

Covering the Care:

Pregnancy Tops the List of Highest Out-Of-Pocket Costs for NH's Commercially Insured

EXECUTIVE SUMMARY

This data brief presents a retrospective analysis of available medical claims data from New Hampshire's commercial insurance plans. This brief focuses on conditions with the highest average out-of-pocket costs paid by commercially insured members in 2022. It also examines how out-of-pocket costs for those conditions have changed over a seven-year period (2016-2022). The analysis is based on claims data from January 2016 – December 2022ⁱ and is analyzed at the overall population level and by member gender.ⁱⁱ It is part of a series of analytic briefs examining the rate of the most common health conditions and treatment costs for those respective conditions.

Out-of-pocket (OOP) costs are highest for pregnancy with delivery, averaging \$1,772 per person in 2022. All other conditions in the top ten had average OOP costs between \$750 to almost \$1,000 per person. Between 2016 and 2022, OOP costs for all ten identified conditions increased, with an average rise of \$289 per person, and most conditions experiencing increases of more than \$200. The OOP costs for pregnancy with delivery saw the largest dollar increase over the time period, rising by more than \$500.

When examining OOP costs by gender, on average, OOP costs for men increased by \$256 over the seven years, while costs for women rose by an average of \$242.

DEFINITIONS:

Conditions: Conditions were identified using the OPTUMInsight's Symmetry Episode Treatment Groups® (ETGs) software.ⁱⁱⁱ ETGs are assigned by utilizing all medical services related to the treatment of a specific condition, based on administrative claims data, allowing for the measurement and analysis of health care utilization and costs across different payer categories. Throughout this brief, ETGs will be referred to as conditions.

Out-of-Pocket Costs: Out-of-Pocket costs were calculated as the total amount for co-payments, deductible, and co-insurance as determined in claims adjudicating. This analysis does not take into account out-of-pocket reimbursements (e.g., Health Savings Accounts (HSA) or Flexible Spending Accounts (FSA))

Malignant Neoplasms and Metastases^{v,vi}: A malignant neoplasm is also known as a cancerous tumor. Metastases refers to cancerous tumors that develop in locations secondary to the primary location of the original cancer. In other words, metastases are symptomatic of spreading cancer.

ANALYSIS BY TOP 10 CONDITIONS BY OUT-OF-POCKET, ALL STUDY POPULATION

2022 ANALYSIS

Analysis of medical claims data for all commercially insured members identified the ten conditions with the highest average out-of-pocket (OOP) cost per person in 2022, as shown in **Figure 1**. Conditions affecting fewer than 845 members were excluded from this ranking. For more information see Terms and Notations.

Among commercial members of all ages and genders, **pregnancy with delivery had the highest average OOP medical costs at \$1,772 per person.**

The next highest OOP cost was for multiple sclerosis, at \$961 per person – meaning that OOP costs for pregnancy with delivery were 54% higher, or \$811, than the condition with the next highest OOP costs.

Pregnancy and other acute conditions, such as miscarriage, joint derangement of the knee and lower leg, gallstones (cholelithiasis), and hernias (except hiatal), accounted for half of the conditions with the highest OOP costs. The remaining half consisted of chronic conditions, such as inflammatory bowel disease (IBD), multiple sclerosis, and cancers of the breast, prostate, and genitourinary system (e.g., bladder, kidney). **All conditions except pregnancy with delivery had average out-of-pocket costs between \$750 to \$1,000 per person.**

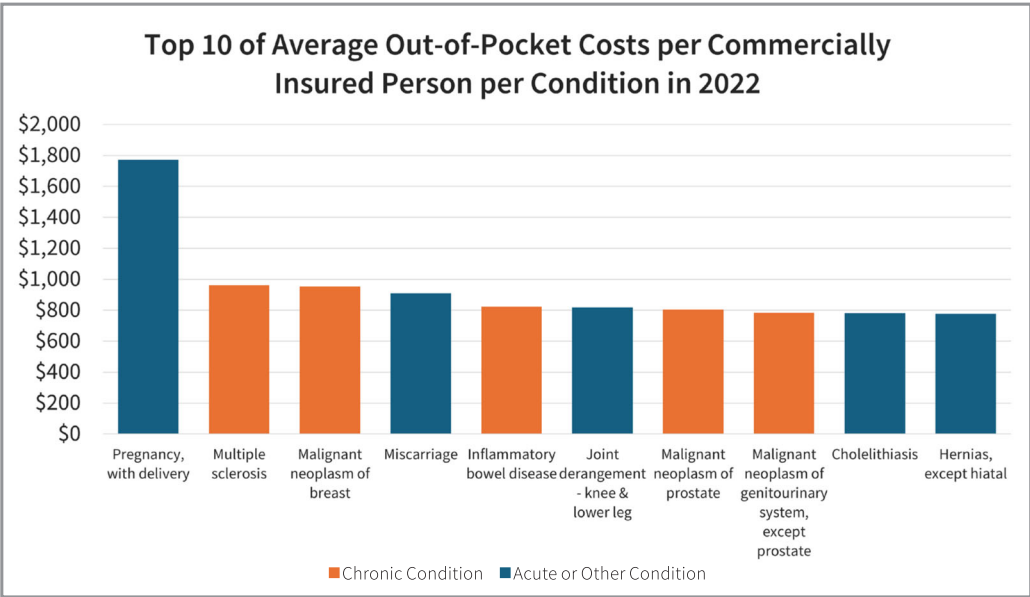


Figure 1: Top 10 Average Out-of-Pocket Costs per Commercially Insured Person per Condition in 2022

TRENDS ANALYSIS (2016-2022)

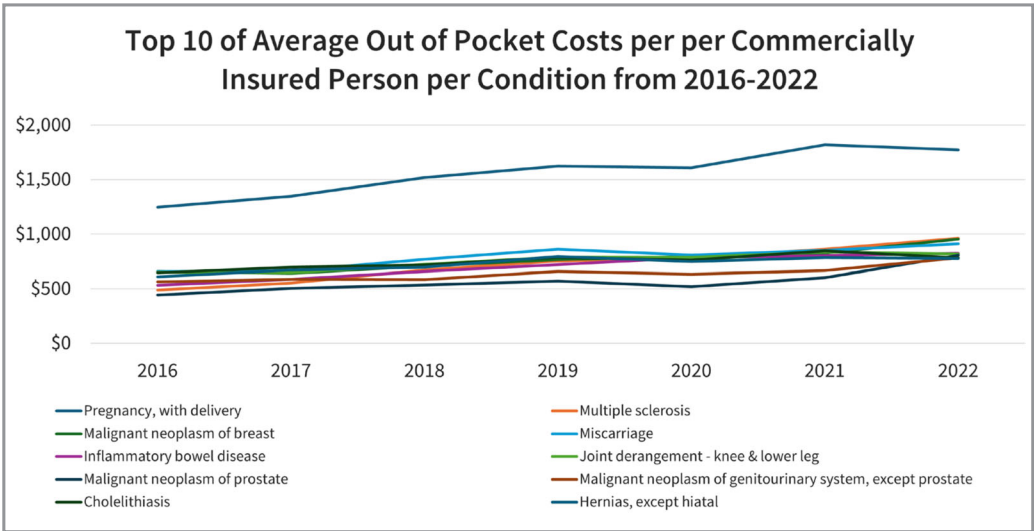


Figure 2: Top 10 Average Out-of-Pocket Costs per Commercially Insured Person per Condition from 2016-2022

The analysis also examined trends in OOP costs for the top ten conditions from 2016 to 2022. As shown in **Figure 2**, OOP costs for all ten conditions increased over this period. **The OOP costs for pregnancy with delivery rose by 42%**, from \$1,245 per person in 2016 to a peak of \$1,820 in 2021, before slightly decreasing to \$1,772 in 2022.

To better understand cost trends for conditions excluding pregnancy with delivery, **Figure 3** presents a separate visualization for the remaining conditions. This chart allows for a clearer view of increases in OOP costs per person over time. Some of the most notable cost increases include:

- **Prostate cancer:** OOP costs increased by 82% from \$442 in 2016 to \$804 in 2022.
- **Multiple sclerosis:** OOP costs nearly doubled, rising by 96% from \$490 in 2016 to \$961 in 2022.
- **Gallstones (cholelithiasis):** OOP costs increased by the smallest rate, rising 21% from \$646 in 2016 to \$782 in 2022, an increase of \$135 over the analysis period.

Most conditions saw an increase of more than \$200 per person, with an average increase across all ten conditions of \$289.

ANALYSIS BY TOP 10 CONDITIONS BY OUT-OF-POCKET, WOMEN ONLY

To better understand how gender-specific conditions influence out-of-pocket (OOP) costs, analysis stratified by member gender was also conducted.

2022 ANALYSIS

Figure 4 presents findings for the women-only population. Similar to the all-member analysis, **pregnancy with delivery had the highest average OOP costs at \$1,771 per person** – substantially higher than any other condition.

However, the composition of the top ten conditions differs when focusing solely on women. While several conditions identified in the initial all-member analysis

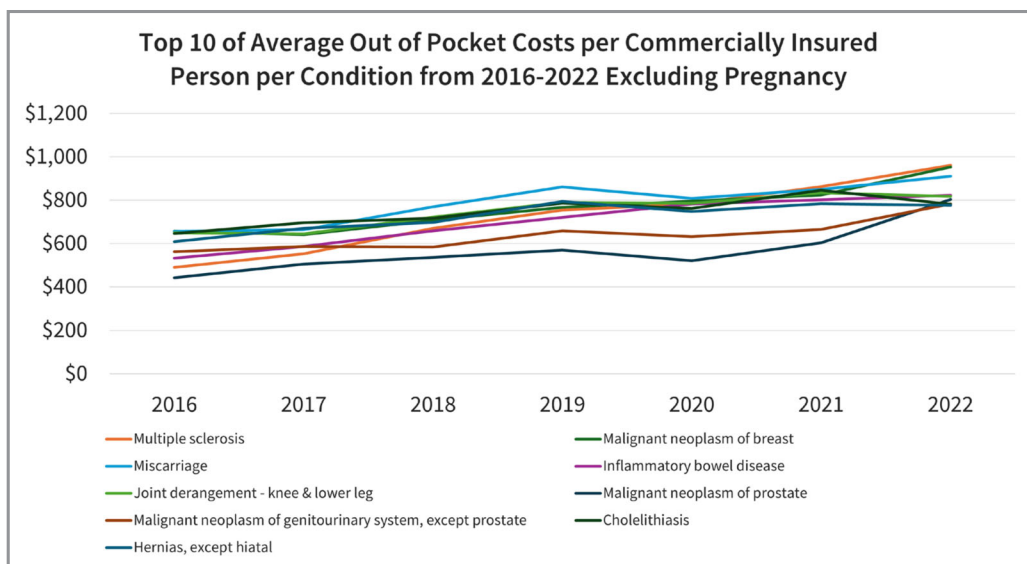


Figure 3: Top 10 Average Out-of-Pocket Costs per Commercially Insured Person per Condition from 2016-2022, Excluding Pregnancy

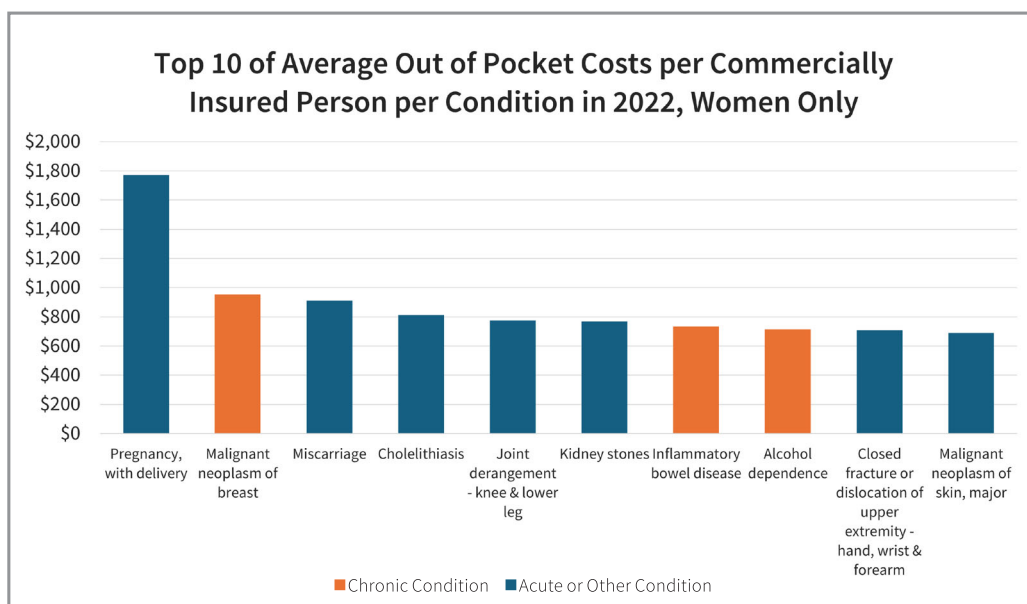


Figure 4: Top 10 Average Out-of-Pocket Costs per Commercially Insured Person per Condition in 2022, Women Only

remain the same – breast cancer, miscarriage, gallstones, IBD, and knee/lower leg joint derangement – others emerged as leading contributors to OOP costs, such as kidney stones and skin cancer.

Among the newly ranked conditions, kidney stones, skin cancer^{iv}, and upper extremity fractures are classified as acute conditions, while alcohol dependence is considered a chronic condition. Despite these shifts, **all conditions, except pregnancy with delivery, had average OOP costs ranging from \$690 and \$954 per person.**

TRENDS ANALYSIS (2016-2022)

All ten conditions saw an increase in OOP costs from 2016 to 2022, as shown in **Figure 5**, with the largest increase observed for pregnancy with delivery, which rose \$522 (42%) over the period – from \$1,249 in 2016 to \$1,771 in 2022.

Alcohol dependence had the second-largest increase by volume, with OOP costs rising from \$396 to \$713

per person and increasing by 80% over the period. This resulted in members paying, on average, \$317 more for medical services related to the condition. The smallest rate of increase in OOP costs was for gallstones, which rose by \$96 from 2016 to 2022 – an increase of 13%. With the exception of pregnancy with delivery, all OOP costs increased from 2016 to 2022 and ranged from \$95 to \$317.

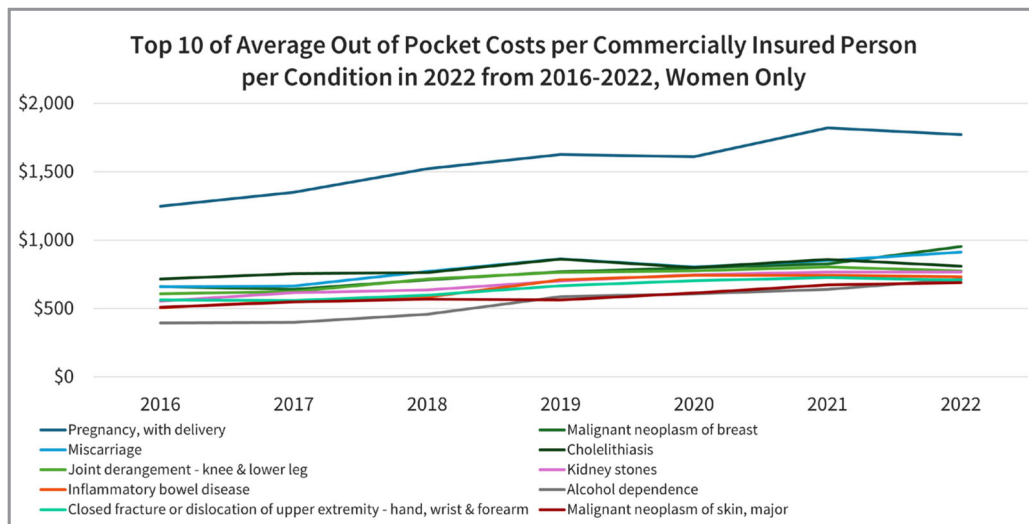


Figure 5: Top 10 Average Out-of-Pocket Costs per Commercially Insured Person per Condition from 2016-2022, Women Only

ANALYSIS BY TOP 10 CONDITIONS BY OUT-OF-POCKET, MEN ONLY

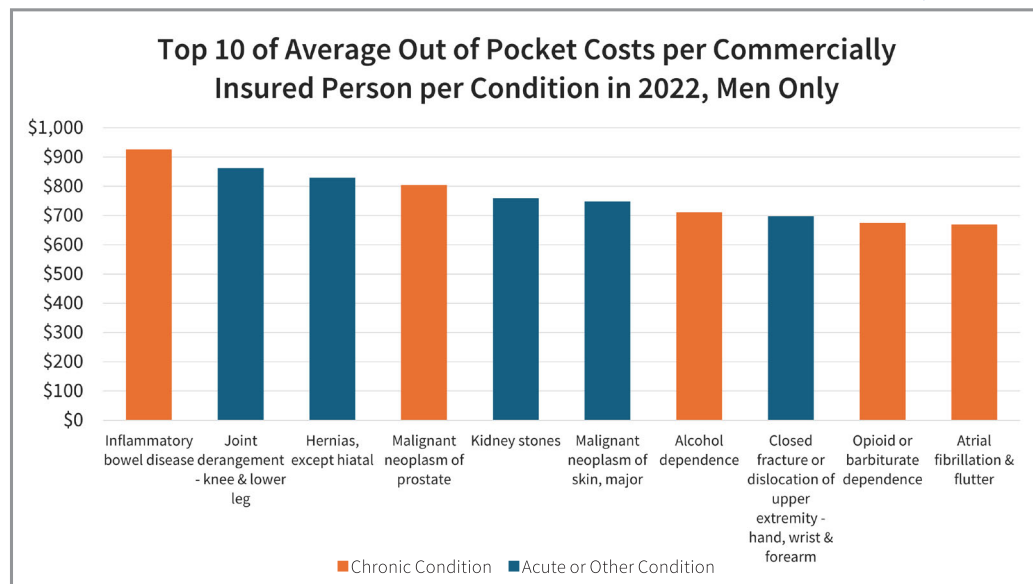


Figure 6: Top 10 Average Out-of-Pocket Costs per Commercially Insured Person per Condition in 2022, Men Only

2022 ANALYSIS

Figure 6 presents findings for the men-only population. **The highest average OOP cost for men was \$926 for inflammatory bowel disease (IBD).** Unlike in the all-member analysis, the gap between the highest and second-highest OOP cost conditions is much smaller among men, with knee/lower leg joint derangement ranking second at \$862,

representing \$64 or a 7% difference between the highest and second highest OOP cost conditions.

When focusing solely on men, the composition of the top ten conditions differs, as well. While some conditions remain the same as the all-member analysis – IBD, knee/lower leg joint degeneration, hernias (except hiatal), and prostate cancer – others emerge as leading OOP cost contributors, such as kidney stones and skin cancer.

Among the emerging conditions, kidney stones, skin cancer, and upper extremity fractures are classified as acute conditions, while alcohol dependence, opioid/barbiturate dependence, and atrial fibrillation and flutter are considered chronic conditions. Among commercially insured men, **all conditions had average OOP costs ranging from \$670 and \$926 per person.**

TRENDS ANALYSIS (2016-2022)

All ten conditions saw an increase in OOP costs from 2016 to 2022, as shown in **Figure 6**. The largest increases were observed for opioid/barbiturate dependence (85%), alcohol dependence (85%), and prostate cancer (81%) – each rising by more than \$300 per person over the period.

The smallest increase in OOP costs was for kidney stones, which saw a \$146 increase from 2016 to 2022 – a 24% rise. All OOP cost increases from 2016 to 2022 were greater than \$145 but less than \$365.

FINDINGS & DISCUSSION

This analysis of average out-of-pocket (OOP) costs per person highlights the financial burden of both common chronic and acute conditions for commercially insured members.

Among all commercially insured members, pregnancy with delivery had the highest average OOP costs – 54% higher than the next most costly condition, multiple sclerosis. Additionally, pregnancy with delivery saw the largest dollar increase in OOP costs from 2016 to 2022, rising by \$527 over the seven-year period.

Among the top ten conditions by OOP costs, multiple sclerosis experienced the highest percentage increase, nearly doubling from \$490 to \$961 in 2022 – a 96% increase.

Examining the women- and men-only analyses reveals on average, OOP costs for men increased by \$256 over the seven years, while costs for women increased by an average of \$242. While both groups saw rising costs, men's top ten conditions experienced a steeper increase over time.

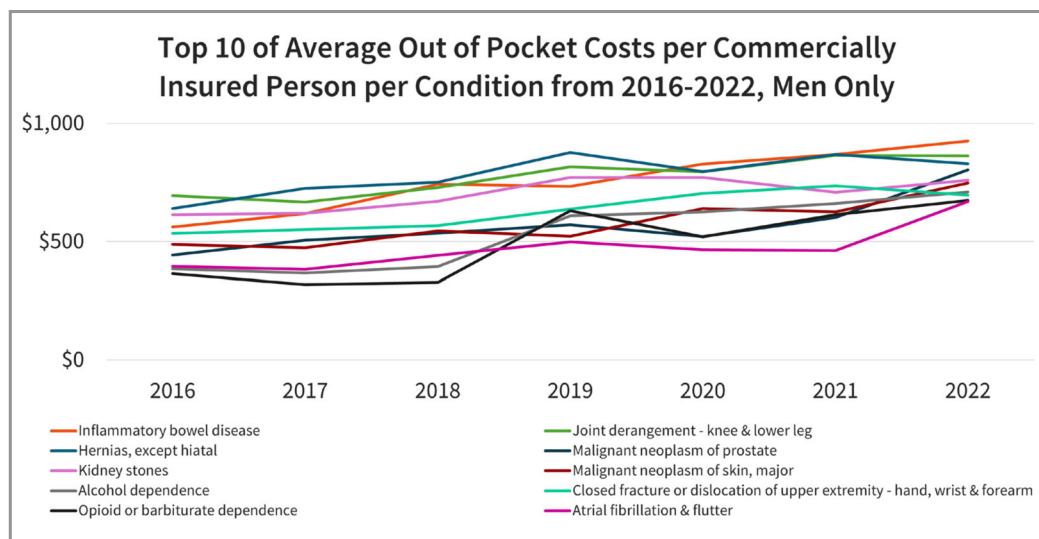


Figure 7: Top 10 Average Out-of-Pocket Costs per Commercially Insured Person per Condition from 2016-2022, Men Only

PREGNANCY WITH DELIVERY

This analysis highlights the significant financial burden of pregnancy with delivery for commercially insured individuals. In 2022, the average OOP cost for delivering a baby was more than \$1,700 – the highest among all conditions analyzed.

For many NH residents, \$1,700 represents a substantial financial burden, and if current trends continue, the cost of giving birth is likely to increase further. Notably, pregnancy with delivery has experienced the largest dollar increase in OOP costs from 2016 to 2022, rising by \$527 (42%) over seven years. This trend underscores the growing financial challenges associated with maternity care, raising important considerations for healthcare affordability and insurance coverage.

MULTIPLE SCLEROSIS

Among all commercially insured members, multiple sclerosis (MS) experienced the highest percentage increase in OOP costs from 2016 to 2022, rising by 96%. This near doubling of OOP costs reflects an increase of \$472 per person over the seven-year period. This steep rise in costs highlights the significant financial burden associated with managing a complex, chronic neurological condition that requires ongoing treatment, specialized care, and rehabilitation services. Additionally, in 2022, MS ranked as the second most expensive condition in terms of OOP costs, surpassed only by pregnancy with delivery.

SUBSTANCE USE DISORDER

Substance use disorders, specifically alcohol dependence and opioid/barbiturate dependence, emerged as contributors to OOP costs for men and women in the analyses by gender.

Alcohol dependence had very similar OOP costs for both men and women in 2022 at \$710 and \$713, respectively. Likewise, this condition was among those with the highest OOP cost growth for both men and women, increasing by more than 80% for both populations during the time period.

Opioid/barbiturate dependence rose to the top ten for men only, with average OOP costs of \$674 in 2022. This condition had one of the highest percentage increase in OOP costs for men from 2016 to 2022, rising by 85%.

These steep increases highlight that the financial burden of managing substance use disorders has grown for commercially insured individuals. Given the ongoing public health concerns surrounding substance use, the rising financial burden on commercially insured individuals highlights the need for policies that ensure affordable access to evidence-based treatment.

CANCERS

Cancer-related conditions accounted for a substantial portion of high OOP costs, with notable increases from 2016 to 2022. Breast, prostate, and genitourinary (e.g., bladder, kidney) cancer rose to the top ten conditions by highest OOP costs in the all-member analysis, while skin cancer also rose to the top for both men and women in the gender-specific analyses. Among the cancerous conditions in the commercial population:

- Breast cancer had the highest OOP costs in 2022, averaging \$954 per woman – a 45% increase from 2016.
- Prostate cancer saw the largest percentage increase of 81%, representing an increase of \$361 per man.
- Genitourinary (e.g., bladder, kidney) cancer experienced a sharp rise in costs, increasing \$783 per person – a 39% increase.

INFLAMMATORY BOWEL DISEASE

In 2022, inflammatory bowel disease (IBD) ranked as the most expensive condition in terms of OOP costs for commercially insured men, averaging \$926 per person. From 2016 to 2022, OOP costs for IBD among men rose by almost \$365 – a 65% increase – reflecting the growing financial burden associated with managing this chronic condition.

POLICY IMPLICATIONS AND CONCLUSION

Healthcare affordability continues to be a pressing issue in the country and in New Hampshire. This analysis highlights that out-of-pocket cost increases are occurring across a variety of conditions, both chronic and acute, as well as across conditions that impact both genders. However, the OOP financial burden is the highest for pregnancy with delivery, with OOP costs reaching \$1,772 in 2022 among the commercially insured population. The OOP cost for pregnancy with delivery is \$800 higher than the condition with the next highest OOP costs, multiple sclerosis.

Further investigation to identify the drivers of widespread out-of-pocket cost increases are warranted in order to develop policies that ensure that NH residents have the affordable care they need to thrive in the Granite State.

TERMS AND NOTATIONS

Conditions were assigned an Optum Symmetry Episode Treatment Group® (ETG). This assignment was based on the diagnosis, procedure, and drug code(s) listed on their medical claims. Throughout this brief, ETGs are referred to as conditions.

The analysis includes members who had at least one month of medical enrollment in a given plan or program. The population used in this analysis is available in **Table 1a in Appendix A**. Only medical claims were used for this study.

A preliminary analysis was conducted to determine a minimum threshold of members with a condition for inclusion in this analysis. The OOP expense attributed to a given condition for a particular member/patient may be reduced due to other comorbid conditions contributing to annual individual and/or family OOP limits. To minimize this effect on the observed mean OOP amounts, the analysis only included conditions with significant member/patient volume. A review of the number of members per condition per year was conducted, revealing the median values as shown in **Table 2a in Appendix A**. The average of those median values was 845 members per condition. Therefore, this analysis was limited to conditions with 845 members or more.

DATA SOURCES AND SOFTWARE

The analysis of the commercial population included enrollees who had commercial policies with a situs state of NH and used administrative medical claims and enrollment data from the New Hampshire Comprehensive Healthcare Information System (NH CHIS), New Hampshire's All-Payer Claims Database. This analysis was restricted to members ages 0-64 and to those with plans within the top non-ERISA commercial medical insurers (approximately 88% of the available data within NH CHIS).

The following software was used for this analysis: SAS 9.4 for data cleaning and aggregation, OptumInsight's Symmetry Episode Treatment Groups® software for the identification of ETGs and MPCs and Microsoft Excel for the creation of the charts and tables.

APPENDIX: DATA TABLES

TABLE 1A. ELIGIBLE STUDY POPULATION FROM 2016-2022

Year	Number of Eligible Members	Average Age	% Female
2016	427,666	38.9	54%
2017	414,356	39.0	54%
2018	428,539	39.1	54%
2019	409,939	39.0	53%
2020	406,005	38.9	53%
2021	427,042	38.7	53%
2022	398,702	37.9	54%

TABLE 2A. MEDIAN NUMBER OF MEMBERS WITH A CONDITION FROM 2016-2022

Year	Median Number of Members with the Condition
2016	825
2017	861
2018	909
2019	871
2020	758
2021	879
2022	814
Average 2016-2022	845

TABLE 3A. TOP 10 CONDITIONS BY OUT-OF-POCKET COSTS FOR THE COMMERCIALY INSURED POPULATION, 2016 - 2022

Condition	2016	2017	2018	2019	2020	2021	2022	\$ Diff. 2016-2022	% Change 2016-2022
Pregnancy, with delivery	\$1,246	\$1,346	\$1,518	\$1,624	\$1,609	\$1,820	\$1,772	\$527	42.3%
Multiple sclerosis	\$490	\$553	\$671	\$754	\$782	\$862	\$961	\$472	96.3%
Malignant neoplasm of breast	\$657	\$640	\$708	\$767	\$795	\$824	\$953	\$296	45.1%
Miscarriage	\$656	\$664	\$769	\$861	\$808	\$850	\$911	\$254	38.7%
Inflammatory bowel disease	\$532	\$586	\$659	\$721	\$783	\$802	\$823	\$291	54.6%
Joint derangement - knee & lower leg	\$649	\$645	\$722	\$790	\$785	\$834	\$817	\$168	25.9%
Malignant neoplasm of prostate	\$442	\$505	\$536	\$570	\$520	\$603	\$804	\$362	81.8%
Malignant neoplasm of genitourinary system, except prostate	\$562	\$586	\$583	\$658	\$632	\$666	\$783	\$220	39.1%
Cholelithiasis	\$646	\$696	\$717	\$787	\$762	\$846	\$781	\$135	21.0%
Hernias, except hiatal	\$609	\$670	\$698	\$794	\$748	\$784	\$776	\$168	27.5%
Average								\$289	47.2%

COVERING THE CARE: PREGNANCY TOPS THE LIST OF HIGHEST OUT-OF-POCKET COSTS FOR NH'S COMMERCIALY INSURED

TABLE 4A. TOP 10 CONDITIONS BY OUT-OF-POCKET COSTS FOR THE COMMERCIALY INSURED POPULATION, WOMEN ONLY, 2016 – 2022

Condition	2016	2017	2018	2019	2020	2021	2022	\$ Diff. 2016- 2022	% Change 2016- 2022
Pregnancy, with delivery	\$1,249	\$1,350	\$1,521	\$1,625	\$1,609	\$1,822	\$1,771	\$522	41.8%
Malignant neoplasm of breast	\$660	\$641	\$710	\$770	\$798	\$827	\$954	\$295	44.7%
Miscarriage	\$658	\$665	\$771	\$864	\$804	\$852	\$912	\$254	38.7%
Cholelithiasis	\$715	\$754	\$764	\$862	\$800	\$858	\$811	\$96	13.4%
Joint derangement - knee & lower leg	\$607	\$624	\$715	\$765	\$776	\$804	\$776	\$169	27.9%
Kidney stones	\$554	\$616	\$636	\$702	\$746	\$766	\$768	\$214	38.7%
Inflammatory bowel disease	\$505	\$557	\$583	\$709	\$742	\$744	\$732	\$228	45.2%
Alcohol dependence	\$396	\$398	\$458	\$586	\$607	\$641	\$713	\$318	80.2%
Closed fracture or dislocation of upper extremity - hand, wrist & forearm	\$562	\$559	\$596	\$668	\$704	\$726	\$708	\$146	25.9%
Malignant neoplasm of skin, major	\$510	\$548	\$569	\$563	\$613	\$673	\$690	\$180	35.4%
Average								\$242	39.2%

TABLE 5A. TOP 10 CONDITIONS BY OUT-OF-POCKET COSTS FOR THE COMMERCIALY INSURED POPULATION, MEN ONLY, 2016 – 2022

Condition	2016	2017	2018	2019	2020	2021	2022	\$ Diff. 2016- 2022	% Change 2016- 2022
Inflammatory bowel disease	\$561	\$618	\$743	\$734	\$828	\$868	\$926	\$365	65.0%
Joint derangement - knee & lower leg	\$694	\$667	\$729	\$817	\$796	\$865	\$862	\$169	24.3%
Hernias, except hiatal	\$639	\$725	\$752	\$877	\$797	\$868	\$829	\$190	29.7%
Malignant neoplasm of prostate	\$443	\$505	\$536	\$570	\$521	\$602	\$804	\$361	81.4%
Kidney stones	\$614	\$620	\$671	\$771	\$772	\$708	\$760	\$146	23.8%
Malignant neoplasm of skin, major	\$488	\$474	\$545	\$522	\$640	\$625	\$748	\$260	53.3%
Alcohol dependence	\$385	\$367	\$394	\$609	\$626	\$661	\$710	\$325	84.5%
Closed fracture or dislocation of upper extremity - hand, wrist & forearm	\$535	\$551	\$568	\$637	\$703	\$736	\$697	\$162	30.4%
Opioid or barbiturate dependence	\$365	\$319	\$328	\$630	\$520	\$613	\$674	\$309	84.6%
Atrial fibrillation & flutter	\$396	\$383	\$442	\$499	\$465	\$462	\$670	\$274	69.1%
Average								\$256	54.6%

COVERING THE CARE: PREGNANCY TOPS THE LIST OF HIGHEST OUT-OF-POCKET COSTS FOR NH'S COMMERCIALY INSURED

END NOTES

- i. Commercial medical claims data excluding Medicare Advantage, Medicare Supplemental and ERISA-governed self-funded plans.
- ii. Member gender is assigned based on the member's most recent enrollment record in the analytic period. Due to data availability, this analysis is limited to male and female categories.
- iii. OPTUMInsight's Symmetry Episode Treatment Groups® (ETGs®) software was used to identify Episode Treatment Groups (ETG) and Major Practice Categories (MPC). Optum®, Symmetry®, Episode Treatment Groups®, ETG®, service marks and logos are registered and unregistered trademarks of Optum and its affiliates in the United States and other countries. <https://www.optum.com/>
- iv. OPTUMInsight's Symmetry Episode Treatment Groups® (ETGS®) software assigns ETGs a flag for chronic conditions. For this analysis, we used that designation to determine if a condition was chronic or not. If an ETG was not chronic or a medical service (e.g. preventive visit), it was assigned as acute.



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ABOUT THE INSTITUTE FOR HEALTH POLICY AND PRACTICE

The Institute for Health Policy and Practice (IHPP) is an applied research institute located within the College of Health and Human Services at the University of New Hampshire. IHPP conducts and disseminates high-quality, cutting-edge applied research and policy work that enables health system partners to implement evidence-based strategies to improve population health.