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Drug Transparency Report

2021 Essential Medications

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Introduction

The Nevada Department of Health and Human Services (DHHS or the Department) is required to compile a list of prescription drugs essential for treating diabetes and asthma in Nevada (Nevada Revised Statutes (NRS) 439B.630). The 2021 Essential Drugs (ED) List was published on February 1, 2021 (Nevada DHHS, 2020a). All manufacturers that produce medication included in Nevada's ED List are required to submit to DHHS an ED Report with data outlining drug production costs, profits, financial aid, and other drug-specific information and pricing data (NRS 439B.635). For those drugs that experienced a recent significant price increase, manufacturers are required to submit an ED Price Increase Report that provides a justification for these price increases (NRS 439B.640). Pharmacy Benefit Managers (PBMs) are required to submit reports regarding rebates negotiated with manufacturers for Nevada's EDs (NRS 439B.645).

DHHS is also required to maintain a registry of pharmaceutical sales representatives that market prescription drugs in Nevada (NRS 439B.660). These representatives are required to annually submit a list of health care providers and other individuals to whom they provided drug samples and/or individual compensation events exceeding $10 or total compensation exceeding $100 during the previous calendar year. This report will include aggregated information regarding pharmaceutical representative compensation and samples provided to eligible health professionals and staff.

State law requires that DHHS compile a report concerning the price of EDs:

> **NRS 439B.650: Department to compile report concerning price of essential diabetes and asthma drugs.** On or before June 1 of each year, the Department shall analyze the information submitted pursuant to NRS 439B.635, 439B.640 and 439B.645 and compile a report on the price of the prescription drugs that appear on the most current lists compiled by the Department pursuant to NRS 439B.630, the reasons for any increases in those prices and the effect of those prices on overall spending on prescription drugs in this State. The report may include, without limitation, opportunities for persons and entities in this State to lower the cost of drugs for the treatment of diabetes while maintaining access to such drugs.
>
> (Added to NRS by 2017, 4299)

Results

General Analysis of 2021 EDs

DHHS published the 2021 ED List on February 1, 2021 that included 1,010 Anti-Diabetic and 466 Anti-Asthmatic National Drug Codes (NDCs) (Nevada DHHS, 2020a). Each drug NDC represents a specific drug formulation, dosage, and packaging specification.

ED Significant Price Increase Analysis

DHHS analyzed the 2021 EDs to identify those that experienced a significant price increase during the preceding one- and two-year periods as defined by Nevada law. To identify the EDs that experienced a significant price increase, EDs were analyzed to identify any price increases occurring during the 2019 and 2020 calendar years. NRS 439B.630 requires that the percentage price increase be compared against the Consumer Price Index (CPI), Medical Care Component to identify drugs that experienced a significant price increase. The CPI is designed to measure inflation over time and is published by the United States Department of Labor (United State Department of Labor, 2020). A total of 157 or 10.6% of EDs experienced a significant price increase during the periods analyzed (Table 1).

Table 1: 2019 Essential Medications that Experienced a Significant Price Increase

	Number of Drug NDCs	Percentage
Diabetes medications with a Significant Price Increase During the Previous One- and/or Two-Year Periods	147	14.6%
Diabetes Medications with no Significant Price Increase	863	85.4%
Asthma medications with a Significant Price Increase During the Previous One- and/or Two-Year Periods	10	2.2%
Asthma medications with no Significant Price Increase	457	97.8%

DHHS analyzed the frequency of significant price increases over the time periods required. As outlined in Table 2, EDs that experienced a price increase were categorized by brand and generic medications.

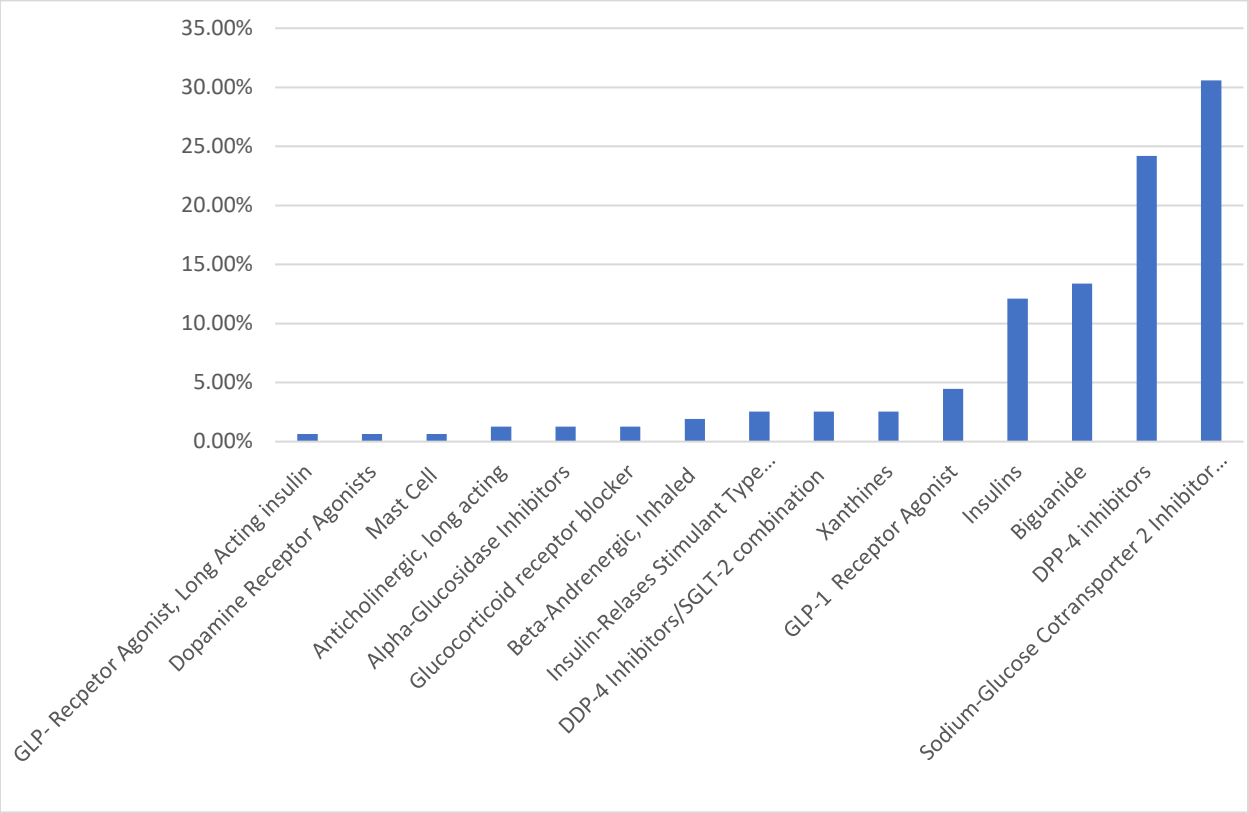
Table 2: Number and Percent of Essential Medications that Experienced a Significant Price Increase Per Time Period Analyzed		
	Number of Brand NDCs (%)	Number of Generic NDCs (%)
Diabetic NDCs that Experienced a One-Year Significant Price Increase	85 (77%)	25 (23%)
Diabetic NDCs that Experienced a Two-Year Significant Price Increase	62 (69%)	28 (31%)
Asthma NDCs that Experienced a One-Year Significant Price Increase	4 (57%)	3 (43%)
Asthma NDCs that Experienced a Two-Year Significant Price Increase	6 (75%)	2 (25%)

The average increase in price for diabetes and asthma medications that experienced a significant price increase over the preceding calendar year was 12.5% and 16.5%, respectively, while the average increase over the preceding two-year period was 22.3% and 27.0%, respectively (Table 3). The one-year value was well above the annual CPI, Medical Care Component for 2019 or 2020, which were 2.8% and 4.1% respectively. Price increase percentages greater than these published values during each one-year period cannot be justified alone as maintaining pace with general medical inflation.

Table 3: Average One- and Two-Year Price Increase for Essential Diabetes Drugs that Experienced a Significant Price Increase	
	Percentage
Average One-Year Essential Diabetic Medications Price Increase	12.5%
Average Two-Year Essential Diabetic Medication Price Increase	22.3%
Average One-Year Essential Asthma Medications Price Increase	16.5%
Average Two-Year Essential Asthma Medication Price Increase	27.0%

EDs that experienced a significant price increase were analyzed by drug class in Figure 1. Once more, as with the 2020 Drug Transparency report, brand name medications with no generic equivalent were the most predominant group of drugs that experienced a significant price increase.

Figure 1: Percent of Essential Medication NDCs per Drug Classification that Experienced a Significant Price Increase



*****Combination medications with medication such as a DDP-4 inhibitor and a biguanide or thiazolidinedione, SGLT-2 with a biguanide were reported under the DDP-4 or the SGLT-2 component since the biguanide/thiazolidinedione component has a minimal, if any, effect on the overall pricing of the medication.

Medicaid Expenditures for Essential Drugs

EDs play a critical role in the health of Nevadans, including low-income and underserved populations covered by Medicaid. ED utilization accounts for 10.85% of all claims in 2020 which represents a slight decrease from 11.29% in 2019. EDs in 2020 account for 15.24% of overall Medicaid expenditures on prescription drugs, down from 17.67% in 2019 (Figure 3). EDs year after year are trending similarly in both utilization and expenditure (Figure 2 and Figure 3). Diabetes accounts for <5% of the utilization but accounts for over 10% of the spend. Asthma on the other hand more closely represents a 1 to 1 utilization to spend ratio (Figure 2, Figure 3, Table 4 and Table 5).

Figure 2: Medicaid Utilization on Essential Diabetes Drugs Compared to All Other Drugs

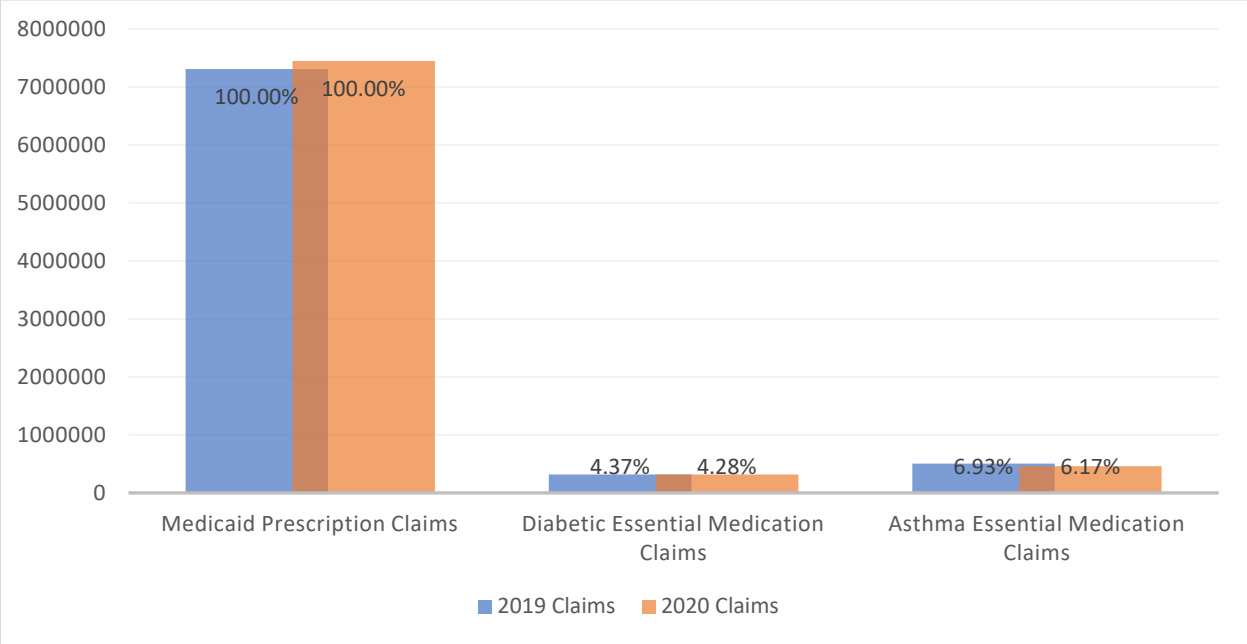
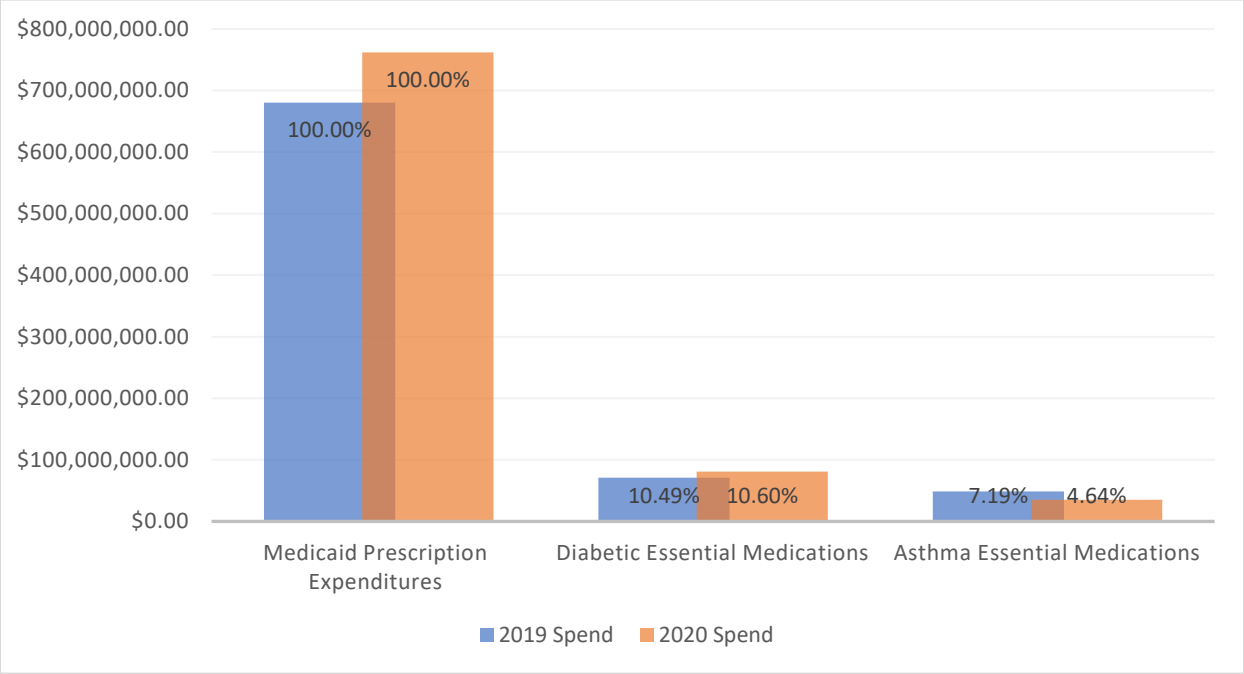


Table 4. Medicaid Utilization		
Medicaid Pharmacy Utilization	**2019 Claims**	**2020 Claims**
All Medicaid Pharmacy Claims	7,309,635	7,448,748
All Medicaid Pharmacy Claims for Essential Diabetes Drugs	319,098	348,943
Brand Medicaid Pharmacy Claims for Brand Diabetic Drugs	150,878	159,948
Generic Medicaid Pharmacy Claims for Generic Diabetic Drugs	168,220	188,995
All Medicaid Pharmacy Claims for Essential Asthma Drugs	506,848	459,338
All Medicaid Pharmacy Claims for Brand Asthma Drugs	101,909	112,226
All Medicaid Pharmacy Claims for Generic Asthma Drugs	404,575	347,072

Figure 3: Medicaid Expenditures on Essential Medications Compared to All Other Drugs

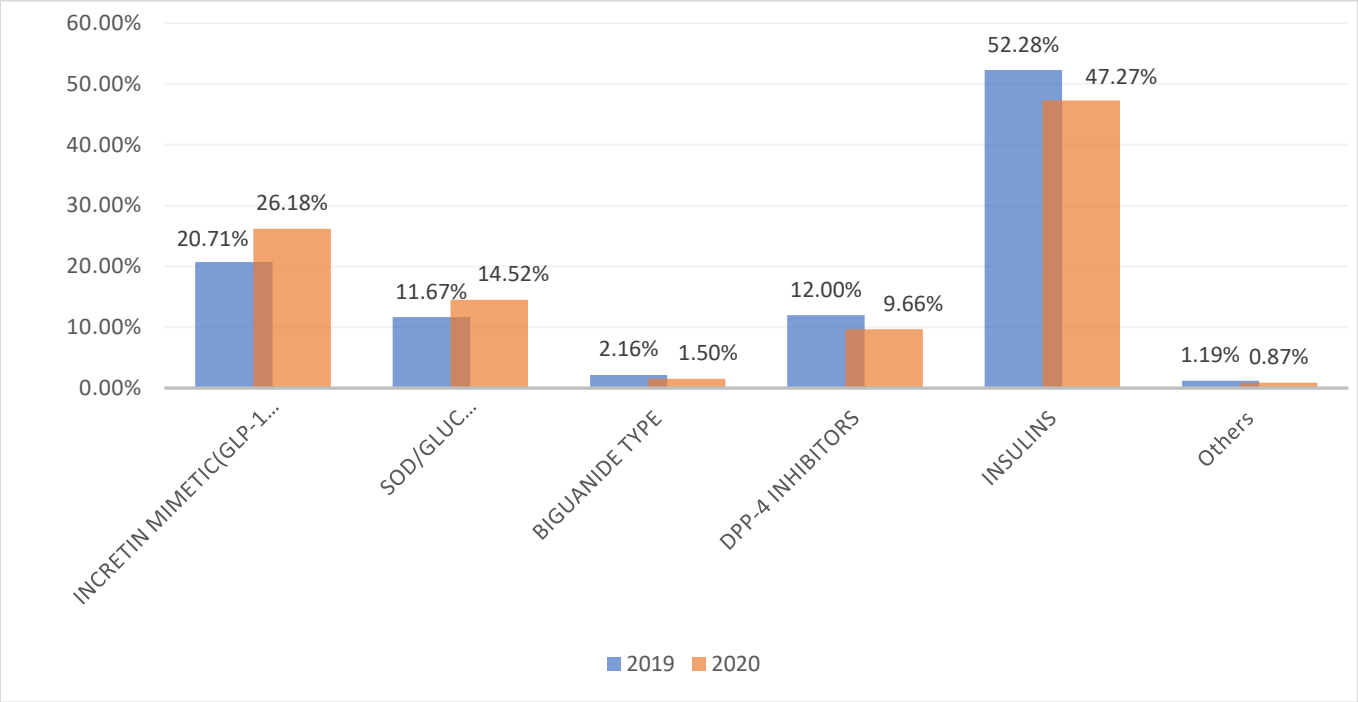


Overall, expenditures per claim for EDs have decreased for both asthma and diabetes compared to the increase of all pharmacy expenditures from 2019 to 2020 (Table 5). Average claim cost per brand diabetic and brand or generic asthma medications have declined in cost whereas diabetic generic medications had a slight increase (Table 5).

Table 5. Medicaid Expenditure				
Medicaid Pharmacy Expenditures	2019 Medicaid Pharmacy Expenditures	2020 Medicaid Pharmacy Expenditures	2019 Average Cost per Claim	2020 Average Cost per Claim
All Medicaid Pharmacy Claims	$680,200,257.77	$761,674,172.99	$88.76	$102.26
Medicaid Pharmacy Spend for Essential Diabetes Drugs	$71,320,652.75	$80,738,726.00	$231.77	$231.38
Medicaid Pharmacy Spend for Essential Asthma Drugs	$48,883,432.40	$35,324,820.26	$112.03	$76.90
Medicaid Pharmacy Spend for Brand Diabetes Drugs	$ 69,458,442.31	$77,427,295.01	$485.46	$484.08
Medicaid Pharmacy Spend for Generic Diabetes Drugs	$1,862,210.44	$3,311,430.99	$14.07	$17.52
Medicaid Pharmacy Spend for Brand Asthma Drugs	$28,314,351.78	$23,074,835.52	$277.60	$205.61
Medicaid Pharmacy Spend for Generic Asthma Drugs	$20,569,080.62	$12,249,984.74	$69.14	$35.30

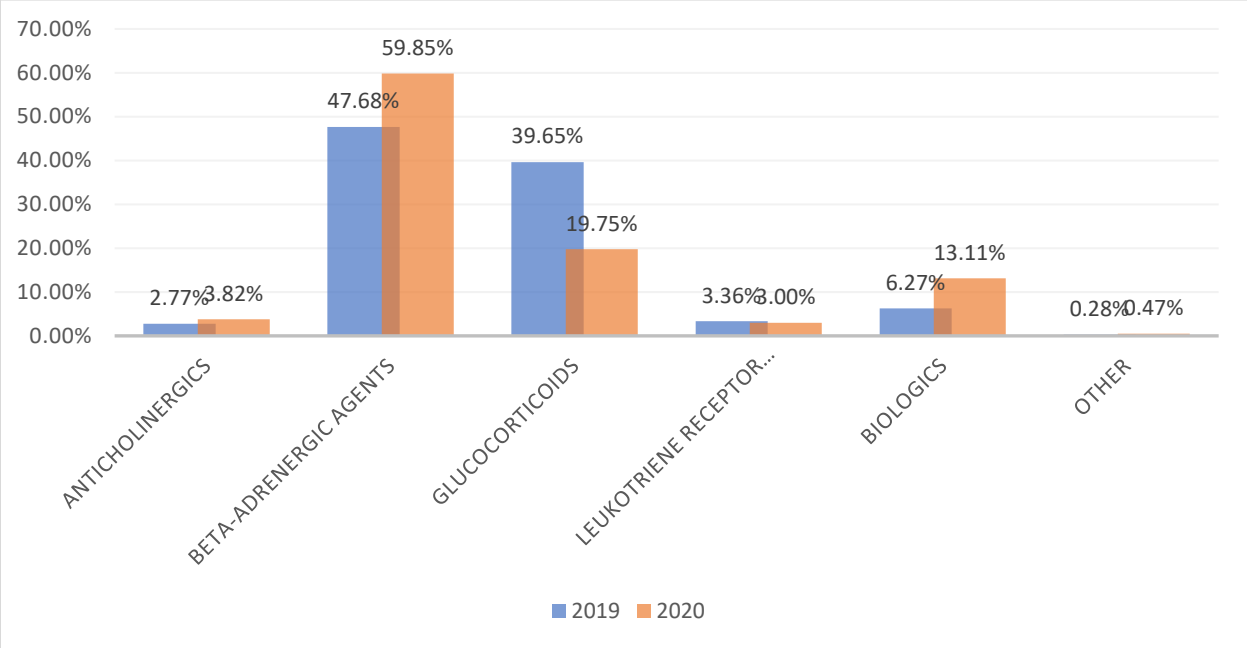
~ 90% of all the drug spend in the diabetic categories reside in the brand only classes (Glucagon like peptide 1 receptor agonist (GLP-1), Sodium glucose co-transporter 2 inhibitors (SGLT-2), Dipeptidyl peptidase-4 inhibitors (DDP-4) and insulin) and represent most of the drugs that have experienced a significant price increase (Figure 4).

Figure 4: Percentage Medicaid Expenditures by Class of Essential Diabetes Drugs



Asthma expenditures were predominately incurred from inhaled beta-adrenergic agents and inhaled glucocorticoids both of which are majority brand name medications with limited generic availability. Biologics, specifically the Interleukin-5 Antagonists, are relatively new and growing in popularity in patients with severe asthma. These biologics would be typically classified as specialty medications by most payors due to their high cost.

Figure 5: Percentage Medicaid Expenditures by Class of Essential Asthma Drugs



Drug Manufacturer Profits and Administrative and Production Costs for Essential Medications

The average profit reported by manufacturers for diabetes and asthma medications was $8,837,825.30 and $13,260,005.27, respectively (Figure 6, Table 6). Administrative expenditures included both the marketing and advertising costs. The inflated average compared to the median was due to a subset of reports from large pharmaceutical companies that produced drugs with very high production and administrative costs and profits or smaller pharmaceutical companies that are reporting zero for these costs. This also inflated the standard deviation (Table 6).

Figure 6: Average Drug Production and Administrative Costs versus Average Profit

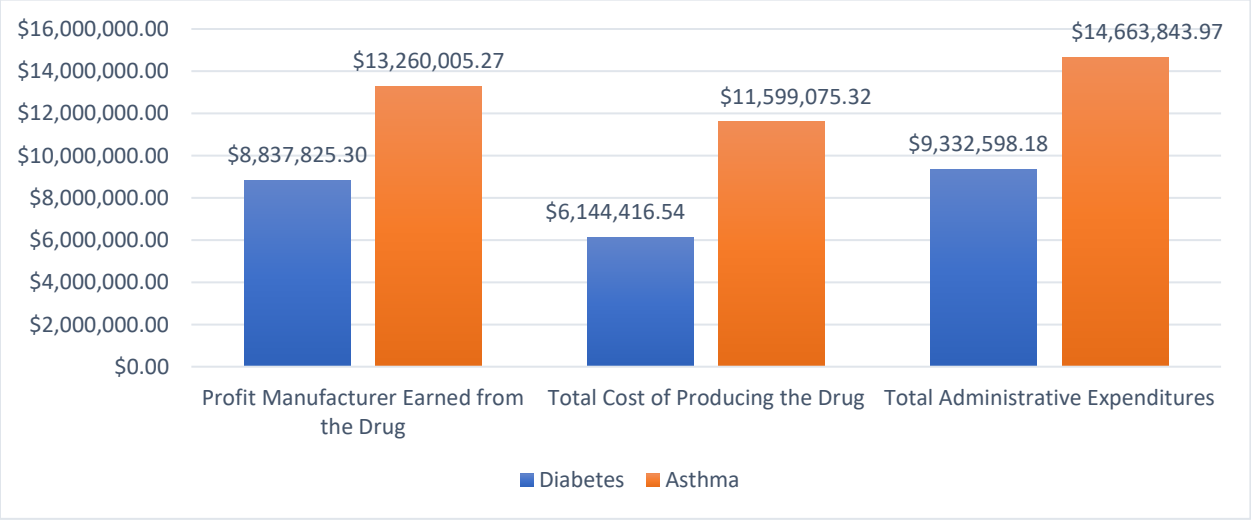


Table 6: Essential Diabetes Drug Reported Profits and Production and Administrative Costs		
	Average	**Standard Deviation**
Diabetes Profit	$8,837,825.30	$57,926,563.36
Diabetes Total Cost of Producing the Drug	$6,144,416.54	$57,526,369.95
Diabetes Total Administrative Expenditures Relating to the Drug†	$9,332,598.18	$65,115,930.03
Asthma Profit	$13,260,005.27	$74,179,956.54
Asthma Total Cost of Producing the Drug	$11,599,075.32	$43,846,943.65
Asthma Total Administrative Expenditures Relating to the Drug†	$14,663,843.97	$96,912,785.81
†Multiple drug manufacturers reported $0 for Total Administrative Expenditures, and likely included all their costs for manufacturing the drug in the Total Cost of Producing the Drug.		

Drug Manufacturer Financial Assistance and PBM Rebates for Essential Medications

Drug manufacturers reported the financial assistance provided to consumers and rebates that were provided to PBMs (Table 7). PBMs can negotiate prescription drug rebates with drug manufacturers. Some PBMs pass all these rebates onto insurers or consumers while others retain a portion of the rebates. The majority of the EDs are generic and typically do not provide aid in the form of rebates, patient assistance or coupons. The average reported total amount of financial assistance provided through patient prescription assistance programs was $2,257,644.32. This value was inflated due to a subset of larger drug manufacturers providing high monetary values of financial assistance.

The standard deviations for the values in Table 7 provide evidence of the large variations among the drug manufacturers for financial assistance to consumers and rebates provided to PBMs. The average reported value of the aggregate rebates that manufacturers provided to PBMs for Nevada drug sales was $5,519,526.66.

Table 7: Financial Assistance and PBM Rebates Provided to Drug Manufacturers for Essential Diabetes Drugs		
	Average	**Standard Deviation**
Total Amount of Financial Assistance Provided through Patient Prescription Assistance Programs	$2,257,644.32	$14,598,694.14
Cost Associated with Consumer Coupons and for Consumer Copayment Assistance Programs	$2,689,417.75	$17,786,847.76
Manufacturer Cost Attributable to Redemption of Consumer Coupons and Use of Consumer Copayment Assistance Programs	$353,901.41	$2,370,411.45
Aggregate Amount of All Rebates Manufacturers Provided to Pharmacy Benefit Managers for Drug Sales in Nevada	$840,863,.54	$5,519,526.66

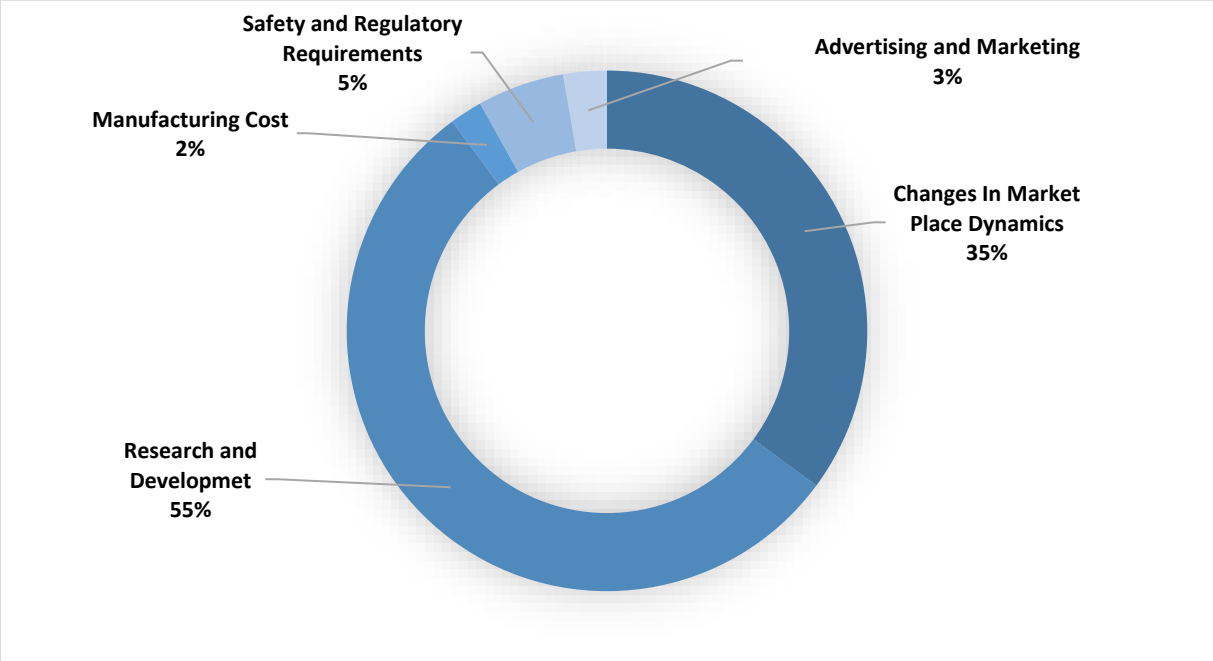
Drug Manufacturer Price Increase Justification

The CPI, Medical Care Component measures the average percentage change over time in the prices paid by consumers for medical care goods and services. Positive values represent an inflation in the average costs for medical care goods and services. These values act as a benchmark with which drug price increases are compared in the law to identify the drugs that had a significant price increase over the immediately preceding one and two calendar years.

As reported, 158 drug NDCs in the 2020 ED List had a significant price increase during the preceding one and/or two calendar years. Drug manufacturers that produced EDs that experienced a significant price increase are required to submit a report outlining a justification for the price increases for each drug. DHHS standardized all the responses into major categories, showcased in Figure 7. Responses were then quantified so that they could be compared for their relative prevalence. A single drug in most cases had more than one price increase justification.

The most frequent justifications for price increases in order of prevalence were research and development investments (55%), changes in marketplace dynamics (35%), regulatory cost (5%). manufacturing cost (2%). Appendix 2 provides summarized examples of each category to further describe these justifications. Like the last two preceding reports, research and development was most frequently reported as a justification for price increases of EDs.

Figure 7: Justifications for Price Increases of Essential Diabetes Drugs



PBM Rebate Data

PBMs reported the rebates negotiated with drug manufacturers during the immediately preceding calendar year for prescription drugs included on the ED List for Nevada. PBMs reported the rebates they retained, as well as the rebates that were negotiated for purchases of such drugs for use by (1) recipients of Medicaid, (2) persons covered by third party governmental entities that are not Medicare and Medicaid, (3) third parties that are not governmental entities, and (4) persons covered by Employee Retirement Income Security Act (ERISA) plans in which by contract the PBMs are required to report drug transparency data to DHHS. DHHS received no monetary reporting for category four outlined above. Because some drug transparency data is already reported to the federal government by PBMs, DHHS did not require PBMs to report rebates that they already are required to submit to the federal government such as rebates for Medicare and for certain ERISA plans.

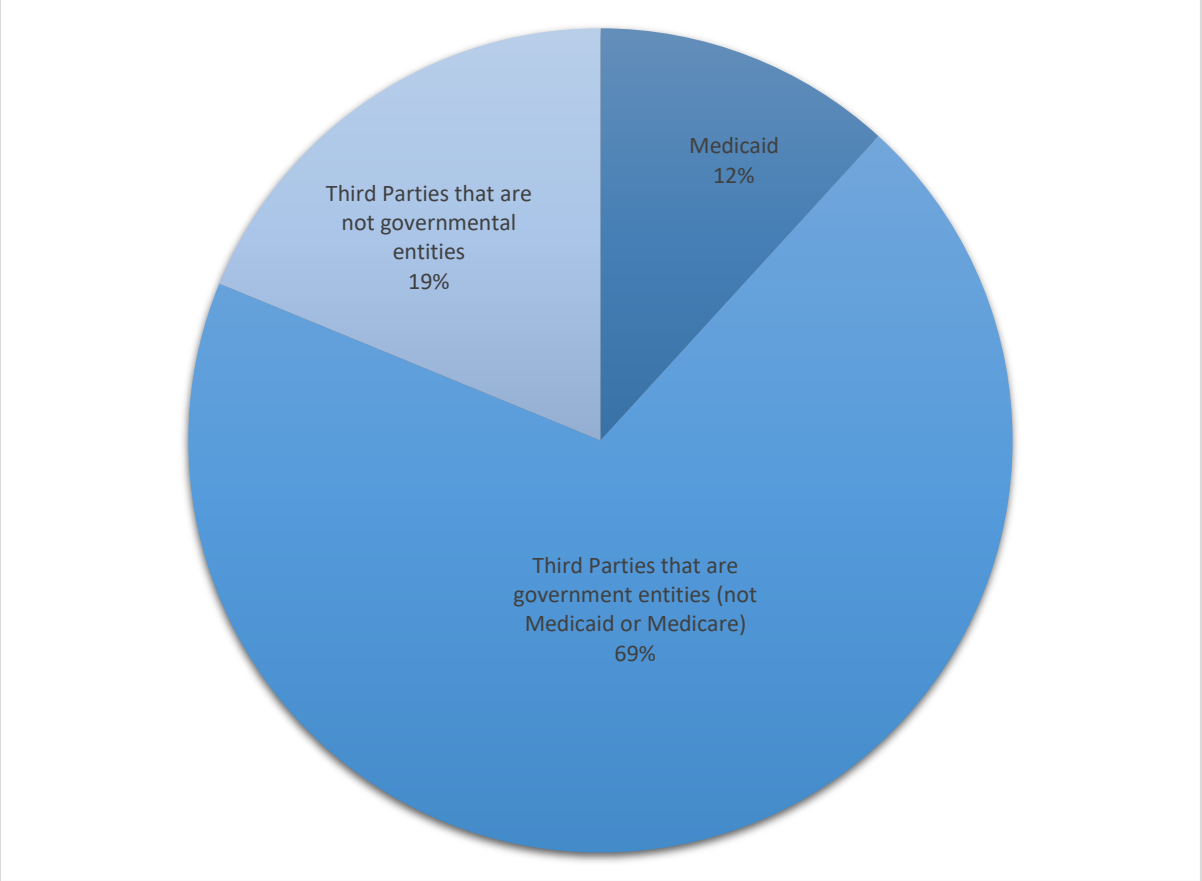
Total reported rebates that PBMs negotiated with manufacturers for EDs for Nevadans were greater than $21 million (Table 8). The total reported rebates are broken down into three categories: 1) rebates for Medicaid recipients, 2) rebates for persons covered by third parties that are government entities that are not Medicaid or Medicare, and (3) rebates for persons covered by non-governmental third parties. Based on the all the reported rebates negotiated by PBMs with manufacturers, 8.4% was retained by PBMs. 33% of the PBMs did not report any rebate amounts negotiated with a manufacturer, which indicates the PBM may not directly contract their own rebates. 44% of the PBMS reported no retention of rebates.

Table 8: Total Reported Rebates Negotiated by PBMs for Essential Drugs

Reported Value Description	**Aggregate Value in United States Dollars**
Row 1: Total amount of all rebates that the PBM negotiated with manufacturers during the immediately preceding calendar year for EDs	$21,844,856.06
Row 2: Total amount of all rebates described in Row 1 that were negotiated for purchases of such drugs for use by recipients of Medicaid	$2,428,709.38
Row 3: Total amount of all rebates described in Row 1 that were negotiated for purchases of such drugs for use by persons covered by third parties that are governmental entities but are not Medicaid or Medicare	$14,316,670.96
Row 4: Total amount of all rebates described in Row 1 that were negotiated for purchases of such drugs for use by persons covered by third parties that are not governmental entities	$3,874,173.21
Row 5: Total amount of all rebates described in Row 1 that were retained by the PBM	$8,213,827.43

Figure 8 shows the percentage of reported rebates that PBMs negotiated with manufacturers for purchase of EDs by entity type. Because of substantial rebates already provided to Medicaid and other government insured individuals, additional rebates supporting Medicaid recipients composed a small percentage (12%) of the total reported rebates negotiated by PBMs (Figure 8). 69% of total reported rebates negotiated by PBMs with manufacturers were for third parties that are not governmental entities (Figure 8).

Figure 8: Percentage of Reported PBM Rebates Negotiated for Essential Drugs by Insured Entity Type



Pharmaceutical Representative Compensation and Samples Data

NRS 439B.660 requires that sales representatives registered with DHHS who engage in business in Nevada submit a report detailing their compensation and sample distributions in Nevada for the preceding calendar year. Sales representatives are required to report the names of all licensed, certified, or registered health care providers, pharmacy employees, operators or employees of a medical facility, and individuals licensed or certified under the provisions of Title 57 of NRS to whom they provided eligible compensation or samples. Eligible compensation includes any type of compensation with a value that exceeds $10 or total compensation with a value that exceeds $100 in aggregate.

A total of 166,002 pharmaceutical representatives' events were reported for compensation and sample distribution to DHHS. These individuals represented 372 individual companies.

Compensation Provided by Pharmaceutical Representatives

DHHS aggregated the reported compensation values from pharmaceutical representative reports (Table 9). Nevada health care providers and staff in their offices collectively received $2,272,618.67 in compensation from pharmaceutical representatives and the average compensation amount was $20.62, showing that the predominant pharmaceutical representative interactions with health providers, health support staff, and administration involved small value compensation transactions (Table 9).

Compensation values were categorized by two compensation types based on the reported data and the total reported values for each compensation type were aggregated (Table 9). Majority of compensation was meal related and represented 84.7% of total compensation dollars with an average of $18.16 (Table 9).

Table 9: Reported Total and Average Compensation Values from Pharmaceutical Representatives in United States Dollars by Compensation Type

Compensation Type	Total Compensation Amount	Average Compensation Amount
Other	$347,298.84	$92.33
Food and/or Beverage	$1,925,319.88	$18.16
Total	**$2,272,618.67**	**$20.62**

Discussion

This report represents the third annual compilation of drug transparency information received by DHHS from drug manufacturers, pharmaceutical representatives, PBMs, Nevada Medicaid, and other health-related entities.

Nevada Medicaid spent $116,063,546.26 in 2020 on drugs included on the EDs list (Figure 3). Overall, the total expenditures were 10.7% higher than the previous year (2019) with utilization only increasing by 1.9% (Figure 3). From 2019 to 2020, the trend of utilization and cost of EDs is relatively flat with asthma on a per claim basis trending downward. This indicates that the increase in overall Medicaid costs came from medications not on the ED list. As with the previous report, most of the expenditures for EDs fell within the brand name category. Although several manufacturers have been identified as having had significant price increases in their medications, both asthma and diabetes spend on a per claim basis has not significantly increased or had any increase at all.

Insulins continue to have the highest expenditure of the EDs for diabetes. Two other diabetes medication classes that are continuing to grow in trend are the SGLT-2 and GLP-1 medications. We continue to see a rise in utilization of these medications due to their expanded FDA indication and clinical treatment guideline recommendations. Asthma EDs decreased in expenditure on a per

claims basis with inhaled beta agonist and inhaled glucocorticoid medications having the highest utilization. While asthma ED utilization has stayed relatively consistent, costs decreased 2.55% from 2019 to 2020.

DHHS continues to strive to make sense of the reporting received, but it remains difficult to draw any significant conclusions from the data. There are challenges to transparency and drug pricing policy due to the pharmaceutical industry's lobbying efforts and being able to readily access this information. The pharmaceutical industry spends more on lobbying efforts than any other industry, at more than $280 million per year just in federal lobbying efforts[2]. Pharmaceutical reps and marketing strategies also make it more difficult to treat patients with the most cost-effective medications. In the past 20 years, spending on medical marketing in the U.S. has increased from $17.7 billion per year to $29.9 billion per year. At the same time, drug companies have paid more than $11 billion in fines for off-label or deceptive marketing practices[2].

In future legislation, we would recommend that the PBM's rebate aggregator should be required to report if the PBM does not directly contract rebates with manufactures. Additional policy changes at the federal level, such as patent protections and value-based price modeling, would allow for more cost saving opportunities for patients. One independent source that is free from financial conflicts of interests is the Institute for Clinical and Economic Review (ICER). Based on medical evidence, ICER assesses whether the cost of a medication is justified based on the outcomes it provides. This information can be used to examine how much better new treatment options are at improving quality and quantity of life outcomes and whether the cost is justifiable. Legislation could potentially be created stating that pricing cannot exceed its value based on this type of modeling.

Additionally, in the future, an all-claims database for the state of Nevada may be beneficial to understand how these price increases are affecting the whole state of Nevada and not just the Medicaid population. Furthermore, directly contracting with the manufactures for prescription medications may be a more effective way to gain full transparency. Joining a bulk purchasing pool such as the Northwest Prescription Drug Consortium, which offers the ability to purchase prescriptions directly, may bring more transparency to the cost of these medications.

Report Methodology and Reporting Compliance

This report was prepared in accordance with the requirements of NRS 439B.650. Only aggregated data that does not disclose the identity of any specific drug, manufacturer, or PBM was included in this report in accordance with Nevada Administrative Code 439.740. Unless otherwise indicated, information in this report is specific to the 2020 calendar year.

EDD Medicaid Expenditures Data

2019 and 2020 Medicaid managed care organization and fee-for-service claims data for Nevada was obtained from the DHHS Office of Analytics. This dataset includes the total Medicaid expenditures per NDC. A claim to qualify under a certain calendar year must have been filled during that calendar year.

EDD List and Price Increase Analyses

To compile the 2020 DHHS ED List, DHHS utilized a methodology that met the requirements of NRS 439B.630. To generate the final list, DHHS compiled an initial list of diabetes and asthma drug NDCs that included varying drug packaging formulations based on First Data Bank information for these drug classes. These NDCs were filtered down to include the drugs for which Nevada Medicaid expended funds in 2020.

This ED List does not include any drugs used to treat co-morbidities often present in individuals with diabetes. The list does not contain every drug that may be an effective treatment or approved for the treatment of diabetes or asthma. This list attempts to refine the numerous treatments to those approved for the treatment of diabetes or asthma, identified by prescribers as essential and most frequently prescribed in Nevada as determined by publicly available data sources. For this reason, some brand names, generics, or alternative brands are included while others are excluded.

Table 1 reported 1,361 total EDs analyzed for a significant price increase where a WAC price was available. NRS 439B.630 specifies that the price increase analysis should identify EDs subject to an increase in the WAC of a percentage equal to or greater than: (a) The percentage increase in the Consumer Price Index, Medical Care Component during the immediately preceding calendar year; or (b) twice the percentage increase in the Consumer Price Index, Medical Care Component during the immediately preceding two calendar years.

The minimum prices active during 2019 and 2020 and the maximum active price for 2020 were compared to identify the one-year and two-year price increase percentages. The one-year price increases were compared against the 2020 annual CPI Medical Care Component, while the two-year price increases were compared against twice the combined annual CPI Medical Care Component values of 2019 and 2020. For the 2021 EDs, the one-year percentage increase threshold value was 4.1%, and the two-year threshold value was 13.8%.

EDD Manufacturer Reporting

DHHS compiled and aggregated the drug manufacturer reported data so that each major drug included only one entry for each reporting criteria. Some manufacturers reported financial information at the individual NDC level. Other manufacturers aggregated financial information for a given drug by combining all NDC data. In addition, some reported what is to be assumed at a non-aggregated level. DHHS did its best to account for this reporting variation and attempted to aggregate all reported values based on drug name by manufacturer to standardize the dataset. During the next reporting period a more standardized reporting system needs to be utilized to limit for the variability.

DHHS standardized the manufacturer reported values for *Profit* and the *Percentage of Manufacturer's Total Profit Attributable to Essential Medications*. DHHS defined profit as denoting financial gains earned from a reporting entity.

Price Increase Justification Analysis

Drug manufacturers reported narrative justifications for significant price increases of EDs. Responses were standardized into categories subjective to this author described in Appendix 2 so that they could be quantified and compared for their relative frequencies. Manufacturers reported one or more justifications for the drug price increases. Scoring was completed on a NDC level rather than a manufacture level. For each NDC that had more than one justification, each additional justification was assigned the same weight in the overall analysis. In future reporting a list of justifications based on previous reports will be created to better categorize the data.

PBM Aggregated Rebates

In contrast to the drug manufacturer data, PBMs submitted aggregated pricing rebates for all EDs and did not report rebates for individual drugs. Several PBMs reported 0 for rebates negotiated. Unless otherwise indicated, data regarding PBMs is specific to Nevada. DHHS added up all PBM-reported rebates to create Table 6.

Pharmaceutical Representative Compensation and Samples Data

All pharmaceutical drug representative compensation and samples reports received by DHHS were standardized and merged into one dataset. DHHS received 166,002 pharmaceutical representative compensation and samples records.

DHHS Invites You to Learn More

DHHS invites you to view the Drug Transparency website at drugtransparency.nv.gov. If you are interested in receiving email notifications for Nevada Drug Transparency information and updates, please subscribe to the LISTSERV online at drugtransparency.nv.gov. Feedback and questions can be directed to the email: drugtransparency@dhhs.nv.gov

Appendix 1: Summary Descriptions of Price Increase Justifications

Note: the following are summary descriptions of price increase justifications provided by each major justification category. This appendix more clearly defines the justification categories and further clarifies the diverse responses received.

- **Research and Development**: This category includes responses indicating that additional funds would support research and development of existing EDs and future medicines. It was indicated by manufacturers that drug research continues even after the FDA approves their drugs to verify safety and improve product formulations.
- **Changes in Marketplace Dynamics**: Responses indicated that market or commercial conditions induced in part the need for a price increase.
- **Supporting Regulatory and Safety Commitments**: Responses in this category related to drug manufacturers' responsibility to fulfill governmental safety, licensing, and reporting responsibilities, including new or additional regulatory requirements.
- **Manufacturing Cost**: This category related specifically to investments in manufacturing or improving or constructing new drug manufacturing facilities. This includes responses that outlined higher drug production costs and higher costs relating to commercial

transportation.

Advertising and Marketing: Responses indicated a need to promote awareness of drugs through advertisements and further workforce training relating to sales.

References:

1. Evers-Hillstrom, K. (2019, January 25). Lobbying spending reaches $3.4 billion in 2018, highest in 8 years. **OpenSecrets News**. http://www.opensecrets.org/news/2019/01/lobbying-spending-reaches-3-4-billion-in-18/

2. (Schwartz, L. M., & Woloshin, S. (2019). Medical Marketing in the United States, 1997-2016. JAMA, 321(1), 80. https://doi.org/10.1001/ jama.2018.19320)