

WHITE PAPER

Improve the Accuracy of National Healthcare Projections



Background

The MORE² Registry[®] database is a statistically de-identified, real-world dataset composed primarily of medical and pharmacy claims sourced from over 160 U.S. health plans. This robust resource includes data on more than 1.1 million physicians, 703,000 clinical facilities, 414 million unique patients, and over 92 billion medical events. The claims data are longitudinally linked and span all major U.S. payer segments, including commercial (24.8% market coverage), Medicare Advantage (17.2%), and Managed Medicaid (47.4%). The dataset represents all 50 states, with coverage ranging from the year 2000 to the present.

The MORE² Registry is the largest longitudinally linked patient-level dataset of its kind, used to power solutions for life sciences teams and various types of healthcare-related studies. By extrapolating the data to reflect the broader national healthcare environment, teams gain additional insights to guide research and decision-making.

To support professionals across clinical and commercial functions within the life sciences sector, Inovalon developed a robust and rigorous algorithm to project national estimates. These projections scale the known patient population within the MORE² Registry to state and national levels, addressing gaps in coverage and enabling the dataset to represent the entire U.S. population more effectively.

Methodology

To create the projected estimates, a weight was assigned to each person in the MORE² Registry dataset. These weights were calculated by aligning the MORE² Registry population totals (the denominator) with national population benchmarks (the numerator), stratified by year, payer type, state, sex, and age group. Each weight reflects the number of individuals in the national population represented by a single individual in the MORE² Registry database.

For payer segments not directly represented in the database, specifically other Public and Uninsured populations, supplemental weights were applied to individuals within commercial and Medicaid categories to account for those groups. These supplemental weights were estimated based on commercial and Medicaid enrollees in the MORE² Registry and national population benchmarks for these two types of enrollments.

National population benchmarks were sourced from both internal data assets and publicly available datasets:

- Medicare enrollment data was obtained directly through a data use agreement (DUA) with the Centers for Medicare & Medicaid Services (CMS) via the Medicare Master Beneficiary Summary File (MBSF).
- Medicaid and CHIP enrollment data was collected via CMS' public data portal at data.medicaid.gov.
- For all other payer types, data was sourced from the American Community Survey (ACS) Health Insurance Coverage Status tables provided by the U.S. Census Bureau.

The ACS provides one-year point-in-time estimates based on respondents' reported health insurance coverage at the time of the interview. These were used to approximate average annual coverage distributions.

To ensure proper alignment, individuals were categorized into one of five mutually exclusive payer groups:

1. Medicare (including dual-eligibles)
2. Medicaid (excluding dual-eligibles)
3. Commercial (including employer-sponsored, direct-purchase, and TRICARE without overlapping public coverage)
4. Other Public (e.g., Veterans Affairs under age 65)
5. Uninsured

To match the ACS' point-in-time coverage snapshot, mid-year enrollment figures for Medicare, Medicaid, and the MORE² Registry were used in the weight calibration process.

Application and Usage

The sum of weighted individuals within the MORE² Registry is designed to approximate the total U.S. population for a given year, based on ACS estimates. Weights are dynamically generated using the latest available data and are subject to refinement as data updates or methodology improvements occur.

When applied within Inovalon's data products, these weights enable the MORE² Registry dataset to more accurately project national metrics, including disease prevalence, healthcare utilization, and demographic distributions.

To validate the methodology, disease prevalence estimates derived from the weighted MORE² Registry data were benchmarked against national statistics. For example, prevalence estimates for Chronic Obstructive Pulmonary Disease (COPD) were tested and aligned with external benchmarks to assess accuracy.

While this approach improves national representation, users should exercise caution when interpreting results in the following scenarios:

- Geographic areas with low representation in the MORE² Registry dataset
- Conditions that are rare or have low prevalence
- Use cases involving acute events that may lack sufficient longitudinal depth

Connect Access to Outcomes

By projecting real-world data to the national level, Inovalon empowers life sciences teams to uncover deeper insights, identify disparities, and shape more impactful strategies.

Get full visibility into the patient journey with an SDOH analytics software that connects clinical outcomes with real-world patient needs.

Discover SDOH Market Insights



About Us

Inovalon is a leading provider of cloud-based SaaS solutions empowering data-driven healthcare. The Inovalon ONE® Platform brings together national-scale connectivity, real-time primary source data access, and advanced analytics into a sophisticated cloud-based platform empowering improved outcomes and economics across the healthcare ecosystem. The company's analytics and capabilities are used by over 50,000 active, licensed customers.

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