Medicaid Management Information System

HPA Data Profile

Medicaid is a federal health insurance program that's administered by states. As the agency responsible for Oregon's Medicaid program (known as the Oregon Health Plan or OHP), the Oregon Health Authority (OHA) receives and generates large amounts of data **about Medicaid enrollees**, and **health care services that were paid by Medicaid**. These data are collected and stored in a database called the Medicaid Management Information System, or MMIS.

Data collected in MMIS (which are sometimes collectively called "Medicaid administrative data") are used by researchers and policymakers to monitor, report on, and improve Oregon's Medicaid delivery system.

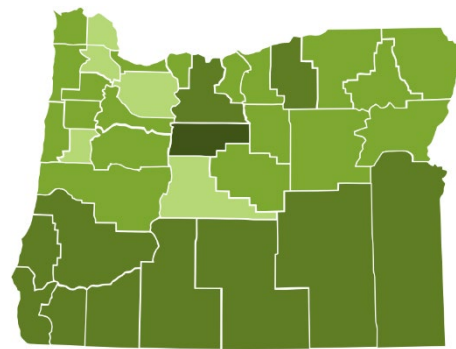**A few examples of the things MMIS data can tell us include:**

Telehealth use among Medicaid members increased dramatically when the COVID-19 pandemic began.
Based on allowed (billed) amounts
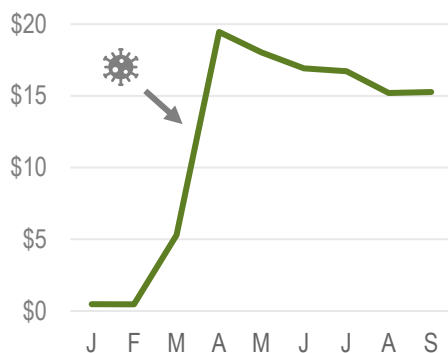
The percentage of the population covered by Medicaid varies by county.
Legend: ☐ 20-29% ☐ 30-39% ☐ 40-49% ☐ 50-59%

Medicaid enrollment in July 2022. Population estimates are from July 2021 (PSU Population Research Center)
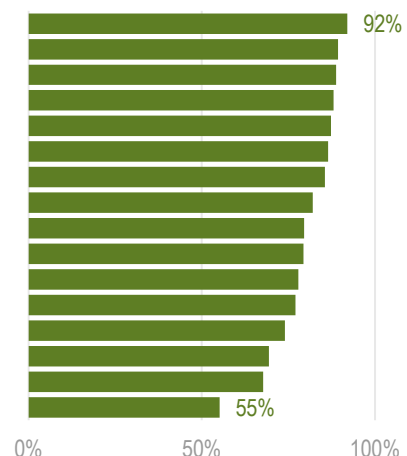
In 2021, about 1 in 4 adult Medicaid members with diabetes received an oral health evaluation.

About 1 in 3 adolescent Medicaid members received recommended vaccines before their 13th birthday.

The percentage of pregnant women who had a prenatal visit in the first trimester varied by CCO in 2021.

Regular reporting

OHA publishes a monthly dashboard called the Medicaid Monthly Population Report. The dashboard provides a snapshot of who is eligible and enrolled in Medicaid each month, and shows different breakouts of the Medicaid population such as by demographic groups, plan types, or county.

MMIS data are also used in many ongoing health policy programs, such as:

- Calculating many of the quality metrics that are used to assess how well the Medicaid system is performing; and
- Determining how much coordinated care organizations (CCOs) get paid to deliver care to Medicaid members.

See the *MMIS data in action* section on page **Error! Bookmark not defined.** to learn more.

> ***Did you know?***
>
> Every state is required by federal law to have a Medicaid Management Information System.
>
> One of the purposes of the MMIS database is to collect and report information about the state's Medicaid program to federal regulators.

About the data

This section includes some helpful information about where MMIS data come from and are stored, what types of information are available, and important things to keep in mind when using these data.

How MMIS data are collected

The Medicaid administrative data in MMIS originate when members interact with the Medicaid system in these two ways:

1. **Eligibility data:** When people sign up for their Medicaid benefits, demographic information is collected to determine their eligibility. The demographic information includes things like the person's income; family and household size; and race, ethnicity, language and disability information. Most Medicaid members (about 95 percent) sign up for coverage through the Oregon Eligibility (ONE) system.[1] Read a paper version of Oregon's Medicaid application to get a sense of the data fields that are collected during the eligibility determination process.
2. **Claims and encounter data:** When Medicaid members visit a health care provider or fill a prescription, the provider documents a summary of the visit. That summary includes valuable information such as when and where the service occurred, diagnoses and treatments that were made, and who received and provided the service. Sometimes these summaries also include how much money Medicaid paid for the services provided.

Both types of information flow into the MMIS database.

> ***Claims and encounter data***
>
> Whether the summary includes information about payment amounts depends on whether the Medicaid member is part of a Coordinated Care Organization (CCO) or receives "Fee-for-Service" (FFS) Medicaid. Learn more in the section called "Claims versus encounter data" on page 5, and Appendix B on page 11.
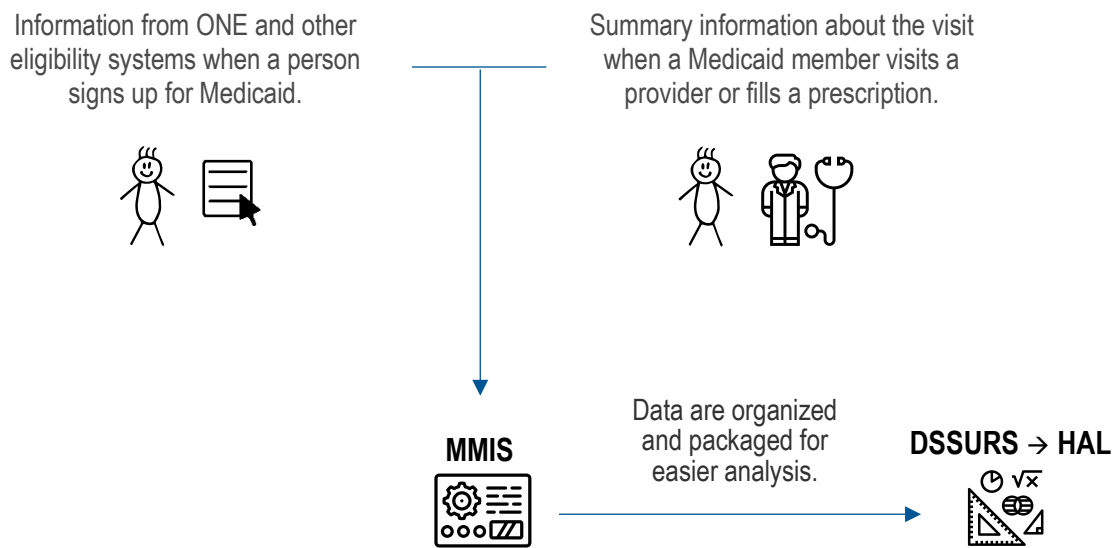
---

[1] Other ways people may sign up are through OR-Kids (for youth in foster care); the Juvenile Justice Information System; and Mainframe (also known as Legacy)

Where MMIS data are stored

MMIS is a transactional database used to administer the Medicaid program and fulfill mandatory federal reporting requirements. Although some people—like Medicaid providers and OHA staff who work on the Medicaid program—have direct access to MMIS, the database isn't designed to support other types of research or analysis. For that reason, **MMIS data are transferred to the Decision Support and Surveillance Utilization Review System (DSSURS), where they are cleaned up and "packaged" into more usable information.** Approved users can access MMIS data through the DSSURS warehouse to understand and make informed decisions about Oregon's Medicaid program design.[2]

Finally, data from DSSURS are passed through and reorganized one more time in the Health Analytics Library (HAL). Generally speaking, both DSSURS and HAL are simply different ways to store and access the data that originate in MMIS.

Figure 1. Information is collected in the MMIS database, and then transferred to the DSSURS warehouse.

Information from ONE and other eligibility systems when a person signs up for Medicaid.

Summary information about the visit when a Medicaid member visits a provider or fills a prescription.

MMIS

Data are organized and packaged for easier analysis.

DSSURS → HAL

Timing and frequency

Data are available in MMIS almost immediately after they are collected. However, as described above, MMIS data are typically accessed for research and policymaking through the DSSURS warehouse. DSSURS is refreshed with data from MMIS weekly, and processing occurs over the weekend so that data are available early in the week. DSSURS stores data back to 2002.

The Health Analytics Library (HAL) is updated monthly. Data for each month are typically available the first week of the following month. For example, data for July 2022 are available in early August 2022. HAL stores data back to 2011.

---

[2] In addition to the data from MMIS, some information about Medicaid services administered by the Oregon Department of Human Services (such as Aging and People with Disabilities and Long-Term Services and Supports) also feeds into DSSURS.

Data from both systems are considered preliminary for three months before they are considered final. For example, the data that are available in DSSURS in March are subject to change until June.

Overview of data elements

The list below is not exhaustive but gives an idea of the types of information in MMIS data:

Information about **Medicaid members** (derived from eligibility data)
- Eligibility categories (the specific type of Medicaid people have)
- Household members
- Demographics like the person's federal poverty level, birth date, address, race, ethnicity, and whether they have any disabilities
- Dates of enrollment in the Medicaid program

> *Eligibility categories* are encoded in MMIS with "PERC" codes (Program Eligibility Resource Codes).

Information about **health care services** that were paid by Medicaid (derived from claims and encounter data)
- Diagnoses, treatments, or procedures that occurred at a visit
- Medications that were dispensed (including details like the dosage and who prescribed the drug)
- The type of place where the service occurred (for example a hospital, clinic, residence, school, homeless shelter, mobile unit, etc.)
- The date the service occurred
- The name and provider ID of the provider
- Identifying information about the patient (such as name and Medicaid ID)
- *For claims data only:* The amount of money charged and paid for the service

Information about **providers and facilities** where the service occurred—such as specialty codes, rates, and tax IDs.

REALD and SOGI

What are REALD and SOGI?
REALD and SOGI are types of standardized demographic information. REALD stands for: Race, Ethnicity and Language, Disability. SOGI stands for: Sexual Orientation and Gender Identity.

Collecting data with REALD and SOGI[3] standards helps us identify and address health disparities, and support data justice in communities that are most affected by health disparities. Learn more on OHA's website.

REALD and SOGI in MMIS data
A member's REALD and SOGI information are collected when they sign up for Medicaid benefits through the Oregon Eligibility (ONE) system. The demographic questions in the ONE application portal have been compliant with REALD standards since March 2022; and MMIS began receiving and storing REALD-compliant data from the ONE system in June 2022. However, MMIS does not currently receive or store free text field values. That means that if a person identifies their race or ethnicity by "filling in the blank" then that information does not transfer from ONE to MMIS. For

---

[3] As of this publication, only draft SOGI data collection standards have been released

that reason, as of this publication (January 2023), ONE is the better source of information for REALD-compliant demographic information. **Learn how to request data from the ONE system** in the appendix on .

However, REALD and SOGI information are often missing or incomplete in MMIS (and ONE) data. There are two main reasons:

1. **REALD and SOGI demographic questions are sometimes skipped by the person enrolling in Medicaid through the ONE system.** The purpose of ONE and other enrollment systems is to determine whether a person is eligible for Medicaid. A person may skip or decline to answer REALD demographic questions, which are optional to answer since the information doesn't impact their eligibility.

2. **REALD and SOGI demographic questions are** *only asked* **when a person** *first enrolls* **in Medicaid though the ONE system.** Once the person is enrolled, their eligibility will periodically be "redetermined" to check if they should stay enrolled in Medicaid. Federal law requires that staff make this redetermination to the best of their ability w*ithout contacting the Medicaid member* for more information. And, if they must contact the member, staff can only request information *relevant to the person's eligibility.* Since demographic information about a person's race, ethnicity, or language is not relevant to a person's Medicaid eligibility, such demographic information is only collected when they are initially enrolling (and not when their coverage renews).

Finally, as described on of this profile, a small percentage (around 5%) of members sign up for Medicaid through an application system other than ONE. These other application systems do not currently collect demographic information according to REALD or SOGI standards.

Things to remember when interpreting MMIS data

Claims versus encounter data

As described earlier in this profile, one of the two main types of information that flows into the MMIS database comes from "summaries" that are documented every time a Medicaid member receives a health care service. These summaries flow into MMIS in two different forms: claims and encounter data. **There are important differences between claims and encounter data:**

- Claims data include the exact services that were provided, and OHA makes sure the information is accurate. Claims data also include the amount that was paid by Medicaid for the services.
- Encounter data may be less complete, and do <u>not</u> include amounts paid.

About 90 percent of the information about health care services in MMIS is encounter data; and the remaining ten percent is claims data. That's because encounter data occur when a Medicaid member is enrolled in a coordinated care organization (CCO), while claims data occur when a person has fee-for-service (FFS) Medicaid coverage. To learn more about these differences and why they impact the data in MMIS, see Appendix B

Purpose of administrative data

While benefits of MMIS data are that they are robust and frequently updated, it's important to remember that the *reason these data are collected* is for the administration of the Medicaid

program. As such, there may be limitations or gaps when the data are used for research, policy, or evaluation.

The purpose of claims data is to receive payment; and the purpose of encounter data is to summarize services that were provided. Information about a member's diagnosis, for example, is included to describe the reason why a provider delivered a particular service, NOT to paint a complete picture of the person's health.

The purpose of data from ONE and other systems is to determine whether a person is eligible for Medicaid. **Data that are not relevant to a person's eligibility may be incomplete or less reliable.** For example, a person may skip or decline to answer questions that don't impact their eligibility, such as demographic questions about their race or ethnicity. Another example of information that may not be reliable is income information that was collected during the COVID-19 public health emergency (learn more below).

During the pause in Medicaid disenrollment that began in March 2020, income information in MMIS may not be accurate for many members

When a Public Health Emergency (PHE) was declared in March 2020 because of the COVID-19 pandemic, the federal government directed states to pause disenrolling people from Medicaid except in limited circumstances. One result of this policy is that income information in MMIS may not accurately reflect a person's real income during this time.

As described in the [REALD and SOGI section](#) on page 5 of this profile, when a person has Medicaid coverage, ODHS staff will periodically "redetermine" the person's eligibility to check if they should stay enrolled in Medicaid. During the disenrollment pause, these redeterminations still occur on the normal schedule using the ONE system. However, if the member 1) is enrolled in a type of Medicaid that has an income requirement and 2) reports an income level that would *normally* be too high to stay enrolled in that program, then the ONE system will send a *default* income value to MMIS. The default income value will be the normal upper limit for the program the person is enrolled in. For example, if a person is enrolled in a Medicaid program that usually has an upper income limit of 138% of the federal poverty level (FPL), but they reported an income that puts their household at 150% FPL, then ONE will send[4] a default income value of 138% FPL to MMIS. This eligible income must be provided so the updated eligibility can be successfully accepted and processed in MMIS, even though the provided value may be inaccurate (learn more in the box *"From eligibility to enrollment"* on the next page).

During the public health emergency, a person stayed enrolled in Medicaid even if they didn't respond to ODHS's request for updated income information during the redetermination process, or if the information they reported didn't match other income data the state had access to. For these reasons, **during the disenrollment pause, there is no way to know whether income information reported in ONE, or the information sent to MMIS, is a true reflection of a member's income.**

---

[4] While ONE and other eligibility systems **collect** income as a dollar value; they **send** the information to MMIS as a percentage of the federal poverty level (FPL)

When the disenrollment pause comes to an end in April 2023, OHA will begin redetermining the eligibility of all enrolled members using verified income information. It's expected to take 14 months (until summer 2024) to redetermine everyone's eligibility.

> **From eligibility to enrollment**
>
> The eligibility system (such as ONE) determines *whether* a person qualifies for Medicaid coverage (yes/no) and which specific program they should be in. Once the person is determined to be eligible, then their information is transferred to MMIS. MMIS processes the information and activates the person's coverage. If the information transferred from the eligibility system doesn't meet the program qualification criteria set up in MMIS, then MMIS will "reject" the enrollment.

Income information in MMIS may not be accurate for *some* members even during normal times (when there is not a temporary disenrollment pause)

The disenrollment pause described above is unique because it applies to *all* Medicaid members. But it should be noted that there are some occasions, even in normal (non-PHE) times, when the ONE system may send default income information to MMIS that doesn't match the person's reported income. This can occur when a person is enrolled in a Medicaid program that has "continuous enrollment" or "protected benefits" requirements. Continuous enrollment and protected benefits occur when people are allowed to stay enrolled in a program for a certain length of time, even if their income exceeds the normal income standard for that program. One example is people who are pregnant or have a newborn. Another example that's expected to begin in July 2023 are young children, who will be continuously enrolled until they turn six.

Just like in the example on the previous page, if people in these programs report an income change that exceeds the normal income limit, and they are still within the continuous enrollment window, then the ONE system will send a default FPL value to MMIS so that the system doesn't "reject" their continuous enrollment in the program. If your data request or analysis looks at these populations and considers income, be aware that some of the income information in MMIS may not reflect a person's actual reported income.

Medicaid data in the All Payer All Claims database

Oregon's [All Payer All Claims database](#) (APAC) contains administrative claims and enrollment data from all types of insurance, including Medicaid. OHA submits MMIS data to APAC from the DSSURS warehouse. The data fields in APAC are different than those stored in MMIS and DSSURS, so the process requires reformatting the data to "fit" into the APAC database. For that reason, **the Medicaid administrative data that are stored in MMIS may be different than the data stored in APAC.** If you are interested in analyzing *only* Medicaid data, you should use MMIS/DSSURS rather than APAC. However, if you want to *compare* Medicaid administrative data across different payers (for example Medicaid versus commercial) then it's best to use APAC.

Requesting MMIS data

When requesting MMIS data for policy or analysis, you don't need to specify which database the data come from (that is, DSSURS or HAL). The underlying data are the same: they both come

from MMIS. It's only how the data are formatted and grouped that's different. The analyst who helps you will know which source to use depending on the type of analysis you would like.

Internal data requests
To request Medicaid administrative data for policy and analysis, OHA staff should email their request to OHA.HealthAnalyticsRequest@odhsoha.oregon.gov to connect with a research analyst for assistance.

External data requests
External requests that are for research or evaluation should be submitted to OHA.HealthAnalyticsRequest@odhsoha.oregon.gov.

The general public or media can submit data requests through the public records request process. Typically, staff will only provide summary or aggregate level data to general public users. People can also request to see detailed administrative data *that's about them* through a public records request.

MMIS Data in Action

The Medicaid Management Information System has been an important source of information to inform policies and programs that have real impacts on peoples' lives. This section highlights just a few examples:

Monitoring the quality of Oregon's Medicaid program and holding CCOs accountable
Each year coordinated care organizations (CCOs) can earn bonus funds by showing that they have improved care for members. The program through which CCOs can earn these funds is called the CCO Quality Incentive Program. The program is one of Oregon's most effective tools for improving overall quality for Medicaid members.[5]

Over a billion dollars have been distributed to CCOs through the program since it began in 2013. To earn these funds, CCOs must improve on a set of health care quality measures selected by a public committee.

The majority of measures used in the Quality Incentive Program are calculated using Medicaid administrative data from MMIS. Just two examples for illustration include:

- *Oral evaluation for adults with diabetes*: The percentage of adults with diabetes who received a comprehensive oral health evaluation during the measurement year. This measure is important because people with diabetes have higher rates of periodontal disease, and annual check-ups can help providers catch and treat disease early, resulting in better health outcomes. In addition, poor oral health can make a person's diabetes more difficult to manage.
- *Postpartum care rate*: The percentage of people who have given birth and who received postpartum care between one and 12 weeks following the birth. This measure is

---

[5]https://www.oregon.gov/oha/HPA/ANALYTICS/Evaluation%20docs/Summative%20Medicaid%20Waiver%20Evaluation%20-%20Final%20Report.pdf

important because postpartum care helps birthing parents address complications, like pain and incontinence, as well social-emotional health needs.

MMIS is an abundant source of detailed, timely, year-over-year data. Measuring and publicly reporting CCOs' progress on quality measures allows policymakers, researchers, and the public to understand and address the quality of care that Medicaid members are receiving.

Determining how much CCOs are paid to provide care to their members

A key part of Oregon's coordinated care model is the way coordinated care organizations (CCOs) are paid. Rather than paying providers for every specific service they provide (a model called *fee-for-service* or FFS), OHA pays CCOs a pre-determined budget based on the number and characteristics of their members. CCOs and their provider networks then have flexibility within that budget to address members' health needs. The budget is paid to CCOs on a monthly basis and is called a *capitation rate*.

OHA's Office of Actuarial and Financial Analytics (OAFA) constructs the capitation rates, which by law must be *actuarily sound*. That means the rates must be reasonable, attainable, and appropriate for the services covered under the CCO's contract. **MMIS data form the backbone of capitation rate construction**.

Capitation rates are typically developed by projecting CCO utilization and cost data from the recent past into the near future. For example, in 2022 OHA and its independent contracted actuary, Mercer, developed 2023 capitation rates based on 2021 encounter claim and enrollment data from MMIS.

Appendix: Oregon Eligibility (ONE) 101

What is the ONE Eligibility system?

The [Oregon Eligibility (ONE)](#) system is a single, integrated application portal where people can sign up for medical, food, cash, and childcare benefits. The ONE application asks people for demographic information such as their age, household income, whether they have any disabilities, and more. This information helps determine what types of benefits they are eligible to receive. The ONE application also asks for supplemental information such as a person's race, ethnicity, and gender identity. Read a paper version of [Oregon's Medicaid application](#) to understand which data fields collected in ONE transfer to MMIS.

When a person qualifies for Medicaid medical benefits, information from ONE is transferred to the Medicaid Management Information System (MMIS). MMIS is a computer system that helps OHA administer the Medicaid program. The Oregon Department of Human Services (ODHS) manages the ONE system, while OHA manages MMIS.

Requesting data from ONE

To request data directly from the ONE system, OHA staff should:

1. Coordinate with Vivian Levy. Vivian is OHA's "ONE Change Sponsor" and she sits within OHA's Health System Division
2. Email your request to one.changerequests@odhsoha.state.or.us. Include as much information as possible, such as what fields you are requesting and other criteria, the business need, and requested due date.

Then, ODHS staff will determine the best way to provide your data. They may either work with their contractor (Deloitte) to extract data directly from ONE; or they may choose to extract data from their own ONE reporting database, called Pioneer.

Appendix B: Understanding claims versus encounter data

How Oregon's *coordinated care* model impacts payment

The traditional health care is model is known as "fee-for-service" (or FFS). In the FFS model, health care providers are paid a certain amount for every service they provide to a Medicaid member. The more tests they run or surgeries they perform, the more they are paid.

In Oregon's coordinated care model, most Medicaid members (about 90 percent) receive care from one of many coordinated care organizations (CCOs). A CCO is a network of all types of health care providers who work together in their communities to serve people who receive Medicaid health coverage. In the CCO model, the state pays CCOs an annual budget based on the number and characteristics of their members. CCOs and their providers then have flexibility within that budget to address their members' health needs outside of traditional medical services.

When a FFS Medicaid member receives a health service, the provider submits an invoice, or claims, directly to MMIS so they can get paid. The claims include the exact services that were provided, and the state makes sure the information is accurate before the provider is paid. The provider is even paid through MMIS.

When a CCO Medicaid member receives a health care service, the provider submits a claim for payment *to the CCO.* Later, the CCO will submit information about the services recorded in the claims to MMIS. This information is called "encounter data." CCOs must submit encounter data so that OHA can report it to the federal government, which oversees Medicaid. *See the figure on the next page for an illustration of claims versus encounter data.*
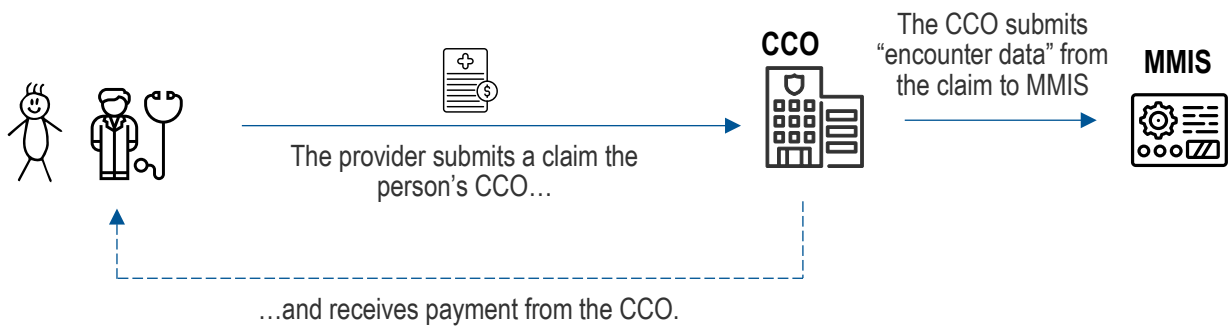
Encounter data submitted by CCOs may be incomplete or missing compared with claims data. Claims data submitted by FFS providers is usually more thorough and includes exactly what providers did, what the state paid for the services, and why. About 90 percent of the information about health care services in MMIS comes from encounter data, because most people in Oregon with Medicaid coverage are enrolled in a CCO.

Figure 2. Claims versus encounter data

When a person has FFS Medicaid, the provider submits an invoice (claim) directly to MMIS. Claims data in MMIS are very thorough and include the amount paid for the services provided.

MMIS

The provider submits a claim directly to MMIS…

…and receives payment through the system.
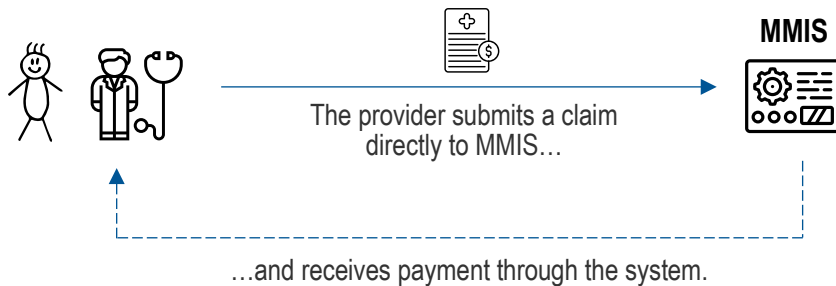
When a person has CCO Medicaid, the provider submits an invoice (claim) to the person's CCO. The CCO then submits summary information from the claim to MMIS. This summary information is called "encounter data" and may be less complete than claims data. Encounter data do not include the exact amount that was paid for the services provided.

CCO

The CCO submits "encounter data" from the claim to MMIS

MMIS

The provider submits a claim the person's CCO…

…and receives payment from the CCO.

Quick Facts

Name	Medicaid Management Information System
Acronym	MMIS
Summary	A database that collects information about Oregon's Medicaid program, including enrollment and service utilization
Data type	Administrative
Populations	Medicaid members (all ages)
Frequency	MMIS is updated in real time, but the data are typically accessed through the Decision Support and Surveillance Utilization Review System (DSSURS), which is updated weekly or the Health Analytics Library (HAL), which is update monthly. Data are preliminary for three months before they are considered finalized.
Available since	MMIS data in the DSSURS warehouse is available back to 2002
Required?	Yes[6]
Regular reporting	[Medicaid monthly report](#)
Website	https://www.oregon.gov/oha/HPA/analytics/pages/medicad.aspx
Lead staff	Chris Coon
Internal requests	Email OHA.HealthAnalyticsRequest@odhsoha.oregon.gov with a detailed request and you will be connected with a research analyst to assist you.
External requests	For research or evaluation, email OHA.HealthAnalyticsRequest@state.or.us. All other inquiries, submit a public records request.
Security level[7]	Level 3 (restricted)
Data dictionary?	**HAL warehouse:** Yes | **DSSURS warehouse:** No
REALD/SOGI	MMIS has received REALD and SOGI demographic information about Medicaid members from the ONE eligibility system since June 2022. However, MMIS does not capture or store *free text* fields, so ONE is the better source for this information.
Suggested citation	Medicaid Management Information System (MMIS), Decision Support and Surveillance Utilization Review System (DSSURS) **or** Medicaid Management Information System (MMIS), Health Analytics Library (HAL)

---

[6] All states are required by section 1903 of the federal Social Security Act to maintain a "mechanized claims processing and information retrieval system" (i.e., MMIS)

[7] Learn more: https://www.oregon.gov/das/policies/107-004-050.pdf