Medicare Managed Care Enrollees and the Medicare Utilization Files

The Research Data Assistance Center (ResDAC) is a CMS contractor that provides free assistance to academic and non-profit researchers interested in using Medicare and/or Medicaid data for their research. ResDAC is staffed by a consortium of epidemiologists, public health specialists, health services researchers, biostatisticians, and health informatics specialists from the University of Minnesota.

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Even though the Medicare utilization files for the most part contain fee-for-service claims, some managed care claims may appear in the files. It is important for researchers to understand the type of managed care claims that may be found in the data in order to make the necessary exclusions from their study population.

Medicare Managed Care Plans

Medicare managed care began in 1985 and it has evolved from the traditional Health Maintenance Organization plans to additional managed care plans offered under Medicare Part C.

The structure and payment rules for each type of managed care plan vary. For current definitions of the various Medicare managed care plans, refer to the Medicare Managed Care Manual, (100-16) Chapter 1, Section 30 – Types of MA Plans http://www.cms.hhs.gov/manuals/downloads/mc86c01.pdf.

Medicare Managed Care Enrollment

Medicare managed care enrollment peaked in 1999 with over 17% of the Medicare beneficiaries enrolled in a managed care plan. As of 2005, Medicare managed care enrollment represented almost 14% of the total Medicare enrollment. Table 1 presents Medicare managed care enrollment trends from 1985 to 2005.

Table 1. Medicare Managed Care Enrollment Trends

Medicare Managed Care Enrollment

Enrollment by Plan Type for Years 1985-2008

Year (a)	Risk Based Enrollment	Risk Based % of Total	Cost Based Enrollment	Cost Based % of Total	Total Mgd Care Enrollment	Total Mgd Care % of Total	Total Medicare Enrollment	% of Total
1985	497,654	1.6%	773,399	2.5%	1,271,053	4.1%	31,082,801	100.0%
1986	892,976	2.8%	711,173	2.2%	1,604,149	5.1%	31,749,708	100.0%
1987	1,084,670	3.3%	718,196	2.2%	1,802,866	5.6%	32,411,204	100.0%
1988	1,134,875	3.4%	671,130	2.0%	1,806,005	5.5%	32,980,033	100.0%
1989	1,161,513	3.5%	681,041	2.0%	1,842,554	5.5%	33,579,449	100.0%
1990	1,280,839	3.7%	736,754	2.2%	2,017,593	5.9%	34,203,383	100.0%
1991	1,407,270	4.0%	749,666	2.1%	2,156,936	6.2%	34,870,240	100.0%
1992	1,587,511	4.5%	769,549	2.2%	2,357,060	6.6%	35,579,149	100.0%
1993	1,833,115	5.0%	798,591	2.2%	2,631,706	7.2%	36,305,903	100.0%
1994	2,290,706	6.2%	764,892	2.1%	3,055,598	8.3%	36,935,366	100.0%
1995	3,108,122	8.3%	704,648	1.9%	3,812,770	10.2%	37,535,024	100.0%
1996	4,160,252	10.9%	627,703	1.6%	4,787,955	12.6%	38,064,130	100.0%
1997	5,300,819	13.8%	594,408	1.5%	5,895,227	15.3%	38,444,739	100.0%
1998 (c)	6,534,801	16.8%	224,741	0.6%	6,759,542	17.4%	38,824,855	100.0%
1999	6,679,174	17.1%	341,022	0.9%	7,020,196	17.9%	39,140,386	100.0%
2000	6,529,150	16.5%	297,727	0.8%	6,826,877	17.2%	39,619,986	100.0%
2001	5,767,020	14.4%	294,232	0.7%	6,061,252	15.1%	40,025,724	100.0%
2002	5,204,730	12.9%	289,554	0.7%	5,494,284	13.6%	40,488,878	100.0%
2003	4,989,723	12.1%	334,378	0.8%	5,324,101	13.0%	41,086,981	100.0%
2004	5,155,875	12.3%	342,619	0.8%	5,498,494	13.1%	42,040,460	100.0%
2005	5,763,537	13.5%	514,931	1.2%	6,278,468	14.7%	42,643,432	100.0%
2006 (d)	7,175,096	16.6%	402,104	0.9%	7,577,200	17.5%	43,313,626	100.0%
2007	8,595,881	19.4%	386,160	0.9%	8,982,041	20.3%	44,203,049	100.0%
2008	9,933,379	21.9%	349,697	0.8%	10,283,076	22.7%	45,301,837	100.0%
2009 (e)	10,730,827	25.3%	354,664	0.8%	11,085,491	26.1%	42,394,926	100.0%

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Notes:

(a) All managed care enrollment numbers are based on December 31 of that year, unless otherwise noted.
The managed care enrollment are based on the report Monthly Managed Care Contract Summary report for years 1985-2005, (http://www.cms.hhs.gov/HealthPlan

(b) Total Medicare enrollment is based on the following report "Medicare Enrollment: National Trends 1966-2008" from the website http://www.cms.hhs.gov/MedicareEnRpts/Downloads/HISMI08.pdf retrieved on 7/21/09. Enrollment figures as of July 1 of each year

(c) In 1998, a cost-based plan (Health Care Prepayment Plan transitioned to a risk-based plan).

(d) Includes beneficiaries that enrolled in a managed care plan with Part D drug benefit and beneficiaries that are only enrolled in a managed care plan. Source: Monthly Summary Report - http://www.cms.hhs.gov/MCRAdvPartDEnrolData/MCESR/list.asp

(e) Enrollment as of June 2009

Risk-Based Managed Care Organization (MCO) Encounter Records

CMS began collecting managed care encounter information from risk-based MCOs in July 1, 1997. However, CMS started using the encounter information for the purpose of risk adjusting the MCO capitated payment rates starting in July 1, 1998. CMS required MCOs to submit inpatient encounter information using a complete or abbreviated UB-92 format or using a format called the ANSI 837[1]. CMS used demographic and diagnosis information from the inpatient hospitalization to risk adjust payments. Prior to 1997, CMS based the capitated rate on the fee-for-service information because they did not collect any utilization information from risk-based plans.[2]

CMS began collecting physician encounter information October 1, 2000 and outpatient encounter data January 1, 2001 for the purpose of further risk adjusting MCO capitated payments. However, between May 25, 2001 and June 30, 2002, CMS suspended collection of these data because of undue administrative burden in collecting these data. Outpatient and physician encounter information began to be collected again on July 1, 2002. All risk-based encounter records (inpatient, outpatient, and physician) have been maintained by CMS in a stand-alone system and have not been available for research purposes.[3]

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[1] According to CMS Medicare Managed Care Internet Manual 100-16, Chapter 7, Exhibit A – Retired Material (http://web.archive.org/web/20060820101638/http://www.cms.hhs.gov/manuals/downloads/mc86c07.pdf). A sample of the information currently collected can be found at the following website http://www.csscoperations.com/new/pdic/raps-menupopup.htm. Refer to Front-End Risk Adjustment System Link.

[2] GAO HEHS-95-155 Federal Oversight of Medicare HMOs documented that as of the time of the report (1995) CMS did not require risk-based managed care plans to submit any utilization information to them, page 10. http://www.gao.gov/archive/1995/he95155.pdf

[3] If encounter data were to become available to researchers, it has often been speculated that the quality of the data may be questionable. However, in the Health Care Financing Review article from Spring 2001, Vol 22, #3, page 134, the authors reported that M+C claims were "…sufficiently complete for the first reporting year [7/1/97-6/30/98] for the conduct of this study." http://www.cms.hhs.gov/HealthCareFinancingReview/Downloads/01springpg127.pdf

Cost-Based MCO Claims

For cost-based MCOs, CMS requires that each MCO decide if CMS will process and pay for the services provided (Option 1) or if the MCO will process and pay for the services provided (Option 2).[4] If the MCO elects to have CMS process and pay for the claim, the claim will be found in the Medicare fee-for-service utilization files. If the MCO elects Option 2, then the MCO will maintain the claim in a stand-alone system. Researchers would be able to identify the cost-based plans that have CMS process the claims by reviewing the HMO indicator variable in the Denominator file with a value of 1 (non lock-in, CMS to process provider claims.) See the "Denominator File" section for more information.

MCO Claims in the Medicare Utilization Files

Even though the Medicare utilization files contain predominately fee-for-service claims, CMS does require MCOs (both risk-based and cost-based) to submit certain types of claims to either a Fiscal Intermediary or a Carrier for processing. For example, **all** Hospice services are considered a carve-out and are processed by a Fiscal Intermediary. Since 1985, the Code of Federal Regulations has had a section on Special Rules governing Hospice care. In the 10/1/2005 version of the CFR (42 CFR) section 417.585 (http://frwebgate.access.gpo.gov/cgi-bin/get-cfr.cgi?TITLE=42&PART=417&SECTION=585&TYPE=PDF) , it stipulates that "During the time the election is in effect, the HMO or CMP may bill CMS on a fee-for-service basis …". This means that all Hospice claims for both Medicare fee-for-service enrollees and managed care enrollees would be processed by a Fiscal Intermediary/Medicare Administrative Contractor (MAC) and would be found in the Hospice Standard Analytical File from 1991 forward.

Beginning in 10/1/2007, hospitals were instructed to submit information only claims to the Medicare Administrative Contractor or Fiscal Intermediary for their managed care beneficiaries so these days can be captured for proper documentation of Disproportionate Share calculations.[5] These information only claims will be identified using Condition Codes equal to 04 or 69.

Other types of services that would be found in the Medicare utilization files include services deemed "significant cost" services, clinical trials, and out-of-network services, as examples. Because CMS calculates payment based on covered services provided during the previous year, CMS does evaluate the impact of National Coverage Determinations (NCDs) on MCO payment. National Coverage Determination "…sets forth the extent to which Medicare will cover specific services, procedures, or technologies on a national basis. Medicare contractors are required to follow NCDs." If the impact of an NCD meets CMS's definition of "significant cost",

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[4] CMS Medicare Managed Care Internet Manual 100-16, Chapter 17a, Subpart A, Section 10.2 – Bill Processing Options. (http://www.cms.hhs.gov/manuals/downloads/mc86c17a.pdf)

[5] Change Request 5647 outlines the changes made to capture inpatient days. (http://www.cms.hhs.gov/transmittals/downloads/R1311CP.pdf) Also found in Claims Processing Manual 100-04, Chapter 3, Section 20.3 (http://www.cms.hhs.gov/manuals/downloads/clm104c03.pdf)

then CMS will pay for these services on a fee-for-service basis.[6] This means that certain MCO claims deemed to be "significant cost" will be found in the Medicare utilization files. From the 2002 5% Inpatient Standard Analytical File, a total of 50 out of 667,831 claims or .007% were identified as "significant cost" claims.

Beginning on September 19, 2000, claims for clinical trials are to be submitted to either a Fiscal Intermediary, Carrier, or MAC for processing. CMS did not include the cost for providing these benefits in the payment.[7] Therefore, clinical trial claims will appear in the Medicare utilization files.

MCO institutional claims may be identified through Condition Codes[8] (i.e. 04-Information Only Bill, 30-Qualifying Clinical Trial) or Revenue Center ANSI codes (i.e. 24-Charges covered under capitation agreement and 104-Managed care withholding). In the non-institutional utilization files, MCO claims may be identified through HCPCS modifiers (KZ-New coverage not implemented by managed care).

Below is a list of CMS documents that instruct MCOs to submit claims to a Fiscal Intermediary or Carrier for processing. This is not an exhaustive list and it is provided to illustrate situations where researchers would find MCO claims in the Medicare fee-for-service utilization files.

Example CMS documents instructing Managed Care Plans to submit claims to a Fiscal Intermediary or Carrier:

- Cost-based plans, Billing Process Options, CMS Internet Only Manual (IOM), 100-16, Chapter 17a, Section 10.2 (http://cms.hhs.gov/manuals/downloads/mc86c17a.pdf)
- Cost-based plans Out-of-Area, Out-of-Network and Extended Absence, CMS IOM 100-16, Chapter 17f, Section 50 (http://cms.hhs.gov/manuals/downloads/mc86c17f.pdf)
- Cost-based plans, Claims Processed by Fee-for-service Carrier for Part B services, Cost Plan Policy Index Pt. 1 (03-004 - http://www.cms.hhs.gov/MedicareCostPlans/) . CMS IOM 100-16, Chapter 17b, Section 300. (http://cms.hhs.gov/manuals/downloads/mc86c17b.pdf)
- Cost-based plans, Claims for Home Health services after January 1, 2005, CMS IOM , Chapter 17b, Section 300. (http://cms.hhs.gov/manuals/downloads/mc86c17b.pdf)
- New Services or "Significant Cost" services – Transmittal 27 (http://cms.hhs.gov/Transmittals/Downloads/R27CP.pdf)
- Accurate Accounting of Inpatient Days for non-IPPS hospitals for Medicare+Choice Enrollees – Transmittal A-03-045 (http://cms.hhs.gov/Transmittals/Downloads/A03045.pdf)
- Coverage of Clinical Trials, CMS IOM 100-16, Chapter 8, Section 40.4.3 (http://www.cms.hhs.gov/manuals/downloads/mc86c08.pdf)
- CMS' Payments to Hospice Programs, CMS IOM 100-16, Chapter 8, Section 70.3.1 (http://www.cms.hhs.gov/manuals/downloads/mc86c08.pdf)

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[6] CMS Medicare Managed Care Internet Manual 100-16, Chapter 8, Section 40.4.2 – Rules for Payment of "Significant Cost" NCDs and LCBs. (http://www.cms.hhs.gov/manuals/downloads/mc86c08.pdf)

[7] CMS Medicare Managed Care Internet Manual 100-16, Chapter 8, Section 40.4.3 – Special Rules for the September 2000 NCD on Clinical Trials.

[8] CMS Medicare Claims Processing Manual 100-04, Chapter 25, Section 60.2, Condition Codes. (http://cms.hhs.gov/manuals/downloads/clm104c25.pdf)

Finding Managed Care Beneficiaries and Services in the Medicare Utilization Files

Denominator or Beneficiary Summary File

In the Denominator File, the variable called the HMO indicator will identify those beneficiaries that were enrolled in some type of managed care plan. (Please note that CMS uses the terms "HMO" and "GHO" generically to indicate a managed care plan.) An indicator of 0 indicates that the beneficiary was not a member of a managed care plan. Indicator 4 indicates that the beneficiary is participating in a fee-for-service disease management program. While this is a special program, it is not considered a managed care plan. Claims for these individuals with an indicator equal to 4 would be found in the Medicare claims.

The other HMO indicators including 1, 2, A, B, C identify some type of managed care enrollment. More specifically, the HMO indicators equal to 1 or 2 are cost-based managed care plans. HMO indicators equal to A, B, or C, are considered risk-based plans. Figure 1 shows the variable "HMO Indicator" and the associated variable values as they appear in the Denominator file record layout.

Figure 1. HMO Indictor Variable from the Denominator or Beneficiary Summary File

HMO INDICATOR CODE INDICATING BENEFICIARY HAS MEMBERSHIP IN HEALTH MAINTENANCE ORGANIZATION.
0 = NOT A MEMBER OF HMO
1 = NON LOCK-IN, CMS TO PROCESS PROVIDER CLAIMS
2 = NON LOCK-IN, GHO TO PROCESS IN-PLAN PART A AND IN-AREA PART B CLAIMS
4 = FEE-FOR-SERVICE PARTICIPANT IN CASE OR DISEASE MANAGEMENT DEMONSTRATION PROJECTS (EFFECTIVE 2005 FORWARD)
A = LOCK-IN, CMS TO PROCESS PROVIDER CLAIMS
B = LOCK-IN, GHO TO PROCESS IN-PLAN PART A AND IN-AREA PART B CLAIMS
C = LOCK-IN, GHO TO PROCESS ALL PROVIDER CLAIMS

Table 2 shows the frequency of the HMO Indicator variable for selected years. For values equal to 0 (not a member of HMO), 1 (non lock-in, CMS to process provider claims), and A (lock-in, CMS to process provider claims), and 4 (FFS Bene in Demo Program, CMS to process Claims) the claims data will be present in the Medicare utilization files because CMS processed the claim. For all other categories including 2, B, and C, the vast majority of the claims data will not be present in the utilization files[9].

[9] The exception to this would be those services where CMS has instructed the managed care plan to submit claims to either a Fiscal Intermediary or Carrier. Examples of these types of services are given in the section "Managed Care Organization Claims in the Medicare Utilization Files"

Table 2. Frequency of the HMO Indicator Variable in the Denominator file

July 1998, July 2003, July 2006, July 2007

Code	Description	July 1998	July 2003	July 2006	July 2007
0	NOT A MEMBER OF HMO	84.1%	87.7%	83.2%	80.9%
1	NON LOCK-IN, CMS TO PROCESS PROVIDER CLAIMS	1.3%	0.9%	0.8%	0.7%
2	NON LOCK-IN, GHO TO PROCESS IN-PLAN PART A AND IN-AREA PART B CLAIMS	0.1%	0.1%	0.1%	0.1%
4	FFS BENE IN DEMO PROGRAM, CMS TO PROCESS CLAIMS	NA	NA	0.4%	0.3%
A	LOCK-IN, CMS TO PROCESS PROVIDER CLAIMS	0.0%	0.0%	0.0%	0.0%
B	LOCK-IN, GHO TO PROCESS IN-PLAN PART A AND IN-AREA PART B CLAIMS	0.0%	0.0%	0.0%	0.0%
C	LOCK-IN, GHO TO PROCESS ALL PROVIDER CLAIMS	14.6%	11.3%	15.6%	18.0%

MedPAR File

The MedPAR file contains a variable called the MedPAR GHO Paid Code (http://www.resdac.umn.edu/ddme/NewFiles/GHOPDCD.htm) According to the MedPAR record layout, this code should indicate whether or not a Group Health Organization (i.e. MCO) has paid the provider for the claim. See Figure 2 for the variable description and values from the MedPAR record layout.

Figure 2. GHO Paid Code Variable from the MedPAR File

MEDPAR GHO Paid Code The code indicating whether or not a GHO has paid the provider for the claim(s).

1 = GHO has paid the claim
Blank Or 0 = GHO has not paid the provider

An empirical analysis was conducting using the 2002 5% MedPAR file and 5% Denominator file to quantify how accurately the GHO Paid Code variable categorized the hospitalizations in the MedPAR file. In general, the GHO Paid Code contains roughly 99.99% blank values, meaning that nearly all of the hospitalizations in the file are Medicare fee-for-service hospitalizations. However, for the .01% GHO paid hospitalizations identified, the 5% MedPAR file did identify the GHO paid hospitalization correctly. More specifically, the analysis involved matching the 5% Denominator HMO monthly indicator with the month of the admission for each hospitalization in the 5% MedPAR file. Then, the GHO_PD code in the 5% MedPAR file was cross-tabulated against the HMO status indicator (0-not hmo, 1-non lock in, etc.) found in the 5% Denominator file.

Over 95% of the time, the GHO Paid code variable correctly identified the hospitalizations that were paid by a GHO. But, for a very small number of hospitalizations, the variable

misidentified the hospitalization as being paid by a GHO when the beneficiary was not enrolled in a managed care plan, according to the 5% Denominator file.

Therefore, ResDAC recommends that researchers use the monthly HMO Indicator variable found in the Denominator file to determine when a beneficiary was enrolled in a MCO. The GHO paid code field does, on occasion, incorrectly identify hospitalizations paid by a GHO. Further, the GHO paid code gives no information about the months that a person was enrolled in an MCO, so this variable can't be used to calculate rates based on person-months.

How to Exclude Managed Care Beneficiaries and Associated Claims from the Medicare Utilization files

It is necessary to remove managed care beneficiaries from the cohort because the utilization information while they were enrolled in a managed care plan, is not present in the utilization files. Removing managed care enrollees from the cohort ensures that everyone remaining in the cohort is eligible to have utilization data. In published literature, most researchers will exclude those beneficiaries with any managed care enrollment during the study period. In other words, include only those beneficiaries that had 12 months of continuous fee-for-service coverage. This is determined by looking at the Denominator file, HMO Indicator variable and selecting those beneficiaries where all 12 monthly indicators equal "0" or "4". However, a researcher may decide to analyze the information by beneficiary month and only exclude those months when the beneficiary was enrolled in a managed care plan.

Summary

In summary, utilization information for beneficiaries enrolled in a managed care plan, for the most part, will not be found in the Medicare utilization data. Information for managed care enrollees may be present under certain specific circumstances, such as Hospice care. ResDAC recommends that researchers consider removing those persons or months a person was enrolled in a Medicare managed care plan from their cohort.

If you have any questions or comments, ResDAC staff can be contacted at 1-888-ResDAC or resdac@umn.edu

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