two populations might suggest that observed medical costs for the PAP population should be lower than the Non-PAP population, not higher.

➤ **The PAP age factor is 17% lower than the Non-PAP age factor.**

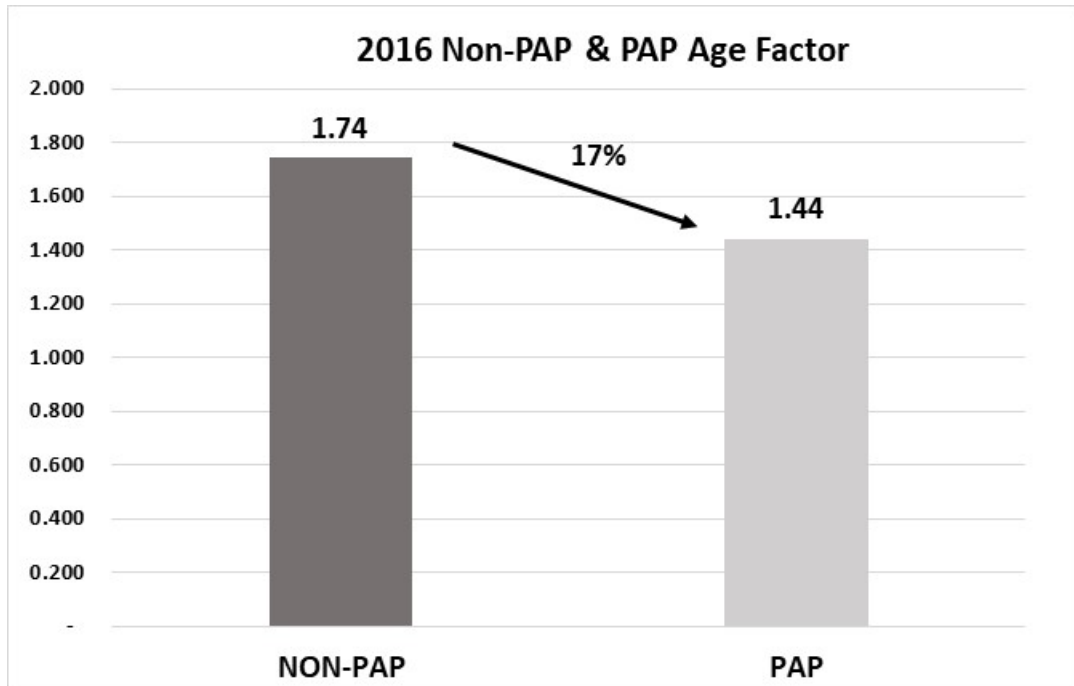


Figure 4: 2016 Non-PAP and PAP Age Factor

GA received age demographics from each insurer and applied these demographics to the 2016 federal age factors. Age factors are used to adjust premiums to cover the higher expected medical costs of an older population. The higher the age factor, the older the population and the greater the expected medical costs. As shown, the age factor of the Non-PAP population is 1.74 and the age factor of the PAP population is 1.44.



- **35% of the Non-PAP On Exchange population are enrolled in Bronze plans while all of the PAP population is enrolled in Platinum equivalent plans.**

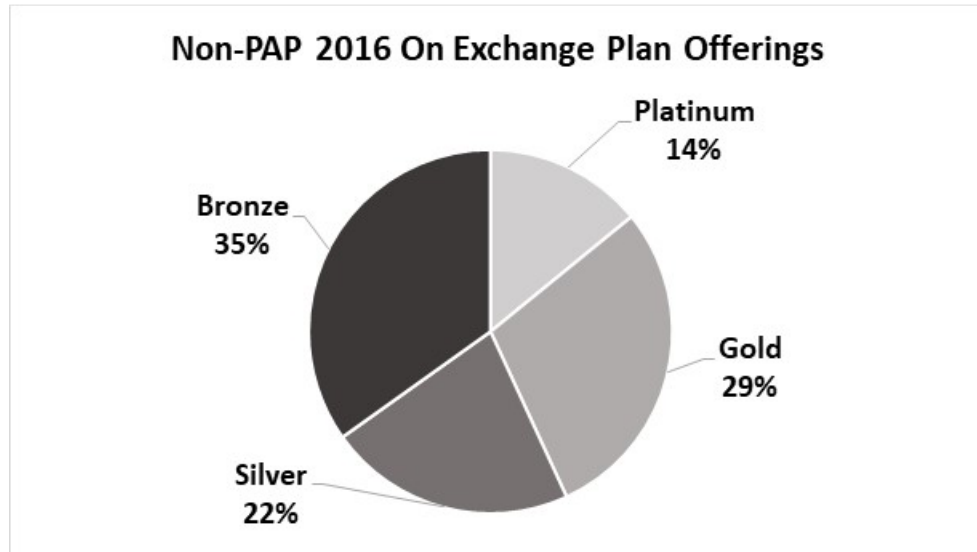


Figure 5: 2016 Non-PAP On Exchange Plan Offerings

For this analysis, GA has assumed the metallic tier distribution for the Non-PAP population enrolled through the exchange represents the distribution for the entire Non-PAP population.³ As shown, 35% of the Non-PAP population are enrolled in Bronze plan offerings, 22% in the Silver, 29% in Gold and 14% in Platinum. This distribution reflects those individuals who receive subsidies to enroll in more comprehensive plan designs.⁴ PAP enrollees are all enrolled in Platinum equivalent plans.⁵ Since PAP enrollees are enrolled in more comprehensive plans, the lower member cost sharing has less influence on enrollee behavior and utilization of health care services. Therefore, PAP enrollee’s medical costs may be higher due to induced demand.

³ GA has performed sensitivity analyses on this assumption and overall premium impacts are not materially different.

⁴ Using federal reports, GA was able to calculate the number of members who receive cost sharing reduction subsidies (CSR) by the three metallic tier offerings (actuarial value of 0.73, 0.87, or 0.94).

⁵ PAP members are enrolled in silver plans with cost sharing reduction subsidies such that the actuarial value of the plan is either .94 or 1.00.

- **Non-PAP population's induced demand factor is 1.05 as compared to the PAP population at 1.15.**

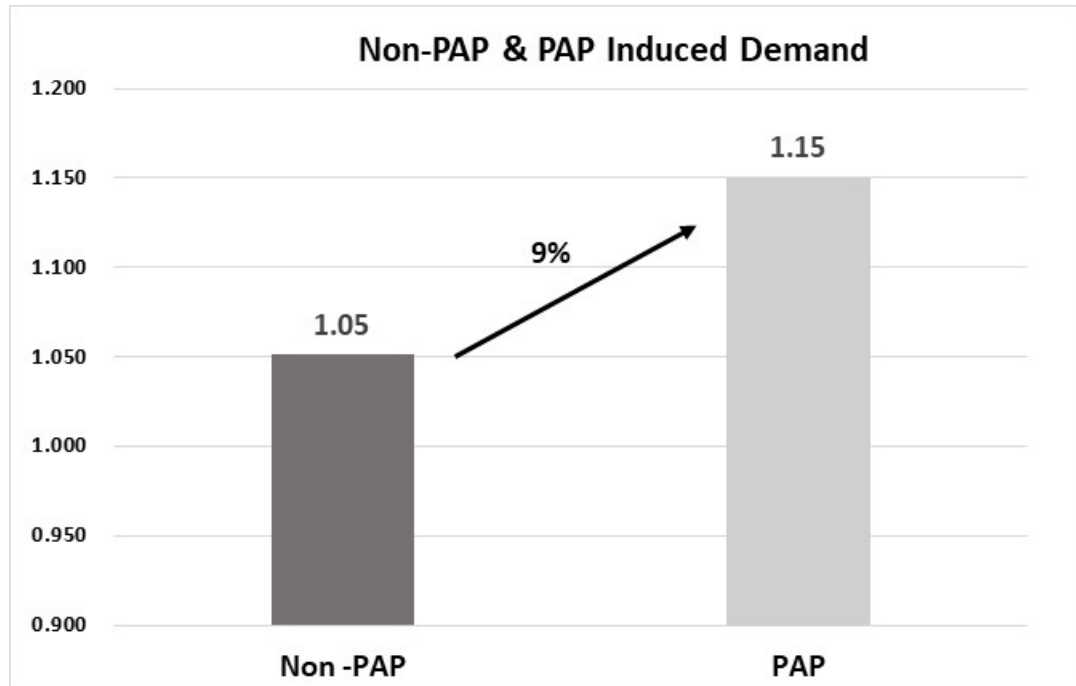


Figure 6: 2016 Non-PAP and PAP Induced Demand Factors

Generally, when populations are enrolled in plan offerings with low member cost sharing, utilization of services is greater. This is referred to as induced demand. Since PAP members are enrolled in more comprehensive plan offerings as compared to the Non-PAP population, medical costs for this population are expected to be higher. Using the induced demand factors from the federal risk adjustment model, the PAP population's medical expenses are expected to be 9% higher than the Non-PAP population (1.15/1.05) strictly due to differences in plan designs.

- **After adjusting for age and induced demand, the PAP population’s medical costs are 39% higher than the Non-PAP population’s medical costs.**

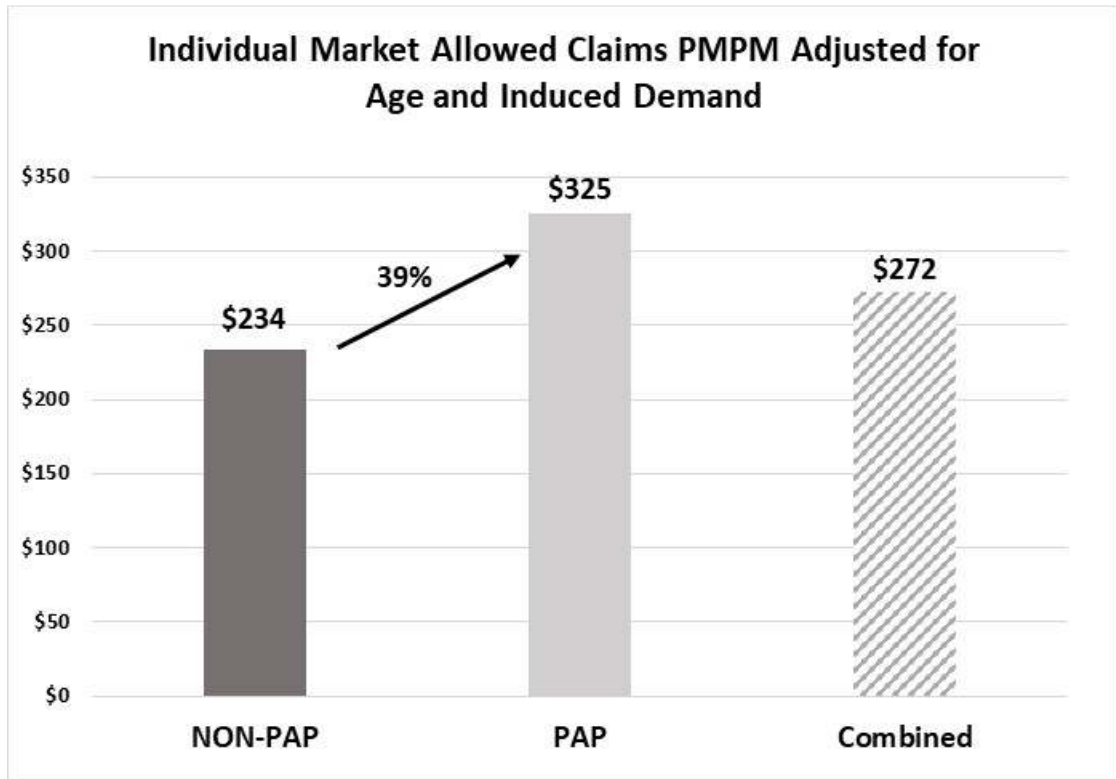


Figure 7: 2016 Non-PAP and PAP Allowed Claims PMPM Adjusted for Age and Induced Demand

Since the age demographics of each population (PAP vs. Non-PAP) are so different, the medical costs are adjusted for age. That is, if both populations had a similar age distribution, how would their medical costs compare. Similarly, since the plan designs of each population are also diverse, the medical costs are adjusted for induced demand. That is, if both populations were enrolled in similar benefits how would their medical costs compare. As shown in the figure above, the PAP population’s age and benefit adjusted allowed claims⁶ PMPM is \$325, compared to the Non-PAP population’s medical costs of \$234 in CY 2016. This represents a 39% difference.

⁶ By using allowed claims rather than paid claims, the analysis already reflects the member cost sharing differences.



➤ **If the PAP population was excluded from the individual market, CY 2016 adjusted claims costs would decrease 14%.**

Premium rates are based on medical claim costs of the entire individual market single risk pool. These medical costs are then projected into the future. Since insurers can rate for age and benefits, the medical costs are also adjusted for both. In order to understand the impact to medical claim costs of excluding the PAP population within the single risk pool, we compared the age and induced demand adjusted allowed claims⁷ PMPM of the Non-PAP population (\$234) to the age and induced demand adjusted allowed claims PMPM of the combined population (\$272) in CY 2016. The difference between these two costs is 14%⁸. Therefore, adjusted medical claim costs in the individual market would be approximately 14% lower if the PAP population was excluded from the individual market in CY 2016 which in turn would have a downward impact on premium.

⁷ Using allowed claims for both populations eliminates the cost sharing differences between the two populations. Adjusting for induced demand eliminates the utilization differences due to cost sharing for the two populations.

⁸ GA modeled this with and without the catastrophic population, and the results were nearly the same.

3. Additional Analyses

Gorman Actuarial also analyzed claims costs and risk adjustment reports for the Non-PAP and PAP populations to understand whether the 39% difference in age and benefit adjusted medical costs could be due to other factors such as morbidity differences.

- **The PAP population’s inpatient facility medical expenses are approximately 50% greater than the Non-PAP Population, however, pharmacy costs are approximately the same between the two populations.**

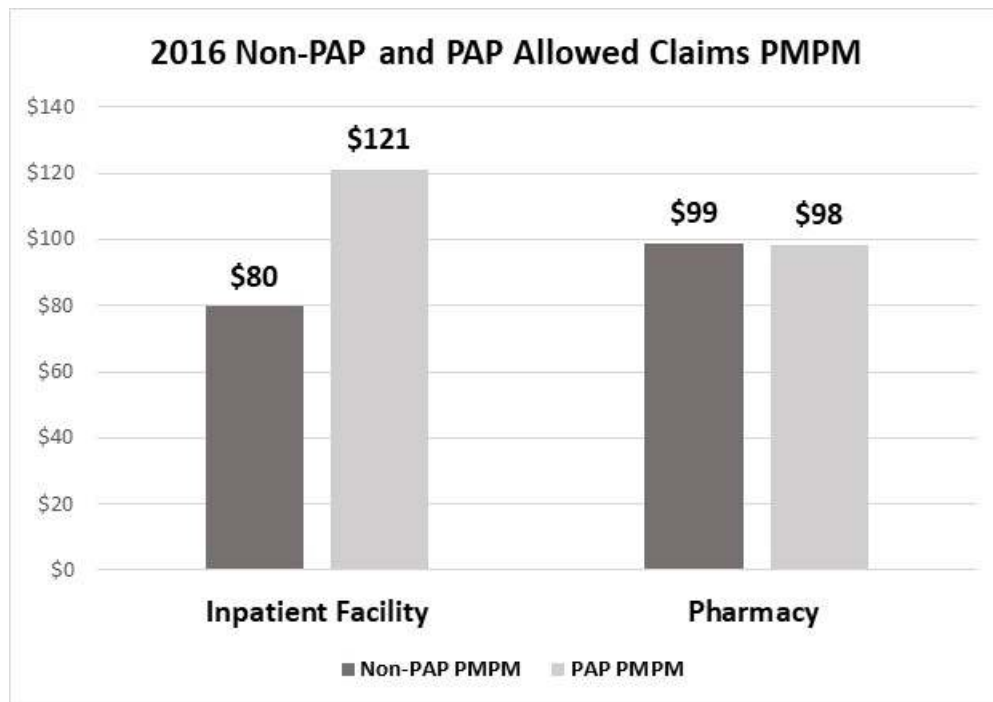


Figure 8: 2016 Non-PAP and PAP Inpatient Facility and Pharmacy Claims

A review of inpatient claims PMPMs indicate that the PAP population may be a higher risk population as compared to the Non-PAP population.⁹ Pharmacy expenditures are essentially the same for both populations.

⁹ Inpatient expenses do not include emergency department visits, unless that visit resulted in an inpatient admission.



- **The risk score for PAP plans is 27% higher than the risk score of Non-PAP plans.**

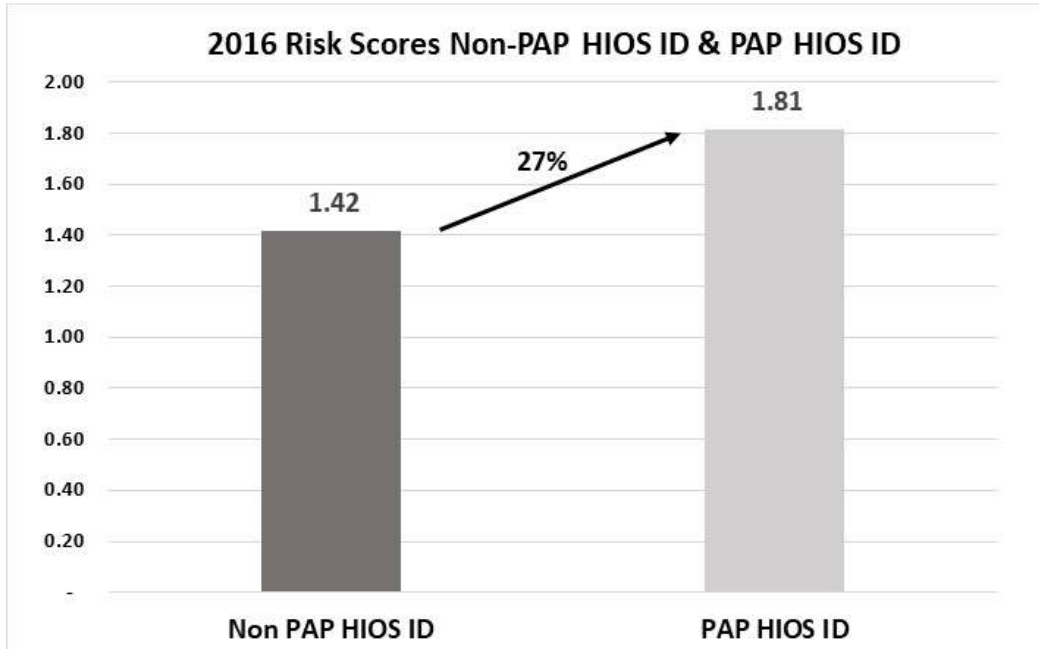


Figure 9: 2016 Plan Level Risk Scores

GA received the federal risk adjustment reports from each insurance carrier. Each report provides a plan liability risk score by HIOS ID, which allowed GA to aggregate these scores across insurance carriers. Each insurer’s product portfolio offers a plan that is designed for the PAP population. However, this plan offering is offered to the entire individual market, including PAP and Non-PAP enrollees. GA has estimated that 82% of enrollees within the PAP plan offerings are actual PAP enrollees. Using this information, GA determined that the average risk score for enrollees in Non-PAP plans is 1.42 while the average risk score for enrollees in PAP plans is 1.81, representing a 27% difference.

- **\$41 million was transferred from Non-PAP plans to PAP plans in 2016 through the federal risk adjustment program.**

The federal risk adjustment program transfers payments from plan offerings with members that are less healthy than average (i.e., higher risk) to plan offerings whose members are healthier than average (i.e., lower risk). We analyzed the risk transfers from Non-PAP plans to PAP plans. There was \$41 million dollars transferred from Non-PAP HIOS plan ID’s to PAP HIOS plan ID’s based on the federal risk adjustment reports.



4. Considerations and Limitations

Gorman Actuarial prepared this draft report for use by the New Hampshire Insurance Department. While we understand that this report may be distributed to third parties, Gorman Actuarial assumes no duty or liability to any third parties who receive the information herein. This report should only be distributed in its entirety.

The purpose of this draft report is to provide stakeholders preliminary information on the impact of the PAP population on the single risk pool individual market. This report provides analysis based on historical information using 2016 data. In the next six weeks, GA will be analyzing newly submitted rate filings and developing a model to understand how the PAP population may influence the premiums of the overall market in 2019. Due to the dynamic health care environment, the markets are constantly changing. Analyses of historical data may not provide a clear direction for the future. The influence of premium rate increases, insurers exiting the market and insurers withdrawing certain plan offerings will likely impact the overall makeup of the individual market. These items need to be considered when understanding how the PAP population will impact the overall risk pool in 2019.

Users of this report must possess a reasonable level of expertise and understanding of health care, health insurance markets and financial modeling so as not to misinterpret the information presented.

Analyses in this report are based on data provided by the New Hampshire Insurance Department, insurers in the New Hampshire health insurance markets, and other public sources. Gorman Actuarial has not audited this information for accuracy. We have performed a limited review of the data for reasonableness and consistency. If the underlying data are inaccurate or incomplete, the results of this analysis may likewise be inaccurate or incomplete.

5. Qualifications

This study includes results based on actuarial analyses conducted by Bela Gorman and Jennifer Smagula, both of whom are members of the American Academy of Actuaries and Fellows of the Society of Actuaries. They both meet the qualification standards for performing the actuarial analyses presented in this report.

6. Conclusions

An analysis of 2016 data indicates that the PAP population has higher medical expenditures which impacts the overall individual market risk pool. If this population was not included in the single risk pool, GA projects that adjusted medical claim costs



would have been lower by approximately 14% in CY 2016. All indicators suggest that this population may have a higher morbidity than the Non-PAP population. However, further analysis needs to be performed to understand whether this higher morbidity may be due to other factors such as the different enrollment patterns of the PAP and Non-PAP populations. The state should consider conducting a durational study which would examine turnover rates and health care claims costs by duration of enrollment. Due to the changing health care environment, historical analyses may not provide a clear direction for the future. For example, with Minuteman's exiting of the individual market, the Non-PAP population may experience significant risk deterioration and therefore the difference in medical claim costs between the Non-PAP and PAP populations may not be as large in future years. The New Hampshire individual market will continue to undergo changes from 2016 to 2018 and these changes need to be considered when analyzing the impact of the PAP population on the future market.