Medicare Part D Opioid Prescribing Mapping Tool
Methodology
January 13, 2017

Background

The Medicare Part D Opioid Prescribing Mapping Tool is an online interactive mapping tool that presents geographic comparisons of the opioid prescribing rate at the state, county, and ZIP code levels. This mapping tool allows the user to see both the number and percentage of de-identified Medicare Part D opioid claims – prescriptions written and then submitted to be filled - at the local level and better understand how this critical issue impacts communities nationwide. Opioid prescribing rates are derived using data from Medicare Part D claims prescribed by health care providers in calendar years 2013 and 2014.

Methods

The measures presented in this tool were aggregated from the Part D Prescriber Summary Table, which is publically available at: https://www.cms.gov/Research-Statistics-Data-and-Systems/Statistics-Trends-and-Reports/Medicare-Provider-Charge-Data/Part-D-Prescriber.html. The Part D Prescriber Summary Table contains information at the prescriber-level (i.e. one summary record per NPI) and includes overall as well as sub-group summaries (e.g. opioids) of drug utilization, drug costs and beneficiary counts.

The "Part D Prescriber Public Use File: A Methodological Overview" provides a more detailed description of the Part D Prescriber Summary Table and is available at: https://www.cms.gov/Research-Statistics-Data-and-Systems/Statistics-Trends-and-Reports/Medicare-Provider-Charge-Data/Downloads/Prescriber_Methods.pdf.

Metrics

- State Abbreviation: The state abbreviation associated with the Part D prescriber, as reported in National Plan & Provider Enumeration System (NPPES). *Restrictions*: States are restricted to the fifty U.S. States and the District of Columbia.
- State FIPS: The State Federal Information Processing Standard (FIPS) code associated with the Part D prescriber.
- State Name: The state name associated with the Part D prescriber. State Name is derived from the ESRI ArcGIS software.
- Zip Code: The ZIP code associated with the Part D prescriber, as reported in NPPES. *Restrictions*: ZIP Codes are restricted to ZIP codes located within the fifty U.S. States and the District of Columbia, and ZIP code/state combinations validated using the ESRI ArcGIS software.
- Post Office: The Post Office name associated with the Part D prescriber ZIP Code. Post Office is derived using the ESRI ArcGIS software.

- FIPS: The state county FIPS code associated with the Part D prescriber. The state county FIPS code is derived using the Part D prescriber ZIP code cross walked to the U.S. Department of Housing and Urban Development (HUD) USPS ZIP code to county crosswalk file available at: https://www.huduser.gov/portal/datasets/usps_crosswalk.html. The ZIP code to county crosswalk for the 4th quarter of the data year was used to assign the state county FIPS code. For Part D Prescriber ZIP codes that match to more than one state county FIPS, the state county FIPS was selected based on the largest population ratio. **Restrictions:** FIPS are restricted to FIPS located within the fifty U.S. States and the District of Columbia, FIPS that are validated using the ESRI ArcGIS software and FIPS that are associated with ZIP code/state combinations validated using the ESRI ArcGIS software.
- County Name: The County name associated with the Part D prescriber. County Name is derived from the ESRI ArcGIS software.
- Part D Prescribers: The number of providers prescribing Medicare Part D drugs.
- Opioid Claims: The number of Medicare Part D opioid drug claims, including original prescriptions and refills. For a list of drugs that include opioids, visit https://www.cms.gov/Research-Statistics-Data-and-Systems/Statistics-Trends-and-Reports/Medicare-Provider-Charge-Data/Downloads/PartD_DrugCatList_2014.zip.
- Overall Claims: The number of Medicare Part D drug claims, including original prescriptions and refills.
- Opioid Prescribing Rate: The number of Opioid Claims divided by the Overall Claims and multiplied by 100.
- Percentage Point Difference in Opioid Prescribing Rate: Opioid Prescribing Rate in 2014 minus the Opioid Prescribing Rate in 2013.

Data Limitations

Data redaction and suppression have been applied to the Mapping Tool's underlying source data (Part D Prescriber Summary Table data). Data redaction and suppression are covered in the "Part D Prescriber Public Use File: A Methodological Overview".

Also, the totals for Part D prescribers, opioid claims and overall claims will vary slightly across the state, county, and ZIP code level data due to the *restrictions* applied at each geographic summary level.

How to Use the Mapping Tool

The Medicare Part D Opioid Prescribing Mapping Tool is designed to allow the user to explore geographic comparisons of the opioid prescribing rate at the state, county, and ZIP code levels. The user can navigate around the map by clicking and dragging to a point of interest, as well as zoom in to explore lower levels of geography (counties or ZIP code areas) or zoom out to explore higher levels of geography (states). Zooming in or out can be done by scrolling the mouse wheel, typing the "+" or "-"keys on the keyboard, or by clicking the "+" or "-" buttons on the tool. The user can obtain more information about a particular place by clicking on the map, where a pop-up box displays the opioid prescribing rate at the current and higher levels of geography, as well as the number of opioid claims,

overall claims, and Part D prescribers in that area. The web browsers that currently support the mapping tool include: Internet Explorer 9 and higher (limitations of using Internet Explorer 9 can be found here: https://doc.arcgis.com/en/arcgis-online/reference/browsers.htm), Edge, Firefox, Chrome, Safari, iOS Safari, Chrome for Android.

The data for the tool can be downloaded here: https://www.cms.gov/Research-Statistics-Data-and-Systems/Statistics-Trends-and-Reports/Medicare-Provider-Charge-Data/Downloads/Part_D_Opioid_Geographic_Data.zip

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