



# Commission on Evidence-Based Policymaking

Niall Brennan

CMS Chief Data Officer

Director, Office of Enterprise Data & Analytics

@N\_Brennan

*INFORMATION NOT RELEASABLE TO THE PUBLIC UNLESS AUTHORIZED BY LAW:*

*This information has not been publicly disclosed and may be privileged and confidential. It is for internal government use only and must not be disseminated, distributed, or copied to persons not authorized to receive the information. Unauthorized disclosure may result in prosecution to the full extent of the law.*

# Introduction to CMS

Over **140 million Americans** receive healthcare coverage through programs administered by CMS

## Medicare

Health insurance for individuals age 65 and older, as well as those with disabilities

## Medicaid/CHIP

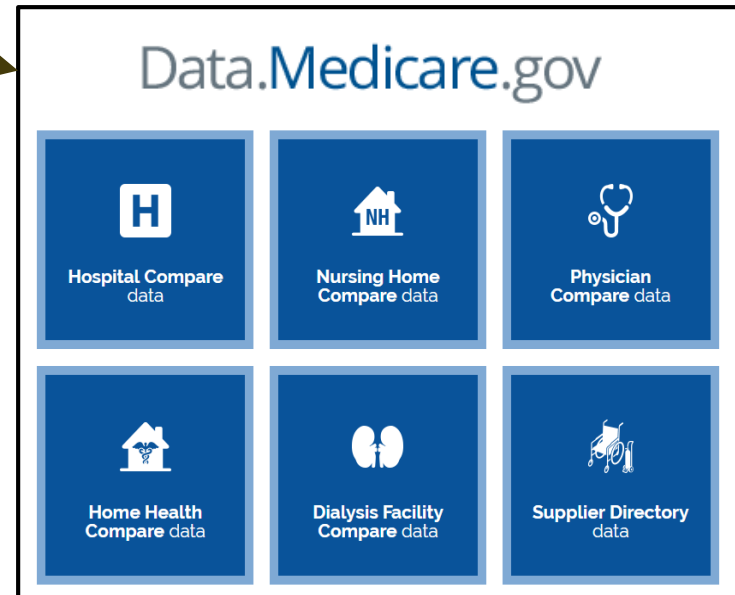
Health insurance managed by the states for individuals with lower incomes

## Health Insurance Marketplaces

A resource that allows individuals to sign-up for private health insurance with tax credits to offset premiums

# Finding CMS Publicly Available Data

CMS makes lots of data available to download for free



# Releasing Machine Readable Data – Provider Payment and Utilization Files

- Public data sets with payment and utilization information for services and procedures provided to Medicare beneficiaries
- Data released to date covers > 85% of Medicare program payments

May 2013	April 2014	April 2015	Oct 2015	Dec 2015	Mar 2016	Oct 2016
<b>Hospital Inpatient &amp; Outpatient</b>	<b>Physician &amp; Other Supplier*</b>	<b>Part D Prescriber</b>	<b>DME and POS</b>	<b>Home Health Agency</b>	<b>Skilled Nursing Facility</b>	<b>Hospice</b>
<ul style="list-style-type: none"> <li>▪ 3,000 Hospitals</li> <li>▪ 150,000 records</li> <li>▪ \$62B in payments</li> </ul>	<ul style="list-style-type: none"> <li>▪ 880,000 NPIs</li> <li>▪ 9M records</li> <li>▪ \$90B in payments</li> </ul>	<ul style="list-style-type: none"> <li>▪ Over 1M NPIs</li> <li>▪ 23M records</li> <li>▪ \$103B in drug costs</li> </ul>	<ul style="list-style-type: none"> <li>▪ 385,000 NPIs</li> <li>▪ 1.9M records</li> <li>▪ \$11B in payments</li> </ul>	<ul style="list-style-type: none"> <li>▪ 11,000 HHAs</li> <li>▪ 100,000 records</li> <li>▪ \$18B in payments</li> </ul>	<ul style="list-style-type: none"> <li>▪ 15,000 SNFs</li> <li>▪ 80,000 records</li> <li>▪ \$28B in payments</li> </ul>	<ul style="list-style-type: none"> <li>▪ 4,000 Hospices</li> <li>▪ 4,000 records</li> <li>▪ \$15B in payments</li> </ul>

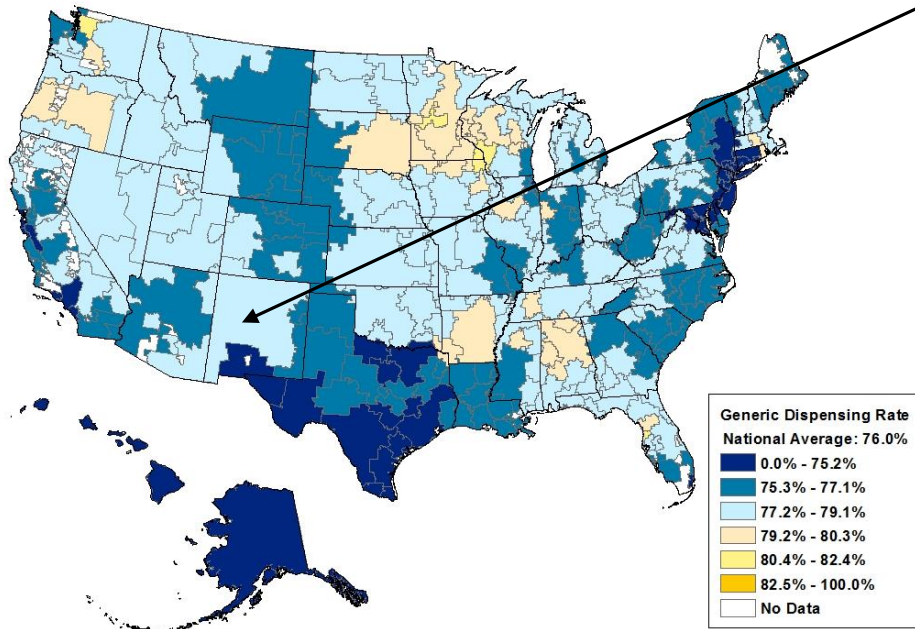
\*Updated to include demographic and health information associated with the provider's beneficiary panel in **October 2015**



**INFORMATION NOT RELEASABLE TO THE PUBLIC UNLESS AUTHORIZED BY LAW:**  
 This information has not been publicly disclosed and may be privileged and confidential. It is for internal government use only and must not be disseminated, distributed, or copied to persons not authorized to receive the information. Unauthorized disclosure may result in prosecution to the full extent of the law.

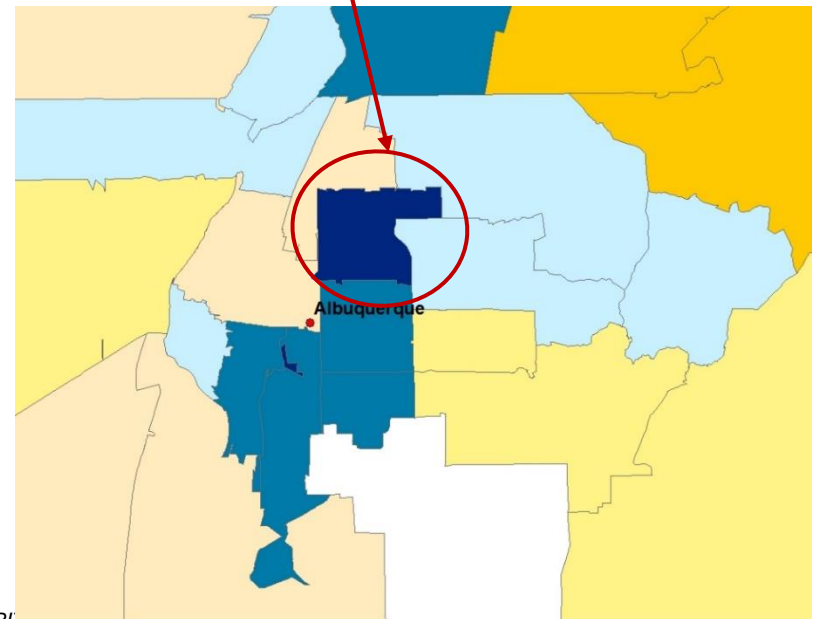
# Medicare Part D Generic Dispensing Rate

HRR Level



The national average for dispensing generic drugs is 76.0%. NM's state average (77.2%) is slightly higher.

ZIP-code 87109  
(Albuquerque)  
= 71.5%



Across NM ZIP-codes, generic dispensing rates range from 0% to 100%. One-third of NM ZIP-codes have rates below the state average.

# Part D Prescribers in Albuquerque (ZIP-code 87109)

## Albuquerque, NM: ZIP 87109 545 Providers, Average GDR = 71.5%

Provider Name	Provider Specialty	Drug Claims	Generic Drug Claims	Generic Drug Dispensing Rate
A. Weinstein	Ophthalmology	4,834	594	12.3%
J. Dorf	Pulmonary Disease	2,963	515	17.4%
T. Watterberg	Ophthalmology	2,123	433	20.4%
V. Valentine	Clinical Nurse Specialist	1,078	348	32.3%
R. Allen	Ophthalmology	1,713	619	36.1%
J. Krawchuck	Nurse Practitioner	1,371	604	44.1%
B. Monson	Ophthalmology	1,096	521	47.5%
R. Patel-Trujillo	Internal Medicine	1,757	877	49.9%

These 8 providers all have at least 1,000 total drug claims and a generic drug dispensing rate (GDR) < 50%.

The most prescribed brand name drug by this provider is Vigamox, which accounted for 34.2% of his total claims (\$188,354)



# Building Consumer Friendly Interfaces

### Medicare Enrollment Dashboard

**ENROLLMENT COUNTS** | **USER INFORMATION**

Geography: Nation | State | County

Coverage Type: Hospital/Medical | Prescription Drug

State: Wisconsin (Count: 1,082,053)

Hospital/Medical Enrollment, August 2016

Year	Month	Original Medicare	Medicare Ad Other Hea
2015	September	10,868	6,59
	October	10,903	6,59
	November	10,930	6,60
	December	10,944	6,60
2016	January	10,803	6,82
	February	10,845	6,82
	March	10,860	6,82
	April	10,885	6,82

### Leith A Abdulla, M.D.

HOWARD UNIVERSITY HOAPITAL  
WASHINGTON, DC

NPI: 1861606782  
Provider Type: Internal Medicine

Entity Type: Individual

CPT copyright 2011 American Medical Association. All Right Reserved.

Electrocardiogram complete  
HCPCS Code: 93000

Place of Service: Office

<b>90</b> Number of Services	<b>69</b> Number of Beneficiaries	<b>\$80</b> Average Submitted Charge	<b>\$20.75</b> Average Medicare Allowed Amount	<b>\$16.6</b> Average Medicare Payment
---------------------------------	--------------------------------------	---	---	---

Electrocardiogram report

### Medicare Chronic Conditions Dashboard: County Level

Medicare Spending & Utilization by Number of Chronic Conditions, 2014

Number of Chronic Conditions (6+) Prevalence: State to National Ratio

State	Prevalence	Per Capita Medicare Spending	ED Visits per 1,000 Beneficiaries	30 Day Readmission Rate
National	14.50%	\$30,420	1,980	23.06%
Alabama	15.13%	\$28,912	1,891	21.91%
Alaska	7.41%	\$39,087	2,272	19.71%
Arizona	11.13%	\$39,392	1,895	22.05%
Arkansas	12.98%	\$30,480	2,099	23.45%
California	13.10%	\$31,520	1,861	23.35%
Colorado	8.92%	\$30,714	2,203	20.38%
Connecticut	14.94%	\$29,293	2,040	23.16%
Delaware	15.18%	\$29,761	1,937	23.06%
District of Columbia	13.72%	\$34,760	2,832	28.05%
Florida	19.02%	\$30,488	1,734	23.81%
Georgia	14.07%	\$29,980	2,133	23.00%
Hawaii	10.27%	\$24,734	1,755	20.01%
Idaho	8.96%	\$29,517	2,082	19.70%
Illinois	15.31%	\$31,578	1,959	23.74%
Indiana	15.29%	\$30,949	2,025	22.27%
Iowa	10.89%	\$27,718	2,033	20.59%

Florida: 6+ Chronic Conditions by County



**INFORMATION NOT RELEASABLE TO THE PUBLIC UNLESS AUTHORIZED BY LAW:**  
 This information has not been publicly disclosed and may be privileged and confidential. It is for internal government use only and must not be disseminated, distributed, or copied to persons not authorized to receive the information. Unauthorized disclosure may result in prosecution to the full extent of the law.

# 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 315B records with 1B records added monthly
  - Unique beneficiary ID allows data linkages across all CCW data
- New innovator research data access expands current data release policy to allow innovators to access CMS data to create products they intend to sell



# Available Research Data Files

- 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)

# 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) 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

# Virtual Research Data Center (VRDC)

- Researchers have been receiving CMS data for decades
  - Requests have grown exponentially over the past couple years
  - Researchers are requesting more timely and less expensive data
- 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
- VRDC benefits
  - Lower cost, more timely data
  - Researchers use own laptop to securely access and analyze data remotely
  - Increased security for sensitive data
  - Additional privacy protections – no beneficiary identifiable data may leave the secure environment



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](#).