Sources of VA Care Costs and Providers

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Topics for today's talk

- HERC person-level costs file
- Estimating non-VA costs: using a questionnaire
- Geographic Variation in Costs: Wage index file
- VA data on health care providers
- VA personnel data guidebook: VA PAID system

HERC Person-Level Costs

Jean Yoon, Ph.D.

HERC Person-Level Costs

- Reports total annual costs and utilization of VA care for each patient
- Annual person-level file FY98-FY11
- Costs reported for five categories of inpatient care and four categories of outpatient care
- Costs include total pharmacy costs and total Fee Basis costs
- Utilization measured by inpatient length of stay by category and total outpatient visits

HERC Person-Level Costs

- Inpatient stays beginning in one fiscal year and ending in another have costs allocated between the fiscal years based on the proportion of days of stay in each fiscal year
- Inpatient categories of care
  - Medical/surgical, behavioral, long term care, residential/domiciliary, all other
- Outpatient categories of care
  - Medical/surgical, behavioral, diagnostic , all other

HERC Person-Level Costs

- For each inpatient stay and outpatient visit, HERC estimated two costs: national and local.
  - National costs were estimated such that they sum to the total national expenditures for VA care (divided by care category) reported in DSS.
  - Local costs were estimated similarly, but reconcile to the total VA expenditures by care category at the medical center level as reported in DSS.
- Pharmacy costs obtained from DSS national data extracts (NDE)
- Fee Basis costs obtained from four Fee Basis (FEN) datasets: Inpatient (FENINPT), Ancillary (FENANCIL), Outpatient (FENMED), and Pharmacy (FENPHR)
  - Lag in Fee records, so Fee costs not added until 1-2 years after FY

HERC Person-Level Costs

- Inpatient and outpatient costs from HERC Average Cost data
- HERC method of distributing costs to hospital stays and outpatient visits
- Costs identical for all encounters with same characteristics

  1)Acute medical surgical stays
  - Estimate of what stay would have cost in a Medicare hospital, based on a regression model

  2) Other inpatient care
  - Length of stay

  3) Outpatient care
  - Hypothetical Medicare payment based on procedure codes assigned to visit

HERC Person-Level Costs

- The person-level cost datasets are named PLCOSTXX
  - XX refers to the fiscal year of dataset
- SAS files stored at Austin Center in RMTPRD.HERC.SAS
- Files will eventually be stored at Corporate Data Warehouse
- ***Guidebook for the HERC Person-Level Cost Datasets FY1998 – FY2010*** available on HERC intranet site

Estimating Non-VA Costs

Todd H. Wagner, PhD

Objective

- It is common for Veterans to use non-VA providers.
- At the end of the class, you will know the pros and cons of different methods for identify non-VA utilization and estimating non-VA costs

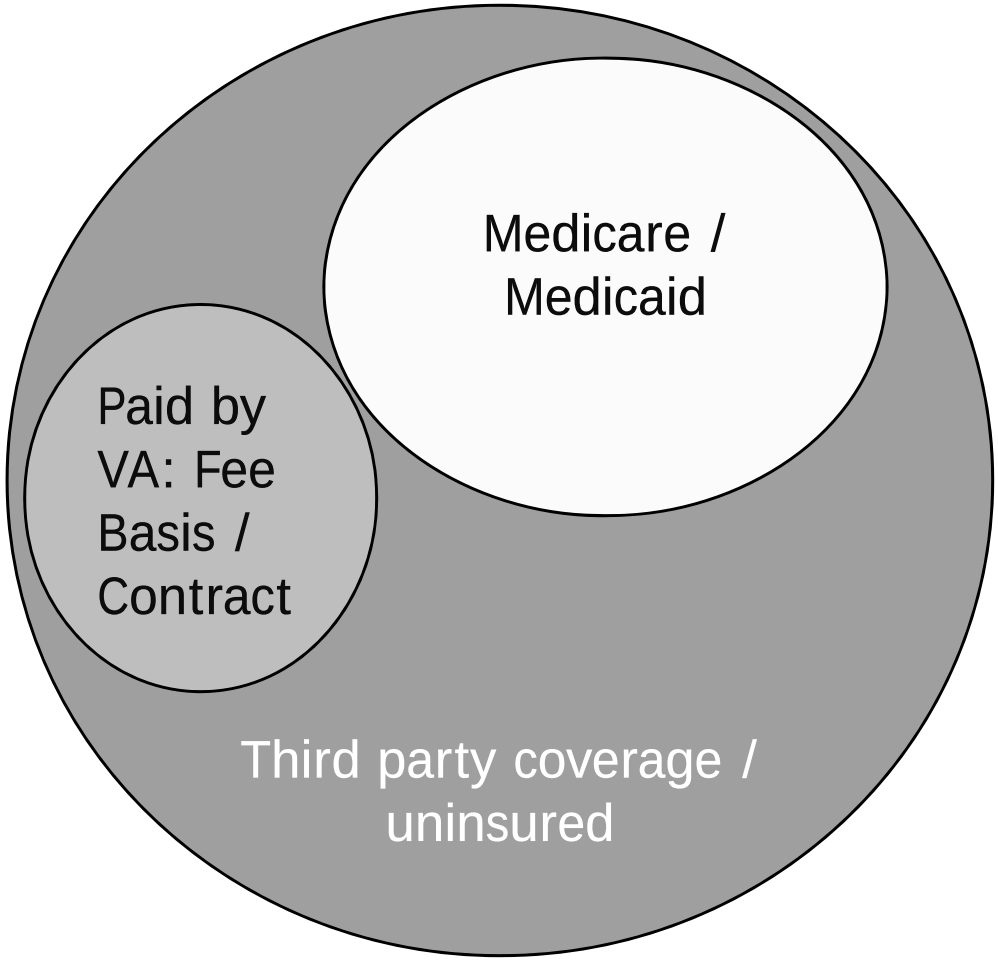
Non-VA Use is Common

- Among Medicare enrollees, 80% of Veterans underage 65 relied on VA, while 53% of those over age 65 relied on VA*
- Lower differential distance to the VA, and higher VA-determined priority for health care, predicted higher VA reliance
- Reliance varied by medical need– higher reliance on VA for SUD and MH treatment

*Petersen L, et al (2010) Relationship between clinical conditions and use of Veterans Affairs health care among Medicare enrolled Veterans. HSR.

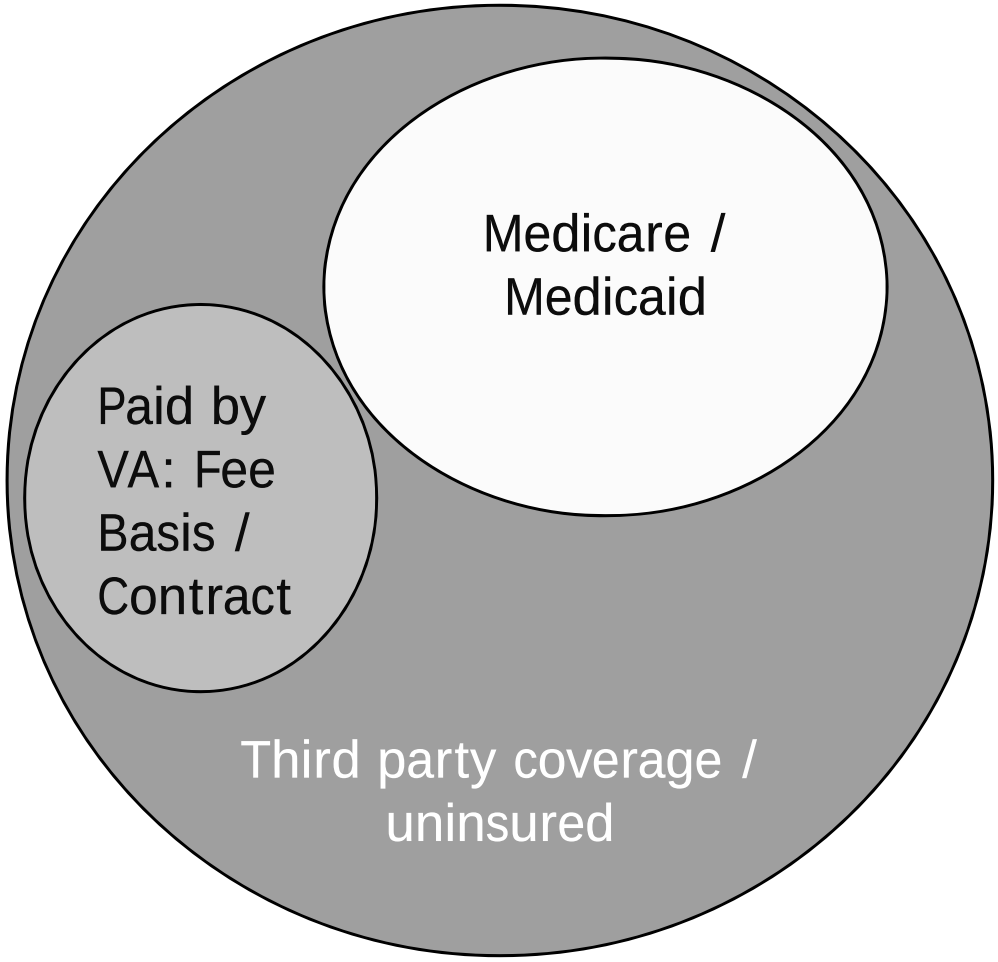
Non-VA Utilization

- How do you identify the universe?
- If you use different methods, how do you prevent double counting?



Self-Report

- Perhaps the best way to measure all non-VA care
- Exception: everyone in sample is Medicare eligible (over 65 years of age or disabled)



Consider…

- During the past 12 months, how many times have you seen a doctor?
  Responses
    - 0
    - 1
    - 2
    - 3
    - 4
    - 5
    - 6
    - 7+

Do you have any concerns about this question?

Whiteboard

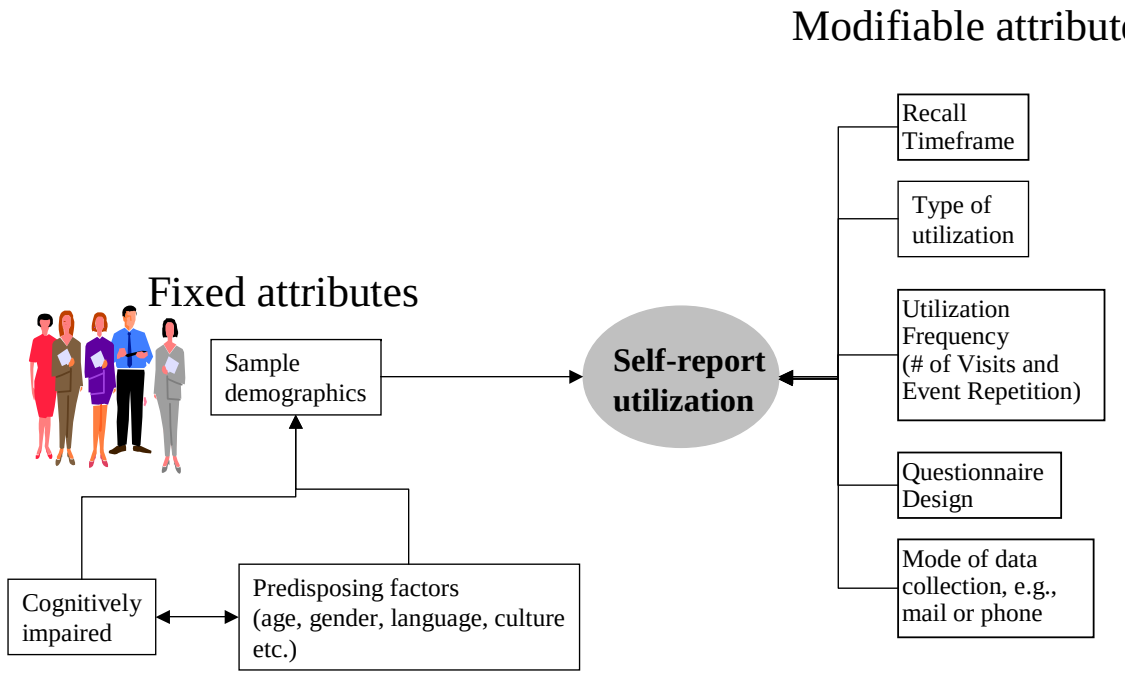
During the past 12 months, how many times have you seen a doctor?

Better Specificity

- During the past 12 months, how many times have you seen a doctor or other health care professional about your own health at a doctor's office, a clinic, or some other place? Do not include times you were hospitalized overnight, visits to hospital emergency rooms, home visits, or telephone calls.

What is Self-Report

- Cognitive process of recalling information



A. Bhandari and T. Wagner, "Self-reported utilization of health care services: improving measurement and accuracy," *Medical Care Research and Review* 63, no. 2 (2006): 217-235.

Fixed Attributes

- Process influenced by illnesses or disabilities (e.g., dementia or mental retardation)
- Older age is consistently correlated with poorer recall accuracy (spurious correlation)
  - Older adults more likely to under-report.

Recommendations

- Are respondents able to self-report?
  - Consider age and cognitive capacity
  - 14 is lower limit
  - Use cognitive screening tool, such as MMSE

Recall Timeframe and Frequency

- Time Frame
  - Longer recall times result in worse accuracy
  - Longer timeframes lead to telescoping and memory decay
- Frequency
  - Under-reporting is exacerbated with increased utilization
  - As the number of visits increase, people forget some

Recommendations

- Avoid recall timeframes greater than 12 months
- Shorter recall may be necessary for
  - Office visits (low salience)
  - Frequent users
- Consider two-timeframe method (i.e., 6-2)

Data Collection

- Modes: mail, telephone, Internet, and in-person data
  - No study has compared all four
  - Probing with memory aids can help improve accuracy
  - Stigma is important

Recommendations

- No standards exist and standards may not be possible
- Pretest: Dillman (2000)
- Placement in questionnaire might matter
- Phone, in person and some Internet surveys allow for memory aids
  - For example, landmark events

Response Scale

- Use counts
  - Include “your best estimate is fine”

- Avoid categories (0, 1-2, 3-5, 6+), which introduce biases and error in the statistical analysis

Costs

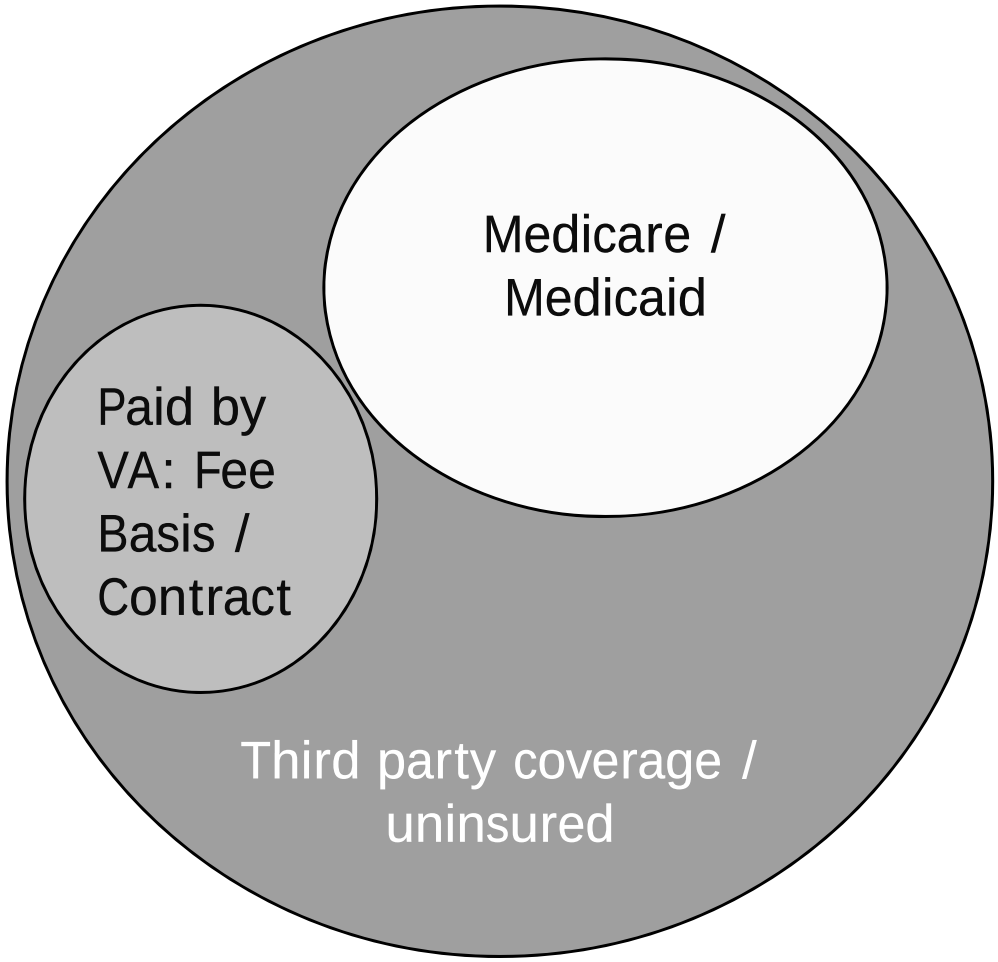
- Self-reported costs are unreliable
- Must impute costs from self-reports
- Limitations
  - can introduce biases
  - Not as precise as accounting data
- Consider seeking billing data (discussed next)

Cost parameters

- Recent bypass trial
  - Inpatient per day $2,553
  - Emergency Dept visit $536
  - Ambulatory surgery $475
  - Medicine visit $280
  - Psychiatry visit $249
  - Psychology visit $199
  - Home health nurse visit $462
  - Physical therapy $182

Collecting Data from Non-VA Providers

- Self-report may not be sufficiently precise
- With permission, you can collect the grey area by collecting billing data from providers



Overview of Method

- For each non-VA inpatient stay, ask for the following:
  - facility type (acute, nursing home, hospice, etc.)
  - facility name and location (at least city)
  - admission and discharge dates
- Obtain a signed release if you want information from the non-VA provider.
- Can collect inpatient and outpatient, or focus on inpatient and outpatient surgery

Release of Information (ROI)

- The ROI authorizes the provider to release (disclose) information about the encounter to you.
- Key points about a ROI:
  - It is separate from the Informed Consent form.
  - It must be approved by the IRB.
  - It has many required elements. See VHA Handbook 1605.1, section 14.
  - A patient/representative cannot be forced or cajoled into signing it.

Necessary Elements: Highlights

- The ROI must contain the following:
  - Patient's name (a few providers require the SSN as well)
  - Description of information requested
  - Name of person/organization making the request
  - Name of person/organization to whom data will be disclosed/used
  - Description of purpose for disclosure/use
  - Expiration date for disclosure/use (can be "none" in certain cases)
  - Signature of patient or authorized representative
  - Statements about revocation, VA benefits being unrelated to request, and possibility of re-disclosure

After Obtaining the ROI

- Find fax and telephone numbers of non-VA provider.
- Call to find the person to whom info should be faxed.
- Fax cover letter and ROI.
- If it doesn’t come within a week, try again.

Costs vs. Charges

- Billing records usually report charges
- Charges are fictitious
- Need to deflate charges using hospital level cost to charge ratio, or
- Use the information on the bill to estimate Medicare payment or VA cost

Inflation

- Costs vary over time
- Should adjust using the general consumer price index or the producer price index
- The medical care consumer price index overstates inflation (does not sufficiently control for changes in quality).*

Frank, R. G., Berndt, E. R., & Busch, S. H. (Eds.). (1999). *Price Indexes for the Treatment of Depression. Washington, D.C: Brookings Institution Press.*

Geography and Wages

Todd H Wagner, Ph.D.

Geographic Variation in Costs

- Labor represents a large component of medical care costs.
- Wages vary considerably by geographic market
- Must normalize the costs
- HERC has developed a Wage Index file

Wage Index

- Medicare creates a Wage Index file
- We have linked VA hospitals (at the sta6a level) to the Medicare Wage Index file
- Data are available from 2000-2010
- Adjust for wages in the multivariate analysis
- More info:

  www.herc.research.va.gov/publications/guidebooks.asp

VA Data on Health Care Providers

Paul G. Barnett, Ph.D.

Use of provider data

- Evaluate interventions directed at providers
- Study how provider characteristics relate to efficiency or quality
- Control for correlation of patients seen by the same provider

Provider is identified in many VA datasets

- Outpatient visits
- Inpatient encounters
- Primary care assignments
- Hospital discharges
- Prescription fills
- Laboratory and radiology orders

National Health Care Practitioner Database (NHCPD)

- Contains provider name
- Medical center
- ID number
- Real and scrambled Social Security Number

Provider identification number

- Used in all datasets
- Identifies a specific provider
- One number at each site where provider practices
- Formatted differently in DSS
- Different variable name in different datasets

Provider type

- Provider Classification System
- Developed by CMMS and ANSI
- 6-character code
- Type of provider and area of specialization
- Different variable name in different datasets
- Not in the NHCPD

Other provider characteristics

- Personnel and Accounting Integrated Data System (PAID)
- Gender and age
- Education and certification
- Hire date and rate of pay

More information

Guide to VA Data on Health Care Providers Dina Roumiantseva, Patricia L. Sinnott, Paul G. Barnett, June 2011

See www.herc.research.va.gov → publications → guidebooks

PAID Data

Ciaran S. Phibbs, Ph.D.

PAID

- VA's payroll data system
- PAID has many different types of data
- 2 parts to PAID
  - History file, data from each pay period
  - Master file, annual file with human resources data

PAID, cont.

- PAID History file
  - Data on hours worked, including hours with shift differentials
  - Data on pay, including all deductions and adjustments
  - Essentially all of the detail for generating paychecks

PAID, cont.

- PAID Master file
  - Education/qualifications, including degree dates
  - Demographics
  - Hire date
  - Job description/title

Linking to PAID

- Individual identifiers
  - SSN, name, birthdate, etc.

- Workplace identifiers
  - TLU, facility, BOC (type of employee)

Linking to PAID, cont.

- Providers
  - DSS, PTF, NPCD all have a provider ID
  - There is a crosswalk between provider ID and SSN
  - Use SSN to pull PAID data and link to providers

Linking to PAID, cont.

- Nurses
  - Nurse manager of each unit has own TLU
  - All nurses working for that unit assigned to that TLU
  - From DSS, can get mapping of TLUs to ALBCCs
  - This only works for nurses

Next HERC Cyber Course

October 24, 2012
Medical Decision Making and Decision Analysis

Jeremy Goldhaber-Fiebert, Ph.D.