



KEY FINDINGS FROM THE POPULATION RISK REPORT

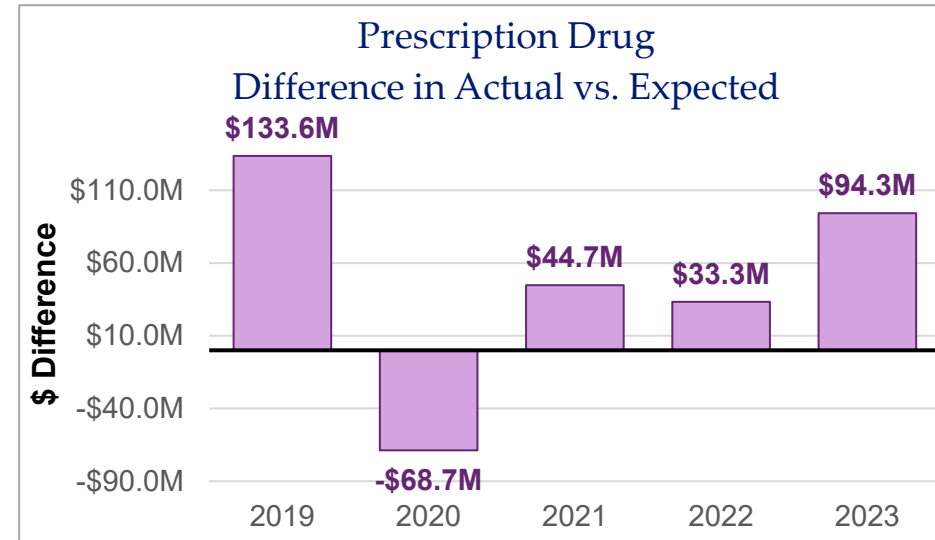
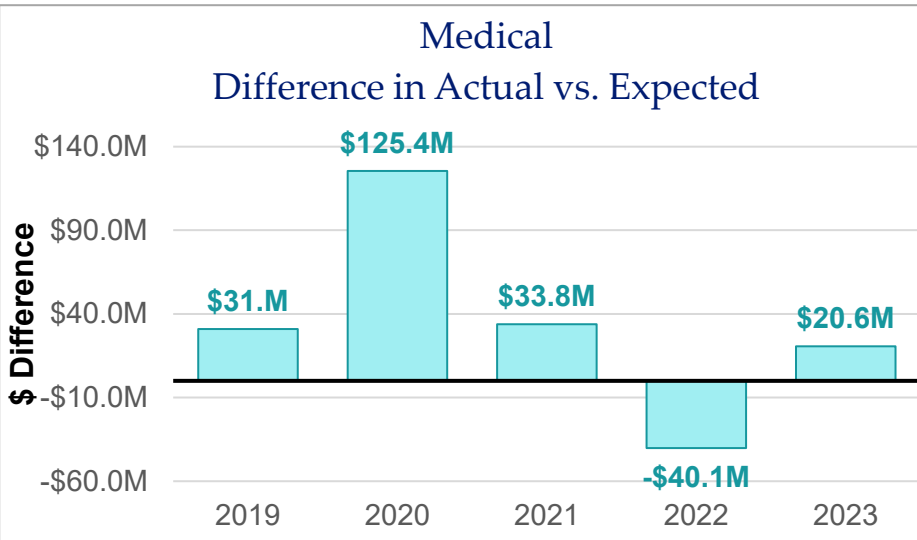
Actives and Non-Medicare Retirees

October 24, 2024

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Medical & Rx Trend Summary



Observations

- The tables above quantify the difference between actual versus expected trends paid by the Plan.
 - Expected trends were determined based on Segal's SHAPE benchmark plan paid trends for public sector groups (shown in the full report).
- On the medical side, the Plan has paid approximately \$170.7 million more than expected during the last five years.
- On the prescription drug side, the Plan has paid approximately \$237.2 million more than expected during the last five years. Note that this figure is on a gross basis as we are unable to procure a benchmark that includes rebates for all public sector clients.

Population Risk Review

Summary

Risk Group	CY 2023											
	Members	% of Total		Medical			Prescription Drug			% Change from Prior		
		Members	Allowed	Allowed (millions)	PMPY	Risk Score	Allowed (millions)	PMPY	Risk Score	Members	Medical PMPY	Rx PMPY
Non-Utilizers	43,722	8.0%	0.0%	\$0.0	\$0	0.12	\$0.0	\$0	0.15	19.9%	0.0%	0.0%
Healthy	98,039	18.0%	3.5%	\$110.3	\$1,125	0.26	\$71.4	\$728	0.44	-15.4%	25.8%	32.6%
Minor Acute	46,532	8.5%	2.5%	\$96.2	\$2,068	0.66	\$32.5	\$699	0.47	-11.0%	-2.3%	3.9%
Major Acute	24,974	4.6%	3.8%	\$165.9	\$6,642	1.61	\$28.9	\$1,156	0.72	12.4%	-13.3%	3.5%
Single Chronic	104,782	19.2%	13.5%	\$513.6	\$4,902	1.09	\$179.5	\$1,713	0.97	0.0%	2.4%	5.9%
Chronic w/ Comorbidities	220,062	40.3%	63.2%	\$2,002.6	\$9,100	1.70	\$1,250.5	\$5,683	2.44	5.6%	3.5%	14.4%
Malignancies	6,026	1.1%	8.1%	\$337.2	\$55,954	2.47	\$81.7	\$13,565	3.12	3.9%	1.8%	5.2%
Catastrophic	1,272	0.2%	5.4%	\$254.3	\$199,863	9.87	\$22.6	\$17,781	5.59	13.0%	0.0%	18.3%
Total	545,410	100.0%	100.0%	\$3,480.1	\$6,381	1.13	\$1,667.2	\$3,057	1.38	-0.3%	7.0%	17.7%

Observations

The table above groups members into 8 mutually exclusive risk groups¹.

- Healthy members represented 18% of the population and 3.5% of all medical and drug allowed charges during 2023. The number of healthy members decreased 15.4% from the prior period.
- The largest group by size and cost were members with multiple chronic conditions (i.e., Comorbidities). Chronic members w/ comorbidities represented 40.3% of the population and 63.2% of allowed charges.
- The number of catastrophic members increased by 13.0% year-over-year, the second largest increase of all the risk groups, behind only non-utilizers.
- The number of members with malignancies increased by 3.9% during 2023. This cohort has the second highest healthcare costs of all risk groups.

¹ See Appendices for more detailed definitions and examples for each of the risk groups.

Chronic Conditions

Allowed PMPY

Chronic Condition ¹	Medical PMPY				Rx PMPY				Medical PMPY % Change		Rx PMPY % Change	
	CY 2020	CY 2021	CY 2022	CY 2023	CY 2020	CY 2021	CY 2022	CY 2023	YoY	Historical ²	YoY	Historical ²
Diabetes ³	\$11,772	\$13,311	\$12,301	\$12,888	\$7,290	\$8,027	\$8,673	\$9,819	4.8%	2.3%	13.2%	10.8%
CAD	\$24,672	\$27,277	\$25,690	\$27,518	\$6,629	\$7,200	\$7,876	\$8,816	7.1%	1.3%	11.9%	9.0%
Asthma	\$14,147	\$15,954	\$14,831	\$15,179	\$5,004	\$5,637	\$6,201	\$7,420	2.3%	1.4%	19.7%	13.7%
COPD	\$21,563	\$25,512	\$24,247	\$24,462	\$7,713	\$8,057	\$9,852	\$10,322	0.9%	0.7%	4.8%	10.7%
Hypertension	\$10,155	\$11,484	\$10,956	\$11,731	\$4,320	\$4,811	\$5,348	\$6,194	7.1%	3.3%	15.8%	11.9%
Mental/Behavioral Health	\$8,329	\$9,224	\$9,036	\$9,518	\$3,128	\$3,337	\$3,728	\$4,364	5.3%	2.8%	17.1%	10.5%
Substance Use Disorder ⁴	\$13,971	\$14,779	\$15,937	\$16,645	\$4,111	\$4,433	\$5,087	\$5,699	4.4%	1.8%	12.0%	10.2%
CHF	\$54,347	\$58,842	\$50,605	\$52,191	\$10,663	\$10,383	\$11,112	\$13,221	3.1%	-1.9%	19.0%	9.1%
Total (Unique)	\$8,021	\$8,990	\$8,638	\$9,093	\$3,283	\$3,538	\$3,918	\$4,532	5.3%	2.7%	15.7%	10.5%
All Members (Non-Medicare)	\$5,253	\$6,036	\$5,963	\$6,381	\$2,064	\$2,265	\$2,596	\$3,057	7.0%	4.9%	17.7%	10.2%

Observations

The table above shows medical and prescription drug allowed PMPY expenses for the top chronic conditions within the population. The categories are not mutually exclusive, meaning that a member with comorbidities is shown in each line corresponding to their conditions.

- Congestive Heart Failure (CHF) is the costliest chronic condition with a medical allowed PMPY cost of \$52,191 in 2023.
- Throughout the last five years, members with hypertension have the highest medical trend at 3.3% per year and the second highest prescription drug trend at 11.9%.
- Asthmatics had the highest YoY and historical prescription drug trend of 19.7% and 13.7%, respectively.

¹ Members with co-morbidities and their corresponding claims are combined in each applicable category.

² Historical % change reflects the average annual trend between CY 2019 (results not illustrated in table) and CY 2023.

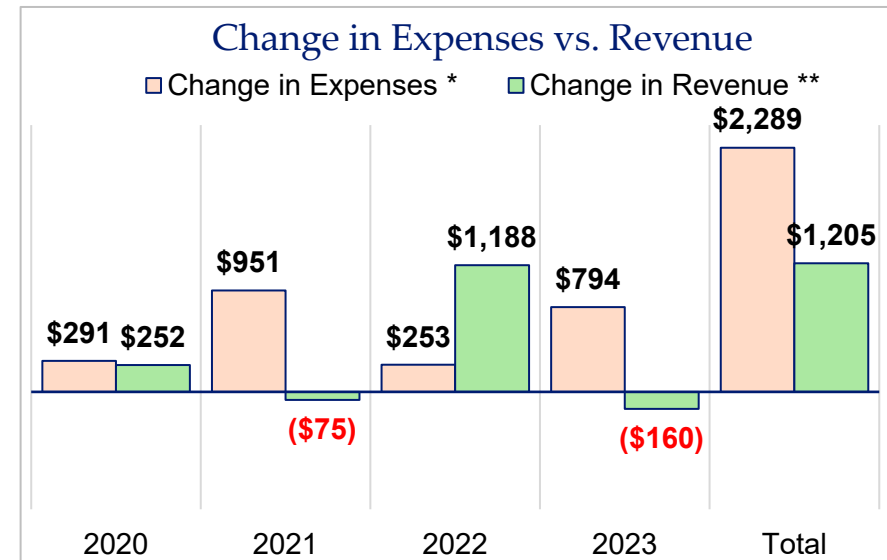
³ Diabetes included both Type I (~7% of total) and Type II diabetics (~93% of total).

⁴ Substance Use Disorder (SUD) includes drug abuse and alcohol related disorders but excludes tobacco-related disorders.³

Chronic Conditions

Change in Allowed PMPY

Chronic Condition ¹	\$ Change in Total Plan Paid PMPY			
	CY 2020	CY 2021	CY 2022	CY 2023
Diabetes	\$951	\$2,180	(\$228)	\$1,610
CAD	(\$345)	\$2,936	(\$640)	\$2,663
Asthma	\$555	\$2,280	(\$445)	\$1,436
COPD	(\$871)	\$4,176	\$534	\$727
Hypertension	\$417	\$1,759	\$71	\$1,503
Mental/Behavioral Health	\$191	\$1,118	\$217	\$1,032
Substance Use Disorder ³	(\$784)	\$1,169	\$1,685	\$1,210
CHF	\$691	\$3,546	(\$6,737)	\$3,569
Total (Unique)	\$272	\$1,224	\$115	\$1,018
All Members (Non-Medicare)	\$291	\$951	\$253	\$794



Observations

The table above shows the change in total plan paid expenses per member per year (medical and prescription drugs) for each of the eight chronic conditions, as well as a total for all members with one or more of the chronic conditions listed [i.e., Total (Unique)] and a total for all members in the Plan [i.e., All Members (Non-Medicare)].

The chart on the right shows the change in plan paid per member per year versus the change in revenue per member per year.

- The table is highlighted in red whenever the change in expenses for that particular cohort exceeds the change in revenue allotted to the Plan in that year, whereas the table is highlighted in green whenever expenses for that particular cohort increase less than the revenue allotted.
- Over the last five years, medical and prescription drug expenses have increased \$2,289 PMPY whereas revenue has only increased \$1,205 PMPY.

* Expenses include non-Medicare medical and prescription drug expenses paid by the Plan.

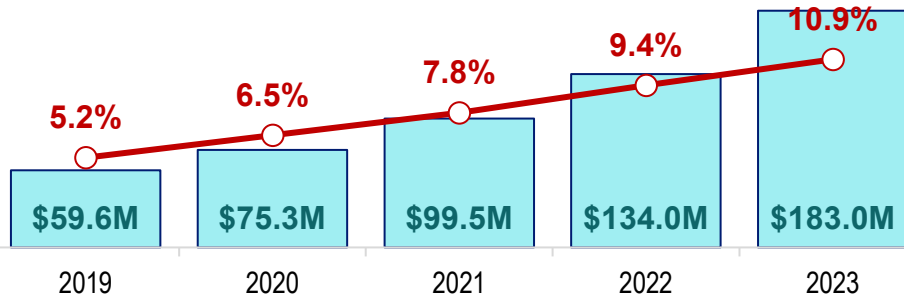
** Revenue includes net contribution income, investment income, the COVID-19 reimbursement received in 2022, and prescription drug rebates.

Diabetes and Obesity

Glucagon-Like Peptide-1 Agonists (GLP-1s)

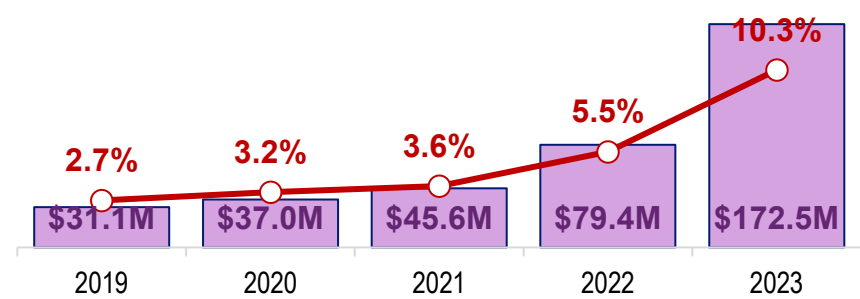
Anti-Diabetic GLP-1 Summary

■ Total Allowed ● % of All Pharmacy

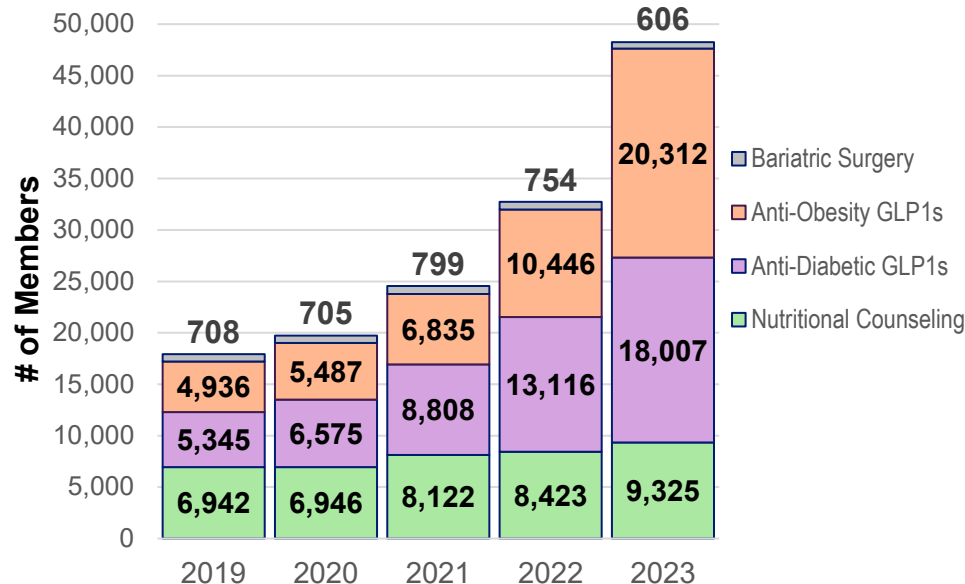


Anti-Obesity GLP-1 Summary

■ Total Allowed ● % of All Pharmacy



Obesity Treatment Utilization



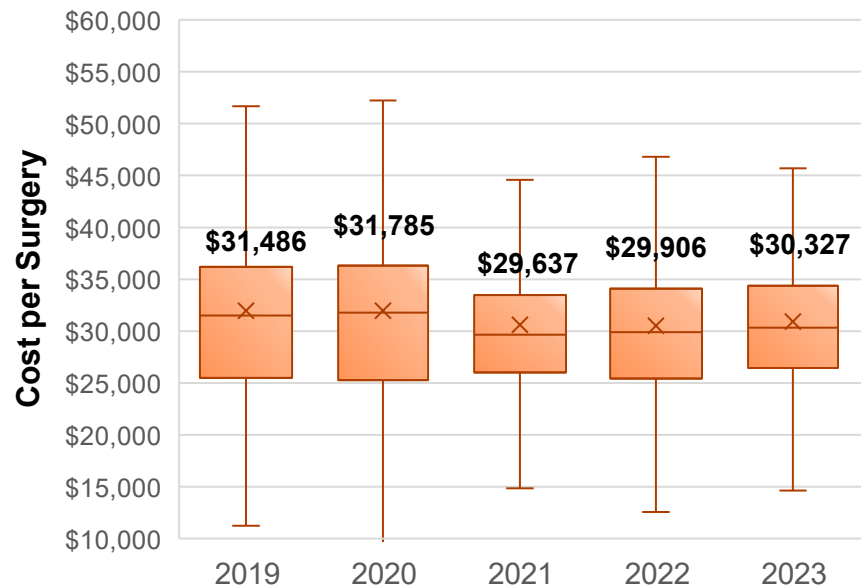
Observations

- GLP-1 medications have been a large part of the Plan's spend and a primary driver of trend.
- Although the Plan rescinded coverage for anti-obesity medications (AOMs), approximately 10% of AOM use in 2023 was for diabetics and those costs are expected to shift to that disease indication.
- While these medications can be highly effective for both diabetes and weight loss, often individuals are not aware of the potential side effects associated with them nor how to properly initiate therapy and adjust one's diet, which can lead to early discontinuation and medication waste.
- Nutritional counseling was the most popular treatment type in 2019 with 6,942 members utilizing this option. However, GLP-1s are now the most popular obesity treatment option by far. In order for GLP-1s to be most effective, it is important to complement the drugs with lifestyle modifications, including diet and exercise.

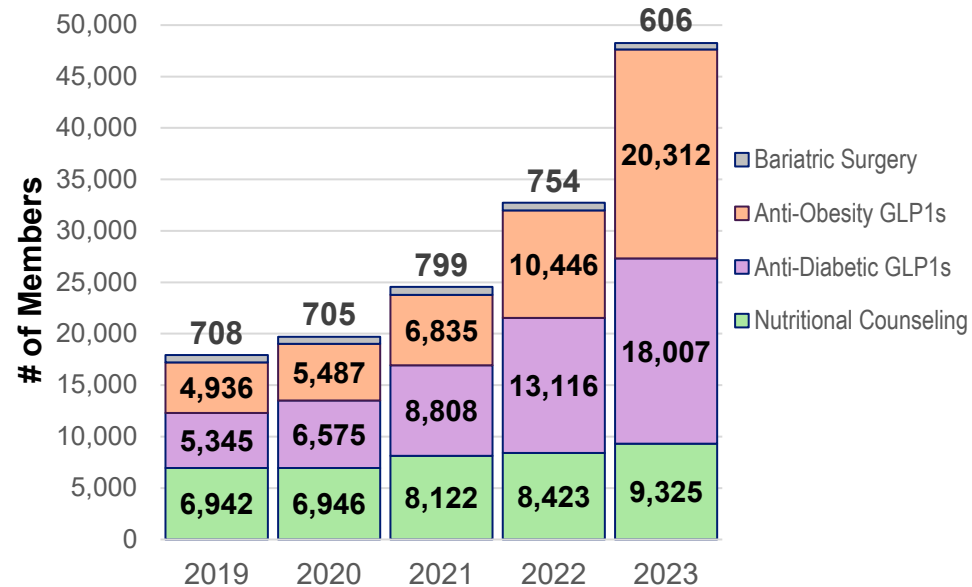
Diabetes and Obesity

Obesity Treatment

Bariatric Surgery Costs



Obesity Treatment Utilization



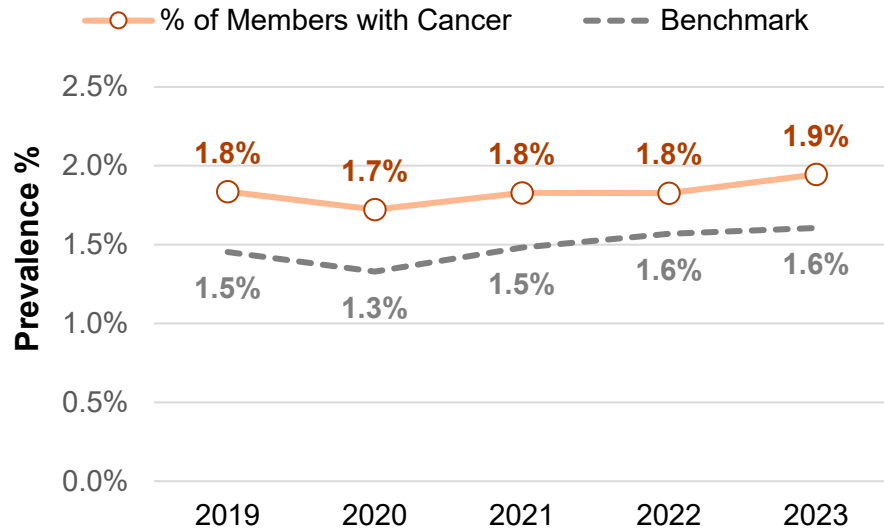
Observations

- As obesity becomes a major cost driver for the Plan it is important to review available treatment options for members.
 - Nutritional counseling was the most popular treatment type in 2019 with 6,942 members utilizing this option. However, GLP-1s are now the most popular obesity treatment option by far. In order for GLP-1s to be most effective, it is important to complement the drugs with lifestyle modifications, including diet and exercise.
- Bariatric surgery is the most effective method of weight loss but is generally only accessible for members considered morbidly obese. The popularity of the surgeries has decreased with the rise of GLP-1s. The cost for these surgeries has been relatively stable over the experience period but can fluctuate depending on the quality of the provider and presence of complications. In 2023, the average cost of surgery was \$30,327 but the 25th to 75th percentile of costs ranged from about \$25,000 to \$35,000. For comparison purposes, the cost for a monthly supply of GLP-1s averages approximately \$900 for the anti-diabetic versions and \$1,350 for the anti-obesity versions, prior to rebates.

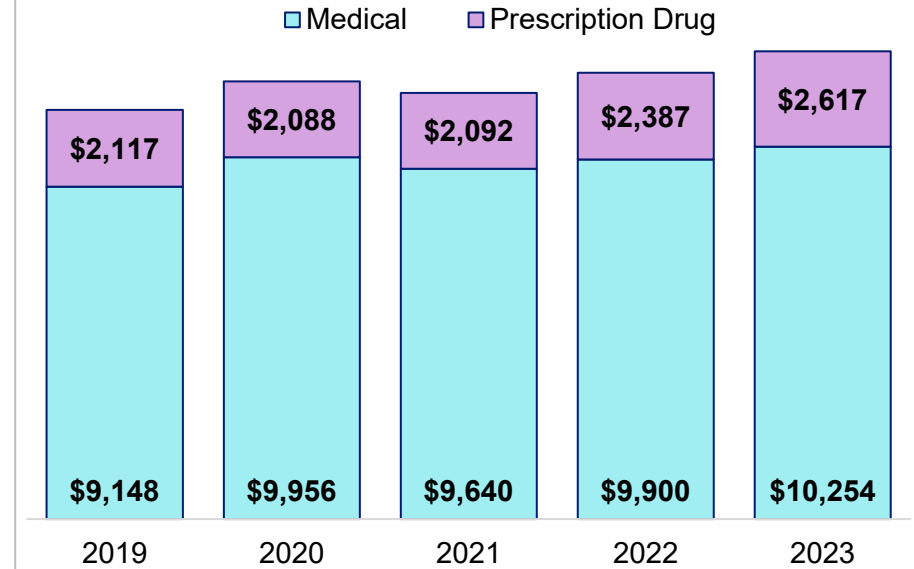
Cancer Treatment and Screening

Prevalence and Cost

Prevalence



Avg. Cost per Claimant



Observations

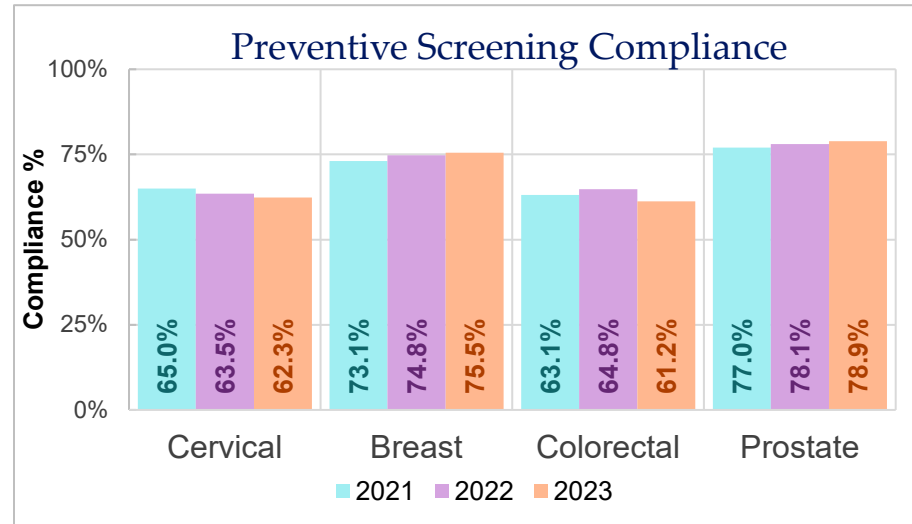
- Approximately 1.9% of the population had cancer in 2023, the highest of all years in the experience period. Cancer prevalence has increased each year since 2020.
 - The lowest prevalence was in 2020, which likely means that members delayed care which led to later diagnoses.
- 25% of the new cancers diagnoses in 2023 have recommendations for preventive screenings, including breast, cervical, colorectal, and prostate. For information on screenable cancers can be found on the following slides.
- Cancer is a major trend driver for most health plans. However, historically that has not been the case with this group. Medical costs PMPM for cancer treatment have increased 3.7% annually over the historical period and prescription drug costs have increased 6.3% annually, both below the overall trend rates for each benefit type.
 - Although historical trend rates for cancer are favorable, year-over-year medical trend for cancer treatment was 8% and was a trend driver for the Plan.

Cancer Treatment and Screening

Preventive Screenings

Preventive Cancer Screenings

Type	Target Demographic ¹	Compliance Rate			
		CY 2021	CY 2022	CY 2023	Annualized Trend ²
Cervical	Female Age 21-65	65.0%	63.5%	62.3%	-2.1pp
Breast	Female Age 40-74	73.1%	74.8%	75.5%	0.5pp
Colorectal ³	All Age 45-75	63.1%	64.8%	61.2%	1.2pp
Prostate	Male Age 55-69	77.0%	78.1%	78.9%	0.8pp



Observations

- Preventive Malignancies screenings suffered some of the largest reductions in utilization during the pandemic, particularly in April 2020. With the exception of cervical cancer, cancer screenings have mostly returned to pre-pandemic levels.
- Breast cancer and prostate cancer screening adherence is strongest at over 75%.
- We are showing low colorectal cancer screening compliance at approximately 61%. However, this metric can be difficult to measure due to the recommendations for this exam being once every ten years for some members.

¹ Excludes members with Medicare as their primary coverage but includes members aged 65 or older that are still active and Medicare is secondary.

² Annualized trend reflects the average annual trend between CY 2019 and CY 2023.

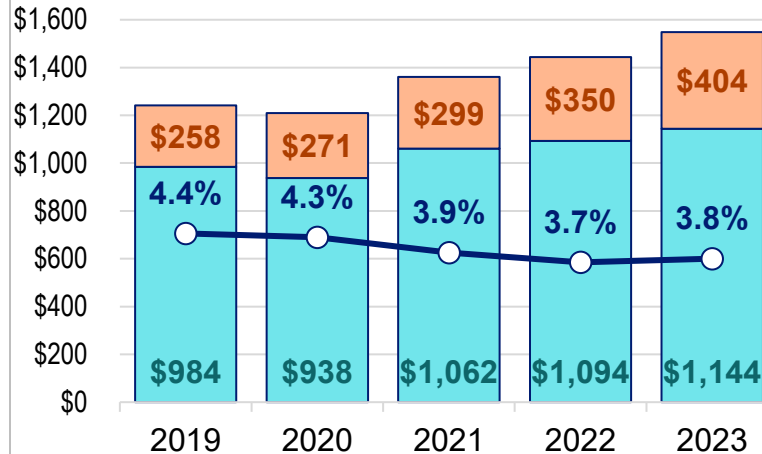
³ Colorectal prior to 2023 reflects target demographic of age 50-75.

Tobacco Cessation Program

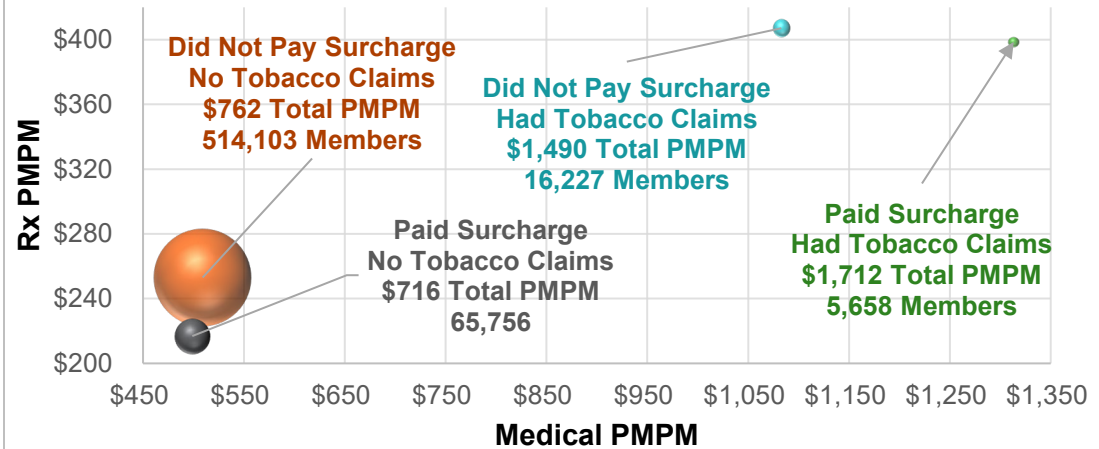
Cost and Prevalence

Tobacco Cost and Prevalence

Medical PMPM Rx PMPM Prevalence



Tobacco Surcharge Groups



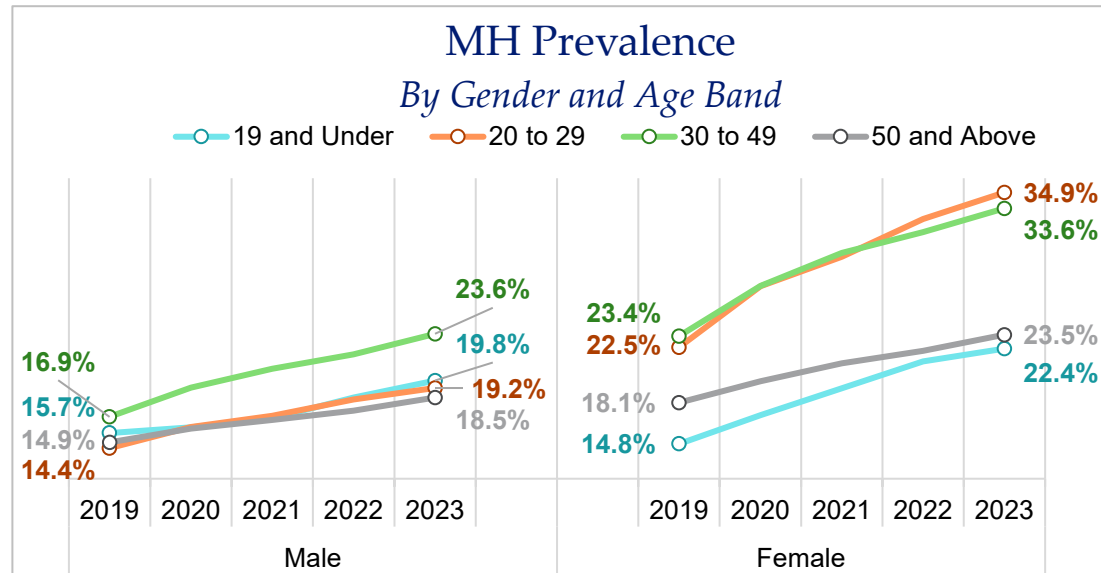
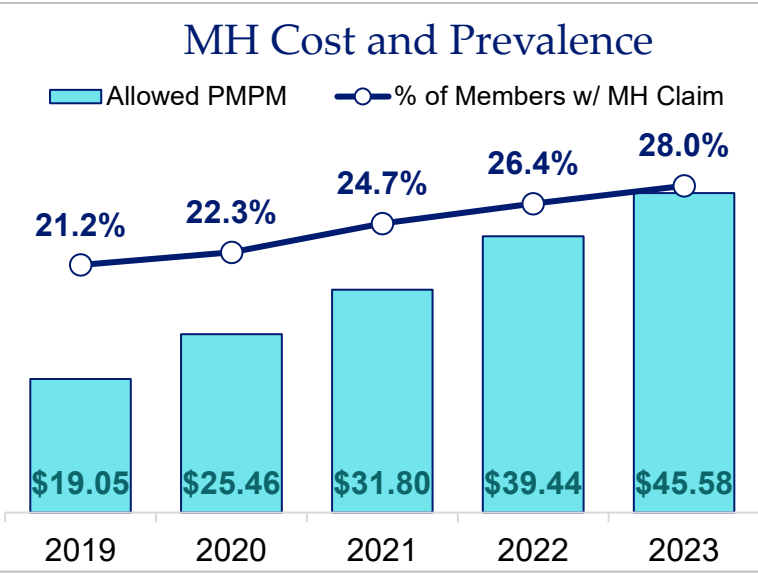
Observations

- The Plan rewards members for abstaining from tobacco use by reducing monthly premiums by \$60 for completing a tobacco attestation. However, if a member attests to being a user, they may still be eligible for the credit if they undergo at least one tobacco cessation counseling session within 90 days of enrollment. Furthermore, if members do not fill out the form correctly, they are defaulted to being a tobacco user and thus paying the surcharge. The results of the 2023 attestation are as follows:
 - 5,658 members (4,866 employees)¹ paid the surcharge and also had recent tobacco-related medical claims. These members cost \$1,712 PMPM.
 - 16,227 members (12,926 employees)¹ did not pay the surcharge but had recent tobacco-related medical claims. These members cost \$1,490 PMPM, which is much closer to identified tobacco users, suggesting that they did not fill out the attestation correctly.
 - 65,756 members (45,315 employees)¹ paid the surcharge but did not have recent tobacco-related medical claims. These members cost \$716 PMPM, which is much closer to non-users than identified tobacco users, suggesting that they may not be tobacco users and are being penalized for non-compliance.
 - 514,103 members (318,689 employees)¹ did not pay the surcharge and did not have any recent tobacco-related medical claims. These members cost \$762 PMPM.

¹ A member is any individual covered by the Plan during the year and thus will exceed the average monthly membership in the Plan. Further, if an employee attests to using tobacco, all covered dependents of that employee will be included in the cohort that pays the surcharge.

Mental Health

Cost and Prevalence



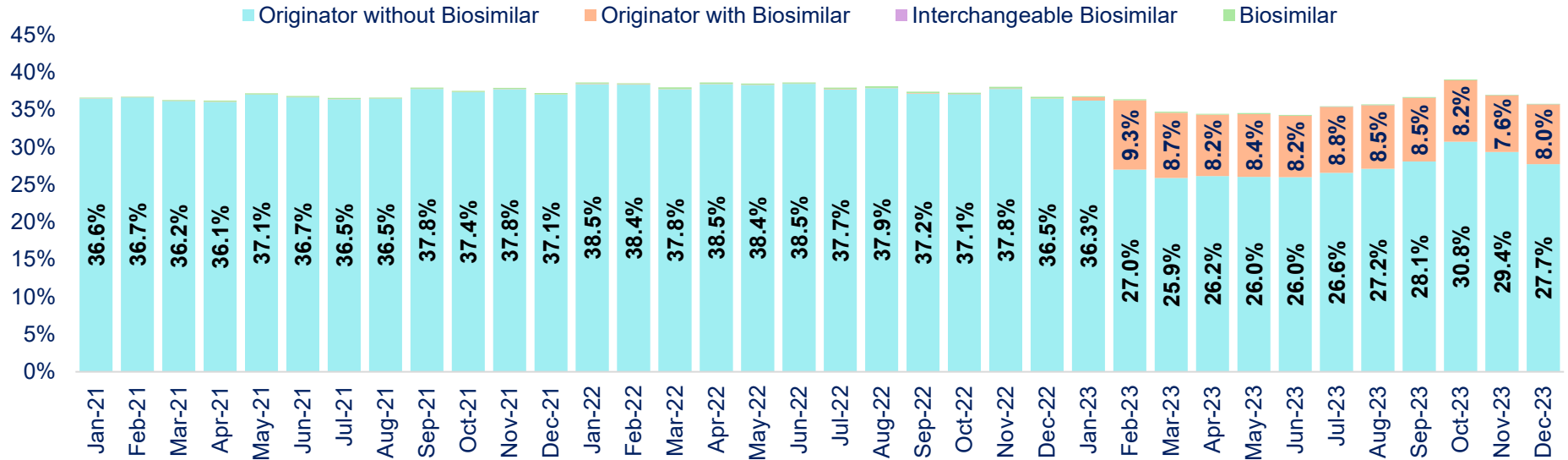
Observations

- Mental health treatment has been a major trend driver for the Plan during the last several years, partly due to increased access to treatment as a result of the pandemic.
 - Prior to the pandemic in 2019, 21.2% of members had a mental health-related encounter versus 28% of members in 2023, representing a 32% increase.
 - During that time, mental health claims increased from \$19.05 PMPM to \$45.58 PMPM, an increase of 139% (24% annualized).
 - Not included here are the secondary costs of untreated mental health disorders, which often cause other conditions to be more difficult and more expensive to treat.
- Female members aged 20-29 now have the highest prevalence of mental health disorders at 34.9%. Prior to the pandemic, this cohort had the second highest prevalence, behind females aged 30-49, at 22.5%.

Biosimilar Drugs

Pharmacy Benefit

% Plan Paid by Biologic Type



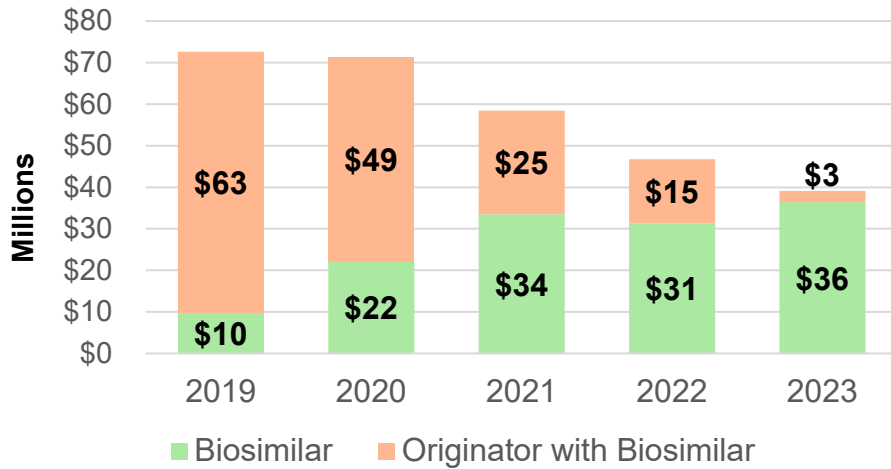
Observations

- Biologic medications account for a significant percentage of pharmacy costs paid for by the Plan, ranging from 37% in 2021 to 35.9% in 2023
- Biosimilar availability has been relatively limited under the pharmacy benefit. In 2021 and 2022, between 99.6% and 99.4% of all biologic spend was associated with a biologic agent without biosimilar availability
 - While usage has increased, biosimilars only accounted for 0.3% of all Plan spend on biologics in 2023
- However, the % of Plan spend associated with biologics with a biosimilar significantly increased in 2023 with the availability of multiple Humira biosimilars

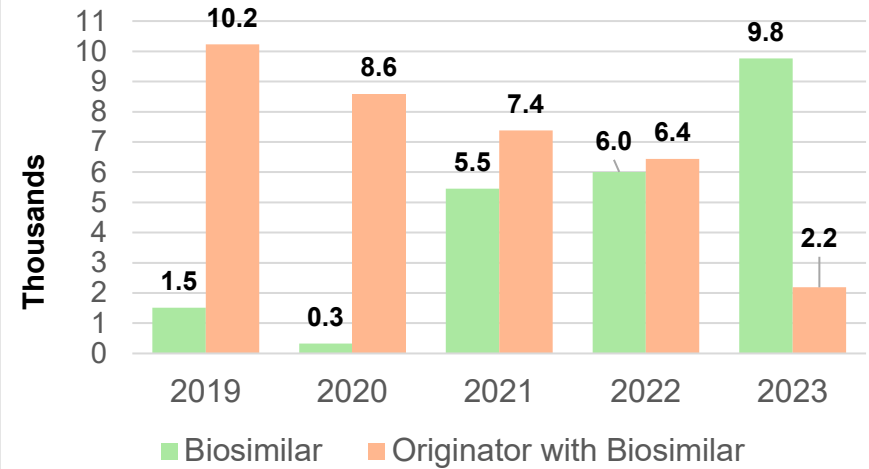
Biosimilar Drugs

Medical Benefit

Total Allowed



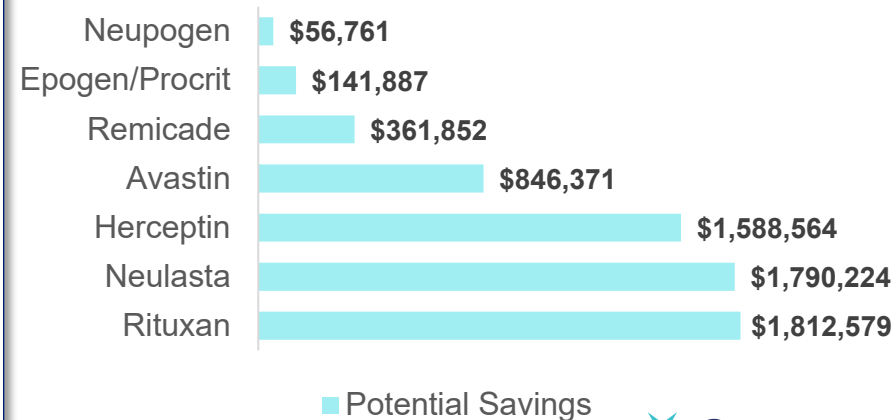
Total Encounters



Observations

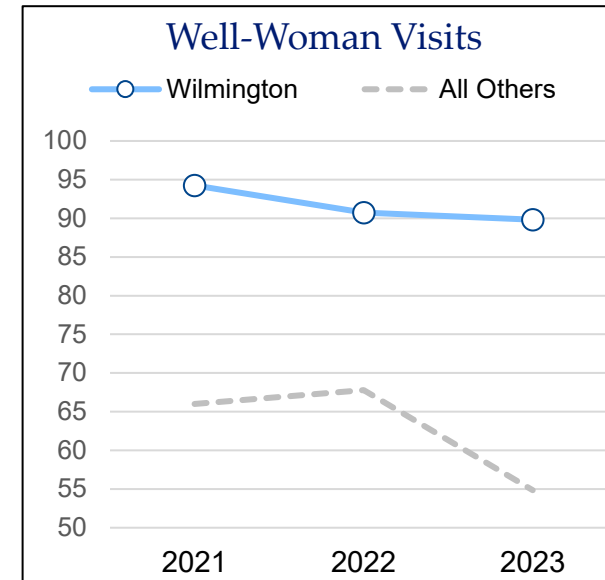
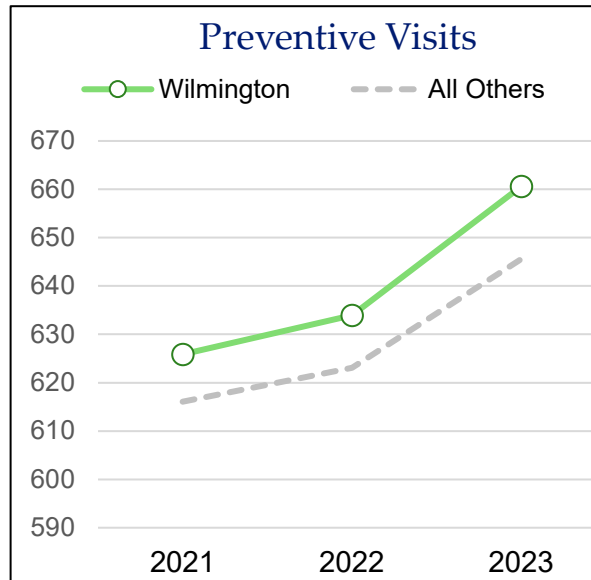
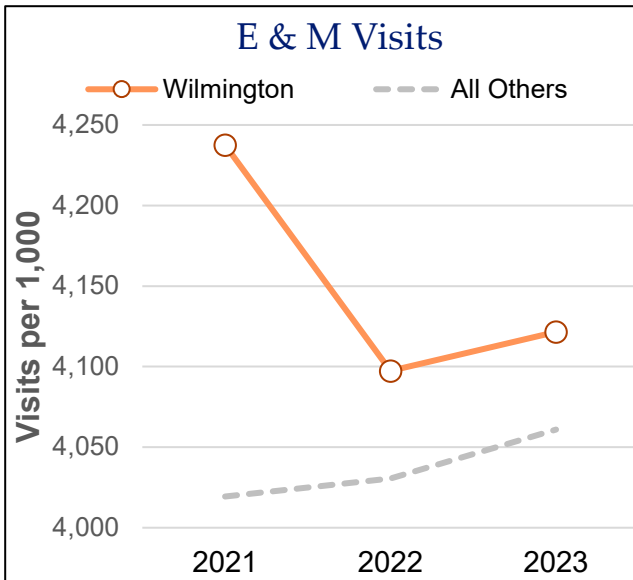
- For biologics with biosimilars now available, plan spend has shifted away from originators, decreasing from 86.8% to 6.9%. Over this time, total spend on these drug groups has decreased from \$72,607,935 to \$39,135,714 (a change of 46.1%). \$63,028,901 was spent on originators in 2019 compared to \$2,710,745 in 2023
- Biosimilar utilization has improved since 2019 growing to 93.1% from 13.2%.
- Even with usage of biosimilars, there can be price variation among the biosimilar products available within a biologic category. Based on 2023 costs, if the lowest cost biosimilar was used in all cases within the same setting (office vs outpatient hospital), the potential savings could be \$6,598,238.

Potential Savings



Wilmington Health Pilot

Preventive Care Trends: Wilmington vs. All Others

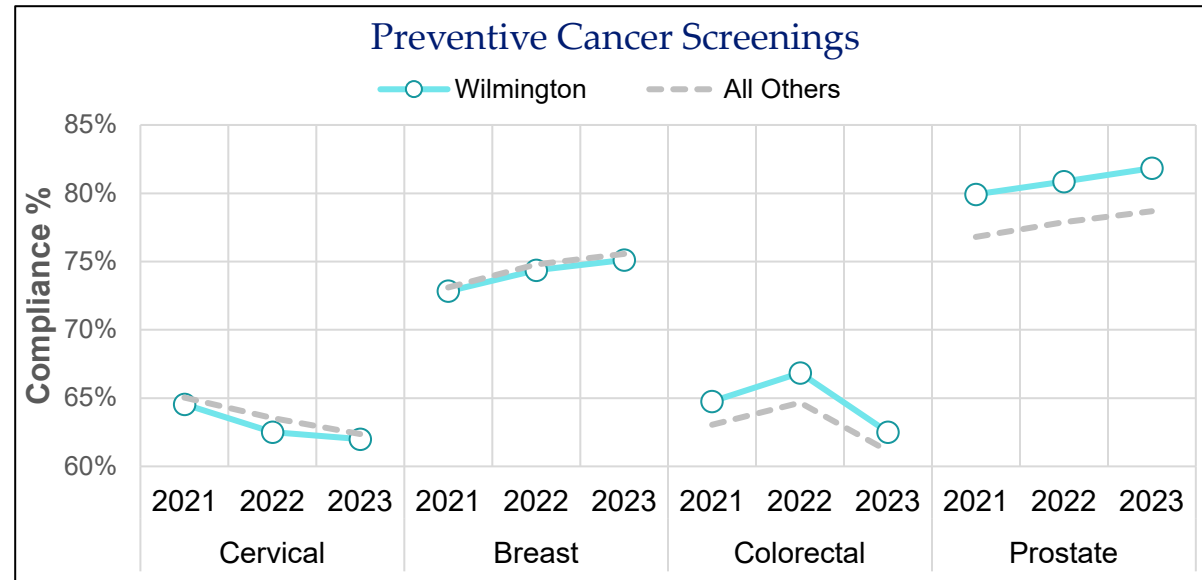
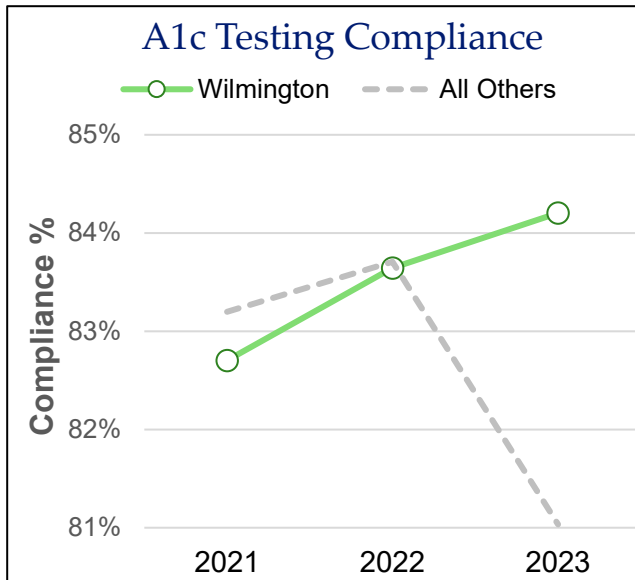


Observations

- Evaluation and management (E & M) visits, preventive visits, and well-woman visits, are quality of care metrics that should be improved through the pilot program and should be monitored.
- For E & M visits, utilization was higher for Wilmington by 61 visits per 1,000 in 2023. However, the difference was greater in 2021 by 218 visits per 1,000.
- Members in Wilmington are also utilizing preventive visits at greater rates than the other regions. Wilmington had 10 more preventive visits per 1,000 than the other regions in 2021. The difference increased to 15 more by 2023.
- Female members in Wilmington are utilizing well-woman visits at greater rates than other regions. Wilmington had 28 more well-woman visits per 1,000 than the other regions in 2021, which increased to 35 more visits per 1,000 by 2023.

Wilmington Health Pilot

Preventive Care Trends: Wilmington vs. All Others



Observations

- Additional metrics used to gauge whether the pilot program in Wilmington is having a positive effect on members A1c testing compliance for diabetics and preventive cancer screenings.
- The pilot program appears to be having a positive effect on A1c testing compliance. Diabetics in Wilmington continue to improve compliance rates, whereas compliance rates for the other regions decreased in 2023. The other regions had high compliance than Wilmington in 2021. However, in 2023, Wilmington had a compliance rate of 84.1% versus 80.9% for the other regions.
- The benefits from the pilot program on adherence to preventive cancer screenings is less clear. Wilmington has higher compliance rates for colorectal and prostate cancers. However, the difference was similar prior to program implementation. Screening rates for cervical and breast cancer are slightly lower for Wilmington, but the difference is consistent with pre-program experience. Note that most individuals do not need to get screened every year and it may take several years for improvements in screening compliance to manifest.

Member Profiles: Risk Group Definitions

- **Non-Utilizers:** Members who did not have any medical or prescription drug claims
- **Healthy:** Any member with a CCSR condition score below 2.4
- **Minor acute:** Members without a chronic condition identified who had a CCSR condition score between 2.4 and 6.8
- **Major acute:** Members without a chronic condition identified who had a CCSR condition score between 6.8 and 58.2
- **Single Chronic:** Members with exactly one identified chronic condition¹
- **Chronic w/ Comorbidities:** Members with more than one identified chronic condition¹
- **Malignancies:** Any member having the highest spend in a CCSR category related to malignancies
- **Catastrophic:** Any member with a CCSR condition score greater than 58.2

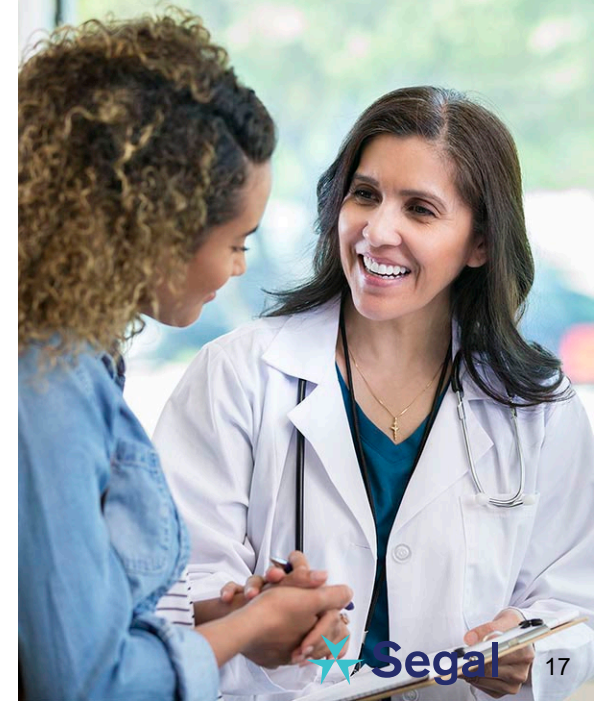
Member Profiles: Risk Group Examples

Risk Group	Description/Example of CCSR Category
1. Non-Utilizers	n/a
2. Healthy	Contraceptive and procreative management; upper respiratory infections; skin inflammation
3. Minor Acute	Urinary tract infections
4. Major Acute	Newborn affected by maternal conditions or complications of labor/delivery
5. Single Chronic	Diabetes mellitus, Type 2
6. Chronic w/ Comorbidities	Coronary atherosclerosis and other heart disease with heart failure and depressive disorders
7. Malignancies	Nervous system Malignancies - brain
8. Catastrophic	Septicemia

Appendices

A Word About Privacy

- Data presented has been “de-identified,” which means it does not contain names or SSNs, etc.
- Specific medical conditions are identified.
- If the plan administrator knows the identity of individuals with a specific condition, that information is considered PHI.
- PHI is subject to the HIPAA Privacy Rule’s protections, which means it must be kept confidential and cannot be used for any reason other than health plan administration (e.g., using it for employment purposes, or by other benefit plans, is prohibited).



Appendices

Disclaimer

- This document has been prepared for the exclusive use and benefit of the State Health Plan of North Carolina, based on information provided by you and your other service providers or otherwise made available to Segal at the time this document was created. Segal makes no representation or warranty as to the accuracy of any forward-looking information statements and does not guarantee any particular outcome or result. Except as may be required by law, this document should not be shared, copied or quoted, in whole or in part, without the consent of Segal. This document does not constitute legal, tax or investment advice or create or imply a fiduciary relationship. You are encouraged to discuss any issues raised with your legal, tax or other advisors before taking, or refraining from taking, any action.