Data to Supplement Medicare Claims and Enrollment Information

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Supplementing Claims and Enrollment Data

- Claims and Enrollment data contain what CMS needs to successfully administer the Medicare program.
- Researchers may need to supplement the data with other files in order to carry out their research.
Supplementing Claims and Enrollment Data

- Demographic information for a state, county, or ZIP code
  - Income
  - Racial distributions
  - Education
Supplementing Claims and Enrollment Data

- Find information about provider (facility)
  - Name
  - Staffing
  - Ownership

- Find information about physician or practitioner
  - Specialty
  - Name
  - Business Zip Code
Supplementing Claims and Enrollment Data

- Find information about providers (facilities) in area
  - Number in that ZIP, County, State

- Find information about physicians or practitioners
  - Number in that ZIP, County, State
  - Number by Specialty
Supplementing Claims and Enrollment Data

- This segment will introduce some common files used to supplement the Enrollment and Claims data
MSABEA File

- Useful when linking CMS data to county or state-level data that uses the FIPS coding scheme (mapping)
- CMS and SSA use SSA state and county codes, most other entities use FIPS codes
- [http://www.cms.hhs.gov/Medicare/Medicare-Fee-for-Service-Payment/AcuteInpatientPPS/AcuteInpatient-Files-for-Download-Items/CMS022639.html](http://www.cms.hhs.gov/Medicare/Medicare-Fee-for-Service-Payment/AcuteInpatientPPS/AcuteInpatient-Files-for-Download-Items/CMS022639.html)
- The [MSABEA File](http://www.cms.hhs.gov/Medicare/Medicare-Fee-for-Service-Payment/AcuteInpatientPPS/AcuteInpatient-Files-for-Download-Items/CMS022639.html) – SSA and FIPS State and County Crosswalk FY 2003 (file no longer updated)
# MSABEA File

<table>
<thead>
<tr>
<th>County</th>
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<th>SSA</th>
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County to CBSA crosswalk file

- County to CBSA crosswalk file
- This file lists the CBSA, SSA county code and FIPS county code for all counties. Any changes to the CBSAs through March 2011 have been incorporated. It also contains the old MSA (based on 1990 census data) and old MSA name to which each county was assigned prior to the implementation of CBSAs in FY 2005.
County to CBSA crosswalk file

ICD-9 Diagnostic and Surgical Code Descriptions

- Claims files contain only the codes
- These files contain both codes and descriptions of ICD-9 diagnostic and surgical codes
- Easy way to assign labels to the codes

http://www.cms.gov/Medicare/Coding/ICD9ProviderDiagnosticCodes/codes.html
ICD-9 Surgical Code Descriptions

329  OTHER EXCISION OF LUNG
330  INCISION OF BRONCHUS
331  INCISION OF LUNG
3321 BRONCHOSCOPY THRU STOMA
3322 FIBER-OPTIC BRONCHOSCOPY
3323 OTHER BRONCHOSCOPY
3324 CLOSED BRONCHIAL BIOPSY
3325 OPEN BRONCHIAL BIOPSY
3326 CLOSED LUNG BIOPSY
ICD-9 Coding Changes

- CMS Summary Tables of New, Deleted, and Revised ICD-9-CM Codes (Diagnostic and Procedure)

- http://www.cms.gov/Medicare/Coding/ICD9ProviderDiagnosticCodes/summarytables.html
BETOS Codes

- These files contain the CMS Health Care Procedure Coding System (HCPCS) procedure codes and the Berenson-Eggers Type of Service (BETOS) code to which each procedure code is assigned. Beginning in 1998, these files also contain discontinued HCPCS codes, which will be identifiable by the presence of a termination date.

CCW Code Reference Sets

- ICD-9 Diagnosis Codes
- ICD-9 Procedure Codes
- Level II HCPCS Codes
- Revenue Center Codes
- State Codes
- BETOS Codes
CCW Code Reference Sets

- Claim Related Condition Code Table
- Claim Related Occurrence Code Table
- Claim Value Code Table
- HCFA Provider Specialty Code Table
- Revenue Center ANSI Code Table
- Revenue Center Ambulatory Payment Classification (APC) Code Table
Census Data

- [http://www.census.gov/](http://www.census.gov/)
- [http://factfinder2.census.gov/faces/nav/jsf/pages/index.xhtml](http://factfinder2.census.gov/faces/nav/jsf/pages/index.xhtml)
- Contains demographic data to supplement CMS data
  - Area Income
  - Area Median Age
  - Area Racial distribution
- 2010 Census Tables
Estimating Income

- Neither CMS nor SSA provides information on beneficiary income
- Income is strongly correlated with receipt of health care
- Individual income can be approximated with area income, where area income is estimated on the ZIP code level
Using Census data, one can obtain median household income by ZIP code for households with head of household age 65 and older.
- Can be obtained by race
- Age breakdown can be
  » 65+
  » 65-74, 75+
Census estimates for ZIP codes with fewer than 30 people in a cell will not be reported.

Missing cells can be excluded or a county-level value can be substituted.

The more finely cells are split, the more missing cells will be encountered.

Census uses the term ZIP Code Tabulation Area (ZCTA) to describe the mapping of Census Blocks to ZIP codes.
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<thead>
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</table>
Area Resource File

- County-level cumulative data compiled from many sources:
  - Census
    - Population counts
    - Income
    - Education
    - Population Density
  - CMS
    - Reimbursement data
    - Enrollment Information
Area Resource File

- National Center for Health Statistics (NCHS)
  » Mortality rates
  » Causes of Death
- American Hospital Association Annual Survey
  » Number of Hospitals
- American Medical Association Physician Master File
  » Number of Physicians
  » Physicians by Specialty
Or, Go to the Source

- Census: [http://www.census.gov](http://www.census.gov)
- American Hospital Association: [http://www.aha.org](http://www.aha.org)
CMS Provider Data

- Information about entities allowed to bill Medicare for their services
Provider Research Files

NON-IDENTIFIABLE

- POS (Provider of Services) File
  
  [link]

- UPIN (Unique Provider Identification Number) Directory
  
  [link]
Provider Research Files

NPI DOWNLOADABLE FILE

- Dissemination of Data from the National Plan and Provider Enumeration System (NPPES) Began September 4, 2007

- [http://nppes.viva-it.com/NPI_Files.html](http://nppes.viva-it.com/NPI_Files.html)
Institutional Providers

PROVIDER OF SERVICES FILE

- Contains information about each category of provider (e.g. hospital, hospice, SNF...), e.g.:
  - Name and address
  - Medicare Certification Date
  - Staffing

- Most current information on providers who have ever been certified by Medicare

- Quarterly file, available 1991- present
Source of Provider Data

- Facilities seeking to become Medicare certified contact their assigned claims processor (Carrier, DMERC, FI, RHII) and submit appropriate forms and submit to the certification process.
- CMS stores all the data related to the certification in a database called the Online Survey Certification and Reporting System (OSCAR). The provider files are extracted from OSCAR.
- [http://www.cms.gov/Medicare/Provider-Enrollment-and-Certification/MedicareProviderSupEnroll/index.html](http://www.cms.gov/Medicare/Provider-Enrollment-and-Certification/MedicareProviderSupEnroll/index.html)
How to Link to Claims Data

PROVIDERS VS SUPPLIERS

- Providers are facilities that use the UB-04 form:
  - Hospitals
  - SNFs
  - Hospices
  - Home Health Agencies

- Suppliers are facilities that use the CMS-1500 form:
  - Ambulatory Surgical Centers
  - Laboratories
  - Portable X-Ray
Providers are assigned a unique-6 digit identifier, called the Medicare Provider Number (CMS Certification Number)*

This identifier contains embedded information:
- Digits 1-2: SSA state code
- Digits 3-4: provider type
Provider Type Codes Examples

- 00-08: Short stay hospitals
- 15-17: Hospices
- 50-64: SNFs
- 70-72, 74-77, 80-84: Home health agencies
Medicare Provider Number

- Effective October 1, 2007 the OSCAR Provider Number has been renamed the CMS Certification Number (CCN). The name was changed to avoid confusion with the National Provider Identifier (NPI). The CCN (OSCAR Provider Number) will continue to play a critical role in verifying that a provider has been Medicare certified and for what type of services.
How to Link to Claims Data

- POS File data can be linked to the these claims data files using the Medicare Provider Number field:
  - Inpatient, Outpatient, Hospice, SNF and HHA SAFs
  - Inpatient and SNF MedPAR
Linking Suppliers to Claims Data

- Suppliers are assigned a unique 10-digit identifier, also called the Medicare Provider Number.
- This identifier contains embedded information:
  - Digits 1-2: SSA state code
How to Link to Claims Data

- Supplier data in the POS File can, theoretically, be linked to the claims data by using:
  - Medicare Provider Number field in the POS file
  AND
  - the Provider Identification Number (PIN) in the Carrier SAF

- ResDAC has had very limited success

- The POS File does not contain DME Suppliers
CMS Provider Numbers

- A facility may include multiple distinct providers, such as:
  - Hospital
  - Home health agency
  - Hospice
  - SNF

- In order to bill for each type of care, the facility must have appropriate provider numbers
CMS Provider Numbers

- There is information in the POS file that allows one to link parts of a facility together
- Related Provider Number field
  - Medicare Provider Number of the facility with the highest level of care (hospital is highest)
Non-Institutional Providers

UPIN DIRECTORY

- Contains fields:
  - UPIN
  - Name
  - State
  - Self-reported Specialty
  - ZIP code

- Considered a Public Use File and costs $100 on CD
UPIN to NPI

- Beginning with the 4th Quarter 2006 update, the existing records in the UPIN file will no longer be updated.
- New records will continue to be added through 2nd Quarter 2007, after which the UPIN file will be discontinued.
- National Provider Identifier – September 2007
NPI File

- Can be used to crosswalk UPIN to NPI
- Contains all ACTIVE Providers and Suppliers (including DME Suppliers and free standing ASCs)
- Monthly Replacement files
- Recommend downloading the file for historical information
Linking to Claims

- **UPIN**: The UPIN field can be linked to at least one field in all the SAFs
  - Attending Physician
  - Performing Physician
  - Referring Physician
  - Other Physician

- UPINs are not in the MedPAR File
- NPIs start with the 2007 data
**Source of Data**

**UPIN DIRECTORY AND NPI**

- Individual health care practitioners who seek to become Medicare-certified fill out appropriate forms and submit them to their local carrier.
- CMS receives quarterly updates of the file containing information on all practitioners who are or were Medicare-certified.
- For more information, please go to: http://www.cms.gov/Medicare/Provider-Enrollment-and-Certification/MedicareProviderSupEnroll/index.html
Remember...

- The provider files ONLY contain those facilities and providers who have obtained Medicare certification.
- Facilities and practitioners that never bill Medicare (such as VA, military facilities and VA and HMO practitioners) may not be in these files.
Available CMS “Supplemental” Data

- Assessment Data
  - Long Term Care Minimum Dataset (MDS)
    » Available 1999 to present
    » The MDS contains items that measure physical, psychological and psycho-social functioning
    » CCW will assign Bene_ID linkable to Claims and Enrollment data
Available CMS “Supplemental” Data

- Assessment Data
  - Outcome and Assessment Information Set (OASIS)
    » Available July 1999 to present
    » OASIS data items address socio-demographic, environmental, support system, health status, functional status, and health service utilization characteristics of the patient.
    » CCW will assign Bene_ID linkable to Claims and Enrollment data
Available CMS “Supplemental” Data

- Medicare Inpatient Rehabilitation Facility Patient Assessment Instrument (IRF-PAI)
  - Available January 2002 to present
  - IRF-PAI data items address the physical, cognitive, functional, and psychosocial status of patients
Available CMS “Supplemental” Data

MEDICARE CURRENT BENEFICIARY SURVEY (MCBS)

- Source of information on socioeconomic and demographic characteristics, health status and functioning, health care use and expenditures, and health insurance coverage of the entire Medicare population including the aged, disabled, and institutionalized Medicare beneficiaries.
Available CMS “Supplemental” Data

MEDICARE CURRENT BENEFICIARY SURVEY (MCBS)

- Data Available:
- **Access to Care** module available 1991 - 2010 most current available
- **Cost and Use** module available 1992 - 2009 most current available
- Linked to claims data
Available CMS “Supplemental” Data

OTHER CMS DATA SETS

- Health and Retirement Survey (HRS)
  - Linked with Medicare Claims and Enrollment
- SEER-Medicare Linked Data
- SEER-MHOS Linked Data
- Consumer Assessment Health Plans Survey (CAHPS®)
- Health Outcomes Survey (HOS)
Supplemental Data

OTHER MEDICARE LINKED DATA AVAILABLE AT NCHS

- NCHS Surveys linked to CMS Medicare data (1991-2007)
  - 1994-1998 National Health Interview Survey (NHIS)
  - NHANES I Epidemiologic Follow-up Study (NHEFS, 1971-1992)

- NCHS Surveys linked to CMS Medicare data (1999 – 2007)
  - 1999-2005 National Health Interview Survey (NHIS)
  - 1999-2004 National Health and Nutrition Examination Survey (NHANES)
  - 2004 National Nursing Home Survey (NNHS)
Supplementing Claims and Enrollment Data

- Supplemental data can increase the research potential of the Claims and Enrollment files.
- If there is a question that can't be answered with the data alone, seeking outside files to link might be the answer.
- Be sure to verify availability/reliability/validity of the “linking” variable.