

Methodology for PCMA's Retail Pharmacy Count Dataset

Source Data: The National Council for Prescription Drug Programs (NCPDP)

The annual data on community pharmacies in the U.S. from master files is provided by the NCPDP for January 2012 through January 2022. An NCPDP number is a unique identifier assigned to every licensed pharmacy for processing prescription claims. These data provide detailed information on an annual basis regarding each active community pharmacy in the United States, including location and pharmacy type, which was internally validated by NCPDP. For more information on the NCPDP, please see [What is the NCPDP](#).

Methodology For Determining Unique Pharmacy Counts of NCPDP Data: Quest Analytics

In order to complete pharmacy count comparisons across a time span of ten years, we establish rules that would allow the results to be consistently accounted for within any given quarter and or year, past as well as present and future. To accomplish this, we leveraged the NCPDP databases for 2012 – 2022 on a quarterly basis and applied filters as follows:

- **Dispenser Type = 01 – or 02 (Chain or Independent)**
- **Provider Type = 01 – Community/Retail Pharmacy**

- An NCPDP database is available to PCMA for each year and quarter, dating back to 2010.
- Quest Analytics created one database for each year with a table for each quarter.
- Each quarterly table was geocoded with the Quest Analytics Suite.
- Geocoding assigns a latitude and longitude to each record, based off the address information supplied.

When applying the above filters, we identified there were still duplicates that existed in the database. These were identified consistently across both the Chain and Independent designations. In these instances, there were multiple pharmacies listed at the same location. To remove the duplicates, we leveraged the Quest Analytics Suite™ to Geocode each table, which allows for normalization of various addresses into a standard output.

- The Quest Analytics Suite Geocoder has the ability to standardize address information.
- For example, the following addresses would receive the same standardized output of 15 Park Pl, Appleton, WI 54914 (the correct address):
 - 15 Park Place #300, Grand Chute, WI 54914
 - 15 Park Pl, Appleton, WI 54149
 - 15 Park Pl Suite 300, Appleton, WI 54914
- Utilizing the standardized address output capabilities of the Geocoder allows us to achieve greater accuracy when deriving counts of unique locations. The example above would be counted as 1 location.
- Some address information can't be standardized. In these situations, each record is counted separately.

Once all of the above filters were applied, we then further refined the results to only include those that are classified as chain and independent stores.

- When determining unique Chain Pharmacy counts, the following filters were applied to the quarterly list of providers:
 - **Dispenser Type = 01 – Chain**
 - **Provider Type = 01 – Community/ Retail Pharmacy**
 - **PhysicalLocStoreCloseDate = 00000000 (this indicates the store remains open)**
- When determining unique Independent Pharmacy counts, the following filters were applied to the quarterly list of providers:
 - **Dispenser Type = 02 – Independent OR Dispenser Type = 05 – Franchise**
 - **Provider Type = 01 – Community/ Retail Pharmacy**
 - **PhysicalLocStoreCloseDate = 00000000 (this indicates the store remains open)**
- Determine Pharmacy status using the following criteria:
 - **Dispenser Type = "Chain Pharmacy"**
 - **Dispenser Type = "Independent Pharmacy" or "Franchise Pharmacy"**
 - **Provider Type = "Community/ Retail Pharmacy"**
- Rollup counts of Chain Pharmacies by State/Year
- Rollup counts of Independent Pharmacies by State/Year

All filters were validated from the sources as NCPDP to confirm that using this methodology would provide a consistent measurement across their database that can be leveraged for historical comparisons as well as present and future.