SPENDING AND USE AMONG MARYLAND'S PRIVATELY INSURED

Annual Report, 2019

Maryland Health Care Commission

CENTER FOR ANALYSIS AND INFORMATION SYSTEMS

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HIGHLIGHTS

The healthcare spending for all services combined in 2019 was $5,603 per capita among privately insured in Maryland. This represented an increase of 2.6% from 2018. In comparison, the National Health Expenditures (CMS) reported healthcare per capita spending growth rate of 5.2% (excluding net cost of private health insurance (NCPHI), Medigap and Dental) among the privately insured in 2019

- Per member spending for all services combined increased by about 2.6% in 2019 compared to about 1.4% increase in spending for all services combined in 2018
- Per member spending accelerated across all three types of markets:
  - In the individual market, spending grew by about 2.6% in 2019. This increase was lower (by about 12.2 percentage points) than in 2018, which increased approximately 14.8% per member spending.
  - Per member spending in the small employer market increased by about 3.2% in 2019 compared to about 3.7% growth rate in 2018.
  - In the large employer market, per member spending grew by about 2.6% in 2019, compared to a marginal increase of 0.1% in 2018.

➢ **Outpatient hospital facility services and professional expenditures were the primary contributors to the overall 2.6% increase in spending for 2019:**

- **Per capita spending for outpatient hospital facility increased by about 4.1%, while professional services spending increased by about 3.0%**. The outpatient hospital increase was mainly caused by the rise in the unit cost of about 3.8%. Professional expenditures increase was due to the rise in utilization of about 3.6% in 2019.
  - No market dominated as a contributor(s) to the outpatient hospital 4.1% increase in spending for 2019. For professional services, the large employer and small employer markets were primary contributors to the about 3.0% increase, at about 4.0% and 2.0%, respectively.
  - Outpatient hospital and professional services combined accounted for about 49.1% (17.4%: outpatient hospital, and 31.7%: professional services) of the total privately insured per member spending in 2019.

➢ **Per member spending changes in 2019 in other service categories:**

- **Inpatient hospital facility services per member spending showed a slight decrease of about 0.1% from 2018 to 2019.** These services make up about 15.0% of all per member spending in 2019.
- **Outpatient non-hospital facility services per member spending increased by about 10.3%.** However, it is essential to note that the overall impact is modest as these outpatient non-hospital facility services accounted for only about 2.5% of overall spending in 2019.
- **Labs/Imaging services showed an increase in per-member spending in 2019 of about 2.6%, compared to about 1% in 2018.** Labs/Imaging accounted for about 5% of the total privately insured per member spending in 2019.
- **Prescription drug per member spending across all markets grew by about 1.9% in 2019.** Within each market, the prescription drug per member spending grew at about 5.1% for the individual market in 2019, the large employer and small employer markets showed a per member spending growth rate of about 1.4% and 2.0%, respectively. The prescription drug made up about 28.4% of total per capita spending in 2019.

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MARYLAND HEALTH CARE COMMISSION

BACKGROUND

Each year, the Center for Analysis and Information Systems (CAIS) within Maryland Healthcare Commission (MHCC) examines Maryland privately insured population's spending and use and reports on enrollment trends, population risk, cost, and utilization indicators to inform policymaking.[1] This analysis used 2017, 2018, and 2019 data from Maryland's Medical Care Data Base (MCDB), which contains health insurance enrollment data and health care claims data for Maryland residents[2]. This report does not include any exhibits on the coronavirus disease's impact (COVID-19) pandemic on Maryland residents' health care spending. In the future, we will report on the pandemic impact on healthcare spending and use based on the latest available data.

Data in the MCDB are submitted quarterly to the Maryland Health Care Commission (MHCC) by private health insurance carriers, third party administrators (TPAs), and pharmacy benefit managers (PBMs). Most private health insurance carriers serving Maryland residents submit MCDB data, including CareFirst, United Healthcare, Kaiser Permanente, Cigna, and Aetna (Kaiser claims are not included in this report). This report contains data about Maryland residents enrolled in fully insured, self-insured non-ERISA and self-insured ERISA (very limited — payers who report ERISA data voluntarily) health plans and are under 65 years of age. In line with the 2018 privately insured report, we calculated the spending as annual per member spending instead of per member per month (PMPM) spending.

This report excludes self-insured ERISA and Federal Employee Health Benefit (FEHB) health plans due to federal decisions in 2016 (SCOTUS court ruling — *Gobeille vs. Liberty Mutual*) and (OPM baring payers from reporting FEHB data to APCDs) in 2019, respectively. These data exclusions accounted for about 44% (1.68 million members) of the MCDB's privately insured population. A recent study conducted by HSCRC using the 2019 MCDB and Hospital Case-mix (hospital discharge) data found that for patients using the hospital services, the Case-mix index and age distributions are similar for the subset of patients found in the MCDB relative to the total population of patients observed in the Case-mix data. This result means that despite excluding the self-insured ERISA and FEHB plans, the MCDB represents the larger privately insured population.[3]

Kaiser did not provide claim-level payment information because salaried practitioners deliver the bulk of their health care practitioner services. Kaiser also does not report prescription data due to proprietary restrictions. MHCC is working with Kaiser to develop service-level payment estimates and plan to resolve this issue in future reports using an approach Kaiser used in Colorado and California. As in the past, Kaiser plans are only included in this report's individual and small employer market data. The only data that have Kaiser members are the overall enrollment data at the end of a year and the median expenditure risk score results.

We continue to report primary care spending as a percentage of overall outpatient medical spending, based on a Milbank Memorial Fund report's primary care specialty definition.

We also continue to report on the most expensive drugs utilized by the privately insured population, focusing on privately insured state employees during 2019 using the Multum lexicon database.

This report presents enrollment, spending, utilization, and unit cost data for all privately insured health insurance markets, including comparisons among the individual, small employer, and large employer markets. Data on variation by geography, age, and service category are also included.

[1] Data on self-insured non- ERISA and self-insured ERISA (on a very limited basis) plan products are included in this report.
[2] About 20 other states have developed data systems similar to the Medical Care Data Base. Commonly, these are referred to as an All-Payer Claims Database (APCD). Like the MCDB, these APCDs do not include some payers or certain coverage types.
[3] Evaluating Maryland Commercial Experience in the MCDB, conducted by HSCRC February 12, 2021

This report is one in a series of reports that fulfills the annual reporting requirements on healthcare spending using information from the MCDB, as required under Maryland law. Measures used in this analysis are defined in the Methods section of Appendix B at the end of the report.

PART 1: THE PRIVATELY INSURED MARKET IN MARYLAND

This part of the report presents enrollment, spending, risk, utilization, and unit cost data for all privately insured health insurance markets for the years 2017, 2018, and 2019. The individual, small employer, and large employer markets are compared throughout the report. Data on variation by demographics (age group and geography) and service category are also included.

1.1 Enrollment, Spending, and Risk across Maryland's Privately Insured Markets: 2017, 2018 and 2019

This section provides information on enrollment, spending, and risk (measured through member health status). This information is essential in understanding trends over time in health care costs and insurance participation and how the individual market, small employer market, and large employer market differ. This section also provides information on member out-of-pocket (OOP) costs across markets and variation in spending across different service types.

Exhibit 1 and Exhibit 2 illustrate the following:

- In 2019, there were 1.35 million members under 65 years of age enrolled across all markets at the end of December. These members were about 1% less compared to the prior year. This decline was mainly due to decreased enrollment of 1.0% and 1.7% in the large and small employers' markets. This declining enrollment trend is consistent with the trend reported by the State Health Access Data Assistance Center (SHADAC), which showed that enrollment among privately insured in Maryland decreased by 1.2% in 2019. SHADAC also reported that the number of uninsured members decreased by 0.2% in 2019. Enrollment changes most likely reflect a shift from private to public insurance.

- Overall enrollment in the individual market stabilized in 2019. However, enrollment in the on-exchange market increased by about 1.8% in 2019, mainly due to the Maryland reinsurance program's impact enabled by the ACA 1332 waiver. Please refer to exhibit 15 for details about on-exchange vs. off-exchange enrollment trends.

- Overall per capita spending (all services combined) across all markets increased by 2.6%, from $5,463 per member in 2018 to $5,603 per member in 2019. In comparison, CMS NHE 2019 reported a per capita spending increase of about 5.2% from 2018 ($4,826) to 2019 ($5,078) after excluding Medigap, dental services, and the net cost of private insurance.

- The percent change in overall per capita spending (all services combined) in 2018 (1.4% increase) was lower than in 2019 (2.6% increase). This 1.4% increase is a restatement of the result reported in the 2018 Report (2.9%). The primary reason is that FEHB health plans are excluded from the 2019 report due to the OPM's decision to prevent payers from reporting FEHB data to state APCDs, including Maryland. The FEHB HMO population included in last year's report had a higher age/gender factor (1.026) vs. the non-FEHB population (0.977) currently in this year's report. The lower age/gender factor for the Non-FEHB will result in less expected claims cost per member than if the FEHB HMO plans were included. The FEHB plans population was about 6% of the privately insured population reported in last year's privately insured report.

- In 2019, medical per capita grew about a 2.8% to $4,013 compared to $3,903 (2.2%) in 2018. Likewise, pharmacy spending grew by about a 1.9% to $1,590 in 2019. In comparison, it showed a decline of 0.6% ($1,560) in 2018.

- Within each market type, we observed different growth rates. Spending increased in the small employer by about 3.2% ($5,068) and with a slightly lower growth rate of 2.6% in the large employer ($5,447) and individual markets ($7,713).

- Spending growth accelerated across all three of the largest service categories (hospital outpatient (4.1%), pharmacy (1.9%), and physician services (3.0%) between 2018 and 2019, while hospital inpatient spending remained stable. This result was in contrast to the prior year when inpatient spending increased by about 5.9% and hospital outpatient spending decreased by 1.2%.

- The outpatient non-hospital facility services category (e.g., Ambulatory Surgery Centers, Home Health, Outpatient Rehabilitation Facilities, Federally Qualified Health Centers) showed the highest increase (about 10.3%) in per member spending among all services categories for 2019. However, as a share of total per member spending, outpatient non-hospital facility services were only about 2.5% of the overall (all services combined) spending. Moreover, the unit costs per visit varied substantially due to the wide-ranging mix of services included in this category. From ambulatory surgery visits, which can be very costly, basic clinic visits in an FQHC or outpatient rehabilitation visit are much less expensive.

- Growth in unit cost (3.8%) drove accelerated spending in outpatient hospital facility services, while increased utilization was responsible for increases in physician (3.6%) and pharmacy services (1.1%).

- In 2019, OOP spending (all services combined) increased by 1.3% in the large employer market, decreased by 2.0% in the small employer market, and experienced a modest increase of 2.0% in the individual market. Like 2017 and 2018, OOP spending was highest in the individual market in 2019, at $1,539, compared to $1,047 for the small employer market and $569 for the large employer market.

- From 2017 through 2018, the median expenditure risk scores decreased (1.34 in 2017 v. 1.33 in 2018), and then it increased marginally from 2018 to 2019 (1.37). In 2017, 2018, and 2019, the median expenditure risk score was highest in the individual market 1.36, 1.43, and 1.47. The large group market from 2017 through 2018 decreased (1.22 in 2017 v. 1.20 in 2018), whereas it increased marginally from 2018 to 2019 (1.23). In the small group market, we continue to see an increase of 1.26, 1.31, and 1.33 for 2017, 2018, and 2019, respectively. The median expenditure risk scores represent factors above the national average which is 1.00 (e.g., a 1.50 risk score for the individual market means that this population's illness is 50% higher than the national average.

Exhibit 1. Enrollment, Spending, and Risk Scores for Privately Insured Markets in Maryland, 2017, 2018, and 2019

	2017				2018				2019			
	Total	Large Employers	Small Employers	Individual	Total	Large Employers	Small Employers	Individual	Total	Large Employers	Small Employers	Individual
Members												
Total members as of December 31 (000 omitted)	1,368	961	224	183	1,361	994	235	133	1,347	984	231	132
Member Months												
Total member months (000 omitted)	16,273	11,365	2,581	2,327	16,387	11,874	2,816	1,698	16,298	11,870	2,798	1,630
Spending												
Per Capita spending, all services combined	$5,386	$5,300	$4,736	$6,550	$5,463	$5,308	$4,913	$7,520	$5,603	$5,447	$5,068	$7,713
Per Capita OOP, all services combined	$766	$561	$1,070	$1,437	$747	$562	$1,068	$1,509	$748	$569	$1,047	$1,539
Per Capita OOP, Medical Only	$601	$422	$839	$1,212	$600	$436	$860	$1,316	$606	$447	$859	$1,325
Per Capita OOP, Prescription Drugs	$166	$139	$231	$225	$146	$126	$208	$193	$142	$122	$188	$214
Per Capita Spending By Service Category												
Inpatient Hospital Facility	$796	$755	$755	$1,040	$842	$798	$804	$1,213	$842	$795	$835	$1,190
Outpatient Hospital Facility	$949	$909	$813	$1,294	$938	$890	$834	$1,440	$976	$927	$871	$1,513
Outpatient Non-Hospital Facility	$111	$101	$110	$158	$126	$117	$123	$194	$139	$127	$147	$213
Professional Services	$1,690	$1,681	$1,522	$1,921	$1,723	$1,684	$1,603	$2,193	$1,775	$1,751	$1,635	$2,194
Labs/Imaging	$272	$271	$246	$304	$274	$270	$253	$329	$281	$277	$259	$341
SubTotal (Medical Only)	**$3,817**	**$3,717**	**$3,446**	**$4,717**	**$3,903**	**$3,760**	**$3,618**	**$5,370**	**$4,013**	**$3,878**	**$3,747**	**$5,452**
Prescription Drugs[1]	$1,569	$1,583	$1,289	$1,833	$1,560	$1,548	$1,295	$2,151	$1,590	$1,570	$1,320	$2,261
Risk Score												
90th Percentile	3.18	2.61	2.78	3.57	3.16	2.56	2.88	4.06	3.29	2.68	2.97	4.32
Median expenditure risk score	1.34	1.22	1.26	1.36	1.33	1.20	1.31	1.43	1.37	1.23	1.33	1.47
10th Percentile	1.03	1.03	1.03	1.03	1.03	1.03	1.03	1.03	1.03	1.03	1.03	1.03

Notes: (1) Some calculations in the above exhibit might not be exact due to rounding.
(2) The large employer market includes State of Maryland employees (self-insured non-ERISA) and other self-insured non-ERISA plans. However, the large employer market excludes FEHB members.
(3) Expenditure risk score differences are measured as absolute differences from 2017 to 2018 and 2018 to 2019.
(4) Risk score values for 2018 and 2017 are different from previously reported values in the 2018 report because of excluding FEHB data in 2019.
(5) **Results exclude Kaiser plans (See Appendix B for more information**).

Exhibit 2. Percent Changes in Enrollment, Spending, and Risk Scores for the Privately Insured, 2018 over 2017, and 2019 over 2018

	% Change 2018/2017				% Change 2019/2018			
	Total	Large Employers	Small Employers	Individual	Total	Large Employers	Small Employers	Individual
Members								
Total members as of December 31	-0.5%	3.4%	4.6%	-27.6%	-1.0%	-1.0%	-1.7%	-0.3%
Member Months								
Total member months	0.7%	4.5%	9.1%	-27.0%	-0.5%	0.0%	-0.6%	-4.0%
Spending								
Per Capita spending, all services combined	1.4%	0.1%	3.7%	14.8%	2.6%	2.6%	3.2%	2.6%
Per Capita OOP, all services combined	-2.6%	0.2%	-0.2%	5.0%	0.1%	1.3%	-2.0%	2.0%
Per Capita OOP, Medical Only	-0.1%	3.5%	2.5%	8.6%	0.9%	2.5%	-0.2%	0.7%
Per Capita OOP, Prescription Drugs	-11.6%	-9.9%	-10.0%	-14.3%	-3.1%	-3.0%	-9.7%	10.9%
Per Capita Spending By Service Category								
Inpatient Hospital Facility	5.9%	5.8%	6.6%	16.6%	-0.1%	-0.3%	3.8%	-1.9%
Outpatient Hospital Facility	-1.2%	-2.1%	2.6%	11.3%	4.1%	4.1%	4.5%	5.1%
Outpatient Non-Hospital Facility	13.8%	15.7%	11.5%	22.8%	10.3%	8.5%	19.6%	10.1%
Professional Services	2.0%	0.2%	5.3%	14.2%	3.0%	4.0%	2.0%	0.0%
Labs/Imaging	0.6%	-0.3%	2.9%	8.3%	2.6%	2.6%	2.1%	3.6%
Subtotal (Medical Only)	2.2%	1.2%	5.0%	13.8%	2.8%	3.1%	3.6%	1.5%
Prescription Drugs[1]	-0.6%	-2.3%	0.4%	17.3%	1.9%	1.4%	2.0%	5.1%
Risk Score								
90th Percentile	-1.0%	-2.0%	4.0%	14.0%	4.0%	5.0%	3.0%	6.0%
Median expenditure risk score	-1.0%	-2.0%	4.0%	5.0%	3.0%	3.0%	2.0%	3.0%
10th Percentile	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%

1.2 Unit Costs by Market and Service Category for Privately Insured Health Plans: 2017, 2018 and 2019

Unit Cost is one component of the per member spending calculation (along with utilization addressed in the next section). There is strong evidence that an increase in unit cost is the primary cost driver of spending in the U.S[4]. Recent analyses reported year over year increase in unit cost has led to overall healthcare spending even though utilization of services has generally declined during the same period. Rising unit costs outweigh the impact of the increase in chronic disease prevalence and the aging population on healthcare spending. The unit cost component is relatively more minor of concern among Medicare and Medicaid, where Centers for Medicare & Medicaid Services are better able to restrain cost. There is strong evidence that unit cost growth is primarily driven by market power that enables providers, drug manufacturers, and others to charge prices substantially above the cost of providing their services or products. This section examines unit cost by service category for all markets combined as well as each market separately.

Exhibit 3 and Exhibit 4 illustrate the following:

- Across all markets, unit costs in 2019 increased within inpatient hospital facility (5.4%), outpatient hospital facility (3.8%), and outpatient non-hospital facility (10.2%).
- Unit costs for prescription drugs, professional services, and labs/imaging services experienced modest changes of less than 1% in 2019.
- Unit costs for prescription drugs increased by about 0.7% in 2019 across all markets. This increase was about a 1.3 percentage swung from 2018, which showed a decrease of 0.6%.
- In 2019, the unit cost growth rate for labs/imaging showed a significant slowdown of about 0.2% across all markets compared to growth of 6.4% in 2018. The exclusion of the FEHB HMO plans has shed some light on the Non-FEHB population's behavior regarding labs and imaging. The number of visits decreased in 2018 and 2019 compared to 2017. However, the spending dollars increased in 2018 and 2019. Therefore, one can infer that there might have been more visits to specialists requiring more complicated tests and more advanced imaging such as MRI and CT scans in 2018 and 2019 than in 2017. Hence the cost per visit will be far more expensive in 2018 and 2019 than in 2017. Utilization decreased from 2017 to 2018 (-5.2%) and 2017 to 2019 (-3.2%). However, unit cost increased from 2017 to 2018 (6.4%) and 2017 to 2019 (6.5%) by about the same amount.

[4] https://www.naic.org/documents/cipr_topic_healthcare_cost_drivers_cost_drivers_installment_2.pdf

Exhibit 3. Unit Cost by Market and Service Category, 2017, 2018, and 2019

Service Category	2017				2018				2019			
	Total	Large Employers	Small Employers	Individual	Total	Large Employers	Small Employers	Individual	Total	Large Employers	Small Employers	Individual
Inpatient Hospital Facility (Cost per IP Day)	$4,257	$3,950	$4,951	$5,082	$4,493	$4,240	$5,006	$5,360	$4,737	$4,518	$5,100	$5,577
Outpatient Hospital Facility (Cost per Visit)	$1,192	$1,137	$1,337	$1,310	$1,226	$1,181	$1,392	$1,292	$1,272	$1,231	$1,416	$1,341
Outpatient Non-Hospital Facility (Cost per Visi	$671	$692	$675	$610	$771	$798	$742	$698	$849	$871	$858	$757
Professional Services (Cost per Visit)	$179	$176	$180	$190	$183	$180	$186	$200	$182	$180	$182	$195
Labs/Imaging (Cost per Visit)	$159	$158	$160	$168	$170	$168	$170	$179	$170	$168	$169	$181
Prescription Drugs (Cost per Script)1	$110	$112	$100	$114	$110	$110	$99	$121	$110	$111	$99	$121

Note: (1) Some calculations in the above exhibit might not be exact due to rounding.
(2) The large employer market includes State of Maryland employees (self-insured non-ERISA) and other self-insured non-ERISA plans. However, the large employer market excludes FEHB members.
(3) Results exclude Kaiser plans (See Appendix B for more information).

Exhibit 4. Unit Cost Per Member Percent Change by Market and Service Category

Service Category	% Change (2018 over 2017)				% Change (2019 over 2018)			
	Total	Large Employers	Small Employers	Individual	Total	Large Employers	Small Employers	Individual
Inpatient Hospital Facility (Cost per IP Day)	5.5%	7.3%	1.1%	5.5%	5.4%	6.6%	1.9%	4.0%
Outpatient Hospital Facility (Cost per Visit)	2.8%	3.8%	4.1%	-1.4%	3.8%	4.2%	1.7%	3.9%
Outpatient Non-Hospital Facility (Cost per Visit)	14.8%	15.3%	9.9%	14.3%	10.2%	9.1%	15.5%	8.5%
Professional Services (Cost per Visit)	2.3%	1.9%	3.3%	5.4%	-0.5%	0.4%	-2.1%	-2.9%
Labs/Imaging (Cost per Visit)	6.4%	6.6%	6.0%	6.7%	0.2%	0.2%	-0.5%	1.1%
Prescription Drugs (Cost per Script)[1]	-0.6%	-1.3%	-0.8%	5.7%	0.7%	1.0%	-0.3%	0.6%

Notes: (1) Some calculations in the above exhibit might not be exact due to rounding.
(2) The large employer market includes State of Maryland employees (self-insured non-ERISA) and other self-insured non-ERISA plans. However, the large employer market excludes FEHB members.
(3) Results exclude Kaiser plans (See Appendix B for more information).

1.3 Utilization of Services by Service Category in Maryland's Privately Insured Markets: 2018 v. 2019

Utilization of services is one component of the per member spending calculation (along with unit costs, discussed in the previous section). Information on utilization allows us to see the role of consumer demand for services in overall spending for the service. Utilization data can help providers plan for future service offerings and carriers who pay for health services and policymakers who want to make sure that patients receive necessary care, but not unnecessary care. This report presents utilization as the number of units per 1,000 covered members per year for claims incurred during a given year, providing a standardized, comparable measure. Examples of units are inpatient days for inpatient hospital facility services, the number of visits for outpatient hospital facility and professional services, and the number of scripts for prescription drugs.

Exhibit 5 and Exhibit 6 illustrate the following:

- Both the large employer and individual markets saw around a 6.5% and 5.7% decline in inpatient hospital facility utilization. In contrast, the small group market showed an increase of about 1.9% in these services.
- The individual and small employer markets showed an increase in outpatient non-hospital facility services in 2019.
- The utilization of professional services increased by about 3.6% across markets, ranging from a 3% increase in the individual market, a 4.2% increase in the small employer market, and 3.6% in the large employer market.
- Labs/imaging utilization swung from a decrease of 5.4% in 2018 to a 2.4% increase across all markets. Large employers showed the highest growth in utilization (by about nine percentage points: -6.6% in 2018 v. 2.4% in 2019). Small employers showed a similar increase by about 5.3 percentage points from -2.9% in 2018 to 2.7% in 2019. The individual market had slower growth of about one percentage point (1.5% in 2018 v. 2.5% in 2019).
- The individual market showed a 4.5% increase in prescription drug utilization, while the large employer and small employer markets experienced much lower increases (0.4% and 2.2%, respectively).

Exhibit 5: Per member Percentage Changes in Utilization of Inpatient and Outpatient Facility Services by Market (2018 - 2019)

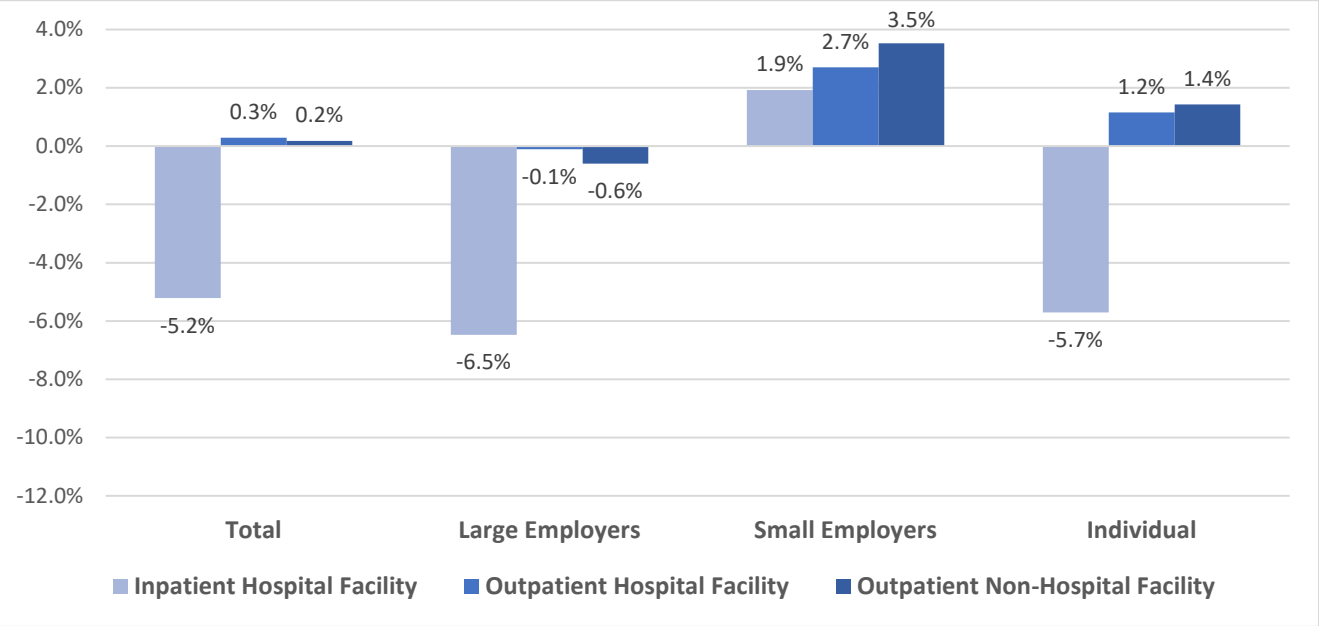
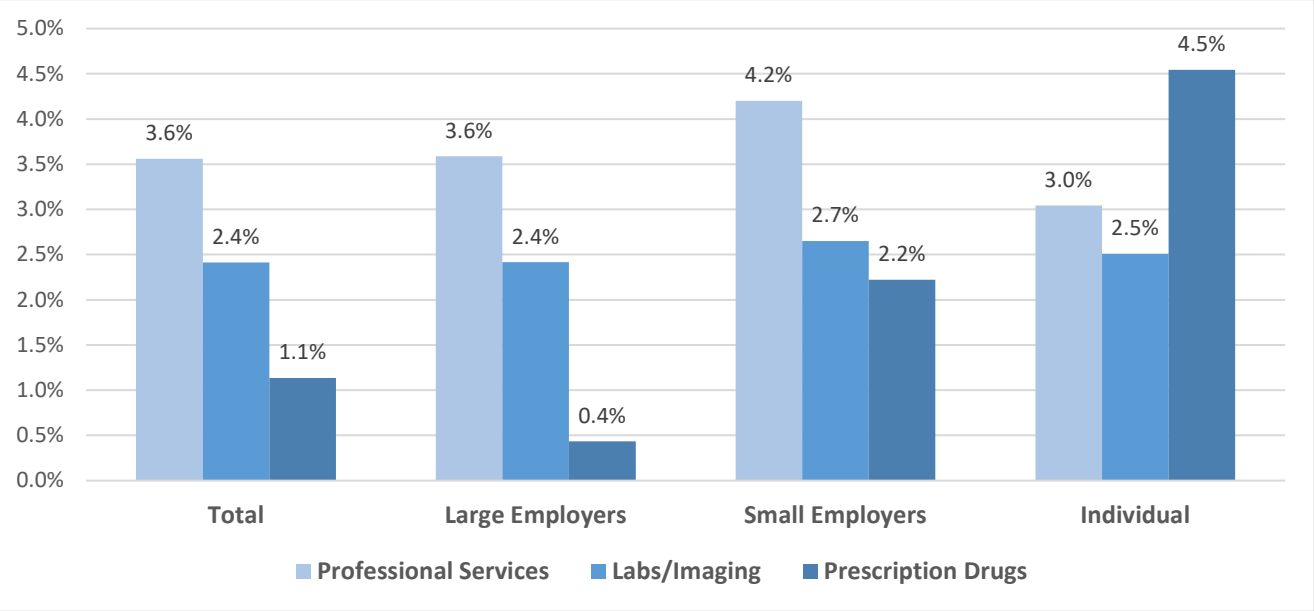


Exhibit 6: Per member Percentage Changes in Utilization of Professional Services, Labs/Imaging, and Prescription Drugs by Market (2018 - 2019)



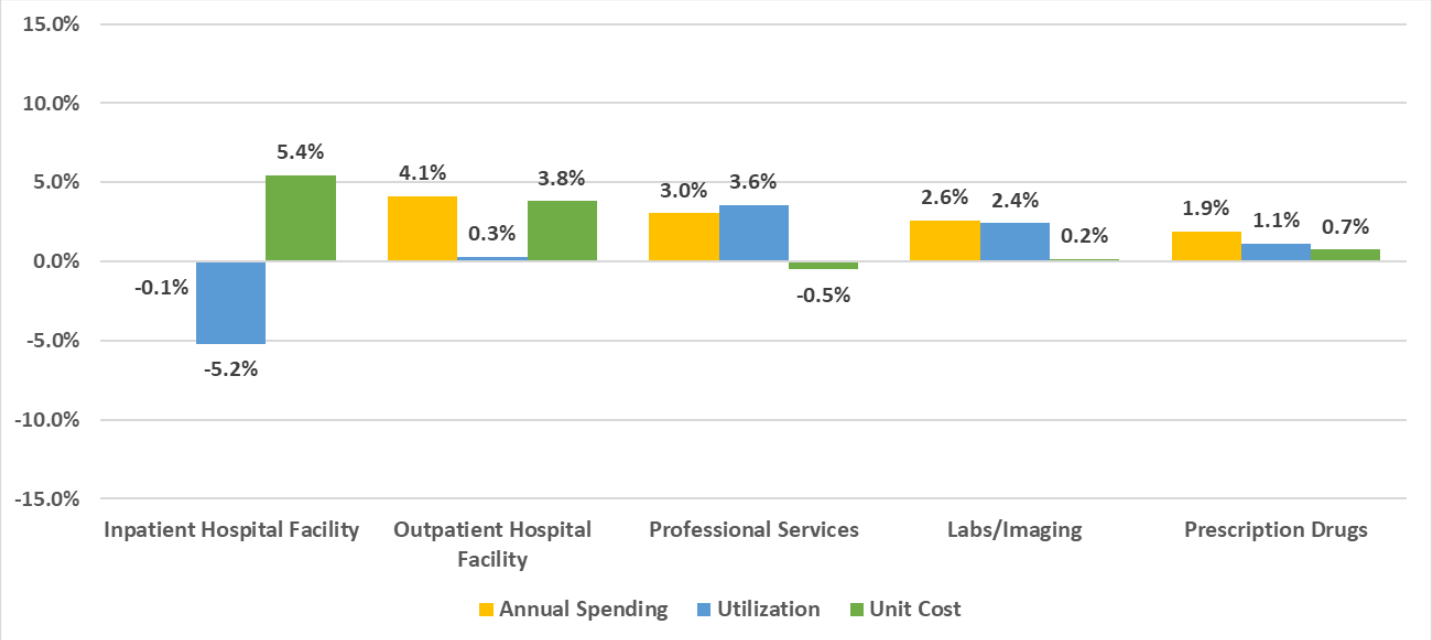
Notes: (1) Results exclude Kaiser plans (See Appendix B for more information).
(2) Some calculations in the above exhibit might not be exact due to rounding.
(3) The large employer market includes State of Maryland employees (self-insured non-ERISA) and other self-insured non-ERISA plans. However, the large employer market excludes FEHB members.

1.4 Drivers of Spending Containment, All Markets Combined: 2018 v. 2019

Exhibit 7 illustrate the following:

- Changes in per capita spending across services are due to changes in service use and unit costs.
- Change in per member spending for inpatient hospital facility services was flat from 2018 to 2019. This change resulted from a 5.4% increase in unit cost, offset by a 5.2% decrease in utilization.
- Per member, spending increased by about 4.1% for outpatient hospital facility services, mainly due to growth in unit costs (3.8%) and a marginal increase in utilization (0.3%).
- The overall increase in per member spending for outpatient non-hospital facility services was driven by the rise in unit costs (10.2%) and a slight increase in utilization (0.2%).
- There was a 3.0% increase in per member spending for professional services due to a 3.6% increase in utilization, offset by less than a 1% drop in unit costs.
- The increase in per member spending growth for labs/imaging services was driven by increased utilization (2.4%). There was a minor change in the unit cost.
- Prescription drug per member spending also experienced an increase (1.9%) due to small increases in both utilization (1.1%) and unit costs (0.7%).

Exhibit 7: Percentage Changes in Annual Spending, Utilization per 1,000 Members, and Cost per Unit, by Service Category, All Markets Combined: 2018 – 2019.



Notes: (1) Results exclude Kaiser plans (See Appendix B for more information).
(2) Some calculations in the above exhibit might not be exact due to rounding.
(3) The large employer market includes State of Maryland employees (self-insured non-ERISA) and other self-insured non-ERISA plans. However, the large employer market excludes FEHB members.

1.5 Prevalence of Select Chronic Medical Conditions, All Markets Combined: 2017, 2018, and 2019.

The chronic conditions focused on in this report are diabetes, hypertension, and depression. In particular, diabetes is the Maryland Total Cost of Care model's priority area for improving population health.[5]

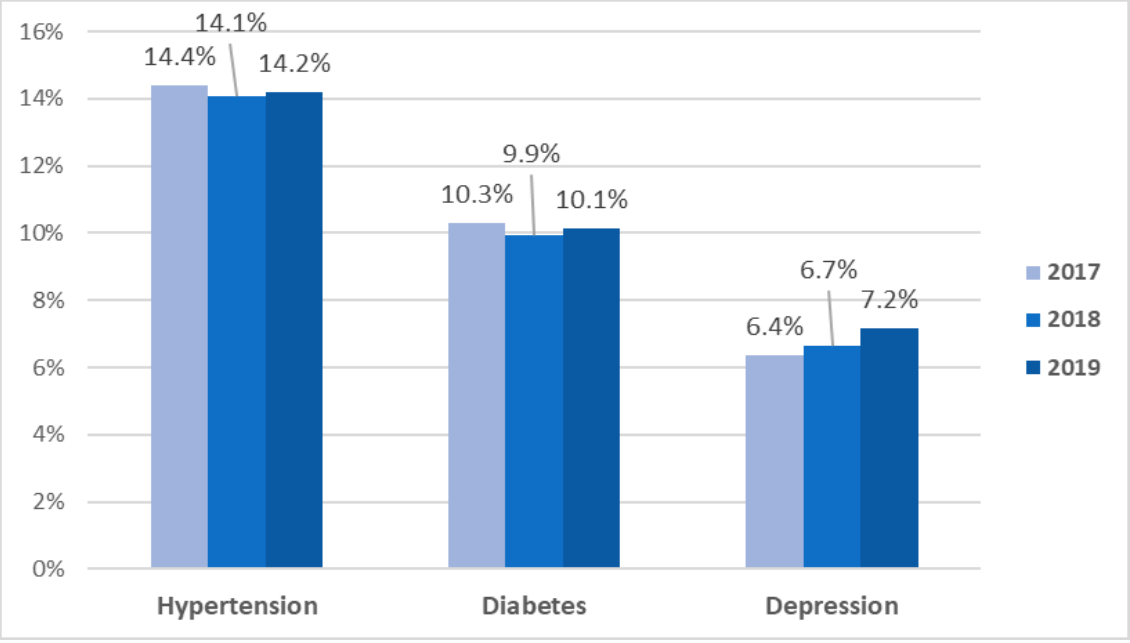
Chronic health conditions contribute to higher health care spending, and controlling or preventing them can significantly reduce spending. [6] Hypertension is one of the most common chronic conditions in US adults, and its control can help prevent the development of more severe and costly acute-care conditions such as heart failure and strokes. [7,8] Similarly, assisting patients with prediabetes make essential lifestyle changes can help prevent the onset of Type 2 diabetes which, if not managed well, can lead to the development of additional expenses and life-changing chronic conditions such as heart disease, kidney failure, and blindness.

Depression can also prove costly in terms of increased healthcare costs measured by direct medical expenses, as well as comorbidities, reduced work productivity, and other indirect costs. Depression is estimated to impose a total economic burden of over $210 billion per year.[9]

Exhibit 8 illustrates the following:

- All three chronic conditions' prevalence was relatively flat from 2017 to 2019. Hypertension remains the highest prevalence (14.4%), and depression the lowest prevalence (7.2%) in 2019.

Exhibit 8: Prevalence of Select Chronic Conditions, All Markets Combined: 2017, 2018, and 2019.



[5] https://innovation.cms.gov/initiatives/md-tccm/
[6] https://www.cdc.gov/chronicdisease/about/costs/index.htm
[7] http://www.fightchronicdisease.org/sites/default/files/TL221_final.pdf
[8] Tackling G, Borhade MB. Hypertensive Heart Disease. (2021) StatPearls Publishing; Available from: https://www.ncbi.nlm.nih.gov/books/NBK539800/
[9] Greenberg, P.E., Fournier, A., Sisitsky, T., Pike, C., & Kessler, R.C. (2015). The economic burden of adults with major depressive disorder in the United States (2005 and 2010). *The Journal of Clinical Psychiatry, 76 2*, 155-62.

1.6 Per Member Spending by Age in Maryland's Privately Insured Markets, 2019

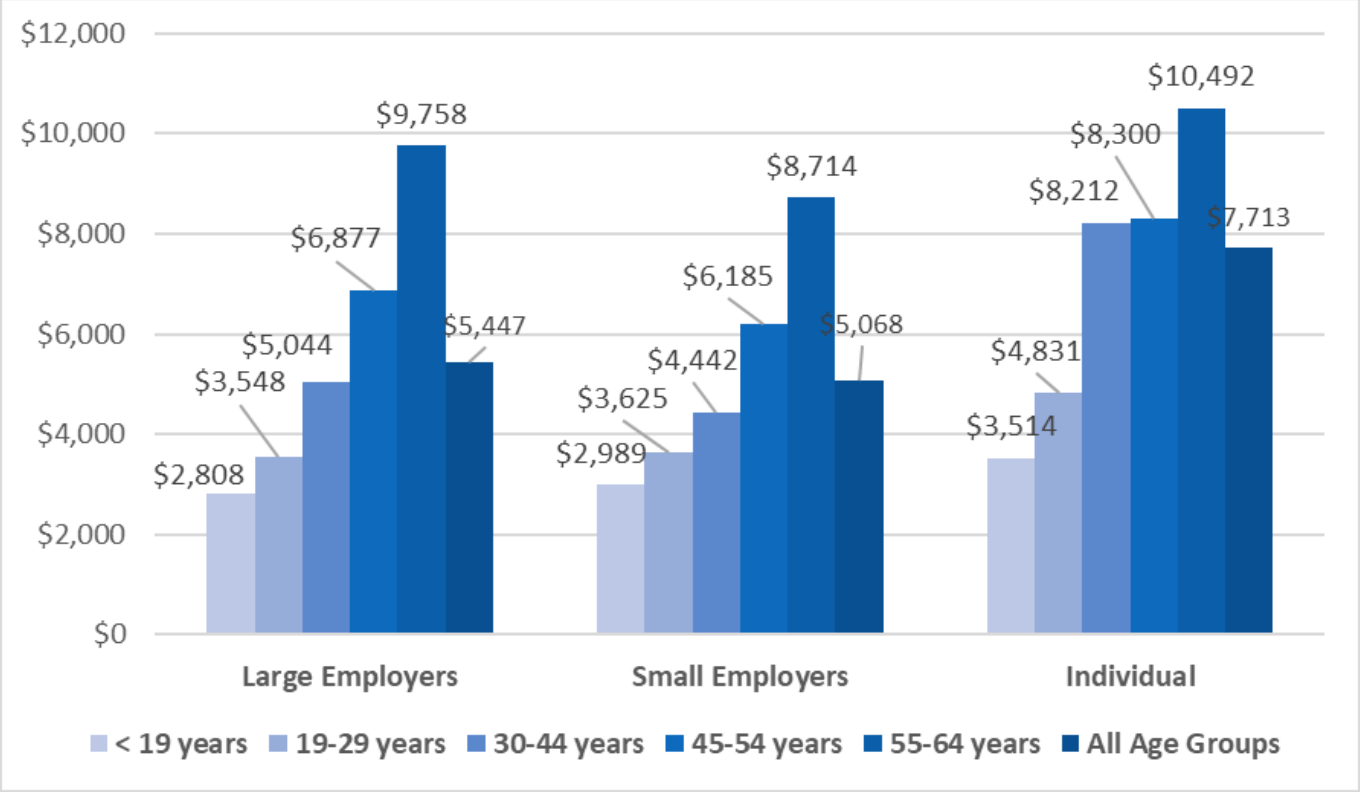
Health care costs vary by age and are related to different age populations' relative health needs. This cost variation is an essential factor in understanding health insurance risk pools and the influence of demographic mix by age on health plan costs and sustainability, among other factors. Nationally, growth in demographic characteristics accounted for 0.5% of the percentage increase experienced in per capita health expenditures.

Per capita spending increases with age and varies considerably across all markets as well. These results may help shed some light on some of the variations in spending and utilization trends observed across all markets. The large group market has the largest share of insured individuals under age 19, accounting for 23.2% of the insured population. In contrast, this age group makes up only 13% of the people in the individual market.

Exhibit 9 illustrates the following:

- Similar to the previous year, within each market, per member spending increased with age in 2019.
- In 2019, the individual market had the highest per member spending across all age groups.
- The under 19 age group has the lowest per member spending across all markets.
- In contrast, the most expensive age group, adults age 55 to 64, account for 29.7% of the insured population in the individual market and 35% of those insured in the large group market.

Exhibit 9: Per Member Spending by Age Group and Market, 2019



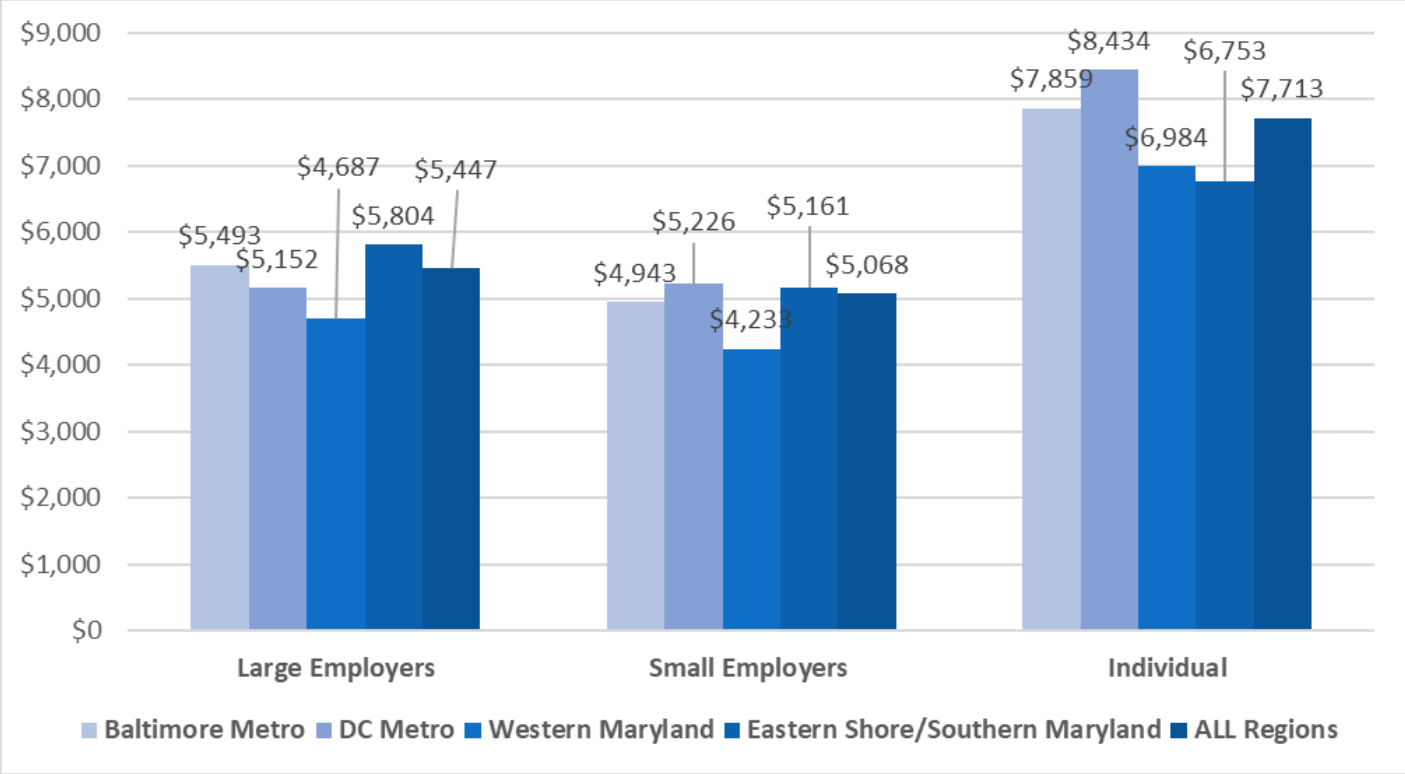
1.7 Per Member Spending by Region in Maryland's Privately Insured Market, 2019

Geographic variation in cost has been a long-standing issue nationally related to pricing and variation in utilization. This report's data compare per member spending across four (4) geographic regions in Maryland for each market category.

Exhibit 10 illustrates the following:

- Overall, per member spending across regions was more in the individual market than the large and small employer markets in 2019.
- Eastern Shore/Southern Maryland region showed the highest per member spending ($5,804), and the Western Maryland region showed the lowest per member spending ($4,687), a 23.8% variation.
- There was also a 23.4% variation between the regional highest annual per member spending ($5,226 in the DC metro region) and the regional lowest annual per member spending ($4,233 in the Western Maryland region).
- The individual market showed the most significant regional variation (24.9%) between the DC metro region, which had the highest annual per member spending ($8,434), and Eastern Shore/Southern Maryland, which had the lowest annual per member spending ($6,753).

Exhibit 10: Per Member Spending by Region and Market, 2019



1.8 Member Share of Health Spending across Markets: 2017, 2018, and 2019

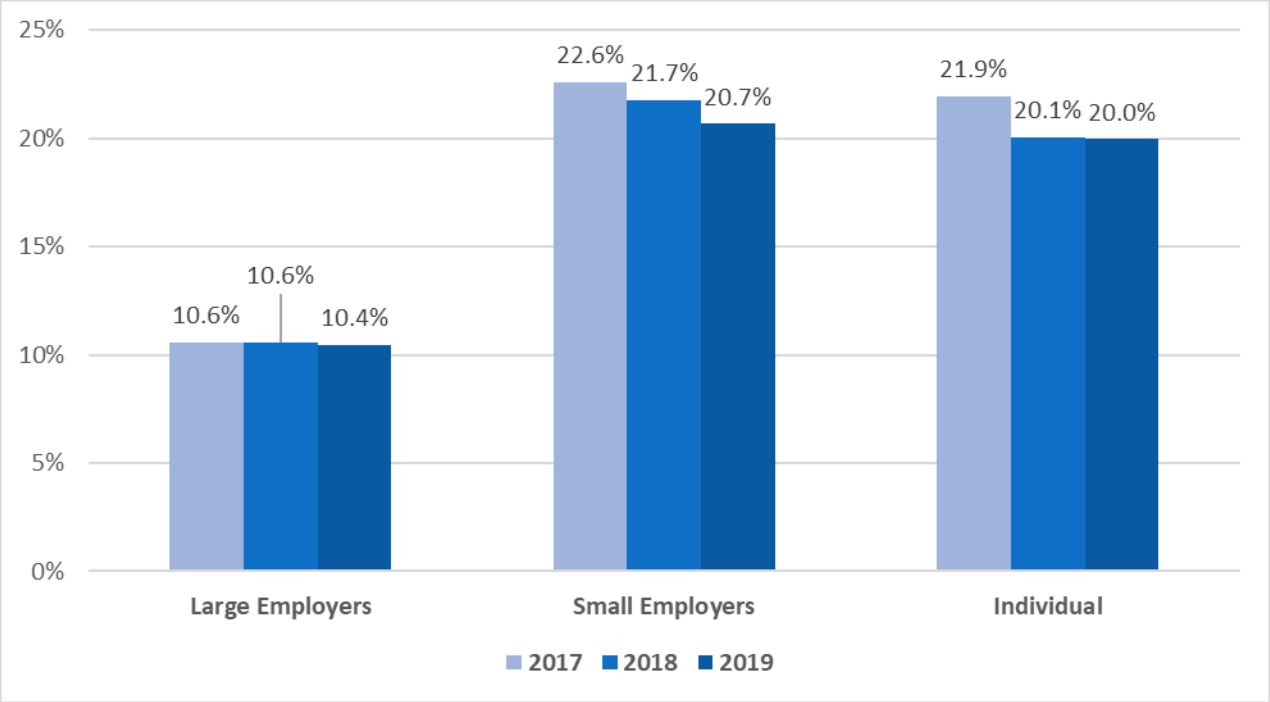
This section compares the share of healthcare spending paid out-of-pocket (OOP) by insured members across insurance markets. The burden of health care costs on individuals is an important issue as health care spending continues to increase and consumes more significant portions of individual, employer, and government budgets. An increase in member share could make it challenging to schedule appointments and fill prescriptions. Also, members could be forced to make sacrifices that would impact their housing and daily lives. Therefore, this section's data provide insights into how that burden is shared between individual consumers and carriers in Maryland's privately insured markets.

Exhibit 11 illustrates the following:

- In 2019 (similar to 2017 and 2018), the percentage of spending paid out of pocket by members was highest in the small employer market (20.7% of total per member spending), followed closely by the individual market (20.0%). In comparison, OOP spending in the large employer market was significantly less (10.4% of total per member spending).

- The member OOP share decreased from year to year in the small employer and individual markets but remained relatively stable across all years in the large employer market. One of the reasons for this trend is that on-exchange members qualify for subsidies under the ACA to reduce both their monthly premiums and their OOP costs, thus lowering these members OOP costs over time. More research with carriers is needed to find out more on the topic.

Exhibit 11: Member Out-of-Pocket Share of Total Spending by Market: 2017 – 2019



1.9 Top 25 Most Expensive Drugs by Spend, All Markets Combined, 2019

The purpose of reporting the top 25 most individual expensive drugs by spending (reimbursement amount and patient liability amount) is to provide context on these drugs' contribution towards overall per capita prescription spending.

Exhibit 12 illustrates the following:

- The top 25 most expensive drugs comprised about only 5% of total prescriptions but contributed to 39% ($604) of the total per capita drug spending ($1,590) across all markets among Maryland's privately insured in 2019. In other words, these 25 expensive medicines contributed towards 11% of total per capita healthcare spending ($5603)

- In 2019, 8 of the 25 most expensive drugs in all markets were specialty drugs belonging to the biologics category, which are used to treat psoriasis, Multiple Sclerosis, and some arthritis types. These medicines resulted in $292 per capita prescription drugs spend which was 18% of total per capita drug spending.

- 7 of the 25 most expensive drugs in all markets were medicines used for the treatment of diabetes. These medicines resulted in $127 per capita prescription drugs spend which was 8% of total per capita drug spending.

- Biologics and diabetes drugs comprised 64% of the top 25 most expensive drugs. In other words, about one out of every two of the most costly drugs belonged to either biologics or medications used in the treatment of diabetes. This percentage is comparable to 2018 values.

Exhibit 12: Top 25 Most Expensive Drugs By Spend, All Markets Combined, 2019

Drug_Name	Drug Class	Cost Per Prescription	Member Cost Per Prescription	Member Cost%	Per Capita Drug Cost
Adalimumab	Antirheumatics	$6,236	$125	2%	$126
Ustekinumab	Interleukin Inhibitors	$8,961	$110	1%	$46
Dulaglutide	GLP-1 Receptor Agonists	$726	$38	6%	$31
Etanercept	Antirheumatics	$5,132	$138	3%	$29
Dimethyl Fumarate	Selective Immunosuppressants	$7,737	$111	1%	$29
Bictegravir/Emtricitabine /Tenofovir	Antiviral Combinations	$3,069	$102	3%	$27
Cobicistat/Elvitegravir/Emtrici	Antiviral Combinations	$3,076	$122	4%	$26
Insulin Aspart	Insulin	$578	$36	7%	$25
Lisdexamfetamine	CNS Stimulants	$305	$55	22%	$23
Emtricitabine-Tenofovir	Antiviral Combinations	$1,752	$101	6%	$23
Secukinumab	Interleukin Inhibitors	$5,882	$138	2%	$19
Glatiramer	Other Immunostimulants	$5,149	$126	3%	$18
Abacavir/Dolutegravir/ Lamivudine	Antiviral Combinations	$2,882	$113	4%	$17
Ethinyl Estradiol-Norethindror	Contraceptives	$56	$2	5%	$17
Insulin Degludec	Insulin	$526	$34	7%	$17
Lenalidomide	Miscellaneous Antineoplastics	$14,976	$76	1%	$15
Liraglutide	GLP-1 Receptor Agonists	$803	$41	5%	$15
Somatropin	Growth Hormones	$4,949	$133	3%	$13
Sitagliptin	Dipeptidyl Peptidase 4 Inhibitors	$432	$29	7%	$13
Empagliflozin	SGLT-2 Inhibitors	$466	$37	9%	$13
Semaglutide	GLP-1 Receptor Agonists	$723	$41	6%	$13
Emtricitabine/Rilpivirine/ Tenofovir	Antiviral Combinations	$2,817	$117	4%	$13
Apremilast	Antirheumatics	$3,396	$124	4%	$13
Fingolimod	Selective Immunosuppressants	$8,148	$94	1%	$12
Follicle Stimulating Hormone	Gonadotropins	$6,052	$113	2%	$12
All Other		$72	$9	14%	$965
Grand Total *		**$111**	**$10**	**10%**	**$1,569***

Notes: 1) The total per capita prescription drug cost is less than that shown in exhibit 1 because this exhibit excludes the medical supplies.
2) Member cost per prescription refers to an insured user per prescription
3) Member Cost % means and insured user's OOP Rx Drug dollars as a percent of total Rx drug dollars per drug name.

1.10 Top 25 Most Expensive Drugs: State Employees, 2019

To shed light on drug costs and increase transparency, MHCC is now tracking the most expensive drugs among privately insured state employees. We identified state employees based on their employer federal tax identification number in the dataset for this analysis. We included employees who were Maryland residents. In other words, if a state employee's primary residence was not in Maryland, these employees were not included in this analysis. At the end of December 2019, 210,984 state employees enrolled in CareFirst, United Healthcare, and Kaiser health plans. For this analysis, we excluded State employees enrolled in Kaiser plan 5,350 (2.5%) and employees aged 65 years and above 50,537 (25%). The median illness burden of state employees was 1.50, which was higher compared to overall Maryland's privately insured population illness burden (1.37).

Exhibit 13 and Exhibit 14 illustrate the following:

- In 2019, State employees filled approximately 350 thousand prescriptions resulting in total prescription drug spending of $111.3 million.
- The top 25 most expensive drugs among the insured State employee population made up 30% (102,868) of total prescriptions but accounted for 73% ($82 million) of overall drug spending.
- 9 of the 25 most expensive drugs among state employees were medicines used for the treatment of diabetes. These medicines resulted in $216 per capita prescription drugs spend which was 31% of total per capita drug spending.
- The top 5 most expensive brand drugs among State employees were specialty drugs such as Humira Pen ($104 per capita), Trulicity ($52 per capita), Tresiba FlexTouch ($30 per capita), Cosentyx ($25 per capita), and Januvia ($23 per capita).

Exhibit 13: Top 25 Most Expensive Drugs: State Employees, 2019

Drug_Name	Drug Class	Prescription Users	Prescriptions	Total Cost	Member Cost	Cost Per Prescription	Member Cost Per Prescription	Member Cost%	Per Capita Drug Cost
Adalimumab	Antirheumatics	465	3,180	$19,744,426	$75,625	$6,209	$24	0%	$127
Dulaglutide	GLP-1 Receptor Agonists	1,334	10,604	$8,022,678	$215,180	$757	$20	3%	$52
Insulin Aspart	Insulin	1,704	11,121	$6,606,902	$205,231	$594	$18	3%	$43
Insulin Degludec	Insulin	897	6,844	$4,682,990	$130,940	$684	$19	3%	$30
Secukinumab	Interleukin Inhibitors	104	737	$4,397,045	$17,050	$5,966	$23	0%	$28
Sitagliptin	Dipeptidyl Peptidase 4 Inhibitors	1,042	7,790	$3,501,739	$146,209	$450	$19	4%	$23
Semaglutide	GLP-1 Receptor Agonists	741	4,085	$3,099,276	$85,588	$759	$21	3%	$20
Insulin Glargine	Insulin	1,141	7,693	$2,404,595	$147,379	$313	$19	7%	$16
Pregabalin	Gamma-Aminobutyric Acid Analogs	1,098	4,461	$2,272,854	$103,469	$509	$23	5%	$15
Fingolimod	Selective Immunosuppressants	33	281	$2,250,186	$5,055	$8,008	$18	0%	$15
Dupilumab	Interleukin Inhibitors	98	735	$2,230,691	$18,061	$3,035	$25	1%	$14
Palbociclib	Multikinase Inhibitors	19	184	$2,207,196	$4,900	$11,996	$27	0%	$14
Metformin-Sitagliptin	Antidiabetic Combinations	665	5,078	$2,191,424	$99,303	$432	$20	5%	$14
Liraglutide	GLP-1 Receptor Agonists	432	2,744	$2,163,795	$58,740	$789	$21	3%	$14
Budesonide-Formoterol	Bronchodilator Combinations	1,533	6,561	$2,123,469	$144,382	$324	$22	7%	$14
Insulin Detemir	Insulin	582	4,239	$1,816,520	$80,874	$429	$19	5%	$12
Apixaban	Factor Xa Inhibitors	681	4,225	$1,814,036	$88,620	$429	$21	5%	$12
Somatropin	Growth Hormones	46	373	$1,714,217	$6,360	$4,596	$17	0%	$11
Tofacitinib	Antirheumatics	51	355	$1,602,099	$8,490	$4,513	$24	1%	$10
Fluticasone-Salmeterol	Bronchodilator Combinations	1,028	3,942	$1,583,379	$50,656	$402	$13	3%	$10
Cyclosporine Ophthalmic	Ophthalmic Anti-Inflammatory Agents	555	2,158	$1,201,923	$42,004	$557	$19	4%	$8
Fluticasone-Vilanterol	Bronchodilator Combinations	733	3,422	$1,186,194	$78,052	$347	$23	7%	$8
Tadalafil	Erectile Dysfunction Agents	1,311	4,095	$1,081,902	$57,418	$264	$14	6%	$7
Ethinyl Estradiol-Etonogestrel	Contraceptives	834	6,022	$978,523	$212	$162	$0	0%	$6
Varenicline	Smoking Cessation Agents	1,089	1,939	$782,612	$3,153	$404	$2	0%	$5
All Other		92,172	243,567	29,647,195	2,395,079	$122	$10	9%	$191
Grand Total *		**110,388**	**346,435**	**$111,307,866**	**$4,268,030**	**$321**	**$12**	**4%**	**$719**

Notes: 1) Member cost per prescription refers to an insured user per prescription
2) Member Cost % means and insured user's OOP Rx Drug dollars as a percent of total Rx drug dollars per drug name.

Exhibit 14: Top 5 Most Expensive Brand Drugs, State Employees, 2019

Brand_Name	Drug Class	Prescription Users	Prescriptions	Total Cost	Member Cost	Cost Per Prescription	Member Cost Per Prescription	Member Cost%	Per Capita Drug Cost
Humira Pen	Antirheumatics	338	2,653	$16,128,246	$64,367	$6,079	$24	0%	$104
Trulicity Pen	Glp-1 Receptor Agonists	1,334	10,604	$8,022,678	$215,180	$757	$20	3%	$52
Tresiba FlexTouch	Insulin	893	6,828	$4,660,324	$130,565	$683	$19	3%	$30
Cosentyx Sensoready Pen	Interleukin Inhibitors	92	660	$3,874,961	$14,966	$5,871	$23	0%	$25
Januvia	Dipeptidyl Peptidase 4 Inhibitors	1,042	7,790	$3,501,739	$146,209	$450	$19	4%	$23
Grand Total *		**3,699**	**28,535**	**$36,187,948**	**$571,287**	**$1,268**	**$20**	**2%**	**$234**

Notes: 1) Member cost per prescription refers to an insured user per prescription
2) Member Cost % means and insured user's OOP Rx Drug dollars as a percent of total Rx drug dollars per drug name.

1.11 ACA-Compliant Health Plan Enrollment, Spending, Risk, and Utilization: 2017, 2018, and 2019 (On-Exchange and Off-Exchange Plans)

This section provides information on enrollment in ACA-compliant plans in the individual market and data on spending, utilization, and risk (such as measured through member health status). This information is essential in understanding trends over time in health care spending, consumer out-of-pocket costs, and insurance participation within the ACA-regulated market, which has undergone tremendous change since the launch in January 2014. This section also provides information on variation in spending across different service types. This section includes data for ACA-compliant plans offered through the Maryland Health Benefit Exchange (MHBE), which provides access to federal premium subsidies for low-income members, as well as data on ACA-compliant plans offered off the Exchange.

Exhibit 15 illustrates the following:

- Total on-Exchange enrollment, including Kaiser, increased by about 1.8% as of 12/31/2019, compared to a slight increase of about 0.1% from 2017 to 2018.
- Off-Exchange plan enrollment (including Kaiser HMO members) declined by about 1.9% in 2019, compared to about a 37% drop at the end of 2018. Nationally, this trend also held much of the decline in the individual market enrollment being concentrated in the off-exchange market. This off-exchange enrollment decline is primarily attributable to the significant premium increases in 2017 and 2018, which off-exchange enrollees were subject to since these enrollees are not eligible for any of the federal subsidies.[10]
- Although enrollment data includes Kaiser HMO members, it is essential to note that all data on per member spending (both On and Off-Exchange) in this report excludes Kaiser HMO members.
- Per member spending for all services combined for On-Exchange members declined by 1.4% in 2019, compared to a 9.9% increase in 2018); likewise, per member spending for Off-Exchange members grew by about 6.5% in 2019 vs. the 23.3% increase in 2018.
- Changes across the following service categories drove the overall 1.4% drop in On-Exchange per member spending in 2019:
    - Inpatient hospital facility services On-Exchange per member spending decreased by 6.1% from 2018 to 2019.
    - Outpatient hospital facility services On-Exchange per member spending showed a nominal increase between 2018 and2019.
    - A 3.3% decrease in On-Exchange per member spending was observed for outpatient non-hospital facility services. This service category represents only about 2.7% of overall on-exchange per capita spending for 2019.
    - Professional services decreased by more than 2.1% in On-Exchange per member spending.
    - On-Exchange per member spending for labs and imaging services decreased by about 1%.
    - Prescription drugs were the only service category with a modest increase in On-Exchange per member spending, at slightly over 1%. This increase was much higher among Off-Exchange members, at 9.6%

[10] https://www.kff.org/private-insurance/issue-brief/data-note-changes-in-enrollment-in-the-individual-health-insurance-market-through-early-2019/

Exhibit 15: On-Exchange vs. Off-Exchange Enrollment, Spending, and Risk Score for ACA-Compliant Insurance Plans in the Individual Market, 2017, 2018, and 2019

	2017		2018		2019		% Change 2018/2017		% Change 2019/2018	
	On-Exchange	Off-Exchange	On-Exchange	Off-Exchange	On-Exchange	Off-Exchange	On-Exchange	Off-Exchange	On-Exchange	Off-Exchange
Members as of 12/31										
Total members (w/o Kaiser)	79,223	78,012	65,486	44,888	69,712	43,506	-17.3%	-42.5%	6.5%	-3.1%
Total members (w/ Kaiser)	118,527	89,354	118,605	56,233	120,793	55,192	0.1%	-37.1%	1.8%	-1.9%
Distribution (w/o Kaiser)	50%	50%	59%	41%	62%	38%	17.8%	-18.0%	3.8%	-5.5%
Distribution (w/ Kaiser)	57%	43%	68%	32%	69%	31%	19.0%	-25.2%	1.2%	-2.5%
Member Months										
Total member months	991,462	1,015,283	822,143	598,428	855,503	539,115	-17.1%	-41.1%	4.1%	-9.9%
Distribution	49%	51%	58%	42%	61%	39%	17.1%	-16.7%	6.0%	-8.2%
Spending										
Per Capita spending, all services combined	$7,131	$6,373	$7,840	$7,859	$7,729	$8,368	9.9%	23.3%	-1.4%	6.5%
Per Capita OOP, all services combined	$1,146	$1,719	$1,259	$1,847	$1,245	$2,026	9.8%	7.5%	-1.1%	9.7%
Per Capita OOP, Medical Only	$944	$1,484	$1,095	$1,640	$1,071	$1,766	16.0%	10.5%	-2.2%	7.7%
Per Capita OOP, Prescription Drugs	$202	$236	$164	$207	$175	$260	-18.8%	-12.0%	6.6%	25.3%
Per Capita Spending By Service Category										
Inpatient Hospital Facility	$1,246	$953	$1,358	$1,243	$1,275	$1,220	9.0%	30.4%	-6.1%	-1.8%
Outpatient Hospital Facility	$1,243	$1,447	$1,349	$1,764	$1,352	$1,951	8.6%	21.9%	0.2%	10.6%
Outpatient Non-Hospital Facility	$184	$145	$217	$183	$210	$228	18.2%	26.3%	-3.3%	24.3%
Professional Services	$2,016	$1,883	$2,272	$2,221	$2,225	$2,290	12.7%	17.9%	-2.1%	3.1%
Labs/Imaging	$342	$283	$355	$321	$351	$349	3.7%	13.3%	-1.0%	8.7%
SubTotal (Medical Only)	$5,031	$4,712	$5,552	$5,732	$5,413	$6,037	10.4%	21.6%	-2.5%	5.3%
Prescription Drugs	$2,100	$1,662	$2,288	$2,127	$2,316	$2,331	9.0%	28.0%	1.2%	9.6%
Risk Score (3)										
Median expenditure risk score (w/o Kaiser)	1.45	1.32	1.51	1.40	1.53	1.45	0.04	0.06	0.01	0.04
Median expenditure risk score (w/ Kaiser)	1.31	1.28	1.30	1.33	1.32	1.36	-0.01	0.04	0.02	0.02

Notes: (1) Kaiser plan data are excluded from this report except for membership at the end of the year.
(2) Per member spending portion for insureds is calculated as per member spending for all services combined less per member spending OOP for all services combined.
(3) Some calculations in the above exhibit might not be exact due to rounding.

PART 2: PRIMARY CARE SPENDING AMONG MARYLAND'S PRIVATELY INSURED MARKETS: 2017, 2018 AND 2019

MHCC staff assessed and reported on investment in primary care for the first time in the 2018 PI report, with a complete description of the background information and reasons why it is essential to capture this data. The methodology for measuring primary care spending in the state is based on data categorization described in a 2017 Milbank Memorial Fund report. The study assesses primary care spending of primary care providers as a percent of overall medical and prescription drug expenses.[11] The Milbank Memorial Fund report calculated a national benchmark for the average percent Fee For Service primary care spending by private payers at 6.0 (4.6 - 7.6) for PPO plans and 6.5 (3.1 - 9.2) for HMO plans in 2014. Further descriptions of the methodology, including the list of primary care provider types and service types in terms of ICD codes and CPT codes, are included in Appendix B.

Exhibit 16 illustrates the following:

- Primary care spending increased across all markets, from $246 in 2017 to $266 in 2019 (about an 8.1% increase) and $274 (or about a 3.0% increase).
- In 2019, the distribution of primary care spending was relatively stable for the large and small employer markets but experienced a slight increase in the individual market
- Compared to all services combined, the per member spending on primary care services showed a gradual increase from 2017 to 2018 and then leveled off from 2018 to 2019.
- Primary care alone constituted an average of about 4.9% of all medical and prescription drug spending each year. This result is comparable to the national benchmark percentages calculated by the Milbank Memorial Fund.
- The percent per member spending on primary care was highest (13%) for ages 0-18 years compared to any other age group across all years and markets. The higher primary care spending observed among this age group could be attributed to more primary care services required for brief recurrent illnesses and preventive care than adults who seek care primarily when there are significant morbidity or risk factors of concern.

[11] Bailit, M.H., Friedberg, M.W., Houy, M.L. (2017). Standardizing the Measurement of Commercial Health Plan Primary Care Spending. (Retrieved 01/27/2020: https://www.milbank.org/publications/standardizing-measurement-commercial-health-plan-primary-care-spending/)

Exhibit 16: Per Member Spending on Primary Care Compared to All Services Combined: 2017 – 2019

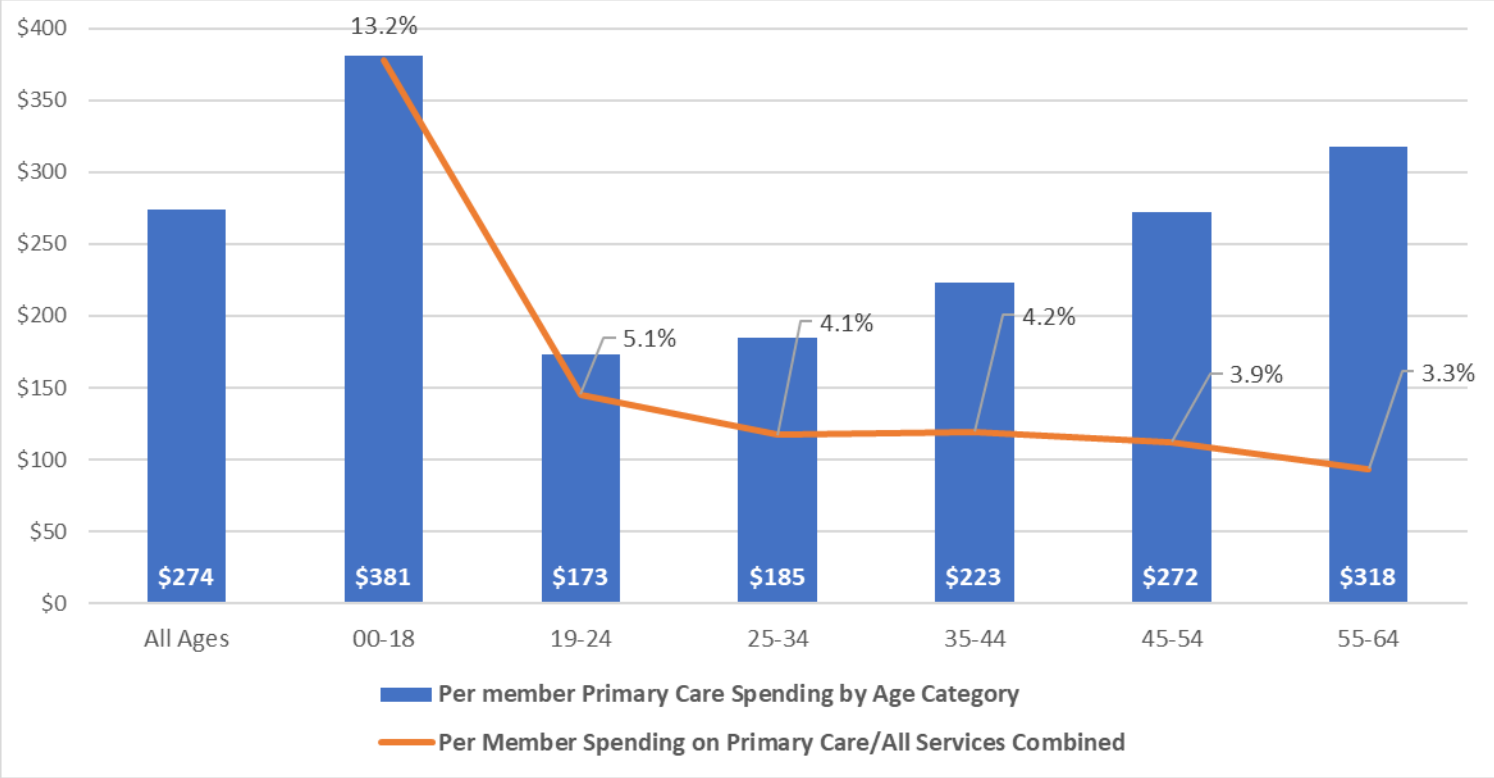
	2017				2018				2019			
	Total	Large Employers	Small Employers	Individual	Total	Large Employers	Small Employers	Individual	Total	Large Employers	Small Employers	Individual
Per member Primary Care Spending by Market												
Gender												
Female	$269	$279	$243	$247	$292	$297	$274	$284	$299	$304	$280	$295
Male	$222	$232	$198	$202	$239	$244	$222	$230	$246	$251	$227	$239
Total	$246	$256	$220	$226	$266	$272	$248	$259	$274	$279	$253	$269
Age												
00-18	$344	$352	$328	$309	$370	$372	$370	$353	$381	$382	$379	$366
19-24	$149	$153	$133	$142	$167	$166	$168	$171	$173	$171	$174	$183
25-34	$164	$167	$150	$164	$180	$180	$170	$195	$185	$186	$173	$199
35-44	$204	$211	$180	$197	$220	$224	$200	$230	$223	$227	$203	$239
45-54	$246	$257	$215	$226	$265	$273	$240	$256	$272	$280	$243	$266
55-64	$286	$301	$247	$258	$307	$318	$274	$292	$318	$328	$284	$307
Total	$246	$256	$220	$226	$266	$272	$248	$259	$274	$279	$253	$269
Per Member Spending on Primary Care/All Services Combined												
Gender												
Female	4.5%	4.7%	4.6%	3.5%	4.8%	5.0%	5.0%	3.6%	4.8%	5.0%	5.0%	3.7%
Male	4.7%	5.0%	4.7%	3.3%	5.0%	5.3%	5.0%	3.2%	5.0%	5.3%	5.0%	3.2%
Total	4.6%	4.8%	4.6%	3.5%	4.9%	5.1%	5.0%	3.4%	4.9%	5.1%	5.0%	3.5%
Age												
00-18	12.9%	13.5%	12.0%	10.5%	13.3%	13.7%	12.9%	10.0%	13.2%	13.6%	12.7%	10.4%
19-24	4.6%	4.8%	4.1%	3.9%	5.1%	5.3%	5.0%	4.1%	5.1%	5.2%	5.0%	4.6%
25-34	3.8%	4.0%	4.2%	2.7%	4.1%	4.3%	4.6%	2.8%	4.1%	4.3%	4.4%	2.9%
35-44	3.9%	4.1%	4.1%	2.9%	4.2%	4.4%	4.4%	3.0%	4.2%	4.4%	4.4%	2.9%
45-54	3.7%	3.8%	3.7%	3.1%	3.9%	4.1%	4.0%	3.1%	3.9%	4.1%	3.9%	3.2%
55-64	3.0%	3.1%	2.9%	2.7%	3.2%	3.3%	3.2%	2.9%	3.3%	3.4%	3.3%	2.9%
Total	4.6%	4.8%	4.6%	3.5%	4.9%	5.1%	5.0%	3.4%	4.9%	5.1%	5.0%	3.5%

Notes: (1) Results exclude Kaiser plans (See Appendix B for more information).
(2) Some calculations in the above exhibit might not be exact due to rounding.
(3) The large employer market includes State of Maryland employees (self-insured non-ERISA) and other self-insured non-ERISA plans. However, the large employer market excludes FEHB members.

Exhibit 17 illustrates the following:

- The average per member spending for primary care increased modestly from the 19 to 24 year age group to the 55 to 64 year age group throughout the study period.
- After 18 years, the percentage of primary care spending compared to overall spending declined with age, from 5.1% in the 19-24 years age group to 3.3% in the oldest age group.
- There were no remarkable differences in primary care spending by gender.

Exhibit 17: Per member Spending, All Services vs. % Per member Spending on Primary Care, by Age Group, 2019



APPENDIX A: ADDITIONAL EXHIBITS

Exhibit A1. Per member Utilization of Inpatient and Outpatient Facilities by Market, 2019

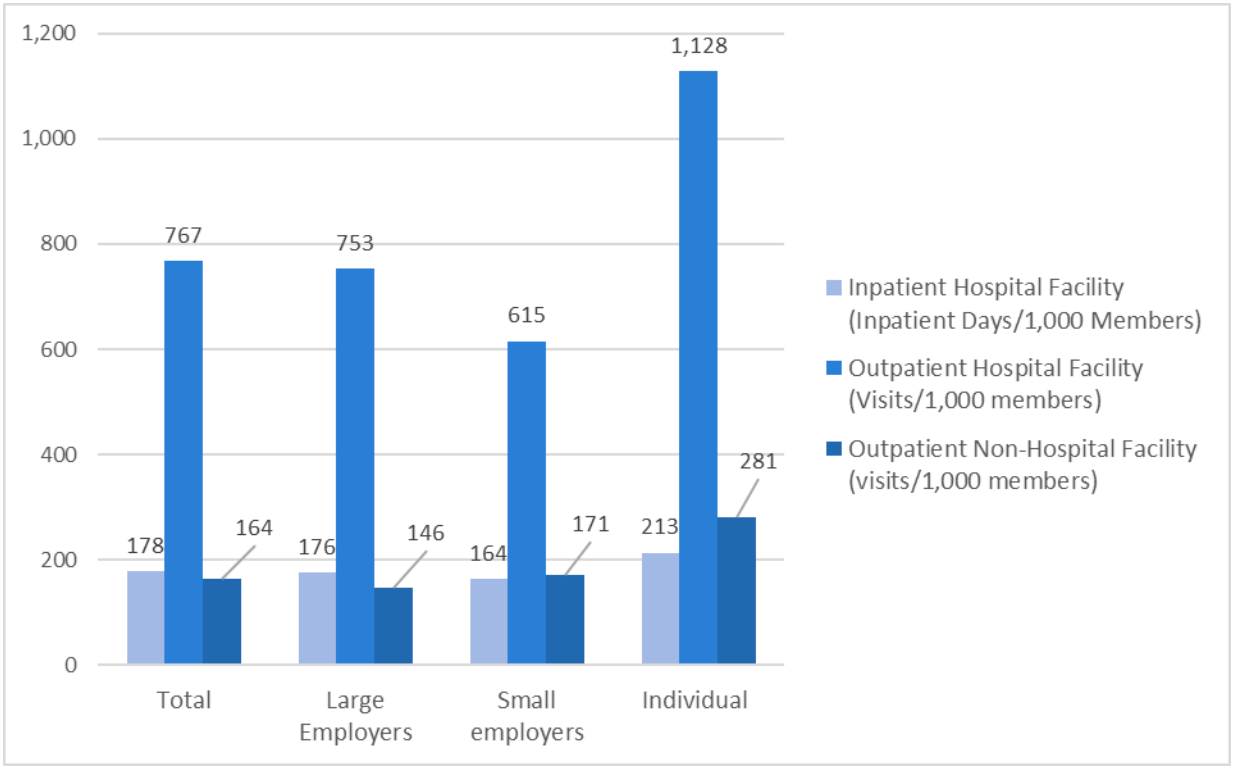


Exhibit A2. Per member Utilization of Professional Services, Labs/Imaging, and Prescription Drugs by Market, 2019

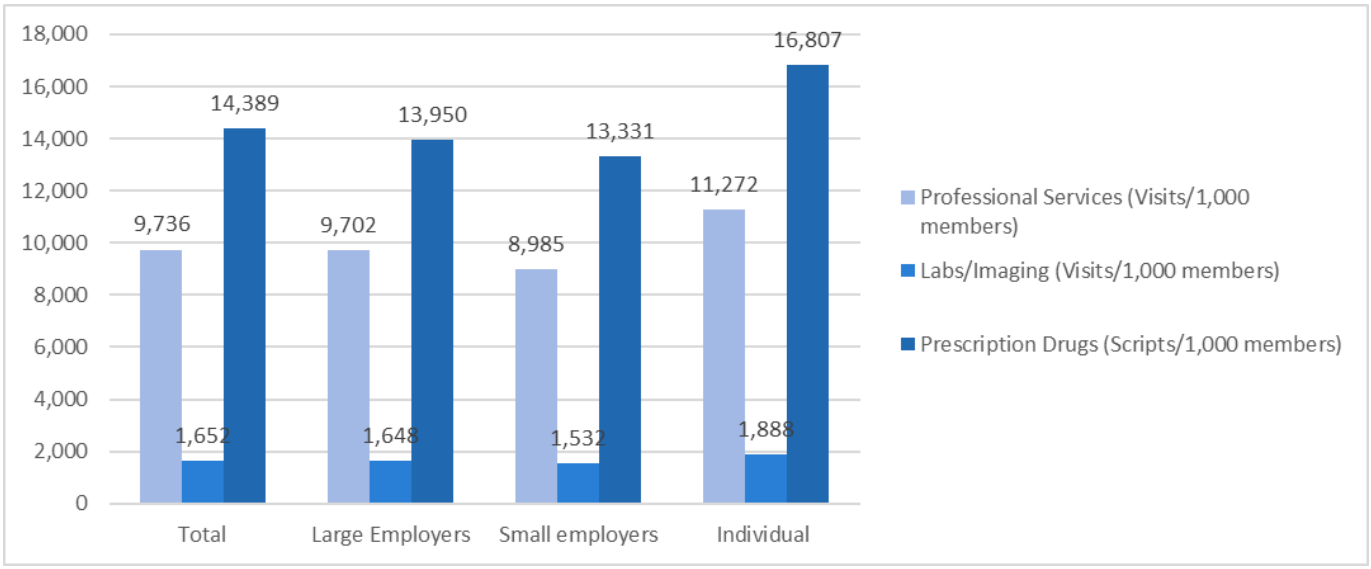


Exhibit A3: Hospital Inpatient and Outpatient Utilization, Small Employer Market, 2017-2019

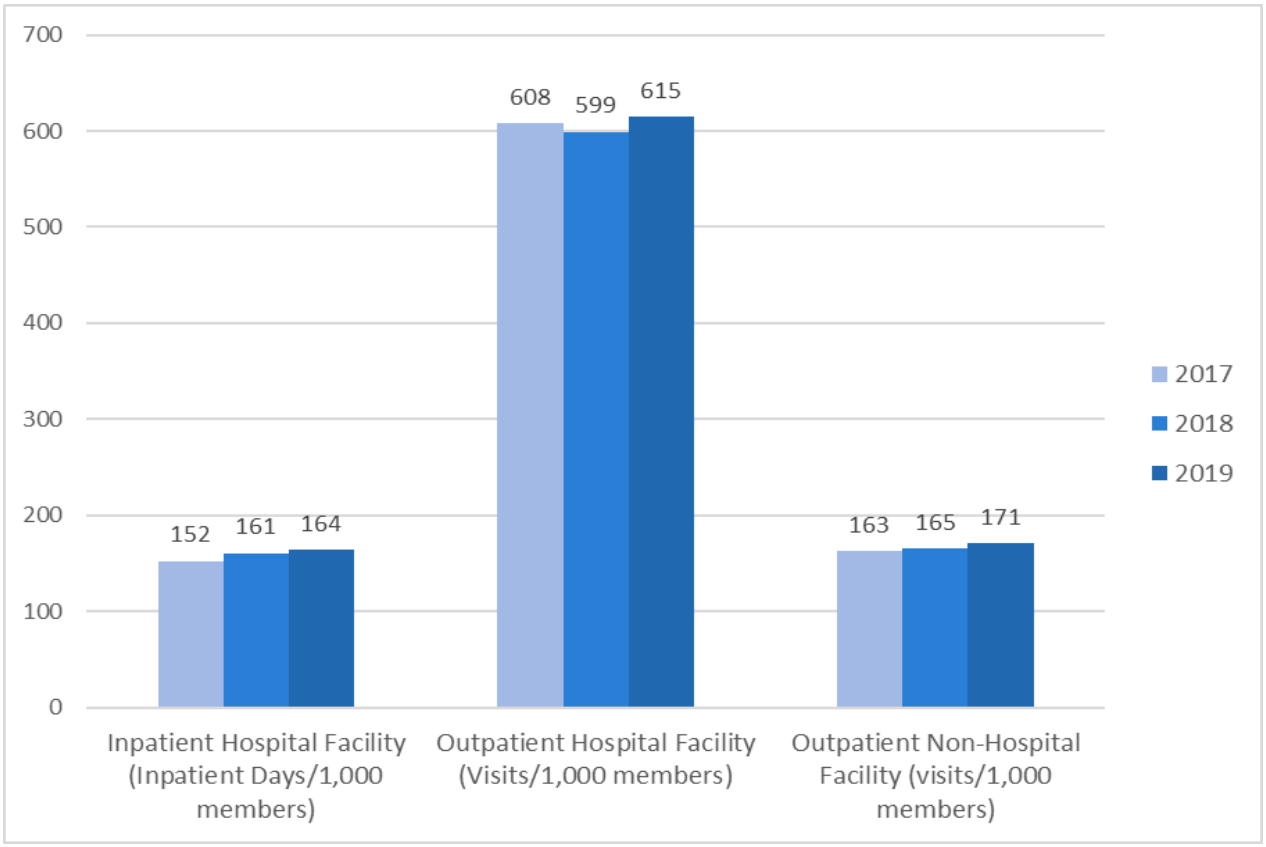


Exhibit A4: Utilization of Professional Services, Labs/Imaging, and Prescription Drugs, Small Employer Market, 2017-2019

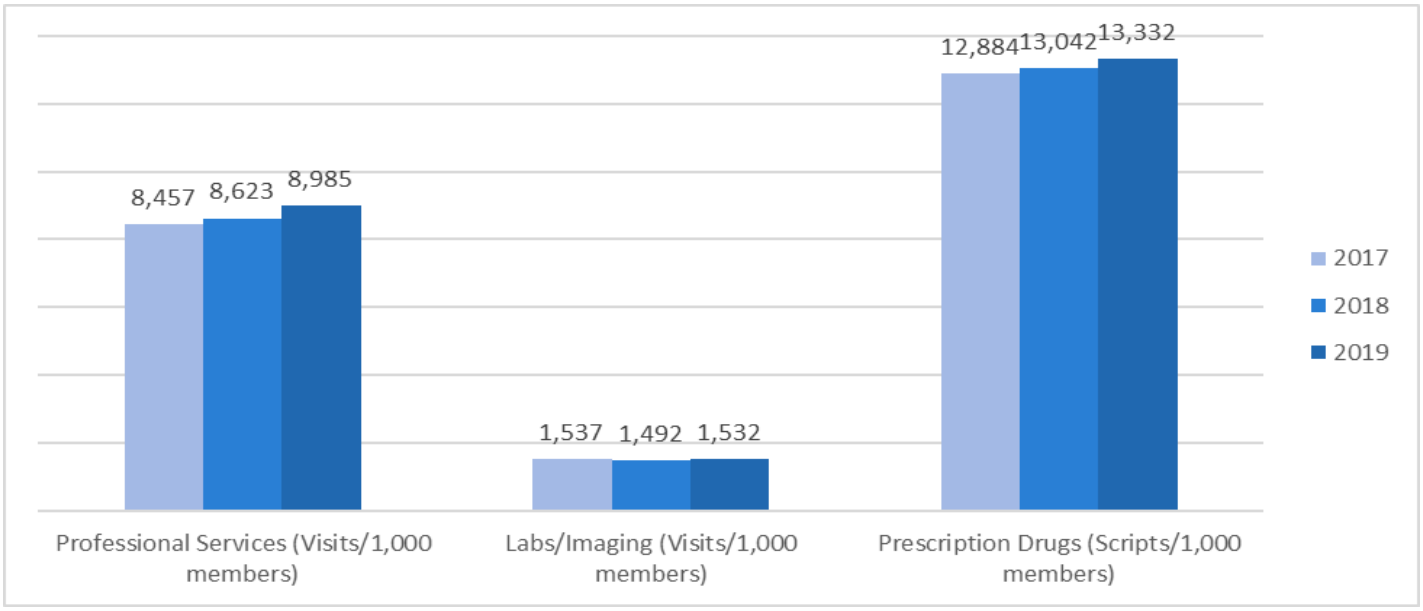
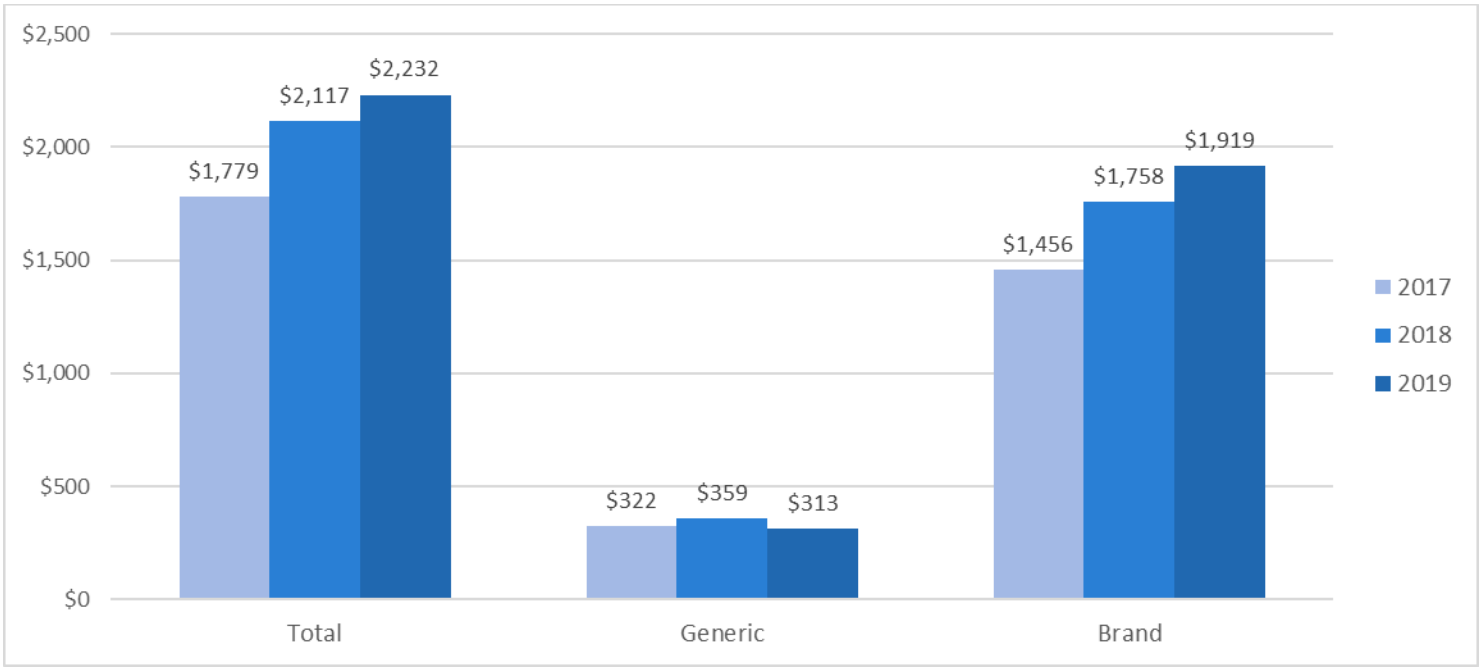


Exhibit A5. Prescription Drug Per member Spend Changes by Drug Type, Individual Market, 2017-2019



1) Unknown category (Medical supplies) is excluded from total calculation.

Exhibit A6. Prescription Drug Per member Spend Changes by Drug Type, Small Employer Market, 2017-2019

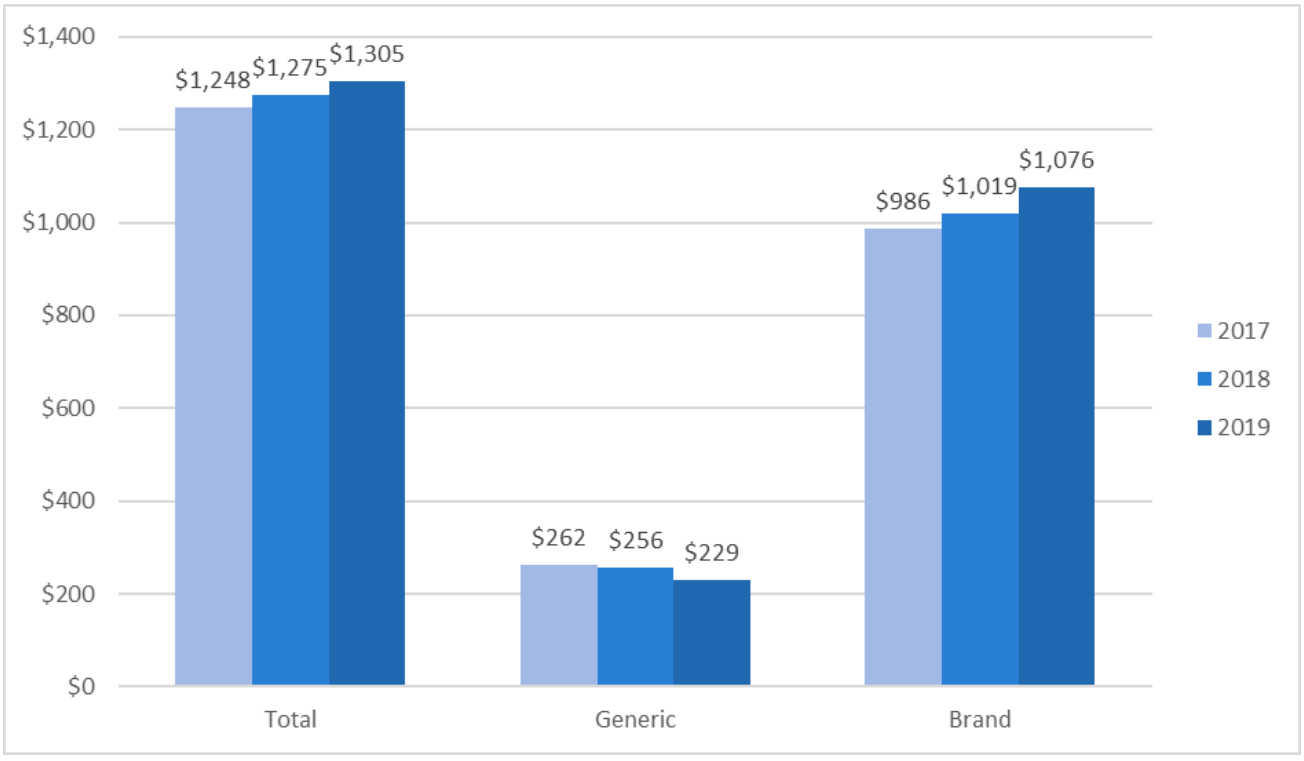
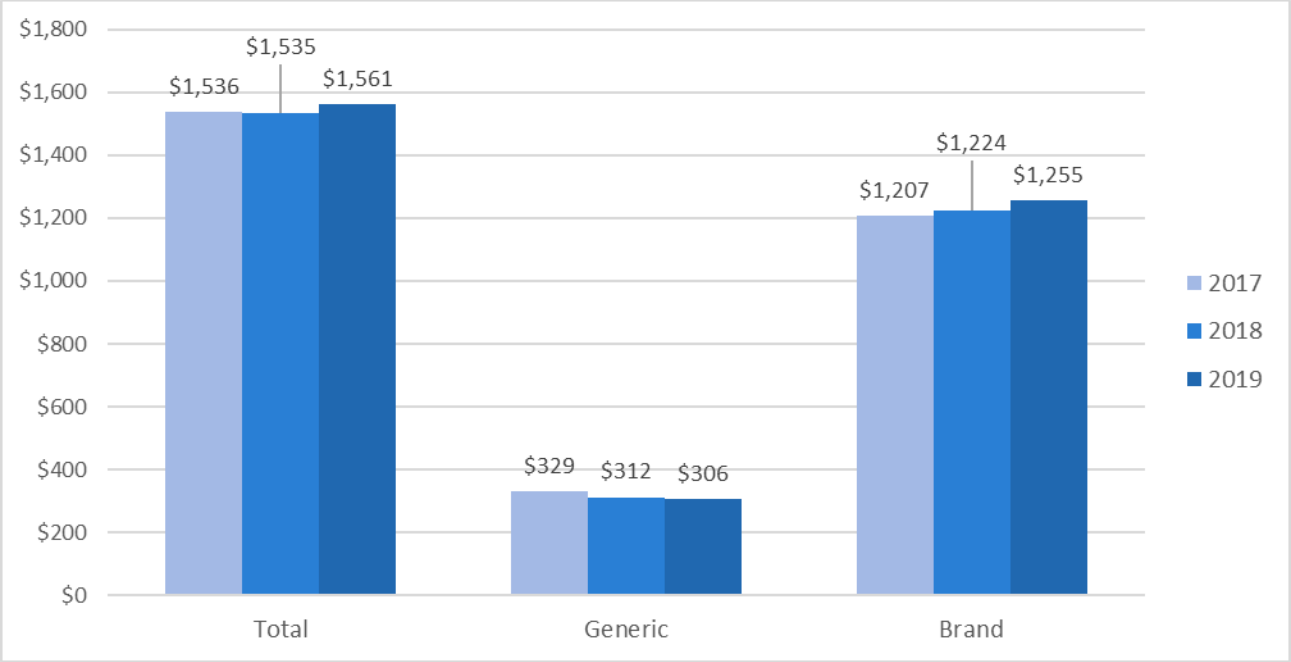


Exhibit A7. Prescription Drug Per member Spend Changes by Drug Type, Large Employer Market, 2017-2019



1) Unknown category (Medical supplies) is excluded from total calculation.

Exhibit A8. Prescription Drug Per member Spend Changes by Drug Type, All Markets Combined, 2017-2019

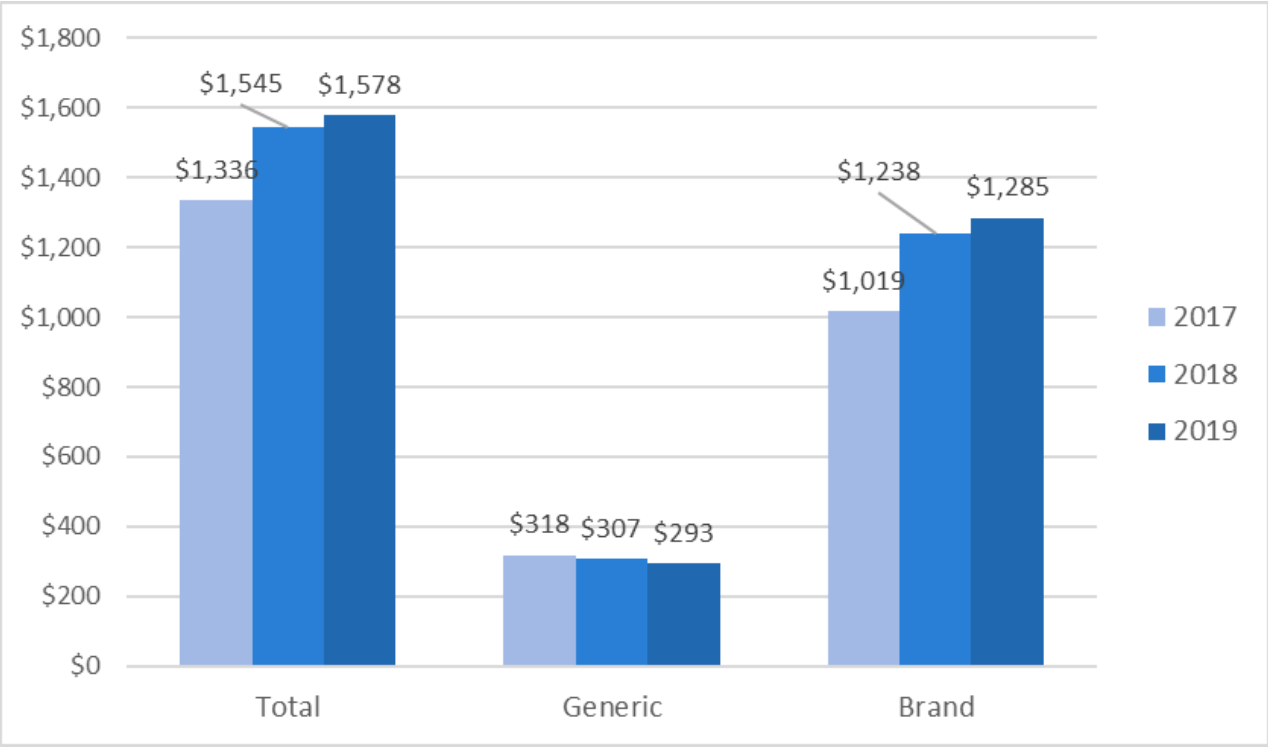
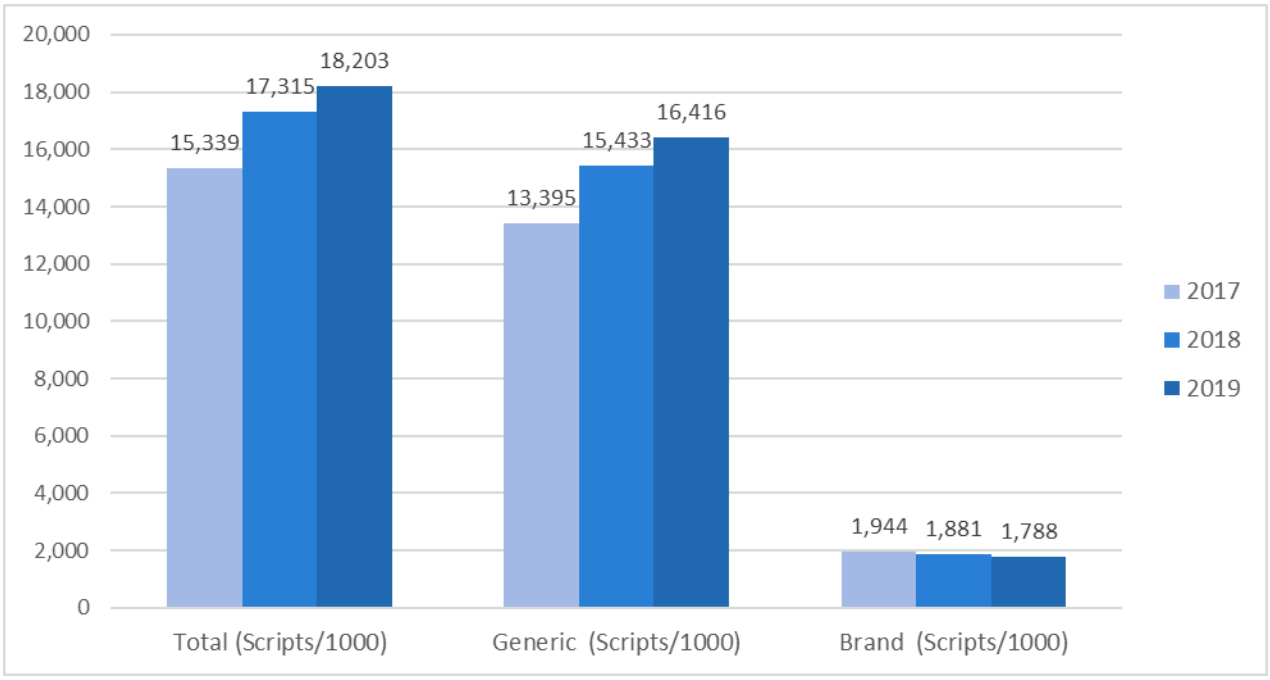
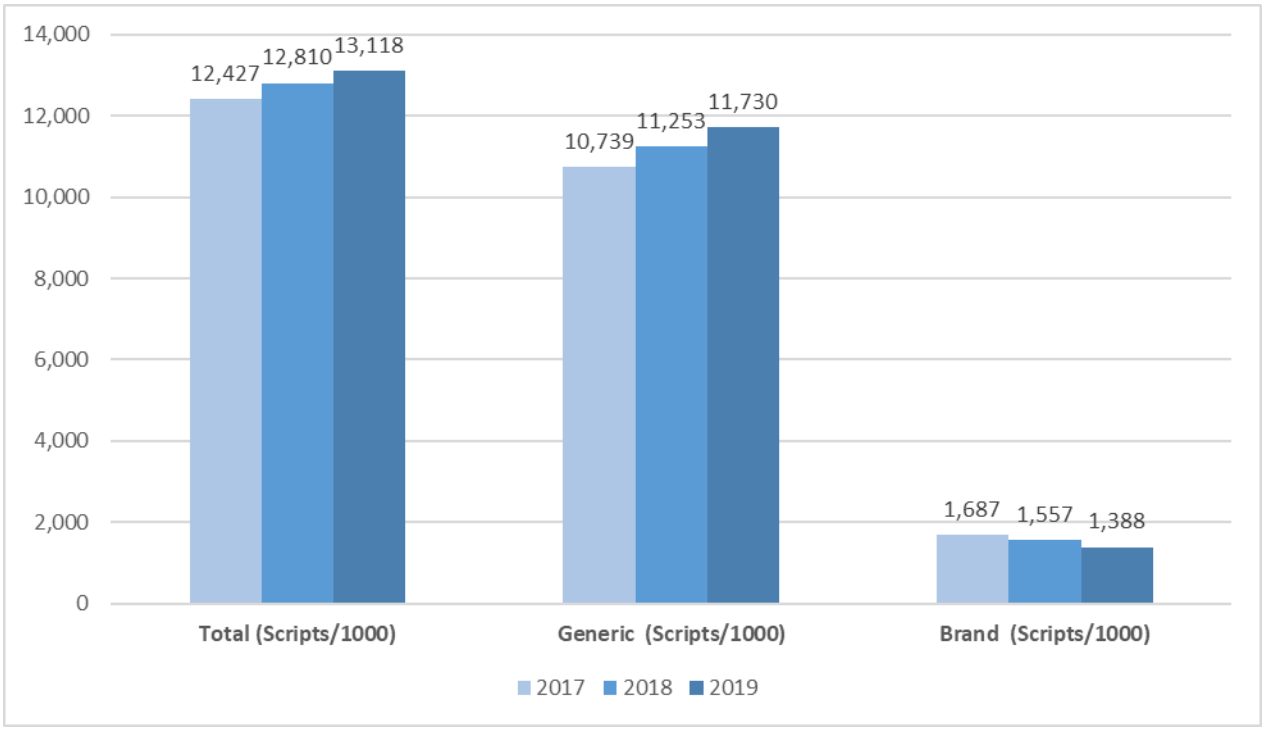


Exhibit A9. Prescription Drug Utilization by Drug Type, Individual Market, 2017-2019



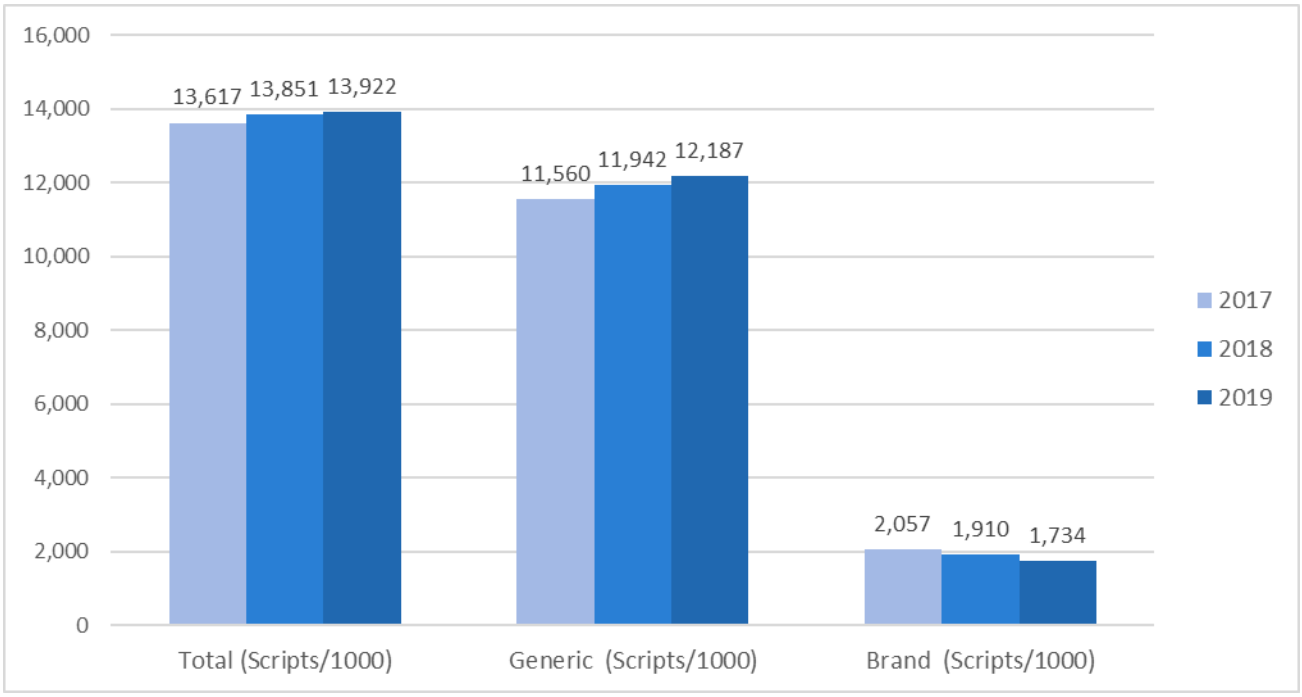
1) Unknown category (Medical supplies) is excluded from total calculation.

Exhibit A10. Prescription Drug Utilization by Drug Type, Small Employer Market, 2017-2019



1) Unknown category (Medical supplies) is excluded from total calculation.

Exhibit A11. Prescription Drug Utilization by Drug Type, Large Employer Market, 2017-2019



1) Unknown category (Medical supplies) is excluded from total calculation.

Exhibit A12. Prescription Drug Utilization by Drug Type, All Markets Combined, 2017-2019

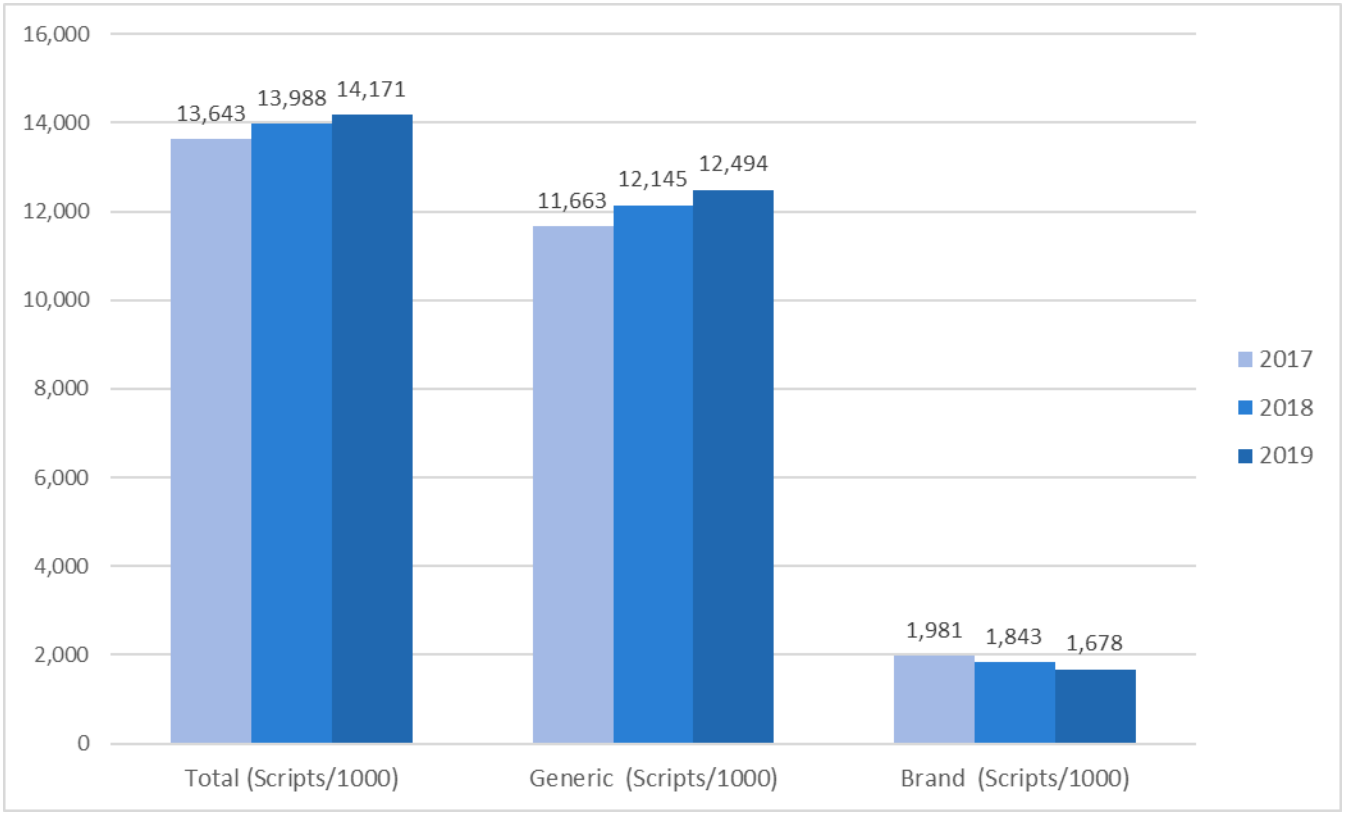
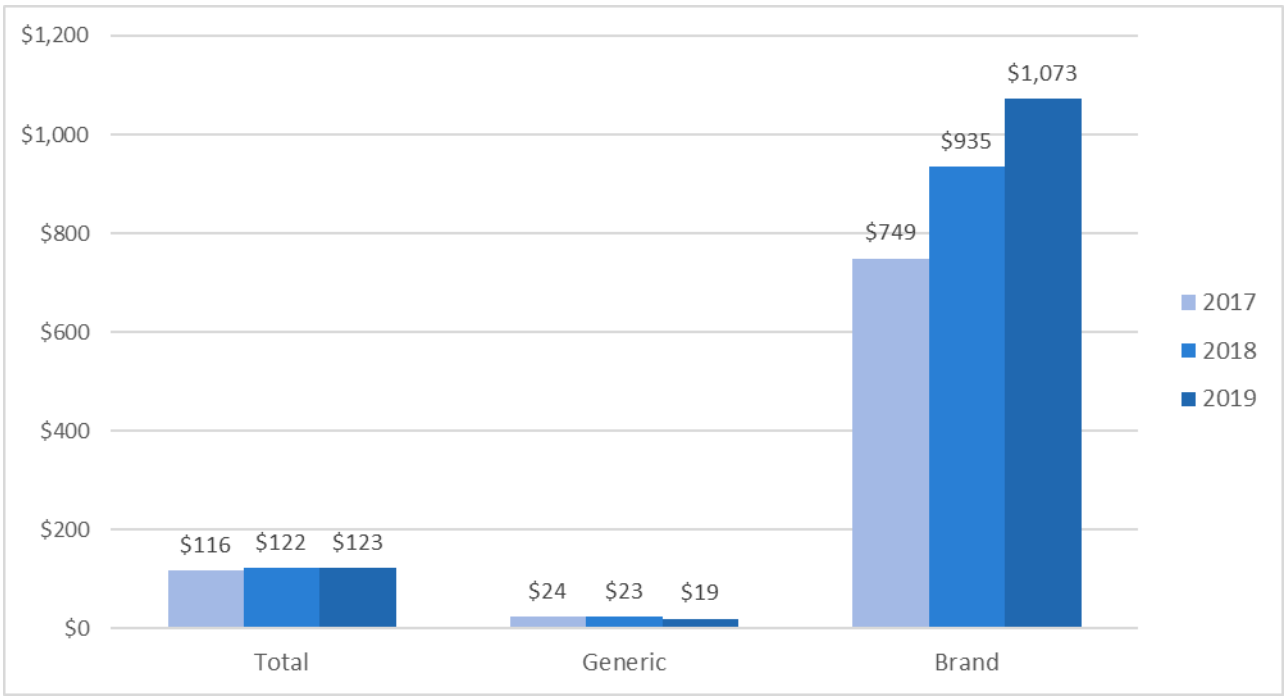


Exhibit A13. Prescription Drug Unit Cost Changes by Drug Type, Individual Market, 2017-2019



1) Unknown category (Medical supplies) is excluded from total calculation.

Exhibit A14. Prescription Drug Unit Cost Changes by Drug Type, Small Employer Market, 2017-2019

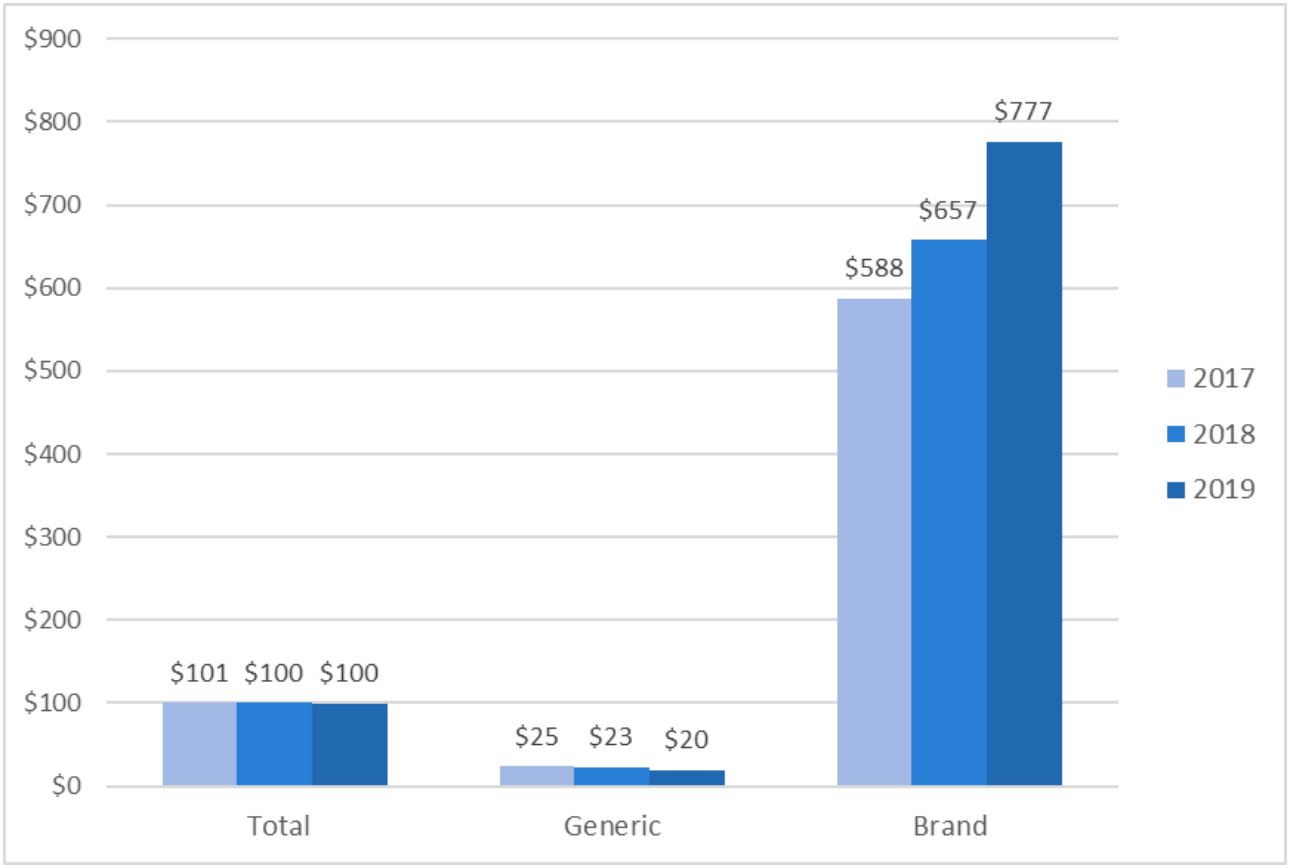
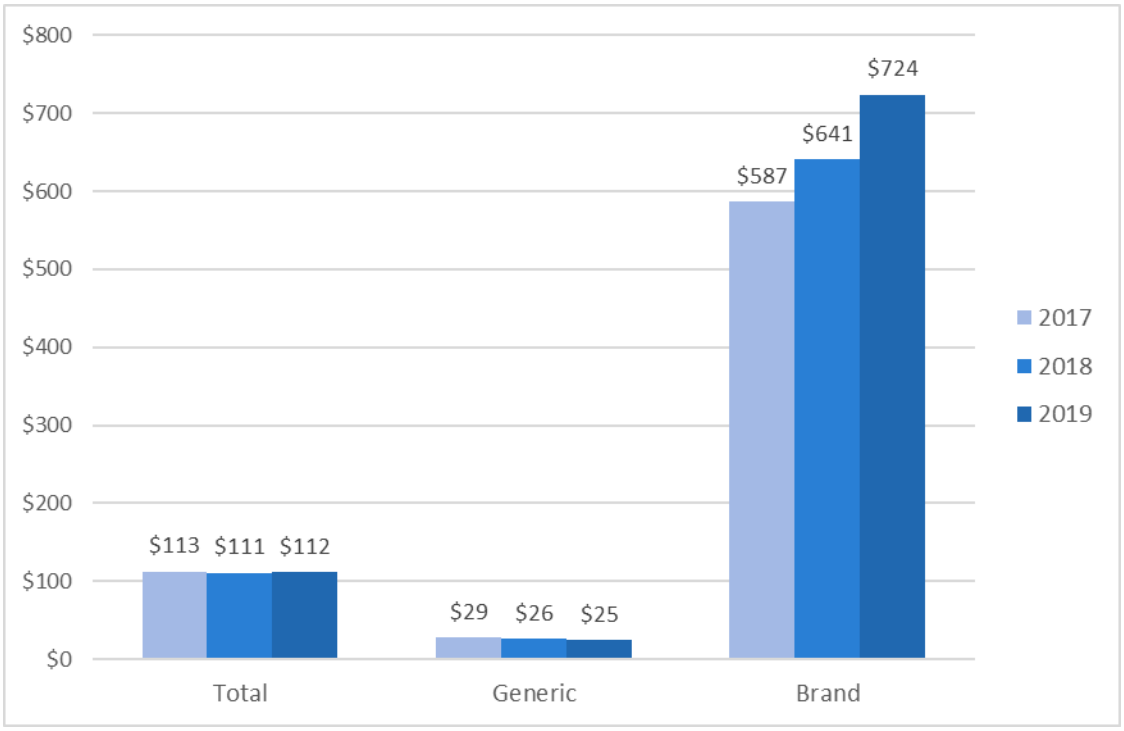
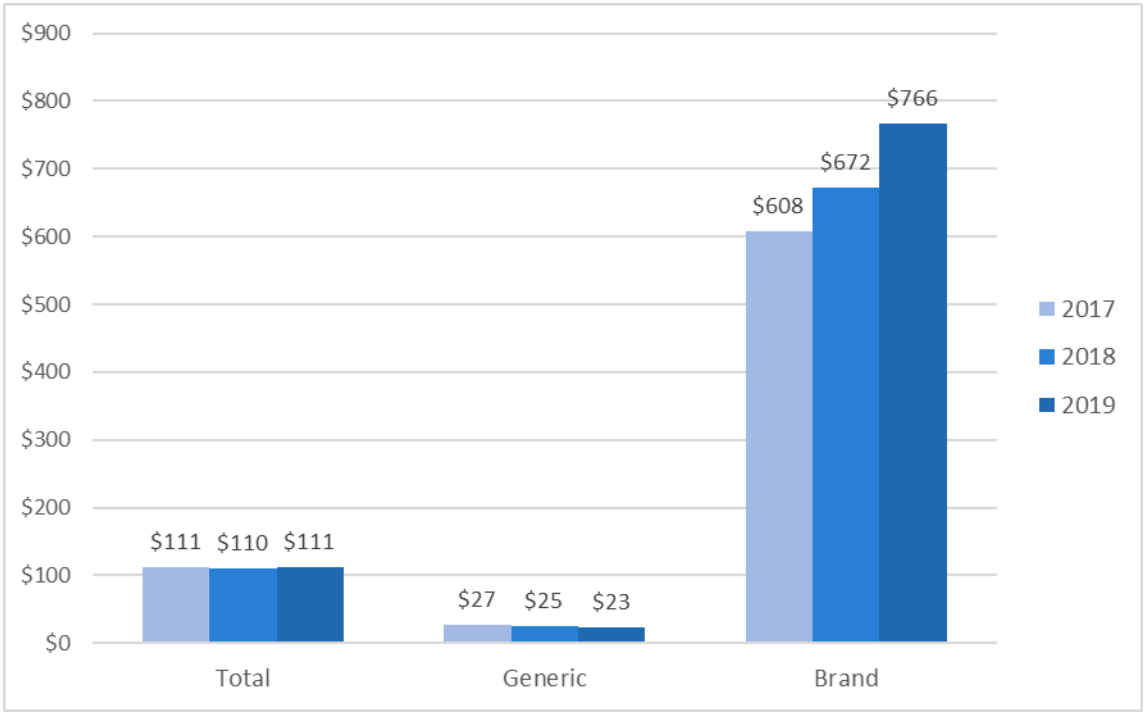


Exhibit A15. Prescription Drug Unit Cost Changes by Drug Type, Large Employer Market, 2017-2019



1) Unknown category (Medical supplies) is excluded from total calculation.

Exhibit A16. Prescription Drug Unit Cost Changes by Drug Type, All Markets Combined, 2017-2019



1) Unknown category (Medical supplies) is excluded from total calculation.

APPENDIX B: DEFINITIONS AND METHODS

DATA SOURCES

This report's figures and tables are based on 2017, 2018, and 2019 data analyses from Maryland's Medical Care Data Base (MCDB). It includes all members, regardless of whether an individual used any health care services. The data are for privately insured Maryland residents (i.e., only those who live in Maryland).

MARKETS

Large Employer: The large employer market refers to businesses with more than 50 full-time employees. All Federal Employee Health Benefit (FEHB) Program medical data are excluded from the report.

Small Employer: The small employer market refers to businesses with between 2 and 50 full-time employees.

Individual: The individual market refers to members who purchased a health benefit plan directly from an insurer, not through an employer.

INDIVIDUAL PLAN TYPES

ACA-Compliant: This includes non-grandfathered plans only.

ACA-non-Compliant: This includes grandfathered plans only.

On-Exchange: Includes ACA-compliant products sold on the Maryland Health Benefit Exchange.

Off-Exchange: Includes ACA non-compliant products sold off the Maryland Health Benefit Exchange.

SERVICE CATEGORY DESCRIPTIONS

Inpatient Hospital Facility: Includes non-capitated facility services for medical, surgical, maternity, mental health and substance abuse, skilled nursing, and any other services provided in an inpatient facility setting and billed by the facility.

Outpatient Hospital Facility: Includes non-capitated facility services for surgical, emergency room, lab, radiology, therapy, observation, and other services provided in an outpatient hospital facility setting, including hospital outpatient departments and freestanding medical facilities billed by the facility.

Outpatient Non-Hospital Facility: Primarily includes services provided at ambulatory surgery centers, outpatient rehabilitation facilities, clinics, and home health outpatient centers.

Professional Services: Includes non-capitated primary care, specialist, therapy, the professional component of laboratory and radiology, and other professional services. This service category also includes "Other Medical" such as non-capitated ambulance, home health care, durable medical equipment (DME), prosthetics, supplies, and other services (excluding vision exams and dental services not collected in the MCDB).

Labs/Imaging (radiology) services are reported separately for this report.

MEASURES

Expenditure Risk Score: The expenditure risk scores calculated in Exhibits 1 and 14 are based on the Johns Hopkins ACG® Software System ©1990, 2016, Johns Hopkins University, All Rights Reserved, a risk stratification system that assesses the risk of current utilization based on diagnoses reported in current claims. A patient file (identifying an eligible individual) is merged with diagnoses and pharmacy codes to produce a series of risk factors and risk scores in straightforward terms. We used v12 of the Johns Hopkins ACG® Software System for this year's report, with an updated ICD-10 CM mapping file version 11.1 1st Quarter 2020 Release (Release Date: December 18, 2019) to calculate an unscaled concurrent risk score.

Per Member, Spending is calculated as the total aggregate spending during the calendar year [with three (3) months of claims run-out] divided by the number of years insured for all members. Per member spending for medical services and prescription drugs was calculated separately because not all members had drug coverage. All claims incurred in 2019 but paid through March of 2020 excluded adjustments for incurred but not reported claims.

Out-of-Pocket (OOP) spending is the member's cost-sharing responsibility.

Inpatient Facility (hospital and non-hospital) (Number of Inpatient Days per 1,000 Members) is calculated as the Total Number of Inpatient Days/Total Medical Member Months*1000*12. MHCC introduced the concept of annual per member spending in 2014 and started with admissions per 1,000 members to measure inpatient utilization to be consistent with what was used by insurance carriers in Actuarial Memoranda sent to the Maryland Insurance Administration (MIA) via rate filings.

Outpatient Facility (Number of visits per 1,000 Members) is calculated as Total Number of Outpatient Visits/Total Medical Member Months*1000*12.

Professional Services (Number of visits per 1,000 Members) is calculated as Total Number of Visits for Professional Services/Total Medical Member Months*1000*12.

Labs/Imaging Services (Number of visits per 1,000 Members) is calculated as Total Visits for Labs and Imaging Services/Total Medical Members Months*1000*12. This year's report bases CPT codes on the CMS BETOS 2.0 categorization. In the 2018 PI report, the BETOS 1.0 categorization was used. Therefore, results may vary between the 2018 and 2019 PI reports.

Prescription Drugs (Number of Scripts per 1,000 Members) is calculated as Total Number of Prescription Drugs Filled/Total Prescription Drug Member Month *1000*12.

Cost per Prescription is calculated as Total Aggregated Pharmacy Spending/Total Number of Prescriptions.

Member cost per Prescription is calculated as Total Aggregated Pharmacy Member Spending/Total Number of Prescriptions.

Per Capita Drug Cost is calculated as Total Prescriptions Payment/Total Member Months *12

Unit Cost: The unit cost is the insurer's allowed amount for the claim divided by the utilization count (e.g., number of visits) for that type of service category or drug.

Notes:

Prescriptions have been "normalized" or adjusted to be counted based on a 30-day supply of medication. Therefore, each 90-day prescription is counted as three 30-day prescriptions.

Prescription drug member months are for those pharmacy members who also have medical benefits throughout the experience period (2017, 2018, and 2019).

For outpatient, professional, and labs/imaging services, all visits in each service category that occur on the same day are counted as one visit.

Primary Care Spending:

Primary care spending for this report is defined as the percentage of the total professional, institutional, and prescription drug spending paid for select non-emergency department outpatient medical encounters by primary care providers identified by any of the taxonomy codes listed below. Encounters consisting of any of the CPT codes or ICD 10 codes listed below were selected.

Primary Care Taxonomy Codes, CPT Codes, and ICD 10 Codes

Taxonomy Codes:

261QF0400X	Federally Qualified Health Center
261QP2300X	Primary care clinic
261QR1300X	Rural health clinic
207Q00000X	Physician, family medicine
207R00000X	Physician, general internal medicine
208000000X	Physician, pediatrics
208D00000X	Physician, general practice
363L00000X	Nurse practitioner
363LA2200X	Nurse practitioner, adult health
363LF0000X	Nurse practitioner, family
363LP0200X	Nurse practitioner, pediatrics
363LP2300X	Nurse practitioner, primary care
363A00000X	Physician's assistant
363AM0700X	Physician's assistant, medical
175L00000X	Homeopathic medicine
2083P0500X	Physician, preventive medicine
163W00000X	Nurse, non-practitioner

CPT Codes:

90460-90461	Immunization through age 18, including provider consult
90471-90472	Immunization by injection
90473-90474	Immunization by oral or intranasal route
96160-96161	Administration of health risk assessment

96372 Therapeutic, prophylactic, or diagnostic injection
98966-98968 Non-physician telephone services
98969 Online assessment, management services by non-physician
99201-99205 Office or outpatient visit for a new patient
99211-99215 Office or outpatient visit for an established patient
99241-99245 Office or other outpatient consultations
99339-99340 Physician supervision of the patient in-home or rest home
99341-99345 Home visit for a new patient
99347-99350 Home visit for an established patient
99381-99387 Preventive medicine initial evaluation
99391-99397 Preventive medicine periodic reevaluation
9401-99404 Preventive medicine counseling or risk reduction intervention
99406-99407 Smoking and tobacco use cessation counseling visit
99408-99409 Alcohol or substance abuse screening and brief intervention
99411-99412 Group preventive medicine counseling or risk reduction intervention
99429 Unlisted preventive medicine service
99441-9944 Telephone calls for patient management
99444 Non-face-to-face on-line medical evaluation
99495-99496 Transitional care management services
G0008-G0010 Administration of influenza virus, pneumococcal, hepatitis B vaccine
G0396-G0397 Alcohol or substance abuse assessment
G0438-G0439 Annual wellness visit, personalized prevention plan of service
G0442 Annual alcohol screening
G0443 Brief behavioral counseling for alcohol misuse
G0444 Annual depression screening
G0502 Initial psychiatric collaborative care management
G0503 Subsequent psychiatric collaborative care management
G0504 Initial or subsequent psychiatric collaborative care management
G0505 Cognition and functional assessment
G0506 Comprehensive assessment of and care planning for patients requiring chronic care management services
G0507 Care management services for behavioral health conditions
G0513-G0514 Prolonged preventive service

ICD 10 Codes:
Z00 Encounter for general exam without complaint
Z000 Encounter for general adult medical examination
Z0000 Encounter for general adult medical exam without abnormal findings

Z0001 Encounter for general adult medical exam with abnormal findings

Z001 Encounter for newborn, infant, and child health examinations

Z0011 Newborn health examination

Z00110 Health examination for newborn under 8 days old

Z00111 Health examination for newborn 8 to 28 days old

Z0012 Encounter for routine child health examination

Z00121 Encounter for routine child health exam with abnormal findings

Z00129 Encounter for routine child health exam without abnormal findings

Z008 Encounter for other general examination

County Definitions for Regions as per the Maryland Insurance Administration (MIA)

Baltimore Metro means Baltimore City, Baltimore County, Harford County, Howard County, and Anne Arundel County.

DC Metro means Montgomery County and Prince George's County.

Western Maryland means Garrett County, Allegany County, Washington County, Carroll County, and Frederick County.

Eastern Shore/Southern Maryland means St. Mary's County, Charles County, Calvert County, Cecil County, Kent County, Queen Anne's County, Talbot County, Caroline County, Dorchester County, Wicomico County, Somerset County, and Worcester County.

Payers excluded from the report.

The report excludes the following payers (insurance carriers and Third Party Administrators or "TPAs") due to data quality issues:

- Humana Insurance – credibility issues with the data; Also, it had a shift of members (~12,000) from small to large groups between June and July 2018.
- Kaiser – fee-for-service equivalents not available from payer
- United Healthcare Medicare Advantage – Medicare and Medicaid are excluded from this report
- Harrington Insurance (TPA) - No inpatient claims in September 2018, also sporadically missing data from other months and columns, despite members n ~ 1,000
- American Specialty Health (TPA) (Previously excluded – 2017): Virtually no data.
- Healthscope (TPA) (Public plan only) No data for public employee group, no large group inpatient data in Jan or Oct 2018, despite Large group members n ~ 2,300

Required Proprietary Rights Notices on Privately Insured Report

The expenditure risk score information herein contained in Exhibits 1and 14 has been processed by a software called The Johns Hopkins ACG® System ©1990, 2016, Johns Hopkins University, All Rights Reserved Version 12. The Unscaled Concurrent Risk Score was used.

Acknowledgments

This report on health care spending and use was conducted by the Center for Analysis and Information Systems staff (Kenneth Yeates-Trotman, Shankar Mesta, and Janet Ennis, Editor) of the Maryland Health Care Commission. Shankar Mesta and Oseizame Emasealu primarily wrote the report. The programmers were Shankar Mesta and Oseizame Emasealu.

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