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Estimating APAC Data Completeness

Gaps in data availability by line of business and benefit type

Summary: In 2024, Oregon's All Payer All Claims (APAC) database contained data on approximately 95.2 percent of the state's population. However, the completeness of the data in APAC varies by payer and benefit type, with the biggest gaps in data from self-insured medical plans. This document compares APAC data to external sources on health plan enrollment in Oregon, and details some of the reasons that certain populations and types of data are missing or unavailable to data requestors. The *What Data are in APAC* data book (excel file) provides additional information by year, payer, and benefit type.

Oregon's All Payer All Claims database (APAC) is a large administrative database including claims and enrollment data submitted by most insurers with at least 5,000 covered lives in Oregon. For each year available, APAC contains data on up to 97 percent of the Oregon population. APAC offers a powerful resource for researchers, policymakers, and health

Table 1. Percent of the Oregon population with any data in APAC (estimate), July 2015-2024

Year	APAC population	Oregon population[i]	APAC percent of population
2015	3,695,691	4,001,836	92.3
2016	3,403,920	4,062,048	83.8
2017	3,525,530	4,124,511	85.5
2018	3,608,732	4,176,424	86.4
2019	3,852,625	4,215,238	91.4
2020	4,046,638	4,241,467	95.4
2021	4,078,595	4,234,736	96.3
2022	4,134,078	4,255,112	97.2
2023	4,148,259	4,269,152	97.2
2024	4,079,300	4,286,443	95.2

Figure 1. Percentage of Oregon population with any claims or enrollment data in APAC, any benefit type vs. medical, pharmacy and dental coverage, July 2024

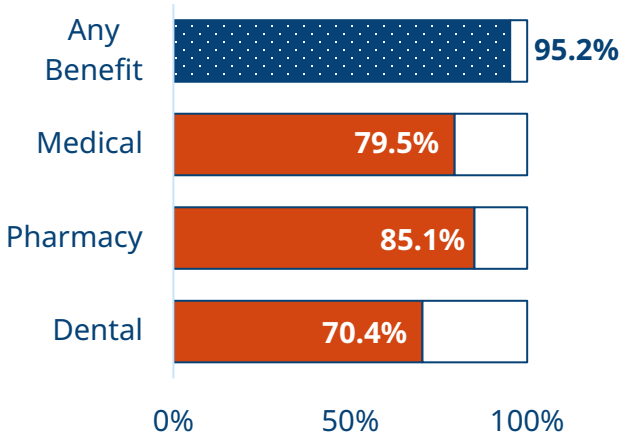
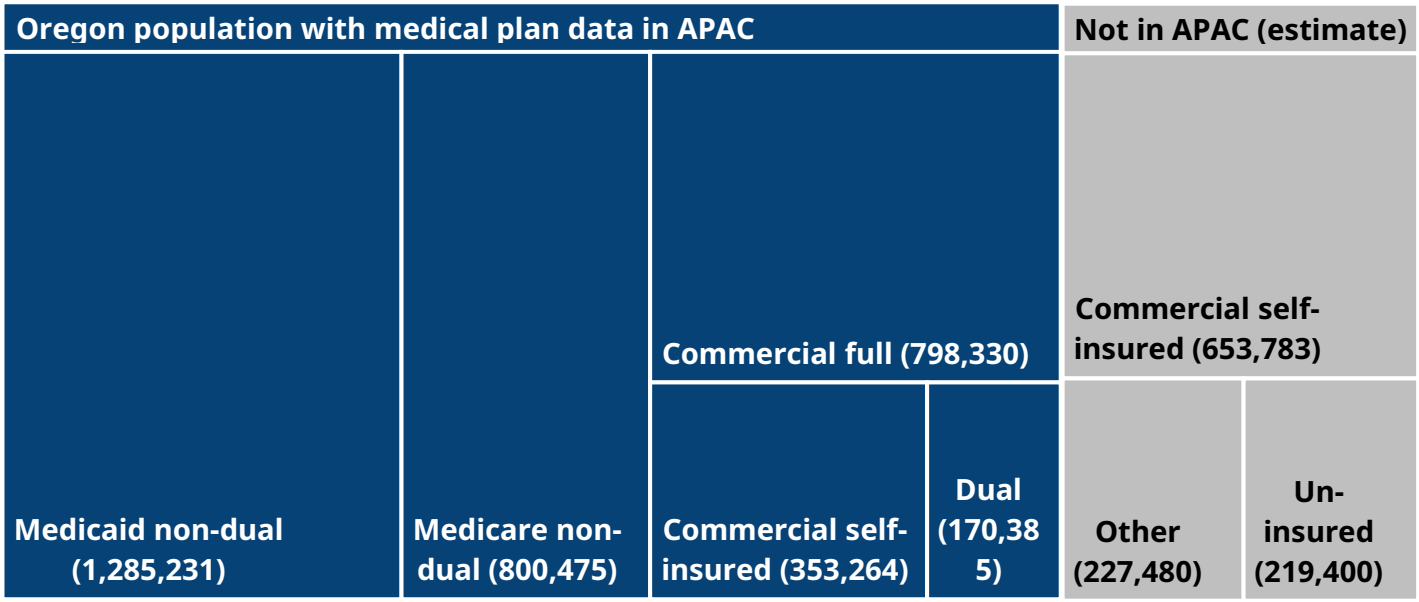


Figure 2. Primary insurance type of Oregonians with medical enrollment data in APAC and estimated breakout of insurance type of Oregonians not in APAC, July 2024
Note: "Dual" refers to people with dual coverage from Medicare and Medicaid.



care consumers who want to learn about what types of health care services are being received and trends in the cost of care in Oregon.

Although APAC contains data on most of the Oregon population, the amount of data available for each individual varies significantly by insurer line of business (i.e., Medicaid, Medicare, or commercial insurance) and benefit type (i.e., medical, pharmacy, and/or dental coverage). In July of 2024, around 4.08 million out of 4.29 million Oregonians (95.2 percent) had medical, pharmacy, or dental enrollment and/or claims data in APAC. Of these, only 3.41 million (79.5 percent of the Oregon population) had data from their medical insurer, while 3.65 million (85.1 percent) had data on pharmacy coverage or care. Additionally, while 100 percent of Medicaid and almost 100 percent of Medicare enrollees had medical enrollment or claims data in APAC, only about 67.0 percent of individuals enrolled in a commercial self or fully-insured plan were included. This brief describes the reasons for this variation and includes considerations related to Medicare data completeness in APAC.

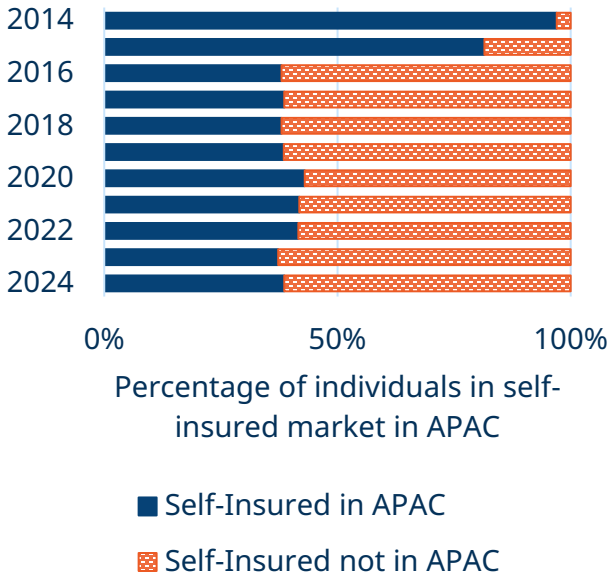
Commercial self-insured medical data and ERISA

The biggest gap in APAC data is the medical claims and enrollment data missing from certain self-insured plans in the commercial market. Self-insured plans – in which an employer or other group purchasing the plan uses the premiums collected from their group to pay health care claims instead of relying on a fully-insured policy funded by a larger insurance company – make up a significant and growing portion of the commercial insurance market in Oregon, around 51.5 percent in 2024.[ii] Many of these plans are regulated by the federal government under the Employee Retirement Security

Act (ERISA), and in 2016, the Supreme Court ruled in *Gobeille vs. Liberty Mutual Insurance Company* that states cannot mandate ERISA-regulated plans to submit data to their All Payer Claims Databases (APCDs). APAC is Oregon's APCD.

The impact of this ruling on the amount of commercial medical enrollment and claims data in APAC is evident starting in 2016, when the percentage of the self-insured market in APAC dropped from around 81.5 percent (2015) to 38.0 percent (2016). Since 2016, the percentage of the self-insured market with data in APAC has hovered around 37-43 percent each year.

Figure 3. Estimated percentage of self-insured market with medical insurance coverage data in APAC, June/Quarter 2, 2014-2024



The *Gobeille* decision does not apply to the entire commercial self-insured population, as not all self-insured plans are regulated by ERISA. Notable exceptions are plans purchased by state and local governments, such as those managed by the Public Employees' Benefit Board (PEBB). In 2024, around a quarter (25.9%) of the people with enrollment data from a self-insured plan in APAC had insurance from PEBB. Some insurers also submit data on ERISA plans to APAC voluntarily.

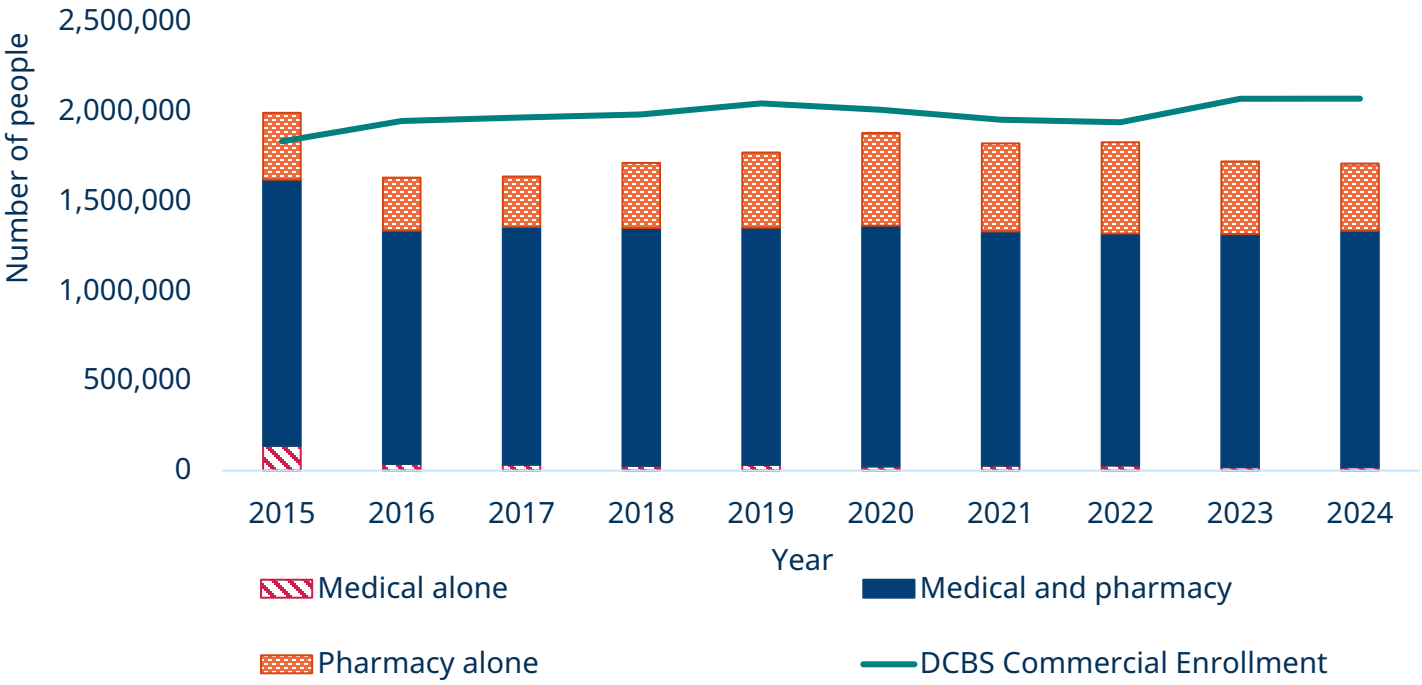
Even though the percentage of the self-insured market in APAC has remained relatively steady since the *Gobeille vs. Liberty Mutual* decision, in recent years self-insured plans have come to make up a significantly larger proportion of the total commercial market. Self-insured plans made up around 42 percent of the market in Oregon in 2016, a figure that rose to 50 percent by 2023 (compared to an average of 57 percent across US states that year[iii]) and 51.5 percent in 2024.[iv] As a result, APAC may be collecting progressively less data on the total commercial market (including both full and self-insured plans) over time, as people whose data were previously in APAC through a fully insured plan switch to ERISA self-insured plans and are subsequently lost to the dataset.

Availability of commercial pharmacy and dental data

Although there is a significant gap in data on medical coverage and care for individuals with ERISA-covered plans in APAC, APAC contains a more complete set of data for pharmacy and dental enrollment and claims. This is primarily due to the submission of pharmacy claims and enrollment data by pharmacy benefit managers (PBMs) and dental claims and enrollment data by dental benefit-only payers, which often submit data for people whose medical plan data are missing. For example, in June of 2024, there were

1,333,762 individuals in APAC with commercial insurance who had medical alone or medical and pharmacy data in APAC, but there were an additional 379,151 individuals who had pharmacy data but no medical data. Almost 99 percent (369,541) of these individuals had pharmacy data from a PBM.

Figure 4. Size of the APAC population with commercial health plan enrollment data compared to the estimated size of the commercial health plan market from the Department for Consumer and Business Services (DCBS), June 2015-June 2024



As a result of the data submitted by PBMs and dental providers, APAC likely contains some information on the majority of people with commercial health insurance in the state, even where their medical insurance benefit and claims data are missing. The graph above shows the number of people with commercial medical or pharmacy benefit data in APAC each year from 2015 to 2024 (bars), compared to the number of Oregonians with commercial medical insurance in the state according to enrollment data from the Department of Consumer and Business Services (DCBS - orange line). APAC data were most complete in 2015, before the *Gobeille vs. Liberty Mutual* decision was implemented, but in many of the following years the number of people with commercial medical or pharmacy data in APAC approaches the number of people with commercial insurance in the state. Notably, the number of people with commercial coverage data in APAC is closer to the number of people in the commercial market data from DCBS in years where there were more individuals in APAC with commercial pharmacy data but no medical insurance data, e.g. 2020-2022.

Medicare data completeness

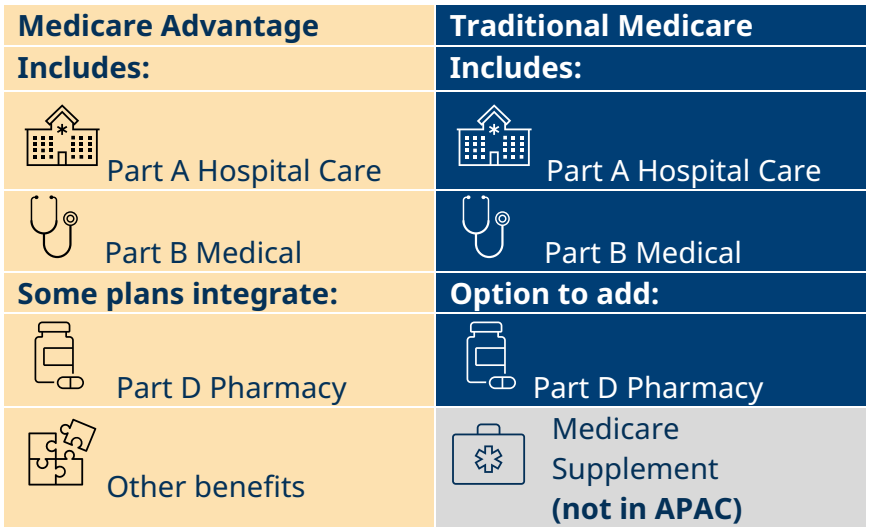
While the biggest gap in APAC data relates to ERISA data and the *Gobeille* decision, there are also a few notable exceptions to Medicare data completeness and availability, outlined in the table below.

Table 2. Medicare data availability in APAC, July 2024

	Data in APAC?	APAC data source	Available for external request?	APAC population	External source estimate	APAC percent of population
Medicare Advantage	Yes	Medicare Advantage payers	Yes	515,542	516,456	99.8 percent
Traditional Medicare	Yes	CMS	No	454,324	423,308	100 percent
Medicare Part D	Yes	PBMs and Part D payers	Yes	275,814	267,122	100 percent
Medicare Supplement	No	N/A	No	0	180,340	0 percent

One of the biggest considerations for data requestors interested in Medicare data is that according to its data use agreement (DUA) with the Centers for Medicare and Medicaid Services (CMS), APAC is restricted from releasing medical insurance and claims data on Traditional (Fee-for-Service) Medicare enrollees to data requestors that are not part of the Oregon state government or working on projects implemented on behalf of the State. Only Medicare Advantage and Medicare Part D data are available to these external requestors.

In July of 2024, Medicare Advantage enrollees made up about 55 percent of the Medicare-eligible population in Oregon (up from 45 percent in 2018).[v] That same month, 267,122 people (around 63 percent of the Traditional Medicare population) had Medicare Part D pharmacy coverage.[vi] As a result, external requestors wanting to work with Medicare data can expect to have a complete view of the pharmacy services rendered to the



Medicare population, but do not have access to information on medical care for up to 45 percent of the Medicare population in 2024.

As a final consideration, while APAC contains data on Traditional Medicare enrollment and claims, Medicare Supplement plans are not mandatory reporters to APAC. Medicare Supplement plans are plans available for purchase by Traditional Medicare enrollees that provide additional benefits and lower cost-sharing burden. Because Medicare Supplement plans often cover a significant amount of the cost-sharing burden for Traditional Medicare enrollees, APAC is limited in its capacity to analyze patient cost sharing for this population, even for State agency requestors that can access Traditional Medicare data.

Appendix A: Methodological notes and sources

APAC release

The data in this brief were pulled from APAC Release 29, which includes data for services through March 2026. Because APAC data are not considered to be ready for release until a year after their service dates, and because data from the Centers for Medicare and Medicaid Services (CMS) were only available in APAC through 2024 in Release 29, only data through 2024 were included in this document.

Comparing counts of individuals across data sources

Across this document, counts of individuals with enrollment or claims data in APAC are compared to external counts of individuals from other sources. Counts of individuals in APAC depend on the use of the unique person ID variable in APAC. This variable unites member IDs for individuals associated with their insurance coverage and/or claims across multiple insurers, for cases when people change insurers over time or have different coverage types within or across insurers (e.g., medical and pharmacy coverage from different insurers, or simultaneous medical coverage from two different insurers).

The unique person ID variable is created using a methodology that compares personally identifiable information like name and date of birth across payer records and matches records where this information is the same or very similar. While this methodology is able to correctly reunite all member IDs for most individuals into a single unique identifier, a portion of the member ids in APAC (around 209,443 for 2024 enrollment data, or 2.2 percent of all member ids that year) were not able to be assigned to a unique person ID. For this analysis, those member IDs were each treated as a unique person, even though they may in fact have a match among the unique person IDs that were able to be assigned. This likely resulted in a modest over-count of the number of individuals in APAC, which means that the percent of individuals in APAC compared to individuals counted in other data sources is also likely to be a modest over-count.

Sources of external enrollment and population counts

The sources of the external enrollment and population counts used in this document are as follows:

Oregon Population: Oregon population figures are from the 2025 Annual Population Report Tables (excel file), released by the Population Research Center at Portland State University on April 15, 2026.

Commercial, TRICARE/Other Federal and Medicare Supplement Medical Enrollment: Data for Quarter 2 (April-June) of each year were downloaded from the DCBS Report Catalogue in May of 2026. Variable definitions (pdf) are available online.

Medicare Advantage and Medicare Part D Enrollment: For July 2017-July 2024, data come from the Monthly Enrollment by State report from CMS. This report is not available for the month of July prior to 2017. For 2014-2016, data are aggregated from the Monthly Enrollment by State/County/Contract reports for Medicare Advantage and Medicare Part D. For 2014-2016, the Oregon enrollment data from CMS may be a slight undercount as state/county/contract data excludes cell sizes under 11 individuals. Data were downloaded on May 14, 2026.

Veterans Affairs (VA): Data reflect unique patients served by the VA from October of 2023 to September of 2024 in Oregon. Data were taken from the U.S. Department of Veterans Affairs (VA)'s Distribution of Veterans by County dashboard for Fiscal Year 2024. Data were downloaded May 14, 2026.

Oregon Uninsured Data: Data on the number of uninsured in Oregon are from a fact sheet published by the Oregon Health Authority (pdf) analyzing Oregon uninsurance rates using data from the American Community Survey (ACS) that was released on September 11, 2025.

Appendix B: Counts of individuals with medical coverage in APAC compared to external sources

Table 3. Number of individuals with medical enrollment data in APAC by line of business, compared to external sources, July 2024

	APAC population with medical enrollment data	External source estimate	External data source	APAC percent of external source population
All APAC, any insurance type, July	3,408,918	4,286,443	Population Research Center	79.5 percent
Commercial fully insured	974,219	1,007,035	DCBS quarterly data	97.1 percent
Commercial self-insured	410,263	1,062,038	DCBS quarterly data	38.6 percent
Medicare Advantage	515,542	516,456	CMS enrollment data	99.8 percent
Traditional Medicare	454,324	423,308	CMS enrollment data	100 percent
Medicaid	1,473,023	1,405,018	OHP enrollment dashboard	100 percent
TRICARE/Other fed.	0	60,432	DCBS enrollment data	0 percent
Veterans Affairs	0	138,066	VA annual data	0 percent
Uninsured	0	219,400	OHA analysis of American Community Survey (ACS) data (pdf)	0 percent

[i] Oregon population figures are from the 2025 Annual Population Report Tables, released by the Population Research Center at Portland State University on April 15, 2026.

[ii] Percent of the Commercial medical insurance market in 2024 that was self-insured calculated as the number of individuals with self-insured plans (1,064,046) divided by the sum of the number of individuals with self-insured plans and the number of individuals with fully insured plans (1,003,201) in Q2 of 2024. Some individuals may be covered by both a self-insured and a fully-insured plan, which could impact the accuracy of this figure. Data extracted from the Department of Consumer and Business Services (DCBS) Report Catalog in May of 2026. Available from: https://www4.cbs.state.or.us/ex/imd/reports/download/?xfer_tk=3658&varlist.ID=&varlist.disposition=inline&varlist.ACPSENV=&FORMAT=csv&STORE=&parmscreen=&_t=247281677

[iii] Employee Benefit Research Institute (EBRI). New research finds increasing number of self-insured health plans in small and medium-sized businesses but a decreasing number in large companies since passage of the Affordable Care Act of 2010. EBRI Press Release, 2024 August 29 [cited 2026 July 6]. Available from: https://www.ebri.org/content/new-research-finds-increasing-number-of-self-insured-health-plans-in-small-and-medium-sized-businesses-but-a-decreasing-number-in-large-companies-since-passage-of-the-affordable-care-act-of-2010.

[iv] Department of Consumer and Business Services (DCBS). Quarterly health enrollment data. DCBS Report Catalogue. Downloaded in May of 2026. Available from: https://www4.cbs.state.or.us/ex/imd/reports/download/?xfer_tk=3658&varlist.ID=&varlist.disposition=inline&varlist.ACPSENV=&FORMAT=csv&STORE=&parmscreen=&_t=247281677

[v] Centers for Medicare and Medicaid Services (CMS). Medicare monthly enrollment by state. 2024 July. Available from: https://www.cms.gov/data-research/statistics-trends-and-reports/medicare-advantagepart-d-contract-and-enrollment-data/monthly-enrollment-state/monthly-enrollment-state-2024-07

[vi] Ibid.