



DATA SUMMARY

The National Prescription Audit™ (NPA) is an industry standard source of national prescription activity for all pharmaceutical products. NPA measures demand for prescription drugs, including both what the provider prescribes in the retail setting and what is ultimately dispensed to consumers across four unique channels. From the selected pharmacies, IMS collects new and refilled prescription for every day of the month. Data are available on a monthly and weekly basis at varying levels of depth. For example, data can be analyzed and stratified by patient age, patient gender, co-payment, and four methods of payment. NPA is useful to address a variety of research topics examining pharmaceuticals, especially investigations that focus on prescription drug utilization, Rx size, average consumption, and more than 90 prescriber specialty groupings representing over 170 specialties. The NPA represents and captures over 70% of all prescription activity in the United States, including Alaska and Hawaii, and covers all products, classes, and manufacturers. Although the NPA provides data at a national level, data that is summarized into the NPA is also available at more granular geographic levels. This product, the IMS Health Xponent™ database, is described separately.

DATA SAMPLE

From the universe of retail, standard mail service, specialty mail service and long-term care pharmacies, IMS selects a representative sample stratified by geographic location.

Universe

The pharmacy universe is comprised of more than three billion prescriptions from retail, mail service, and long-term care pharmacies. NPA estimates in 2011 are based on a universe of approximately 57,000 retail pharmacies (including chain/mass merchandisers, independent, and food-store pharmacies), 327 non-governmental mail service pharmacy outlets, and ~3,000 long-term care facilities, including nursing homes and nursing home providers. Data collected from HMOs that serve HMO members only, dispensing physicians, hospital pharmacies, home healthcare, and clinic pharmacies are not included.

Sample

As of 2011, NPA includes 38,000 retail stores and collects randomly drawn and electronically submitted retail pharmacy data for new and refilled prescription for every day of the month. All mail service pharmacy outlets are invited to participate and most participating outlets are used in the sample. As of 2011, NPA™ includes approximately 119 mail service pharmacy outlets. Finally, the NPA™ sample also includes ~820 long-term care facilities. Alternative data sources are used to enhance the accuracy of the audited data and to allow for robust national projections.

ALTERNATIVE DATA SOURCES AND RELATIVE STRENGTHS OF THE NPA

There are many alternative sources of data regarding prescription drug utilization, ranging from retail pharmacy claims, to combined pharmacy and medical claims, to data from electronic health records. The main benefit of the NPA is its coverage and scope, which are particularly important in analyses that attempt to provide a snapshot of national prescription drug utilization or expenditures. In addition, the NPA includes detailed information regarding unique channels of distribution such as standard and specialty mail service and long-term care, which may be particularly valuable for investigations examining the use of medications to treat chronic conditions or specialty therapies.

KEY DATA ELEMENTS

NPA provides data elements related to volume of dispensed prescriptions for new, refill and total prescriptions.

<u>Data Category</u>	<u>Data Details</u>
Prescription characteristics	<ul style="list-style-type: none">• Dispensed volume, including new, refill, total• Week of prescription dispensed• Number of pills dispensed
Product details	<ul style="list-style-type: none">• Anatomical and Uniform System of Classification (USC) codes• National Drug Code• Length of therapy• Daily dose
Patient and physician	<ul style="list-style-type: none">• Patient age and gender• Physician specialty
Cost	<ul style="list-style-type: none">• Cost to patient• Cost to pharmacy• Level of copayment based on predefined strata• Payment type, including cash, Medicaid, Commercial Third Party, and Medicare Part-D

PUBLICATIONS USING DATA SOURCE

The National Prescription Audit™ is particularly valuable for addressing research questions that focus on trends or estimates of prescription use or costs that do not require detailed clinical information such as data that is present in health plan claims. Below are examples of recently published works using the NPA.

1. Dorsey ER, Thompson JP, Dayoub EJ, George B, Saubermann LA, Holloway RG. Selegiline Shortage: Causes and Costs of a Generic Drug Shortage. *Neurology*. 2009;73:213-7. [Abstract](#)

The authors used the National Prescription Audit™ to gather monthly total prescriptions filled for generic selegiline in the United States from February 2002 through December 2006. In addition, the authors were able to use the NPA™ to capture demand levels experienced by individual firms producing selegiline, as well as to analyze the effect of

the shortage on the sales of branded capsules, orally disintegrating tablets, and sales of the monoamine oxidase inhibitor rasagiline.

2. Martin-Doyle W, Essebag V, Zimetbaum P, Reynolds MR. Trends in US Hospitalization Rates and Rhythm Control Therapies Following Publication of the AFFIRM and RACE Trials. *J Cardiovasc Electrophysiol*. 2010 Nov 18. [Epub ahead of print] [Abstract](#)

The authors used the National Prescription Audit™ to examine the impact of trials comparing rate vs. rhythm control for atrial fibrillation on the use of rhythm control therapies and hospitalizations in the United States. Use of rhythm control therapies declined significantly after publication of the AFFIRM and RACE trials until 2005, when trends reversed and an increase in the use of catheter ablation for atrial fibrillation was also observed.

3. Aitken M, Berndt ER, Cutler D. Prescription Drug Spending Trends In The United States: Looking Beyond The Turning Point. *Health Affairs*. 2009;28:w151-w160. [Abstract](#)

The authors used the National Prescription Audit™, coupled with the IMS Health National Sales Perspective™, to document trends and identify underlying components in prescription drug expenditures. They identify an important decline in the role of blockbuster drugs, as well as the increased importance of biologics and vaccines relative to traditional pharmaceuticals and a changing medication mix away from those prescribed principally by primary care physicians toward those mostly prescribed by specialists. Implications for providers, patients, and industry are discussed