Measuring Veterans Health Services Use in VA and Medicare (Part 2)

January 7, 2013

Presented by:

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Audience Poll

- **Did you attend the December session on using Medicare claims data to study inpatient and outpatient care?**
  - Yes
  - No

- **Have you ever used any Medicare claims data other than the Outpatient and Inpatient Standard Analytic Files?**
  - Yes
  - No

- **How would you rate your overall knowledge of Medicare claims data?**
  - 1 (No knowledge)
  - 2
  - 3
  - 4
  - 5 (Expert-level knowledge)

Session Objectives

- **Overview of Medicare claims data (brief review)**
- **Using data from selected Medicare files**
  - Home Health Agency (HHA)
  - Hospice Services
  - Skilled Nursing Facility (SNF)
  - Durable Medical Equipment (DME)

- **Measurement strategies for evaluating Medicare healthcare use and examples of VA studies using selected Medicare claims data**

- **Where to go for more help**

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Why are Medicare Claims Important?

- Many Veterans who use VA health care also obtain care outside VA

- Researchers need full picture of health care use to draw accurate conclusions

- Almost half of Veterans enrolled in VHA are also enrolled in Medicare

Overview of Medicare Claims

- **Healthcare providers and health equipment suppliers submit claims, i.e., bills, to the Centers for Medicare and Medicaid Services (CMS) for reimbursement for services and products**

- **Claims are collected by CMS and entered into datasets for analysis based on:**

  - Type of billing form used to gather the original information

  - Type of provider

Sources of Medicare Claims Data

Billing Form	CMS 1450/ UB-04	CMS 1500
Provider type	Institutional	Non-institutional
Examples of Providers	Hospitals Skilled Nursing Facilities Home Health Agencies Hospice	Physicians Suppliers

Our focus today

- **Institutional Files**

  - Outpatient
  - <u>Home Health Agency (HHA)</u>
  - <u>Hospice</u>
  - Inpatient
  - <u>Skilled Nursing Facility (SNF)</u>

- **Non-institutional Files**

  - Carrier (Physician/Supplier)
  - <u>Durable Medical Equipment (DME)</u>

- **Institutional Stay Level File**

  - <u>Medicare Provider Analysis and Review (MedPAR)</u>

Examples: Claims to Care Relationship

- **A single claim may include**
  - One service, product or procedure such as
    - A physician office visit
  - More than one service, product or procedure such as
    - An inpatient hospital stay
- **Multiple claims may be submitted for**
  - A long inpatient stay
  - A procedure that involved multiple physicians

Benefits of Medicare Claims Data

- **Medicare data can be linked with VA data using Real or Scrambled Social Security Numbers (SSNs)**

- **Data directly related to billing is likely to be accurate**
  - Claim "from" and "thru" dates
  - Charge and payment amounts
  - Diagnosis codes
  - Procedure codes
  - Provider numbers

Limitations of Medicare Claims Data

- **No/Limited data on:**
  - Data not needed for billing
    - Demographics (Marital Status, Education, Income)
    - Clinical Data (Lab Results, Vital Signs, Symptoms)
  - Services that are not itemized
    - Managed Care (HMOs)
    - Prospective Payment System (PPS)

Prospective Payment System

- A Prospective Payment System (PPS) is a system in which a pre-determined payment amount (rate) is expected to cover all operating and capital costs for healthcare services provided during a stay or episode of care.

- A PPS is used by CMS to reimburse:
  - Hospitals
  - Home Health Agencies
  - Hospices
  - Skilled Nursing Facilities

Data Access

- **Eligibility:** Medicare and other CMS data are available to VA researchers with VA Research & Development (R&D) Committee and Institutional Review Board (IRB) approved projects.

- **Data Steward: <u>VIReC's</u> VA/CMS Data for Research project**

  – All use of CMS data for VA research must be approved by VIReC.

- **Information about data available and the request process:**

  – http://www.virec.research.va.gov/Index-VACMS.htm

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Home Health Agency SAF

- **Includes services provided by Medicare-certified home health agencies:**
  - Skilled nursing
  - Physical/occupational/speech therapy
  - Home health aide
  - Medical supplies
- **How is care billed?**
  - Up to 60 days of care on one claim

Home Health Agency SAF

- **How billing is reflected in HHA data:**
  - Each record is a claim, an episode of care may require many claims
  - "From" and "thru" dates on claim don't necessarily indicate dates of service
  - Some details of types of care provided are available in revenue center variables

Home Health Agency SAF

■ **Measuring healthcare use in HHA data:**

– Use (any claims)

– Length of treatment

– Number of treatments

– Diagnoses

– Charges

– Payments

Hospice SAF

- **Includes services provided when doctor has certified life expectancy of 6 months or less**

    – Care at home (80-90%) or as inpatient

- **How is care billed?**

    – Single daily rate for each day a beneficiary is enrolled in hospice care - regardless of the amount or type of services furnished

Hospice SAF

- **How billing is reflected in Hospice data:**
  - Claim-level data
  - An episode of care may require combining many claims
  - Most claims are for less than 30 days of care

Hospice SAF

- **Measuring healthcare use in Hospice data**
    - Use (any claims)
    - Length of hospice use
    - Diagnoses
    - Charges
    - Payments

Skilled Nursing Facility SAF

- **Includes services provided by a skilled nursing facility**
  - Inpatient and rehabilitation care
- **Does not include:**
  - Custodial care
- **How is care billed?**
  - Facilities are paid a pre-determined daily rate for each day of care, up to 100 days.

Skilled Nursing Facility SAF

- **How billing is reflected in Skilled Nursing Facility (SNF) data:**

  - When a SNF stay from admission to discharge requires submission of multiple claims, researchers must combine claims to measure health care utilization or cost for a single stay

  - Frequency of claim submission may be based on facility accounting or duration of stay

Skilled Nursing Facility SAF

Measuring healthcare use in SNF data

- Use (any claims)
- Number of stays
- Length of stay
- Diagnoses
- Charges
- Payments

Durable Medical Equipment

- **Includes durable medical equipment, prosthetics and orthotics, and supplies**

- **Common items**

  - Oxygen and supplies

  - Wheelchairs

  - Hospital beds

  - Enteral and parenteral nutrition

  - Drugs administered through DME

Durable Medical Equipment

- **How is care billed?**
  - Reimbursement based on HCPCS codes
  - May be purchase or rental
  - Claim may contain one or multiple products

Durable Medical Equipment

Measuring healthcare use in DME data

- Use (any claims)
- Number of items
- Number of rental months
- Charges
- Payments

MedPAR File vs SNF SAF for Studying SNF Stays

- **Claims are "rolled up" to the stay level**

- **Contains stays in <u>both</u> inpatient hospitals and skilled nursing facilities (SNF)**

MedPAR File vs SNF SAF for Studying SNF Stays

- **The MedPAR file is advantageous when studying:**
  - Number of stays
  - Days per stay
  - Cost per stay
  - Total costs

- **Disadvantages:**
  - Sub-category totals for charges not included
  - Includes only the diagnosis & procedure codes found on the last claim of the stay

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Measuring Medicare Healthcare Use: Examples from Two Research Studies

- Van Houtven CH, et al. Home health care and patterns of subsequent VA and Medicare health care utilization for Veterans. *The Gerontologist*. 2008;48(5):668-678.

- Hubbard Winkler SL, et al. Cost, utilization, and policy provision of assistive technology devices to Veterans poststroke by Medicare and VA. *Medical Care.* 2010;48(6):558-562.

Measuring Medicare Healthcare use
Van Houtven, et al. (2008) *The Gerontologist*

- **Goal**
  - Describe patterns of healthcare use following utilization of VA home health care (HHC)

- **Cohort**
  - 24,169 VA HHC users and 53,356 non HHC users

Measuring Medicare Healthcare use
Van Houtven, et al. (2008) *The Gerontologist*

- **Methods**
  - VA Fee Basis, Inpatient, Outpatient, and BIRLS files
  - Medicare Outpatient, Inpatient, Skilled Nursing Facility, and Hospice files
  - Matched propensity score analysis

Selected Results
Van Houtven, et al. (2008) *The Gerontologist*
Table 2 (Modified): Utilization Patterns of HHC Users (%)

VA-Medicare	Propensity-Score-Matched Cohort		Non-matched
	Nonusers of VA HHC	Users of VA HHC	Users of VA HHC
Medicare			
Outpatient	28.5	28.9	26.8
Inpatient	14.9	17.6	17.2
Nursing home	4.8	7.7	8.0
Hospice	2.7	3.7	4.4
VA or Medicare			
Outpatient	92.7	94.9	94.1
Inpatient	30.2	42.7	51.7
Nursing home	10.3	19.0	24.9
Hospice	3.0	4.2	5.5

Measuring Medicare Healthcare use
Winkler et al. (2010) *Medical Care*

- **Goal**
  - Examine provision of assistive technology devices (ATDs) in 2 systems: Medicare and VA
  - Analyze differences in ATDs provided and their cost
  - Examine potential duplication between systems
- **Cohort**
  - 12,046 Veterans post-stroke identified using VA Functional Status and Outcome Database and VA Medical SAS datasets

Measuring Medicare Healthcare use
Winkler et al. (2010) *Medical Care*

- **Methods**
  - Retrospective 2-year study (fiscal year [FY] 2001-2002) of post-stroke Veterans
  - Comparative analyses between VA and Medicare limited to subset of study cohort age 65 or older at index stroke admission
  - Provision of ATDs identified by Health Care Common Procedural Coding System (HCPCS) codes in VA National Prosthetic Patient Database and Medicare DME Files

Selected Results
Winkler et al. (2010) *Medical Care*
Table 1 (revised). Characteristics According to Device Provided by Medicare, Medicare + VA, or VA. Column Percentages Relative to the Number of Unique Veterans in Each Cohort Are Presented (N = 12,046)

Variable	Device provided by Medicare Only	Device provided by Medicare and VA	Device provided by VA Only	No Device
No. unique veterans	139 (1%)	406 (3%)	6798 (56%)	4703 (39%)
Age in yr Mean (SD)	74 (9)	73 (9)	69 (11)	68 (12)
Service Connected				
Yes	27 (19%)	106 (26%)	2005 (29%)	1191 (25%)
No	112 (81%)	300 (74%)	4793 (71%)	3512 (75%)

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VIReC Help

- **VIReC Webpage**

  http://www.virec.research.va.gov

  – Information on VA data sources and how to access data

- **VIReC Help Desk**

  – VIReC staff will answer your question and/or direct you to available resources on topics

  – VIReC@va.gov or (708) 202-2413

- **HSRData Listserv**

  – Join at the VIReC Web site

  – Discussion among >400 data stewards, managers, and users

  – Past messages in archive (on intranet)

VIReC's VA-CMS Web Page

- Complete list and description of files available

- Links to Medicare Files Data dictionaries

- SAS Proc Contents

- Frequencies for Medicare variables

- http://www.virec.research.va.gov/Index-VACMS.htm

Research Data Assistance Center (ResDAC)

- **CMS contractor based at the University of Minnesota**

- **Provides free assistance to**

  – Researchers

  – Government agencies

  – Not-for-profit organizations

- **Workshops on using Medicare and Medicaid data**

- **www.resdac.org**

CMS and Medicare Websites

- **CMS Home Page**
  - www.cms.gov
- **For Medicare beneficiaries**
  - www.medicare.gov

Questions?

Requesting VA/CMS data from VIReC

The following documents are required:

- VA/CMS Data for Research Request Forms
  - Project Information and Authorization
  - Data Security Compliance Checklist
  - Data Description
  - Agreement to Provide Secure Data Storage at Termination of Approved Research
  - Rules of Behavior (ROB) Agreement
- Initial Research and Development (R & D) Committee approval letter
- Initial Institutional Review Board (IRB) approval letter
- Most recent continuing review approval letter

Upcoming Seminars

- **February 4, 2013**

- Research Access to VA Data: **Linda Kok**, MA