



# CMS Data Resources

## Informing the Affordable Care Act

Jason Petroski, PhD, MPA  
Director, Division of Survey Management and Data Analysis

**December 5, 2012**

# Session Overview

- Describe Current and Planned Survey and Administrative Data Efforts at CMS to Inform the Affordable Care Act (ACA)
  - CMS, Data and Implementation of ACA
  - Introduction to the Office of Information Products and Data Analytics (OIPDA)
  - Key Information/Data Products
  - Planned Enhancements and Future Areas of Focus

# CMS, Data & ACA Implementation

- CMS is the largest single payer for health care services in the US
- Transitioning from a passive payer to active purchaser
- Responsible for implementing a large number of provisions under ACA
- 1.5 billion claims submitted annually
- Significant additional data sources on the way
  - EHRs, Medicare Advantage plan encounter data, Provider data (S. 6002), Health Insurance Exchange/Medicaid expansion data, etc.
- Receive billions of other “non-claim” data points
  - Assessments, quality measurement, 1-800-Medicare call data, etc.
- Expected to drive new innovation in health care
- Trusted to protect beneficiary privacy

# CMS' Office of Information Products and Data Analytics (OIPDA)

**Without timely and relevant data and information, CMS cannot:**

- Define or reward value
- Measure and evaluate programs
- Identify and spread innovation
- Provide providers data they need to transform health care delivery
- Give other key participants in the health data ecosystem the data and information required to assist and accelerate system transformation



***Data and Information products must become a core business function for CMS!***

# OIPDA Priorities

- Improve accessibility of non-beneficiary identifiable data sets
- Disseminate beneficiary identifiable data to the greatest extent within the privacy laws
- Develop interactive information products that adapt to changing user needs
- Improve the data dissemination process (more timely and cost-effective)
- Strengthen ties to federal and private health partners
- Engage data user community to improve data strategy
- Managing integration of new data sources



# OIPDA Data and Information Products

## Data Products

- Chronic Condition Warehouse (CCW)
- Medicare Current Beneficiary Survey (MCBS)
- Public Use Files
- Medicare Data Sharing Program (ACA 10332)

## Information Products

- Medicare & Medicaid Research Review
- Medicare & Medicaid Statistical Supplement
- CMS Fast Facts
- Special Statistical Reports
- Market Insight Research
- Delivery System Tracking
- Dashboards
- Geographic Variation Analytics
- Data Navigator

# CCW Overview

- A CMS **research data center** created to support analysis on CMS populations, across different types of data and health care settings
- Patient-centric data files linked by unique beneficiary key, across the continuum of care
- Predefined chronic condition cohorts and other categorization schemes
- Medicare and Medicaid Claims from 1999 on (Parts A, B, D)
- All types of assessment data and Medicare enrollment data
- Supports *hundreds* of data requests, through the delivery or *thousands* of files to researchers each year.



# CCW Key Linkage Features

- All CCW data files linked by assignment of a unique, unidentifiable beneficiary link key (BENE\_ID) to support analysis across data files (unique link keys replace health insurance claim (HIC) numbers)
- Supports cross-sectional and longitudinal research from 1999 forward
- Supports construction of patient-centric views of enrollment and service utilization
- Link keys encrypted prior to delivery to researcher(s), for privacy protection



# New Data Enhancements and Products in CCW

- Enhanced Race Codes
- Risk Score Data
- Provider Data (PECOS, UPIN/NPI crosswalk)
- Customized Research Identifiable Files
- Death Certificate Data
- Master Beneficiary Summary File
- New chronic condition indicators
- Enhanced Limited Data Sets – Part D
- BI tools and products

# MCBS Overview

- The MCBS is a continuous, in-person, longitudinal survey of a representative national sample of the Medicare population.
- MCBS is the definitive survey for Medicare estimates and information on the Medicare population
  - 16,000 annual survey respondents
  - Extensive use of CMS administrative data (e.g. claims, drug data, etc.)
- 20+ years of continuous and extensive data collection
  - Approximately 1 million interviews conducted to date (since 1991)
  - 250 interviewers in the field, 365 days a year.
- Comprehensive: MA or FFS; Community or Facility; Aged or Disabled; Medicaid (Dual) status

# MCBS Contents

- Demographics
- Health status and functioning
- Cost of care
- Preventive services
- Access to, satisfaction with, and usual source of care
- Health Insurance
- Household or facility characteristics
- Survey weights
- Community/ Institutional timeline
- Event specific information:
  - Inpatient/Outpatient
  - Provider
  - Drug
  - LTC
  - SNF
  - Dental

# MCBS Data Files

## ● **Access to Care:**

- Point in time
- Always enrolled
- No cost and utilization included
- No imputation
- n = 16,000
- Available 1 year after fielding

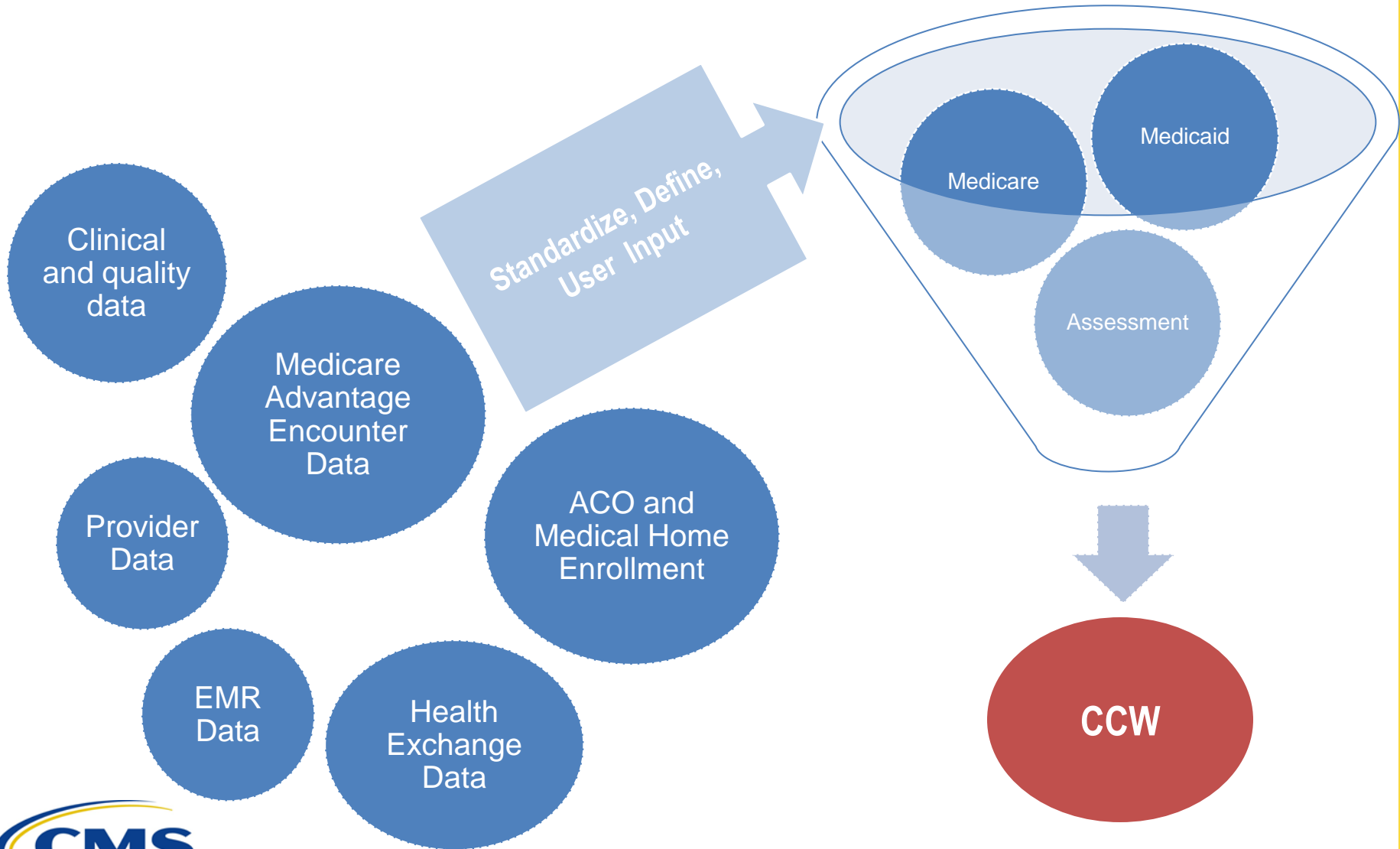
## ● **Cost and Use:**

- Entire calendar year
- Ever enrolled
- Include costs and utilization and event-level info.
- Imputation
- n = 12,000
- Available 2 years after fielding

# CMS Data Systems: Enhancements and Future Focus

- Manage Integration & Development of New Data Sources
  - Integrate new data sources from health reform with current data in the CCW.
  - Create linkage capabilities so data will support more innovative research and analytics.
  - Improve data timeliness, standardization, definitions and documentation.
- Improve Access to CMS Data and Develop New Dissemination Methods
  - CCW Data Enclave
  - New Public Use Files (PUFs)
- Create Interactive and High-value Data/Information Products
  - New Interactive Data and Information Products
  - Enhance Current Products

# Integration & Development of New Data Sources



# CCW Data Enclave Pilot

## ACCESS

- Increases data access > VPN and Virtual Desktop
- Utilize personal laptops



## SECURITY

- Increases data security > no shipping of external media
- Satisfies all privacy and security requirements



## COST

- Increases efficiency of data delivery
- Reduces infrastructure costs for researcher



## DATA & ANALYSIS



- Secure File Transfer System (SFTS) transfers data files efficiently and securely
- Convenient, quicker, and efficient access to CCW data
- Perform analyses and data manipulation
- Technical/Analytic support from CCW staff
- Statistical data output review



# CMS Public Use Files

Claims Based PUF	Unit of Analysis
2008 & 2010 Hospice PUF	Beneficiary
2008 & 2010 Skilled Nursing Facility PUF	
2008 & 2010 Home Health Agency PUF	
<i>Data Entrepreneurs Synthetic PUF (DE-SynPUF)*</i>	
2008 & 2010 Durable Medical Equipment PUF	Line Item
2008 & 2010 Carrier PUF	
2008 & 2010 Outpatient PUF	Procedure
2008 & 2010 Chronic Condition PUF	Profile
2008 Prescription Drug Event PUF	Event
2008 Inpatient PUF	Claim
2010 Institutional Provider & Beneficiary Summary PUF	Institution
(2007, 2009-10) Geographic Variation PUF	Geography

# Interactive and High-value Information/Data Products

- Analytic Tools
  - Geographic Variation data
- Interactive Analytics
  - Chronic Conditions dashboard (current)
  - Geographic Variation dashboard (in development)
  - Enrollment dashboard (in development)
- Data Navigator

# Geographic Variation (Data & Analytics)

- Database in CCW with 100% Medicare claims data for beneficiaries enrolled in FFS for 2007-2011
  - Geography: state, county, hospital referral region (HRR)
  - Over 300 indicators
  - Added quality indicators: readmissions, ED visits, PAHs, Hospital Compare
  - Data available **publicly** through Health Indicators Warehouse, Institute of Medicine, and *HealthData.gov*
- Example questions that Geographic Variation Database can answer:
  - What is Medicare spending in Arkansas? How does it compare across counties?
  - What is the readmission rate in my area? Is it above or below the national average?

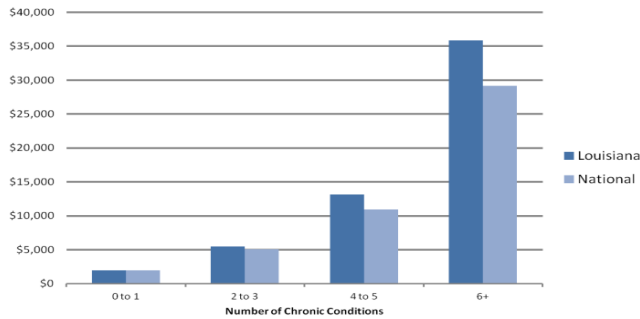
# Chronic Condition Dashboard (Coming Soon!)

## Chronic Conditions Dashboard: Medicare Spending

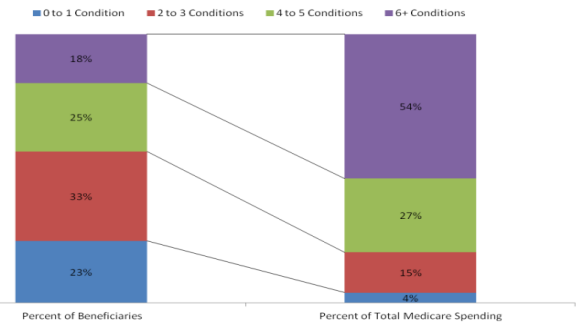
State **Louisiana**

Gender **Females** Age **65+** Dual Status **All**

Spending by Number of Chronic Conditions:  
 Select Measure **Per Capita \$** Select Comparison **National**

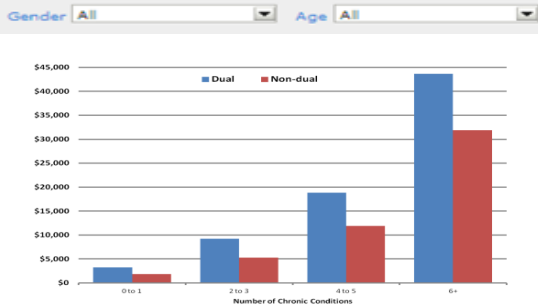


Distribution by Number of Conditions and Spending:  
**Louisiana**

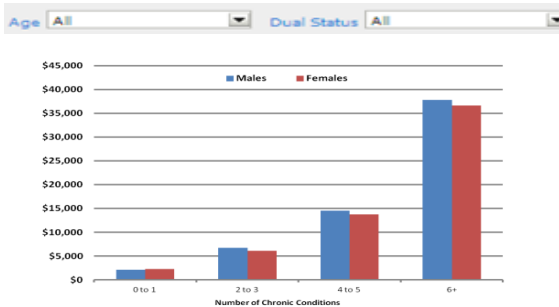


**Per Capita Spending** **Median Spending**

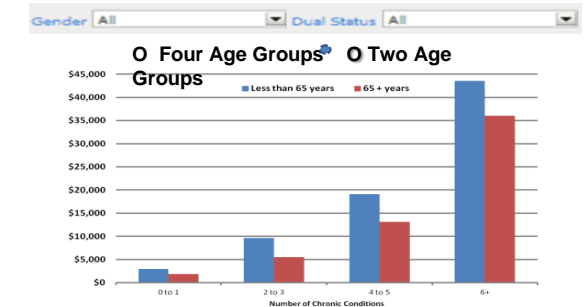
### Dual Eligibility: Louisiana



### Gender: Louisiana



### Age Group: Louisiana



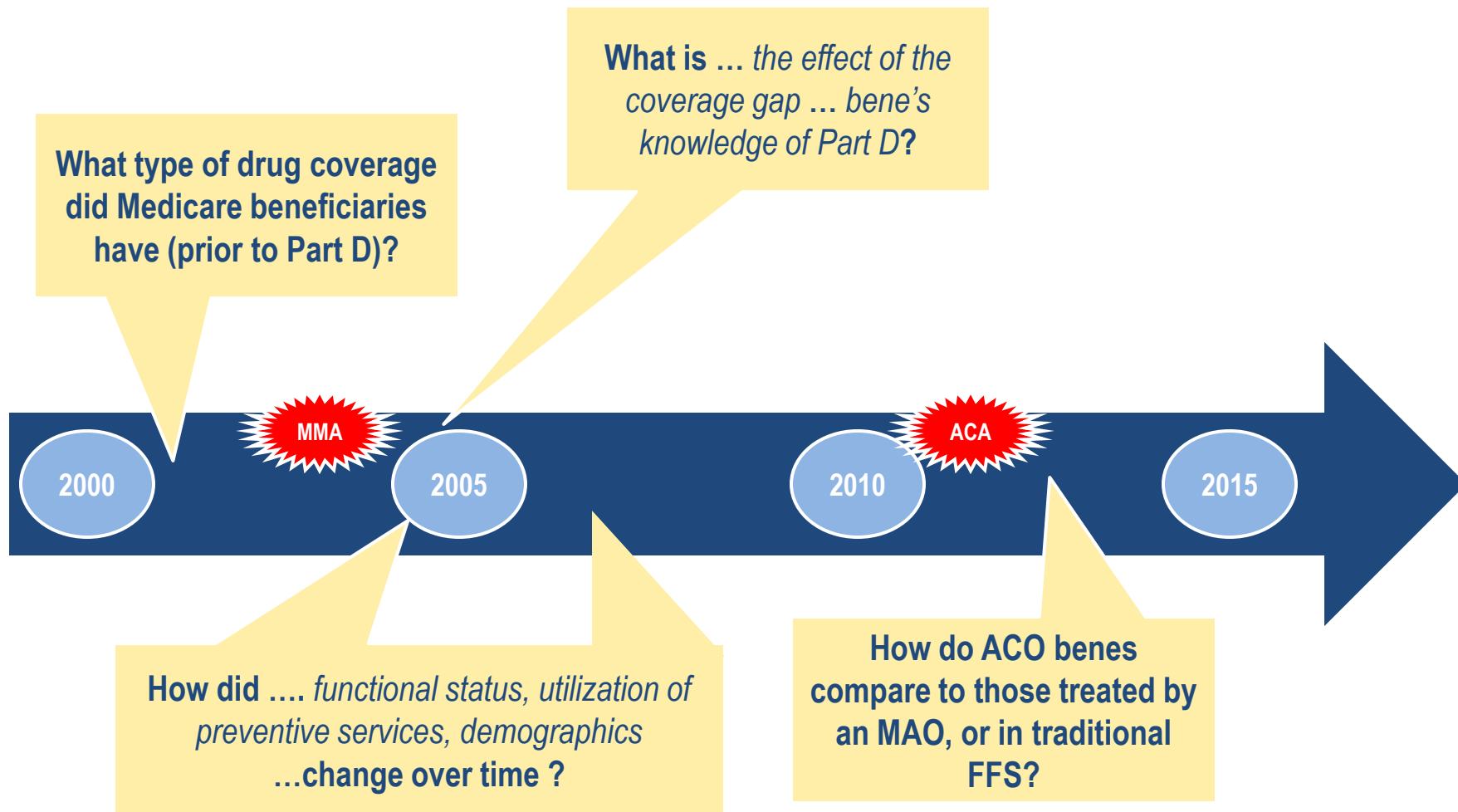
# CMS Data Navigator – Now LIVE!

Visit the Data Navigator at <http://dnav.cms.gov/>

The screenshot shows the CMS Data Navigator website. At the top, the CMS.gov logo is displayed with the tagline "Centers for Medicare & Medicaid Services". Navigation links include Home, About CMS, Careers, Newsroom, FAQ, Archive, Share, Help, Email, and Print. A search bar is present with the text "Learn about your healthcare options". Below this is a horizontal menu with categories: Medicare, Medicaid/CHIP, Medicare-Medicaid Coordination, Insurance Oversight, Innovation Center, Regulations, Guidance & Standards, Research, Statistics, Data & Systems, and Outreach & Education. The main content area features the "CMS DataNavigator" logo, a navigation bar with Home, Search, and Help, and a large green "Start" button. The background of the main area includes a compass icon and binary code.

OIPDA will be debuting an enhanced version in July 2013!

# MCBS: Informing Past, Current & Future Analysis



# ACA-related Enhancements to MCBS

- **Currently Captured**

- Premiums & Cost-sharing – premium tax credits and cost-sharing reductions (S. 1402), temporary adjustment to the calculation of Part B premiums (S. 3402), etc.
- Changes to Part D - coverage gap closure (S. 3315), catastrophic limit reduction (S. 3315), discounts (S. 3301)
- Utilization and beneficiary knowledge of Medicare-covered preventive services – (S. 4103, 3202, 4004)
- Patient activation/engagement (supplement)



# ACA-related Enhancements to MCBS

- **Planned**

- Improved Data Collection to Reduce Health Disparities (S. 4302) – Starting in 2014. (Planned)
  - Race/ethnicity to increase from 5 to 12 categories.
- Question(s) on electronic health record use at your PCP
- Enhanced reporting on important subpopulations, programs, Medicare provisions
  - Pursuing sample redesign, estimation and/or CMS administrative data strategies to capture new populations, such as ACOs, and improved reporting on dual-eligibles and minorities.
- Uses of new ACA-related data (e.g. MA encounter to survey data matching).
- Opportunity for Externally Funded Questions/Content