Introduction to the Use of Medicare Data for Research

Director of ResDAC
University of Minnesota
Structure and Content of the Medicare Program

- Eligibility, enrollment, benefits and coverage
Medicare Program

- 1965 - Title XVIII of the Social Security Act
- 7/1/1966 - Medicare Program started
- October 2012 - Medicare Program a success
4 Types of Medicare Beneficiaries

1. Elderly
   - Approximately 85% of Medicare beneficiaries are elderly (65 years of age and older)
   - Approximately 98% of elderly Americans are Medicare beneficiaries

2. Disabled
   - Approximately 15% of Medicare beneficiaries are disabled
Types of Medicare Beneficiaries

3. End Stage Renal Disease (ESRD)

4. Amyotrophic Lateral Sclerosis (ALS), or Lou Gehrig’s Disease
Number of Medicare Beneficiaries (in millions), by year
Percentage Distribution of Medicare Enrollees, by age

- 16.4% < 65 years
- 42.9% 65-74 years
- 29.3% 75-84 years
- 9.8% 85+ years
Percentage Distribution of Medicare Enrollees, by Gender

- Male: 43.8%
- Female: 56.2%
Percentage Distribution of Medicare Enrollees, by Race

- White, 77%
- Black, 10.30%
- Hispanic, 7.50%
- Asian, other and unknown, 4.50%
Distribution of Medicare Beneficiaries, by Gender

- Total: 56.5% female, 43.5% male
- Elderly: 58.4% female, 41.6% male
- Disabled: 44.4% female, 55.6% male
Medicare Card

- 10 or 11 position Medicare Claim Number or Health Insurance Claim number (HIC)
- Generally, looks like an SSN with a letter suffix — can be a prefix
- Hospital Insurance, or Part A
- (Supplemental) Medical Insurance, or Part B
Medicare -- 4 parts

http://www.medicare.gov/

- Part A, or Hospital Insurance (HI)
- Part B, or Supplemental Medical Insurance (SMI)
- Part C, or Medicare Advantage (HMO, Managed Care) – must have Part A and Part B
- Part D, or Prescription Drug Coverage
Medicare Part A Benefits

- Hospital care
- Skilled nursing facility (SNF) care
- Home health care
  - skilled nursing and rehabilitation care
  - patient confined to home
- Hospice care
Medicare Part A Eligibility

- **Elderly**
  - Person is eligible if they or their spouse worked 40, or more, quarters in their lifetime and paid Medicare tax while working
  - For those who did not work 40 quarters, enrollment is possible by paying a monthly premium (2012: $451/mo.)
  - 98% of persons > 64 years old are enrolled in Part A
Medicare Part A Eligibility

- **Disabled**
  - a person who has received Social Security Disability Insurance (SSDI) benefits for 24 months

- **ESRD** - persons with end-stage renal disease

- **ALS** - persons with Amyotrophic Lateral Sclerosis (ALS), or Lou Gehrig’s Disease
Medicare Part A Deductible and Coinsurance

- Deductible for each spell of illness equal to one day of hospitalization ($1,156 in 2012)
- Coinsurance for Hospital and SNF stays
  - for days 61-90 of hospitalization (1/4 deduct.)
  - for days 91-150 of hospitalization (1/2 deductible, and are using reserve days)
  - All costs beyond 150 days
  - for days 21-100 of SNF ($144.50 in 2012)
- Note: no cost-sharing for home health or hospice
Payment of Part A Bills

- Providers use the UB-04 form, also called the CMS1450
- "UB" abbreviation for "Uniform Bill"
- All claims for Part A services were sent to the Fiscal Intermediaries (50), now sent to Medicare Administrative Contractors (MACs)
- Part A services are paid for out of the Medicare Trust Fund
Medicare Part B (or SMI) Benefits

- Physician services, and services provided by other types of providers (e.g., health departments)
- Facility charges for hospital outpatient services and ambulatory care centers
- Note: a person who is seen in a hospital or hospital outpatient setting will generally generate two claims, one from the facility and one from the physician
- Durable Medical Equipment (DME)
Medicare Part B Enrollment

- Someone or some agency must pay to be enrolled in Part B
  - usually, the premium payment is deducted from monthly Social Security check starting with period of first eligibility – Minimum payment = $99.90 in 2012; 2008 through 2010; $93.50 in 2007; $88.50 in 2006, $78.20/month in 2005; $66.60/month in 2004; $58.70/month in 2003, $50 in 2002 and 2001 and $45.50 in 2000
  - may enroll later, but have to pay an added premium (10%/year of delay)
  - Payment range in 2012 from $99.90 to $319.70
Medicare Part B Deductible and Coinsurance


- **Coinsurance** - 20%
  - exceptions:
    - clinical laboratory tests - no coinsurance;
    - influenza and pneumonia vaccines and PSA - no coinsurance or deductible;
    - mental health services: was 50%; beginning January 1, 2011 gradually reducing to 20%; 40% in 2012.
Payment of Part B Bills

- Physicians and “other providers”, including the providers of Durable Medical Equipment use the CMS form 1500. Submit to a Medicare Administrative Contractor (MAC).

- Hospital Outpatient facilities and Home Health Agencies (HHAs) use the UB-04 form to submit claims for Part B services, and they submitted the claim to the Fiscal Intermediary, just like for Part A services they provide. Except now, there are the MACs (Medicare Administrative Contractors) that process both Part A and Part B claims, so the Hospital Outpatient facilities and HHAs send their Part A and their Part B claims to the same organization.
HEALTH INSURANCE CLAIM FORM

1. MEDICARE (Yes) (No) (Sponsor's SSN)
   (A) FOR (B) ADULTS
   (C) BIRTH (D) CHILD

2. PATIENT'S NAME (Last Name, First Name, Middle Initial)
   (A) FOR (B) ADULTS
   (C) BIRTH (D) CHILD

3. PATIENT'S DATE OF BIRTH
   (MM) (DD) (YY)

4. INSURED'S NAME (Last Name, First Name, Middle Initial)

5. PATIENT'S ADDRESS (No., Street)

6. PATIENT'S RELATIONSHIP TO INSURED
   (A) Self (B) Spouse (C) Child (D) Other

7. INSURED'S ADDRESS (No., Street)

8. CITY

9. PATIENT'S STATE

10. ZIP CODE

11. INSURED'S POLICY GROUP OR FECA NUMBER

12. IS PATIENT'S CONDITION RELATED TO

13. OTHER INSURED'S NAME (Last Name, First Name, Middle Initial)

14. OTHER INSURED'S POLICY OR GROUP NUMBER

15. EMPLOYER'S NAME OR SCHOOL NAME

16. INSURANCE PLAN NAME OR PROGRAM NAME

17. UNIVERSITY HOSPITAL

18. INSURED'S DATE OF BIRTH
   (MM) (DD) (YY)

19. Auto Accident

20. Outside Unit

21. Diagnosis or Nature of Illness or Injury

22. Medicare Reimbursement Code

23. Prior Authorization Number

24. Dates of Service

25. Federal Tax I.D. Number


27. Accept Assignment
   (A) Yes (B) No

28. Total Charge

29. Amount Paid

30. Balance Due

31. Signature of Physician or Supplier

32. Name and Address of Facility Where Services Were Rendered

33. Physician's Supplier's Billing Name, Address, Zip Code & Phone

PLEASE PRINT OR TYPE

Form HCF-1000 (12-96) Form PRR-1000
Form WC-1000

ResDAC
RESERArch DATA ASSISTANCE CENTER
Figure 5
Estimated Sources of Medicare Revenue, FY2009

TOTAL: $506.8 Billion
- Payroll Taxes: 41%
- General Revenue: 39%
- Beneficiary Premiums: 12%
- Payments from States: 3%
- Taxation of Social Security Benefits: 5%
- Interest and Other: 1%

PART A: $243.5 Billion
- Payroll Taxes: 85%
- General Revenue: 6%
- Beneficiary Premiums: 1%
- Payments from States: 2%
- Taxation of Social Security Benefits: 12%
- Interest and Other: 1%

PART B: $202.4 Billion
- Payroll Taxes: 73%
- General Revenue: 25%
- Beneficiary Premiums: 2%
- Payments from States: 12%
- Taxation of Social Security Benefits: 1%
- Interest and Other: 1%

PART D: $60.9 Billion
- Payroll Taxes: 79%
- General Revenue: 9%
- Beneficiary Premiums: 12%
- Payments from States: 1%
- Taxation of Social Security Benefits: 1%
- Interest and Other: 1%

Medicare Part C - Managed Care later called Medicare + Choice Now called ????

- Fee-for-service or traditional Medicare since 1966
- Medicare Managed Care began in 1985
- Must have both Medicare Part A and Part B and continue to pay the Monthly Part B Premium, or have it paid for you.
Medicare Advantage (MA)

- MA plan assumes risk
  - plan paid by CMS on a capitated basis
  - capitation based on CMS Hierarchical Condition Codes: CMS-HCC
  - Originally capitation based on 95% of Average Annual Per Capita Cost
  - Currently paid 10 - 14% more than the cost of a similar fee-for-service beneficiary
Percent of Medicare Beneficiaries in Managed Care, 1992-2011
Figure 2

Medicare Advantage Enrollees as a Percent of Medicare Beneficiaries, by State, 2009

Note: Share of Medicare Advantage enrollees includes beneficiaries in Medicare HMOs, PPOs, PSOs, MSAs, PFFS, demonstrations, PACE, employer direct PFFS, and cost plans. SOURCE: Kaiser Family Foundation analysis of Centers for Medicare and Medicaid Services State/County Market Penetration Files, January 2009.
Medicare Advantage (MA) Plan Penetration, 2011

statehealthfacts.org
Your source for state health data
Medicare Advantage – Summary for researchers – (1)

1. Increasing percentage of beneficiaries enrolling in managed care until 1999 and 2000; then decline through 2005; then increase to highest levels ever. Why?

2. Enrollment **not** uniformly distributed throughout the country

3. “Encounter data” not available
Medicare Advantage - Summary for researchers (2)

4. Hospital encounter data submitted beginning 1/1/2000, but not available to researchers – but maybe soon – Ha!

5. Can identify and exclude Medicare Advantage enrollees from data sets and analyses, if needed

6. We recommend that these exclusions be made

Medicare Prescription Drug Program – a.k.a., Medicare Part D
Part D-related acronyms/names

- **PDP** – stand-alone Prescription Drug Plan – fee-for-service
- **MA-PD** – Medicare Advantage Prescription Drug Plan
- **PDE** – Prescription Drug Event
- **ICL** – Initial Coverage Limit
- **CCL** – Catastrophic Coverage Limit
- **TrOOP** – True Out of Pocket Costs
- **LIS** – Low Income Subsidy
- **MBSF** – Master Beneficiary Summary File
- **BSF** – Beneficiary Summary File
Medicare Prescription Drug Program

- Implemented in 2006 as part of the Medicare Modernization Act (MMA) of 2003
- Part D is based on a competitive model where beneficiaries can voluntarily purchase drug coverage offered by private plans.
- Part D plans have flexibility in the design of plan: benefit package (e.g., deductibles/copays, formularies, prior authorization requirements, etc.)
- Premiums vary by plan.
Medicare Prescription Drug Program

- Part D enrolment is for a calendar year.
- Beneficiaries may choose from multiple plans during annual open enrollment. Last one Oct 15-Dec 7, 2011. 6% are plan switchers each year
- Plans are state or region-based and each beneficiary has at least 25 plans from which to choose in 2012
- Average base monthly premium in 2012 = $31.08, down from $32.34 in 2011
- Percentage of Medicare beneficiaries enrolled in Part D
  - 2006 = 54%
  - 2010 = 59%
  - 2011 = 60%
Medicare Prescription Drug Program

- Enrollment in Part D is optional, but a penalty for those without creditable coverage who enroll after age 65.
- “Extra Help” available for those who qualify; called Low Income Subsidy (LIS)
Medicare Part D Enrollment – 2010

MAPD = Medicare Advantage Prescription Drug
PDP = (Fee-for-Service) Prescription Drug Plan

- MAPD: 21%
- PDP: 37%
- No creditable coverage: 10%
- Creditable coverage: 32%
Medicare Part D Standard Benefit, 2012

- **TrOOP Spending**
  - $4,700
  - $972.50
  - $320
  - $0

- **Enrollee Payments**
  - Initial Coverage Period:
    - Plan Pays 75%
    - Deductible ($1,957.50)
  - Coverage Gap ($3,727.50)
    - Enrollee Pays 50% for brand name drugs, and 86% for generic drugs
  - Deductible ($320)
    - Enrollee Pays 100%

- **Total Drug Spending**
  - at OOP threshold $6,657.50
  - at ICL $2,930
  - at deductible limit $320
True Out-of-Pocket Spending (TrOOP)

Not the amount the patient paid – well almost

- TrOOP, "True Out of Pocket Costs": “the beneficiary’s own out-of-pocket spending; that of a family member or official charity; supplemental drug coverage provided through qualifying state pharmacy assistance programs or Part D’s low-income subsidies; and, under CMS’s demonstration authority, supplemental drug coverage paid for with MA rebate dollars.

- TROOP amounts are the medication costs that can be used to calculate “beneficiary payments” and are used by CCW/Buccaneer to calculate the benefit phase that each drug fill falls into in the PDE data files.
### Medicare Part D Standard Benefit, 2012

<table>
<thead>
<tr>
<th>TrOOP Spending</th>
<th>Deductible ($320)</th>
<th>Initial Coverage Period</th>
<th>Catastrophic</th>
</tr>
</thead>
<tbody>
<tr>
<td>$320</td>
<td>Enrollee Pays 100%</td>
<td>Plan Pays 75%</td>
<td>Medicare Pays 80%</td>
</tr>
<tr>
<td></td>
<td></td>
<td>($1,957.50)</td>
<td></td>
</tr>
<tr>
<td>$972.50</td>
<td>Enrollee Pays 25%</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Initial Coverage Period</td>
<td>Plan Pays 75%</td>
<td></td>
</tr>
<tr>
<td></td>
<td>($1,957.50)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>$4,700</td>
<td>Coverage Gap ($3,727.50)</td>
<td>Enrollee Pays 50% for brand name drugs, and 86% for generic drugs</td>
<td></td>
</tr>
</tbody>
</table>

- **Total Drug Spending at deductible limit**: $320
# Medicare Part D Standard Benefit Thresholds

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Deductible</td>
<td>$250</td>
<td>$275</td>
<td>$295</td>
<td>$310</td>
<td>$310</td>
<td>$320</td>
</tr>
<tr>
<td>Initial Coverage Limit</td>
<td>$2,250</td>
<td>$2,510</td>
<td>$2,700</td>
<td>$2,830</td>
<td>$2,840</td>
<td>$2,930</td>
</tr>
<tr>
<td>TrOOP threshold at catastrophic coverage limit (CCL)</td>
<td>$3,600</td>
<td>$4,050</td>
<td>$4,350</td>
<td>$4,550</td>
<td>$4,550</td>
<td>$4,700</td>
</tr>
<tr>
<td>Total covered drug expenditure at CCL</td>
<td>$5,100</td>
<td>$5,726.25</td>
<td>$6,153.75</td>
<td>$6,440</td>
<td>$6,447.50</td>
<td>$6,657.50</td>
</tr>
</tbody>
</table>
Figure 5
Estimated Sources of Medicare Revenue, FY2009

- Payroll Taxes: 41%
- General Revenue: 39%
- Beneficiary Premiums: 12%
- Payments from States: 5%
- Taxation of Social Security Benefits: 8%
- Interest and Other: 1%
- Total: $506.8 Billion
- Part A: $243.5 Billion
- Part B: $202.4 Billion
- Part D: $60.9 Billion

“Extra Help” – Low Income Subsidy (LIS)

- Benefits
  - Help paying Medicare drug plan’s monthly premium, any yearly deductible, coinsurance, and/or copayments
  - No coverage gap liability
  - No late enrollment penalty

- Major Effort on the part of CMS and advocacy groups to inform beneficiaries about the Low Income Subsidy available to them to help pay for Part D services.
Medicare Part D Enrollment, 2010

- 17% No creditable coverage
- 14% Primary coverage through FEHB, TRICARE, or active worker
- 13% Covered by employers who receive RDS
- 10% Other creditable coverage
- 3% Non-LIS in MA-PD
- 4% LIS in MA-PD
- 21% Non-LIS in PDP
Extra Help – Low Income Subsidy

- Medicare beneficiaries in state Medicaid programs, Medicare Savings Programs or receiving SSI (Supplemental Social Insurance) are “deemed eligible” for Extra Help and they get it automatically.

- Major Effort on the part of CMS and advocacy groups to inform beneficiaries with incomes and/or assets above levels that would qualify them for the above programs about the subsidy(ies) available to beneficiaries to help pay for Part D services.


- Also, some lame advertising (next slides)
<table>
<thead>
<tr>
<th>Beneficiary Group</th>
<th>Income Eligibility Requirement</th>
<th>Asset Eligibility Requirement</th>
<th>Need to apply for LIS?</th>
<th>Monthly Premium</th>
<th>Annual Deductible</th>
<th>Copay/Coinurance for Drugs on Plan Formulary</th>
</tr>
</thead>
<tbody>
<tr>
<td>Duals (people with Medicare &amp; full Medicaid) who reside in long-term care facilities or get HCBS*</td>
<td>Meet State Medicaid financial eligibility rules</td>
<td>Meet State Medicaid financial eligibility rules</td>
<td>No, receive it automatically</td>
<td>No</td>
<td>No</td>
<td>None</td>
</tr>
<tr>
<td>Other people with Medicare and Medicaid, including those enrolled in a Medicare Savings Program (MSP)</td>
<td>Meet State Medicaid financial eligibility rules</td>
<td>Meet State Medicaid financial eligibility rules</td>
<td>No, receive it automatically</td>
<td>No</td>
<td>No</td>
<td>Copay: $1.10 generic/$3.30 brand name if income ≤ 100% FPL ($930.83/month single or $1,260.83 married) Copay: $2.60 generic/$6.50 brand name if income &gt; 100% FPL or if MSP-only</td>
</tr>
<tr>
<td>Non-duals with income ≤ 135% FPL</td>
<td>$1,256.63/month or less if single; $1,702.13/month or less if married</td>
<td>$8,440 or less if single; $13,410 or less if married**</td>
<td>No if on SSI; otherwise yes</td>
<td>No</td>
<td>No</td>
<td>Copay: $2.60 generic/$6.50 brand name No copay after reaching $4,700 limit</td>
</tr>
<tr>
<td>Beneficiary Group</td>
<td>Income Eligibility Requirement</td>
<td>Asset Eligibility Requirement</td>
<td>Need to apply for LIS?</td>
<td>Monthly Premium</td>
<td>Annual Deductible</td>
<td>Copay/Coinsurance for Drugs on Plan Formulary</td>
</tr>
<tr>
<td>-------------------</td>
<td>--------------------------------</td>
<td>-------------------------------</td>
<td>------------------------</td>
<td>----------------</td>
<td>------------------</td>
<td>--------------------------------------------</td>
</tr>
<tr>
<td>Non duals with income ≤ 135% FPL AND assets between $8,440 and $13,070 if single, or between $13,410 and $26,120 if married**</td>
<td>$1,256.63/month or less if single; $1,702.13/month or less if married</td>
<td>Between $8,440 and $13,070 if single; between $13,410 and $26,120 if married**</td>
<td>Yes</td>
<td>No</td>
<td>$65</td>
<td>Coinsurance: 15% Copay: $2.60 generic/$6.50 brand name after reaching out-of-pocket limit of $4,700</td>
</tr>
<tr>
<td>Non duals with income between 135-150% FPL</td>
<td>$1,396.25/month or less if single; $1,891.25/month or less if married</td>
<td>$13,070 or less if single; $26,120 or less if married**</td>
<td>Yes</td>
<td>Sliding scale</td>
<td>$65</td>
<td>Coinsurance: 15% Copay: $2.60 generic/$6.50 brand name after reaching out-of-pocket limit of $4,700</td>
</tr>
</tbody>
</table>

* As of January 1, 2012, people who receive Medicaid home and community based services (HCBS) have no copayments under Part D, just like full duals who reside in a long-term care facility.

Read CMS memo on Part D cost-sharing waiver for those who get HCBS

** All asset eligibility limits include $1,500/person burial allowance.

Income Levels Source: http://aspe.hhs.gov/poverty/12poverty.shtml

Updated February 2012
Medicare Part D Enrollment, 2010

- 17% No creditable coverage
- 14% Primary coverage through FEHB, TRICARE, or active worker
- 10% Covered by employers who receive RDS
- 13% Other creditable coverage
- 13% Non-LIS in MA-PD
- 4% LIS in MA-PD
- 3% Non-LIS in PDP
- 21% Covered by employers who do not receive RDS
Beneficiary-level Part D Data
“Denominator” information: for all Medicare beneficiaries

- Denominator/Enrollment information
  - In Beneficiary Summary File (BSF) segment of Master Beneficiary Summary File (MBSF)
  - Beth will talk about today Segment D of this workshop
  - This information for all Medicare beneficiaries
  - Indicates if:
    » in Part D
    » whether in PDP or in MA-PD
    » LIS beneficiary or not and level of LIS
    » Dual eligible status as reported by each state
Beneficiary-level Part D Data

“Numerator” information: only for Part D enrollees

- Numerator information: Prescription drug event (PDE) records for Medicare beneficiaries in Part D
  - Approximately 1 billion drug claims annually
  - Found in the Prescription Drug Event File
  - Linkable to “Characteristics Files” containing information about the medication prescribed, the drug plan, the prescriber and the provider (pharmacy)
  - If interested in Part D
    - ResDAC Workshop: CMS 106 Introduction to the Use of Medicare Part D Data for Research
Need help? – Contact ResDAC (Research Data Assistance Center)

- University of Minnesota contract with Centers for Medicare and Medicaid Services (CMS)
- Goal of ResDAC: to help CMS increase the number of researchers skilled in accessing and using CMS databases for studies of the Medicare and Medicaid programs and beneficiaries
ResDAC Assistance Desk

- ResDAC Assistance Desk staffed by Masters trained Technical Advisors who
  - answer questions regarding Medicare and Medicaid data: data access and availability, record layouts, individual variables, location of Medicare and Medicaid program information
  - work with researchers from first inquiry to submission of a complete request to CMS for data
  - support ResDAC website
ResDAC Services - Training Workshops

- CMS 101: Introduction to the Use of Medicare Data for Research
- CMS 102: Introduction to the Use of Medicaid Data for Research
- 1-2 day “specialty” workshops
  - CMS 105: Using Cost Report Data for Research
  - CMS 106: Introduction to the Use of Medicare Part D Data for Research
  - CMS 202: Using Medicare Data for Comparative Effectiveness Research
How to contact the ResDAC Assistance Desk

- **Phone**
  - Toll free: 888-9ResDAC (888-973-7322 )

- **email**
  - resdac@umn.edu

- **WEB**
  - www.resdac.org (Information)
  - www.resdac.org/submit-question (Submit a Question)