May 8th, 1:30 PM - 3:00 PM

Using Medicare Part D Data for Research

Becky A. Briesacher

University of Massachusetts Medical School

Follow this and additional works at: https://escholarship.umassmed.edu/cts_retreat

Part of the Health and Medical Administration Commons, Health Services Administration Commons, and the Translational Medical Research Commons

This work is licensed under a Creative Commons Attribution-Noncommercial-Share Alike 3.0 License.

https://escholarship.umassmed.edu/cts_retreat/2013/presentations/3

This material is brought to you by eScholarship@UMMS. It has been accepted for inclusion in UMass Center for Clinical and Translational Science Research Retreat by an authorized administrator of eScholarship@UMMS. For more information, please contact Lisa.Palmer@umassmed.edu.
Using Medicare Part D Data for Research

Becky Briesacher, PhD
Associate Professor, Medicine
Division of Geriatric Medicine
Funding and COI

Supported by grants R01AG028745 and R01AG022362 from the National Institute on Aging (NIA), and the Harvard Pilgrim Health Care Foundation. Dr Briesacher is also supported by a Research Scientist Development Award from the NIA (K01AG031836).

I declare no conflict of interest.
Overview of Presentation

Brief overview of Medicare Part D
Brief overview of Part D data
Examples Medicare Part D studies
Overview of Medicare Part D Drug Benefit

Part D implemented in 2006

Voluntary enrollment unless in Medicaid

- Choose from dozens (~40) of private Rx coverage plans and Medicare Advantage organizations
- premiums are heavily subsidized, late penalty for late enrollment

Auto-enrolled into Part D if in Medicaid

Employers can offer Retiree drug subsidy benefits as generous as Part D, known as “creditable coverage”
This is what the “Standard” Part D drug benefit looks like in 2009

<table>
<thead>
<tr>
<th>Plan Pays 15%; Medicare Pays 80%</th>
</tr>
</thead>
<tbody>
<tr>
<td>$6,154 in Total Drug Costs</td>
</tr>
<tr>
<td>($4,350 out-of-pocket)</td>
</tr>
<tr>
<td>$3,454 Coverage Gap</td>
</tr>
<tr>
<td>(“Doughnut Hole”)</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Enrollee Pays 25%</th>
</tr>
</thead>
<tbody>
<tr>
<td>$2,700 in Total Drug Costs</td>
</tr>
<tr>
<td>Plan Pays 75%</td>
</tr>
</tbody>
</table>

| $295 Deductible                  |

... Most plans do not offer the “standard” benefit, and coverage varies across most dimensions, including:

- Monthly premiums
- Deductibles
- The “doughnut hole”
- Covered drugs and utilization management restrictions
- Cost sharing for covered drugs
Part D data is available for research from Chronic Conditions Data Warehouse (CCW)

Contents 100% Part D data and is official data source.

CCW offers chronic disease indicators (21 conditions).

Researchers may request random 10% or 20% sample.

Part D data are linkable to other Medicare data
Part D Data available only on Part D enrollees

All Medicare Beneficiaries = 45.2 Million, 2009

- No Drug Coverage
- Other Drug Coverage\(^1\)
- Retiree Drug Coverage\(^2\)
- Stand-Alone Prescription Drug Plan
- Medicare Advantage Drug Plan

<table>
<thead>
<tr>
<th>Coverage Type</th>
<th>Number</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>No Drug Coverage</td>
<td>4.5 million</td>
<td>10%</td>
</tr>
<tr>
<td>Other Drug Coverage(^1)</td>
<td>6.2 million</td>
<td>14%</td>
</tr>
<tr>
<td>Retiree Drug Coverage(^2)</td>
<td>7.9 million</td>
<td>18%</td>
</tr>
<tr>
<td>Stand-Alone Prescription Drug Plan</td>
<td>17.5 million</td>
<td>39%</td>
</tr>
<tr>
<td>Medicare Advantage Drug Plan</td>
<td>9.2 million</td>
<td>20%</td>
</tr>
</tbody>
</table>

Part D Data available only on Part D enrollees

\(^1\)Includes Veterans Affairs, retiree coverage without RDS, Indian Health Service, state pharmacy assistance programs, employer plans for active workers, Medigap, multiple sources, and other sources.

\(^2\)Includes Retiree Drug Subsidy (RDS) coverage and FEHBP and TRICARE retiree coverage.

**SOURCE:** Centers for Medicare & Medicaid Services, 2009 Enrollment Information (as of February 1, 2009).
These are the types of Part D data files

**Medicare Part D**
- Part D Event Data
- Part D Drug Characteristics (Appended to the PDE)
- Part D Plan Characteristics Files, 2006
- Part D Plan Characteristics Files, 2007
- Part D Plan Characteristics Files, 2008
- Part D Plan Characteristics Files, 2009
- Part D Plan Characteristics Files, 2010
- Part D Plan Characteristics Files, 2011
- Part D Pharmacy Characteristics Files, 2006 - 2008
- Part D Pharmacy Characteristics Files, 2009 - 2011
- Part D Prescriber Characteristics Files, 2006 - 2011
- Part D Formulary File, 2010
- Part D Formulary Files, 2011

Detailed information about drug: (NDC), brand/generic name, costs.

Data are de-identified.

Researchers request from Centers for Medicare and Medicaid Services and provide variable-level justification.
ResDAC provides technical assistance on using Part D data

Introduction to the Use of Medicare Part D Data for Research

This workshop will familiarize the audience with the Medicare Part D program, the use of the Medicare Beneficiary Part D enrollment data, Part D Event data, and associated Part D Characteristic files for research. There is no charge for the workshop.

Educational Objectives:

- Understand the Medicare Part D Program and its benefits
- Understand what demographic, useful enrollment and linking information is available in the Master Beneficiary Summary file
- Understand the content of the Part D Event and Characteristics Files
- Understand issues involved with the use of Part D data for research
- Begin to appreciate the types of research that can be done using the Medicare Part D data
- Understand the requirements of the Centers for Medicare and Medicaid Services for obtaining and using Part D data

If you have questions about registering for our workshops, please contact Jennifer Schulz at (612) 626-4247 or schu2341@umn.edu.

Preferred Qualifications and Tech Requirements:
Attendees with prior experience working with Medicare data or have received Medicare data are preferred. Laptop computers with SAS will be provided for you. A working knowledge of SAS will be helpful.

Faculty: Barbara Frank
          Kyoungae Jung
          A. Marshall McBean

Workshop Date: Wednesday, May 15, 2013 - 8:30am to Thursday, May 16, 2013 - 4:00pm
Location:
Part D data are not just administrative claims data

Constructed variables “may not exactly represent the beneficiary experience at the time of the prescription fill.”

Part D data contains only final status records

Will not include drugs excluded from Part coverage or filled through 3rd party, or not filed as claim (e.g., 100% cash).

2-year lag in availability

Example: OPTIMIZING CHRONIC DISEASE PREVENTION AND MANAGEMENT IN ADVANCED DEMENTIA R21HS019579-01: PI Tjia

Data cost: $20,000

Request turnaround: 9 month lag

Final result: Part D data linked to Part A, MDS, and OSCAR on 200,000 Medicare enrollees with end-stage dementia in NHs.
Example of Use: Geographic Variation in Outpatient Antibiotic Prescribing Among Older Adults

A. Variation in adjusted antibiotic spending. B. Variation in adjusted counts of antibiotics, 2009

Example of Use: **Association Between the Initiation of Anti–Tumor Necrosis Factor Therapy and the Risk of Herpes Zoster**

*JAMA. 2013;309(9):887-895.*

### Table 4. Crude Herpes Zoster Incidence Rates and Adjusted Hazard of Herpes Zoster Among Patients With Rheumatoid Arthritis Stratified According to Tumor Necrosis Factor Antagonist Exposure

<table>
<thead>
<tr>
<th></th>
<th>Infliximab (n = 8087)</th>
<th>Etanercept (n = 10138)</th>
<th>Adalimumab (n = 6711)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Herpes zoster cases</td>
<td>124</td>
<td>105</td>
<td>42</td>
</tr>
<tr>
<td>Person-years of exposure</td>
<td>9086</td>
<td>8513</td>
<td>4218</td>
</tr>
<tr>
<td>Crude incidence rate (95% CI)&lt;sup&gt;a&lt;/sup&gt;</td>
<td>13.6 (11.4-16.3)</td>
<td>12.3 (10.2-14.9)</td>
<td>10.0 (7.4-13.5)</td>
</tr>
<tr>
<td>Adjusted hazard ratio (95% CI)&lt;sup&gt;b&lt;/sup&gt;</td>
<td>1 [Reference]</td>
<td>1.09 (0.82-1.45)</td>
<td>0.82 (0.55-1.22)</td>
</tr>
</tbody>
</table>

<sup>a</sup>Crude incidence rates per 1000 person-years of exposure.

<sup>b</sup>Adjusted for propensity score quintile adjustment and baseline glucocorticoid use.
Annual Prescription Drug Fills
absolute differences between observed and predicted means

Excellent to Good Health

Fair to Poor Health

Briesacher. 49(9):834-41, 2011 Sep.
Advantages of Part D include:
- Large and nationally representative data
- Linkable to other data