



Update on CMS Data and Information Products

Chair: Allison Oelschlaeger, CMS Chief Data Officer

2018 AcademyHealth Annual Research Meeting



CMS Data Tools, Dashboards, and Public Use Files

Part 1: Opioid Prescriber Mapping Tool and Drug Spending
Dashboards

Steph Bartee

Background on Opioids

- Opioids are used to treat moderate to severe pain and can have serious risks of addiction, overuse, and abuse
- Overdoses from prescription opioids are a driving factor in the 16-year increase in opioid overdose deaths (CDC)
- For Medicare Part D beneficiaries in 2016
 - Approximately 1 out of every 3 Medicare Part D beneficiaries was prescribed an opioid
 - Approximately 80 million opioid claims accounting for nearly \$4 billion in spending

Medicare Part D Opioid Prescriber Mapping Tool

- Presents geographic data on opioid prescribing rates in an interactive, web-based visualization resource
 - View opioid prescribing rates and change in opioid prescribing rates at various geographic levels (i.e., state, county, ZIP-code)
 - Information is derived using data from Medicare Part D claims
 - All data are de-identified – excludes beneficiary identifiable information
- Provides CMS stakeholders, including providers and state/local health departments, with information on how this critical issue impacts communities nationwide
- Limitations
 - Tool does not indicate the quality or appropriateness of prescribing activity
 - Tool is limited to prescribing activity in the Medicare Part D program
 - The identification of areas with high prescribing rates is only one piece of a complex puzzle

Medicare Part D Opioid Prescribing Mapping Tool



The screenshot shows the CMS.gov website with the Medicare Part D Opioid Prescribing Mapping Tool highlighted. The page includes a navigation bar with links to Home, About CMS, Newsroom, FAQs, Archive, Share, Help, and Print. Below the navigation bar is a search bar and a row of menu items: Medicare, Medicaid/CHIP, Medicare-Medicaid Coordination, Private Insurance, Innovation Center, Regulations & Guidance, Research, Statistics, Data & Systems, and Outreach & Education. The breadcrumb trail reads: Home > Research, Statistics, Data and Systems > Medicare Provider Utilization and Payment Data > Medicare Part D Opioid Drug Mapping Tool.

Medicare Part D Opioid Prescribing Mapping Tool

The Medicare Part D opioid prescribing mapping tool is an interactive tool that shows geographic comparisons, at the state, county, and ZIP code levels, of de-identified Medicare Part D opioid prescription claims – prescriptions written and then submitted to be filled – within the United States. The mapping tool presents Medicare Part D opioid prescribing rates for 2015 as well as the change in opioid prescribing rates from 2013 to 2015. New for this release is additional information on extended-release opioid prescribing rates as well as spatial analyses to identify “hot spots” or clusters.

The mapping tool allows the user to see both the number and percentage of opioid claims at the local level in order to better understand how this critical issue impacts communities nationwide. By openly sharing data in a secure, broad, and interactive way, CMS and the U.S. Department of Health and Human Services (HHS) believe that this level of transparency will inform community awareness among providers and local public health officials.

The data reflect Medicare Part D prescription drug claims prescribed by health care providers. Approximately 70% of Medicare beneficiaries have Medicare prescription drug coverage either from a Part D plan or a Medicare Advantage Plan offering Medicare prescription drug coverage. In 2015, Medicare Part D spending was \$137 billion; U.S. retail prescription drug spending was about \$325 billion. The mapping tool does not contain beneficiary information nor does the information presented in this tool indicate the quality or appropriateness of care provided by individual physicians or in a given geographic region.

Note: the map will automatically adjust between state, county, and zip code levels as users zoom in or out. Zooming is available by clicking on the zoom buttons in the top left corner of the map, or by using the mouse wheel or keyboard “+” or “-” keys. Users can navigate the map by dragging with the mouse or by using the keyboard arrow keys. To ensure full functionality of the tool, using a browser other than Internet Explorer may be required.



Opioid Mapping Tool View Prescriber Level Opioid Rates Download Opioid Map Data Part D Prescriber Look-up Tool

<https://go.cms.gov/opioidheatmap>

Medicare Part D Opioid Prescribing Mapping Tool

Medicare Part D Opioid Prescribing Mapping Tool

Centers for Medicare & Medicaid Services



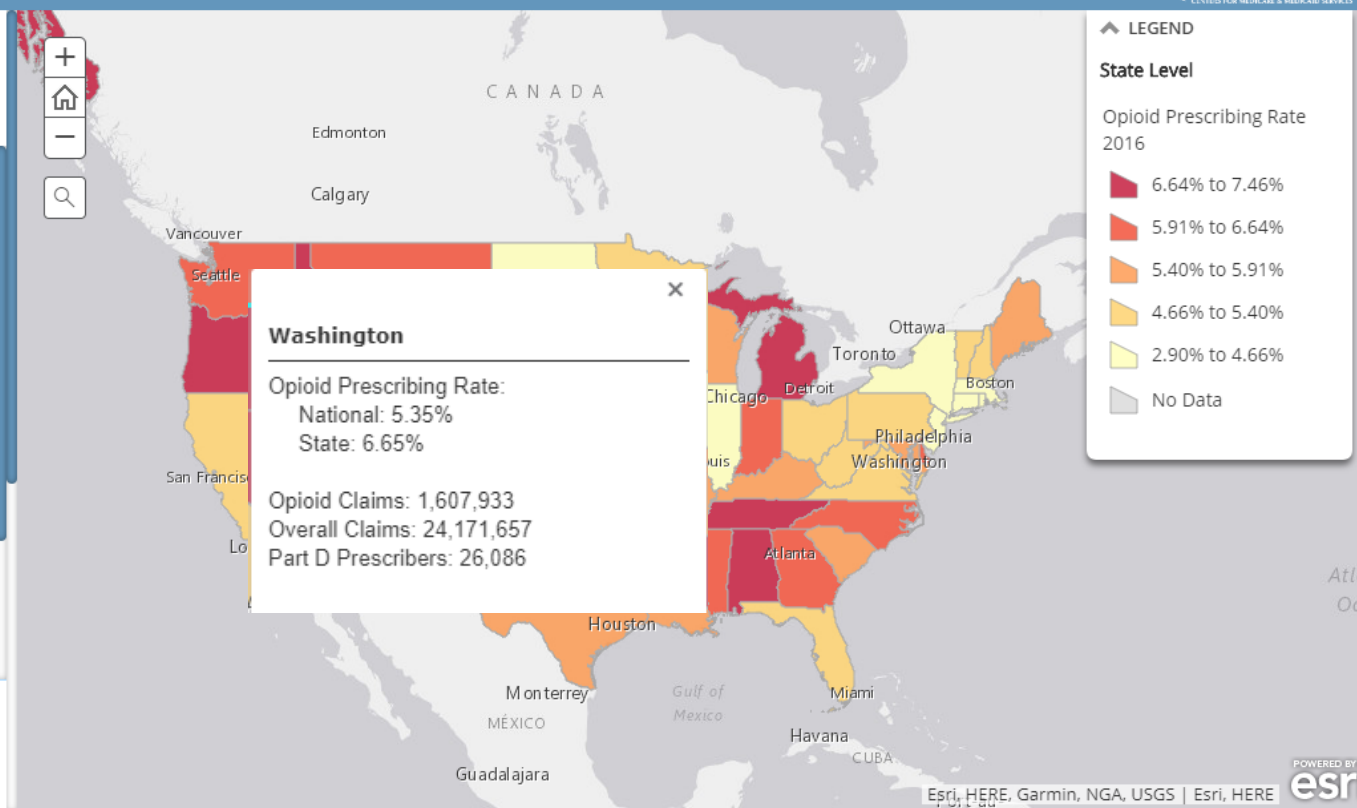
Opioid Prescribing Rate

This map displays the Medicare Part D opioid prescribing rate for 2016. The Part D opioid prescribing rate reflects the percentage of a prescriber's total Part D claims that are opioid prescriptions.

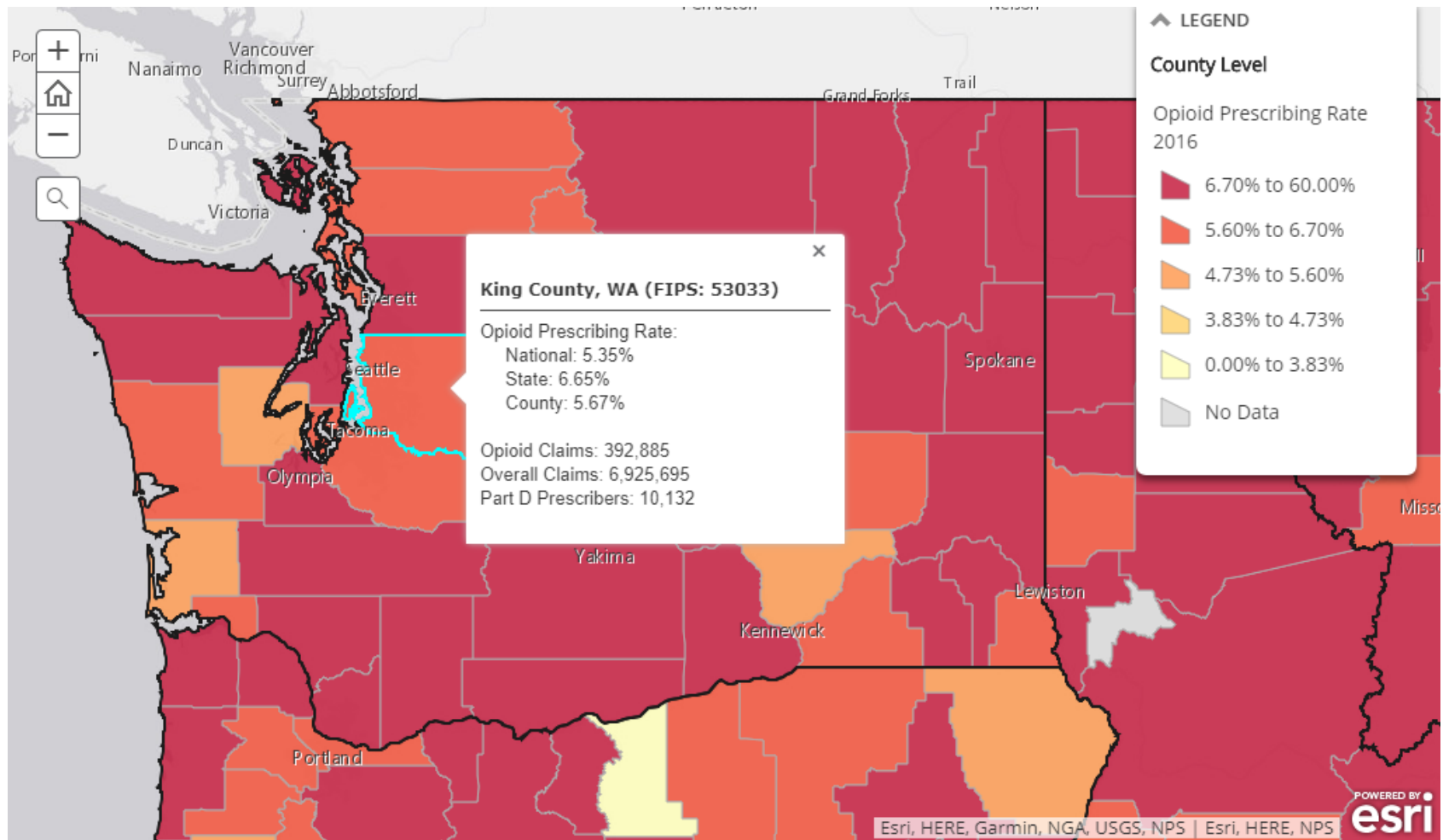
The map can be used to explore geographic comparisons of the Part D opioid prescribing rate at the state, county, and ZIP code-levels. At each geographic level, the opioid prescribing rate is displayed in quintiles, with darker areas representing higher opioid prescribing rates and lighter areas representing lower prescribing rates.

Users can select specific geographic areas and additional information is displayed,

Extended-Release Opioid Prescribing Rate



Medicare Part D Opioid Prescribing Mapping Tool



Medicare Part D Opioid Prescribing Mapping Tool

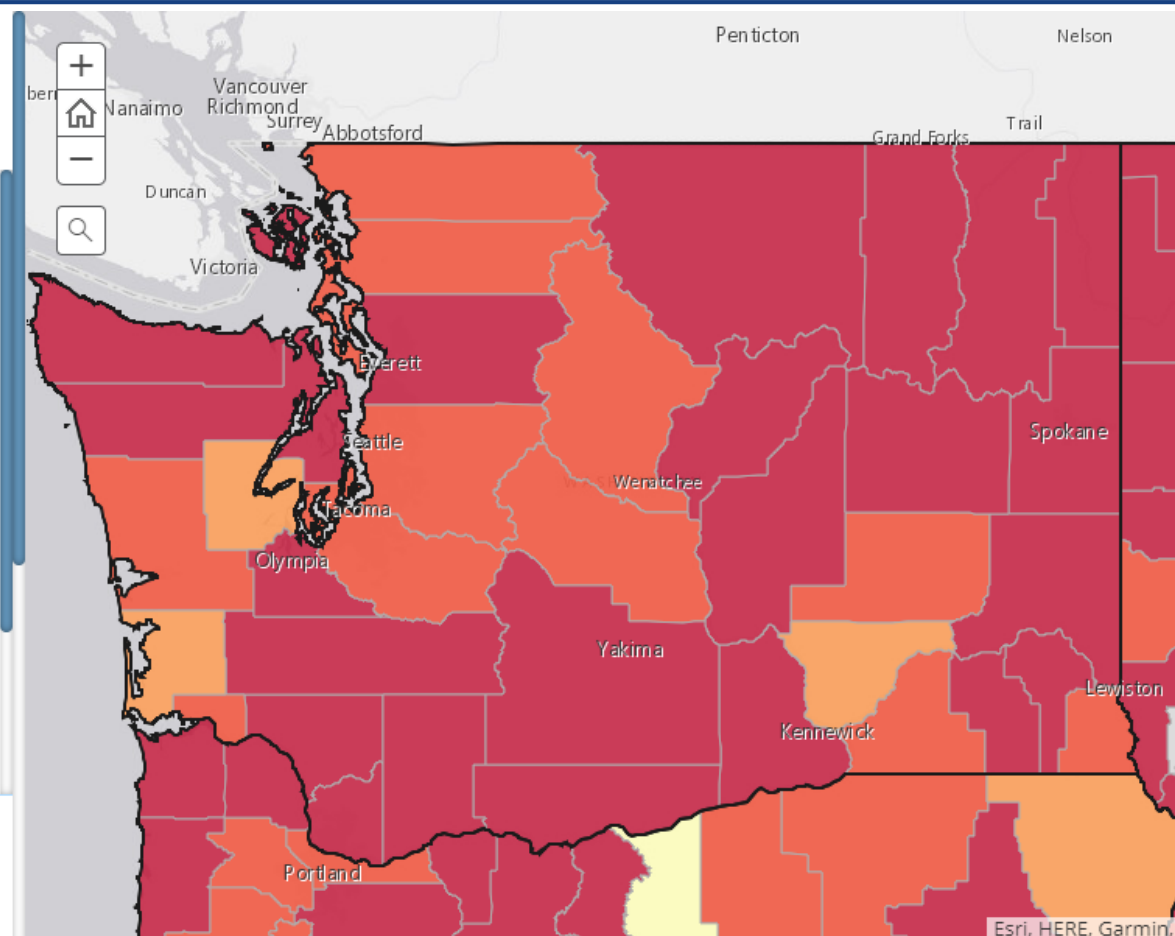
► Opioid Prescribing Rate

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► Extended-Release Opioid Prescribing Rate



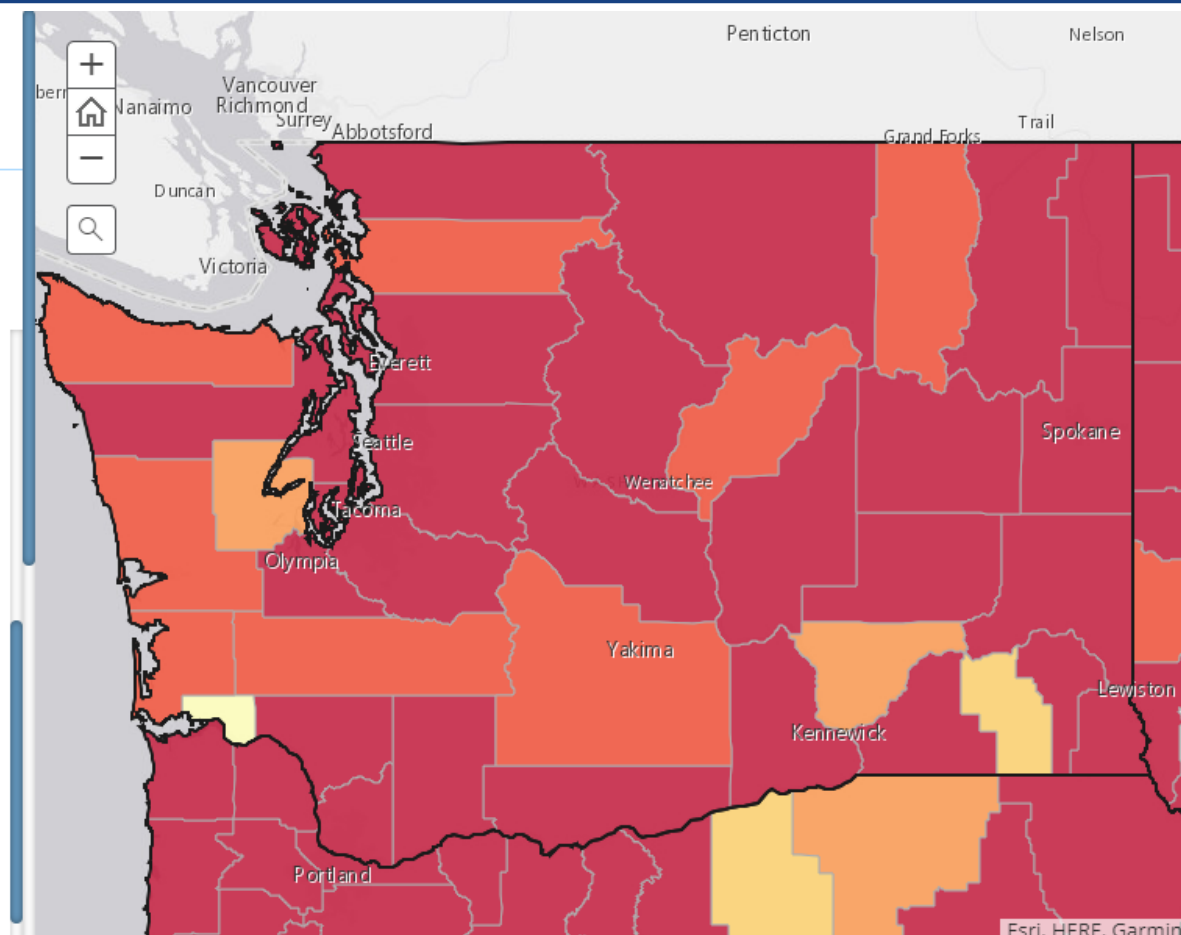
Medicare Part D Opioid Prescribing Mapping Tool

▶ Opioid Prescribing Rate

▶ Extended-Release Opioid Prescribing Rate

The map can be used to explore geographic comparisons of the Part D extended-release opioid prescribing rate at the state, county, and ZIP code-levels. At each geographic level, the extended-release opioid prescribing rate is displayed in quintiles, with darker areas representing higher extended-release opioid prescribing rates and lighter areas representing lower prescribing rates.

Users can select specific geographic areas and additional information is displayed, including the national extended-release opioid prescribing rate, the number of claims, and the number of prescribers.



Medicare Part D Opioid Prescribing Mapping Tool

Medicare Part D Opioid Prescribing Mapping Tool

Centers for Medicare & Medicaid Services



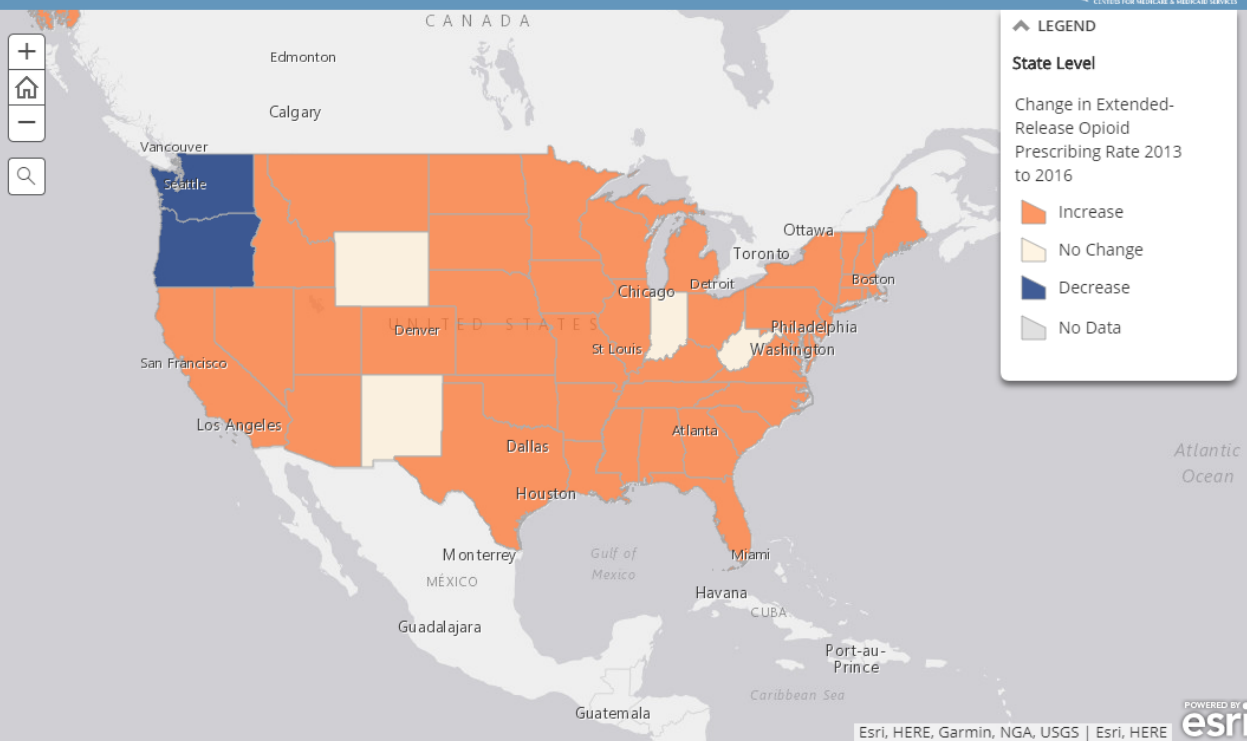
Change in Opioid Prescribing Rate

Change in Extended-Release Opioid Prescribing Rate

county, and ZIP code-levels. At each geographic level, the change in the extended-release opioid prescribing rate is displayed as an increase, decrease, or no change. At the state level, an increase reflects a percentage point difference of at least 0.10 and a decrease reflects a difference of at least -0.10; at the county and ZIP code-levels, an increase reflects a difference of at least 1.0 and a decrease reflects a difference of at least -1.0.

Users can select specific geographic areas and additional information is displayed, including the national extended-release opioid prescribing rate, as well as the number of claims and the number of prescribers for each year.

[Please click here for more information on](#)



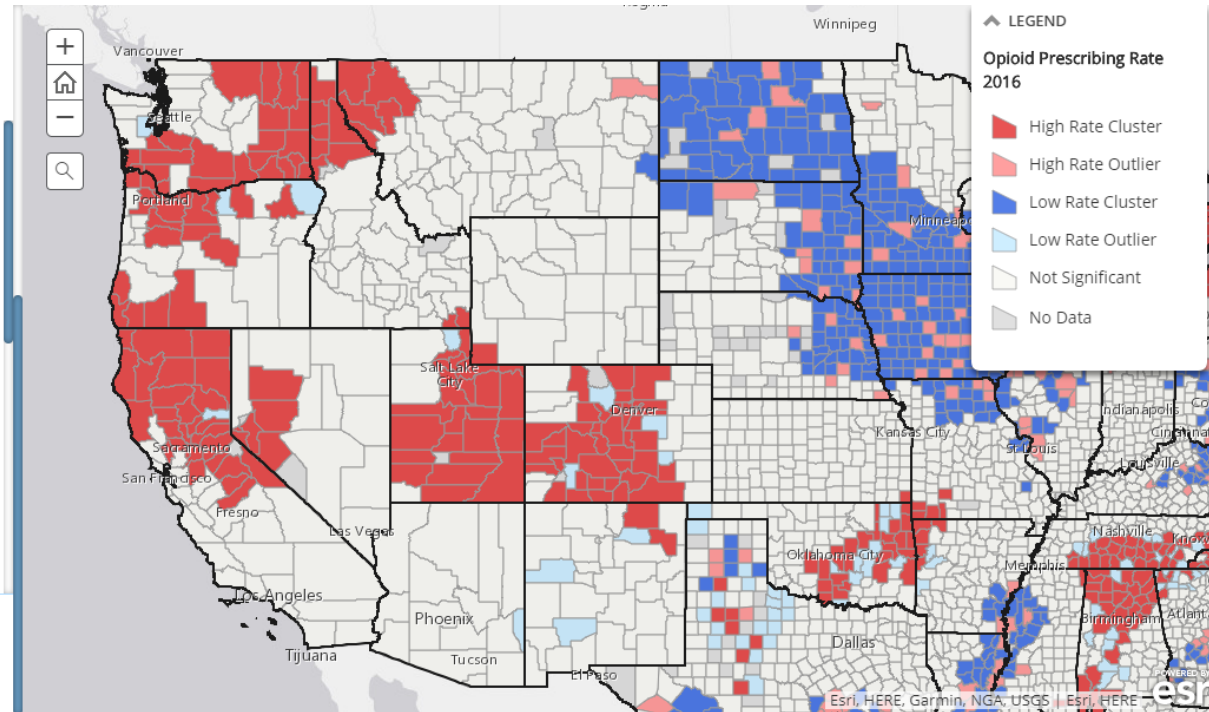
Medicare Part D Opioid Prescribing Mapping Tool: Hot Spots and Outliers

▶ Opioid Prescribing Rate: Hot Spots and Outliers

This map displays county-level hot spot and outliers for the 2016 Medicare Part D opioid prescribing rate. The Part D opioid prescribing rate reflects the percentage of a prescriber's total Part D claims that are opioid prescriptions.

Geographic areas that may warrant attention can be identified by hot spots (i.e. clusters) or by outliers. A hot spot (shown in red) reflects a high rate cluster of counties and is defined as a county with a high Part D opioid prescribing rate that is near other counties with high Part D opioid prescribing rates. Conversely, a low rate cluster (shown in dark blue) of counties is defined as a county with a low Part D opioid prescribing rate that is near other counties with low opioid prescribing

▶ Extended-Release Opioid Prescribing Rate: Hot Spots and Outliers



Red indicates a cluster of counties with high rates

Pink indicates a county with a high rate that is surrounded by counties with low rates

Dark blue indicates a cluster of counties with low rates

Light blue indicates a county with a low rate that is surrounded by counties with high rates

CMS Drug Spending Dashboards

- Presents CMS program drug spending in an interactive, web-based tool
- Covers Medicare Parts B and D and Medicaid program drug spending
- Accessible and useful to several CMS stakeholders
 - Identify drugs and manufacturers with recent year-over-year price increases
 - Identify drugs with limited or no competition, i.e. in terms of manufacturers
- Allow users to track drug spending per unit
 - Change in program drug spending per unit (most recent year to prior year)
 - Trends in spending per unit
 - Compound annual growth rate over 5 year period

Drug Spending Dashboards: Medicare Part D

Medicare Part D Drug Spending Dashboard & Data

The Medicare Part D Drug Spending Dashboard is an interactive, web-based tool that presents spending information for Medicare Part D drugs - drugs patients generally administer themselves and that are paid through the Medicare Part D program. Part D drug information is available from the Part D Prescription Drug Event (PDE) data, which are available for a subset of Medicare beneficiaries who choose to enroll in Part D (which represents approximately 70% of Medicare beneficiaries).

The Dashboard focuses on average spending per dosage unit and change in average spending per dosage unit over time. Dosage units refer to the drug products in the form in which they are marketed for use, e.g. number of tablets, grams, milliliters or other units. The tool also displays spending information for manufacturer(s) of the drugs as well consumer-friendly information of drug uses and clinical indications.

Drug spending metrics for Part D drugs are based on the gross drug cost, which represents total spending for the prescription claim, including Medicare, plan, and beneficiary payments. The Part D spending metrics do not reflect any manufacturers' rebates or other price concessions as CMS is prohibited from publicly disclosing such information. However, high-level rebate summary information is available for 2014. All Part D organization and plan types are included, while over-the-counter drugs in the PDE data are excluded.

Additional drug metrics and the most recent five years of data are available for download in Excel.



**Access the Medicare Part D Drug
Spending Dashboard**



**Download the full underlying data in
Excel**

Drug Spending Dashboards: Medicare Part D

MEDICARE PART D DRUGS

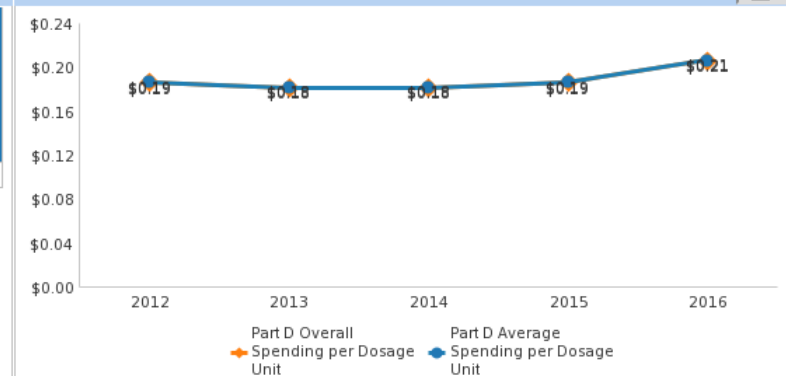
i Part D Drugs Information

Brand Name	Generic Name	Number of Manufacturers	Average Spending per Dosage Unit 2015	Average Spending per Dosage Unit 2016	Change in Average Spending per Dosage Unit (2015-2016)	Annual Growth Rate in Average Spending per Dosage Unit (2012-2016)	Total Spending 2016	Total Beneficiaries 2016	Average Spending per Beneficiary
Search	Search								
1st Tier Unifine Pentips	Pen Needle, Diabetic	1	\$0.19	\$0.21	10.7%	2.6%	\$215,930	3,423	\$63
1st Tier Unifine Pentips Plus	Pen Needle, Diabetic	1	\$0.20	\$0.22	8.0%	3.7%	\$370,091	6,456	\$57
Abacavir	Abacavir Sulfate	5	\$5.56	\$4.55	-18.1%	-12.5%	\$19,363,104	9,006	\$2,150
Abacavir-Lamivudine-Zidovudine	Abacavir/Lamivudine/Zidovudine	1	\$21.88	\$21.02	-3.9%	-2.3%	\$12,787,722	1,333	\$9,593
Abelcet	Amphotericin B Lipid Complex	1	\$11.61	\$8.79	-24.3%	-2.6%	\$752,939	140	\$5,378
Abilify	Aripiprazole	1	\$33.13	\$31.48	-5.0%	9.8%	\$92,475,982	39,246	\$2,356
Abilify Maintena	Aripiprazole	1	\$1,599.00	\$1,721.52	7.7%	6.2%	\$201,856,628	17,158	\$11,765
Abraxane	Paclitaxel Protein-Bound	1	\$1,000.89	\$1,148.29	14.7%	4.0%	\$5,472,305	247	\$22,155
Absorica	Isotretinoin	1	\$27.24	\$31.44	15.4%	10.6%	\$124,498	49	\$2,541
Abstral	Fentanyl Citrate	1	\$68.49	\$77.00	12.4%	13.3%	\$8,284,344	164	\$50,514
Acamprosate Calcium	Acamprosate Calcium	3	\$0.93	\$0.93	-0.4%	-4.4%	\$4,100,336	8,771	\$467

Manufacturer Information - 1st Tier Unifine Pentips

Manufacturer Name	Average Spending per Dosage Unit 2015	Average Spending per Dosage Unit 2016	Change in Average Spending per Dosage Unit (2015-2016)	Annual Growth Rate in Average Spending per Dosage Unit (2012-2016)	Total Spending 2016	Total Beneficiaries 2016
Owen Mumford Us	\$0.19	\$0.21	10.7%	2.6%	\$215,930	3,423

Manufacturer Trend in Spending Per Unit - Owen Mumford Us



Produced by the CMS/Office of Enterprise Data & Analytics (OEDA), November 2017

Drug Spending Dashboards: Medicare Part D

MEDICAR

Brand Name

Search

[Digitex](#)

[Digox](#)

[Digoxin](#)

[Lanoxin](#)

Manufacturer In

Manufacturer Name

[Global Pharm](#)

[Par Pharm.](#)

[West-Ward, Inc.](#)

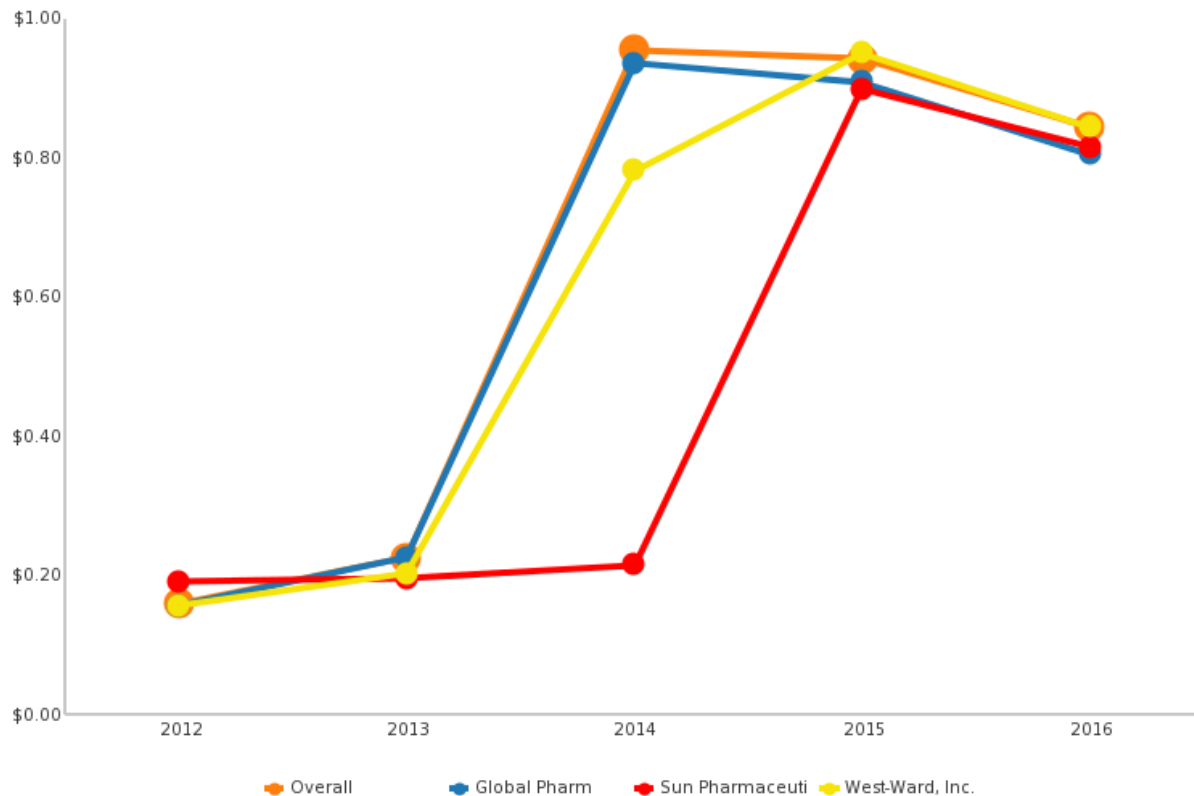
[Sun Pharmaceuti](#)

[Roxane/West-War](#)

[Major Pharmaceu](#)

[Ahp](#)

Manufacturer Trend in Spending Per Unit - Digoxin



Manufacturers

- ☐ (All)
- ☒ Overall
- ☐ Ahp
- ☒ Global Pharm
- ☐ Major Pharmaceu
- ☐ Par Pharm.
- ☐ Roxane/West-War
- ☒ Sun Pharmaceuti
- ☒ West-Ward, Inc.



Data & Analytics (OEDA), November 2017

Drug Spending Dashboards: Medicaid

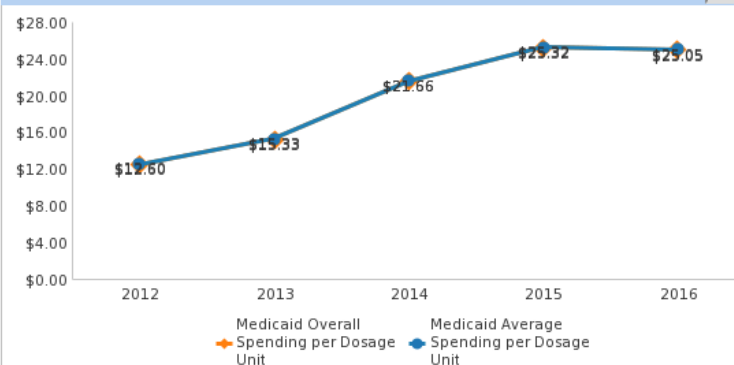
MEDICAID DRUGS

Medicaid Drugs		Information					
Brand Name	Generic Name	Number of Manufacturers	Average Spending per Dosage Unit 2015	Average Spending per Dosage Unit 2016	Change in Average Spending per Dosage Unit (2015-2016)	Annual Growth Rate in Average Spending per Dosage Unit (2012-2016)	Total Spending 2016
Search	Search						
Harvoni	Ledipasvir/Sofosbuvir	1	\$1,136.52	\$1,128.11	-0.7%	-0.7%	\$2,210,702,438
Abilify	Aripiprazole	1	\$32.00	\$31.80	-0.6%	11.4%	\$1,079,158,461
Humira Pen	Adalimumab	1	\$1,568.49	\$1,918.91	22.3%	17.5%	\$968,237,888
Vyvanse	Lisdexamfetamine Dimesylate	1	\$7.43	\$8.24	11.0%	11.0%	\$897,132,794
Latuda	Lurasidone HCl	1	\$28.25	\$32.73	15.9%	18.6%	\$864,643,941
Lantus	Insulin Glargine, Hum. Rec. Analog	1	\$25.32	\$25.05	-1.1%	18.7%	\$785,372,480
Truvada	Emtricitabine/Tenofovir (Tdf)	1	\$46.32	\$49.78	7.5%	5.8%	\$753,899,906
Lantus Solostar	Insulin Glargine, Hum. Rec. Analog	1	\$25.23	\$24.95	-1.1%	14.3%	\$752,034,059
Methylphenidate ER	Methylphenidate HCl	5	\$5.92	\$6.27	6.1%	5.3%	\$729,441,196
Aripiprazole	Aripiprazole	9	\$21.31	\$11.34	-46.8%	-46.8%	\$641,229,904
Lyrica	Pregabalin	1	\$5.36	\$5.96	11.1%	17.9%	\$640,636,363
Sovaldi	Sofosbuvir	1	\$978.65	\$988.86	1.0%	-0.6%	\$600,645,075

Manufacturer Information - Lantus

Manufacturer Name	Average Spending per Dosage Unit 2015	Average Spending per Dosage Unit 2016	Change in Average Spending per Dosage Unit (2015-2016)	Annual Growth Rate in Average Spending per Dosage Unit (2012-2016)	Total Spending 2016
Sanofi-Aventis	\$25.32	\$25.05	-1.1%	18.7%	\$785,372,480

Manufacturer Trend in Spending Per Unit - Sanofi-Aventis



Produced by the CMS/Office of Enterprise Data & Analytics (OEDA), March 2018

Drug Spending Dashboards: Medicare Part B

MEDICARE PART B DRUGS

<div> <div></div> <div>Part B Drugs</div> <div>Information</div> </div>									
Brand Name	Generic Name	Average Spending per Dosage Unit 2015	Average Spending per Dosage Unit 2016	Change in Average Spending per Dosage Unit (2015-2016)	Annual Growth Rate in Average Spending per Dosage Unit (2012-2016)	Total Spending 2016	Total Beneficiaries 2016	Average Spending per Beneficiary 2016	Average Sales Price (ASP) 2016
<input type="text" value="Search"/>	<input type="text" value="Search"/>								
Eylea	Aflibercept	\$962.85	\$963.10	0.0%	-0.1%	\$2,208,730,191	210,411	\$10,497	\$980.49
Rituxan	Rituximab	\$724.73	\$765.45	5.6%	5.6%	\$1,665,667,928	69,941	\$23,815	\$780.81
Neulasta	Pegfilgrastim	\$3,551.05	\$3,868.85	8.9%	8.5%	\$1,375,670,105	95,960	\$14,336	\$3,938.12
Remicade	Infliximab	\$75.21	\$80.18	6.6%	6.0%	\$1,338,726,191	58,397	\$22,925	\$81.66
Avastin	Bevacizumab	\$67.50	\$70.04	3.8%	3.5%	\$1,111,678,356	207,422	\$5,360	\$71.58
Prolia*	Denosumab*	\$14.68	\$15.57	6.1%	2.1%	\$1,086,664,413	419,196	\$2,592	\$15.86
Lucentis	Ranibizumab	\$387.25	\$378.23	-2.3%	-1.4%	\$1,044,324,411	106,408	\$9,814	\$384.95
Herceptin	Trastuzumab	\$84.57	\$89.12	5.4%	4.8%	\$703,556,745	20,693	\$34,000	\$90.75
Orencia*	Abatacept*	\$34.36	\$40.80	18.7%	17.2%	\$586,532,893	22,879	\$25,636	\$41.81
Alimta	Pemetrexed Disodium	\$59.95	\$61.19	2.1%	2.6%	\$511,822,425	20,312	\$25,198	\$62.29
Velcade	Bortezomib	\$45.84	\$45.82	-0.0%	1.8%	\$490,438,057	20,668	\$23,729	\$46.68

*Indicates multiple brand and/or generic names for a specific HCPCS code. See "Brand, Generic & Manufacturers" table for additional names.

**Indicates brand/generic names unavailable. Name reflects the HCPCS short description.

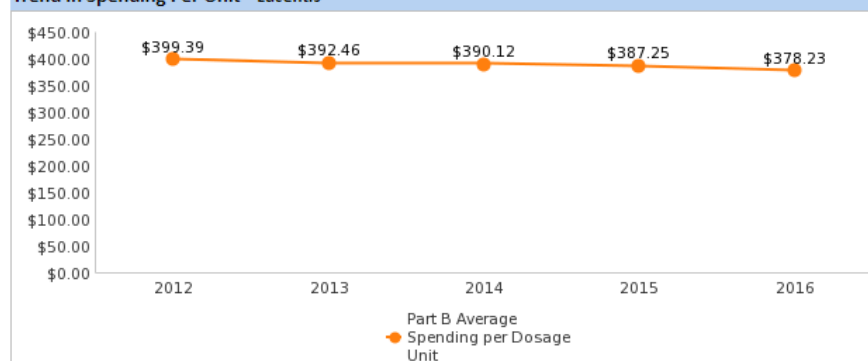
Brand, Generic, & Manufacturers - Lucentis

Brand Name	Generic Name	Manufacturer
Lucentis	Ranibizumab	Genentech, Inc.

Additional Drug Information - Lucentis

Medicare Billing Code	Drug Description
J2778	Injection, ranibizumab, 0.1 mg

Trend in Spending Per Unit - Lucentis



Produced by the CMS/Office of Enterprise Data & Analytics (OEDA), March 2018

Drug Spending Dashboards: Medicare Part B

MEDICARE PART B DRUGS

		Part B Drugs				Information			
Brand Name	Generic Name	Average Spending per Dosage Unit 2015	Average Spending per Dosage Unit 2016	Change in Average Spending per Dosage Unit (2015-2016)	Annual Growth Rate in Average Spending per Dosage Unit (2012-2016)	Total Spending 2016	Total Beneficiaries 2016	Average Spending per Beneficiary 2016	Average Sales Price (ASP) 2016
<input type="text" value="Search"/>	<input type="text" value="Search"/>								
Xiaflex	Collagenase Clostridium Hist.	\$37.54	\$38.85	3.5%	1.0%	\$39,154,044	7,279	\$5,379	\$39.60
Fusilev*	Levoleucovorin Calcium*	\$1.77	\$1.25	-29.4%	-8.3%	\$38,880,179	5,948	\$6,537	\$1.25
Monovisc	Hyaluronate Sodium, Stabilized	\$608.61	\$903.97	48.5%	48.5%	\$37,842,947	27,694	\$1,366	\$924.49
Docefrez*	Docetaxel*	\$3.44	\$2.56	-25.7%	-29.3%	\$37,075,970	29,863	\$1,242	\$2.61
Ventavis	Iloprost Tromethamine	\$104.86	\$114.99	9.7%	13.0%	\$36,615,548	262	\$139,754	\$117.61
Istodax	Romidepsin	\$279.65	\$295.44	5.6%	6.6%	\$33,880,569	407	\$83,245	\$301.17
Vaccine Influenza Muscle (Fluzone), 0.5 mL, Age 3+ Years **		\$17.14	\$17.78	3.8%	0.3%	\$33,032,725	1,830,441	\$18	\$18.37
Humate-P	Antihemophilic Factor/VWF	\$4.95	\$6.55	32.2%	0.9%	\$32,927,074	365	\$90,211	\$1.02
Zortress	Everolimus	\$6.83	\$7.46	9.3%	6.5%	\$32,138,786	1,887	\$17,032	\$7.60
Influenza Virus Vaccine (Fluvirin), Age		\$15.12	\$15.64	3.4%	3.5%	\$31,463,170	1,988,632	\$16	\$15.94

*Indicates multiple brand and/or generic names for a specific HCPCS code. See "Brand, Generic & Manufacturers" table for additional names.

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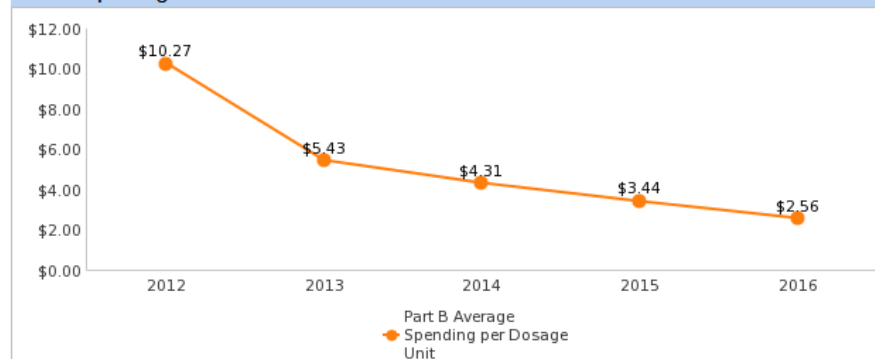
Brand, Generic, & Manufacturers - Docefrez*

Brand Name	Generic Name	Manufacturer
Docefrez	Docetaxel	Sun Pharma Glob
Docetaxel	Docetaxel	Accord Healthca
		Actavis Pharma
		Dr.Reddy's Lab
		Eagle Pharmeu

Additional Drug Information - Docefrez*

Medicare Billing Code	Drug Description
J9171	Injection, docetaxel, 1 mg

Trend in Spending Per Unit - Docefrez*





CMS Data Tools, Dashboards, and Public Use Files

Part 2: Examples of other Publically Available CMS Data

Kevin Hodges

CMS Program Statistics

- Formerly the Medicare & Medicaid Statistical Supplement (2001-2012)
- Includes 100+ tables and 50+ charts describing national health expenditures, characteristics of the Medicare and Medicaid covered populations, and use of services, and expenditures under these programs
- User-friendly website, including intuitive navigation links, documentation, and a monthly enrollment dashboard

The screenshot displays the CMS.gov website. At the top, the CMS.gov logo is visible, along with navigation links for Home, About CMS, Newsroom, Archive, Share, Help, and Print. A search bar is also present. Below the header, a row of yellow buttons provides navigation for Medicare, Medicaid/CHIP, Medicare-Medicaid Coordination, Private Insurance, Innovation Center, Regulations & Guidance, Research, Statistics, Data & Systems, and Outreach & Education. The main content area is titled 'CMS Program Statistics' and includes a sidebar with links for years 2016, 2015, 2014, and 2013. The main text describes the CMS Office of Enterprise Data and Analytics' development of CMS Program Statistics, which includes detailed summary statistics on Medicare populations, utilization, and expenditures. It also mentions the Current Medicare Enrollment Dashboard. At the bottom, three icons represent 'Explore Data', 'Data Sources and Methodology', and 'Current Medicare Enrollment'. A footer note encourages users to subscribe for email notifications.

Home | About CMS | Newsroom | Archive | Share Help Print

Learn about [your health care options](#) type search term here Search

Medicare Medicaid/CHIP Medicare-Medicaid Coordination Private Insurance Innovation Center Regulations & Guidance Research, Statistics, Data & Systems Outreach & Education

Home > Research, Statistics, Data and Systems > CMS Program Statistics > CMS Program Statistics

CMS Program Statistics

The CMS Office of Enterprise Data and Analytics has developed CMS Program Statistics, which includes detailed summary statistics on Medicare populations, utilization, and expenditures, as well as counts for Medicare-certified institutional and non-institutional providers. CMS Program Statistics is organized into sections which can be downloaded and viewed separately. Tables will be posted as they become finalized. CMS Program Statistics is replacing the [Medicare and Medicaid Statistical Supplement](#), which was published annually in electronic form from 2001-2013.

Additionally, the [Current Medicare Enrollment](#) Dashboard has been developed as an interactive online tool presenting monthly enrollment figures and yearly trends at several geographical areas, including national, state/territory, and county.

[Explore Data](#) [Data Sources and Methodology](#) [Current Medicare Enrollment](#)

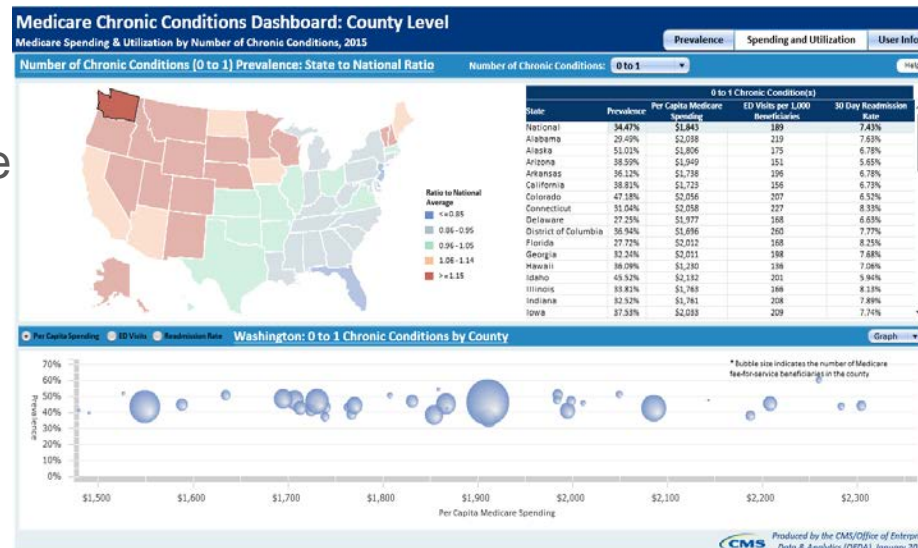
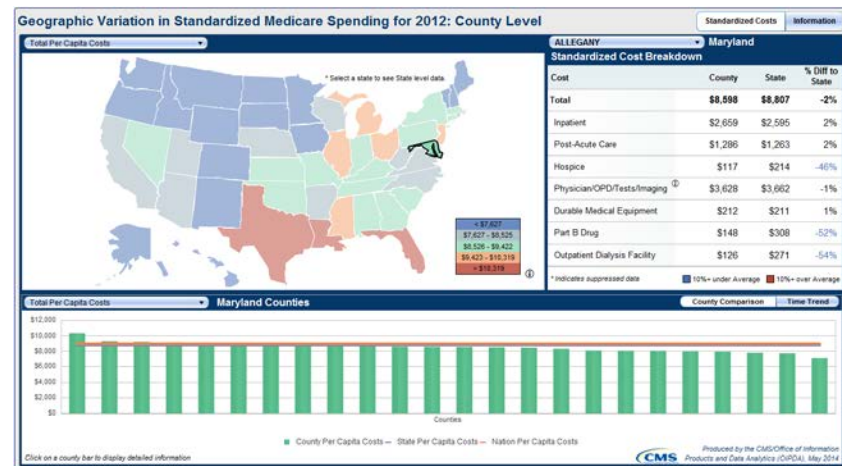
To subscribe to receive email notifications, click [CMS Program Statistics GovDelivery subscription](#).

Medicare Beneficiary Survey (MCBS) Public Data Products

- MCBS is a nationally representative in-person survey of approximately 16,000 Medicare beneficiaries annually, including those in institutionalized settings
- MCBS Public Use File
 - Community Dwelling Beneficiaries based on 2015 Survey data
 - Includes high-quality self-reported race/ethnicity; education and other socioeconomic indicators; health behaviors and health status; functioning and mobility; insurance eligibility and coverage summarized to the annual level; access to care, usual source of care, satisfaction with care
- MCBS Chartbook
 - User friendly charts + data tables of health indicators, costs, and utilization
 - Summarized costs and utilization including OOP and other payer amounts for covered and non-covered medical services

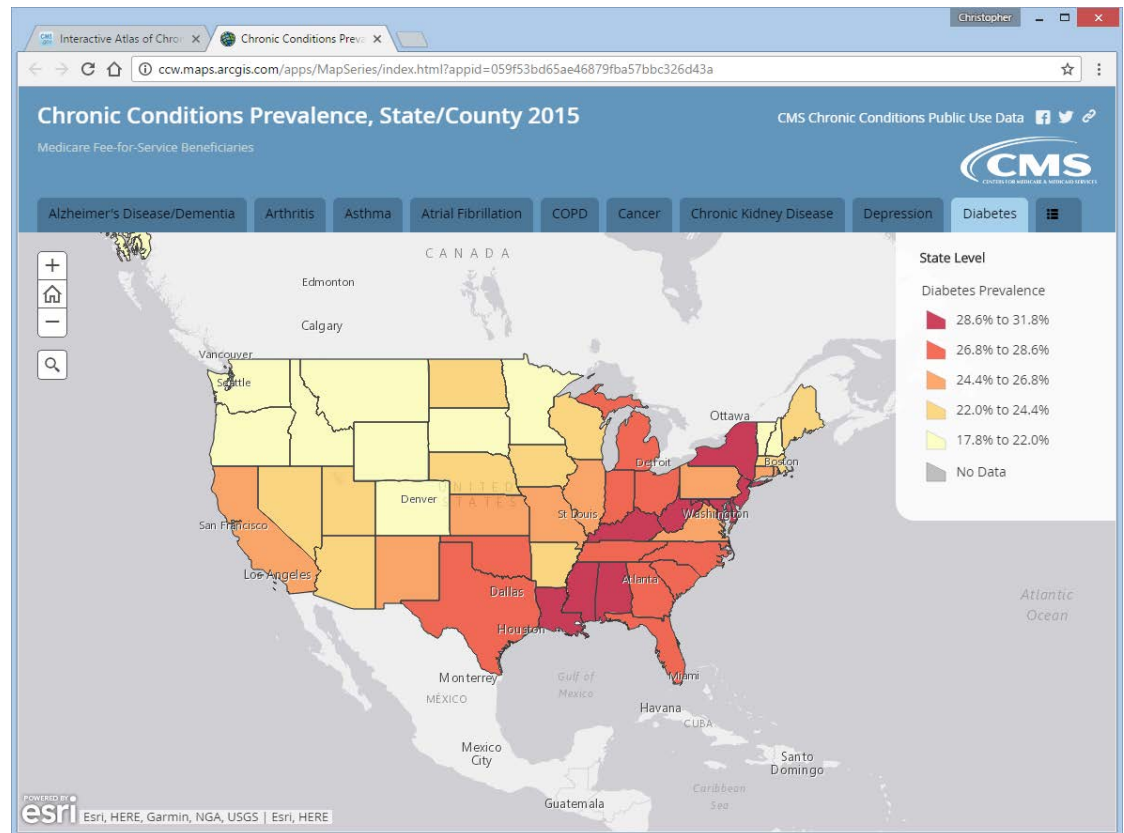
Geographic Variation and Chronic Conditions Products

- **Geographic Variation**
 - Demographic, spending, utilization, and quality information for the Medicare FFS population
 - State, HRR, & county-level PUF
 - State & county-level dashboards
- **Chronic Conditions**
 - Prevalence, utilization, and spending information for specific chronic conditions in the Medicare FFS population
 - State & county-level PUFs
 - State & county-level dashboards
 - Interactive atlas



Chronic Condition Atlas

- The interactive atlas of chronic conditions is a tool which allows users to examine geographic variability in chronic conditions
- Shows the prevalence of 16 chronic conditions among Medicare beneficiaries at the state and county levels
- The atlas presents data for 2015



Medicare Provider Payment and Utilization Files

- The Medicare Provider Utilization and Payment Public Use Files (PUFs) provide data summarized at the provider level with information on the specific services and procedures provided to Medicare beneficiaries. The files include:
 - Payment information (e.g., submitted charges, Medicare payment);
 - Utilization information (e.g., unique beneficiary count, service count);
 - Aggregated beneficiary demographic and chronic condition information for the provider's patient panel.
- Data released to date covers > 85% of Medicare program payments

Medicare Provider Payment and Utilization Files

Physician and Other Supplier

- Over 1,000,000 providers + \$125B in allowed payments
- Reported by service/procedure (HCPCS)

Durable Medical Equipment*

- 376,000 referring providers + \$9B in allowed payments
- Reported by referral of DME product (HCPCS)

Hospital Inpatient + Outpatient

- 3,000 hospitals + \$130B in allowed payments
- Reported by diagnosis related group (DRG)

Part D Prescriber

- Over 1,000,000 prescribers + \$146B in drug costs
- Reported by drug brand name and generic name

Skilled Nursing Facility

- 15,000 SNFs + \$27B in payments
- Reported by resource utilization group (RUG)

Home Health Agency

- 10,000 HHAs + \$18B in payments
- Reported by home health resource group (HHRG)

Hospice

- 4,000 hospices + \$16B in payments
- Reported by provider/state

* Also includes prosthetics, orthotics, and supplies

Medicare Physician and Part D Prescriber Look-up Tools

CMS provides interactive tools to assist stakeholders in viewing the data for the Physician PUF and the Prescriber PUF

MEDICARE PROVIDER UTILIZATION AND PAYMENT DATA:

2016 PART D PRESCRIBER LOOK-UP TOOL

This look-up tool is a searchable database that allows you to look up a Medicare Part D prescriber by National Provider Identifier (NPI), or by name and location.

Find a Provider

Provider Name or National Provider Identifier (NPI):

Last Name or Organization Name First Name NPI

Location

City Any State

FIND PROVIDER

Access Data

DOWNLOAD FULL DATASET **VIEW DATASET**

CHRIS JOHNSON

INDIVIDUAL
1100 9TH AVE
SEATTLE, WA
NPI: 1992753875

Specialty
Physician Assistant

START OVER

Services provided by this provider:
Displaying records 1 – 6 of 6.

Aspiration and/or injection of large joint or joint capsule HCPCS CODE: 20610 PRODUCT/SERVICE IS NOT A DRUG. PLACE OF SERVICE: FACILITY				
68	55	\$178.30	\$38.76	\$27.00
Number of Services	Number of Beneficiaries	Average Submitted Charge	Average Medicare Allowed Amount	Average Medicare Payment
Repair of knee joint HCPCS CODE: 27447 PRODUCT/SERVICE IS NOT A DRUG. PLACE OF SERVICE: FACILITY				
20	20	\$839.58	\$208.29	\$163.30
Number of Services	Number of Beneficiaries	Average Submitted Charge	Average Medicare Allowed Amount	Average Medicare Payment
New patient office or other outpatient visit, typically 20 minutes HCPCS CODE: 99202 PRODUCT/SERVICE IS NOT A DRUG. PLACE OF SERVICE: FACILITY				
58	58	\$64.83	\$44.63	\$31.62
Number of Services	Number of Beneficiaries	Average Submitted Charge	Average Medicare Allowed Amount	Average Medicare Payment

ROSA JOHNSON

SEATTLE, WA
NPI: 1063410181

Specialty
Nurse Practitioner

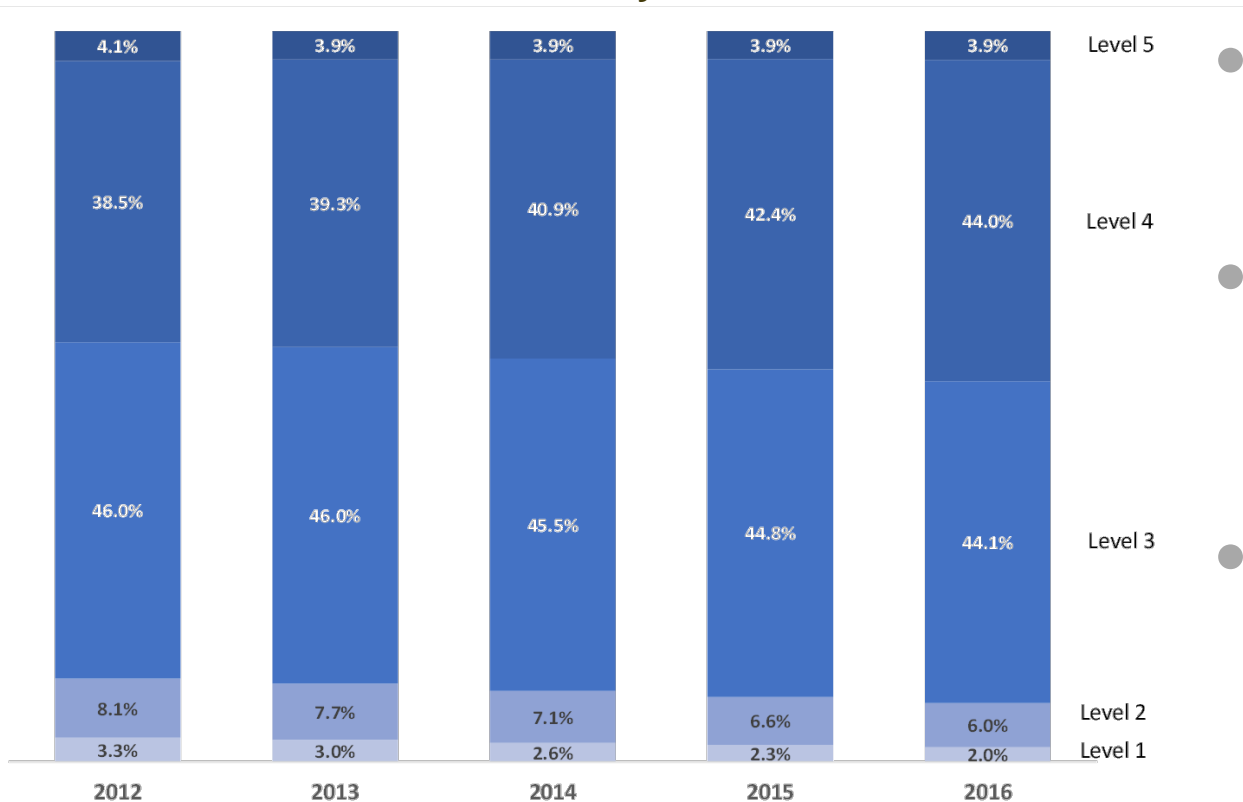
START OVER

Medications prescribed by this provider:
Displaying records 1 – 10 of 46.

Drug/Generic Name ALPRAZOLAM/ALPRAZOLAM			
109	24	3,495	\$1,752.94
Number of Prescriptions	Number of Beneficiaries	Number of Days Supplied	Total Drug Cost
Drug/Generic Name AMITRIPTYLINE HCL/AMITRIPTYLINE HCL			
40	-	1,427	\$1,237.75
Number of Prescriptions	Number of Beneficiaries	Number of Days Supplied	Total Drug Cost
Drug/Generic Name ARIPRAZOLE/ARIPRAZOLE			
79	12	2,585	\$31,412.74
Number of Prescriptions	Number of Beneficiaries	Number of Days Supplied	Total Drug Cost

Trends in Medicare Physician Office Visit Intensity Levels

Established Patient Office Visits by Level of Service: 2012-2016



- The majority of office visits are billed at Level 3 or Level 4
- From 2012 to 2016, Level 1-3 services decreased and Level 4 services increased
- Level 5 services declined from 2012 to 2013, but have remained flat since 2013

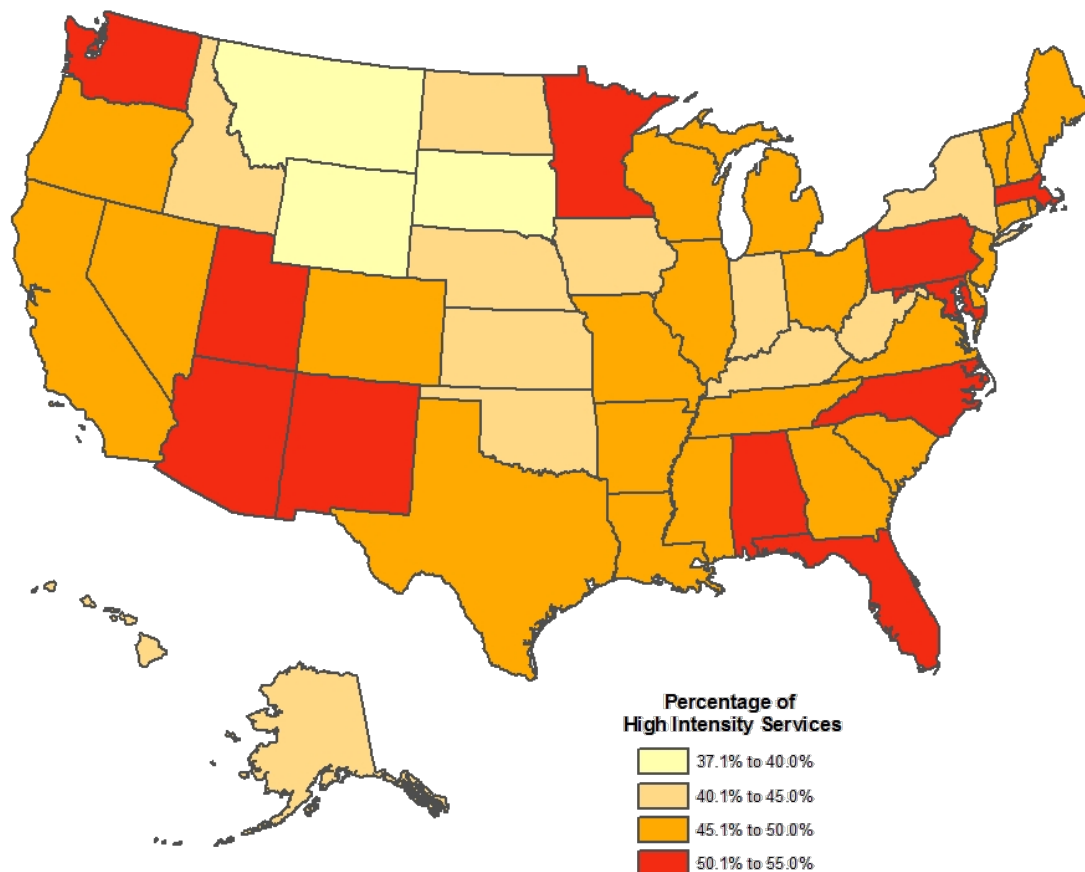
Allowed Amount Per Service (2016)

Level 1 (5 min) \$19	Level 2 (10 min) \$42	Level 3 (15 min) \$71	Level 4 (25 min) \$104	Level 5 (40 min) \$142
----------------------------	-----------------------------	-----------------------------	------------------------------	------------------------------

Geographic Variation in Medicare Physician Office Visit Intensity Levels

- Overall, about 48% of office visits are high intensity services (billed at levels 4 or 5) and range from a low of 37% in Wyoming to a high of 55% in Arizona
- Among three states (light yellow), the percentage of high intensity office visits was 40% or less
- For eleven states (dark orange), the percentage of high intensity visits was more than 50%

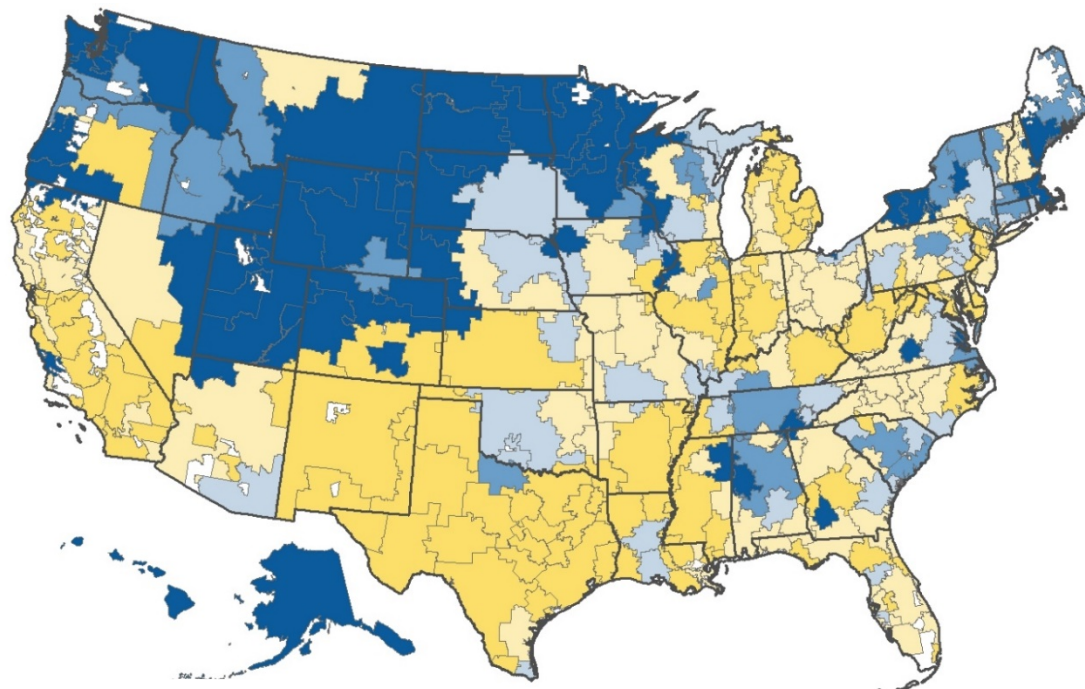
Percent of Medicare Office Visits that are High-Intensity



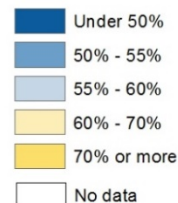
Skilled Nursing Facility Ultra High (RU) Rehab Resource Utilization Group (RUG) Assessments

To classify a patient in the Ultra High (RU) Rehabilitation RUG categories, the patient must receive at least 720 minutes of therapy each week, among other criteria

Percent of Ultra High Rehab RUG Assessments between 720-730 Minutes



**Percent of RU Assessments
720-730 min**





Disseminating CMS Program Data for Research Purposes

Ronnie Tan

Enabling Cutting Edge Health Care Research



Chronic Conditions Data Warehouse
Your source for national CMS Medicare and Medicaid research data



- **Research Data Assistance Center (ResDAC)** provides assistance to researchers interested in using Medicare and/or Medicaid data
- The **Chronic Condition Warehouse (CCW)** is CMS' research data warehouse designed to support external researchers and internal CMS research and analytic functions
 - Contains over 325B records with 1B records added monthly
 - Unique beneficiary ID allows data linkages across all CCW data

Research Data Files Available

- Medicare enrollment and claims (1999-current)
- Medicare Part D event data (2006-current)
- Medicaid eligibility and claims (1999-2013)
- Assessment data (instrument inception-current):
 - Long Term Care Minimum Data Set (MDS)
 - Home Health Outcome and Assessment Information Set (OASIS)
 - Inpatient Rehab Facility – Patient Assessment Instrument (IRF-PAI)
- Shared Savings Program and Pioneer ACO files (2013-current)
- Medicare Data on Provider Practice and Specialty (2008-current)
- Administrative data linked to surveys (e.g., Health and Retirement Survey, National Health and Aging Trends Study)
- National Death Index (1999-2016 Medicare/1999-2013 Medicaid)
- Medicare Advantage Encounter data (2015)
- Hierarchical Condition Category (risk score) data (2014) ***coming soon***

Types of Research Data Files

- CMS makes two types of files available to researchers
 - Limited Data Set (LDS) files which excludes specific direct identifiers, including name, address, HIC, SSN, DOB, ZIP Code and medical record number
 - Research Identifiable Files (RIFs) which are custom CMS data extracts that may contain direct beneficiary identifiers
- LDS files are easier to request (less documentation and CMS review) and typically cost less than RIFs but users face additional limitations on use of the data

	Research Identifiable	Limited Data Sets
Requires CMS Privacy Board Review?	Yes	No
Data file can be customized to only include a specific cohort (e.g., diabetics residing in MN)	Yes	No
Data can be linked to non-CMS data using a beneficiary identifier (SSN or Medicare id)	Yes	No

Research Data Dissemination Options

- Option 1: Physical Data Provision

- Files created, encrypted, and copied to portable media by CMS
- CMS ships files to researchers who must ensure the security of the data at the researcher's site
- Researcher is responsible for the security and appropriate use of the data at their site
- Beneficial for users that are requesting a limited amount of data files for a small cohort (lower fees)
- Beneficial for researchers that are working with non-CMS data sources that cannot be uploaded to the Virtual Research Data Center due to licensing or other restrictions
- Beneficial for researchers that are using specialized software and/or tools

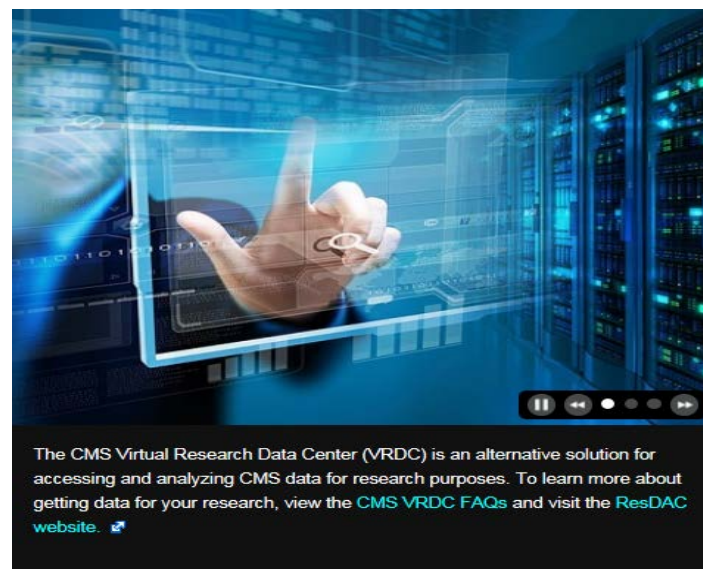
Research Data Dissemination Options


- Option 2: Virtual Research Data Center (VRDC)
 - CMS developed the VRDC to meet researchers evolving needs
 - VRDC is a secure and efficient means for researchers to virtually access and analyze the vast store of CMS data in the CCW
 - Researchers to access and perform their own analyses and manipulation of CMS data virtually from their independent workstations
 - Researchers can only download aggregate results from their analyses

Virtual Research Data Center (VRDC)

● VRDC Benefits

- Lower cost (utilize the VRDC infrastructure for analysis instead of building internal systems to store and analyze data; access large amounts of data for a lower fee)
- Faster access to data
- Researchers use own laptop to securely access and analyze data remotely
- Increased security for sensitive data
- Researchers can upload data into the environment and download aggregate de-identified data



The CMS Virtual Research Data Center (VRDC) is an alternative solution for accessing and analyzing CMS data for research purposes. To learn more about getting data for your research, view the [CMS VRDC FAQs](#) and visit the [ResDAC website](#). 

Cohort Estimate Tool

Chronic Conditions Data Warehouse » Estimate Study Size

Step 1:
Study Population Parameters

Step 2:
Review & Submit

Step 3:
Estimate Report

i

This application allows for the estimation of Medicare and Medicare-Medicaid population sizes. It does not allow for estimation of populations for Medicaid-only enrollees. Medicare population estimates are extrapolated from the 20% Medicare sample from 2012.

Study Population Parameters

Looking for a Previous Estimate?

Status Code/ESRD Ind

Beneficiary Demographics

Total Month Counts

Monthly Entitlement/Buy-In Indicators

Monthly HMO Indicators

Reason Codes

Chronic Conditions

Diagnosis/Procedure Codes

NOTE: If custom cohort is not needed, proceed to [Data Pricing](#).

Selection Summary


As study population selections are added, they will appear here.

Save & Continue

Reset

i

Looking for Help? Email us at cmsdata@gdit.com or call 1-866-766-1915

 **CMS**
CENTERS FOR MEDICARE & MEDICAID SERVICES

37

Submitting a Cohort Estimate

Chronic Conditions Data Warehouse » Estimate Study Size



Step 1:
Study Population Parameters







Step 2:
Review & Submit



Step 3:
Estimate Report


Review & Submit

Age BETWEEN 55 and 65  [AND]
All Month Medicare Entitlement/Buy-In Indicator = Part A and Part B  [AND]
Chronic Conditions include Diabetes  [AND]
Diagnosis Code - Any Position: 00842 
Claim Type:
☒ Inpatient ☒ Outpatient ☒ Carrier

NOTE: Results will be extrapolated from the 20% Medicare sample from 2012.

Submit Request

[Reset](#)

 Looking for Help? Email us at cmsdata@gdit.com or call 1-866-766-1915

Pricing Estimate Tool

* indicates required field(s)

i Medicare population sizes can be estimated using the [Estimate Study Size](#) page. For Medicaid population sizes, please refer to the Medicaid populations by state [\[Medicaid Enrollee Counts \(PDF\)\]](#).

Data Pricing

? Looking for a Previous Data Pricing?

Desired Population Size *

- ☐ Population Size: **?**
- ☐ 5% Medicare Sample
- ☐ 100% Medicare Population

Data Types *

Medicare Claims

- ☐ Inpatient
- ☐ Outpatient
- ☐ SNF
- ☐ Home Health
- ☐ Hospice
- ☐ Carrier
- ☐ DME

Medicare Master Beneficiary Summary File

- ☐ (A/B/D) Segment
- ☐ Chronic Conditions Segment
- ☐ Cost and Utilization Segment
- ☐ National Death Index Segment

Medicare Prescription Drug

- ☐ Part D Event Drug
- ☐ Drug Characteristics
- ☐ Plan Characteristics
- ☐ Prescriber Characteristics
- ☐ Pharmacy Characteristics
- ☐ Formulary Characteristics

Other Files

- ☐ Medicare-Medicaid Linked Enrollee Analytic Data Source (MMLEADS)
- ☐ MedPAR
- ☐ MCBS Cost and Use
- ☐ MCBS Access to Care

Assessments

- ☐ MDS
- ☐ Swing Bed
- ☐ OASIS
- ☐ IRF-PAI

Medicaid **?**

- ☐ Person Summary
- ☐ Inpatient
- ☐ Drug
- ☐ Other Therapies
- ☐ Long Term Care

Submit Request

[Reset](#)

i Looking for Help? Email us at cmsdata@gdit.com or call 1-866-766-1915

Pricing Estimate Tool (cont.)

Chronic Conditions Data Warehouse » Data Pricing

[Print this page](#)

☒ Your Data Pricing request was successfully submitted on 05/20/2014. The total estimated cost for the selected files is **\$39,000.00**. Your tracking number for this Data Pricing Report is PdTBc4UH3L0n and will be retained for 30 days should you choose to modify your request.

Data Pricing - Estimate Breakdown

Cohort Size: 2,701,049


Data Types	Years	Data Pricing Estimates
Medicare Claims		
Outpatient	2010, 2012	\$10,000.00
Medicaid		
Inpatient	2007, 2008, 2009, 2010	\$10,000.00
Person Summary	2008, 2009, 2010	\$7,500.00
Medicare Claims		
Inpatient	2010, 2011, 2012	\$9,000.00
Medicare Master Beneficiary Summary File		
(A/B/D) Segment	1999, 2000, 2001, 2002, 2003, 2004, 2005, 2006, 2007, 2008, 2009, 2010, 2011, 2012	\$0.00
Other Files		
MedPAR	2011	\$2,500.00
Estimated Total:		\$39,000.00

NOTE: Finder File fees are not included in this estimate. This is an estimate only and pricing may be subject to change.

The ResDAC site contains detailed pricing information: [Price List for RIFs \(PDF\)](#) @

[Create a new Data Pricing request from the above parameters »](#)

[Create New Pricing](#)

 Looking for Help? Email us at cmsdata@gdit.com or call 1-866-766-1915

Quarterly Data Access

- Designed as quarterly “snap shots” of Medicare FFS claims
- Files created with a 3-month “completion lag”
- Claims will be approximately 90% – 93% mature

Quarter and Year of Data	Approximate Availability
Q1 2017	August 2017
Q2 2017	November 2017
Q3 2017	February 2018
Q4 2017	May 2018

- Full year (“5th quarter”) 2017 file available in February 2019
- Quarterly LDS files are available beginning with Q3 2015

Federal and State Agencies

- Federal and State Agencies work with ResDAC and follow similar process as researchers
 - Federal Agencies required to establish Interagency Agreement
 - State Agencies have two DUA options:
 - Research DUA
 - Only permitted to use CMS data to conduct the research activities specified in their initial data request
 - Research DUA with Opt-In to data sharing
 - Research encompasses a broad range of analytic activities that support multiple purposes and programs
 - Permitted to reuse the data for additional research (beyond the research activities specified in their initial data request).
 - Permitted to further disseminate the data to other state agencies who are conducting research or to other entities conducting research that is directed and funded by the state
 - States may request data for beneficiaries residing in the requesting state, plus a 5% national sample file for benchmarking.

Innovator Research

- Allow innovators to access CMS data to create products they intend to sell:
 - Promotes innovation and insights from CMS data that result in the development of tools that could benefit the healthcare system
- Conditions for participating:
 - Approval of a research protocol under the existing research request process
 - An additional level of review that will focus on whether the product, tool, or analyses could exploit beneficiaries or create the potential for fraud and/or abuse in CMS programs
 - Research must take place in the VRDC

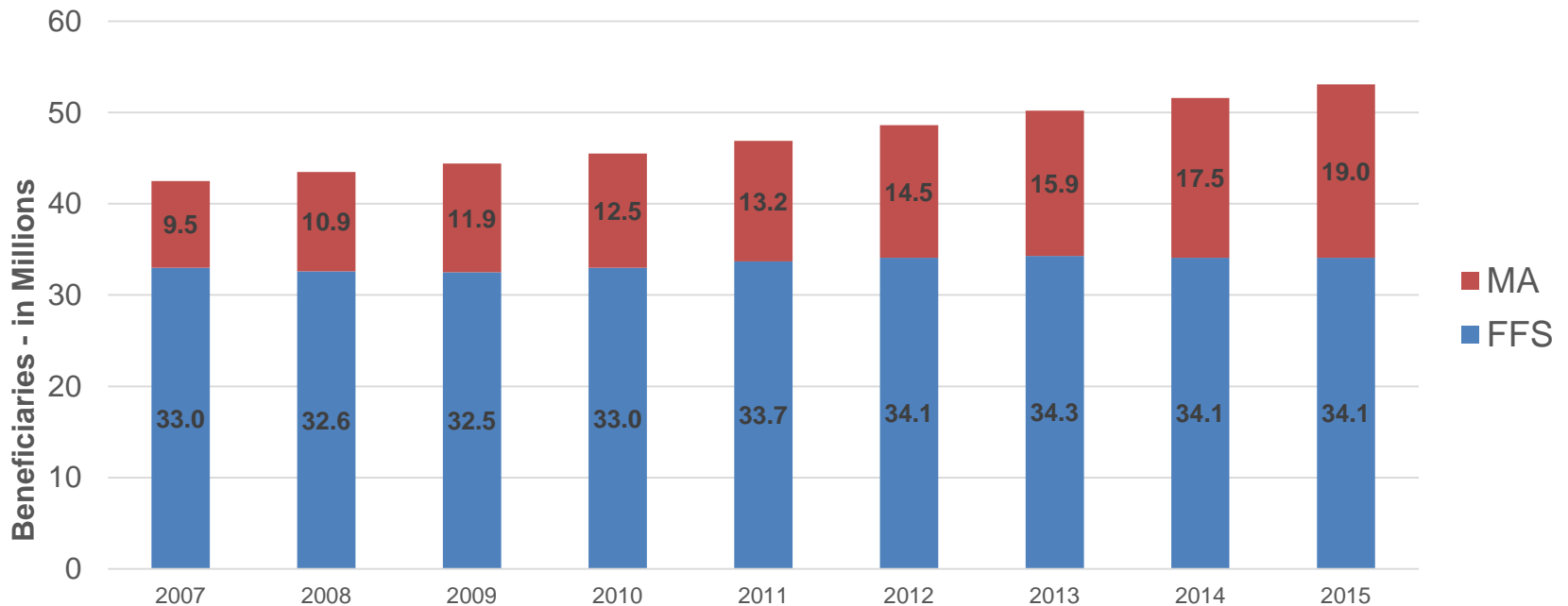


Overview of New CMS Data Available for Research Purposes

Geoff Gerhardt

Background: Medicare Advantage

- Medicare beneficiaries have the option of enrolling in either traditional fee-for-service (FFS) or a Medicare managed care plan, aka Medicare Advantage (MA)
- Roughly one-third of all Medicare beneficiaries are enrolled in MA, but utilization and diagnosis information has not been widely available



MA Encounter Research Files

- Medicare Advantage Organizations (MAOs) now required to submit encounter-level data to CMS as part of risk adjustment calculations
 - Encounter records are similar to FFS claims, but are submitted to CMS by MA plans rather than by providers
 - Includes information on diagnosis, items, procedures and services furnished to Medicare Advantage enrollees
- Later this summer, CMS will release preliminary version of 2015 Research Identifiable Files (RIFs) for MA encounter data

MA Encounter 2015 RIFs

- Preliminary 2015 RIFs are based on MA encounter records with 2015 dates of service, which were submitted to CMS and accepted as of July, 2017
- Final version of 2015 encounter RIFs will be created and released later this year after the window to submit data for risk adjustment purposes closes
- CMS plans to release encounter RIFs for additional years as more data become available
- Encounter RIFs will be available via ResDAC

Encounter Data Overview

- MAOs are required to submit to CMS, “data necessary to characterize the context and purposes of each item and service provided to a Medicare enrollee.”
- Encounter records are submitted using X12 837 5010 format that conforms with CMS’s requirements for submitting FFS claims
- Two types of encounter data:
 - Encounter data records (EDRs)
 - Chart review records (CRRs)

Encounter Data Records (EDRs)

- EDRs include information about each service or item provided to an MOA enrollee, regardless of the payment status of the claim
 - Includes HCPCS, DRG, non-Part D drugs, diagnosis codes, dates of service
- EDRs can include Level II HCPCS S-codes which are primarily used by private insurers to report drugs, services, and supplies for which there are no national codes

Chart Review Records (CRRs)

- The role of a CRR is to allow MAOs to add risk adjustment eligible diagnoses or delete diagnosis codes previously reported for plan enrollees
- There are two scenarios when a CRR may be submitted:
 - The encounter generated more diagnosis codes than the maximum number of diagnosis code spaces on an EDR
 - The MAO performed a medical record review and identified risk adjustment-eligible diagnosis codes that should be added or diagnosis codes that must be deleted for a beneficiary, **and** these diagnosis codes are related to an encounter that has already been reported on an EDR

Encounter RIFs Structure

- Encounter RIFs are structured similar to FFS RIFs
- Grouped by six provider types

Provider Type Files	Encounter-Specific Claim Type Codes Included	Total Record Counts
Inpatient	<ul style="list-style-type: none"> • 4011 – Hospital Inpatient • 4041 – Religious Nonmedical Inpatient 	5.9 million
Institutional Outpatient	<ul style="list-style-type: none"> • 4012-4014 – Hospital Inpatient (Part B), Outpatient, Lab • 4022-4023 – SNF Inpatient (Part B), SNF Outpatient • 4034 – Home Health and Lab • 4071 – 4079 - Clinic (including ESRD, CORF, FQHC) • 4083 – Ambulatory Surgical Centers • 4085 – Critical Access Hospital • 4089 – Special Facility – Other 	64.9 million
Carrier	<ul style="list-style-type: none"> • 4700 – Professional 	491.2 million
Skilled Nursing Facility	<ul style="list-style-type: none"> • 4018 – Hospital Swing Bed • 4021 – Skilled Nursing Facility, Inpatient • 4028 – Skilled Nursing Facility, Swing Bed 	1.7 million
Home Health	<ul style="list-style-type: none"> • 4032 – Home Health + Inpatient (Part B) • 4033 – Home Health + Outpatient 	4.7 million
DME	<ul style="list-style-type: none"> • 4800 – Durable Medical Equipment 	23.5 million

Encounter RIF Variables

- Where appropriate, variable names will be consistent between Encounter RIFs and FFS RIFs
- Examples of included variables:

Data Type	Variables Included
Beneficiary	<ul style="list-style-type: none">• Beneficiary ID, DOB, sample group, state, county, zip code, Medicare status, gender, race
MAO	<ul style="list-style-type: none">• MAO contract number, Plan Benefit Package (PBP) number
Claim	<ul style="list-style-type: none">• Claim type, claim from/thru date, admission date, beginning/end date of service, total units billed
Claim Processing	<ul style="list-style-type: none">• Chart review flag, final action indicator
Facility	<ul style="list-style-type: none">• Facility type, type of service
Clinical	<ul style="list-style-type: none">• DRG, HCPCS, diagnosis codes
Provider	<ul style="list-style-type: none">• Provider NPI, provider taxonomy code, provider name/address/city/state

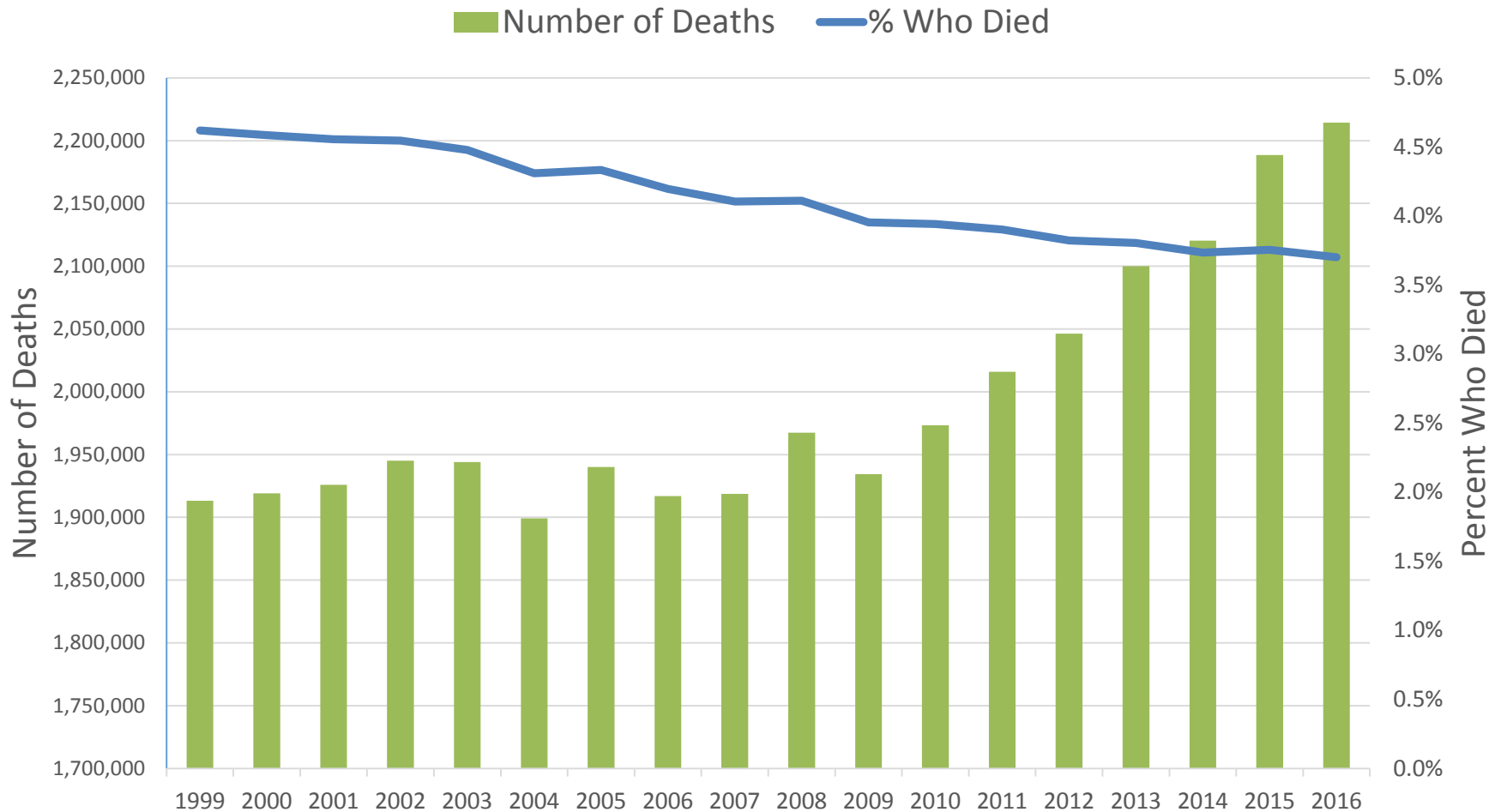
National Death Index (NDI)

- NDI data is available for Medicare (1999-2016) and Medicaid (1999-2013) beneficiaries
- More than 98% of Medicare beneficiaries with death date in Medicare Beneficiary Summary Files are also in NDI data
- Data elements include:
 - Date of death from the NDI
 - Underlying cause of death
 - Additional causes of death in two formats:
 - As indicated on the death certificate
 - Formatted and audited by CDC

National Death Index: Overview

- Created by the CDC's National Center for Health Statistics (NCHS) to track all deaths in the United States
- Compiles information from death certificates held at state vital statistics offices
- Causes of death are coded with ICD-10 codes
- Possible uses:
 - Identify trends in causes of death in the Medicare and Medicaid population compared to other population segments
 - Explore cost and utilization trends at the end of life for patients with specific causes of death
 - Compare diagnoses in claims data (eg. opioid use) to the causes of death on death certificates

NDI Use Example: Total Medicare Deaths, 1999-2016



NDI Use Example: Top 10 Causes of Death Among Medicare Beneficiaries

Cause of Death, 2011*	% of All Deaths	Cause of Death, 2016*	% of All Deaths
All Other Forms of Chronic Ischemic Heart Disease	12.1	All Other Diseases	12.8
Acute Myocardial Infarction	9.0	All Other Forms of Chronic Ischemic Heart Disease	7.7
Cerebrovascular Disease	8.0	Other Chronic Lower Respiratory Diseases	6.1
All Other Diseases	7.4	Cerebrovascular Disease	5.8
Malignant Neoplasms of the Trachea, Bronchus and Lung	6.0	Malignant Neoplasms of the Trachea, Bronchus and Lung	5.4
Other Chronic Lower Respiratory Diseases	4.9	All Other Forms of Heart Disease	5.3
All Other Forms of Heart Disease	4.7	Alzheimer's Disease	5.3
Diabetes Mellitus	3.2	Acute Myocardial Infarction	4.2
Atherosclerotic Cardiovascular Disease	3.1	Heart Failure	3.4
Pneumonia	3.0	Diabetes Mellitus	3.2

Plan Characteristics File

- Plan Characteristics file contains plan information for all Medicare Advantage (Part C) plans and all stand-alone Part D Prescription Drug Plans
- Data is organized into 6 distinct files:
 - Plan Benefit Package
 - Premiums
 - Cost Sharing Tiers
 - Service Area
 - Special Needs Plans
 - Plan Crosswalk
- Data covers CY 2006-2016

Improvements to Plan Characteristics File

- Name changed from “Part D Plan Characteristics File”
- Now includes data on Medicare Advantage-only plans
 - Part C plans that do not have a Prescription Drug Plan
- Variable labels were modified for variables that apply just to Part D plans
- Added indicator to show whether plan is Part C or Part D to make it easier to subset data
- Created new Special Needs Plan file
- Changes start with 2015 files

Plan Characteristics File: Plan Types, 2016

Plan Type	Frequency	Percent
All Plans	4,926	100.0
All Part D only plans	1,118	22.7
All Part C and Part D plans	3,233	65.6
All Part C only plans	575	11.7
Health Maintenance Organization (HMO)	296	6.0
Health Maintenance Organization Point-of-Service (HMO POS)	38	0.8
Local Preferred Provider Organization (PPO)	131	2.7
Medical Savings Account (MSA)	6	0.1
PFFS	20	0.4
1876 Cost	51	1.0
Regional PPO	33	0.7



Other Pathways for Accessing CMS Program Data

Allison Oelschlaeger

Helping Consumers Choose Providers Based on Quality and Cost

PAST



PRESENT



Expanding Uses of Data in the QE Program

Non-Public Analyses



Approved QEs may provide/sell analyses to providers, issuers, employers, medical societies, hospital associations, and state agencies

Combined Data

```
01111001 01101111
01110101 00100000
01110010 01101111
01100011 01101011
```

Approved QEs may provide/sell combined data (or provide Medicare claims data at no cost) to providers, medical societies, and hospital associations

Qualified Clinical Data Registries (QCDRs)

Approved QCDRs combine the Medicare data with clinical data for public reporting, non-public analyses, and provision of combined data

Medicare's Blue Button

- The Blue Button symbol identifies places to get your personal health records electronically
- The original Medicare Blue Button, launched in 2010 allowed beneficiaries to download their claims data in a text or PDF format from MyMedicare.gov
- Vision for Blue Button 2.0 at CMS



Build a developer-friendly, standards-based data API that enables beneficiaries to connect their data to the applications, services, and research programs they trust

"I download my data"



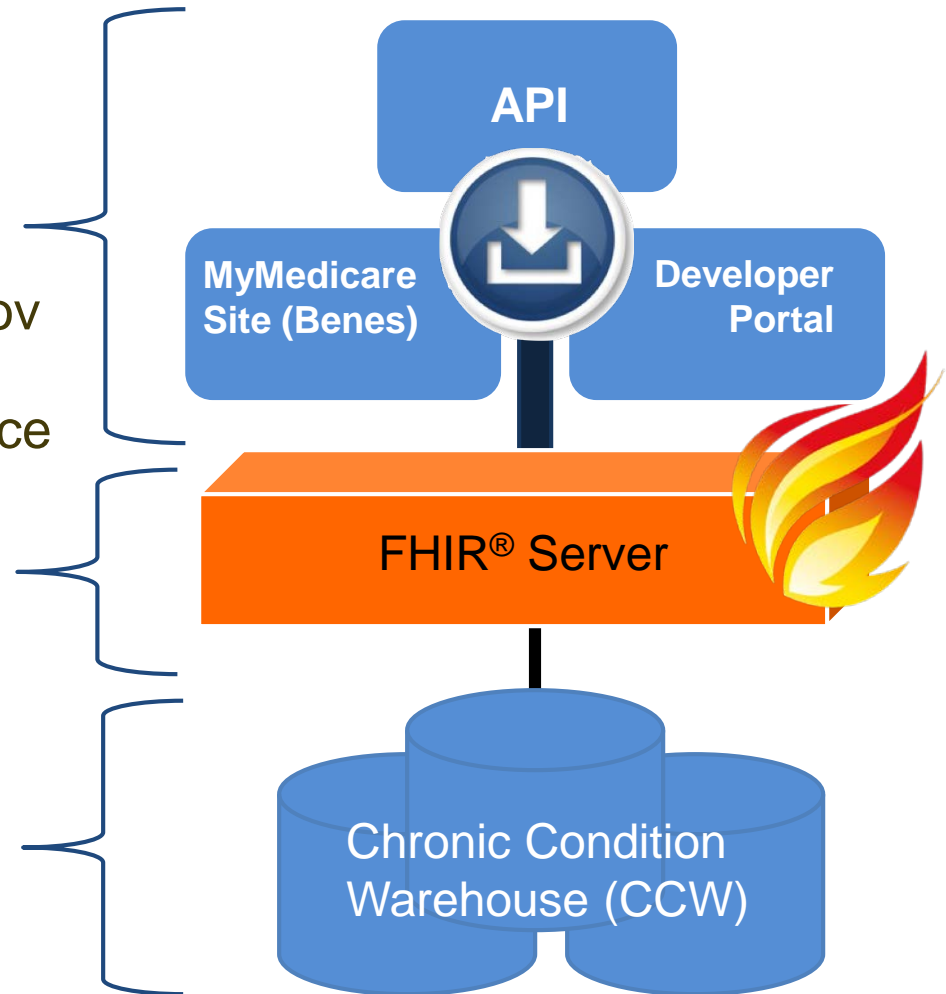
"I control who I share my data with"

MyHealthEData

- The MyHealthEData initiative aims to empower patients by ensuring that they control their healthcare data and can decide how that data is going to be used
 - Government-wide initiative led by the White House Office of American Innovation
 - HHS and CMS are key partners in this initiative
- CMS is leading by example with the launch of Blue Button 2.0, but also encouraging private plans to give patients access to their claims data electronically

Medicare Blue Button 2.0 Design

- Open source front-end application that manages developer and beneficiary access – beneficiary access integrated with MyMedicare.gov
- Standard open source reference implementation of Fast Healthcare Interoperability Resource (FHIR®) server
- Claims data for Medicare FFS and Part D beneficiaries sourced from the CCW



Blue Button 2.0 and Research

- If researchers develop connections to the Blue Button 2.0 API, beneficiaries will be able to donate their claims data for research purposes
- Data in Blue Button 2.0 includes:
 - Parts and B claims for beneficiaries enrolled in fee-for-service Medicare – loaded weekly
 - Prescription drug event data for beneficiaries enrolled in Part D – loaded monthly
- Researchers interested in accessing CMS claims via Blue Button must follow the standard process for connecting to the Blue Button API

Developer Access

- **Step 1 – Developer Sandbox:** Designed to enable a developer to interact with synthetic data (30,000 beneficiary records and claims)
 - Detailed documentation at <https://bluebutton.cms.gov>
 - <https://sandbox.bluebutton.cms.gov> is open to anyone to register and test their applications
- **Step 2 – Developer Portal and Validation:** Once developers have tested their application in the sandbox they can apply for Production Access
 - All applications are reviewed before access is granted
 - Installing a 3rd party application into Production does NOT give access to production Medicare data
 - A beneficiary must explicitly grant access to their own data to an application they choose to trust