Oregon Prescription Drug Affordability Board

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Agenda

This is a regular meeting. *Date*: **February 21, 2024** | *Time*: **9:30 a.m.**

This agenda is subject to change.

Meeting name	**Prescription Drug Affordability Board**
Meeting location	Virtual
Zoom link	Register for the meeting

Board Members: Akil Patterson; Vice Chair Shelley Bailey; Daniel Hartung; Amy Burns; Robert Judge; Christopher Laman, John Murray

Staff: Ralph Magrish, executive director; Cortnee Whitlock, policy analyst; Stephen Kooyman, project manager; Brekke Berg, policy analyst, Taran Heins, research analyst, Melissa Stiles, administrative specialist; Jake Gill, counsel; Pramela Reddi, counsel

Purpose	Subject	Presenter	Estimated Time Allotted
Informational and vote	Appointment of interim chair for today's meeting	Ralph Magrish	5 minutes
Informational and vote	Call to order, roll call, approval of **1/26/2024 minutes**	Interim Chair	5 minutes
Informational	Executive director's program update	Ralph Magrish	5 minutes
Informational	**Legislative update**	DCBS policy staff	10 minutes
Discussion and vote	**Affordability review: 1) Ozempic and 2) Trulicity:** • Drug-specific public comments • Board discussion, including any board questions regarding drug-specific public comments • Potential motion to include products on the list of prescription drugs that may create affordability challenges for health care systems or high out-of-pocket costs for patients in Oregon.	Ralph Magrish and Cortnee Whitlock	80 minutes ▪ Includes 40 minutes for public comment
	Break		5 minutes

Discussion and vote	**Affordability review: 3) Shingrix:** • Drug-specific public comments • Board discussion, including any board questions regarding drug-specific public comments • Potential motion to include product on the list of prescription drugs that may create affordability challenges for health care systems or high out-of-pocket costs for patients in Oregon.	Ralph Magrish and Cortnee Whitlock	40 minutes ▪ Includes 20 minutes for public comment
Informational and vote	Election of officer(s)	Interim Chair	3 minutes
Informational	General public comment	Interim Chair	5 minutes
Informational	Adjournment	Interim Chair	2 minutes

Next meeting

March 20, 2024, at 9:30 a.m.

Accessibility

Anyone needing assistance due to a disability can contact Melissa Stiles at least 48 hours ahead of the meeting at pdab@dcbs.oregon.gov or 971-374-3724.

How to submit public comment

Oral testimony

For oral comments, please submit the PDAB public comment form no later than 24 hours before the PDAB meeting. The form is located on the Prescription Drug Affordability Board public comment page.

General written testimony

For written comments, please submit the PDAB public comment form with attachments no later than 72 hours before the PDAB meeting. The form is located on the Prescription Drug Affordability Board public comment page. Written comments will be posted to the PDAB website.

Public comment for drug affordability review

For written comments specific to drugs under review by the board, please submit the PDAB public comment form with attachments by the deadline listed on the public comment page. For oral testimony about drugs under review by the board, please submit the PDAB public comment form no later than 24 hours before the PDAB meeting. The form is located on the Prescription Drug Affordability Board public comment page. Written comments received by the deadline will be included in the board meeting materials and posted to the web.

Open and closed sessions

All board meetings except executive sessions are open to the public. Pursuant to ORS 192.660, executive sessions are closed, with the exception of news media and staff. No final actions will be taken in the executive session. When action is necessary, the board will return to an open session.

Oregon Prescription Drug Affordability Board

Oregon Prescription Drug Affordability Board (PDAB) Rescheduled Regular Meeting
Friday, January 26, 2024
Draft Minutes

Web link to the meeting video: https://youtu.be/QwzBR20N6NU
Web link to the meeting materials: https://dfr.oregon.gov/pdab/Documents/20240126-PDAB-document-package.pdf

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Call to order and roll call: Chair Akil Patterson called the meeting to order at 1:00 pm and roll was called.
Board members present: Chair Akil Patterson, Vice Chair Shelley Bailey, Dr. Amy Burns, Dr. Daniel Hartung, Robert Judge, John Murray (arrived at 1:32 pm)
Absent: None

Approval of minutes: Robert Judge made the motion and Amy Burns provided a second to approve the minutes on Pages 3-5 in the agenda packet with the following correction: "Board Member John Murray declared a potential conflict of interest due to his ownership of a pharmacy and based on his consultation with the Oregon Government Ethics Commission." View the approval in the meeting video at minute 00:00:53.

MOTION to approve the minutes as amended.
Board Vote:
Yes: Robert Judge, Amy Burns, Daniel Hartung, Vice Chair Shelley Bailey, Chair Akil Patterson
No: None
Absent for the vote: John Murray
Motion passed 5-0

Program update by Executive Director Ralph Magrish. View the executive director's report in the meeting video at minute 00:02:15.

Board affordability review of Tresiba: The chair led the board in the affordability review of Tresiba, which included drug-specific public comment, board discussion, and potential motion to include Tresiba on the list of insulin products that may create affordability challenges for health care systems or high out-of-pocket costs for patients in Oregon. The board reviewed the information in the affordability review report on Pages 6-27 of the agenda packet. View the video of the board discussion at minute 00:07:24.

Board affordability review of Tresiba FlexTouch: The chair led the board in the affordability review of Tresiba FlexTouch, which included drug-specific public comment, board discussion, and potential motion to include Tresiba FlexTouch on the list of insulin products that may create affordability challenges for health care systems or high out-of-pocket costs for patients in Oregon. The board reviewed the information in the affordability review report on Pages 6-27 of the agenda packet. View the video of the board discussion at minute 00:29:42.

Board affordability review of Humulin R U-500 KwikPen: The chair led the board in the affordability review of Humulin R U-500 KwikPen, which included drug-specific public comment, board discussion, and potential motion to include Humulin R U-500 KwikPen on the list of insulin products that may create

affordability challenges for health care systems or high out-of-pocket costs for patients in Oregon. The board reviewed the information in the affordability review report on Pages 28-47 of the agenda packet. View the video of the board discussion and vote at minute 00:52:40. Robert Judge made a motion and Amy Burns provided a second.

MOTION to include Humulin R U-500 KwikPen on the list of insulin products that may create affordability challenges for health care systems or high out-of-pocket costs for patients in Oregon.
Board Vote:
Yes: Amy Burns, Daniel Hartung, Robert Judge, John Murray, Vice Chair Shelley Baily, Chair Akil Patterson
No: None
Motion passed 6-0

Announcements: View the announcements in the meeting video at minute 01:25:00.

Public comment: Chair Patterson called on those who signed up to speak to the board. There were two requests to provide oral testimony and seven written comments, which are posted to the PDAB website. View the public comments in the meeting video at minute 01:25:46.

Vote for final adoption of insulin product: The board voted for the final adoption of the list of insulin products that will be submitted to the Oregon Legislature. Chair Patterson made the motion and Amy Burns provided a second. View the motion in the meeting video at minute 01:30:28.

MOTION to adopt a final list of insulin products, which includes Humulin R U-500 KwikPen, that may create affordability challenges for health care systems or high out-of-pocket costs for patients in Oregon.
Board Vote:
Yes: Amy Burns, Daniel Hartung, Robert Judge, John Murray, Vice Chair Shelley Baily, Chair Akil Patterson
No: None
Motion passed 6-0

Chair Patterson announced his resignation from the board. He will continue serving until a replacement board member has been appointed. View the chair's announcement in the meeting video at minute 01:34:00.

Oregon Prescription Drug
Affordability Board

Email: pdab@dcbs.oregon.gov Phone: 971-374-3724 Website: dfr.oregon.gov/pdab

Ozempic
Affordability Review[1]

[1] Image sources: https://www.ozempic.com/how-to-take/ozempic-dosing.html. Accessed Jan. 23, 2024.

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Review Summary

Cost to the healthcare system

In 2022, total gross spend for Ozempic in Oregon was **$75 million** across **16,918 enrollees,** with a gross per patient spend of **$4,439**.[2] Net spend for private insurers was estimated to be **$2,097** per enrollee per year.[3]

Cost to patients

On average, patient out-of-pocket costs was **$277.64**[4] for Ozempic in 2022 across deductibles, copays and coinsurance.

Price history

Ozempic initially began marketing in December 2017. Over the past five years, Ozempic's wholesale acquisition cost (WAC) has increased by **4.9% YoY**[5] on average. This increase outpaced inflation in 2019, 2020, and 2023.[6]

Therapeutic alternatives

A clinical review found four therapeutic alternatives for Ozempic. Average gross spend per enrollee per year was **$4,439** for Ozempic vs. an average of **$4,436.36** across this drug and all identified therapeutic alternatives. Average out of pocket costs for patients was **$326.60**[7] per patient per year for Ozempic, vs. an average of **$328.32** across this drug and all identified therapeutic alternatives.

[2] Based on Oregon's 2022 All Payer All Claims (APAC) data across commercial insurers, Medicaid, and Medicare. APAC cost information are prior to any price concessions such as discounts or coupons. For more information regarding APAC data visit: https://www.oregon.gov/oha/HPA/ANALYTICS/Pages/All-Payer-All-Claims.aspx.
[3] Based on data submitted to the Department of Consumer and Business Services (DCBS) by Oregon's commercial insurance carriers. Cost information from the data call is the cost of the drug after price concessions.
[4] Ibid.
[5] Based on data from Medi-Span.
[6] Inflation rates obtained from the US Bureau of Labor Statistics website. Accessed from page https://www.bls.gov/cpi/tables/supplemental-files/ on 1/11/24.
[7] APAC total copay, deductible, and coinsurance spend for drug and total enrollees for drug. Averages across commercial, Medicaid, and Medicare plans.

Review Background

Senate Bill 844 (2021) created the Prescription Drug Affordability Board (PDAB) to evaluate the cost of prescription drugs and protect residents of this state, state and local governments, commercial health plans, health care providers, pharmacies licensed in Oregon and other stakeholders within the health care system from the high costs of prescription drugs.

In accordance with OAR 925-200-0020, PDAB will conduct an affordability review on the prioritized subset of prescription drugs, selected under OAR 925-200-0010, and identify nine prescription drugs and at least one insulin product that may create affordability challenges for health care systems or high out-of-pocket costs for patients in Oregon.

In addition to information provided by the Department of Consumer and Business Services (DCBS) pursuant to ORS 646A.694, this review reflects information from various sources, including Oregon's APAC database, state licensed insurance carriers responding to a DCBS data call, Medi-Span, and resources from the U.S. Food and Drug Administration (FDA) such as the Orange Book (small molecule drugs) and the Purple Book (biologics).

Drug Information

Drug proprietary name(s): **Ozempic**

Non-proprietary name: **Semaglutide**

Manufacturer: **Novo Nordisk**

FDA approval

Ozempic was first approved by the FDA on 12/5/2017.[8]

The drug qualified for the following expedited forms of approval: None

At time of the review, the drug had no approved indications with designations under the Orphan Drug Act.

[8] FDA approval date based on the earliest occurring approval dates in the FDA Orange/Purple Book. For drugs with multiple forms/applications, the earliest approval date across all related FDA applications was used.

Clinical Profile

Drug indications[9,10]

- FDA Approved:
  - As an adjunct to diet and exercise to improve glycemic control in adults and pediatric patients 10 years of age and older with type 2 diabetes mellitus (T2DM).
  - To reduce the risk of major adverse cardiovascular (CV) events in adults with T2DM who have established cardiovascular disease or multiple cardiovascular risk factors.

- Off Label Uses:
  - Type 1 diabetes mellitus (T1DM)
  - Weight loss

Clinical efficacy

- Semaglutide is a long-acting glucagon-like peptide-1 (GLP-1) receptor agonist used to improve glycemic control in T2DM. Ozempic comes in an injectable formulation that is dosed once weekly. Ozempic is also indicated for CV risk reduction in adults with T2DM. Evidence is insufficient to make recommendations for use in T1DM and it is currently not recommended in this population.
- All GLP-1 receptor agonists are FDA approved for T2DM. However, only liraglutide (Saxenda) and semaglutide (Wegovy) are currently FDA-approved for chronic weight management in people with a body mass index (BMI) of 30 kg/m^2 or greater, or 27 kg/m^2 or greater with at least one weight-related comorbid condition. The doses and branded products approved for chronic weight management are different from doses approved for T2DM.
- Although not FDA approved, oral semaglutide (Rybelsus) has been studied in adults with overweight or obesity without T2DM at a higher dose (50 mg daily) than currently approved for T2DM (14 mg daily) and led to a -15.1% change from baseline in weight compared to -2.4% with placebo.[11]
- Injectable semaglutide (Ozempic) was FDA approved based on three, phase 3, double-blind, placebo-controlled, randomized controlled trials (RCTs) in patients with T2DM both as monotherapy, as add-on therapy to background metformin with or without additional oral agents, and as add-on to basal insulin. These studies compared

[9] Ozempic Prescribing Information. Novo Nordisk. Plainsboro, NJ 09/2023.

[10] Rybelsus Prescribing Information. Novo Nordisk. Plainsboro, NJ 01/2024.

[11] Knop FK, Aroda VR, do Vale RD, et al. Oral semaglutide 50 mg taken once per day in adults with overweight or obesity (OASIS 1): a randomized, double-blind, placebo-controlled, phase 3 trial. Lancet. 2023 Aug 26;402(10403):705-719.

semaglutide subcutaneous (SC) 0.5 mg and 1.0 mg weekly to placebo. The primary outcome in all trials was change in hemoglobin A1c (HbA1C) from baseline to week 30 or 52.[12]

- These initial studies provided moderate quality evidence that semaglutide SC 0.5 mg and 1.0 mg weekly reduces short term HbA1c from baseline in a dose-dependent manner, ranging from -1.32% to -1.85% as monotherapy or as add-on therapy.[13] Semaglutide SC resulted in a dose-dependent weight loss of 3.5 to 6.5 kg in clinical trials.[14]
- In January 2020, the FDA labeling of semaglutide SC (Ozempic) was expanded to include the reduction of risk of major adverse CV events.[15] This indication was added based on data from the SUSTAIN-6 study, a double-blind, randomized, placebo-controlled trial comparing semaglutide SC to placebo in 3,297 adults with T2DM and CV disease, chronic heart failure, or chronic kidney disease on background therapy for glycemic control.[16] Over a median follow-up of 2 years, there was a reduction in the primary composite CV outcome (nonfatal myocardial infarction, nonfatal stroke, CV death) of 2.3% (6.6% in the semaglutide SC group and 8.9% in the placebo group; hazard ratio [HR] 0.74; 95% CI 0.58 to 0.95; p<0.02; number needed to treat [NNT] 44) and an absolute difference of 1.1% in the risk of stroke (HR 0.61; 0.38 to 0.99).[17] There was no significant difference in the individual outcomes of myocardial infarction, CV death, or all-cause death. There was a significant reduction in body weight with semaglutide SC 0.5 mg (-3.6 kg), semaglutide SC 1.0 mg (-4.9 kg) compared to placebo (-0.5 kg). [18]

Clinical safety[19,20]

- <u>FDA safety warnings and precautions:</u>
  - Pancreatitis
  - Hypoglycemia in combination with insulin or an insulin secretagogue
  - Hypersensitivity reactions
  - Acute kidney injury

[12] FDA Center for Drug Evaluation and Research. Semaglutide Clinical Review. Application Number: 209637Prog1s000 Available at: https://www.accessdata.fda.gov/drugsatfda_docs/nda/2017/209637Orig1s000MedR.pdf
[13] Knop FK, Aroda VR, do Vale RD, et al. Oral semaglutide 50 mg taken once per day in adults with overweight or obesity (OASIS 1): a randomized, double-blind, placebo-controlled, phase 3 trial. Lancet. 2023 Aug 26;402(10403):705-719.
[14] Ibid.
[15] Ozempic Prescribing Information. Novo Nordisk. Plainsboro, NJ 09/2023.
[16] Marso SP, Bain SC, Consoli A, Eliaschewitz FG, et al. Semaglutide and Cardiovascular Outcomes in Patients with Type 2 Diabetes. N Engl J Med. 2016 Nov 10;375(19):1834-1844
[17] FDA Center for Drug Evaluation and Research. Semaglutide Clinical Review. Application Number: 209637Prog1s000 Available at: https://www.accessdata.fda.gov/drugsatfda_docs/nda/2017/209637Orig1s000MedR.pdf
[18] Ibid.
[19] Ozempic Prescribing Information. Novo Nordisk. Plainsboro, NJ 09/2023.
[20] Rybelsus Prescribing Information. Novo Nordisk. Plainsboro, NJ 01/2024.

- Diabetic Retinopathy complications
- Acute gallbladder disease

- Contraindications:
  - Personal or family history of medullary thyroid carcinoma or in patients with Multiple Endocrine Neoplasia syndrome type 2.
  - Hypersensitivity to semaglutide.

- Common side effects:
  - Gastrointestinal effects (32 to 41%), including diarrhea (8 to 9%), nausea (15 to 20%), and vomiting (5 to 9%), abdominal pain (6 to 11%), and constipation (3 to 6%).

- Safety advantages or disadvantages:
  - The most common side effects associated with GLP-1 receptor agonists include gastrointestinal side effects. These are dose-related and likely due to delayed gastric emptying or activation of centers involved in appetite regulation, satiety, and nausea. These are most common soon after initiation and during dose escalation. Rapid titration is associated with higher risk of GI symptoms. There is no evidence that one GLP-1 is associated with higher rates of GI symptoms than others. This is likely to result in higher rates of discontinuation in real world use than in clinical trials.
  - Overall risk of hypoglycemia of GLP-1 agonists when used as monotherapy is low and there is no meaningful difference in risk between individual agents. The risk of hypoglycemia is increased when used in combination with insulin or sulfonylureas.
  - There is high quality evidence of an association with GLP-1 receptor agonists and an increased risk of a composite assessment of gallbladder or biliary diseases (including cholelithiasis, cholecystitis, and biliary disease) compared to active treatments or placebo (relative risk [RR] 1.37; 95% CI, 1.23 to 1.52).[21] The risk was increased with higher doses, longer durations and when used for weight loss. There was a statistically significant increased risk with liraglutide and dulaglutide, a nonsignificant increased risk with exenatide and injectable semaglutide and no increased risk seen with oral semaglutide.[22] Despite, an increased risk compared to placebo, the absolute risk remains small (additional 27 cases per 10,000 persons treated per year).[23]

[21] He L, Wang J, Ping F, et al. Association of Glucagon-Like Peptide-1 Receptor Agonist Use With Risk of Gallbladder and Biliary Diseases: A Systematic Review and Meta-analysis of Randomized Clinical Trials. JAMA Intern Med. 2022;182(5):513–519. doi:10.1001/jamainternmed.2022.0338.

[22] Marso SP, Bain SC, Consoli A, Eliaschewitz FG, et al. Semaglutide and Cardiovascular Outcomes in Patients with Type 2 Diabetes. N Engl J Med. 2016 Nov 10;375(19):1834-1844.

[23] Marso SP, Bain SC, Consoli A, Eliaschewitz FG, et al. Semaglutide and Cardiovascular Outcomes in Patients with Type 2 Diabetes. N Engl J Med. 2016 Nov 10;375(19):1834-1844.

Cost to the Healthcare System

In 2022, Ozempic had **69,214** APAC reported claims across **16,918** enrollees. Total gross cost of the drug was **$75,099,340** or **$4,439** per enrollee per year, and **$1,085** per claim per year.

Table 1 Gross cost estimates based on APAC data[24]

Payer line of business	Total enrollees	Total claims	Total spend amount	Average spend amount per enrollee	Average spend amount per claim
Commercial	8,271	34,639	$36,109,496	$4,366	$1,042
Medicaid	1,863	7,727	$6,679,815	$3,586	$864
Medicare	6,784	26,848	$32,310,029	$4,763	$1,203
Total	**16,918**	**69,214**	**$75,099,340**	**$4,439**	**$1,085**

The carrier data call[25] submissions were analyzed to determine the total gross annual spend, total number of claims and enrollees, the average amount paid for claim and per enrollee, and out-of-pocket (OoP) costs for enrollees. Additional OoP information can be found in Table 4 below.

Table 2 2022 data call reported costs to Oregon payers and enrollees

Market	Data call total annual spend (payer paid)	Total claim	Total of paid claims	Total enrollees	Average paid claim	Average paid per enrollee	Total annual OoP cost for enrollees	Average OoP cost per enrollee
Individual	$2,588,548.04	8619	3887	964	$665.95	$2,685.22	$490,757.11	$509.08
Small Group	$2,801,864.43	11936	5872	1409	$477.16	$1,988.55	$369,646.33	$262.35
Large Group	$7,651,678.68	24691	11447	2869	$668.44	$2,667.02	$663,856.32	$231.39
OEBB	$3,100,519.36	7521	3908	808	$793.38	$3,837.28	$304,595.69	$376.97
PEBB	$3,151,201.24	10444	5371	1264	$586.71	$2,493.04	$201,872.86	$159.71
Total	**$19,293,811.75**	**63,211**	**30,485**	**7,314**			**$2,030,728.31**	

[24] Based on 2022 Oregon APAC data across commercial insurers, Medicaid, and Medicare. APAC cost information are prior to any price concessions such as discounts or coupons.
[25] Cost information from the data call is the cost of the drug after price concessions.

Figure 1 represents the percentage of annual spend by market type reported in the carrier data call by commercial carriers. Large Groups represent the largest annual spend of forty percent of the Oregon market.

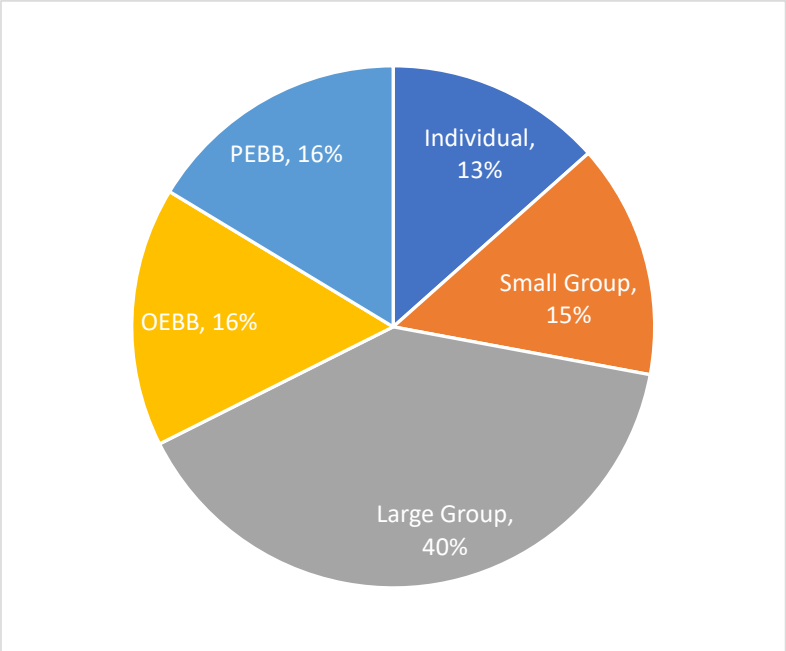

Figure 1 Data call total annual spend (payer paid)

Based on the information received from the carrier data call, the average gross cost of the drug per enrollee in 2022 for commercial carriers was **$4,062.44** before any discounts, rebates, or other price concessions. The average net cost per enrollee after discounts, rebates, and other price concessions was **$2,097.58**, meaning that insurers reported an average **48%** discount on the initial drug cost.

Table 3 Net cost estimate based on carrier submitted data

Payer line of business	Total enrollees	Average spend per enrollee pre-discount	Average spend per enrollee post discount
Commercial	6,932	$4,062	$2,097

The total gross drug cost reported from the carrier data call prior to price concessions for Ozempic in 2022 was **$29,712,659.85**. The percentage breakdown of gross to net costs of the price concessions is represented in Figure 2.

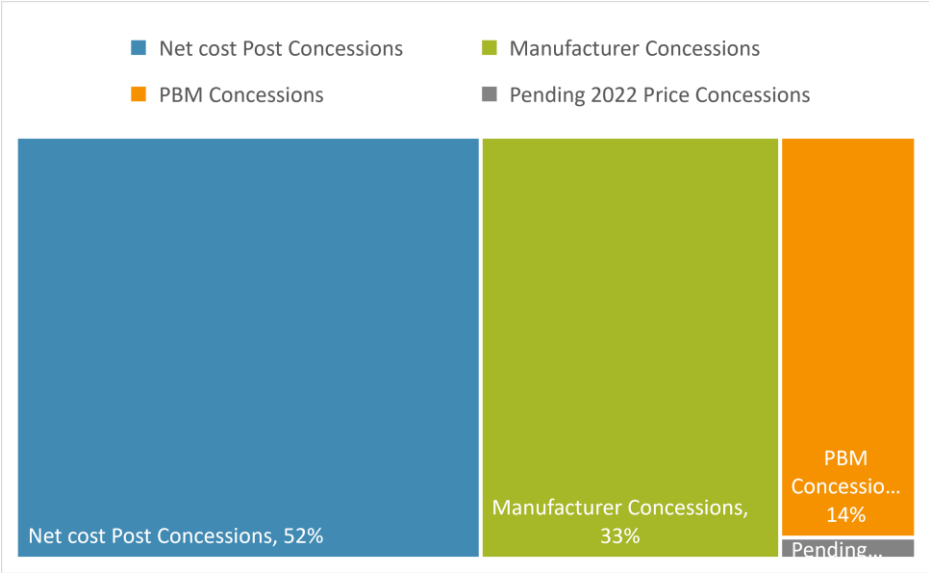

Figure 2 Breakdown of gross to net costs

Cost to the state medical assistance showed that the fee-for-service program had a gross quarterly average of **$50,516** for approximately **114** claims with an average paid claim amount of **$443.12** in the fourth quarter. The drug was listed as a non-preferred drug and required prior authorization**.** Oregon's coordinated care organizations (CCOs) in 2022 paid **$22,160,891.87** for **3,224** claims averaging a **$883.74** per paid claim.

Table 4 Gross amount paid for Medicaid/Oregon Health Plan fee for service

Fee for Service[26]							
2022 Quarter	**Drug name on report**	**Amount paid**	**% Total fee for service costs**	**Claim count**	**Average paid per claim**	**Preferred drug list (PDL)**	**Prior auth**
Q4	OZEMPIC*	$50,516.00	0.60%	114	$443.12	Non-preferred	Yes
Quarterly Average:		**$50,516.00**	**0.60%**	**114**	**$443.12**		

*Drug not indicated in Q1 to Q3 top 40 quarterly reports of the pharmacy utilization summary report provided by Oregon State University drug use research and management program.

[26] Source: Oregon State University Drug Use and Research Management DUR utilization reports 2022. DUR Reports | College of Pharmacy | Oregon State University

Table 5 2022 Gross amount paid for Medicaid CCO

Medicaid CCO			
Drug	**Amount paid**	**Claim count**	**Average paid per claim**
Ozempic	$2,849,187.75	3,224	$883.74

Price History

The package wholesale acquisition cost (WAC) for Ozempic (NDC 00169413212, 0.25 mg - 0.5 mg / 1.5 mL Injection Prefilled Injection Pen – 1 Pen) was **$935.77** as of 12/31/2023.[27]

The WAC for the drug was evaluated using Medi-Span's price history tables for the package WAC from 2019 to 2023. From 2019-2023 the average year-over-year change to the package WAC was calculated and determined to be **4.9%**. As of January 1, 2024, the WAC price increased another **3.5%** to **$968.52**. The historical change in the package WAC is displayed in Figure 2 and the year over year change in WAC for Ozempic compared to inflation rates[28] is displayed in Figure 3.

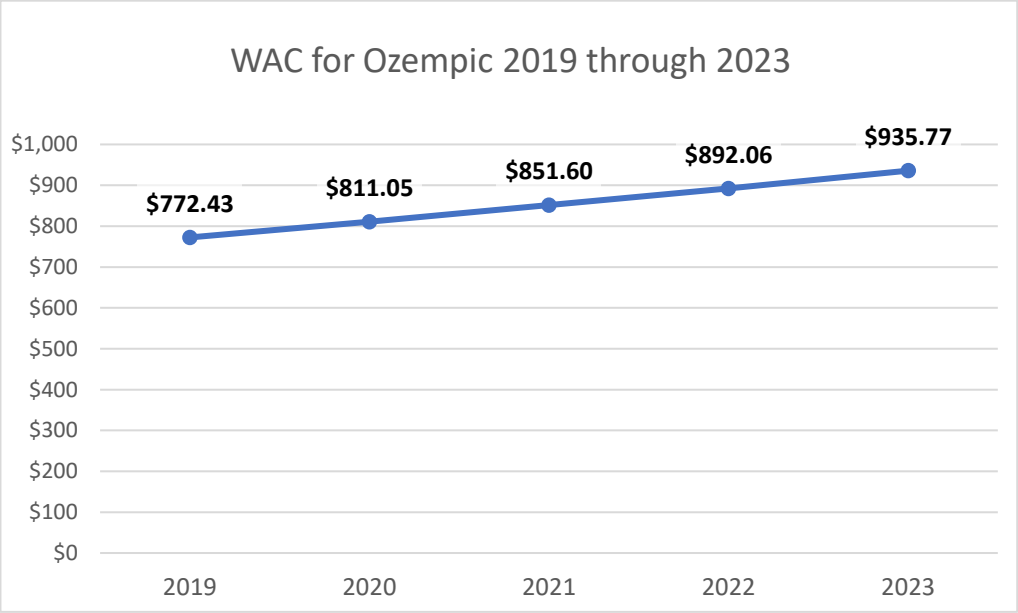

Figure 3 Ozempic WAC between 2019-2023

[27] To determine which NDC to use for the WAC price history, the available 2022 utilization data was analyzed and the NDC with the highest volume of claims in 2022 was used.

[28] Inflation rates obtained from the US Bureau of Labor Statistics website. Accessed from page https://www.bls.gov/cpi/tables/supplemental-files/ on 1/11/24.

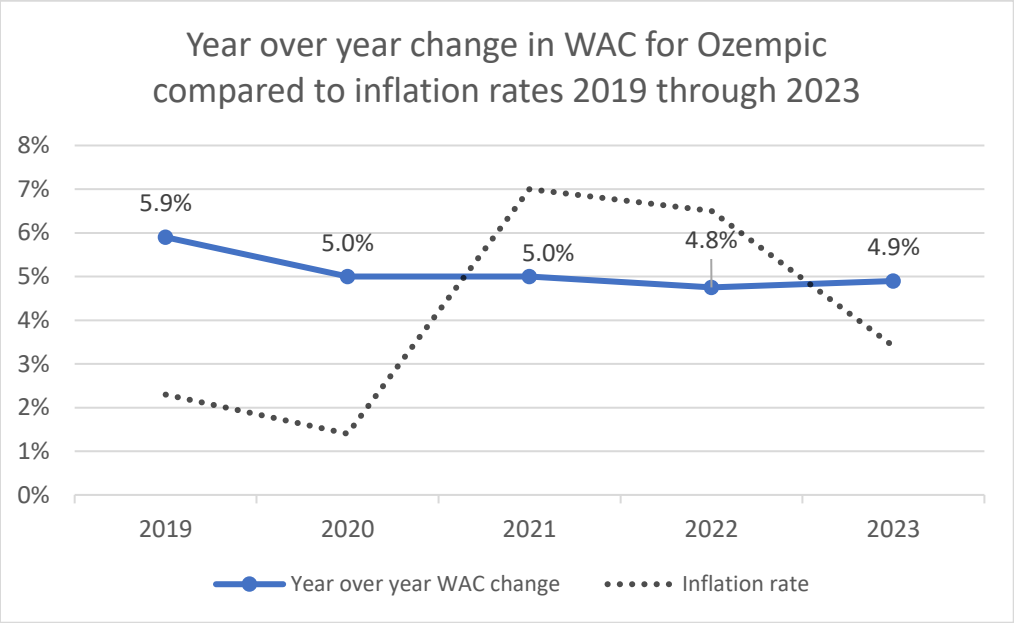

Figure 4 Year over year change in WAC compared to inflation rates[29]

Ozempic's package WAC price outpaced inflation in 2019, 2020, and 2023.

Package WAC was reviewed as an indication of historic price trends for the drug. However, WAC does not account for discounts, rebates, or other changes to the drug's cost throughout the supply chain.

Cost to Patients

The APAC database[30] and the carrier data call were analyzed to determine the average patient copayment for commercially insured enrollees or other cost-sharing for the prescription drug.

[29] Inflation rates obtained from the US Bureau of Labor Statistics website. Accessed from page https://www.bls.gov/cpi/tables/supplemental-files/ on 1/11/24.

[30] Costs from the APAC database are prior to any price concessions such as discounts or coupons. Cost information from the data call is the cost of the drug after price concessions.

Table 6 Out of pocket costs

2022 Average annual patient out of pocket costs		
Value	**APAC Database[31] (commercial plans only)**	**Data Call[32]**
Average Co-Pay	$174.44	$130.49
Average Deductible	$77.12	$52.31
Average Coinsurance	$47.42	$92.36
Average Total Out-of-Pocket Costs for Patients[33]	$298.99	$277.64

For plan designs reported in the carrier data call, when a co-pay applied for Ozempic, the co-pay ranged from **$5.00** up **$250.00**. If the coinsurance was greater than 0%, the coinsurance ranged from 10% up to 100%.

The average patient out-of-pocket costs for the APAC data may be impacted by mandatory state reporting requirements, the exclusion of data from health plans with fewer than 5,000 covered lives, and is prior to price concessions. The carrier data call out-of-pocket costs are from reports collected by DCBS from commercial carriers and may be affected by price concessions.

[31] Medicaid and Medicare were excluded from cost information.
[32] Data call refers to cost information collected from the health insurance plans by DCBS on prescription drugs under both pharmacy and medical benefits after price concessions.
[33] For patients who used the drug at least once in the 2022 calendar year.

Therapeutic alternatives[34]

Table 7 Alternative glucagon-like peptide-1 receptor agonists

Drug	FDA approved indications	~A1C decrease	Short term weight loss	Rates of nausea	Formulation	Dosing frequency
Subject drug **Semaglutide (Ozempic)**	• T2DM • CV risk reduction	1.5%	4.0 – 6.0 kg	15% - 20%	SubQ	Weekly
Dulaglutide (Trulicity)	• T2DM • CV risk reduction	1.5% - 1.8 %	2.5 – 4.6 kg	12% - 20%	SubQ	Weekly
Exenatide (Byetta)	• T2DM	1.0%	2 kg	8% - 11%	SubQ	Twice Daily
Exenatide ER (Bydureon)	• T2DM	1.5%	1.5 - 2.5 kg	8% - 11%	SubQ	Weekly
Liraglutide (Victoza)	• T2DM • CV risk reduction	1.5%	2.5 kg	18% - 20%	SubQ	Daily
Semaglutide (Rybelsus)	• T2DM	1.0%	2.5 kg	11% - 20%	Oral	Daily
Abbreviations: CV: cardiovascular; ER: extended release; kg: kilogram; SubQ: subcutaneous; T2DM: type 2 diabetes mellitus						

Comparative effectiveness to therapeutic alternatives:

- Clinical guidelines recommend GLP-1 agonists as a first line option for patients with T2DM and compelling indications with evidence of benefit, including atherosclerotic cardiovascular disease (ASCVD) and those at high risk for ASCVD.[35] Agents with proven CV benefits are recommended, including dulaglutide (Trulicity), liraglutide (Victoza), and subcutaneous semaglutide (Ozempic).
- Dulaglutide (Trulicity), liraglutide (Victoza), and injectable semaglutide (Ozempic) are therefore FDA approved to reduce CV risk in patients with T2DM, while the other GLP-1 receptor agonists are approved for glycemic control only. Currently, semaglutide oral

[34] Therapeutic alternative to mean a drug product that contains a different therapeutic agent than the drug in question, but is FDA-approved, compendia-recognized as off-label use for the same indication, or has been recommended as consistent with standard medical practice by medical professional association guidelines to have similar therapeutic effects, safety profile, and expected outcome when administered to patients in a therapeutically equivalent dose. OAR 925-200-0020(2)(c) PDAB 1-2023: Prescription Drug Affordability Review (oregon.gov). Accessed 01/09/2024.

[35] American Diabetes Association Professional Practice Committee. 9. Pharmacologic Approaches to Glycemic Treatment: Standards of Care in Diabetes-2024. Diabetes Care. 2024 Jan 1;47(Suppl 1):S158-S178

(Rybelsus) does not have the same indication for CV disease reduction in adults with T2D as the injectable formulation (Ozempic).

- There are no studies directly comparing GLP-1 agonists on CV outcomes.
- Within the GLP-1 agonists, semaglutide is considered to have very high efficacy in lowering HgA1c and very high efficacy for weight loss. It is a long acting GLP-1 agonist and is available as weekly dosing which may be preferred by some patients.
- Compared to dulaglutide, exenatide and liraglutide, semaglutide SC (Ozempic) was shown to be superior in reduction in HgA1C (-1.5% to -1.8%), and in reduction in body weight (-5.6 kg to -6.5 kg).
- Compared to liraglutide, oral semaglutide (Rybelsus) is noninferior in reduction in HgA1C (estimated treatment difference -0.2%; 95% CI -0.3 to -0.1) and superior in reduction in body weight (-4.4 kg vs. -3.1 kg; p=0.003), with no known effects on CV outcomes.[36]
- In addition to the in-class (GLP-1 agonists) therapeutic alternatives included in above table, additional first line drug classes used for the treatment of T2DM include metformin, sodium-glucose cotransporter 2 inhibitors (SGLT2i), and inhibitors of dipeptidyl peptidase 4 (DPP-4).[37] For a more complete cost comparison, these medications will also be compared. Metformin has proven to be safe and effective in the management of T2DM, is inexpensive and widely available, and may reduce CV events. SGLT2 inhibitors, including empagliflozin, is recommended first line in patients with T2DM and CVD, heart failure, and or chronic kidney disease. As newer classes of diabetes medications are available, costs have increased dramatically, including for the GLP-1 agonists. Providers and patients often must choose alternative drug classes based on insurance coverage, cost of therapy, and access to newer medications.

Table 8 Average healthcare and average patient OoP costs for Ozempic vs therapeutic alternatives

Drug	Average gross healthcare spend per enrollee per year[38]	Average patient out-of-pocket cost per year[39]
Subject drug Ozempic	$4,439.02	$326.60
Trulicity	$5,060.96	$296.31
Byetta	$4,784.16	$404.50
Victoza	$5,645.41	$299.19
Rybelsus	$2,252.25	$314.99
Average	**$4,436.36**	**$328.32**

[36] Pratley R, Amod A, Hoff ST, Kadowaki T, et al. Oral semaglutide versus subcutaneous liraglutide and placebo in type 2 diabetes (PIONEER 4): a randomized, double-blind, phase 3a trial. Lancet. 2019 Jul 6;394(10192):39-50.
[37] American Diabetes Association Professional Practice Committee. 9. Pharmacologic Approaches to Glycemic Treatment: Standards of Care in Diabetes-2024. Diabetes Care. 2024 Jan 1;47(Suppl 1):S158-S178
[38] APAC total gross spend for drug and total enrollees for drug.
[39] APAC total copay, deductible, and coinsurance spend for drug and total enrollees for drug. Averages across commercial, Medicaid, and Medicare plans

Average gross spend per enrollee per year was **$4,439** vs. an average of **$4,436.36** across this drug and all identified therapeutic alternatives. Average out of pocket costs for patients was **$326.60** per patient per year, vs. an average of **$328.32** across this drug and all identified therapeutic alternatives.

Access Profile

Review of rejected claims and drug benefit designs

Commercial carriers reported **63,212** claims for Ozempic in 2022. Of those claims **30,485** were paid and **32,727** were rejected.[40] Based on submitted information, an average of **52%** of Ozempic claims were rejected in 2022.

Pharmaceutical claims may be rejected for a variety of reasons including patients trying to fill the prescription too soon or errors in the submitted claim. Pharmacists may also submit multiple claims for the same prescription should the initial claim be rejected. Therefore, claims information should only be used as a general baseline.

As part of the carrier data call, information was requested regarding prior authorizations and approval for the drug. Insurers reported a wide variety of plan designs for Ozempic. Unfortunately, the data call did not include the number of Oregonians under each plan listed, resulting in the analysis not determining the volume of Oregonians under plans that required prior authorization. Carriers reported a variety of plans, some with a more restrictive plan design and other plans with a more accessible plan design for the drug.

Based on the information reviewed many carrier and market combinations had at least one plan that represented the following for Ozempic:

Table 9 Plan design analysis

Percent of carrier and market combinations that had one or more plans that:[41]	
Required prior authorization	68%
Did not require prior authorizations	32%
Drug was excluded on the plan formulary	5%
Drug was non-preferred on the plan formulary	20%
Drug was preferred on the plan formulary	75%
Required step therapy	45%
Did not require step therapy	55%

Note: percentages can equal over 100% as some carrier and market combos may have multiple plans that fall under different designs. For example: Carrier A may have three plans in the small

[40] For the purpose of this review the terms "denied" and "rejected" for claims are used interchangeable.
[41] Less than 5% of all total Rx claims was omitted from carrier entries that were considered unusable.

group market that require prior authorization but two other plans in the small group market that do not require prior authorization.

Utilization

Based on APAC claims, **16,918** Oregonians filled a prescription for Ozempic in 2022.[42]

Stakeholder Feedback

Feedback was submitted on January 31, 2024.

Links to the full feedback documents are included in the sections below.

Input received from the medical and scientific community

- No information was provided by the medical or scientific community.

Manufacturer submitted information

- Jennifer Duck, JD, Vice President, US Public Affairs, with Novo Nordisk, submitted information on January 31, 2024. Information can be reviewed under Appendix B.

Patient feedback and additional stakeholder feedback

- Mary Anne Cooper, Director of Government Relations, with Regence BlueCross BlueShield of Oregon, submitted information on January 30, 2024. Information can be reviewed under Appendix A.

[42] Number of 2022 enrollees in APAC database across commercial insurers, Medicaid, and Medicare. For more information regarding APAC data visit: https://www.oregon.gov/oha/HPA/ANALYTICS/Pages/All-Payer-All-Claims.aspx.

Appendix

Appendix A: Letter provided from Novo Nordisk

Appendix B: Letter provided from Regence BlueCross BlueShield of Oregon

January 31, 2024

VIA ELECTRONIC FILING

Oregon Division of Financial Regulation
ATTN: Oregon Prescription Drug Affordability Review Board (PDAB)
350 Winter St. NE
Room 410
Salem, OR 97309-0405

RE: February 21, 2024 Oregon Prescription Drug Affordability Board Meeting and Review of Ozempic® and Rybelsus®

Dear Members of the Oregon Prescription Drug Affordability Board:

Novo Nordisk appreciates the opportunity to submit written comments to the Oregon Prescription Drug Affordability Board (Board) regarding Ozempic® and Rybelsus.® Novo Nordisk is a global healthcare company committed to improving the lives of those living with serious chronic conditions, including diabetes, hemophilia, growth disorders and obesity. The Novo Nordisk Foundation, our majority shareholder, is among the top five largest charitable foundations in the world. Accordingly, our company's mission and actions reflect the Foundation's vision to contribute significantly to research and development that improves the lives of people and the sustainability of society.

The Board intends to review together collectively Ozempic® and Rybelsus® for the purpose of determining if these medications might pose an affordability challenge for Oregonians. We have serious concerns regarding the underlying data used by the Board that grouped together these two separate and distinct drug products, Ozempic® and Rybelsus®, under one review. Additionally, the review process does not provide an avenue for manufacturers to work with the Board to correct errors and misinformation. We urge the Board to forebear from identifying either of these products in any report to the Oregon Legislative Assembly based on an inaccurate and inappropriate combined review of these products that does not separately evaluate each product based on its distinct characteristics.

We provide the Board with further information that illustrates that grouping these products together is flawed. As each of these products provides a distinctly different treatment option for patients.

Ozempic® Clinical Overview

Ozempic® (semaglutide injection) is a once weekly GLP-1 receptor agonist indicated as an adjunct to diet and exercise to improve glycemic control in adults with type 2 diabetes (T2D) and to reduce the risk of major adverse cardiovascular (CV) events (MACE) (CV death, non-fatal myocardial infarction (MI) or non-fatal stroke) in adults with T2D and established CV disease.[1]

[1] Ozempic® Prescribing Information. Plainsboro, NJ: Novo Nordisk Inc. https://www.novo-pi.com/ozempic.pdf

The efficacy and safety of Ozempic® was evaluated in the SUSTAIN clinical trial program. For glycemic efficacy, Ozempic® was compared to several other antidiabetic medications including sitagliptin 100 mg, exenatide ER 2 mg, insulin glargine U-100, dulaglutide 0.75 mg and 1.5 mg, canagliflozin 300 mg, and liraglutide 1.2 mg. Mean reductions in A1C from baseline ranged from 1.2%-1.5% and 1.5-1.8% for Ozempic® 0.5 mg and 1 mg, respectively, after 30 to 56 weeks of treatment, compared to 0–1.4% with placebo and active comparators. Throughout the glycemic control trials, both the 0.5 mg and 1 mg doses of Ozempic® demonstrated superior improvements in A1C vs. comparators. Significant reductions in body weight from baseline were observed with Ozempic® 0.5 mg and 1 mg with mean decreases ranging from -7.6 lb. to -10.1 lb. and -9.0 to -14.3 lb., respectively.[2] [3] [4] [5] [6] [7] [8] [9] [10] [11] In a cardiovascular outcomes trial, Ozempic® 0.5 mg or 1 mg compared to placebo demonstrated a relative risk reduction of 26% for the primary composite outcome of time to first occurrence of a 3-point MACE (CV death, non-fatal MI and non-fatal stroke). [12]

Rybelsus® Clinical Overview

Rybelsus® (semaglutide oral) is co-formulated with an absorption enhancer to achieve adequate bioavailability with oral administration. It is administered once daily, in the morning at least 30 minutes before the first meal of the day with up to half a glass of water (approximately 4 fl oz).[13]

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[2] Sorli C, Harashima S, Tsoukas GM, et al. Efficacy and safety of once-weekly semaglutide monotherapy versus placebo in patients with type 2 diabetes (SUSTAIN 1): a double-blind, randomised, placebo-controlled, parallel-group, multinational, multicentre phase 3a trial. 2017;5(4):251-260. Link to Access the Full Text

[3] Ahren B, Masmiquel L, Kumar H, et al. Efficacy and safety of once-weekly semaglutide versus once-daily sitagliptin as an add-on to metformin, thiazolidinediones, or both, in patients with type 2 diabetes (SUSTAIN 2): a 56-week, double-blind, phase 3a, randomised trial. *Lancet Diabetes Endocrinol.* 2017 Link to Access the Full Text

[4] Ahmann AJ, Capehorn M, Charpentier G, et al. Efficacy and Safety of Once-Weekly Semaglutide Versus Exenatide ER in Subjects With Type 2 Diabetes (SUSTAIN 3): A 56-Week, Open-Label, Randomized Clinical Trial*. *Diabetes Care.* 2017 Link to Access the Full Text

[5] Aroda V, Sc B, Cariou B, et al. Efficacy and safety of once-weekly semaglutide versus once-daily insulin glargine as add-on to metformin (with or without sulfonylureas) in insulin-naive patients with type 2 diabetes (SUSTAIN 4): a randomised, open-label, parallel-group, multicentre, multinational, phase 3a trial. *Lancet Diabetes Endocrinol.* 2017 Link to Access the Full Text

[6] Rodbard HW, Norwood P, Lingvay I, et al. Semaglutide Added to Basal Insulin in Type 2 Diabetes (SUSTAIN 5): A Randomized, Controlled Trial. *The Journal of Clinical Endocrinology & Metabolism.* 2018;103(6):2291-2301. Link to Access the Full Text

[7] Pratley RE, Aroda VR, Lingvay I, et al. Semaglutide versus dulaglutide once weekly in patients with type 2 diabetes (SUSTAIN 7): a randomised, open-label, phase 3b trial. *Lancet Diabetes Endocrinol.* 2018 Link to Access the Full Text

[8] Lingvay I, Catarig AM, Frias JP, et al. Efficacy and safety of once-weekly semaglutide versus daily canagliflozin as add-on to metformin in patients with type 2 diabetes (SUSTAIN 8): a double-blind, phase 3b, randomised controlled trial. *Lancet Diabetes Endocrinol.* 2019;7(11):834-844. Link to Access the Full Text

[9] Zinman B, Bhosekar V, Busch R, et al. Semaglutide once weekly as add-on to SGLT-2 inhibitor therapy in type 2 diabetes (SUSTAIN 9): a randomised, placebo-controlled trial. *The Lancet Diabetes & Endocrinology.* 2019 Link to Access the Full Text

[10] Capehorn MS, Catarig AM, Furberg JK, et al. Efficacy and safety of once-weekly semaglutide 1.0 mg vs once-daily liraglutide 1.2 mg as add-on to 1-3 oral antidiabetic drugs in subjects with type 2 diabetes (SUSTAIN 10). *Diabetes Metab.* 2019 Link to Access the Full Text

[11] Kellerer M, Kaltoft MS, Lawson J, et al. Effect of once-weekly semaglutide versus thrice-daily insulin aspart, both as add-on to metformin and optimized insulin glargine treatment in participants with type 2 diabetes (SUSTAIN 11): a randomized, open-label, multinational, phase 3b trial. *Diabetes, Obesity and Metabolism.* 2022 Link to Access the Full Text

[12] Marso S, Bain S, Consoli A, et al. Semaglutide and cardiovascular outcomes in patients with type 2 diabetes (SUSTAIN 6). *New Engl J Med.* 2016;375(19):1834-1844. Link to Access the Full Text

[13] Rybelsus® Prescribing Information. Plainsboro, NJ: Novo Nordisk Inc. Rybelsus PI (novo-pi.com)

Rybelsus® should be initiated with the 3 mg dose, and use a 4-week dose escalation, up to 14 mg, to reduce the risk of GI AEs. The pharmacokinetic and pharmacodynamic profiles were preserved in patient populations independent of age, ethnicity, and in patients with renal or hepatic impairment. Rybelsus® is indicated as an adjunct to diet and exercise to improve glycemic control in adults with T2D. The PIONEER Phase 3a clinical development program was comprised of 10 clinical trials that evaluated the safety and efficacy of once-daily Rybelsus® in more than 9,500 adult patients with T2D. All studies were designed to be randomized, parallel-group, multicenter trials. For glycemic efficacy, Rybelsus® was compared to several other antidiabetic medications, including empagliflozin 25 mg, sitagliptin 100 mg, and liraglutide 1.8 mg. The program also included a cardiovascular outcomes trial (CVOT), PIONEER 6, and 2 studies in Japanese patients (PIONEER 9 and 10). Rybelsus® demonstrated superior improvements in HbA_{1c} (all doses) compared to placebo and most comparators in the PIONEER trials. It also provided superior reductions in body weight compared with placebo and most comparators. Participants who had a serious adverse event was similar in the Rybelsus® vs placebo or comparator group. In PIONEER 6, its primary objective of ruling out an 80% excess CV risk, confirming noninferiority to placebo for the primary outcome and CV safety. [14] [15] [16] [17] [18] [19] [20] [21] [22] [23] [24]

[14] Aroda VR, Rosenstock J, Terauchi Y, et al. PIONEER 1: randomized clinical trial comparing the efficacy and safety of oral semaglutide monotherapy with placebo in patients with type 2 diabetes. *Diabetes Care.* 2019 Link to Access the Full Text

[15] Rodbard HW, Rosenstock J, Canani LH, et al. Oral Semaglutide Versus Empagliflozin in Patients With Type 2 Diabetes Uncontrolled on Metformin: The PIONEER 2 Trial. *Diabetes Care.* 2019;42(12):2272-2281. Link to Access the Full Text

[16] Rosenstock J, Allison D, Birkenfeld AL, et al. Effect of Additional Oral Semaglutide vs Sitagliptin on Glycated Hemoglobin in Adults With Type 2 Diabetes Uncontrolled With Metformin Alone or With Sulfonylurea: The PIONEER 3 Randomized Clinical Trial. *JAMA.* 2019;321(15):1466-1480. Link to Access the Full Text

[17] Pratley R, Amod A, Hoff ST, et al. Oral semaglutide versus subcutaneous liraglutide and placebo in type 2 diabetes (PIONEER 4): a randomised, double-blind, phase 3a trial. *Lancet.* 2019;394(10192):39-50. Link to Access the Full Text

[18] Mosenzon O, Blicher TM, Rosenlund S, et al. Efficacy and safety of oral semaglutide in patients with type 2 diabetes and moderate renal impairment (PIONEER 5): a placebo-controlled, randomised, phase 3a trial. *Lancet Diabetes Endocrinol.* 2019;7(7):515-527. Link to Access the Full Text

[19] Husain M, Birkenfeld AL, Donsmark M, et al. Oral Semaglutide and Cardiovascular Outcomes in Patients with Type 2 Diabetes. *N Engl J Med.* 2019;381(9):841-851. Link to Access the Full Text

[20] Pieber TR, Bode B, Mertens A, et al. Efficacy and safety of oral semaglutide with flexible dose adjustment versus sitagliptin in type 2 diabetes (PIONEER 7): a multicentre, open-label, randomised, phase 3a trial. *Lancet Diabetes Endocrinol.* 2019;7(7):528-539. Link to Access the Full Text

[21] Buse JB, Bode BW, Mertens A, et al. Long-term efficacy and safety of oral semaglutide and the effect of switching from sitagliptin to oral semaglutide in patients with type 2 diabetes: a 52-week, randomized, open-label extension of the PIONEER 7 trial. *BMJ Open Diabetes Res Care.* 2020;8(2) Link to Access the Full Text

[22] Zinman B, Aroda VR, Buse JB, et al. Supplement to: Efficacy, Safety and Tolerability of Oral Semaglutide Versus Placebo Added to Insulin +/- Metformin in Patients with Type 2 Diabetes: the PIONEER 8 Trial. *Diabetes Care.* 2019 Link to Access the Full Text

[23] Yamada Y, Katagiri H, Hamamoto Y, et al. Dose-response, efficacy, and safety of oral semaglutide monotherapy in Japanese patients with type 2 diabetes (PIONEER 9): a 52-week, phase 2/3a, randomised, controlled trial. *Lancet Diabetes Endocrinol.* 2020;8(5):377-391. Link to Access the Full Text

[24] Yabe D, Nakamura J, Kaneto H, et al. Safety and efficacy of oral semaglutide versus dulaglutide in Japanese patients with type 2 diabetes (PIONEER 10): an open-label, randomised, active-controlled, phase 3a trial. *Lancet Diabetes Endocrinol.* 2020;8(5):392-406. Link to Access the Full Text

Endogenous glucagon-like peptide-1 (GLP-1) has a <2-minute half-life. [25] Therefore, Novo Nordisk has developed injectable analogs with 13 hour (Victoza®) and 7-day half-lives (Ozempic®) for the treatment of type 2 diabetes.[26] With Rybelsus®, Novo Nordisk continued to expand its portfolio in this area to include different delivery options. Timely treatment of type 2 diabetes is needed to reduce the risk of type 2 diabetes complications and yet many patients do not achieve current glycosylated hemoglobin (A1C) targets with the currently available treatment options. GLP-1 receptor agonists (RAs) provide effective glycemic control along with weight reduction and low risk of hypoglycemia. Rybelsus®, an oral GLP-1 RA may lead to initiation of GLP-1 RA treatment earlier in the continuum of the disease and may improve acceptance and adherence for some patients compared with injectable formulations of GLP-1 RA. Rybelsus® is not intended to replace Ozempic® injection.

The Board has incorrectly considered Ozempic® and Rybelsus® to be one product for purposes of its review

Pursuant to OAR 925.200.0010[27], one factor the Board considers in developing the prioritized subset is if the drug appeared on the insurer reported top 25 list required under ORS 743.025.[28] However, information submitted by insurers is aggregated using a 10-digit generic drug identifier (GPI) that does not provide for a single therapeutic classification. While the full 14-character GPI consists of seven subsets, it still does not subdivide into package size or parse out manufacturers. The imprecision of the GPI-10 classification system does not provide an accurate cost report on a specific drug product, as it results in multiple distinct products being combined together. As such, the underlying insurer data used by the Board is predicated off an aggregated list that includes two different drug products, each of which is approved under a separate new drug application (NDA) and has its own separate national drug codes. [29] [30] Without having access to raw data, we are unable to ascertain how the aggregation of these two distinct and separate drug products impacted their combined placement on the insurer's top 25 list. It is possible that, if these products would have been appropriately treated/evaluated as separate and distinct products, then they may not have even met the Board's threshold inclusion criteria for review.

In contrast to the insurer reports, we note that prescription drug manufacturers reporting into the Drug Price Transparency Program must submit information on each unique 11-digit national drug code (NDC) that meets reporting criteria. Reporting at the NDC-11 level appropriately identifies each distinct drug product. It remains unclear to us whether or how the Board considered the reports that manufacturers submitted in making its determinations regarding which drug products to select.

Clinically, both Ozempic® and Rybelsus® provide important and distinct treatment options for adult patients with type 2 diabetes. As described above, although semaglutide is the active

[25] *Drucker DJ et al. Proc Natl Acad Sci USA 1987;84:3434–8; 2. Drucker DJ, Nauck MA. Lancet 2006;368:1696–705; 3. Holst JJ. Physiol Rev 2007;87:1409–39*
[26] Victoza® Prescribing Information. Plainsboro, NJ: Novo Nordisk Inc. Victoza PI (novo-pi.com)
[27] OAR 925.200.0010; https://dfr.oregon.gov/pdab/Documents/PDAB-1-2023-affordability-review-rule.pdf
[28] ORS 743.025; https://www.oregonlegislature.gov/bills_laws/ors/ors743.html
[29] NDA 209637: 209637Orig1s000SumR.pdf (fda.gov)
[30] NDA 213182: Review (fda.gov)

ingredient in both medications, each is a distinct and separate therapy with a different profile, and therefore represents a distinctly different treatment option for patients. These differences can have very important implications for individualized patient therapy. In recognition of those differences, there are different recommendations regarding place in therapy of Ozempic® and Rybelsus® in various clinical guidelines such as the American Diabetes Association Standards of Care.[31] For example there may be a reluctance by patients to administer injectable therapies, which could lead to delays in initiating treatment and/or lower adherence. [32] Additionally, there practical considerations for patients, who are unable to administer injectable therapies as they require visual, motor, and cognitive skills for proper administration. These drugs are not interchangeable and need to be considered separately from one another.

Novo Nordisk is committed to ensuring patients living with diabetes can afford our medications, a responsibility we take seriously

At Novo Nordisk, we strive to develop sustainable affordability options that balance patient affordability, market dynamics, and evolving policy changes. For example, Novo Nordisk contracts with payers throughout the state, offering rebates to ensure formulary placement and appropriate patient access to our medications. We also pay rebates to Oregon's Medicaid program. Under the current reimbursement paradigm, rebates play a central role in how insurers manage the prescription drug benefit. However, when examining the overall costs to health care systems in Oregon, the Board focused on WAC price changes, which are not a reliable indicator of whether a medication is affordable for most patients.

For patients that continue to struggle to afford their medication, either due to inadequate plan benefit design or a lack of coverage altogether, Novo Nordisk also provides additional financial support through our affordability programs. We allow uninsured patients with affordability challenges to access our products at no cost, and we also provide copay assistance for Ozempic® that reduces a commercially insured patient's out-of-pocket cost to as little as $25 or for Rybelsus® to as little as $10.[33] Novo Nordisk remains committed to ensuring affordable access to our medications by reducing the out-of-pocket cost burden, helping to transform the complex pricing system and fostering better pricing predictability.

[31] *American Diabetes Association (ADA). Diabetes Care 2023; 46(Suppl.1): S140–S157* doi: https://doi.org/10.2337/dc23-S009

[32] Diana M. Isaacs, Davida F. Kruger, Geralyn R. Spollett; Optimizing Therapeutic Outcomes With Oral Semaglutide: A Patient-Centered Approach. *Diabetes Spectr* 1 February 2021; 34 (1): 7–19. https://doi.org/10.2337/ds20-0016

[33] https://www.novocare.com/

Thank you for the opportunity to provide comments and for considering our concerns. Should you have any questions or concerns, please contact Ryan Urgo, Head of Policy, at RVUR@novonordisk.com with any questions or for further information.

Sincerely,

Jennifer Duck, JD

Vice President
US Public Affairs

Appendix B

200 SW Market Street, 11th Floor
Portland, OR 97201

January 30, 2024

SUBMITTED VIA EMAIL

RE: PDAB Review of Rybelsus/Ozempic

Dear Members of the Oregon Prescription Drug Affordability Board,

On behalf of Regence BlueCross BlueShield of Oregon and our members, we thank the Prescription Drug Affordability Board and Staff for the opportunity to comment on Rybelsus/Ozempic, one of the 15 drugs the PDAB has selected for review.

As one of the state's largest health insurers, Regence is committed to addressing persistent and emerging health needs for the nearly 1 million Oregonians we serve. In keeping with our values as a tax-paying nonprofit, 85% of every premium dollar goes to pay our members' medical claims and expenses.

In Oregon, prescription drugs account for 20-30% of all plan spending. To narrow this down, coverage of Ozempic has an annual cost of roughly $12,000 per member. At the start of 2024, Novo Nordisk raised the price of Ozempic by 3.5%, raising a month's supply to roughly $1100. While rebates are available for this drug, our members are still struggling to afford these medications at the pharmacy when they go to fill their prescriptions, and for these medications, adherence is paramount for efficacy.

We acknowledge the complexities surrounding these drugs and GLP-1s in general. Currently, Regence covers Ozempic for members with type-2 diabetes after appropriate prior authorizations are met. Over the last two years, we have seen an increase in the use of GLP-1s, consistent with changes in standards of care in treating diabetes. We know the annual cost of this medication will continue to rise, as market utilization steadily increases.

Costs to health plans are costs to our members. We want our members to have access to their lifesaving medications and are adamant that the cost of these medications needs to be reviewed. A 2020 article by Diabetes Care estimated that the cost of glucose-lowering drugs was roughly 15-20% of the estimated annual costs for all prescription drugs in the U.S between 2015-2017. These costs have only continued to rise and as demand for some drugs in the weight management space steadily increases, the cost to members and the health plan will follow.

We will be happy to discuss any additional follow-up items. Thank you for your consideration of our feedback.

Sincerely,

Mary Anne Cooper
Director of Government Relations
Regence BlueCross BlueShield of Oregon

Oregon Prescription Drug
Affordability Board

Email: pdab@dcbs.oregon.gov Phone: 971-374-3724 Website: dfr.oregon.gov/pdab

Trulicity
Affordability Review[1]

[1] Image source: https://www.trulicity.com/hcp/efficacy-weight. Accessed Jan. 23, 2024.

Table of Contents

Review Summary

Cost to the healthcare system

In 2022, total gross spend for Trulicity in Oregon was **$125.5 million** across **24,793 enrollees,** with a gross per patient spend of **$5,060.96**.[2] Net spend for private insurers was estimated to be **$2,314.81 per enrollee per year**.[3]

Cost to patients

On average, patient out-of-pocket costs was **$401.18**[4] for Trulicity in 2022 across deductibles, copays and coinsurance.

Price history

Trulicity initially began marketing in December 2017. Over the past five years, Trulicity's wholesale acquisition cost (WAC) has increased by **5.0% YoY**[5] on average. This increase outpaced inflation in 2019, 2020, and 2023.[6]

Therapeutic alternatives

A clinical review found 4 therapeutic alternatives for Trulicity. Average gross spend per enrollee per year for Trulicity was **$5,060.96** vs. an average of **$4,436.36** across this drug and all identified therapeutic alternatives. Average out of pocket costs for patients was **$296.31** per patient per year[7], vs. an average of **$328.32** across this drug and all identified therapeutic alternatives.

[2] Based on Oregon's 2022 All Payer All Claims (APAC) data across commercial insurers, Medicaid, and Medicare. APAC cost information are prior to any price concessions such as discounts or coupons. For more information regarding APAC data visit: https://www.oregon.gov/oha/HPA/ANALYTICS/Pages/All-Payer-All-Claims.aspx.
[3] Based on data submitted to the Department of Consumer and Business Services (DCBS) by Oregon's commercial insurance carriers. Cost information from the data call is the cost of the drug after price concessions.
[4] Ibid
[5] Based on data from Medi-Span.
[6] Inflation rates obtained from the US Bureau of Labor Statistics website. Accessed from page https://www.bls.gov/cpi/tables/supplemental-files/ on 1/11/24.
[7] APAC total copay, deductible, and coinsurance spend for drug and total enrollees for drug. Averages across commercial, Medicaid, and Medicare plans

Review Background

Senate Bill 844 (2021) created the Prescription Drug Affordability Board (PDAB) to evaluate the cost of prescription drugs and protect residents of this state, state and local governments, commercial health plans, health care providers, pharmacies licensed in Oregon and other stakeholders within the health care system from the high costs of prescription drugs.

In accordance with OAR 925-200-0020, PDAB will conduct an affordability review on the prioritized subset of prescription drugs, selected under OAR 925-200-0010, and identify nine prescription drugs and at least one insulin product that may create affordability challenges for health care systems or high out-of-pocket costs for patients in Oregon.

In addition to information provided by the Department of Consumer and Business Services (DCBS) pursuant to ORS 646A.694, this review reflects information from various sources, including Oregon's APAC database, state licensed insurance carriers responding to a DCBS data call, Medi-Span, and resources from the U.S. Food and Drug Administration (FDA) such as the Orange Book (small molecule drugs) and the Purple Book (biologics).

Drug Information

Drug proprietary name(s): **Trulicity**

Non-proprietary name: **Dulaglutide**

Manufacturer: **Eli Lilly and Company**

FDA approval

Trulicity was first approved by the FDA on 9/18/2014.[8]

The drug qualified for the following expedited forms of approval: None

At time of the review, the drug had no approved indications with designations under the Orphan Drug Act.

Clinical Profile

Drug indications[9]

- FDA Approved:
    - As an adjunct to diet and exercise to improve glycemic control in adults and pediatric patients 10 years of age and older with type 2 diabetes mellitus (T2DM).

[8] FDA approval date based on the earliest occurring approval dates in the FDA Orange/Purple Book. For drugs with multiple forms/applications, the earliest approval date across all related FDA applications was used.
[9] Trulicity Prescribing Information. Eli Lily and Company. Indianapolis, IN: 11/2022.

- To reduce the risk of major adverse cardiovascular (CV) events in adults with T2DM who have established cardiovascular disease or multiple cardiovascular risk factors.

- Off Label Uses:
  - Type 1 diabetes mellitus (T1DM)

Clinical efficacy

- Dulaglutide is a long-acting injectable glucagon-like peptide-1 (GLP-1) receptor agonist used to improve glycemic control and prevent CV events in T2DM. It is dosed subcutaneously, once weekly.[10] Evidence is insufficient to make recommendations for use in T1DM and it is currently not recommended in this population.[11]

- Dulaglutide was FDA approved based on three, phase 3, double-blind, randomized controlled trials (RCTs) in patients with T2DM both as monotherapy and as add-on therapy to background metformin with or without additional oral agents. These studies compared dulaglutide to placebo and active comparators including metformin, sitagliptin, and exenatide. The primary outcome in all trials was change in hemoglobin A1c (HbA1C) from baseline to week 26 or 52.[12]

- These initial studies provided moderate quality evidence that dulaglutide 0.75 mg and 1.5 mg weekly reduces short term HbA1c from baseline, ranging from -0.71% to -1.51% as monotherapy or as add-on therapy.[13] Dulaglutide resulted in a dose-dependent weight loss of 1 to 3 kg in clinical trials.[14]

- In February 2020, the FDA labeling of dulaglutide was expanded to include the reduction of risk of major adverse CV events.[15] This indication was added based on data from the REWIND study, a double-blind, randomized placebo-controlled trial comparing dulaglutide to placebo in 9,901 adults with T2DM and CV disease on background therapy for glycemic control.[16] Over a median follow-up of 5.4 years, there was a reduction in the primary composite CV outcome (nonfatal myocardial infarction, nonfatal stroke, CV death) of 1.4% (12% in the dulaglutide group and 13.5% in the placebo group; hazard ratio [HR] 0.99; 95% CI 0.79 to 0.99; p=0.26; number needed to treat [NNT] 71) and an

[10] Trulicity Prescribing Information. Eli Lily and Company. Indianapolis, IN: 11/2022.
[11] Ibid.
[12] FDA Center for Drug Evaluation and Research. Dulaglutide Summary Review. Application Number: 125469Orig1s000. Available at: https://www.accessdata.fda.gov/drugsatfda_docs/nda/2014/125469Orig1s000MedRedt.pdf
[13] Ibid.
[14] Ibid.
[15] Trulicity Prescribing Information. Eli Lily and Company. Indianapolis, IN: 11/2022.
[16] Gerstein HC, Colhoun HM, Dagenais GR, et al. Dulaglutide and cardiovascular outcomes in type 2 diabetes (REWIND): a double-blind, randomized placebo-controlled trial. Lancet. 2019 Jul 13;394(10193):121-130. doi: 10.1016/S0140-6736(19)31149-3. Epub 2019 Jun 9. PMID: 31189511.

absolute difference of 0.9% in the risk of stroke (HR 0.76; 0.62 to 0.94). There was no significant difference in the individual outcomes of myocardial infarction, CV death, or all-cause death. The mean difference in HgA1c between dulaglutide and placebo was -0.61%.[17]

- In September 2020, FDA approved additional, higher doses of dulaglutide (3.0 and 4.5 mg once weekly) based on a randomized, double-blind, parallel-arm study over 52 weeks comparing these higher doses to 1.5 mg weekly in adults with T2DM, BMI ≥ 25 kg/m2, and on metformin therapy.[18] There was a significant difference in HbA1C between the 4.5 mg dose compared to 1.5 mg dose (-0.24%; 95% CI -0..36 to -0.11; p<0.001) but not with the 3.0 mg dose (treatment difference -0.10%; 95% CI -0.23 to 0.02). The mean change from baseline in HgA1C in each group was -1.54% with 1.5 mg, -1.64% with 3 mg and -1.77% for 4.5 mg. The higher doses also resulted in more weight loss (3 kg in 1.5 mg group, 3.8 kg in 3 mg group, and 4.6 kg in 4.5 mg group).[19] The effects of these higher doses on cardiovascular outcomes have not been studied.

Clinical safety[20]

- FDA safety warnings and precautions:
  - Thyroid C-cell tumors
  - Pancreatitis
  - Hypoglycemia in combination with insulin or an insulin secretagogue
  - Hypersensitivity reactions
  - Acute kidney injury
  - Severe gastrointestinal disease
  - Diabetic Retinopathy complications
  - Acute gallbladder disease
- Contraindications:
  - Personal or family history of medullary thyroid carcinoma or in patients with Multiple Endocrine Neoplasia syndrome type 2.
  - Hypersensitivity to dulaglutide.
- Common side effects:
  - Gastrointestinal effects, including diarrhea (9 to 13%), nausea (12-21%), and vomiting (6 to 13%), abdominal pain (6 to 9%), decreased appetite (5 to 9%), and dyspepsia (4 to 6%).

[17] Gerstein HC, Colhoun HM, Dagenais GR, et al. Dulaglutide and cardiovascular outcomes in type 2 diabetes (REWIND): a double-blind, randomized placebo-controlled trial. Lancet. 2019 Jul 13;394(10193):121-130. doi: 10.1016/S0140-6736(19)31149-3. Epub 2019 Jun 9. PMID: 31189511.
[18] Frias JP, Bonora E, Nevarez Ruiz L, Li YG, Yu Z, Milicevic Z, Malik R, Bethel MA, Cox DA. Efficacy and Safety of Dulaglutide 3.0 mg and 4.5 mg Versus Dulaglutide 1.5 mg in Metformin-Treated Patients With Type 2 Diabetes in a Randomized Controlled Trial (AWARD-11). Diabetes Care. 2021 Mar;44(3):765-773. doi: 10.2337/dc20-1473. Epub 2021 Jan 4. PMID: 33397768; PMCID: PMC7896253.
[19] Ibid.
[20] Trulicity Prescribing Information. Eli Lily and Company. Indianapolis, IN: 11/2022.

- Safety advantages or disadvantages:
    - The most common side effects associated with GLP-1 receptor agonists include gastrointestinal side effects. These are dose-related and likely due to delayed gastric emptying or activation of centers involved in appetite regulation, satiety, and nausea. These are most common soon after initiation and during dose escalation. Rapid titration is associated with higher risk of GI symptoms. There is no evidence that one GLP-1 is associated with higher rates of GI symptoms than others.

    - Overall risk of hypoglycemia of GLP-1 agonists when used as monotherapy is low and there is no meaningful difference in risk between individual agents. The risk of hypoglycemia is increased when used in combination with insulin or sulfonylureas.

    - There is high quality evidence of an association with GLP-1 receptor agonists and an increased risk of a composite assessment of gallbladder or biliary diseases (including cholelithiasis, cholecystitis, and biliary disease) compared to active treatments or placebo (relative risk [RR] 1.37; 95% CI, 1.23 to 1.52).[21] The risk was increased with higher doses, longer durations and when used for weight loss. There was a statistically significant increased risk with liraglutide and dulaglutide, a nonsignificant increased risk with exenatide and injectable semaglutide and no increased risk seen with oral semaglutide.[22] Despite, an increased risk compared to placebo, the absolute risk remains small (additional 27 cases per 10,000 persons treated per year).[23]

    - In contrast to the other GLP-1 agonists, dulaglutide, liraglutide, and semaglutide do not require dose changes in patients with renal impairment.

[21] He L, Wang J, Ping F, et al. Association of Glucagon-Like Peptide-1 Receptor Agonist Use With Risk of Gallbladder and Biliary Diseases: A Systematic Review and Meta-analysis of Randomized Clinical Trials. JAMA Intern Med. 2022;182(5):513–519. doi:10.1001/jamainternmed.2022.0338.
[22] Trulicity Prescribing Information. Eli Lily and Company. Indianapolis, IN: 11/2022.
[23] Ibid.

Cost to the Healthcare System

In 2022, Trulicity had **118,149** claims across **24,793** enrollees. Total gross cost of the drug was **$125,476,482** or **$5,061** per enrollee per year, and **$1,062** per claim per year.

Table 1 Gross cost estimates based on APAC data[24]

Payer line of business	Total enrollees	Total claims	Total spend amount	Average spend amount per enrollee	Average spend amount per claim
Commercial	9,364	44,232	$45,311,398	$4,839	$1,024
Medicaid	5,681	29,094	$24,706,235	$4,349	$849
Medicare	9,748	44,823	$55,458,849	$5,689	$1,237
Total	**24,793**	**118,149**	**$125,476,482**	**$5,061**	**$1,062**

The carrier data call[25] submissions were analyzed to determine the total gross annual spend, total number of claims and enrollees, the average amount paid for claim and per enrollee, and out-of-pocket (OoP) costs for enrollees. Additional OoP information can be found in Table 4 below.

Table 2 2022 data call reported costs to Oregon payers and enrollees

Market	Data call total annual spend (payer paid)	Total unique claims	Total of paid claims	Total unique enrollees	Average paid claim	Average paid per enrollee	Total annual out-of-pocket cost for enrollees	Out-of-pocket cost per enrollee
Individual	$2,862,180.74	6094	3,933	916	$727.73	$3,124.65	$693,333.35	$756.91
Small Group	$2,158,234.12	5883	3,800	854	$567.96	$2,527.21	$327,366.71	$383.33
Large Group	$7,084,829.17	15449	9,592	2206	$738.62	$3,211.62	$716,140.36	$324.63
OEBB	$3,508,060.30	6106	4,194	676	$836.45	$5,189.44	$352,670.57	$521.70
PEBB	$2,703,047.65	6369	4,495	990	$601.35	$2,730.35	$173,980.93	$175.74
All	**$18,316,351.98**	**39901**	**26,014**	**5642**			**$2,263,491.92**	

[24] Based on 2022 Oregon APAC data across commercial insurers, Medicaid, and Medicare. APAC cost information are prior to any price concessions such as discounts or coupons.
[25] Cost information from the data call is the cost of the drug after price concessions.

Figure 1 represents the percentage of annual spend by market type reported in the carrier data call by commercial carriers. Large Groups represent the largest annual spend of thirty-nine percent of the Oregon market.

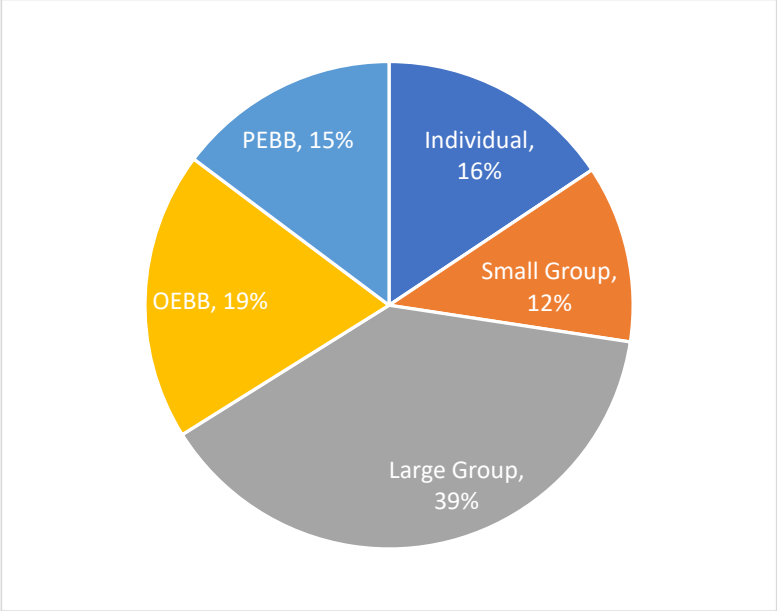

Figure 1 Data call total annual spend (payer paid)

Based on the information received from the carrier data call, the average gross cost of the drug per enrollee for commercial carriers was **$4,792.33** before any discounts, rebates, or other price concessions. The average net cost per enrollee discounts, rebates, and other price concessions was **$2,314.81**, meaning that insurers reported an average of 52% discount on the initial drug cost.

Table 3 Net cost estimate based on carrier submitted data

Payer line of business	Total enrollees	Average spend per enrollee pre-discount	Average spend per enrollee post discount
Commercial	5,642	$4,792.33	$2,314.81

The total gross drug cost reported from the carrier data call prior to price concessions for Trulicity in 2022 was **$18,316,351.98**. The percentage breakdown of gross to net costs of the price concessions is represented in Figure 2.

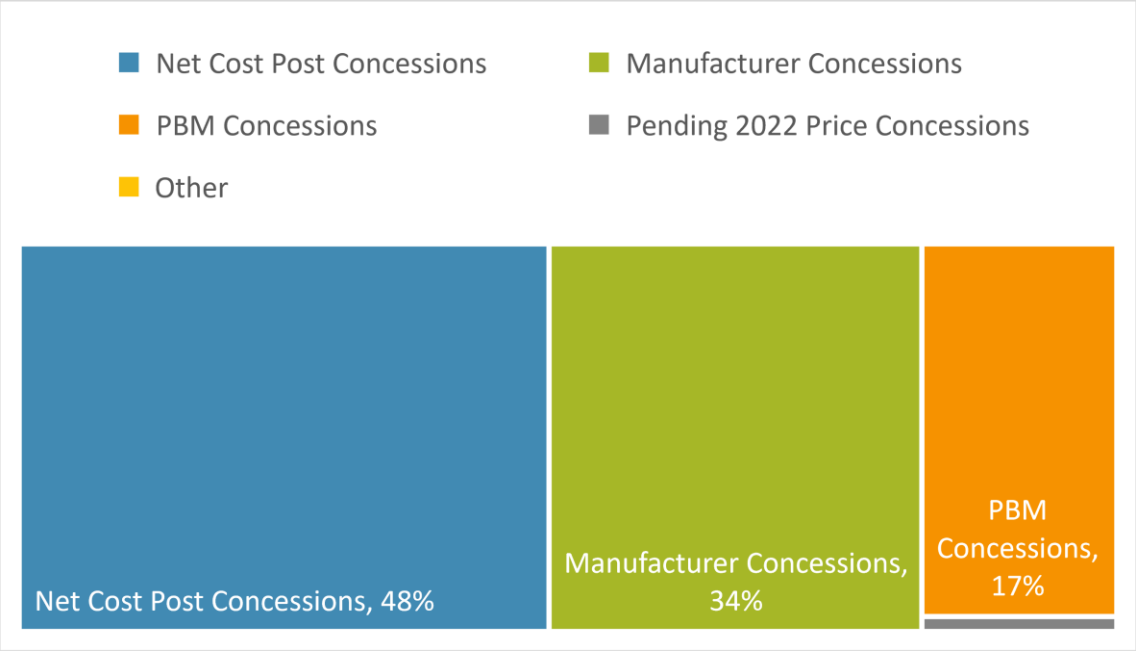

Figure 2 Breakdown of gross to net costs

Cost to the state medical assistance showed that the fee-for-service program had a gross annual average of **$125,891.75** for approximately **219.75** Trulicity claims. The drug was listed as a preferred drug and required prior authorization**.** Oregon's coordinated care organizations (CCOs) paid **$22,160,891.87** for **25,783** claims averaging a **$859.52** per paid claim.

Table 4 2022 Gross amount paid for Medicaid/Oregon Health Plan fee for service

Fee for Service[26]							
2022 Quarter	**Drug name on report**	**Amount paid**	**% Total fee for service costs**	**Claim count**	**Average paid per claim**	**Preferred drug list (PDL)**	**Prior auth**
Q1	TRULICITY*	$13,7204	1.40%	241	$569	Preferred	Yes
Q2	TRULICITY*	$139,987	1.40%	235	$596	Preferred	Yes

[26] Source: Oregon State University Drug Use and Research Management DUR utilization reports 2022. DUR Reports | College of Pharmacy | Oregon State University

Fee for Service[26]							
2022 Quarter	Drug name on report	Amount paid	% Total fee for service costs	Claim count	Average paid per claim	Preferred drug list (PDL)	Prior auth
Q3	TRULICITY*	$127,279	1.40%	227	$561	Preferred	Yes
Q4	TRULICITY*	$99,097	1.10%	176	$563	Preferred	Yes
Annual Average:		**$125,891.75**	**1.33%**	**219.75**	**$572.25**		

Table 5 2022 Gross amount paid for Medicaid CCOs

Medicaid CCOs			
Drug	Amount paid	Claim count	Average paid per claim
Trulicity	$22,160,891.87	25,783	$859.52

Price History

The package wholesale acquisition cost (WAC) for Trulicity (NDC 00002143480, 1.5 mg / 0.5 mL Injection Prefilled Injection Pen 4 Pens) was **$930.88** as of 12/31/2023.[27]

The WAC for the drug was evaluated using Medi-span's price history tables for the package WAC from 2019 to 2023. From 2019-2023 the average year-over-year change to the package WAC was calculated and determined to be **5.0%**. As of January 1, 2024, the WAC price increased another **5.0%** to **$977.42**. The historical change in the package WAC is displayed in Figure 2 and the year over year change in WAC for Trulicity compared to inflation rates[28] is displayed in Figure 3.

[27] To determine which NDC to use for the WAC price history, the available 2022 utilization data was analyzed and the NDC with the highest volume of claims in 2022 was used.

[28] Inflation rates obtained from the US Bureau of Labor Statistics website. Accessed from page https://www.bls.gov/cpi/tables/supplemental-files/ on 1/11/24.

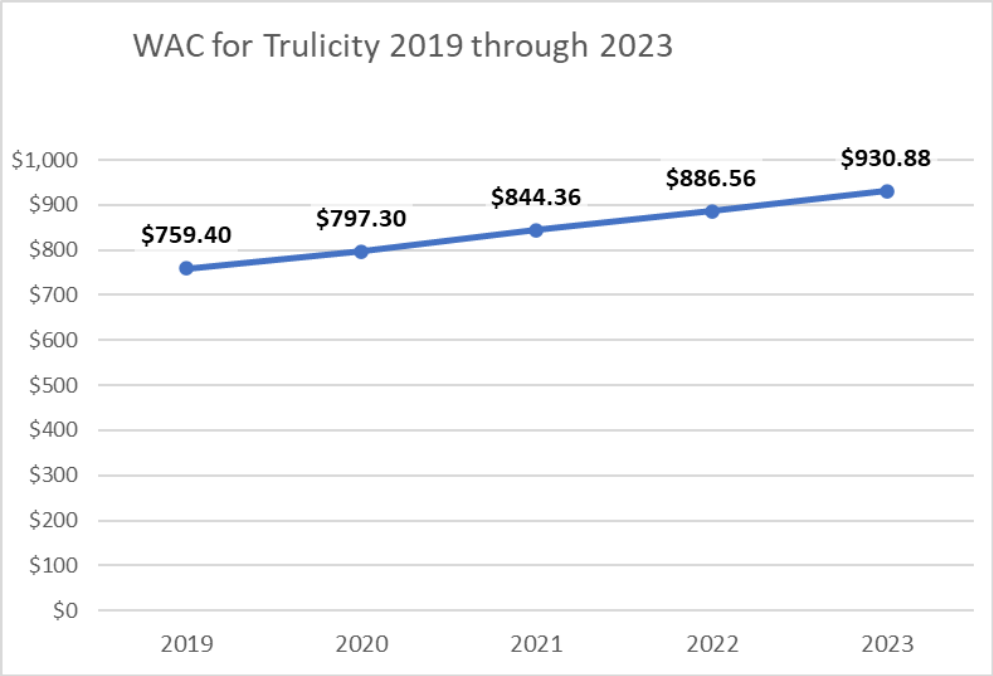

Figure 3 Trulicity WAC from 2019-2023

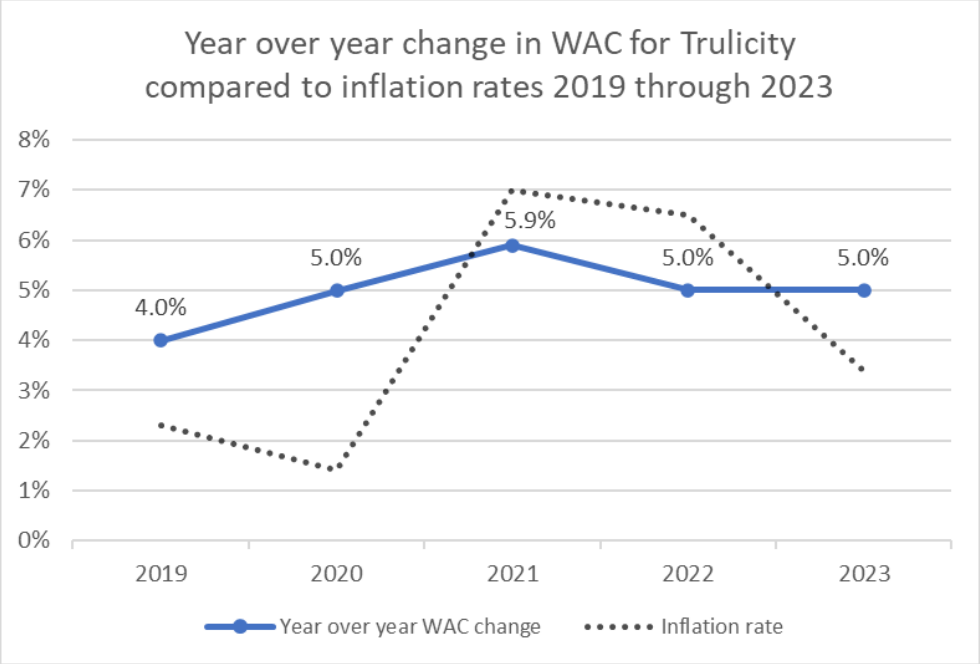

Figure 4 Year over year change in WAC compared to inflation rates[29]

[29] Inflation rates obtained from the US Bureau of Labor Statistics website. Accessed from page https://www.bls.gov/cpi/tables/supplemental-files/ on 1/11/24.

Package WAC was reviewed as an indication of historic price trends for the drug. However, WAC does not account for discounts, rebates, or other changes to the drug's cost throughout the supply chain.

Cost to Patients

The APAC database[30] and the carrier data call were analyzed to determine the average patient copayment for commercially insured enrollees or other cost-sharing for the prescription drug.

Table 6 Out of pocket costs

2022 Average annual patient out of pocket costs		
Value	**APAC (commercial plans only)[31]**	**Data Call[32]**
Average Co-Pay	$148.99	$142.18
Average Deductible	$97.80	$119.81
Average Coinsurance	$49.03	$139.18
Average Total Out-of-Pocket Costs for Patients[33]	$295.82	$401.18

For plan designs reported in the carrier data call, when a co-pay was greater than $0, the co-pay ranged from $5.00 up to $250.00. If the coinsurance was greater than 0%, the coinsurance ranged from 10% up to 50%.

The average patient out-of-pocket costs for the APAC data may be impacted by mandatory state reporting requirements, the exclusion of data from health plans with fewer than 5,000 covered lives, and is prior to price concessions. The carrier data call out-of-pocket costs are from reports collected by DCBS from commercial carriers and may be affected by price concessions.

[30] Costs from the APAC database are prior to any price concessions such as discounts or coupons. Cost information from the data call is the cost of the drug after price concessions.
[31] Medicaid and Medicare were excluded from cost information.
[32] Data call refers to cost information collected from the health insurance plans by DCBS on prescription drugs under both pharmacy and medical benefits after price concessions.
[33] For patients who used the drug at least once in the 2022 calendar year.

Therapeutic Alternatives[34]

Table 7 Alternative glucagon-like peptide-1 receptor agonists

Drug	FDA Approved Indications	~A1C Decrease	Short term weight loss	Rates of nausea	Formulation	Dosing frequency
Subject drug **Dulaglutide (Trulicity)**	• T2DM • CV risk reduction	1.5% - 1.8 %	2.5 – 4.6 kg	12% - 20%	SubQ	Weekly
Exenatide (Byetta)	• T2DM	1.0%	2 kg	8% - 11%	SubQ	Twice Daily
Exenatide ER (Bydureon)	• T2DM	1.5%	1.5 - 2.5 kg	8% - 11%	SubQ	Weekly
Liraglutide (Victoza)	• T2DM • CV risk reduction	1.5%	2.5 kg	18% - 20%	SubQ	Daily
Semaglutide (Ozempic)	• T2DM • CV risk reduction	1.5%	4.0 – 6.0 kg	15% - 20%	SubQ	Weekly
Semaglutide (Rybelsus)	• T2DM	1.0%	2.5 kg	11% - 20%	Oral	Daily
Abbreviations: CV: cardiovascular; ER: extended release; kg: kilogram; SubQ: subcutaneous; T2DM: type 2 diabetes mellitus						

Comparative effectiveness to therapeutic alternatives:

- Clinical guidelines recommend GLP-1 agonists as a first line option for patients with T2DM and compelling indications with evidence of benefit, including atherosclerotic cardiovascular disease (ASCVD) and those at high risk for ASCVD.[35] Agents with proven CV benefits are recommended, including dulaglutide (Trulicity), liraglutide (Victoza), and subcutaneous semaglutide (Ozempic).
- Dulaglutide (Trulicity), liraglutide (Victoza), and injectable semaglutide (Ozempic) are therefore FDA approved to reduce CV risk in patients with T2DM, while the other GLP-1 receptor agonists are approved for glycemic control only.

[34] Therapeutic alternative to mean a drug product that contains a different therapeutic agent than the drug in question, but is FDA-approved, compendia-recognized as off-label use for the same indication, or has been recommended as consistent with standard medical practice by medical professional association guidelines to have similar therapeutic effects, safety profile, and expected outcome when administered to patients in a therapeutically equivalent dose. ORS 925-200-0020(2)(c) PDAB 1-2023: Prescription Drug Affordability Review (oregon.gov). Accessed 01/09/2024.

[35] American Diabetes Association Professional Practice Committee. 9. Pharmacologic Approaches to Glycemic Treatment: Standards of Care in Diabetes-2024. Diabetes Care. 2024 Jan 1;47(Suppl 1):S158-S178.

- There are no studies directly comparing GLP-1 agonists on CV outcomes.
- Within the GLP-1 agonists, the highest dose of dulaglutide (4.5 mg) is considered to have very high efficacy in lowering HgA1c and high efficacy for weight loss. It is a long acting GLP-1 agonist and is available as weekly dosing which may be preferred by some patients.
- Compared to exenatide, dulaglutide was shown to be superior in reduction in HgA1C (-1.5% for dulaglutide 1.5 mg, -1.3% dulaglutide 0.75 mg, and -0.99% with exenatide).[36] Compared to liraglutide, dulaglutide was non-inferior in its ability to lower HgA1c (-1.36% vs. -1.42%, respectively).[37] Weight reduction was significantly greater with liraglutide compared to dulaglutide (-3.6kg vs. -2.9 kg; p=0.011).
- In addition to the in-class (GLP-1 agonists) therapeutic alternatives included in above table, additional first line drug classes used for the treatment of T2DM include metformin, sodium-glucose cotransporter 2 inhibitors (SGLT2i), and inhibitors of dipeptidyl peptidase 4 (DPP-4).[38] For a more complete cost comparison, these medications will also be compared. Metformin has proven to be safe and effective in the management of T2DM, is inexpensive and widely available, and may reduce CV events. SGLT2 inhibitors, including empagliflozin, is recommended first line in patients with T2DM and CVD, heart failure, and or chronic kidney disease. As newer classes of diabetes medications are available, costs have increased dramatically, including for the GLP-1 agonists. Providers and patients often must choose alternative drug classes based on insurance coverage, cost of therapy, and access to newer medications.

[36] Wysham C, Blevins T, Arakaki R, et al. Efficacy and safety of dulaglutide added onto pioglitazone and metformin versus exenatide in type 2 diabetes in a randomized controlled trial (AWARD-1). Diabetes Care 2014; 37: 2159–2167.

[37] Dungan KM, Povedano ST, Forst T, et al. Once-weekly dulaglutide versus once-daily liraglutide in metformin-treated patients with type 2 diabetes (AWARD-6): a randomized, open-label, phase 3, non-inferiority trial. Lancet 2014; 384: 1349–1357.

[38] American Diabetes Association Professional Practice Committee. 9. Pharmacologic Approaches to Glycemic Treatment: Standards of Care in Diabetes-2024. Diabetes Care. 2024 Jan 1;47(Suppl 1):S158-S178

Table 8 Average healthcare and average patient OoP costs for Trulicity vs therapeutic alternatives

Drug	Average gross healthcare spend per enrollee per year[39]	Average patient out-of-pocket cost per year[40]
Subject drug Trulicity	$5,060.96	$296.31
Ozempic	$4,439.02	$326.60
Byetta	$4,784.16	$404.50
Victoza	$5,645.41	$299.19
Rybelsus	$2,252.25	$314.99
Average	**$4,436.36**	**$328.32**

Average gross spend per enrollee per year was **$5,060.96** vs. an average of **$4,436.36** across this drug and all identified therapeutic alternatives. Average out of pocket costs for patients was **$296.31** per patient per year, vs. an average of **$328.32** across this drug and all identified therapeutic alternatives.

Access Profile

Review of rejected claims and drug benefit designs

Carriers reported **39,901** claims for Trulicity in 2022. Of those claims **26,014** were paid and **13,887** were rejected.[41] Based on this information, on average, **35%** of Trulicity claims were rejected in 2022.

Pharmaceutical claims may be rejected for a variety of reasons including patients trying to fill the prescription too soon or errors in the submitted claim. Pharmacists may also submit multiple claims for the same prescription should the initial claim be rejected. Therefore, claims information should only be used as a general baseline.

As part of the carrier data call, information was collected regarding prior authorizations and approval for the drug. Insurers reported a wide variety of plan designs for Trulicity. Unfortunately, the data call did not include the number of Oregonians under each plan listed, so DCBS was unable to determine the volume of Oregonians under plans that required prior authorization. Carriers reported a variety of plans, some with a more restrictive plan design and other plans with a more accessible plan design for the drug.

[39] APAC total gross spend for drug and total unique enrollees for drug.
[40] APAC total copay, deductible, and coinsurance spend for drug and total unique enrollees for drug. Averages across commercial, Medicaid, and Medicare plans
[41] For the purpose of this review the terms "denied" and "rejected" for claims are used interchangeable.

Information on how many carrier and market combinations were evaluated that had at least one plan that represented the following for Trulicity:

Table 9 Plan design analysis

Percent of carrier/market combinations that had one or more plans that:[42]	
Required prior authorization	82%
Did not require prior authorizations	18%
Drug was excluded on the plan formulary	0%
Drug was non-preferred on the plan formulary	32%
Drug was preferred on the plan formulary	68%
Required step therapy	45%
Did not require step therapy	55%

Note: percentages can equal over 100% as some carrier and market combos may have multiple plans that fall under different designs. For example: Carrier A may have three plans in the small group market that require prior authorization but two other plans in the small group market that do not require prior authorization.

Utilization

Based on APAC claims, **24,793** Oregonians filled a prescription for Trulicity in 2022.[43]

Stakeholder Feedback

Input received from the medical and scientific community

- No information was provided by the medical or scientific community.

Manufacturer submitted information

- Letter received from Eli Lilly and Company on 2/19/2024

Patient feedback and additional stakeholder feedback

- No information was provided by additional stakeholders.

[42] Less than 5% of all total Rx claims was omitted from carrier entries that were considered unusable.
[43] Number of 2022 enrollees in APAC database across commercial insurers, Medicaid, and Medicare. For more information regarding APAC data visit: https://www.oregon.gov/oha/HPA/ANALYTICS/Pages/All-Payer-All-Claims.aspx.

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January 31, 2024

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P.O. Box 14480
Salem, OR 97309

Re: Prescription Drug Affordability Review of Trulicity®

Dear Board,

I write on behalf of Eli Lilly and Company ("Lilly"), the manufacturer of Trulicity®. According to the "Oregon PDAB prescription drug and insulin list for affordability review (PDF)"[1] published on the public website for the Oregon Prescription Drug Affordability Board ("Board"), the Board intends to review prescription drugs, including Trulicity®, as outlined in OAR 925.200.0010 and OAR 925.200.0020 during the February 21, 2024 Board meeting and determine whether the selected products "may create affordability challenges for health care systems or high out-of-pocket costs for patients."[2]

Trulicity® is for adults and children 10 years of age and older with type 2 diabetes used along with diet and exercise to improve blood sugar (glucose). Trulicity® is also used in adults with type 2 diabetes to reduce the risk of major cardiovascular (CV) events (problems having to do with the heart and blood vessels) such as death, heart attack, or stroke in people who have heart disease or multiple cardiovascular risk factors. Trulicity® is the only GLP-1 RA that provides this combination of benefits: powerful A1C reduction across 4 doses, proven CV benefit in both primary and secondary prevention patients, simply delivered.[3] In fact, in AWARD-11, Trulicity® provided sustained A1C reduction at 1 year of <7%.[4] Trulicity® acts like the natural human hormone, GLP-1, helping the body do what it's supposed to do naturally: reduces hepatic glucose production by decreasing glucagon secretion, slows gastric emptying

[1] Division of Financial Regulation : Prescription drug data : Oregon Prescription Drug Affordability Board : State of Oregon; https://dfr.oregon.gov/pdab/Pages/data.aspx
[2] ORS 646A.694.
[3] Treating Adults with Type 2 Diabetes | HCP | Trulicity (dulaglutide)
[4] Clinical Trials: Lowering A1C, Weight Change & CV Data | HCP | Trulicity (dulaglutide)

and releasing glucose-dependent insulin. Reductions in fasting and postprandial serum glucose were observed as quickly as 48 hours after the first dose of Trulicity®.[5]

We appreciate that you share Lilly's desire to help more Oregonians access lower-cost prescription drugs, including Trulicity®, and we are proud to lead the industry in making our products affordable. Lilly continues to advocate for patient choice, with most patients having the ability to choose the GLP-1 that is appropriate for them with the help of their healthcare provider. This choice has maintained healthy competition in the broader GLP-1 market. We feel we are both competitively priced based on the clinical value we provide and the class in which we compete. All eligible, commercially insured patients with coverage for Trulicity® pay as little as $25 for up to 12 pens with the $25 Trulicity ® Savings Card Program. Due to the combination of formulary access provided by payers and affordability programs provided by Lilly, patients in Oregon paid an average of $53 to $83 per month for their therapy in 2023.

As a cutting-edge pharmaceutical company, innovation is at the heart of what we do, particularly for people with diabetes. With the first animal-derived insulin, Lilly extended life expectancy for people with type 1 diabetes from a couple of years into a person's thirties. Now, following a century of innovation, life expectancy for people with type 1 diabetes is in their sixties. Type 2 diabetes is the most common diabetes diagnosis in adults, and the mortality rate for diabetes in the US remains higher than the average rate for other comparable countries. In addition, the share of the total population diagnosed has been increasing, from 2.5% in 1980, to 7.2% in 2017.[6] Diabetes significantly reduces a person's life expectancy. Even with modern insulin and devices, two thirds of people struggle to keep their disease under control. Trulicity® plays an important role as an innovative option accessible to patients. There's more work to do, not only on diabetes, but also many other diseases like Alzheimer's and cancer.

That's why Lilly consistently invests 25% of our total revenue into research and development—$7.1 billion last year and $8.5 billion budgeted this year. That enables us to introduce new medicines—19 in the last decade, including the first Covid antibody therapy, and more medicines in the pipeline. Earlier this year, we shared exciting results from a study on a promising new Alzheimer's medicine, which followed approximately $8.5 billion in research

[5] How Trulicity Works, MOA & FPG and PPG Reductions | HCP | Trulicity (dulaglutide)
[6] How have diabetes costs and outcomes changed over time in the U.S.? - Peterson-KFF Health System Tracker

and development for Alzheimer's and other neurodegenerative afflictions and literally decades of work, including previous late-stage failures of three other potential Alzheimer's medicines.

We appreciate that the Board shares our commitment to prescription drug affordability. We are proud of the impact that our efforts have had on making prescription drugs more affordable and believe the Board's review of Trulicity® will demonstrate the meaningful impact Trulicity® and our solutions have had for patients with type 2 diabetes.

Sincerely,

Cynthia Ransom
Sr. Director, Government Strategy

Oregon Prescription Drug
Affordability Board

Email: pdab@dcbs.oregon.gov Phone: 971-374-3724 Website: dfr.oregon.gov/pdab

Shingrix

Affordability Review[1]

[1] Image source: https://mms.mckesson.com/product/1080947/Glaxo-Smith-Kline-58160081912. Accessed Jan. 23, 2024.

Table of Contents

Review Summary

Cost to the healthcare system

In 2022, total gross spend for Shingrix in Oregon was **$13.5 million** across **55,578 enrollees,** with a gross per patient spend of **$242.89.**[2]

Cost to patients

On average, patient out-of-pocket costs was **$0.50** for Shingrix in 2022 across deductibles, copays and coinsurance charges.[3]

Price history

Shingrix initially began marketing in December 2017. Over the past five years, Shingrix's wholesale acquisition cost (WAC) has increased by **5.6% YoY**[4] on average. This increase outpaced inflation in 2019, 2020, and 2023.[5]

Therapeutic alternatives

A clinical review did not find any therapeutic alternatives for Shingrix.

[2] Based on Oregon's 2022 All Payer All Claims (APAC) data across commercial insurers, Medicaid, and Medicare. APAC cost information are prior to any price concessions such as discounts or coupons. For more information regarding APAC data visit: https://www.oregon.gov/oha/HPA/ANALYTICS/Pages/All-Payer-All-Claims.aspx.
[3] Ibid.
[4] Based on data from Medi-Span.
[5] Inflation rates obtained from the US Bureau of Labor Statistics website. Accessed from page https://www.bls.gov/cpi/tables/supplemental-files/ on 1/11/24.

Review Background

Senate Bill 844 (2021) created the Prescription Drug Affordability Board (PDAB) to evaluate the cost of prescription drugs and protect residents of this state, state and local governments, commercial health plans, health care providers, pharmacies licensed in Oregon and other stakeholders within the health care system from the high costs of prescription drugs.

In accordance with OAR 925-200-0020, PDAB will conduct an affordability review on the prioritized subset of prescription drugs, selected under OAR 925-200-0010, and identify nine prescription drugs and at least one insulin product that may create affordability challenges for health care systems or high out-of-pocket costs for patients in Oregon.

In addition to information provided by the Department of Consumer and Business Services (DCBS) pursuant to ORS 646A.694, this review reflects information from various sources, including Oregon's APAC database, state licensed insurance carriers responding to a DCBS data call, Medi-Span, and resources from the U.S. Food and Drug Administration (FDA) such as the Orange Book (small molecule drugs) and the Purple Book (biologics).

Drug Information

Drug proprietary name(s): **Shingrix**

Non-proprietary name: **Zoster recombinant vaccine**

Manufacturer: **GlaxoSmithKline**

FDA approval

Shingrix was first approved by the FDA on 10/20/2017.[6]

The drug qualified for the following expedited forms of approval: None

At the time of the review, that the drug had no approved indications with designations under the Orphan Drug Act.

[6] FDA approval date based on the earliest occurring approval dates in the FDA Orange/Purple Book. For drugs with multiple forms/applications, the earliest approval date across all related FDA applications was used.

Clinical Profile

Drug indications[7]

- FDA Approved:
  - For prevention of herpes zoster virus (HZV) (shingles) in:
    - Adults 50 years and older.
    - Adults 18 years and older who are or will be at increased risk of HZV due to immunodeficiency or immunosuppression caused by known disease or therapy.
- Off Label Uses:
  - None

Clinical efficacy

- Shingrix is a recombinant, non-live, adjuvanted vaccine given in two doses to prevent herpes zoster virus (HZV), or shingles. A first dose is administered intramuscularly at month zero followed by a second dose administered two to six months later.

- HZV is a localized, painful, cutaneous eruption resulting from reactivation of latent varicella zoster virus. Postherpetic neuralgia is the most common complication of HZV.

- A person's risk for HZV increases after 50 years of age and from immunosuppressive medications and/or conditions.

- Shingrix was FDA approved in 2017 for use in adults 50 years of age and older based on two phase 3, placebo-controlled, randomized controlled trials (RCTs).[8,9] One RCT compared Shingrix to placebo in immunocompetent adults 50 years of age or older (n=15,411) and the other RCT compared Shingrix to placebo in immunocompetent adults 70 years of age or older (n=13,900).

- In the study of those 50 years of age and older, Shingrix significantly reduced the incidence of confirmed HZV from six cases in the vaccine group (incidence rate 0.3 per 1000 person-years) compared to 210 cases in the placebo group (incidence rate 9.1 per 1000 person-years) with an overall vaccine efficacy of 97.2% (95% confidence interval [CI] 93.7% to 99%; p< 0.001) over a mean follow up of 3.2 years.[10] The mean age of the population was 62.3 years and most participants were white (71.8%) and female

[7] Shingrix Prescribing Information. GlaxoSmithKline. Rixensart, Belgium: 5/2023
[8] Cunningham AL, Lal H, Kovac M, Chlibek R, et al. Efficacy of the Herpes Zoster Subunit Vaccine in Adults 70 Years of Age or Older. N Engl J Med. 2016 Sep 15;375(11):1019-32. doi: 10.1056/NEJMoa1603800. PMID: 27626517.
[9] Lal H, Cunningham AL, Godeaux O, Chlibek R, Diez-Domingo J, et al.. Efficacy of an adjuvanted herpes zoster subunit vaccine in older adults. N Engl J Med. 2015 May 28;372(22):2087-96. doi: 10.1056/NEJMoa1501184.
[10] Ibid.

(61.2%). There was no significant difference in vaccine efficacy among the different age groups and efficacy was durable up to four years post-vaccination.[11]

- In subjects 70 years of age and older, Shingrix reduced HZV from 9.2 cases per 1000 person-years to 0.9 cases per 1000 person-years, for an overall efficacy of 89.8% (95% CI 84.2% to 93.7%; p<0.001).[12]

- Pooling data from both studies, vaccine efficacy in older adults 70 years and older was 91.3% (95% CI 86.8% to 94.5%).[13,14] The incidence of postherpetic neuralgia was low overall, but was reduced in the Shingrix group compared to placebo (0.1 per 1000 person-years vs. 0.9 per 1000 person-years; efficacy of 91.2%; 95% CI 75.9% to 97.7%; p<0.001).[15,16]

- In 2021, Shingrix's label was expanded to include adults 18 years and older who are immunosuppressed. Shingrix demonstrated vaccine efficacy of 68.2% (95% CI 55.6% to 77.5%) in autologous hematopoietic cell transplant recipients.[17]

Clinical safety[18]

- FDA safety warnings:
  - Guillain-Barre syndrome
  - Syncope

- Contraindications:
  - History of severe allergic reaction to the vaccine
  - During an acute episode of HZV

- Common side effects:
  - Injection site pain (78%), redness (38%), and swelling (26%)
  - Systematic reactions including myalgia (45%), fatigue (45%), headache (38%), fever (21%), and gastrointestinal symptoms (17%).

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[11] Lal H, Cunningham AL, Godeaux O, Chlibek R, Diez-Domingo J, et al.. Efficacy of an adjuvanted herpes zoster subunit vaccine in older adults. N Engl J Med. 2015 May 28;372(22):2087-96. doi: 10.1056/NEJMoa1501184.
[12] Cunningham AL, Lal H, Kovac M, Chlibek R, et al. Efficacy of the Herpes Zoster Subunit Vaccine in Adults 70 Years of Age or Older. N Engl J Med. 2016 Sep 15;375(11):1019-32. doi: 10.1056/NEJMoa1603800. PMID: 27626517.
[13] Ibid.
[14] Lal H, Cunningham AL, Godeaux O, Chlibek R, Diez-Domingo J, et al.. Efficacy of an adjuvanted herpes zoster subunit vaccine in older adults. N Engl J Med. 2015 May 28;372(22):2087-96. doi: 10.1056/NEJMoa1501184.
[15] Cunningham AL, Lal H, Kovac M, Chlibek R, et al. Efficacy of the Herpes Zoster Subunit Vaccine in Adults 70 Years of Age or Older. N Engl J Med. 2016 Sep 15;375(11):1019-32. doi: 10.1056/NEJMoa1603800. PMID: 27626517.
[16] Lal H, Cunningham AL, Godeaux O, Chlibek R, Diez-Domingo J, et al.. Efficacy of an adjuvanted herpes zoster subunit vaccine in older adults. N Engl J Med. 2015 May 28;372(22):2087-96. doi: 10.1056/NEJMoa1501184.
[17] Anderson TC, Masters NB, Guo A, et al. Use of Recombinant Zoster Vaccine in Immunocompromised Adults Aged ≥ 19 years: Recommendations of the Advisory Committee on Immunization Practices – United States, 2022. MMWR Morb Mortal Wkly Rep 2022;71:80-84.
[18] Shingrix Prescribing Information. GlaxoSmithKline. Rixensart, Belgium: 5/2023.

- Due to higher reactogenicity with the adjuvanted vaccine, rates of local or systemic reactions are high in the first seven days after vaccination. These are generally of short duration and self-limiting. This could impact adherence to the second dose.

Therapeutic alternatives

- There are no therapeutic alternatives to the Shingrix vaccine.

- When Shingrix was FDA approved in 2017, it was given preference over Zostavax, which was a live, attenuated HZ vaccine. Preference was given due to higher and longer lasting efficacy against HZ and postherpetic neuralgia. Zostavax was only considered 51% effective for preventing shingles, compared to approximately 97% with Shingrix and efficacy of Zostavax diminished with increasing age. As of November 18, 2020, Zostavax is no longer available for use in the United States.

- Shingrix is the first HZV vaccine approved for use in immunocompromised persons. As Zostavax was a live vaccine, immunosuppression and immunodeficiency were contraindications to its use.

Additional information

- Oregon Health Authority: https://www.oregon.gov/oha/PH/PREVENTIONWELLNESS/VACCINESIMMUNIZATION/IMMUNIZATIONPROVIDERRESOURCES/Documents/NewCPTcodes.pdf
- Health Evidence Review Commission data: https://www.oregon.gov/oha/PH/PREVENTIONWELLNESS/VACCINESIMMUNIZATION/IMMUNIZATIONPROVIDERRESOURCES/VFC/Documents/BillPriceListJan-Jun.pdf

Cost to the Healthcare System

In 2022, Shingrix had **84,225** claims across **55,578** enrollees. Total gross spend on the drug was **$13,499,199** or **$243** per enrollee per year, and **$160** per claim per year.

Table 1 Gross cost estimates based on APAC data[19]

Payer line of business	Total enrollees	Total claims	Total spend amount	Average spend amount per enrollee	Average spend amount per claim
Commercial	20,081	29,548	$5,287,237	$263	$179
Medicaid	5,455	7,280	$1,360,250	$249	$187
Medicare	30,042	47,397	$6,851,713	$228	$145
Total	**55,578**	**84,225**	**$13,499,199**	**$243**	**$160**

Net cost estimates for Shingrix are not available.

Price History

The package wholesale acquisition cost (WAC) for Shingrix (NDC 58160082311) was **$1,834.06**[20] as of 12/31/2023.

The WAC for the drug was reviewed using Medi-Span's price history tables for the package WAC from 2019 to 2023. From 2019-2023 the average year-over-year change to the package WAC was calculated and determined to be **5.6%**. As of January 1, 2024, the WAC price increased another **7.9%** to **$1,978.95**. The historical change in the package WAC is displayed in figure 1 and the year over year change in WAC for Shingrix compared to inflation rates[21] is displayed in figure 2.

[19] Based on 2022 Oregon APAC data across commercial insurers, Medicaid, and Medicare. APAC cost information are prior to any price concessions such as discounts or coupons.
[20] To determine which NDC to use for the WAC price history, the available 2022 utilization data and selected the NDC with the highest volume of claims in 2022.
[21] Inflation rates obtained from the US Bureau of Labor Statistics website. Accessed from page https://www.bls.gov/cpi/tables/supplemental-files/ on 1/11/2024.

Figure 1 Shingrix WAC between 2019-2023

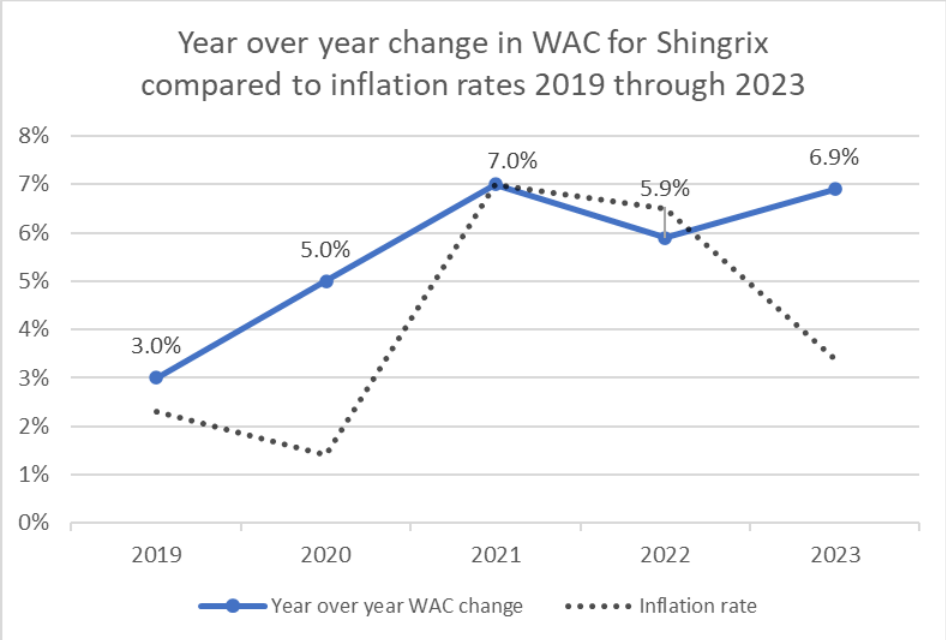

Figure 2 Year over year change in WAC compared to inflation rates[22]

[22] Inflation rates obtained from the US Bureau of Labor Statistics website. Accessed from page https://www.bls.gov/cpi/tables/supplemental-files/ on 1/11/2024.

Package WAC was reviewed as an indication of historic price trends for the drug. However, WAC does not account for discounts, rebates, or other changes to the drug's cost throughout the supply chain.

Cost to Patients

The APAC database[23] was analyzed to determine the average patient copayment or other cost-sharing for the prescription drug.

Table 2 Out of pocket costs

2022 Average annual patient out of pocket costs[24]		
Value	**APAC**	**Data Call**
Average Co-Pay	$0.16	Not on data call
Average Deductible	$0.11	Not on data call
Average Coinsurance	$0.23	Not on data call
Other Cost Sharing	$0.00	Not on data call
Total Out-of-Pocket Costs for Patients[25]	**$0.50**	Not on data call

Therapeutic Alternatives

Shingrix has no therapeutic alternatives.

Access Profile

Utilization

Based on APAC claims, **20,079** Oregonians filled a prescription for Shingrix in 2022.[26]

Stakeholder Feedback

Feedback was submitted from December 8, 2023, to January 31, 2024.

Links to the full feedback documents are included in the sections below.

[23] APAC total cost may include a dispensing fee and physician administration fees.
[24] Costs from the APAC database are prior to any price concessions such as discounts or coupons. Cost information from the data call is the cost of the drug after price concessions. Medicaid and Medicare were excluded from cost information.
[25] For patients who used the drug at least once in the 2022 calendar year.
[26] Number of 2022 enrollees from APAC database. For more information regarding APAC data visit: https://www.oregon.gov/oha/HPA/ANALYTICS/Pages/All-Payer-All-Claims.aspx.

Input received from the medical and scientific community

- No information was provided by the medical and scientific community.

Manufacturer submitted information

- Harmeet Dhillon, Head, Public Policy, with GSK, submitted information on December 8, 2023. Information submitted can be reviewed under Appendix A.

- Harmeet Dhillon, Head, Public Policy, with GSK, submitted information on January 31, 2023. Information submitted can be reviewed under Appendix B.

Patient feedback and additional stakeholder feedback

- Northe Saunders, Executive Director, with SAFE Communities Coalition & Action Fund, submitted information on December 8, 2023. Information submitted can be reviewed under Appendix C.

Appendix

Appendix A: GSK

Appendix B: GSK

Appendix C: SAFE Communities Coalition & Action Fund

Appendix A

January 31, 2024

VIA ELECTRONIC FILING

Oregon Prescription Drug Affordability Board
350 Winter Street NE
Salem, OR 97309-0405
pdab@dcbs.oregon.gov

Dear Members of the Oregon Prescription Drug Affordability Board:

GSK appreciates the opportunity to submit comments to the Oregon Prescription Drug Affordability Board regarding its affordability review of Shingrix, a vaccine indicated for prevention of herpes zoster (also known as shingles) in adults 50 years and older and in adults 18 years and older who are or will be at increased risk due to immunodeficiency or immunosuppression caused by known disease or therapy. There is currently no alternative vaccine to Shingrix licensed in the United States to prevent shingles.

GSK is a science-led global healthcare company with a special purpose to unite science, talent, and technology to get ahead of disease together. We focus on science of the immune system, human genetics, and advanced technologies to impact health at scale. We prevent and treat disease with vaccines, specialty, and general medicines. GSK supports policy solutions that transform our healthcare system into one that rewards innovation, improves patient outcomes, and achieves higher value care.

For the reasons listed below, **we respectfully request that the Board find Shingrix affordable for Oregon residents.**

1) Shingrix is widely available with no patient cost-sharing

GSK would like to reiterate concerns that the methodology, data sources, and criteria used by the Board to identify drugs for affordability review fail to accurately prioritize drugs that may pose affordability challenges for patients. The data as presented fail to appropriately consider that all Advisory Committee on Immunization Practices (ACIP)-recommended vaccines, including Shingrix, are covered without cost-sharing for the majority of publicly and privately insured individuals, meaning patient out-of-pocket costs are $0.

The Centers for Disease Control (CDC) ACIP recommends that immunocompetent adults aged 50 and older as well as adults aged ≥19 years who are or will be immunodeficient or immunosuppressed because of disease or therapy receive Shingrix.[1,2] The economic and clinical support provided across multiple studies contributed to the CDC issuing a policy recommending a preference for Shingrix over the previously available single-dose herpes zoster vaccine (zoster vaccine live).[3,4]

Coverage without cost-sharing is mandated by the following statutes and regulations:

- Commercial plans: 42 U.S.C. §30gg-13(a)(2)
- Medicare Part B: 42 U.S.C. §1395x(s)(10) and 42 C.F.R. 410.57
- Medicare Part D: 42 U.S.C. §1395w-102(e)

- Medicaid/Children's Health Insurance Program (CHIP): 42 U.S.C. §300gg-13(a)(2) (Medicaid Expansion) and 42 U.S.C. §1396o-1 (Traditional Medicaid)

Additionally, federal safety net programs provide access to vaccines without cost-sharing for uninsured and under-insured (i.e., adults enrolled in non-Affordable Care Act [ACA]-compliant plans, including grandfathered and short-term limited-duration plans) individuals). These statutory provisions ensure out-of-pocket patient costs are not a barrier to accessing Shingrix or any other recommended vaccines.

2) Shingrix improves patient outcomes and reduces treatment costs

Supporting vaccine access and uptake is likely to reduce long-term healthcare spending and is one of the most cost-effective ways to improve health.[5] Adult vaccination for four common diseases in older adults, including shingles, is estimated to prevent 64 million cases and $185 billion in treatment costs over the next 30 years for the United States.[6]

An estimated 1 million people contract shingles annually in the United States, with incidence increasing with age.[7] ACIP recommendations intend to improve the recognized burden associated with shingles.[8] There is no alternative prophylactic or effective prevention option for shingles, which makes unencumbered access to Shingrix critical.

Widespread utilization of a vaccine such as Shingrix is the goal of any state vaccination program and serves to prevent associated medical conditions resulting from the underlying disease.[9] Specifically, the Oregon Immunization Program (OIP) "is committed to ensuring and increasing access to vaccines for people of all ages."[10] Shingles cases have been tied to an estimated $2.4 billion in annual direct medical costs and productivity losses, with incremental costs ranging from $1,210-$3,804 (compared to matched controls) and increasing with age.[11,12] Prevention of shingles also reduces incidence of certain downstream health conditions and their associated costs.[13]

A model estimating the cost-effectiveness of Shingrix compared to no vaccination found that Shingrix can be expected to prevent approximately 104,000 shingles cases at an incremental cost of $11,863 per quality adjusted life year (QALY) saved.[14] This model also estimated that Shingrix can be expected to prevent approximately 71,600 shingles cases and saved over $96 million in net total societal costs.[15]

Shingrix is affordable not only for patients but for health plans as well. Another model estimated the incremental per-member per-month budget impact from Shingrix at $0.42 over 5 years and $0.31 over 15 years for a commercial plan.[16]

3) The CDC found Shingrix to be cost-effective

All vaccines undergo a cost-effectiveness and economic value assessment process by the CDC ACIP after Food and Drug Administration (FDA) approval. Vaccines are reviewed and recommended by the ACIP before they can be accessed by the public or covered by insurance. When reviewing a vaccine, ACIP considers "disease epidemiology and burden of disease, vaccine safety, vaccine efficacy and effectiveness, the quality of evidence reviewed, economic analyses, and implementation issues," as specified in its charter.[17] The ACIP also assesses a product's cost-effectiveness to determine if "the intervention is a reasonable and efficient allocation of resources."[18]

In its analysis of Shingrix, the ACIP found the vaccine cost-effective compared to no vaccination. In fact, the analysis concluded that the cost-effectiveness of Shingrix was greater than the cost-effectiveness of many other recommended adult vaccines.[19] Additionally, in more recent analyses, the ACIP determined the economic value of Shingrix was generally favorable among immunocompromised adults; consequently, the ACIP determined that Shingrix was a reasonable and efficient allocation of resources for the prevention of shingles in immunocompromised adults 19 years and older.[20]

In conclusion, we urge the Board to find Shingrix affordable for patients in Oregon and ensure continued broad access and uptake given:

- The public health implications of vaccination as a critical disease prevention tool;
- The lack of alternatives to Shingrix for shingles vaccination in the US;
- The current ACIP recommendations for immunocompetent adults aged 50 and older as well as adults aged ≥19 years who are or will be immunodeficient or immunosuppressed because of disease or therapy to receive Shingrix;
- The non-existent out-of-pocket costs for nearly all insured patients; and
- The value Shingrix delivers to the Oregon health care system and its patients.

Thank you for the opportunity to provide comments and for considering this data and evidence. Please feel free to contact Christian Omar Cruz at Christian.O.Cruz@gsk.com with any questions.

Sincerely,

Harmeet Dhillon
Head, Public Policy
GSK

[1] National Institute of Health. Shingles vaccination of adults 50–59 and ≥60 years, U.S. (2020). Available here.
[2] ACIP. Evidence to Recommendations Framework for Use of Recombinant Zoster Vaccine in Immunocompromised Adults Aged ≥19 Years (2022). Available here.
[3] Centers for Disease Control and Prevention. Considerations for the use of herpes zoster vaccines, October 25, 2017. Accessed January 9, 2024. https://stacks.cdc.gov/view/cdc/57603.
[4] Dooling KL, Guo A, Patel M, et al. Recommendations of the Advisory Committee on Immunization Practices for Use of Herpes Zoster Vaccines. MMWR Morb Mortal Wkly Rep 2018;67:103–108. DOI: http://dx.doi.org/10.15585/mmwr.mm6703a5external icon
[5] Centers for Disease Control and Prevention. Why CDC Is Involved in Global Immunization. (2023). Available here.
[6] Carrico, J. Cost-benefit analysis of vaccination against four preventable diseases in older adults: Impact of an aging population.
[7] Centers for Disease Control and Prevention. Shingles (herpes zoster): clinical overview. Available here.
[8] Ibid.
[9] Vaccines and Immunization. Oregon Immunization Program. Available here.
[10] Vaccine Access Program (VAP) Overview. Available here.
[11] Harvey M, Prosser LA, Rose AM, Ortega-Sanchez IR, Harpaz R. Aggregate health and economic burden of herpes zoster in the United States: illustrative example of a pain condition. 2020. Available here.
[12] Meyers JL, Madhwani S, Rausch D, Candrilli SD, Krishnarajah G, Yan S. Analysis of real-world health care costs among immunocompetent patients aged 50 years or older with herpes zoster in the United States. 2017. Available here.
[13] Liu X, Guan Y, Hou L, et al. The Short- and Long-Term Risk of Stroke after Herpes Zoster: A Meta-Analysis. 2016. Available here.
[14] Curran D, Patterson B. Cost-effectiveness of an Adjuvanted Recombinant Zoster Vaccine in older adults in the United States. 2018 Aug 9;36(33):5037-5045. Available here.
[15] Ibid.
[16] Patterson B, Herring W, Van Oorschot D, et al. Incremental clinical and economic impact of recombinant zoster vaccination: real-world data in a budget impact model. 2020. Available here.
[17] US Department of Health and Human Services. Charter of the ACIP. Available here.
[18] Centers for Disease Control and Prevention. Guidance for Health Economics Studies Presented to ACIP. (2019). Available here.
[19] Prosser LA, Harpaz R, Rose AM, et al. A Cost-Effectiveness Analysis of Vaccination for Prevention of Herpes Zoster and Related Complications: Input for National Recommendations. Ann Intern Med 2019;170:380-388. doi:10.7326/M18-2347
[20] Centers for Disease Control and Prevention. Meeting of the Advisory Committee on Immunization Practices (ACIP), October 20-21, 2021. Accessed January 9, 2024. https://www.cdc.gov/vaccines/acip/meetings/downloads/min-archive/summary-2021-10-20-21-508.pdf

Appendix B

December 8, 2023

VIA ELECTRONIC FILING

Oregon Prescription Drug Affordability Board
350 Winter Street NE
Salem, OR 97309-0405
pdab@dcbs.oregon.gov

Dear Members of the Oregon Prescription Drug Affordability Board:

GSK appreciates the opportunity to submit comments to the Oregon Prescription Drug Affordability Board regarding its subset of prescription drugs to prioritize for affordability review. For the reasons listed below, **we respectfully ask the Board to remove Shingrix and Ventolin HFA from the existing subset of prescription drugs that may be selected for an affordability review.**

GSK is a science-led global healthcare company with a special purpose to unite science, talent, and technology to get ahead of disease together. We focus on science of the immune system, human genetics, and advanced technologies to impact health at scale. We prevent and treat disease with vaccines, specialty, and general medicines. GSK supports policy solutions that transform our healthcare system into one that rewards innovation, improves patient outcomes, and achieves higher value care.

GSK is concerned that the current methodology, data sources, and criteria used by the Board to identify drugs for affordability review may not accurately prioritize drugs that may pose affordability challenges for patients. The data as presented fails to explicitly consider the impact that insurance coverage has on consumer out-of-pocket costs and instead only captures part of the current healthcare system. Before entering the affordability review process, GSK encourages the Board to reevaluate the current methodology to fully understand prescription drug affordability challenges in Oregon.

Shingrix

In the interest of continued public health for the people of Oregon, GSK is concerned over the inclusion of Shingrix, a vaccine used to prevent herpes zoster (shingles) in adults 50 years and older and 18 years and older who are or may be immunocompromised, on the current subset list. Shingrix is an essential recombinant subunit vaccination proven to be more than 90% effective in preventing shingles in adults 50 years and older. The Advisory Committee on Immunization Practices (ACIP) recommends that immunocompetent adults aged 50 and older as well as adults aged ≥19 years who are or will be immunodeficient or immunosuppressed because of disease or therapy receive Shingrix. [iii] Because 1 in every 3 people in the US will get shingles in their lifetime, this preventative treatment is of vital importance. There is no alternative prophylactic or effective prevention option for Shingles, which makes unencumbered access to Shingrix critical.

Further, vaccines already undergo a cost-effectiveness and economic value assessment process by the ACIP and the Centers for Disease Control and Prevention (CDC) after FDA approval. Vaccines are reviewed and recommended by the ACIP before they can be accessed by the public or covered by insurance. In its role, the

ACIP advises the HHS Secretary, as delegate to the Director of the CDC, on the use of vaccines for infectious disease prevention; the CDC Director reviews, adopts, and publishes ACIP vaccine recommendations.

When reviewing a vaccine, ACIP considers "disease epidemiology and burden of disease, vaccine safety, vaccine efficacy and effectiveness, the quality of evidence reviewed, economic analyses, and implementation issues," as specified in its charter.[iii] In the Evidence to Recommendations (EtR) Framework ACIP uses to guide its evidence analysis,[iv] the Committee assesses a product's cost-effectiveness within the Resource Use domain to determine if "the intervention is a reasonable and efficient allocation of resources." This assessment includes evidence from submitted analyses, a description of the Committee's determinations, and the appraised level of certainty associated with the evidence. To ensure that submitted economic analyses are uniform, high quality, understandable, and transparent, the CDC together with ACIP developed Guidance for Health Economics Studies (updated in 2019).[v] Often, the health economics models developed by biopharma companies, such as GSK, are further tested and validated against CDC-developed analyses to ensure rigorous technical review.

The current data subset does not reflect that all ACIP-recommended vaccines, including Shingrix, are covered without cost-sharing for all publicly and privately insured individuals, meaning out-of-pocket costs are non-existent. Regardless of a product's list price, all ACIP-recommended vaccines are covered without cost-sharing for all publicly and privately insured individuals, as mandated by the following statute and regulation:

- Commercial plans: 42 U.S.C. §30gg-13(a)(2)
- Medicare Part B: 42 U.S.C. §1395x(s)(10) and 42 C.F.R. 410.57
- Medicare Part D: 42 U.S.C. §1395w-102(e)
- Medicaid/Children's Health Insurance Program (CHIP): 42 U.S.C. §300gg-13(a)(2) (Medicaid Expansion) and 42 U.S.C. §1396o-1 (Traditional Medicaid)

Additionally, federal safety net programs provide access to vaccines without cost-sharing for uninsured and under-insured (i.e., adults enrolled in non-Affordable Care Act [ACA]-compliant plans, including grandfathered and short-term limited-duration plans) individuals.

Finally, per affordability review rulemaking (925-200-0010: Selecting Prescription Drugs for Affordability Reviews), adopted by the PDAB in August 2023, criteria for selection of products for affordability review will include "cost and availability of therapeutic alternatives to the prescription drug in the state, including any relevant data regarding costs, expenditures, availability, and utilization related to the prescription drug and its therapeutic alternatives."[vi] GSK respectfully adds that high utilization of a vaccine such as Shingrix is the goal of any state vaccination program and to prevent associated medical costs, including Oregon's.[vii] Vaccines should not be subject to an affordability review based on high or increasing utilization.

Given the public health implications of vaccination, the current ACIP recommendations for immunocompetent adults aged 50 and older as well as adults aged ≥19 years who are or will be immunodeficient or immunosuppressed because of disease or therapy to receive Shingrix, there being no other vaccines for herpes zoster on the market today, the non-existent out-of-pocket costs for patients and the

economic utility of vaccines on the Oregon healthcare system, we urge the Board to remove Shingrix from the existing subset of prescription drugs that may be selected for an affordability review.

Ventolin HFA
Ventolin HFA is an essential prescription medication in the treatment and/or prevention of bronchospasms in people who have reversible obstructive airway disease or exercise-induced bronchospasms.

OAR 925.200.0020 requires the Board to consider the availability of therapeutic equivalents and the average patient's out-of-pocket cost when prioritizing prescription drugs for an affordability review. Using the Board's own data, Ventolin HFA is used by the largest number of people and has the smallest average cost per prescription on the current subset list, with more than 68,000 enrollees and an average prescription cost of $25.11. Furthermore, Ventolin HFA has seen a decrease in the average year-over-year price as well as the wholesale acquisition cost for 2022, indicating an already affordable prescription drug becoming even more affordable. For these reasons, we urge the Board to remove Ventolin HFA from the existing subset of prescription drugs that may be selected for an affordability review.

Thank you for the opportunity to provide comments and for considering our concerns. Please feel free to contact Christian Omar Cruz at Christian.O.Cruz@gsk.com with any questions.

Sincerely,

Harmeet Dhillon
Head, Public Policy
GSK

[i] National Institute of Health. Shingles vaccination of adults 50–59 and ≥60 years, U.S. (2020). Available here.
[ii] ACIP. Evidence to Recommendations Framework for Use of Recombinant Zoster Vaccine in Immunocompromised Adults Aged ≥19 Years (2022). Available here.
[iii] US Department of Health and Human Services. Charter of the ACIP. Available here.
[iv] Centers for Disease Control and Prevention. ACIP Evidence to Recommendations Framework. Available here.
[v] Centers for Disease Control and Prevention. Guidance for Health Economics Studies Presented to ACIP. (2019). Available here.
[vi] Oregon PDAB Rulemaking. 925-200-0010. (2023). Available here.
[vii] Vaccines and Immunization. Oregon Immunization Program. Available here.

Appendix C

Oregon Prescription Drug Affordability Board
350 Winter Street NE
Salem, OR 97309-0405
pdab@dcbs.oregon.gov

SAFE COMMUNITIES COALITION

December 8th, 2023

Dear Members of the Oregon Prescription Drug Affordability Board:

We write today on behalf of SAFE Communities Coalition & Action Fund, a non-profit organization whose purpose is to support pro-vaccine policies and legislation. We appreciate your consideration of our comments for your upcoming meeting on December 13th, 2023. We ask that the board not consider any vaccine as part of their review process.

The process of reviewing and recommending vaccines for the American public, including cost-effectiveness, has already been given great consideration at the federal level by the Advisory Committee on Immunization Practices (ACIP) and the Centers for Disease Control and Prevention (CDC). ACIP's Evidence to Recommendation Framework, used when vaccines are reviewed for recommendation, already considers many of the economic factors that may be considered by OR PDAB.

Vaccines are one of the most important pillars of public health in Oregon and across the nation. We must ensure, as is already done by ACIP, that vaccines remain affordable, accessible, and widely utilized. Anything less undermines the public's health and puts our communities, schools, and those most susceptible to vaccine-preventable diseases at risk.

Thank you for your consideration and the work that you do to make sure that all Oregonians have access to affordable healthcare.

Northe Saunders
Executive Director
SAFE Communities Coalition & Action Fund
info@safecommunitiescoalition.org

DFR Legislative Update

Presenter: Numi Rehfield-Griffith
Senior policy advisor
Division of Financial Regulation

DFR | Division of Financial Regulation

Department of Consumer and Business Services

SB 1508A – Insulin Cost Sharing

The adopted -2 Amendments would implement PDAB's 2023 recommendations related to insulin pricing, specifically: reducing the cost-sharing limit to $35 and decoupling the cap from inflation. Passed the Senate 27-3. Currently scheduled for a hearing and possible work session this afternoon in **House Behavioral Health and Health Care.**

HB 4149 – PBM licensure

Rep. Nathanson's PBM concept – as introduced, similar to 2023 HB 3013. Currently referred to **Ways & Means** with adoption of the -6 amendments. As amended:

- Transitions PBMs from registration to licensure.
- Adds PBMs serving CCOs to the scope of DCBS oversight.
- Adds new data elements to PBM transparency reports.
- Allows DCBS to review PBM contracts.
- Prohibits PBM retaliation against pharmacies.
- Allows pharmacies to directly appeal violations of the PBM statute to DCBS.

HB 4012 – “White Bagging”

“White bagging” refers to a practice where an insurer or PBM requires clinician administered drugs to be filled through a designated specialty pharmacy as a condition of reimbursement. Scheduled for **house floor vote** on Thursday, Feb. 22. Passed from committee with adoption of -6 amendments.

As amended, the bill would prohibit white bagging with respect to independent oncology clinics and would not apply to hospitals or hospital affiliated clinics.

HB 4113 – “Co-pay assistance”

Requires insurers to count third-party payments for a prescription drug (such as manufacturer “coupons”) against an enrollee’s cost-sharing limits. **Passed on the House Floor with unanimous bipartisan support**. This bans a practice some parties call “co-pay accumulator programs.”

HB 4113A incorporates the -3 amendments, which removed PEBB and OEBB from the bill. The restrictions would apply to drugs without generic equivalents, or where a patient has gone through a utilization management process.

HB 4028 – 340B contract pharmacies

Originally HB 4010, Section 3, one of the House health omnibus bills. Would bar drug manufacturers from limiting a 340B entity's access to contract pharmacies. Currently in **House Rules**, as the proposed -2 amendments.

Other bills of possible interest

- **HB 4091 - Health Insurance Mandate Review Committee:** creates an advisory committee, staffed by LPRO and supported by DCBS actuarial analysis, to assess the impact of proposed health mandate legislation.
- **HB 4002 – substance abuse treatment reform:** among other provisions, would bar application of utilization management to buprenorphrine for treatment of opioid use disorder.
- **HB 4130 – Corporate practice of medicine reform**

QUESTIONS?