C O D E B O O K

Centers for Medicare and Medicaid Services (CMS) *Linkable 2008–2010 Medicare Data Entrepreneurs' Synthetic Public Use File (DE-SynPUF)*

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Introduction

The CMS linkable 2008–2010 Medicare Data Entrepreneurs' Synthetic Public Use File (DE-SynPUF) was designed to create new type of file that would be useful for data entrepreneurs for software and application development and training purposes. The files preserve the detailed data structure and metadata of key variables at both the beneficiary and claim levels. However, the data are fully "synthetic," meaning no beneficiary in the *DE-SynPUF* is an actual Medicare beneficiary. They are all synthetic beneficiaries meant to represent actual beneficiaries. In order to protect the privacy of beneficiaries and to greatly reduce the risk of re-identification, a significant amount of interdependence and co-variation among variables has been altered in the synthetic process. The synthetic process used significantly diminishes the analytic utility of the file to produce reliable inferences about the actual Medicare beneficiary population (i.e., univariate statistics and regression coefficients produced with the *DE-SynPUF* will be biased).

The CMS linkable 2008–2010 Medicare DE-SynPUF contains multiple files per year for multiple years. The *DE-SynPUF* contains multiple files per year for multiple years. The file contains synthesized data taken from a 5% random sample of Medicare beneficiaries in 2008 and their claims from 2008 to 2010. Each synthetic beneficiary was assigned a unique unidentifiable ID, *DESYNPUF_ID*, which is provided on each file to link synthetic claims to a synthetic beneficiary. This beneficiary ID carries no information about the enrollee or any patient records, and is provided solely for reference and data processing purposes. For this synthetic sample of Medicare beneficiaries, the *DE-SynPUF* contains five types of files – the *CMS Beneficiary Summary DE-SynPUF, the CMS Inpatient Claims DE-SynPUF, the CMS Outpatient Claims DE-SynPUF, the CMS Carrier Claims DE-SynPUF* (also known as the Physician/Supplier Part B claims file)*, and the CMS Prescription Drug Events (PDE) DE-SynPUF.* Please find more details regarding how files of the *DE-SynPUF* were organized in the "How to link files" section in the *CMS Linkable 2008-2010 Medicare Data Entrepreneurs' Synthetic Public Use Files (DE-SynPUF) User Manual*. Files of the same type contain the same sets of variables for each year. Variable names in the *DE-SynPUF* were kept the same as those in the actual Medicare data unless they were significantly coarsened to decrease re-identification risk. In those cases, "SP_" was added to the original variable name for distinguishing.

It is essential that the confidentiality of the Medicare beneficiaries are protected when producing Medicare public use files. The protection of such information makes it difficult to maintain the analytic utility of such an information rich data set. **All variables in the *DE-SynPUF* are imputed/suppressed/coarsened as part of disclosure treatment. As a result, the *DE-SynPUF* does not have research utility due to the synthetic process used to generate the data. That is, analyses using the *DE-SynPUF* should be interpreted with caution. Analytic inferences to the Medicare population should not be made when using the *DE-SynPUF*.** Although the *DE-SynPUF* has limited empirical research utility, it does have the same data and file structure as the actual 5% Medicare beneficiary file and similar number of beneficiaries; it just has a smaller number of claims types and number of variables. Because the structure of the data is maintained, the *DE-SynPUF* is useful for building data tools that could be used with the actual data. Programs and procedures designed using the *DE-SynPUF* should be fully functional when applied to CMS Limited Data Sets (LDS) or Identifiable Data prior to 2011, assuming variable names have not been changed.

The *DE-SynPUF* can also be used to train researchers on how to conduct complex analyses of CMS claims data. Moreover, the *DE-SynPUF* will also provide a robust set of metadata on the CMS claims data that have not been available in the public domain.

The analytic utility of the data file differs based on the type and level of analysis being conducted:

- **Demographic**: The *DE-SynPUF* estimates of demographic characteristics (date of birth, date of death, sex, race, state, county) of the beneficiary population match the univariate frequency of the full population of beneficiaries enrolled in Medicare at any time during the 2008 year.
- **Clinical**: The *DE-SynPUF* estimates for clinical variables such as chronic conditions can provide researchers with bounds on how many cases with a specific condition are likely to be in the Medicare claims, which could be used to generate power calculations for a grant application.
- **Economic/financial**: The *DE-SynPUF* estimates for the economic and financial variables provide a *lower bound* for the true estimate of cost for the full population of beneficiaries enrolled in Medicare at any time during the 2008 year and costs for 2009 and 2010 for this 2008 beneficiary example.
- **Multivariate modeling**: The dynamic relationships between variables (demographic, health plan enrollment, clinical, economic/financial, and provider information) were altered, to limit re-identification risk. Therefore, analyses from multivariate modeling should be interpreted with caution. However, the programs and procedures employed in the multivariate modeling will function on the CMS Limited Data Sets or Identifiable Data prior to 2011.

Statistical disclosure limitation was used to protect confidentiality of beneficiary data in the *DE-SynPUF*. Synthetic beneficiaries and their synthetic claims are based on real 'seed' beneficiaries. Disclosure is reduced through multiple deterministically or stochastically applied treatment mechanisms. First, hot decking based procedures are used to find donors for beneficiary level variables and individual claims. Second, other 'synthetic' processes are used to protect other elements of the data. Disclosure Limitation Methods used in the process include: variable reduction, suppression, substitution, synthesis, date perturbation, and coarsening. Please refer to *CMS linkable 2008–2010 Medicare Data Entrepreneurs' Synthetic Public Use File (DE-SynPUF) user manual* for details regarding how the *DE-SynPUF* was created.

This codebook describes variables contained in these five files and was organized as follows. The next section is a summary of variables in each *DE-SynPUF* for quick reference. Following sections describe variables in detail in the *CMS Beneficiary Summary DE-SynPUF, the CMS Inpatient Claims DE-SynPUF, the CMS Outpatient Claims DE-SynPUF, the CMS Carrier Claims DE-SynPUF, and the CMS Prescription Drug Events (PDE) DE-SynPUF*, respectively. A quick summary of the characteristics of DE-SynPUF is provided below.

Table 1. A summary of the characteristics of *CMS linkable 2008–2010 Medicare DE-SynPUF*

DE-SynPUF	**Unit of record**	**Number of records 2008**	**Number of records 2009**	**Number of records 2010**
Beneficiary Summary DE-SynPUF	Beneficiary	2,326,856	2,291,320	2,255,098
Inpatient Claims DE-SynPUF	claim	547,800	504,941	280,081
Outpatient Claims DE-SynPUF	claim	5,673,808	6,519,340	3,633,839
Carrier Claims DE-SynPUF	claim	34,276,324	37,304,993	23,282,135
Prescription Drug Events (PDE) DE-SynPUF	claim	39,927,827	43,379,293	27,778,849

Note: Claim counts for 2010 are lower due to attrition from death, and some effects of disclosure treatment.

All variables in the *DE-SynPUF* are imputed/suppressed/coarsened as part of disclosure treatment. As a result, the *DE-SynPUF* does not have research utility due to the synthetic process used to generate the data. That is, analyses using the *DE-SynPUF* should be interpreted with caution. Analytic inferences to the Medicare population should not be made when using the *DE-SynPUF*.

Summary of Variables

1. The CMS Beneficiary Summary *DE-SynPUF* contains 32 variables. For variables available in denominator files, we kept the same variable name as in denominator files. Although variables in Beneficiary Summary *DE-SynPUF* were imputed and coarsened, for most variables, the format of the data values in the *DE-SynPUF* is the same as in the original data (e.g. the imputed county codes are valid county codes). In the few exceptions, "SP_" was added as prefix to the original variable name to distinguish those data items whose values no longer represent the typical values or the format of the original data field. Each record pertains to a synthetic Medicare beneficiary and includes:

#	Variable names	Labels
1	*DESYNPUF_ID*	DESYNPUF: Beneficiary Code
2	*BENE_BIRTH_DT*	DESYNPUF: Date of birth
3	*BENE_DEATH_DT*	DESYNPUF: Date of death
4	*BENE_SEX_IDENT_CD*	DESYNPUF: Sex
5	*BENE_RACE_CD*	DESYNPUF: Beneficiary Race Code
6	*BENE_ESRD_IND*	DESYNPUF: End stage renal disease Indicator
7	*SP_STATE_CODE*	DESYNPUF: State Code
8	*BENE_COUNTY_CD*	DESYNPUF: County Code
9	*BENE_HI_CVRAGE_TOT_MONS*	DESYNPUF: Total number of months of part A coverage for the beneficiary.
10	*BENE_SMI_CVRAGE_TOT_MONS*	DESYNPUF: Total number of months of part B coverage for the beneficiary.
11	*BENE_HMO_CVRAGE_TOT_MONS*	DESYNPUF: Total number of months of HMO coverage for the beneficiary.
12	*PLAN_CVRG_MOS_NUM*	DESYNPUF: Total number of months of part D plan coverage for the beneficiary.
13	*SP_ALZHDMTA*	DESYNPUF: Chronic Condition: Alzheimer or related disorders or senile
14	*SP_CHF*	DESYNPUF: Chronic Condition: Heart Failure
15	*SP_CHRNKIDN*	DESYNPUF: Chronic Condition: Chronic Kidney Disease
16	*SP_CNCR*	DESYNPUF: Chronic Condition: Cancer
17	*SP_COPD*	DESYNPUF: Chronic Condition: Chronic Obstructive Pulmonary Disease
18	*SP_DEPRESSN*	DESYNPUF: Chronic Condition: Depression
19	*SP_DIABETES*	DESYNPUF: Chronic Condition: Diabetes
20	*SP_ISCHMCHT*	DESYNPUF: Chronic Condition: Ischemic Heart Disease
21	*SP_OSTEOPRS*	DESYNPUF: Chronic Condition: Osteoporosis
22	*SP_RA_OA*	DESYNPUF: Chronic Condition: rheumatoid arthritis and osteoarthritis (RA/OA)
23	*SP_STRKETIA*	DESYNPUF: Chronic Condition: Stroke/transient Ischemic Attack
24	*MEDREIMB_IP*	DESYNPUF: Inpatient annual Medicare reimbursement amount
25	*BENRES_IP*	DESYNPUF: Inpatient annual beneficiary responsibility amount

#	Variable names	Labels
26	*PPPYMT_IP*	DESYNPUF: Inpatient annual primary payer reimbursement amount
27	*MEDREIMB_OP*	DESYNPUF: Outpatient Institutional annual Medicare reimbursement amount
28	*BENRES_OP*	DESYNPUF: Outpatient Institutional annual beneficiary responsibility amount
29	*PPPYMT_OP*	DESYNPUF: Outpatient Institutional annual primary payer reimbursement amount
30	*MEDREIMB_CAR*	DESYNPUF: Carrier annual Medicare reimbursement amount
31	*BENRES_CAR*	DESYNPUF: Carrier annual beneficiary responsibility amount
32	*PPPYMT_CAR*	DESYNPUF: Carrier annual primary payer reimbursement amount

2. The CMS Inpatient Claims *DE-SynPUF* contains 81 variables. Each record pertains to a synthetic inpatient claim and includes:

#	Variable names	Labels
1	*DESYNPUF_ID*	DESYNPUF: Beneficiary Code
2	*CLM_ID*	DESYNPUF: Claim ID
3	*SEGMENT*	DESYNPUF: Claim Line Segment
4	*CLM_FROM_DT*	DESYNPUF: Claims start date
5	*CLM_THRU_DT*	DESYNPUF: Claims end date
6	*PRVDR_NUM*	DESYNPUF: Provider Institution
7	*CLM_PMT_AMT*	DESYNPUF: Claim Payment Amount
8	*NCH_PRMRY_PYR_CLM_PD_AMT*	DESYNPUF: NCH Primary Payer Claim Paid Amount
9	*AT_PHYSN_NPI*	DESYNPUF: Attending Physician – National Provider Identifier Number
10	*OP_PHYSN_NPI*	DESYNPUF: Operating Physician – National Provider Identifier Number
11	*OT_PHYSN_NPI*	DESYNPUF: Other Physician – National Provider Identifier Number
12	*CLM_ADMSN_DT*	DESYNPUF: Inpatient admission date
13	*ADMTNG_ICD9_DGNS_CD*	DESYNPUF: Claim Admitting Diagnosis Code
14	*CLM_PASS_THRU_PER_DIEM_AMT*	DESYNPUF: Claim Pass Thru Per Diem Amount
15	*NCH_BENE_IP_DDCTBL_AMT*	DESYNPUF: NCH Beneficiary Inpatient Deductible Amount
16	*NCH_BENE_PTA_COINSRNC_LBLTY_AM*	DESYNPUF: NCH Beneficiary Part A Coinsurance Liability Amount
17	*NCH_BENE_BLOOD_DDCTBL_LBLTY_AM*	DESYNPUF: NCH Beneficiary Blood Deductible Liability Amount
18	*CLM_UTLZTN_DAY_CNT*	DESYNPUF: Claim Utilization Day Count
19	*NCH_BENE_DSCHRG_DT*	DESYNPUF: Inpatient discharged date
20	*CLM_DRG_CD*	DESYNPUF: Claim Diagnosis Related Group Code
21-30	*ICD9_DGNS_CD_1 – ICD9_DGNS_CD_10*	DESYNPUF: Claim Diagnosis Code 1 – Claim Diagnosis Code 10
31-36	*ICD9_PRCDR_CD_1 – ICD9_PRCDR_CD_6*	DESYNPUF: Claim Procedure Code 1 – Claim Procedure Code 6
37-81	*HCPCS_CD_1 – HCPCS_CD_45*	DESYNPUF: Revenue Center HCFA Common Procedure Coding System 1 – Revenue Center HCFA Common Procedure Coding System 45

3. The CMS Outpatient Claims *DE-SynPUF* contains 76 variables. Each record pertains to a synthetic outpatient claim and includes:

#	Variable names	Labels
1	*DESYNPUF_ID*	DESYNPUF: Beneficiary Code
2	*CLM_ID*	DESYNPUF: Claim ID
3	*SEGMENT*	DESYNPUF: Claim Line Segment
4	*CLM_FROM_DT*	DESYNPUF: Claims start date
5	*CLM_THRU_DT*	DESYNPUF: Claims end date
6	*PRVDR_NUM*	DESYNPUF: Provider Institution
7	*CLM_PMT_AMT*	DESYNPUF: Claim Payment Amount
8	*NCH_PRMRY_PYR_CLM_PD_AMT*	DESYNPUF: NCH Primary Payer Claim Paid Amount
9	*AT_PHYSN_NPI*	DESYNPUF: Attending Physician – National Provider Identifier Number
10	*OP_PHYSN_NPI*	DESYNPUF: Operating Physician – National Provider Identifier Number
11	*OT_PHYSN_NPI*	DESYNPUF: Other Physician – National Provider Identifier Number
12	*NCH_BENE_BLOOD_DDCTBL_LBLTY_AM*	DESYNPUF: NCH Beneficiary Blood Deductible Liability Amount
13-22	*ICD9_DGNS_CD_1 – ICD9_DGNS_CD_10*	DESYNPUF: Claim Diagnosis Code 1 – Claim Diagnosis Code 10
23-28	*ICD9_PRCDR_CD_1 – ICD9_PRCDR_CD_6*	DESYNPUF: Claim Procedure Code 1 – Claim Procedure Code 6
29	*NCH_BENE_PTB_DDCTBL_AMT*	DESYNPUF: NCH Beneficiary Part B Deductible Amount
30	*NCH_BENE_PTB_COINSRNC_AMT*	DESYNPUF: NCH Beneficiary Part B Coinsurance Amount
31	*ADMTNG_ICD9_DGNS_CD*	DESYNPUF: Claim Admitting Diagnosis Code
32-76	*HCPCS_CD_1 – HCPCS_CD_45*	DESYNPUF: Revenue Center HCFA Common Procedure Coding System 1 – Revenue Center HCFA Common Procedure Coding System 45

4. The CMS Carrier Claims *DE-SynPUF* contains 142 variables. Each record pertains to a synthetic physician/supplier claim and includes:

#	Variable names	Labels
1	*DESYNPUF_ID*	DESYNPUF: Beneficiary Code
2	*CLM_ID*	DESYNPUF: Claim ID
3	*CLM_FROM_DT*	DESYNPUF: Claims start date
4	*CLM_THRU_DT*	DESYNPUF: Claims end date
5-12	*ICD9_DGNS_CD_1 – ICD9_DGNS_CD_8*	DESYNPUF: Claim Diagnosis Code 1 – Claim Diagnosis Code 8
13-25	*PRF_PHYSN_NPI_1 – PRF_PHYSN_NPI_13*	DESYNPUF: Provider Physician – National Provider Identifier Number
26-38	*TAX_NUM_1 – TAX_NUM_13*	DESYNPUF: Provider Institution Tax Number
39-51	*HCPCS_CD_1 – HCPCS_CD_13*	DESYNPUF: Line HCFA Common Procedure Coding System 1 – Line HCFA Common Procedure Coding System 13
52-64	*LINE_NCH_PMT_AMT_1– LINE_NCH_PMT_AMT_13*	DESYNPUF: Line NCH Payment Amount 1 – Line NCH Payment Amount 13
65-77	*LINE_BENE_PTB_DDCTBL_AMT_1 – LINE_BENE_PTB_DDCTBL_AMT_13*	DESYNPUF: Line Beneficiary Part B Deductible Amount 1 – Line Beneficiary Part B Deductible Amount 13
78-90	*LINE_BENE_PRMRY_PYR_PD_AMT_1 – LINE_BENE_PRMRY_PYR_PD_AMT_13*	DESYNPUF: Line Beneficiary Primary Payer Paid Amount 1 – Line Beneficiary Primary Payer Paid Amount 13
91-103	*LINE_COINSRNC_AMT_1 – LINE_COINSRNC_AMT_13*	DESYNPUF: Line Coinsurance Amount 1 – Line Coinsurance Amount 13
104-116	*LINE_ALOWD_CHRG_AMT_1 – LINE_ALOWD_CHRG_AMT_13*	DESYNPUF: Line Allowed Charge Amount 1 – Line Allowed Charge Amount 13
117-129	*LINE_PRCSG_IND_CD_1 – LINE_PRCSG_IND_CD_13*	DESYNPUF: Line Processing Indicator Code 1 – Line Processing Indicator Code13
130-142	*LINE_ICD9_DGNS_CD_1 – LINE_ICD9_DGNS_CD_13*	DESYNPUF: Line Diagnosis Code 1 – Line Diagnosis Code 13

5. The CMS Prescription Drug Events (PDE) *DE-SynPUF* contains 8 variables. Each record pertains to a synthetic Part D event and includes:

#	Variable names	Labels
1	*DESYNPUF_ID*	DESYNPUF: Beneficiary Code
2	*PDE_ID*	DESYNPUF: CCW Part D Event Number
3	*SRVC_DT*	DESYNPUF: RX Service Date
4	*PROD_SRVC_ID*	DESYNPUF: Product Service ID
5	*QTY_DSPNSD_NUM*	DESYNPUF: Quantity Dispensed
6	*DAYS_SUPLY_NUM*	DESYNPUF: Days Supply
7	*PTNT_PAY_AMT*	DESYNPUF: Patient Pay Amount
8	*TOT_RX_CST_AMT*	DESYNPUF: Gross Drug Cost

CMS Beneficiary (BEN) Summary DE-SynPUF Codebook

BEN-1.

Label: DESYNPUF: Beneficiary Code

Variable Name: DESYNPUF_ID

Type: Char

Summary Statistics

- **Range:** N/A
- **Unique values:** 2,326,856 in 2008; 2,291,320 in 2009; 2,255,098 in 2010.
- **Missing:** 0
- **Valid:** 2,326,856 in 2008; 2,291,320 in 2009; 2,255,098 in 2010.

Note: Cryptographic number provided on each file to link claims to a beneficiary. This beneficiary ID carries no information about the patient or any patient records, and is provided solely for reference and data processing purposes.

BEN-2.

Label: DESYNPUF: Date of birth

Variable Name: BENE_BIRTH_DT

Type: Num

Format: YYYYMMDD

Summary Statistics

- **Missing:** 0
- **Valid:** 2,326,856 in 2008; 2,291,320 in 2009; 2,255,098 in 2010.

Source

- **File:** 2008 Beneficiary Summary File
- **Variable:** BENE_BIRTH_DT
- **Label:** THIS DATE SPECIFIES THE BENEFICIARY'S DATE OF BIRTH
- **Coding scheme:** N/A

Note: This variable was imputed/suppressed/coarsened as part of disclosure treatment. Analyses using this variable should be interpreted with caution. Analytic inferences to the Medicare population should not be made when using this variable.

BEN-3.

Label: DESYNPUF: Date of death

Variable Name: BENE_DEATH_DT

Type: Num

Format: YYYYMMDD

Summary Statistics

- **Missing:** 2,291,320 for 2008; 2,255,098 for 2009; 2,219,212 for2010.

Source

- **File:** 2008 – 2010 *DE-SynPUF*: beneficiary, inpatient, outpatient, and Carrier files

Note: This variable was calculated using synthetic claims. Analyses using this variable should be interpreted with caution. Analytic inferences to the Medicare population should not be made when using this variable.

BEN-4.

Label: DESYNPUF: Sex

Variable Name: BENE_SEX_IDENT_CD

Type: Char

Categories

Code	Label	2008 Freq.	2008 Freq. in %	2009 Freq.	2009 Freq. in %	2010 Freq.	2010 Freq. in %
1	Male	1,033,995	44.44	1,018,225	44.44	1,002,049	44.43
2	Female	1,292,861	55.56	1,273,095	55.56	1,253,049	55.57
Total		**2,326,856**	**100**	**2,291,320**	**100**	**2,255,098**	**100**

Summary Statistics

- **Range:** [1, 2]
- **Unique values:** 2
- **Missing:** 0
- **Valid:** 2,326,856 in 2008; 2,291,320 in 2009; 2,255,098 in 2010.

Source

- **File:** 2008 Beneficiary Summary File
- **Variable:** BENE_SEX_IDENT_CD
- **Label:** THE SEX OF THE BENEFICIARY
- **Coding scheme:** N/A

Note: This variable was imputed/suppressed/coarsened as part of disclosure treatment. Analyses using this variable should be interpreted with caution. Analytic inferences to the Medicare population should not be made when using this variable.

BEN-5.

Label: DESYNPUF: Beneficiary Race Code

Variable Name: BENE_RACE_CD

Type: Char

Categories

Code	Label	2008 Freq.	2008 Freq. in %	2009 Freq.	2009 Freq. in %	2010 Freq.	2010 Freq. in %
1	White	1,926,708	82.8	1,897,108	82.8	1,866,993	82.79
2	Black	247,723	10.65	244,068	10.65	240,294	10.66
3	Others	97,972	4.21	96,480	4.21	95,012	4.21
5	Hispanic	54,453	2.34	53,664	2.34	52,799	2.34
Total		**2,326,856**	**100**	**2,291,320**	**100**	**2,255,098**	**100**

Summary Statistics

- **Range:** [1, 5] (There is no 4)
- **Unique values:** 4
- **Missing:** 0
- **Valid:** 2,326,856 in 2008; 2,291,320 in 2009; 2,255,098 in 2010.

Source

- **File:** 2008 Beneficiary Summary File
- **Variable:** BENE_RACE_CD
- **Label:** THE RACE OF A BENEFICIARY
- **Coding scheme:** Others = UNKNOWN, OTHER, ASIAN, HISPANIC, NORTH AMERICAN NATIVE.

Note: This variable was imputed/suppressed/coarsened as part of disclosure treatment. Analyses using this variable should be interpreted with caution. Analytic inferences to the Medicare population should not be made when using this variable.

BEN-6.

Label: DESYNPUF: End stage renal disease Indicator

Variable Name: BENE_ESRD_IND

Type: Char

Categories

Code	Label	2008 Freq.	2008 Freq. in %	2009 Freq.	2009 Freq. in %	2010 Freq.	2010 Freq. in %
0	The beneficiary does not have esrd	2,162,326	92.93	2,073,885	90.51	2,094,693	92.89
Y	The beneficiary has esrd	164,530	7.07	217,435	9.49	160,405	7.11
Total		**2,326,856**	**100**	**2,291,320**	**100**	**2,255,098**	**100**

Summary Statistics

- **Unique values:** 2
- **Missing:** 0
- **Valid:** 2,326,856 in 2008; 2,291,320 in 2009; 2,255,098 in 2010.

Source

- **File:** 2008 – 2010 *DE-SynPUF*: beneficiary, inpatient, outpatient, and Carrier files

Note: This variable was calculated using synthetic claims. Analyses using this variable should be interpreted with caution. Analytic inferences to the Medicare population should not be made when using this variable.

BEN-7.

Label: DESYNPUF: State Code

Variable Name: SP_STATE_CODE

Type: Char

Categories

Code	Label	2008 Freq.	2008 Freq. in %	2009 Freq.	2009 Freq. in %	2010 Freq.	2010 Freq. in %
01	AL	51,318	2.21	50,564	2.21	49,755	2.21
02	AK	4,556	0.2	4,481	0.2	4,419	0.2
03	AZ	45,802	1.97	45,114	1.97	44,377	1.97
04	AR	36,819	1.58	36,271	1.58	35,669	1.58
05	CA	201,651	8.67	198,666	8.67	195,497	8.67
06	CO	39,391	1.69	38,798	1.69	38,170	1.69
07	CT	30,181	1.3	29,705	1.3	29,226	1.3
08	DE	9,968	0.43	9,811	0.43	9,646	0.43
09	DC	6,050	0.26	5,954	0.26	5,863	0.26
10	FL	155,040	6.66	152,657	6.66	150,203	6.66
11	GA	62,479	2.69	61,531	2.69	60,577	2.69
12	HI	11,476	0.49	11,304	0.49	11,111	0.49
13	ID	13,511	0.58	13,280	0.58	13,057	0.58
14	IL	86,557	3.72	85,297	3.72	83,935	3.72
15	IN	49,260	2.12	48,500	2.12	47,723	2.12
16	IA	26,835	1.15	26,392	1.15	25,968	1.15
17	KS	22,453	0.96	22,096	0.96	21,723	0.96
18	KY	36,440	1.57	35,860	1.57	35,235	1.56
19	LA	33,977	1.46	33,418	1.46	32,911	1.46
20	ME	14,111	0.61	13,886	0.61	13,636	0.6
21	MD	38,123	1.64	37,497	1.64	36,934	1.64
22	MA	51,646	2.22	50,907	2.22	50,104	2.22
23	MI	79,556	3.42	78,328	3.42	77,076	3.42
24	MN	38,858	1.67	38,269	1.67	37,702	1.67
25	MS	26,579	1.14	26,175	1.14	25,790	1.14
26	MO	47,423	2.04	46,691	2.04	45,986	2.04
27	MT	9,331	0.4	9,202	0.4	9,065	0.4
28	NE	14,303	0.61	14,086	0.61	13,860	0.61
29	NV	16,449	0.71	16,176	0.71	15,913	0.71
30	NH	12,908	0.55	12,708	0.55	12,519	0.56
31	NJ	63,475	2.73	62,428	2.72	61,464	2.73
32	NM	22,717	0.98	22,353	0.98	21,998	0.98
33	NY	132,059	5.68	130,060	5.68	128,013	5.68
34	NC	78,912	3.39	77,681	3.39	76,425	3.39
35	ND	8,520	0.37	8,372	0.37	8,255	0.37
36	OH	86,325	3.71	85,078	3.71	83,731	3.71
37	OK	33,865	1.46	33,326	1.45	32,805	1.45
38	OR	34,089	1.47	33,581	1.47	33,067	1.47
39	PA	102,191	4.39	100,619	4.39	99,057	4.39
41	RI	13,736	0.59	13,511	0.59	13,279	0.59

Code	Label	2008 Freq.	2008 Freq. in %	2009 Freq.	2009 Freq. in %	2010 Freq.	2010 Freq. in %
42	SC	38,286	1.65	37,668	1.64	37,081	1.64
43	SD	8,256	0.35	8,122	0.35	7,993	0.35
44	TN	55,665	2.39	54,848	2.39	53,996	2.39
45	TX	133,809	5.75	131,800	5.75	129,730	5.75
46	UT	18,036	0.78	17,756	0.77	17,476	0.77
47	VT	7,016	0.3	6,918	0.3	6,818	0.3
49	VA	56,787	2.44	55,914	2.44	55,053	2.44
50	WA	44,912	1.93	44,224	1.93	43,553	1.93
51	WV	22,827	0.98	22,487	0.98	22,153	0.98
52	WI	48,768	2.1	48,077	2.1	47,313	2.1
53	WY	9,691	0.42	9,505	0.41	9,325	0.41
54	Others	33,863	1.46	33,368	1.46	32,863	1.46
Total		**2,326,856**	**100**	**2,291,320**	**100**	**2,255,098**	**100**

Summary Statistics

- **Range:** [01, 54] (There is no 40, 48)
- **Unique values:** 52
- **Missing:** 0
- **Valid:** 2,326,856 in 2008; 2,291,320 in 2009; 2,255,098 in 2010.

Source

- **File:** 2008 Beneficiary Summary File
- **Variable:** STATE_CODE
- **Label:** THE STATE OF RESIDENCE OF THE BENEFICIARY AND IS BASED ON THE MAILING ADDRESS USED FOR CASH BENEFITS OR THE MAILING ADDRESS USED FOR OTHER PURPOSES (FOR EXAMPLE, REMIUM BILLING). THIS INFORMATION IS MAINTAINED FROM CHANGE OF ADDRESS NOTICES SENT IN BY THE BENEFICIARIES, AND IS APPENDED TO THE RECORD AT TIME OF PROCESSING IN CENTRAL OFFICE. THE CODING SYSTEM IS THE SSA SYSTEM, NOT THE FEDERAL INFORMATION PROCESSING STANDARD (FIPS).
- **Coding scheme:** Others = PUERTO RICO, VIRGIN ISLANDS, AFRICA, ASIA OR CALIFORNIA; INSTITUTIONAL PROVIDER OF SERVICES (IPS) ONLY, CANADA & ISLANDS, CENTRAL AMERICA AND WEST INDIES, EUROPE, MEXICO, OCEANIA, PHILIPPINES, SOUTH AMERICA, U.S. POSSESSIONS, AMERICAN SAMOA, GUAM, SAIPAN OR NORTHERN MARIANAS, TEXAS; INSTITUTIONAL PROVIDER OF SERVICES (IPS) ONLY, NORTHERN MARIANAS, GUAM, UNKNOWN.

Note: This variable was imputed/suppressed/coarsened as part of disclosure treatment. Analyses using this variable should be interpreted with caution. Analytic inferences to the Medicare population should not be made when using this variable.

BEN-8.

Label: DESYNPUF: County Code

Variable Name: BENE_COUNTY_CD

Type: Char

Summary Statistics

- **Missing:** 0
- **Valid:** 2,326,856 in 2008; 2,291,320 in 2009; 2,255,098 in 2010.

Source

- **File:** 2008 Beneficiary Summary File
- **Variable:** BENE_COUNTY_CD
- **Label:** THIS CODE SPECIFIES THE SSA CODE FOR THE COUNTY OF RESIDENCE OF THE BENEFICIARY. EACH STATE HAS A SERIES OF CODES BEGINNING WITH '000' FOR EACH COUNTY WITHIN THAT STATE. CERTAIN CITIES WITHIN THAT STATE HAVE THEIR OWN CODE. COUNTY CODES MUST BE COMBINED WITH STATE CODES IN ORDER TO LOCATE THE SPECIFIC COUNTY. THE CODING SYSTEM IS THE SSA SYSTEM, NOT THE FEDERAL INFORMATION PROCESSING STANDARD (FIPS).

Note: This variable was imputed/suppressed/coarsened as part of disclosure treatment. Analyses using this variable should be interpreted with caution. Analytic inferences to the Medicare population should not be made when using this variable.

BEN-9.

Label: DESYNPUF: Total number of months of part A coverage for the beneficiary

Variable Name: BENE_HI_CVRAGE_TOT_MONS

Type: Num

Categories

Code	Label	2008 Freq.	2008 Freq. in %	2009 Freq.	2009 Freq. in %	2010 Freq.	2010 Freq. in %
0	0	106,015	4.56	144,617	6.31	126,518	5.61
1	1	10,640	0.46	635	0.03	2,975	0.13
2	2	9,257	0.4	467	0.02	2,415	0.11
3	3	9,488	0.41	450	0.02	3,247	0.14
4	4	9,518	0.41	762	0.03	3,756	0.17
5	5	10,401	0.45	574	0.03	4,403	0.2
6	6	11,298	0.49	1,086	0.05	5,373	0.24
7	7	11,836	0.51	686	0.03	5,600	0.25
8	8	12,616	0.54	747	0.03	6,824	0.3
9	9	14,189	0.61	693	0.03	7,993	0.35
10	10	15,970	0.69	732	0.03	9,219	0.41
11	11	18,304	0.79	944	0.04	11,426	0.51
12	12	2,087,324	89.71	2,138,927	93.35	2,065,349	91.59
Total		**2,326,856**	**100**	**2,291,320**	**100**	**2,255,098**	**100**

Summary Statistics

- **Range:** [0, 12]
- **Unique values:**13
- **Missing:** 0
- **Valid:** 2,326,856 in 2008; 2,291,320 in 2009; 2,255,098 in 2010.

Source

- **File:** 2008 – 2010 *DE-SynPUF*: beneficiary, inpatient, outpatient, Carrier files, and PDE files

Note: This variable was calculated using synthetic claims. Analyses using this variable should be interpreted with caution. Analytic inferences to the Medicare population should not be made when using this variable.

BEN-10.

Label: DESYNPUF: Total number of months of part B coverage for the beneficiary

Variable Name: BENE_SMI_CVRAGE_TOT_MONS

Type: Num

Categories

Code	Label	2008 Freq.	2008 Freq. in %	2009 Freq.	2009 Freq. in %	2010 Freq.	2010 Freq. in %
0	0	225,137	9.68	160,145	6.99	172,686	7.66
1	1	10,605	0.46	1,029	0.04	3,839	0.17
2	2	9,860	0.42	895	0.04	2,802	0.12
3	3	10,518	0.45	1,170	0.05	3,690	0.16
4	4	10,427	0.45	1,454	0.06	4,206	0.19
5	5	11,494	0.49	1,549	0.07	4,952	0.22
6	6	17,560	0.75	6,018	0.26	7,248	0.32
7	7	12,754	0.55	1,810	0.08	6,240	0.28
8	8	13,981	0.6	1,999	0.09	7,528	0.33
9	9	15,029	0.65	2,652	0.12	8,806	0.39
10	10	16,333	0.7	3,121	0.14	10,600	0.47
11	11	18,915	0.81	3,220	0.14	12,264	0.54
12	12	1,954,243	83.99	2,106,258	91.92	2,010,237	89.14
Total		**2,326,856**	**100**	**2,291,320**	**100**	**2,255,098**	**100**

Summary Statistics

- **Range:** [0, 12]
- **Unique values:**13
- **Missing:** 0
- **Valid:** 2,326,856 in 2008; 2,291,320 in 2009; 2,255,098 in 2010.

Source

- **File:** 2008 – 2010 *DE-SynPUF*: beneficiary, inpatient, outpatient, Carrier files, and PDE files

Note: This variable was calculated using synthetic claims. Analyses using this variable should be interpreted with caution. Analytic inferences to the Medicare population should not be made when using this variable.

BEN-11.

Label: DESYNPUF: Total number of months of HMO coverage for the beneficiary

Variable Name: BENE_HMO_CVRAGE_TOT_MONS

Type: Num

Categories

Code	Label	2008 Freq.	2008 Freq. in %	2009 Freq.	2009 Freq. in %	2010 Freq.	2010 Freq. in %
0	0	1,789,255	76.9	1,622,524	70.81	1,522,288	67.5
1	1	7,073	0.3	5,206	0.23	10,940	0.49
2	2	5,358	0.23	5,133	0.22	10,700	0.47
3	3	6,189	0.27	6,335	0.28	10,117	0.45
4	4	5,037	0.22	6,140	0.27	9,057	0.4
5	5	5,744	0.25	5,302	0.23	9,346	0.41
6	6	7,014	0.3	7,348	0.32	11,675	0.52
7	7	6,613	0.28	4,423	0.19	9,482	0.42
8	8	9,057	0.39	4,185	0.18	9,061	0.4
9	9	13,190	0.57	9,788	0.43	13,798	0.61
10	10	11,271	0.48	7,172	0.31	10,825	0.48
11	11	12,071	0.52	7,081	0.31	11,670	0.52
12	12	448,984	19.3	600,683	26.22	616,139	27.32
Total		**2,326,856**	**100**	**2,291,320**	**100**	**2,255,098**	**100**

Summary Statistics

- **Range:** [0, 12]
- **Unique values:**13
- **Missing:** 0
- **Valid:** 2,326,856 in 2008; 2,291,320 in 2009; 2,255,098 in 2010.

Source

- **File:** 2008 – 2010 *DE-SynPUF*: beneficiary, inpatient, outpatient, Carrier files, and PDE files

Note: This variable was calculated using synthetic claims. Analyses using this variable should be interpreted with caution. Analytic inferences to the Medicare population should not be made when using this variable.

BEN-12.

Label: DESYNPUF: Total number of months of part D plan coverage for the beneficiary

Variable Name: PLAN_CVRG_MOS_NUM

Type: Char

Categories

Code	Label	2008 Freq.	2008 Freq. in %	2009 Freq.	2009 Freq. in %	2010 Freq.	2010 Freq. in %
00	0	946,002	40.66	438,491	19.14	264,068	11.71
01	1	9,266	0.4	16,710	0.73	31,357	1.39
02	2	7,759	0.33	17,577	0.77	29,017	1.29
03	3	8,813	0.38	22,962	1	28,720	1.27
04	4	8,116	0.35	22,829	1	27,905	1.24
05	5	8,973	0.39	20,849	0.91	26,482	1.17
06	6	11,073	0.48	39,061	1.7	34,446	1.53
07	7	11,722	0.5	19,694	0.86	26,418	1.17
08	8	14,346	0.62	20,165	0.88	29,049	1.29
09	9	17,475	0.75	23,437	1.02	26,077	1.16
10	10	19,971	0.86	19,741	0.86	24,399	1.08
11	11	24,880	1.07	16,742	0.73	23,096	1.02
12	12	1,238,460	53.22	1,613,062	70.4	1,684,064	74.68
Total		**2,326,856**	**100**	**2,291,320**	**100**	**2,255,098**	**100**

Summary Statistics

- **Unique values:** 13
- **Missing:** 0
- **Valid:** 2,326,856 in 2008; 2,291,320 in 2009; 2,255,098 in 2010.

Source

- **File:** 2008 – 2010 *DE-SynPUF*: beneficiary, inpatient, outpatient, Carrier files, and PDE files

Note: This variable was calculated using synthetic claims. Analyses using this variable should be interpreted with caution. Analytic inferences to the Medicare population should not be made when using this variable.

BEN-13.

Label: DESYNPUF: Chronic Condition: Alzheimer or related disorders or senile

Variable Name: SP_ALZHDMTA

Type: Num

Categories

Code	Label	2008 Freq.	2008 Freq. in %	2009 Freq.	2009 Freq. in %	2010 Freq.	2010 Freq. in %
1	Yes	447,035	19.21	528,343	23.06	377,733	16.75
2	No	1,879,821	80.79	1,762,977	76.94	1,877,365	83.25
Total		**2,326,856**	**100**	**2,291,320**	**100**	**2,255,098**	**100**

Summary Statistics

- **Range:** [1, 2]
- **Unique values:** 2
- **Missing:** 0
- **Valid:** 2,326,856 in 2008; 2,291,320 in 2009; 2,255,098 in 2010.

Source

- **File:** 2008 – 2010 *DE-SynPUF*: inpatient, outpatient, and Carrier files
- **Coding scheme:** Please see disease algorithm in the Appendix 1.

Note: This variable was calculated using synthetic claims. Because of processing constraints, the calculation of the chronic condition flags was not performed as the last step in the process. Therefore, there may be some beneficiaries where the calculation of the chronic condition flag cannot be perfectly replicated by the user. This is simply due to the order of processing. The algorithm provides a correct the overview of the general process. Analyses using this variable should be interpreted with caution. Analytic inferences to the Medicare population should not be made when using this variable.

BEN-14.

Label: DESYNPUF: Chronic Condition: Heart Failure

Variable Name: SP_CHF

Type: Num

Categories

Code	Label	2008 Freq.	2008 Freq. in %	2009 Freq.	2009 Freq. in %	2010 Freq.	2010 Freq. in %
1	Yes	662,147	28.46	783,317	34.19	583,805	25.89
2	No	1,664,709	71.54	1,508,003	65.81	1,671,293	74.11
Total		**2,326,856**	**100**	**2,291,320**	**100**	**2,255,098**	**100**

Summary Statistics

- **Range:** [1, 2]
- **Unique values:** 2
- **Missing:** 0
- **Valid:** 2,326,856 in 2008; 2,291,320 in 2009; 2,255,098 in 2010.

Source

- **File:** 2008 – 2010 *DE-SynPUF*: inpatient, outpatient, and Carrier files
- **Coding scheme:** Please see disease algorithm in the Appendix 1.

Note: This variable was calculated using synthetic claims. Because of processing constraints, the calculation of the chronic condition flags was not performed as the last step in the process. Therefore, there may be some beneficiaries where the calculation of the chronic condition flag cannot be perfectly replicated by the user. This is simply due to the order of processing. The algorithm provides a correct the overview of the general process. Analyses using this variable should be interpreted with caution. Analytic inferences to the Medicare population should not be made when using this variable.

BEN-15.

Label: DESYNPUF: Chronic Condition: Chronic Kidney Disease

Variable Name: SP_CHRNKIDN

Type: Num

Categories

Code	Label	2008 Freq.	2008 Freq. in %	2009 Freq.	2009 Freq. in %	2010 Freq.	2010 Freq. in %
1	Yes	374,463	16.09	475,742	20.76	312,963	13.88
2	No	1,952,393	83.91	1,815,578	79.24	1,942,135	86.12
Total		**2,326,856**	**100**	**2,291,320**	**100**	**2,255,098**	**100**

Summary Statistics

- **Range:** [1, 2]
- **Unique values:** 2
- **Missing:** 0
- **Valid:** 2,326,856 in 2008; 2,291,320 in 2009; 2,255,098 in 2010.

Source

- **File:** 2008 – 2010 *DE-SynPUF*: inpatient, outpatient, and Carrier files
- **Coding scheme:** Please see disease algorithm in the Appendix 1.

Note: This variable was calculated using synthetic claims. Because of processing constraints, the calculation of the chronic condition flags was not performed as the last step in the process. Therefore, there may be some beneficiaries where the calculation of the chronic condition flag cannot be perfectly replicated by the user. This is simply due to the order of processing. The algorithm provides a correct the overview of the general process. Analyses using this variable should be interpreted with caution. Analytic inferences to the Medicare population should not be made when using this variable.

BEN-16.

Label: DESYNPUF: Chronic Condition: Cancer

Variable Name: SP_CNCR

Type: Num

Categories

Code	Label	2008 Freq.	2008 Freq. in %	2009 Freq.	2009 Freq. in %	2010 Freq.	2010 Freq. in %
1	Yes	147,952	6.36	185,480	8.09	115,779	5.13
2	No	2,178,904	93.64	2,105,840	91.91	2,139,319	94.87
Total		**2,326,856**	**100**	**2,291,320**	**100**	**2,255,098**	**100**

Summary Statistics

- **Range:** [1, 2]
- **Unique values:** 2
- **Missing:** 0
- **Valid:** 2,326,856 in 2008; 2,291,320 in 2009; 2,255,098 in 2010.

Source

- **File:** 2008 – 2010 *DE-SynPUF*: inpatient, outpatient, and Carrier files
- **Coding scheme:** Please see disease algorithm in the Appendix 1.

Note: This variable was calculated using synthetic claims. Because of processing constraints, the calculation of the chronic condition flags was not performed as the last step in the process. Therefore, there may be some beneficiaries where the calculation of the chronic condition flag cannot be perfectly replicated by the user. This is simply due to the order of processing. The algorithm provides a correct the overview of the general process. Analyses using this variable should be interpreted with caution. Analytic inferences to the Medicare population should not be made when using this variable.

BEN-17.

Label: DESYNPUF: Chronic Condition: Chronic Obstructive Pulmonary Disease

Variable Name: SP_COPD

Type: Num

Categories

Code	Label	2008 Freq.	2008 Freq. in %	2009 Freq.	2009 Freq. in %	2010 Freq.	2010 Freq. in %
1	Yes	315,166	13.54	360,832	15.75	203,158	9.01
2	No	2,011,690	86.46	1,930,488	84.25	2,051,940	90.99
Total		**2,326,856**	**100**	**2,291,320**	**100**	**2,255,098**	**100**

Summary Statistics

- **Range:** [1, 2]
- **Unique values:** 2
- **Missing:** 0
- **Valid:** 2,326,856 in 2008; 2,291,320 in 2009; 2,255,098 in 2010.

Source

- **File:** 2008 – 2010 *DE-SynPUF*: inpatient, outpatient, and Carrier files
- **Coding scheme:** Please see disease algorithm in the Appendix 1.

Note: This variable was calculated using synthetic claims. Because of processing constraints, the calculation of the chronic condition flags was not performed as the last step in the process. Therefore, there may be some beneficiaries where the calculation of the chronic condition flag cannot be perfectly replicated by the user. This is simply due to the order of processing. The algorithm provides a correct the overview of the general process. Analyses using this variable should be interpreted with caution. Analytic inferences to the Medicare population should not be made when using this variable.

BEN-18.

Label: DESYNPUF: Chronic Condition: Depression

Variable Name: SP_DEPRESSN

Type: Num

Categories

Code	Label	2008 Freq.	2008 Freq. in %	2009 Freq.	2009 Freq. in %	2010 Freq.	2010 Freq. in %
1	Yes	496,659	21.34	563,756	24.6	402,127	17.83
2	No	1,830,197	78.66	1,727,564	75.4	1,852,971	82.17
Total		**2,326,856**	**100**	**2,291,320**	**100**	**2,255,098**	**100**

Summary Statistics

- **Range:** [1, 2]
- **Unique values:** 2
- **Missing:** 0
- **Valid:** 2,326,856 in 2008; 2,291,320 in 2009; 2,255,098 in 2010.

Source

- **File:** 2008 – 2010 *DE-SynPUF*: inpatient, outpatient, and Carrier files
- **Coding scheme:** Please see disease algorithm in the Appendix 1.

Note: This variable was calculated using synthetic claims. Because of processing constraints, the calculation of the chronic condition flags was not performed as the last step in the process. Therefore, there may be some beneficiaries where the calculation of the chronic condition flag cannot be perfectly replicated by the user. This is simply due to the order of processing. The algorithm provides a correct the overview of the general process. Analyses using this variable should be interpreted with caution. Analytic inferences to the Medicare population should not be made when using this variable.

BEN-19.

Label: DESYNPUF: Chronic Condition: Diabetes

Variable Name: SP_DIABETES

Type: Num

Categories

Code	Label	2008 Freq.	2008 Freq. in %	2009 Freq.	2009 Freq. in %	2010 Freq.	2010 Freq. in %
1	Yes	883,236	37.96	953,316	41.61	661,211	29.32
2	No	1,443,620	62.04	1,338,004	58.39	1,593,887	70.68
Total		**2,326,856**	**100**	**2,291,320**	**100**	**2,255,098**	**100**

Summary Statistics

- **Range:** [1, 2]
- **Unique values:** 2
- **Missing:** 0
- **Valid:** 2,326,856 in 2008; 2,291,320 in 2009; 2,255,098 in 2010.

Source

- **File:** 2008 – 2010 *DE-SynPUF*: inpatient, outpatient, and Carrier files
- **Coding scheme:** Please see disease algorithm in the Appendix 1.

Note: This variable was calculated using synthetic claims. Because of processing constraints, the calculation of the chronic condition flags was not performed as the last step in the process. Therefore, there may be some beneficiaries where the calculation of the chronic condition flag cannot be perfectly replicated by the user. This is simply due to the order of processing. The algorithm provides a correct the overview of the general process. Analyses using this variable should be interpreted with caution. Analytic inferences to the Medicare population should not be made when using this variable.

BEN-20.

Label: DESYNPUF: Chronic Condition: Ischemic Heart Disease

Variable Name: SP_ISCHMCHT

Type: Num

Categories

Code	Label	2008 Freq.	2008 Freq. in %	2009 Freq.	2009 Freq. in %	2010 Freq.	2010 Freq. in %
1	Yes	977,092	41.99	1,095,345	47.8	847,344	37.57
2	No	1,349,764	58.01	1,195,975	52.2	1,407,754	62.43
Total		**2,326,856**	**100**	**2,291,320**	**100**	**2,255,098**	**100**

Summary Statistics

- **Range:** [1, 2]
- **Unique values:** 2
- **Missing:** 0
- **Valid:** 2,326,856 in 2008; 2,291,320 in 2009; 2,255,098 in 2010.

Source

- **File:** 2008 – 2010 *DE-SynPUF*: inpatient, outpatient, and Carrier files
- **Coding scheme:** Please see disease algorithm in the Appendix 1.

Note: This variable was calculated using synthetic claims. Because of processing constraints, the calculation of the chronic condition flags was not performed as the last step in the process. Therefore, there may be some beneficiaries where the calculation of the chronic condition flag cannot be perfectly replicated by the user. This is simply due to the order of processing. The algorithm provides a correct the overview of the general process. Analyses using this variable should be interpreted with caution. Analytic inferences to the Medicare population should not be made when using this variable.

BEN-21.

Label: DESYNPUF: Chronic Condition: Osteoporosis

Variable Name: SP_OSTEOPRS

Type: Num

Categories

Code	Label	2008 Freq.	2008 Freq. in %	2009 Freq.	2009 Freq. in %	2010 Freq.	2010 Freq. in %
1	Yes	404,774	17.4	440,526	19.23	292,823	12.98
2	No	1,922,082	82.6	1,850,794	80.77	1,962,275	87.02
Total		**2,326,856**	**100**	**2,291,320**	**100**	**2,255,098**	**100**

Summary Statistics

- **Range:** [1, 2]
- **Unique values:** 2
- **Missing:** 0
- **Valid:** 2,326,856 in 2008; 2,291,320 in 2009; 2,255,098 in 2010.

Source

- **File:** 2008 – 2010 *DE-SynPUF*: inpatient, outpatient, and Carrier files
- **Coding scheme:** Please see disease algorithm in the Appendix 1.

Note: This variable was calculated using synthetic claims. Because of processing constraints, the calculation of the chronic condition flags was not performed as the last step in the process. Therefore, there may be some beneficiaries where the calculation of the chronic condition flag cannot be perfectly replicated by the user. This is simply due to the order of processing. The algorithm provides a correct the overview of the general process. Analyses using this variable should be interpreted with caution. Analytic inferences to the Medicare population should not be made when using this variable.

BEN-22.

Label: DESYNPUF: Chronic Condition: Rheumatoid Arthritis or Osteoarthritis (RA/OA)

Variable Name: SP_RA_OA

Type: Num

Categories

Code	Label	2008 Freq.	2008 Freq. in %	2009 Freq.	2009 Freq. in %	2010 Freq.	2010 Freq. in %
1	Yes	357,513	15.36	398,836	17.41	218,141	9.67
2	No	1,969,343	84.64	1,892,484	82.59	2,036,957	90.33
Total		**2,326,856**	**100**	**2,291,320**	**100**	**2,255,098**	**100**

Summary Statistics

- **Range:** [1, 2]
- **Unique values:** 2
- **Missing:** 0
- **Valid:** 2,326,856 in 2008; 2,291,320 in 2009; 2,255,098 in 2010.

Source

- **File:** 2008 – 2010 *DE-SynPUF*: inpatient, outpatient, and Carrier files
- **Coding scheme:** Please see disease algorithm in the Appendix 1.

Note: This variable was calculated using synthetic claims. Because of processing constraints, the calculation of the chronic condition flags was not performed as the last step in the process. Therefore, there may be some beneficiaries where the calculation of the chronic condition flag cannot be perfectly replicated by the user. This is simply due to the order of processing. The algorithm provides a correct the overview of the general process. Analyses using this variable should be interpreted with caution. Analytic inferences to the Medicare population should not be made when using this variable.

BEN-23.

Label: DESYNPUF: Chronic Condition: Stroke/transient Ischemic Attack

Variable Name: SP_STRKETIA

Type: Num

Categories

Code	Label	2008 Freq.	2008 Freq. in %	2009 Freq.	2009 Freq. in %	2010 Freq.	2010 Freq. in %
1	Yes	104,733	4.5	119,342	5.21	58,485	2.59
2	No	2,222,123	95.5	2,171,978	94.79	2,196,613	97.41
Total		**2,326,856**	**100**	**2,291,320**	**100**	**2,255,098**	**100**

Summary Statistics

- **Range:** [1, 2]
- **Unique values:** 2
- **Missing:** 0
- **Valid:** 2,326,856 in 2008; 2,291,320 in 2009; 2,255,098 in 2010.

Source

- **File:** 2008 – 2010 *DE-SynPUF*: inpatient, outpatient, and Carrier files
- **Coding scheme:** Please see disease algorithm in the Appendix 1.

Note: This variable was calculated using synthetic claims. Because of processing constraints, the calculation of the chronic condition flags was not performed as the last step in the process. Therefore, there may be some beneficiaries where the calculation of the chronic condition flag cannot be perfectly replicated by the user. This is simply due to the order of processing. The algorithm provides a correct the overview of the general process. Analyses using this variable should be interpreted with caution. Analytic inferences to the Medicare population should not be made when using this variable.

BEN-24.

Label: DESYNPUF: Inpatient annual Medicare reimbursement amount

Variable Name: MEDREIMB_IP

Type: Num

Description: The sum of all Medicare fee–for–service reimbursements made during the calendar year for services covered by inpatient claims.

Statistics

Year	Mean	Std. Dev.	Percentiles	Values
2008	2193.86	8412.1	10% 25% 50% 75% 90%	0 0 0 0 6000
2009	2176.54	7245.68	10% 25% 50% 75% 90%	0 0 0 0 7000
2010	1244.07	5138.94	10% 25% 50% 75% 90%	0 0 0 0 3000

Summary Statistics

- **Range:** [-8000,223800] in 2008; [-10000,188860] in 2009; [-8000,156690] in 2010
- **Unique values:** 7735 in 2008; 6860 in 2009; 4955 in 2010
- **Missing:** 0
- **Valid:** 2,326,856 in 2008; 2,291,320 in 2009; 2,255,098 in 2010.

Source

- **File:** 2008 – 2010 *DE-SynPUF*: inpatient files

Note: This variable was calculated using synthetic claims. Analyses using this variable should be interpreted with caution. Analytic inferences to the Medicare population should not be made when using this variable.

BEN-25.

Label: DESYNPUF: Inpatient annual beneficiary responsibility amount

Variable Name: BENRES_IP

Type: Numeric

Description: The sum of all beneficiary fee–for–service payment obligations accrued during the calendar year for services covered by inpatient claims.

Statistics

Year	Mean	Std. Dev.	Percentiles	Values
2008	247.07	863.85	10% 25% 50% 75% 90%	0 0 0 0 1024
2009	247.86	778.45	10% 25% 50% 75% 90%	0 0 0 0 1068
2010	144.83	566.76	10% 25% 50% 75% 90%	0 0 0 0 1100

Summary Statistics

- **Range:** [0,53096] in 2008; [0,43340] in 2009; [0,37300] in 2010
- **Unique values:** 429 in 2008; 309 in 2009; 177 in 2010
- **Missing:** 0
- **Valid:** 2,326,856 in 2008; 2,291,320 in 2009; 2,255,098 in 2010.

Source

- **File:** 2008 – 2010 *DE-SynPUF*: inpatient files

Note: This variable was calculated using synthetic claims. Analyses using this variable should be interpreted with caution. Analytic inferences to the Medicare population should not be made when using this variable.

BEN-26.

Label: DESYNPUF: Inpatient annual primary payer reimbursement amount

Variable Name: PPPYMT_IP

Type: Numeric

Description: The sum of all primary payer fee–for–service reimbursements made during the calendar year for services covered by inpatient claims.

Statistics

Year	Mean	Std. Dev.	Percentiles	Values
2008	103.49	1930.74	10% 25% 50% 75% 90%	0 0 0 0 0
2009	94.42	1839.44	10% 25% 50% 75% 90%	0 0 0 0 0
2010	52.24	1374.05	10% 25% 50% 75% 90%	0 0 0 0 0

Summary Statistics

- **Range:** [0,136000] in 2008; [0,136000] in 2009; [0,83000]in 2010
- **Unique values:** 104 in 2008; 93in 2009; 81 in 2010
- **Missing:** 0
- **Valid:** 2,326,856 in 2008; 2,291,320 in 2009; 2,255,098 in 2010.

Source

- **File:** 2008 – 2010 *DE-SynPUF*: inpatient files

Note: This variable was calculated using synthetic claims. Analyses using this variable should be interpreted with caution. Analytic inferences to the Medicare population should not be made when using this variable.

BEN-27.

Label: DESYNPUF: Outpatient annual Medicare reimbursement amount

Variable Name: MEDREIMB_OP

Type: Numeric

Description: The sum of all Medicare fee–for–service reimbursements made during the calendar year for services covered by outpatient claims.

Statistics

Year	Mean	Std. Dev.	Percentiles	Values
2008	624.10	1790.45	10% 25% 50% 75% 90%	0 0 20 560 1760
2009	764.58	1875.07	10% 25% 50% 75% 90%	0 0 120 800 2160
2010	433.57	1272.28	10% 25% 50% 75% 90%	0 0 0 320 1210

Summary Statistics

- **Range:** [-100,62710] in 2008; [-100,61950] in 2009; [-100,40510] in 2010
- **Unique values:** 3638 in 2008; 3510 in 2009; 2657 in 2010
- **Missing:** 0
- **Valid:** 2,326,856 in 2008; 2,291,320 in 2009; 2,255,098 in 2010.

Source

- **File:** 2008 – 2010 *DE-SynPUF*: outpatient files

Note: This variable was calculated using synthetic claims. Analyses using this variable should be interpreted with caution. Analytic inferences to the Medicare population should not be made when using this variable.

BEN-28.

Label: DESYNPUF: Outpatient annual beneficiary responsibility amount

Variable Name: BENRES_OP

Type: Numeric

Description: The sum of all beneficiary fee–for–service payment obligations accrued during the calendar year for services covered by outpatient claims.

Statistics

Year	Mean	Std. Dev.	Percentiles	Values
2008	197.42	518.75	10% 25% 50% 75% 90%	0 0 0 180 600
2009	234.49	537.89	10% 25% 50% 75% 90%	0 0 30 240 700
2010	131.38	367.66	10% 25% 50% 75% 90%	0 0 0 100 400

Summary Statistics

- **Range:** [0,18700] in 2008; [0,16170] in 2009; [0,11040] in 2010
- **Unique values:** 1182 in 2008; 1099 in 2009; 844 in 2010
- **Missing:** 0
- **Valid:** 2,326,856 in 2008; 2,291,320 in 2009; 2,255,098 in 2010.

Source

- **File:** 2008 – 2010 *DE-SynPUF*: outpatient files

Note: This variable was calculated using synthetic claims. Analyses using this variable should be interpreted with caution. Analytic inferences to the Medicare population should not be made when using this variable.

BEN-29.

Label: DESYNPUF: Outpatient annual primary payer reimbursement amount

Variable Name: PPPYMT_OP

Type: Numeric

Description: The sum of all primary payer fee–for–service reimbursements made during the calendar year for services covered by outpatient claims.

Statistics

Year	Mean	Std. Dev.	Percentiles	Values
2008	24.96	356.54	10% 25% 50% 75% 90%	0 0 0 0 0
2009	28.77	389.77	10% 25% 50% 75% 90%	0 0 0 0 0
2010	15.01	277.87	10% 25% 50% 75% 90%	0 0 0 0 0

Summary Statistics

- **Range:** [0,19000] in 2008; [0,21000] in 2009; [0,18000] in 2010
- **Unique values:** 276 in 2008; 258 in 2009; 172 in 2010
- **Missing:** 0
- **Valid:** 2,326,856 in 2008; 2,291,320 in 2009; 2,255,098 in 2010.

Source

- **File:** 2008 – 2010 *DE-SynPUF*: outpatient files

Note: This variable was calculated using synthetic claims. Analyses using this variable should be interpreted with caution. Analytic inferences to the Medicare population should not be made when using this variable.

BEN-30.

Label: DESYNPUF: Carrier annual Medicare reimbursement amount

Variable Name: MEDREIMB_CAR

Type: Numeric

Description: The sum of all Medicare fee–for–service reimbursements made during the calendar year for services covered by carrier claims.

Statistics

Year	Mean	Std. Dev.	Percentiles	Values
2008	1162.93	1588.25	10% 25% 50% 75% 90%	0 0 610 1640 3210
2009	1338.37	1528.4	10% 25% 50% 75% 90%	0 80 900 1980 3430
2010	847.89	999.71	10% 25% 50% 75% 90%	0 10 540 1300 2190

Summary Statistics

- **Range:** [0,23770] in 2008; [0,21950] in 2009; [0,16530] in 2010
- **Unique values:** 1818 in 2008; 1569 in 2009; 973 in 2010
- **Missing:** 0
- **Valid:** 2,326,856 in 2008; 2,291,320 in 2009; 2,255,098 in 2010.

Source

- **File:** 2008 – 2010 *DE-SynPUF*: carrier files

Note: This variable was calculated using synthetic claims. Analyses using this variable should be interpreted with caution. Analytic inferences to the Medicare population should not be made when using this variable.

BEN-31.

Label: DESYNPUF: Carrier annual beneficiary responsibility amount

Variable Name: BENRES_CAR

Type: Numeric

Description: The sum of all beneficiary fee–for–service payment obligations accrued during the calendar year for services covered by carrier claims.

Statistics

Year	Mean	Std. Dev.	Percentiles	Values
2008	328.93	437.22	10% 25% 50% 75% 90%	0 0 170 480 910
2009	374.90	424.33	10% 25% 50% 75% 90%	0 20 250 570 960
2010	239.47	284.45	10% 25% 50% 75% 90%	0 0 150 370 630

Summary Statistics

- **Range:** [0,5900] in 2008; [0,5650] in 2009; [0,3590] in 2010
- **Unique values:** 508 in 2008; 431 in 2009; 283 in 2010
- **Missing:** 0
- **Valid:** 2,326,856 in 2008; 2,291,320 in 2009; 2,255,098 in 2010.

Source

- **File:** 2008 – 2010 *DE-SynPUF*: carrier files

Note: This variable was calculated using synthetic claims. Analyses using this variable should be interpreted with caution. Analytic inferences to the Medicare population should not be made when using this variable.

BEN-32.

Label: DESYNPUF: Carrier annual primary payer reimbursement amount

Variable Name: PPPYMT_CAR

Type: Numeric

Description: The sum of all primary payer fee–for–service reimbursements made during the calendar year for services covered by carrier claims.

Statistics

Year	Mean	Std. Dev.	Percentiles	Values
2008	18.66	89.55	10% 25% 50% 75% 90%	0 0 0 0 40
2009	21.14	95.50	10% 25% 50% 75% 90%	0 0 0 0 50
2010	12.86	73.24	10% 25% 50% 75% 90%	0 0 0 0 10

Summary Statistics

- **Range:** [0,3330] in 2008; [0,2750] in 2009; [0,3000] in 2010
- **Unique values:** 215 in 2008; 205 in 2009; 175 in 2010
- **Missing:** 0
- **Valid:** 2,326,856 in 2008; 2,291,320 in 2009; 2,255,098 in 2010.

Source

- **File:** 2008 – 2010 *DE-SynPUF*: carrier files

Note: This variable was calculated using synthetic claims. Analyses using this variable should be interpreted with caution. Analytic inferences to the Medicare population should not be made when using this variable.

CMS Inpatient (IP) Claims DE-SynPUF Codebook

IP-1.

Label: DESYNPUF: Beneficiary Code

Variable Name: DESYNPUF_ID

Type: Char

Summary Statistics

- **Range:** N/A
- **Unique values:** 315,495 in 2008; 376,208 in 2009; 240,811 in 2010.
- **Missing:** 0
- **Valid:** 547,800 in 2008; 504,941 in 2009; 280,081 in 2010.

Note: Cryptographic number provided on each file to link claims to a beneficiary. This beneficiary ID carries no information about the patient or any patient records, and is provided solely for reference and data processing purposes.

IP-2.

Label: DESYNPUF: Claim ID

Variable Name: CLM_ID

Type: Char

Note: Random numbers provided on each claim file for each and every claim. This claim ID carries no information about the patient or any patient records, and is provided solely for reference and data processing purposes.

IP-3.

Label: DESYNPUF: Claim Line Segment – Up to 2 (One Segment per 45 Revenue Lines)

Variable Name: SEGMENT

Codebook from ResDAC website:

http://www.resdac.org/sites/resdac.org/files/RIF%20Inpatient%20SNF%20SAF%20Version%20J%20CMS.pdf

25. NCH Segment Link Number

5 120 124 PACK

Effective with Version 'I', the system generated number used in conjunction with the NCH daily process date to keep records/segments belonging to a specific claim together. This field was added to ensure that records/ segments that come in on the same batch with the same identifying information in the link group are not mixed with each other.

NOTE: During the Version I conversion this field was populated with data throughout history (back to service year 1991).

DB2 ALIAS: NCH_SGMT_LINK_NUM

SAS ALIAS: LINK_NUM

STANDARD ALIAS: NCH_SGMT_LINK_NUM

TITLE ALIAS: LINK_NUM

LENGTH: 9 SIGNED: Y

SOURCE: NCH

Note: No more than two segments were allowed in the DE-SYNPUF for disclosure protection. This variable was suppressed as part of disclosure treatment. Analyses using this variable should be interpreted with caution. Analytic inferences to the Medicare population should not be made when using this variable.

IP-4.

Label: DESYNPUF: Claims start date[1]

Variable Name: CLM_FROM_DT[2]

Type: Num

Format: YYYYMMDD

Source

- **File:** 2008 – 2010: inpatient files
- **Variable:** CLM_FROM_DT
- **Label:** CLAIMS START DATE
- **Coding scheme:** N/A

Codebook from ResDAC[3] website:

http://www.resdac.org/cms-data/variables/Claim-Date

The first day on the billing statement covering services rendered to the beneficiary (a.k.a. 'Statement Covers From Date').

Note: This variable was imputed/suppressed/coarsened as part of disclosure treatment. Analyses using this variable should be interpreted with caution. Analytic inferences to the Medicare population should not be made when using this variable.

[1] As of September 10, 2012, the ResDAC label is "Claim From Date."

[2] As of September 10, 2012, the ResDAC short SAS variable name is "FROM_DT."

[3] Research Data Assistance Center. http://www.resdac.org/

IP-5.

Label: DESYNPUF: CLAIMS END DATE[4]

Variable Name: CLM_THRU_DT[5]

Type: Num

Format: YYYYMMDD

Source

- **File:** 2008 – 2010: inpatient files
- **Variable:** CLM_THRU_DT
- **Label:** CLAIMS END DATE
- **Coding scheme:** N/A

Codebook from ResDAC website:

http://www.resdac.org/cms-data/variables/Claim-Through-Date

The last day on the billing statement covering services rendered to the beneficiary (a.k.a. 'Statement Covers Thru Date').

NOTE: For Home Health PPS claims, the 'from' date and the 'thru' date on the RAP (initial claim) must always match.

Note: This variable was imputed/suppressed/coarsened as part of disclosure treatment. Analyses using this variable should be interpreted with caution. Analytic inferences to the Medicare population should not be made when using this variable.

[4] As of September 10, 2012, the ResDAC label is "Claim Through Date."

[5] As of September 10, 2012, the ResDAC short SAS variable name is "THRU_DT."

IP-6.

Label: DESYNPUF: Provider Institution[6]

Variable Name: PRVDR_NUM[7]

Source

- **File:** 2008 – 2010: inpatient files
- **Variable:** prvdr_num
- **Label:** Provider Institution
- **Coding scheme:** N/A

Codebook from ResDAC website:

http://www.resdac.org/cms-data/variables/provider-number

The identification number of the institutional provider certified by Medicare to provide services to the beneficiary. NOTE: 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.

PRVDR_NUM_TB Provider Number Table

- First two positions are the GEO SSA State Code.
- Positions 3 and sometimes 4 are used as a category identifier. The remaining positions are serial numbers. The following blocks of numbers are reserved for the facilities indicated (NOTE: may have different meanings dependent on the Type of Bill (TOB):

0001–0879	Short–term (general and specialty) hospitals where TOB = 11X; ESRD clinic where TOB = 72X
0880–0899	Reserved for hospitals participating in ORD demonstration projects where TOB = 11X; ESRD clinic where TOB = 72X
0900–0999	Multiple hospital component in a medical complex (numbers retired) where TOB = 11X; ESRD clinic where TOB = 72X
1000–1199	Reserved for future use
1200–1224	Alcohol/drug hospitals (excluded from PPS–numbers retired) where TOB = 11X; ESRD clinic where TOB = 72X
1225–1299	Medical assistance facilities (Montana project); ESRD clinic where TOB = 72X

[6] As of September 10, 2012, the ResDAC label is "Provider Number."

[7] As of September 10, 2012, the ResDAC short SAS variable name is "PROVIDER."

1300–1399	Rural Primary Care Hospital (RCPH) – eff. 10/97 changed to Critical Access Hospitals (CAH)
1400–1499	Continuation of 4900–4999 series (CMHC)
1500–1799	Hospices
1800–1989	Federally Qualified Health Centers (FQHC) where TOB = 73X; SNF (IP PTB) where TOB = 22X; HHA where TOB = 32X, 33X, 34X
1990–1999	Christian Science Sanatoria (hospital services) – eff. 7/00 changed to Religious Nonmedical Health Care Institutions (RNHCI)
2000–2299	Long–term hospitals
2300–2499	Chronic renal disease facilities (hospital based)
2500–2899	Non–hospital renal disease treatment centers
2900–2999	Independent special purpose renal dialysis facility (1)
3000–3024	Formerly tuberculosis hospitals (numbers retired)
3025–3099	Rehabilitation hospitals
3100–3199	Continuation of Subunits of Nonprofit and Proprietary Home Health Agencies (7300–7399) Series (3) (eff. 4/96)
3200–3299	Continuation of 4800–4899 series (CORF)
3300–3399	Children's hospitals (excluded from PPS) where TOB = 11X; ESRD clinic where TOB = 72X
3400–3499	Continuation of rural health clinics (provider–based) (3975–3999)
3500–3699	Renal disease treatment centers (hospital satellites)
3700–3799	Hospital based special purpose renal dialysis facility (1)
3800–3974	Rural health clinics (free–standing)
3975–3999	Rural health clinics (provider–based)
4000–4499	Psychiatric hospitals
4500–4599	Comprehensive Outpatient Rehabilitation Facilities (CORF)
4600–4799	Community Mental Health Centers (CMHC); 9/30/91 – 3/31/97 used for clinic OPT where TOB = 74X
4800–4899	Continuation of 4500–4599 series (CORF) (eff. 10/95)
4900–4999	Continuation of 4600–4799 series (CMHC) (eff. 10/95); 9/30/91 – 3/31/97 used for clinic OPT where TOB = 74X
5000–6499	Skilled Nursing Facilities

6500–6989 CMHC / Outpatient physical therapy services where TOB = 74X; CORF where TOB = 75X

6990–6999 Christian Science Sanatoria (skilled nursing services) – eff. 7/00 Numbers Reserved (formerly CS)

7000–7299 Home Health Agencies (HHA) (2)

7300–7399 Subunits of 'nonprofit' and 'proprietary' Home Health Agencies (3)

7400–7799 Continuation of 7000–7299 series

7800–7999 Subunits of state and local governmental Home Health Agencies (3)

8000–8499 Continuation of 7400–7799 series (HHA)

8500–8899 Continuation of rural health center (provider based) (3400–3499)

8900–8999 Continuation of rural health center (free–standing) (3800–3974)

9000–9799 Continuation of 8000–8499 series (HHA) (eff. 10/95)

9800–9899 Transplant Centers (eff. 10/1/07)

9900–9999 Reserved for future use (eff. 8/1/98) NOTE: 10/95–7/98 this series was assigned to HHA's but rescinded – no HHA's were ever assigned a number from this series.

Exception:

P001–P999 Organ procurement organization

(1) These facilities (SPRDFS) will be assigned the same provider number whenever they are recertified.

(2) The 6400–6499 series of provider numbers in Iowa (16), South Dakota (43) and Texas (45) have been used in reducing acute care costs (RACC) experiments.

(3) In Virginia (49), the series 7100–7299 has been reserved for statewide subunit components of the Virginia state home health agencies.

(4) Parent agency must have a number in the 7000–7299, 7400–7799 or 8000–8499 series.

NOTE: There is a special numbering system for units of hospitals that are excluded from prospective payment system (PPS) and hospitals with SNF swing–bed designation. An alpha character in the third position of the provider number identifies the type of unit or swing–bed designation as follows:

M = Psychiatric Unit in Critical Access Hospital

R = Rehabilitation Unit in Critical Access Hospital

S = Psychiatric unit (excluded from PPS)

T = Rehabilitation unit (excluded from PPS)

U = Swing–Bed Hospital Designation for Short Term Hospitals

V = Alcohol drug unit (prior to 10/87 only)

W = Swing–Bed Hospital Designation for Long Term Care Hospitals

Y = Swing–Bed Hospital Designation for Rehabilitation Hospitals

Z = Swing Bed Designation for Critical Access Hospitals

There is also a special numbering system for assigning emergency hospital identification numbers (non participating hospitals). The sixth position of the provider number is as follows:

E = Non–federal emergency hospital

F = Federal emergency hospital

Note: These are the fields for such info but these variables were randomly generated as part of disclosure treatment. Because these fields are random numbers/characters, with no association to any known id number, analyses using these variables should be interpreted with caution. Analytic inferences to the Medicare population should not be made when using these variables.

IP-7.

Label: DESYNPUF: Claim Payment Amount

Variable Name: CLM_PMT_AMT[8]

Source

- **File:** 2008 – 2010: inpatient files
- **Variable:** CLM_PMT_AMT
- **Label:** CLAIM PAYMENT AMOUNT
- **Coding scheme:** N/A

Codebook from ResDAC website:

http://www.resdac.org/cms-data/variables/Claim-Payment-Amount-0

Amount of payment made from the Medicare trust fund for the services covered by the claim record. Generally, the amount is calculated by the FI or carrier; and represents what was paid to the institutional provider, physician, or supplier, with the exceptions noted below. **NOTE: In some situations, a negative claim payment amount may be pre– sent; e.g., (1) when a beneficiary is charged the full deductible during a short stay and the deductible exceeded the amount Medicare pays; or (2) when a beneficiary is charged a coinsurance amount during a long stay and the coinsurance amount exceeds the amount Medicare pays (most prevalent situation involves psych hospitals who are paid a daily per diem rate no matter what the charges are.)

Under IP PPS, inpatient hospital services are paid based on a predetermined rate per discharge, using the DRG patient classification system and the PRICER program. On the IP PPS claim, the payment amount includes the DRG outlier approved payment amount, disproportionate share (since 5/1/86), indirect medical education (since 10/1/88), total PPS capital (since 10/1/91). After 4/1/03, the payment amount could also include a "new technology" add–on amount. It does NOT include the pass–thru amounts (i.e., capital– related costs, direct medical education costs, kidney acquisition costs, bad debts); or any beneficiary–paid amounts (i.e., deductibles and coinsurance); or any other payer reimbursement.

Under IRFPPS, inpatient rehabilitation services are paid based on a predetermined rate per discharge, using the Case Mix Group (CMG) classification system and the PRICER program. From the CMG on the IRF PPS claim, payment is based on a standard payment amount for operating and capital cost for that facility (including routine and ancillary services). The payment is adjusted for wage, the % of low–income patients (LIP), locality, transfers, interrupted stays, short stay cases, deaths, and high cost outliers. Some or all of these adjustments could apply. The CMG payment does NOT include certain pass–through costs (i.e. bad debts, approved education activities); beneficiary–paid amounts, other payer reimbursement, and other services outside of the scope of PPS.

Under LTCH PPS, long term care hospital services are paid based on a predetermined rate per discharge based on the DRG and the PRICER program. Payments are based on a single standard Federal rate for both inpatient operating and capital–related costs (including routine and ancillary services), but do NOT include certain pass–through costs (i.e. bad debts, direct medical education, new technologies and blood

[8] As of September 10, 2012, the ResDAC short SAS variable name is "PMT_AMT."

clotting factors). Adjustments to the payment may occur due to short–stay outliers, interrupted stays, high cost outliers, wage index, and cost of living adjustments.

Under SNF PPS, SNFs will classify beneficiaries using the patient classification system known as RUGS III. For the SNF PPS claim, the SNF PRICER will calculate/return the rate for each revenue center line item with revenue center code = '0022'; multiply the rate times the units count; and then sum the amount payable for all lines with revenue center code '0022' to determine the total claim payment amount.

Under Outpatient PPS, the national ambulatory payment classification (APC) rate that is calculated for each APC group is the basis for determining the total claim payment. The payment amount also includes the outlier payment and interest.

Under Home Health PPS, beneficiaries will be classified into an appropriate case mix category known as the Home Health Resource Group. A HIPPS code is then generated corresponding to the case mix category (HHRG).

For the RAP, the PRICER will determine the payment amount appropriate to the HIPPS code by computing 60% (for first episode) or 50% (for subsequent episodes) of the case mix episode payment. The payment is then wage index adjusted.

For the final claim, PRICER calculates 100% of the amount due, because the final claim is processed as an adjustment to the RAP, reversing the RAP payment in full. Although final claim will show 100% payment amount, the provider will actually receive the 40% or 50% payment. The payment may also include outlier payments.

Exceptions: For claims involving demos and BBA encounter data, the amount reported in this field may not just represent the actual provider payment.

For demo Ids '01','02','03','04' — claims contain amount paid to the provider, except that special 'differentials' paid outside the normal payment system are not included.

For demo Ids '05','15' — encounter data 'claims' contain amount Medicare would have paid under FFS, instead of the actual payment to the MCO.

For demo Ids '06','07','08' — claims contain actual provider payment but represent a special negotiated bundled payment for both Part A and Part B services. To identify what the conventional provider Part A payment would have been, check value code = 'Y4'. The related noninstitutional (physician/supplier) claims contain what would have been paid had there been no demo.

For BBA encounter data (non–demo) — 'claims' contain amount Medicare would have paid under FFS, instead of the actual payment to the BBA plan.

Limitation:

Prior to 4/6/93, on inpatient, outpatient, and physician/supplier claims containing a CLM_DISP_CD of '02', the amount shown as the Medicare reimbursement does not take into consideration any CWF automatic adjustments (involving erroneous deductibles in most cases). In as many as 30% of the claims (30% IP, 15% OP, 5% PART B), the reimbursement reported on the claims may be over or under the actual Medicare payment amount. REFER TO : PMT_AMT_EXCEDG_CHRG_AMT_LIM

Note: This variable was imputed/suppressed/coarsened as part of disclosure treatment. Analyses using this variable should be interpreted with caution. Analytic inferences to the Medicare population should not be made when using this variable.

IP-8.

Label: DESYNPUF: NCH Primary Payer Claim Paid Amount

Variable Name: NCH_PRMRY_PYR_CLM_PD_AMT[9]

Source

- **File:** 2008 – 2010: inpatient files
- **Variable:** nch_prmry_pyr_clm_pd_amt
- **Label:** NCH Primary Payer Claim Paid Amount
- **Coding scheme:** N/A

Codebook from ResDAC website:

http://www.resdac.org/cms-data/variables/NCH-Primary-Payer-Claim-Paid-Amount

Effective with Version H, the amount of a payment made on behalf of a Medicare beneficiary by a primary payer other than Medicare, that the provider is applying to covered Medicare charges on a non–institutional claim.

NOTE: During the Version H conversion, this field was populated with data throughout history (back to service year 1991) by summing up the line item primary payer amounts.

Note: This variable was imputed/suppressed/coarsened as part of disclosure treatment. Analyses using this variable should be interpreted with caution. Analytic inferences to the Medicare population should not be made when using this variable.

[9] As of September 10, 2012, the ResDAC short SAS variable name is "PRPAYAMT."

IP-9.

Label: DESYNPUF: Attending Physician – National Provider Identifier Number[10]

Variable Name: AT_PHYSN_NPI[11]

Source

- **File:** 2008 – 2010: inpatient files
- **Variable:** at_physn_npi
- **Label:** Attending Physician – National Provider Identifier Number
- **Coding scheme:** N/A

Codebook from ResDAC website:

http://www.resdac.org/cms-data/variables/Claim-Attending-Physician-NPI-Number

On an institutional claim, the national provider identifier (NPI) number assigned to uniquely identify the physician who has overall responsibility for the beneficiary's care and treatment.

NOTE: Effective May 2007, the NPI will be– come the national standard identifier for covered health care providers. NPIs will replace current OSCAR provider number, UPINs, NSC numbers, and local contractor provider identification numbers (PINs) on standard HIPPA claim transactions. (During the NPI transition phase (4/3/06 – 5/23/07) the capability was there for the NCH to receive NPIs along with an existing legacy number (UPIN, PIN, OSCAR provider number, etc.)).

NOTE1: CMS has determined that dual provider identifiers (old legacy numbers and new NPI) must be available in the NCH. After the 5/07 NPI implementation, the standard system maintainers will add the legacy number to the claim when it is adjudicated. We will continue to receive the OSCAR provider number and any currently issued UPINs. Effective May 2007, no NEW UPINs (legacy number) will be generated for NEW physicians (Part B and Outpatient claims), so there will only be NPIs sent in to the NCH for those physicians.

Note: These are the fields for such info but these variables were randomly generated as part of disclosure treatment. Because these fields are random numbers/characters, with no association to any known id number, analyses using these variables should be interpreted with caution. Analytic inferences to the Medicare population should not be made when using these variables.

[10] As of September 10, 2012, the ResDAC label is "Claim Attending Physician NPI Number."

[11] As of September 10, 2012, the ResDAC short SAS variable name is "AT_NPI."

IP-10.

Label: DESYNPUF: Operating Physician – National Provider Identifier Number[12]

Variable Name: OP_PHYSN_NPI[13]

Source

- **File:** 2008 – 2010: inpatient files
- **Variable:** op_physn_npi
- **Label:** Operating Physician – National Provider Identifier Number
- **Coding scheme:** N/A

Codebook from ResDAC website:

http://www.resdac.org/cms-data/variables/Claim-Operating-Physician-NPI-Number

On an institutional claim, the National Provider Identifier (NPI) number assigned to uniquely identify the physician with the primary responsibility for performing the surgical procedure(s).

NOTE: Effective May 2007, the NPI will become the national standard identifier for covered health care providers. NPIs will replace the current OSCAR provider number, UPINs, NSC numbers, and local contractor provider identification numbers (PINs) on standard HIPPA claim transactions. (During the NPI transition phase (4/3/06 – 5/23/07) the capability was there for the NCH to receive NPIs along with an existing legacy number (UPIN, PIN, OSCAR provider number, etc.)).

NOTE1: CMS has determined that dual provider identifiers (old legacy number and new NPI) must be available in the NCH. After the 5/07 NPI implementation, the standard system maintainers will add the legacy number to the claim when it's adjudicated. We will continue to receive the OSCAR provider number and any currently issued UPINs. Effective May 2007, no NEW UPINs (legacy numbers) will be generated for NEW physicians (Part B and outpatient claims), so there will only be NPIs sent in to the NCH for those physicians.

Note: These are the fields for such info but these variables were randomly generated as part of disclosure treatment. Because these fields are random numbers/characters, with no association to any known id number, analyses using these variables should be interpreted with caution. Analytic inferences to the Medicare population should not be made when using these variables.

[12] As of September 10, 2012, the ResDAC label is "Claim Operating Physician NPI Number."

[13] As of September 10, 2012, the ResDAC short SAS variable name is "OP_NPI."

IP-11.

Label: DESYNPUF: Other Physician – National Provider Identifier Number[14]

Variable Name: OT_PHYSN_NPI[15]

Source

- **File:** 2008 – 2010: inpatient files
- **Variable:** ot_physn_npi
- **Label:** Other Physician – National Provider Identifier Number
- **Coding scheme:** N/A

Codebook from ResDAC website:

http://www.resdac.org/cms-data/variables/Claim-Other-Physician-NPI-Number

On an institutional claim, the National Provider Identifier (NPI) number assigned to uniquely identify the other physician associated with the institutional claim.

NOTE: Effective May 2007, the NPI will be– come the national standard identifier for covered health care providers. NPIs will replace current OSCAR provider number, UPINs, NSC numbers, and local contractor provider identification numbers (PINs) on standard HIPPA claim transactions. (During the NPI transition phase (4/3/06 – 5/23/07) the capability was there for the NCH to receive NPIs along with an existing legacy number (UPIN, PIN, OSCAR provider number, etc.).

NOTE1: CMS has determined that dual provider identifiers (old legacy numbers and new NPI) must be available in the NCH. After the 5/07 NPI implementation, the standard system maintainers will add the legacy number to the claim when it is adjudicated. We will continue to receive the OSCAR provider number and any currently issued UPINs. Effective May 2007, no NEW UPINs (legacy number) will be generated for NEW physicians (Part B AND outpatient claims), so there will only be NPIs sent in to the NCH for those physicians.

Note: These are the fields for such info but these variables were randomly generated as part of disclosure treatment. Because these fields are random numbers/characters, with no association to any known id number, analyses using these variables should be interpreted with caution. Analytic inferences to the Medicare population should not be made when using these variables.

[14] As of September 10, 2012, the ResDAC label is "Claim Other Physician NPI Number."

[15] As of September 10, 2012, the ResDAC short SAS variable name is "OT_NPI."

IP-12.

Label: DESYNPUF: Inpatient admission date[16]

Variable Name: CLM_ADMSN_DT[17]

Type: Num

Format: YYYYMMDD

Source

- **File:** 2008 – 2010 *DE-SynPUF*: inpatient files

Codebook from ResDAC website:

http://www.resdac.org/cms-data/variables/Claim-Admission-Date

On an institutional claim, the date the beneficiary was admitted to the hospital, skilled nursing facility, or Christian science sanitarium.

Note: This variable was calculated using synthetic claims. Analyses using this variable should be interpreted with caution. Analytic inferences to the Medicare population should not be made when using this variable.

[16] As of September 10, 2012, the ResDAC label is "Claim Admission Date."

[17] As of September 10, 2012, the ResDAC short SAS variable name is "ADMSN_DT."

IP-13.

Label: DESYNPUF: Claim Admitting Diagnosis Code

Variable Name: ADMTNG_ICD9_DGNS_CD[18]

Source

- **File:** 2008 – 2010: inpatient files
- **Variable:** ADMTNG_ICD9_DGNS_CD
- **Label:** CLAIM ADMITTING DIAGNOSIS CODE
- **Coding scheme:** N/A

Codebook from ResDAC website:

http://www.resdac.org/cms-data/variables/Claim-Admitting-Diagnosis-Code

A diagnosis code on the institutional claim indicating the beneficiary's initial diagnosis at admission.

NOTE1: Effective 1/1/2004 with the implementation of NCH/NMUD CR#1, the admitting diagnosis (also known as reason for patient visit) was added to the Outpatient claim. This data was stored in positions 572–576 (FILLER) until the implementation of NCH/NMUD CR#2. Prior to 1/1/2004, this field was only present on inpatient claims.

Additional exception: Virgin Island hospitals and hospitals that furnish only inpatient Part B services.

Note: This variable was imputed/suppressed/coarsened as part of disclosure treatment. Analyses using this variable should be interpreted with caution. Analytic inferences to the Medicare population should not be made when using this variable.

[18] As of September 10, 2012, the ResDAC short SAS variable name is "ADMTG_DGNS_CD."

IP-14.

Label: DESYNPUF: Claim Pass Thru Per Diem Amount

Variable Name: CLM_PASS_THRU_PER_DIEM_AMT[19]

Source

- **File:** 2008 – 2010: inpatient files
- **Variable:** clm_pass_thru_per_diem_amt
- **Label:** Claim Pass Thru Per Diem Amount
- **Coding scheme:** N/A

Codebook from ResDAC website:

http://www.resdac.org/cms-data/variables/Claim-Pass-Thru-Diem-Amount

The amount of the established reimbursable costs for the current year divided by the estimated Medicare days for the current year (all PPS claims), as calculated by the FI and reimbursement staff. Items reimbursed as a pass through include capital–related costs; direct medical education costs; kidney acquisition costs for hospitals approved as RTCs; and bad debts (per Provider Reimbursement Manual, Part 1, Section 2405.2). **Note: Pass through are not included in the Claim Payment Amount.

Note: This variable was imputed/suppressed/coarsened as part of disclosure treatment. Analyses using this variable should be interpreted with caution. Analytic inferences to the Medicare population should not be made when using this variable.

[19] As of September 10, 2012, the ResDAC short SAS variable name is "PER_DIEM."

IP-15.

Label: DESYNPUF: NCH Beneficiary Inpatient Deductible Amount

Variable Name: NCH_BENE_IP_DDCTBL_AMT[20]

Source

- **File:** 2008 – 2010: inpatient files
- **Variable:** nch_bene_ip_ddctbl_amt
- **Label:** NCH Beneficiary Inpatient Deductible Amount
- **Coding scheme:** N/A

Codebook from ResDAC website:

http://www.resdac.org/cms-data/variables/NCH-Beneficiary-Inpatient-Deductible-Amount

The amount of the deductible the beneficiary paid for inpatient services, as originally submitted on the institutional claim.

Note: This variable was imputed/suppressed/coarsened as part of disclosure treatment. Analyses using this variable should be interpreted with caution. Analytic inferences to the Medicare population should not be made when using this variable.

[20] As of September 10, 2012, the ResDAC short SAS variable name is "DED_AMT."

IP-16.

Label: DESYNPUF: NCH Beneficiary Part A Coinsurance Liability Amount

Variable Name: NCH_BENE_PTA_COINSRNC_LBLTY_AM[21]

Source

- **File:** 2008 – 2010: inpatient files
- **Variable:** nch_bene_pta_coinsrnc_lblty_am
- **Label:** NCH Beneficiary Part A Coinsurance Liability Amount
- **Coding scheme:** N/A

Codebook from ResDAC website:

http://www.resdac.org/cms-data/variables/NCH-Beneficiary-Part-Coinsurance-Liability-Amount

The amount of money for which the intermediary has determined that the beneficiary is liable for Part A coinsurance on the institutional claim.

Note: This variable was imputed/suppressed/coarsened as part of disclosure treatment. Analyses using this variable should be interpreted with caution. Analytic inferences to the Medicare population should not be made when using this variable.

[21] As of September 10, 2012, the ResDAC short SAS variable name is "COIN_AMT."

IP-17.

Label: DESYNPUF: NCH Beneficiary Blood Deductible Liability Amount

Variable Name: NCH_BENE_BLOOD_DDCTBL_LBLTY_AM[22]

Source

- **File:** 2008 – 2010: inpatient files
- **Variable:** nch_bene_blood_ddctbl_lblty_am
- **Label:** NCH Beneficiary Blood Deductible Liability Amount
- **Coding scheme:** N/A

Codebook from ResDAC website:

http://www.resdac.org/cms-data/variables/NCH-Beneficiary-Blood-Deductible-Liability-Amount

The amount of money for which the intermediary determined the beneficiary is liable for the blood deductible.

Note: This variable was imputed/suppressed/coarsened as part of disclosure treatment. Analyses using this variable should be interpreted with caution. Analytic inferences to the Medicare population should not be made when using this variable.

[22] As of September 10, 2012, the ResDAC short SAS variable name is "BLDDEDAM."

IP-18.

Label: DESYNPUF: Claim Utilization Day Count

Variable Name: CLM_UTLZTN_DAY_CNT[23]

Source

- **File:** 2008 – 2010: inpatient files
- **Variable:** CLM_UTLZTN_DAY_CNT
- **Label:** Claim Utilization Day Count
- **Coding scheme:** N/A

Codebook from ResDAC website:

http://www.resdac.org/cms-data/variables/Claim-Utilization-Day-Count

On an institutional claim, the number of covered days of care that are chargeable to Medicare facility utilization that includes full days, coinsurance days, and lifetime reserve days. It excludes any days classified as non–covered, leave of absence days, and the day of discharge or death.

Note: This variable was imputed/suppressed/coarsened as part of disclosure treatment. Analyses using this variable should be interpreted with caution. Analytic inferences to the Medicare population should not be made when using this variable.

[23] As of September 10, 2012, the ResDAC short SAS variable name is "UTIL_DAY."

IP-19.

Label: DESYNPUF: Inpatient discharged date[24]

Variable Name: NCH_BENE_DSCHRG_DT[25]

Type: Num

Formate: YYYYMMDD

Source

- **File:** 2008 – 2010 *DE-SynPUF*: inpatient files

Codebook from ResDAC website:

http://www.resdac.org/cms-data/variables/NCH-Beneficiary-Discharge-Date

Effective with Version H, on an inpatient and HHA claim, the date the beneficiary was discharged from the facility or died (used for internal CWFMQA editing purposes.)

NOTE: During the Version H conversion this field was populated with data throughout history (back to service year 1991.)

Note: This variable was calculated using synthetic claims. Analyses using this variable should be interpreted with caution. Analytic inferences to the Medicare population should not be made when using this variable.

[24] As of September 10, 2012, the ResDAC label is "NCH Beneficiary Discharge Date."

[25] As of September 10, 2012, the ResDAC short SAS variable name is "DSCHRGDT."

IP-20.

Label: DESYNPUF: Claim Diagnosis Related Group Code

Variable Name: CLM_DRG_CD[26]

Source

- **File:** 2008 – 2010: inpatient files
- **Variable:** CLM_DRG_CD
- **Label:** CLAIM DIAGNOSIS RELATED GROUP CODE
- **Coding scheme:** N/A

Codebook from ResDAC website:

http://www.resdac.org/cms-data/variables/Claim-Diagnosis-Related-Group-Code

The diagnostic related group to which a hospital claim belongs for prospective payment purposes.

Note: This variable was imputed/suppressed/coarsened as part of disclosure treatment. Analyses using this variable should be interpreted with caution. Analytic inferences to the Medicare population should not be made when using this variable.

[26] As of September 10, 2012, the ResDAC short SAS variable name is "DRG_CD."

IP-21-30.

Label prefix: DESYNPUF: Claim Diagnosis Code

Variable prefix: ICD9_DGNS_CD

Label: DESYNPUF: Claim Diagnosis Code 1 – DESYNPUF: Claim Diagnosis Code 10

Variable Name: ICD9_DGNS_CD_1 – ICD9_DGNS_CD_10

Source

- **File:** 2008 – 2010: inpatient files
- **Variable:** ICD9_DGNS_CD_1 – ICD9_DGNS_CD_10
- **Label:** CLAIM DIAGNOSIS CODE 1– CLAIM DIAGNOSIS CODE 10
- **Coding scheme:** N/A

Codebook from ResDAC website:

http://www.resdac.org/cms-data/variables/Claim-Diagnosis-Code-I

The diagnosis code identifying the beneficiary's principal or other diagnosis (including E code). NOTE: Prior to Version H, the principal diagnosis code was not stored with the 'OTHER' diagnosis codes. During the Version H conversion the CLM_PRNCPAL_DGNS_CD was added as the first occurrence.

NOTE1: Effective with Version 'J', this field has been expanded from 5 bytes to 7 bytes to accommodate the future implementation of ICD–10.

NOTE2: Effective with Version 'J', the diagnosis E codes are stored in a separate trailer (CLM_DGNS_E_GRP).

Note: These variables were imputed/suppressed/coarsened as part of disclosure treatment. Analyses using these variables should be interpreted with caution. Analytic inferences to the Medicare population should not be made when using these variables.

IP-31-36.

Label prefix: DESYNPUF: Claim Procedure Code

Variable prefix: ICD9_PRCDR_CD

Label: DESYNPUF: Claim Procedure Code 1 – DESYNPUF: Claim Procedure Code 6

Variable Name: ICD9_PRCDR_CD_1 – ICD9_PRCDR_CD_6

Source

- **File:** 2008 – 2010: inpatient files
- **Variable:** ICD9_PRCDR_CD_1 – ICD9_PRCDR_CD_6
- **Label:** CLAIM PROCEDURE CODE 1– CLAIM PROCEDURE CODE 6
- **Coding scheme:** N/A

Codebook from ResDAC website:

http://www.resdac.org/cms-data/variables/Claim-Procedure-Code-I

The code that indicates the principal or other procedure performed during the period covered by the institutional claim.

NOTE: Effective July 2004, ICD–9–CM procedure codes are no longer being accepted on Outpatient claims. The ICD–9–CM codes were named as the HIPPA standard code set for inpatient hospital procedures. HCPCS/CPT codes were named as the standard code set for physician services and other health care services.

Note: These variables were imputed/suppressed/coarsened as part of disclosure treatment. Analyses using these variables should be interpreted with caution. Analytic inferences to the Medicare population should not be made when using these variables.

IP-37-81.

Label prefix: DESYNPUF: Revenue Center HCFA Common Procedure Coding System

Variable prefix: HCPCS_CD

Label: DESYNPUF: Revenue Center HCFA Common Procedure Coding System 1 – DESYNPUF: Revenue Center HCFA Common Procedure Coding System 45

Variable Name: HCPCS_CD_1 – HCPCS_CD_45

Source

- **File:** 2008 – 2010: inpatient files
- **Variable:** HCPCS_CD_1 – HCPCS_CD_45
- **Label:** Revenue Center HCFA Common Procedure Coding System 1 – Revenue Center HCFA Common Procedure Coding System 45
- **Coding scheme:** N/A

Codebook from ResDAC website:

http://www.resdac.org/cms-data/variables/Revenue-Center-HCFA-Common-Procedure-Coding-System

The Health Care Common Procedure Coding System (HCPCS) is a collection of codes that represent procedures, supplies, products and services which may be provided to Medicare beneficiaries and to individuals enrolled in private health insurance programs. The codes are divided into three levels, or groups as described below:

Level I: Codes and descriptors copyrighted by the American Medical Association's Current Procedural Terminology, Fourth Edition (CPT–4). These are 5 position numeric codes representing physician and nonphysician services.

*Note: CPT–4 codes including both long and short descriptions shall be used in accordance with the CMS/AMA agreement. Any other use violates the AMA copyright.

Level II: Includes codes and descriptors copyrighted by the American Dental Association's Current Dental Terminology, Fifth Edition (CDT–5). These are 5 position alpha–numeric codes comprising the D series. All other level II codes and descriptors are approved and maintained jointly by the alpha–numeric editorial panel (consisting of CMS, the Health Insurance Association of America, and the Blue Cross and Blue Shield Association). These are 5 position alpha–numeric codes representing primarily items and nonphysician services that are not represented in the level I codes.

Level III: Codes and descriptors developed by Medicare carriers for use at the local (carrier) level. These are 5 position alpha–numeric codes in the W, X, Y or Z series representing physician and nonphysician services that are not represented in the level I or level II codes.

Note 1: These variables were imputed/suppressed/coarsened as part of disclosure treatment. Analyses using these variables should be interpreted with caution. Analytic inferences to the Medicare population should not be made when using these variables.

Note 2: Acute inpatient payment does not use HCPCS to calculate payment, therefore, the HCPCS field is not well populated. The HCPCS field is used infrequently and for specific situations. For more information on when a HCPCS code would be used in the inpatient setting, please see the Internet Only Manual, 100-04 Claims Processing, Chapter 3 Inpatient Hospital Billing (http://www.cms.gov/Regulations-and-Guidance/Guidance/Manuals/Downloads/clm104c03.pdf).

CMS Outpatient (OP) Claims DE-SynPUF Codebook

OP-1.

Label: DESYNPUF: Beneficiary Code

Variable Name: DESYNPUF_ID

Type: Char

Summary Statistics

- **Range:** N/A
- **Unique values:** 1,192,513 in 2008; 1,442,353 in 2009; 1,112,463 in 2010.
- **Missing:** 0
- **Valid:** 5,673,808 in 2008; 6,519,340 in 2009; 3,633,839 in 2010.

Note: Cryptographic number provided on each file to link claims to a beneficiary. This beneficiary ID carries no information about the patient or any patient records, and is provided solely for reference and data processing purposes.

OP-2.

Label: DESYNPUF: Claim ID

Variable Name: CLM_ID

Type: Char

Note: Random numbers provided on each claim file for each and very claim. This claim ID carries no information about the patient or any patient records, and is provided solely for reference and data processing purposes.

OP-3.

Label: DESYNPUF: Claim Line Segment – Up to 2 (One Segment per 45 Revenue Lines)

Variable Name: SEGMENT

Codebook from ResDAC website:

http://www.resdac.org/sites/resdac.org/files/RIF%20Inpatient%20SNF%20SAF%20Version%20J%20CMS.pdf

25. NCH Segment Link Number

5 120 124 PACK

Effective with Version 'I', the system generated number used in conjunction with the NCH daily process date to keep records/segments belonging to a specific claim together. This field was added to ensure that records/ segments that come in on the same batch with the same identifying information in the link group are not mixed with each other.

NOTE: During the Version I conversion this field was populated with data throughout history (back to service year 1991).

DB2 ALIAS : NCH_SGMT_LINK_NUM

SAS ALIAS : LINK_NUM

STANDARD ALIAS : NCH_SGMT_LINK_NUM

TITLE ALIAS : LINK_NUM

LENGTH : 9 SIGNED : Y

SOURCE : NCH

Note: No more than two segments were allowed in the DE-SYNPUF for disclosure protection. This variable was suppressed as part of disclosure treatment. Analyses using this variable should be interpreted with caution. Analytic inferences to the Medicare population should not be made when using this variable.

OP-4.

Label: DESYNPUF: Claims start date[27]

Variable Name: CLM_FROM_DT[28]

Type: Num

Format: YYYYMMDD

Source

- **File:** 2008 – 2010: outpatient files
- **Variable:** CLM_FROM_DT
- **Label:** CLAIMS START DATE
- **Coding scheme:** N/A

Codebook from ResDAC website:

http://www.resdac.org/cms-data/variables/Claim-Date

The first day on the billing statement covering services rendered to the beneficiary (a.k.a. 'Statement Covers From Date').

NOTE: For Home Health PPS claims, the 'from' date and the 'thru' date on the RAP (initial claim) must always match.

Note: This variable was imputed/suppressed/coarsened as part of disclosure treatment. Analyses using this variable should be interpreted with caution. Analytic inferences to the Medicare population should not be made when using this variable.

[27] As of September 10, 2012, the ResDAC label is "Claim From Date."

[28] As of September 10, 2012, the ResDAC short SAS variable name is "FROM_DT."

OP-5.

Label: DESYNPUF: Claims end date[29]

Variable Name: CLM_THRU_DT[30]

Type: Num

Format: YYYYMMDD

Source

- **File:** 2008 – 2010: outpatient files
- **Variable:** clm_thru_dt
- **Label:** Claims end date
- **Coding scheme:** N/A

Codebook from ResDAC website:

http://www.resdac.org/cms-data/variables/Claim-Through-Date

The last day on the billing statement covering services rendered to the beneficiary (a.k.a. 'Statement Covers Thru Date').

NOTE: For Home Health PPS claims, the 'from' date and the 'thru' date on the RAP (initial claim) must always match.

Note: This variable was imputed/suppressed/coarsened as part of disclosure treatment. Analyses using this variable should be interpreted with caution. Analytic inferences to the Medicare population should not be made when using this variable.

[29] As of September 10, 2012, the ResDAC label is "Claim Through Date."

[30] As of September 10, 2012, the ResDAC short SAS variable name is "THRU_DT."

OP-6.

Label: DESYNPUF: Provider Institution[31]

Variable Name: PRVDR_NUM[32]

Source

- **File:** 2008 – 2010: outpatient files
- **Variable:** prvdr_num
- **Label:** Provider Institution
- **Coding scheme:** N/A

Codebook from ResDAC website:

http://www.resdac.org/cms-data/variables/provider-number

The identification number of the institutional provider certified by Medicare to provide services to the beneficiary. NOTE: 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.

PRVDR_NUM_TB Provider Number Table

- First two positions are the GEO SSA State Code.
- Positions 3 and sometimes 4 are used as a category identifier. The remaining positions are serial numbers. The following blocks of numbers are reserved for the facilities indicated (NOTE: may have different meanings dependent on the Type of Bill (TOB):

0001–0879	Short–term (general and specialty) hospitals where TOB = 11X; ESRD clinic where TOB = 72X
0880–0899	Reserved for hospitals participating in ORD demonstration projects where TOB = 11X; ESRD clinic where TOB = 72X
0900–0999	Multiple hospital component in a medical complex (numbers retired) where TOB = 11X; ESRD clinic where TOB = 72X
1000–1199	Reserved for future use
1200–1224	Alcohol/drug hospitals (excluded from PPS–numbers retired) where TOB = 11X; ESRD clinic where TOB = 72X
1225–1299	Medical assistance facilities (Montana project); ESRD clinic where TOB = 72X

[31] As of September 10, 2012, the ResDAC label is "Provider Number."

[32] As of September 10, 2012, the ResDAC short SAS variable name is "PROVIDER."

1300–1399	Rural Primary Care Hospital (RCPH) – eff. 10/97 changed to Critical Access Hospitals (CAH)
1400–1499	Continuation of 4900–4999 series (CMHC)
1500–1799	Hospices
1800–1989	Federally Qualified Health Centers (FQHC) where TOB = 73X; SNF (IP PTB) where TOB = 22X; HHA where TOB = 32X, 33X, 34X
1990–1999	Christian Science Sanatoria (hospital services) – eff. 7/00 changed to Religious Nonmedical Health Care Institutions (RNHCI)
2000–2299	Long–term hospitals
2300–2499	Chronic renal disease facilities (hospital based)
2500–2899	Non–hospital renal disease treatment centers
2900–2999	Independent special purpose renal dialysis facility (1)
3000–3024	Formerly tuberculosis hospitals (numbers retired)
3025–3099	Rehabilitation hospitals
3100–3199	Continuation of Subunits of Nonprofit and Proprietary Home Health Agencies (7300–7399) Series (3) (eff. 4/96)
3200–3299	Continuation of 4800–4899 series (CORF)
3300–3399	Children's hospitals (excluded from PPS) where TOB = 11X; ESRD clinic where TOB = 72X
3400–3499	Continuation of rural health clinics (provider–based) (3975–3999)
3500–3699	Renal disease treatment centers (hospital satellites)
3700–3799	Hospital based special purpose renal dialysis facility (1)
3800–3974	Rural health clinics (free–standing)
3975–3999	Rural health clinics (provider–based)
4000–4499	Psychiatric hospitals
4500–4599	Comprehensive Outpatient Rehabilitation Facilities (CORF)
4600–4799	Community Mental Health Centers (CMHC); 9/30/91 – 3/31/97 used for clinic OPT where TOB = 74X
4800–4899	Continuation of 4500–4599 series (CORF) (eff. 10/95)
4900–4999	Continuation of 4600–4799 series (CMHC) (eff. 10/95); 9/30/91 – 3/31/97 used for clinic OPT where TOB = 74X
5000–6499	Skilled Nursing Facilities

6500–6989 CMHC / Outpatient physical therapy services where TOB = 74X; CORF where TOB = 75X

6990–6999 Christian Science Sanatoria (skilled nursing services) – eff. 7/00 Numbers Reserved (formerly CS)

7000–7299 Home Health Agencies (HHA) (2)

7300–7399 Subunits of 'nonprofit' and 'proprietary' Home Health Agencies (3)

7400–7799 Continuation of 7000–7299 series

7800–7999 Subunits of state and local governmental Home Health Agencies (3)

8000–8499 Continuation of 7400–7799 series (HHA)

8500–8899 Continuation of rural health center (provider based) (3400–3499)

8900–8999 Continuation of rural health center (free–standing) (3800–3974)

9000–9799 Continuation of 8000–8499 series (HHA) (eff. 10/95)

9800–9899 Transplant Centers (eff. 10/1/07)

9900–9999 Reserved for future use (eff. 8/1/98) NOTE: 10/95–7/98 this series was assigned to HHA's but rescinded – no HHA's were ever assigned a number from this series.

Exception:

P001–P999 Organ procurement organization

(1) These facilities (SPRDFS) will be assigned the same provider number whenever they are recertified.

(2) The 6400–6499 series of provider numbers in Iowa (16), South Dakota (43) and Texas (45) have been used in reducing acute care costs (RACC) experiments.

(3) In Virginia (49), the series 7100–7299 has been reserved for statewide subunit components of the Virginia state home health agencies.

(4) Parent agency must have a number in the 7000–7299, 7400–7799 or 8000–8499 series.

NOTE: There is a special numbering system for units of hospitals that are excluded from prospective payment system (PPS) and hospitals with SNF swing–bed designation. An alpha character in the third position of the provider number identifies the type of unit or swing–bed designation as follows:

M = Psychiatric Unit in Critical Access Hospital

R = Rehabilitation Unit in Critical Access Hospital

S = Psychiatric unit (excluded from PPS)

T = Rehabilitation unit (excluded from PPS)

U = Swing–Bed Hospital Designation for Short Term Hospitals

V = Alcohol drug unit (prior to 10/87 only)

W = Swing–Bed Hospital Designation for Long Term Care Hospitals

Y = Swing–Bed Hospital Designation for Rehabilitation Hospitals

Z = Swing Bed Designation for Critical Access Hospitals

There is also a special numbering system for assigning emergency hospital identification numbers (non participating hospitals). The sixth position of the provider number is as follows:

E = Non–federal emergency hospital

F = Federal emergency hospital

Note: These are the fields for such info but these variables were randomly generated as part of disclosure treatment. Because these fields are random numbers/characters, with no association to any known id number, analyses using these variables should be interpreted with caution. Analytic inferences to the Medicare population should not be made when using these variables.

OP-7.

Label: DESYNPUF: Claim Payment Amount

Variable Name: CLM_PMT_AMT[33]

Source

- **File:** 2008 – 2010: outpatient files
- **Variable:** clm_pmt_amt
- **Label:** Claim Payment Amount
- **Coding scheme:** N/A

Codebook from ResDAC website:

http://www.resdac.org/cms-data/variables/Claim-Payment-Amount-0

Amount of payment made from the Medicare trust fund for the services covered by the claim record. Generally, the amount is calculated by the FI or carrier; and represents what was paid to the institutional provider, physician, or supplier, with the exceptions noted below. **NOTE: In some situations, a negative claim payment amount may be pre– sent; e.g., (1) when a beneficiary is charged the full deductible during a short stay and the deductible exceeded the amount Medicare pays; or (2) when a beneficiary is charged a coinsurance amount during a long stay and the coinsurance amount exceeds the amount Medicare pays (most prevalent situation involves psych hospitals who are paid a daily per diem rate no matter what the charges are.)

Under IP PPS, inpatient hospital services are paid based on a predetermined rate per discharge, using the DRG patient classification system and the PRICER program. On the IP PPS claim, the payment amount includes the DRG outlier approved payment amount, disproportionate share (since 5/1/86), indirect medical education (since 10/1/88), total PPS capital (since 10/1/91). After 4/1/03, the payment amount could also include a "new technology" add–on amount. It does NOT include the pass–thru amounts (i.e., capital– related costs, direct medical education costs, kidney acquisition costs, bad debts); or any beneficiary–paid amounts (i.e., deductibles and coinsurance); or any other payer reimbursement.

Under IRFPPS, inpatient rehabilitation services are paid based on a predetermined rate per discharge, using the Case Mix Group (CMG) classification system and the PRICER program. From the CMG on the IRF PPS claim, payment is based on a standard payment amount for operating and capital cost for that facility (including routine and ancillary services). The payment is adjusted for wage, the % of low–income patients (LIP), locality, transfers, interrupted stays, short stay cases, deaths, and high cost outliers. Some or all of these adjustments could apply. The CMG payment does NOT include certain pass–through costs (i.e. bad debts, approved education activities); beneficiary–paid amounts, other payer reimbursement, and other services outside of the scope of PPS.

Under LTCH PPS, long term care hospital services are paid based on a predetermined rate per discharge based on the DRG and the PRICER program. Payments are based on a single standard Federal rate for both inpatient operating and capital–related costs (including routine and ancillary services), but do NOT include certain pass–through costs (i.e. bad debts, direct medical education, new technologies and blood

[33] As of September 10, 2012, the ResDAC short SAS variable name is "PMT_AMT."

clotting factors). Adjustments to the payment may occur due to short–stay outliers, interrupted stays, high cost outliers, wage index, and cost of living adjustments.

Under SNF PPS, SNFs will classify beneficiaries using the patient classification system known as RUGS III. For the SNF PPS claim, the SNF PRICER will calculate/return the rate for each revenue center line item with revenue center code = '0022'; multiply the rate times the units count; and then sum the amount payable for all lines with revenue center code '0022' to determine the total claim payment amount.

Under Outpatient PPS, the national ambulatory payment classification (APC) rate that is calculated for each APC group is the basis for determining the total claim payment. The payment amount also includes the outlier payment and interest.

Under Home Health PPS, beneficiaries will be classified into an appropriate case mix category known as the Home Health Resource Group. A HIPPS code is then generated corresponding to the case mix category (HHRG).

For the RAP, the PRICER will determine the payment amount appropriate to the HIPPS code by computing 60% (for first episode) or 50% (for subsequent episodes) of the case mix episode payment. The payment is then wage index adjusted.

For the final claim, PRICER calculates 100% of the amount due, because the final claim is processed as an adjustment to the RAP, reversing the RAP payment in full. Although final claim will show 100% payment amount, the provider will actually receive the 40% or 50% payment. The payment may also include outlier payments.

Exceptions: For claims involving demos and BBA encounter data, the amount reported in this field may not just represent the actual provider payment.

For demo Ids '01','02','03','04' — claims contain amount paid to the provider, except that special 'differentials' paid outside the normal payment system are not included.

For demo Ids '05','15' — encounter data 'claims' contain amount Medicare would have paid under FFS, instead of the actual payment to the MCO.

For demo Ids '06','07','08' — claims contain actual provider payment but represent a special negotiated bundled payment for both Part A and Part B services. To identify what the conventional provider Part A payment would have been, check value code = 'Y4'. The related noninstitutional (physician/supplier) claims contain what would have been paid had there been no demo.

For BBA encounter data (non–demo) — 'claims' contain amount Medicare would have paid under FFS, instead of the actual payment to the BBA plan.

Limitation:

Prior to 4/6/93, on inpatient, outpatient, and physician/supplier claims containing a CLM_DISP_CD of '02', the amount shown as the Medicare reimbursement does not take into consideration any CWF automatic adjustments (involving erroneous deductibles in most cases). In as many as 30% of the claims (30% IP, 15% OP, 5% PART B), the reimbursement reported on the claims may be over or under the actual Medicare payment amount. REFER TO : PMT_AMT_EXCEDG_CHRG_AMT_LIM

Note: This variable was imputed/suppressed/coarsened as part of disclosure treatment. Analyses using this variable should be interpreted with caution. Analytic inferences to the Medicare population should not be made when using this variable.

OP-8.

Label: DESYNPUF: NCH Primary Payer Claim Paid Amount

Variable Name: NCH_PRMRY_PYR_CLM_PD_AMT[34]

Source

- **File:** 2008 – 2010: outpatient files
- **Variable:** NCH_PRMRY_PYR_CLM_PD_AMT
- **Label:** NCH PRIMARY PAYER CLAIM PAID AMOUNT
- **Coding scheme:** N/A

Codebook from ResDAC website:

http://www.resdac.org/cms-data/variables/NCH-Primary-Payer-Claim-Paid-Amount

Effective with Version H, the amount of a payment made on behalf of a Medicare beneficiary by a primary payer other than Medicare, that the provider is applying to covered Medicare charges on a non–institutional claim.

NOTE: During the Version H conversion, this field was populated with data throughout history (back to service year 1991) by summing up the line item primary payer amounts.

Note: This variable was imputed/suppressed/coarsened as part of disclosure treatment. Analyses using this variable should be interpreted with caution. Analytic inferences to the Medicare population should not be made when using this variable.

[34] As of September 10, 2012, the ResDAC short SAS variable name is "PTB_COIN."

OP-9.

Label: DESYNPUF: Attending Physician – National Provider Identifier Number[35]

Variable Name: AT_PHYSN_NPI[36]

Source

- **File:** 2008 – 2010: outpatient files
- **Variable:** AT_PHYSN_NPI
- **Label:** ATTENDING PHYSICIAN – NATIONAL PROVIDER IDENTIFIER NUMBER
- **Coding scheme:** N/A

Codebook from ResDAC website:

http://www.resdac.org/cms-data/variables/Claim-Attending-Physician-NPI-Number

On an institutional claim, the national provider identifier (NPI) number assigned to uniquely identify the physician who has overall responsibility for the beneficiary's care and treatment.

NOTE: Effective May 2007, the NPI will be– come the national standard identifier for covered health care providers. NPIs will replace current OSCAR provider number, UPINs, NSC numbers, and local contractor provider identification numbers (PINs) on standard HIPPA claim transactions. (During the NPI transition phase (4/3/06 – 5/23/07) the capability was there for the NCH to receive NPIs along with an existing legacy number (UPIN, PIN, OSCAR provider number, etc.)).

NOTE1: CMS has determined that dual provider identifiers (old legacy numbers and new NPI) must be available in the NCH. After the 5/07 NPI implementation, the standard system maintainers will add the legacy number to the claim when it is adjudicated. We will continue to receive the OSCAR provider number and any currently issued UPINs. Effective May 2007, no NEW UPINs (legacy number) will be generated for NEW physicians (Part B and Outpatient claims), so there will only be NPIs sent in to the NCH for those physicians.

Note: These are the fields for such info but these variables were randomly generated as part of disclosure treatment. Because these fields are random numbers/characters, with no association to any known id number, analyses using these variables should be interpreted with caution. Analytic inferences to the Medicare population should not be made when using these variables.

[35] As of September 10, 2012, the ResDAC label is "Claim Attending Physician NPI Number."

[36] As of September 10, 2012, the ResDAC short SAS variable name is "AT_NPI."

OP-10.

Label: DESYNPUF: Operating Physician – National Provider Identifier Number[37]

Variable Name: OP_PHYSN_NPI[38]

Source

- **File:** 2008 – 2010: outpatient files
- **Variable:** OP_PHYSN_NPI
- **Label:** OPERATING PHYSICIAN – NATIONAL PROVIDER IDENTIFIER NUMBER
- **Coding scheme:** N/A

Codebook from ResDAC website:

http://www.resdac.org/cms-data/variables/Claim-Operating-Physician-NPI-Number

On an institutional claim, the National Provider Identifier (NPI) number assigned to uniquely identify the physician with the primary responsibility for performing the surgical procedure(s).

NOTE: Effective May 2007, the NPI will become the national standard identifier for covered health care providers. NPIs will replace the current OSCAR provider number, UPINs, NSC numbers, and local contractor provider identification numbers (PINs) on standard HIPPA claim transactions. (During the NPI transition phase (4/3/06 – 5/23/07) the capability was there for the NCH to receive NPIs along with an existing legacy number (UPIN, PIN, OSCAR provider number, etc.)).

NOTE1: CMS has determined that dual provider identifiers (old legacy number and new NPI) must be available in the NCH. After the 5/07 NPI implementation, the standard system maintainers will add the legacy number to the claim when it's adjudicated. We will continue to receive the OSCAR provider number and any currently issued UPINs. Effective May 2007, no NEW UPINs (legacy numbers) will be generated for NEW physicians (Part B and outpatient claims), so there will only be NPIs sent in to the NCH for those physicians.

Note: These are the fields for such info but these variables were randomly generated as part of disclosure treatment. Because these fields are random numbers/characters, with no association to any known id number, analyses using these variables should be interpreted with caution. Analytic inferences to the Medicare population should not be made when using these variables.

[37] As of September 10, 2012, the ResDAC label is "Claim Operating Physician NPI Number."

[38] As of September 10, 2012, the ResDAC short SAS variable name is "OP_NPI."

OP-11.

Label: DESYNPUF: Other Physician – National Provider Identifier Number[39]

Variable Name: OT_PHYSN_NPI[40]

Source

- **File:** 2008 – 2010: outpatient files
- **Variable:** OT_PHYSN_NPI
- **Label:** OTHER PHYSICIAN – NATIONAL PROVIDER IDENTIFIER NUMBER
- **Coding scheme:** N/A

Codebook from ResDAC website:

http://www.resdac.org/cms-data/variables/Claim-Other-Physician-NPI-Number

On an institutional claim, the National Provider Identifier (NPI) number assigned to uniquely identify the other physician associated with the institutional claim.

NOTE: Effective May 2007, the NPI will be– come the national standard identifier for covered health care providers. NPIs will replace current OSCAR provider number, UPINs, NSC numbers, and local contractor provider identification numbers (PINs) on standard HIPPA claim transactions. (During the NPI transition phase (4/3/06 – 5/23/07) the capability was there for the NCH to receive NPIs along with an existing legacy number (UPIN, PIN, OSCAR provider number, etc.).

NOTE1: CMS has determined that dual provider identifiers (old legacy numbers and new NPI) must be available in the NCH. After the 5/07 NPI implementation, the standard system maintainers will add the legacy number to the claim when it is adjudicated. We will continue to receive the OSCAR provider number and any currently issued UPINs. Effective May 2007, no NEW UPINs (legacy number) will be generated for NEW physicians (Part B AND outpatient claims), so there will only be NPIs sent in to the NCH for those physicians.

Note: These are the fields for such info but these variables were randomly generated as part of disclosure treatment. Because these fields are random numbers/characters, with no association to any known id number, analyses using these variables should be interpreted with caution. Analytic inferences to the Medicare population should not be made when using these variables.

[39] As of September 10, 2012, the ResDAC label is "Claim Other Physician NPI Number."

[40] As of September 10, 2012, the ResDAC short SAS variable name is "OT_NPI."

OP-12.

Label: DESYNPUF: NCH Beneficiary Blood Deductible Liability Amount

Variable Name: NCH_BENE_BLOOD_DDCTBL_LBLTY_AM(T)[41]

Source

- **File:** 2008 – 2010: outpatient files
- **Variable:** NCH_BENE_BLOOD_DDCTBL_LBLTY_AM(T)
- **Label:** NCH BENEFICIARY BLOOD DEDUCTIBLE LIABILITY AMOUNT
- **Coding scheme:** N/A

Codebook from ResDAC website:

http://www.resdac.org/cms-data/variables/NCH-Beneficiary-Blood-Deductible-Liability-Amount

The amount of money for which the intermediary determined the beneficiary is liable for the blood deductible.

Note: This variable was imputed/suppressed/coarsened as part of disclosure treatment. Analyses using this variable should be interpreted with caution. Analytic inferences to the Medicare population should not be made when using this variable.

[41] As of September 10, 2012, the ResDAC short SAS variable name is "BLDDEDAM."

OP-13-22.

Label prefix: DESYNPUF: Claim Diagnosis Code

Variable prefix: ICD9_DGNS_CD

Label: DESYNPUF: Claim Diagnosis Code 1 – DESYNPUF: Claim Diagnosis Code 10

Variable Name: ICD9_DGNS_CD_1 – ICD9_DGNS_CD_10

Source

- **File:** 2008 – 2010: outpatient files
- **Variable:** icd9_dgns_cd_1 – icd9_dgns_cd_10
- **Label:** Claim Diagnosis Code 1 – Claim Diagnosis Code 10
- **Coding scheme:** N/A

Codebook from ResDAC website:

http://www.resdac.org/cms-data/variables/Claim-Diagnosis-Code-I

The diagnosis code identifying the beneficiary's principal or other diagnosis (including E code). NOTE: Prior to Version H, the principal diagnosis code was not stored with the 'OTHER' diagnosis codes. During the Version H conversion the CLM_PRNCPAL_DGNS_CD was added as the first occurrence.

NOTE1: Effective with Version 'J', this field has been expanded from 5 bytes to 7 bytes to accommodate the future implementation of ICD–10.

NOTE2: Effective with Version 'J', the diagnosis E codes are stored in a separate trailer (CLM_DGNS_E_GRP).

Note: These variables were imputed/suppressed/coarsened as part of disclosure treatment. Analyses using these variables should be interpreted with caution. Analytic inferences to the Medicare population should not be made when using these variables.

OP-23-28.

Label prefix: DESYNPUF: Claim Procedure Code

Variable prefix: ICD9_PRCDR_CD

Label: DESYNPUF: Claim Procedure Code 1 – DESYNPUF: Claim Procedure Code 6

Variable Name: ICD9_PRCDR_CD_1 – ICD9_PRCDR_CD_6

Source

- **File:** 2008 – 2010: outpatient files
- **Variable:** icd9_prcdr_cd_1 – icd9_prcdr_cd_6
- **Label:** Claim Procedure Code 1 – Claim Procedure Code 6
- **Coding scheme:** N/A

Codebook from ResDAC website:

http://www.resdac.org/cms-data/variables/Claim-Procedure-Code-I

The code that indicates the principal or other procedure performed during the period covered by the institutional claim.

NOTE: Effective July 2004, ICD–9–CM procedure codes are no longer being accepted on Outpatient claims. The ICD–9–CM codes were named as the HIPPA standard code set for inpatient hospital procedures. HCPCS/CPT codes were named as the standard code set for physician services and other health care services.

Note: These variables were imputed/suppressed/coarsened as part of disclosure treatment. Analyses using these variables should be interpreted with caution. Analytic inferences to the Medicare population should not be made when using these variables.

OP-29.

Label: DESYNPUF: NCH Beneficiary Part B Deductible Amount

Variable Name: NCH_BENE_PTB_DDCTBL_AMT[42]

Source

- **File:** 2008 – 2010: outpatient files
- **Variable:** NCH_BENE_PTB_DDCTBL_AMT
- **Label:** NCH BENEFICIARY PART B DEDUCTIBLE AMOUNT
- **Coding scheme:** N/A

Codebook from ResDAC website:

http://www.resdac.org/cms-data/variables/NCH-Beneficiary-Part-B-Deductible-Amount

The amount of money for which the intermediary or carrier has determined that the beneficiary is liable for the Part B cash deductible on the claim.

Note: This variable was imputed/suppressed/coarsened as part of disclosure treatment. Analyses using this variable should be interpreted with caution. Analytic inferences to the Medicare population should not be made when using this variable.

[42] As of September 10, 2012, the ResDAC short SAS variable name is "PTB_DED."

OP-30.

Label: DESYNPUF: NCH Beneficiary Part B Coinsurance Amount

Variable Name: NCH_BENE_PTB_COINSRNC_AMT

Source

- **File:** 2008 – 2010: outpatient files
- **Variable:** NCH_BENE_PTB_COINSRNC_AMT
- **Label:** NCH BENEFICIARY PART B COINSURANCE AMOUNT
- **Coding scheme:** N/A

Codebook from ResDAC website:

http://www.resdac.org/cms-data/variables/NCH-Beneficiary-Part-B-Coinsurance-Amount

The amount of money for which the intermediary has determined that the beneficiary is liable for Part B coinsurance on the institutional claim.

Note: This variable was imputed/suppressed/coarsened as part of disclosure treatment. Analyses using this variable should be interpreted with caution. Analytic inferences to the Medicare population should not be made when using this variable.

OP-31.

Label: DESYNPUF: Claim Admitting Diagnosis Code

Variable Name: ADMTNG_ICD9_DGNS_CD[43]

Source

- **File:** 2008 – 2010: outpatient files
- **Variable: a**dmtng_icd9_dgns_cd
- **Label:** Claim Admitting Diagnosis Code
- **Coding scheme:** N/A

Codebook from ResDAC website:

http://www.resdac.org/cms-data/variables/Claim-Admitting-Diagnosis-Code

A diagnosis code on the institutional claim indicating the beneficiary's initial diagnosis at admission.

NOTE1: Effective 1/1/2004 with the implementation of NCH/NMUD CR#1, the admitting diagnosis (also known as reason for patient visit) was added to the Outpatient claim. This data was stored in positions 572–576 (FILLER) until the implementation of NCH/NMUD CR#2. Prior to 1/1/2004, this field was only present on inpatient claims.

Additional exception: Virgin Island hospitals and hospitals that furnish only inpatient Part B services.

Note: This variable was imputed/suppressed/coarsened as part of disclosure treatment. Analyses using this variable should be interpreted with caution. Analytic inferences to the Medicare population should not be made when using this variable.

[43] As of September 10, 2012, the ResDAC short SAS variable name is "ADMTG_DGNS_CD."

OP-32-76.

Label prefix: DESYNPUF: Revenue Center HCFA Common Procedure Coding System

Variable prefix: HCPCS_CD

Label: DESYNPUF: Revenue Center HCFA Common Procedure Coding System 1 – DESYNPUF: Revenue Center HCFA Common Procedure Coding System 45

Variable Name: HCPCS_CD_1 – HCPCS_CD_45

Source

- **File:** 2008 – 2010: outpatient files
- **Variable:** hcpcs_cd_1 – hcpcs_cd_45
- **Label:** Revenue Center HCFA Common Procedure Coding System 1 – Revenue Center HCFA Common Procedure Coding System 45
- **Coding scheme:** N/A

Codebook from ResDAC website:

http://www.resdac.org/cms-data/variables/Revenue-Center-HCFA-Common-Procedure-Coding-System

The Health Care Common Procedure Coding System (HCPCS) is a collection of codes that represent procedures, supplies, products and services which may be provided to Medicare beneficiaries and to individuals enrolled in private health insurance programs. The codes are divided into three levels, or groups as described below:

Level I: Codes and descriptors copyrighted by the American Medical Association's Current Procedural Terminology, Fourth Edition (CPT–4). These are 5 position numeric codes representing physician and nonphysician services.

*Note: CPT–4 codes including both long and short descriptions shall be used in accordance with the CMS/AMA agreement. Any other use violates the AMA copyright.

Level II: Includes codes and descriptors copyrighted by the American Dental Association's Current Dental Terminology, Fifth Edition (CDT–5). These are 5 position alpha–numeric codes comprising the D series. All other level II codes and descriptors are approved and maintained jointly by the alpha–numeric editorial panel (consisting of CMS, the Health Insurance Association of America, and the Blue Cross and Blue Shield Association). These are 5 position alpha–numeric codes representing primarily items and nonphysician services that are not represented in the level I codes.

Level III: Codes and descriptors developed by Medicare carriers for use at the local (carrier) level. These are 5 position alpha–numeric codes in the W, X, Y or Z series representing physician and nonphysician services that are not represented in the level I or level II codes.

Note: These variables were imputed/suppressed/coarsened as part of disclosure treatment. Analyses using these variables should be interpreted with caution. Analytic inferences to the Medicare population should not be made when using these variables.

CMS Carrier (CAR) Claims DE-SynPUF Codebook

CAR-1.

Label: DESYNPUF: Beneficiary Code

Variable Name: DESYNPUF_ID

Type: Char

Summary Statistics

- **Range:** N/A
- **Unique values:** 1,707,531 in 2008; 1,832,770 in 2009; 1,713,495 in 2010.
- **Missing:** 0
- **Valid:** 34,276,324 in 2008; 37,304,993 in 2009; 23,282,135 in 2010.

Note: Cryptographic number provided on each file to link claims to a beneficiary. This beneficiary ID carries no information about the patient or any patient records, and is provided solely for reference and data processing purposes.

CAR-2.

Label: DESYNPUF: Claim ID

Variable Name: CLM_ID

Type: Char

Note: Random numbers provided on each claim file for each and very claim. This claim ID carries no information about the patient or any patient records, and is provided solely for reference and data processing purposes.

CAR-3.

Label: DESYNPUF: Claims start date[44]

Variable Name: CLM_FROM_DT[45]

Type: Num

Format: YYYYMMDD

Source

- **File:** 2008 – 2010: Carrier files
- **Variable:** CLM_FROM_DT
- **Label:** CLAIMS START DATE
- **Coding scheme:** N/A

Codebook from ResDAC website:

http://www.resdac.org/cms-data/variables/Claim-Date

The first day on the billing statement covering services rendered to the beneficiary (a.k.a. 'Statement Covers From Date').

NOTE: For Home Health PPS claims, the 'from' date and the 'thru' date on the RAP (initial claim) must always match.

Note: This variable was imputed/suppressed/coarsened as part of disclosure treatment. Analyses using this variable should be interpreted with caution. Analytic inferences to the Medicare population should not be made when using this variable.

[44] As of September 10, 2012, the ResDAC label is "Claim From Date."

[45] As of September 10, 2012, the ResDAC short SAS variable name is "FROM_DT."

CAR-4.

Label: DESYNPUF: Claims end date[46]

Variable Name: CLM_THRU_DT[47]

Type: Num

Format: YYYYMMDD

Source

- **File:** 2008 – 2010: Carrier files
- **Variable:** CLM_THRU_DT
- **Label:** CLAIMS END DATE
- **Coding scheme:** N/A

Codebook from ResDAC website:

http://www.resdac.org/cms-data/variables/Claim-Through-Date

The last day on the billing statement covering services rendered to the beneficiary (a.k.a. 'Statement Covers Thru Date').

NOTE: For Home Health PPS claims, the 'from' date and the 'thru' date on the RAP (initial claim) must always match.

Note: This variable was imputed/suppressed/coarsened as part of disclosure treatment. Analyses using this variable should be interpreted with caution. Analytic inferences to the Medicare population should not be made when using this variable.

[46] As of September 10, 2012, the ResDAC label is "Claim Through Date."

[47] As of September 10, 2012, the ResDAC short SAS variable name is "THRU_DT."

CAR-5-12.

Label prefix: DESYNPUF: Claim Diagnosis Code

Variable prefix: ICD9_DGNS_CD

Label: DESYNPUF: Claim Diagnosis Code 1 – DESYNPUF: Claim Diagnosis Code 8

Variable Name: ICD9_DGNS_CD_1 – ICD9_DGNS_CD_8

Source

- **File:** 2008 – 2010: Carrier files
- **Variable:** ICD9_DGNS_CD_1 – ICD9_DGNS_CD_8
- **Label:** CLAIM DIAGNOSIS CODE 1 – CLAIM DIAGNOSIS CODE 8
- **Coding scheme:** N/A

Codebook from ResDAC website:

http://www.resdac.org/cms-data/variables/Claim-Diagnosis-Code-I

The diagnosis code identifying the beneficiary's principal or other diagnosis (including E code). NOTE: Prior to Version H, the principal diagnosis code was not stored with the 'OTHER' diagnosis codes. During the Version H conversion the CLM_PRNCPAL_DGNS_CD was added as the first occurrence.

NOTE1: Effective with Version 'J', this field has been expanded from 5 bytes to 7 bytes to accommodate the future implementation of ICD–10.

NOTE2: Effective with Version 'J', the diagnosis E codes are stored in a separate trailer (CLM_DGNS_E_GRP).

Note: These variables were imputed/suppressed/coarsened as part of disclosure treatment. Analyses using these variables should be interpreted with caution. Analytic inferences to the Medicare population should not be made when using these variables.

CAR-13-25.

Label prefix: DESYNPUF: Provider Physician – National Provider Identifier Number[48]

Variable prefix: PRF_PHYSN_NPI[49]

Label: DESYNPUF: Provider Physician – National Provider Identifier Number 1 – DESYNPUF: Provider Physician – National Provider Identifier Number 13

Variable Name: PRF_PHYSN_NPI_1 – PRF_PHYSN_NPI_13

Source

- **File:** 2008 – 2010: Carrier files
- **Variable:** PRF_PHYSN_NPI_1 – PRF_PHYSN_NPI _13
- **Label:** PROVIDER PHYSICIAN – NATIONAL PROVIDER IDENTIFIER NUMBER 1 – PROVIDER PHYSICIAN – NATIONAL PROVIDER IDENTIFIER NUMBER 13
- **Coding scheme:** N/A

Codebook from ResDAC website:

http://www.resdac.org/cms-data/variables/Carrier-Line-Performing-NPI-Number

A placeholder field (effective with Version H) for storing the NPI assigned to the performing provider.

Note: These are the fields for such info but these variables were randomly generated as part of disclosure treatment. Because these fields are random numbers/characters, with no association to any known id number, analyses using these variables should be interpreted with caution. Analytic inferences to the Medicare population should not be made when using these variables.

[48] As of September 10, 2012, the ResDAC label is "Carrier Line Performing NPI Number."

[49] As of September 10, 2012, the ResDAC short SAS variable name is "PRFNPI."

CAR-26-38.

Label prefix: DESYNPUF: Provider Institution Tax Number[50]

Variable prefix: TAX_NUM

Label: DESYNPUF: Provider Institution Tax Number 1 – DESYNPUF: Provider Institution Tax Number 13

Variable Name: TAX_NUM_1 – TAX_NUM_13

Source

- **File:** 2008 – 2010: Carrier files
- **Variable:** TAX_NUM_1 – TAX_NUM_13
- **Label:** PROVIDER INSTITUTION TAX NUMBER 1 – PROVIDER INSTITUTION TAX NUMBER 13
- **Coding scheme:** N/A

Codebook from ResDAC website:

http://www.resdac.org/cms-data/variables/Line-Provider-Tax-Number

Social security number or employee identification number of physician/supplier used to identify to whom payment is made for the line item service on the noninstitutional claim.

Note: These are the fields for such info but these variables were randomly generated as part of disclosure treatment. Because these fields are random numbers/characters, with no association to any known id number, analyses using these variables should be interpreted with caution. Analytic inferences to the Medicare population should not be made when using these variables.

[50] As of September 10, 2012, the ResDAC label is "Line Provider Tax Number."

CAR-39-51.

Label prefix: DESYNPUF: Line HCFA Common Procedure Coding System

Variable prefix: HCPCS_CD

Label: DESYNPUF: Line HCFA Common Procedure Coding System 1 – Line HCFA Common Procedure Coding System 13

Variable Name: HCPCS_CD_1 – HCPCS_CD_13

Source

- **File:** 2008 – 2010: Carrier files
- **Variable:** HCPCS_CD_1 – HCPCS_CD_13
- **Label:** LINE HCFA COMMON PROCEDURE CODING SYSTEM
- **Coding scheme:** N/A

Codebook from ResDAC website:

http://www.resdac.org/cms-data/variables/Line-HCFA-Common-Procedure-Coding-System

The Health Care Common Procedure Coding System (HCPCS) is a collection of codes that represent procedures, supplies, products and services which may be provided to Medicare beneficiaries and to individuals enrolled in private health insurance programs. The codes are divided into three levels, or groups as described below:

Note: These variables were imputed/suppressed/coarsened as part of disclosure treatment. Analyses using these variables should be interpreted with caution. Analytic inferences to the Medicare population should not be made when using these variables.

CAR-52-64.

Label prefix: DESYNPUF: Line NCH Payment Amount

Variable prefix: LINE_NCH_PMT_AMT[51]

Label: DESYNPUF: Line NCH Payment Amount 1 – DESYNPUF: Line NCH Payment Amount 13

Variable Name: LINE_NCH_PMT_AMT_1 – LINE_NCH_PMT_AMT_13

Source

- **File:** 2008 – 2010: Carrier files
- **Variable:** LINE_NCH_PMT_AMT_1 – LINE_NCH_PMT_AMT_13
- **Label:** LINE NCH PAYMENT AMOUNT 1 – LINE NCH PAYMENT AMOUNT 13
- **Coding scheme:** N/A

Codebook from ResDAC website:

http://www.resdac.org/cms-data/variables/Line-NCH-Payment-Amount

Effective with Version H, the Berenson–Eggers type of service (BETOS) for the procedure code based on generally agreed upon clinically meaningful groupings of procedures and services. This field is included as a line item on the noninstitutional claim.

NOTE: During the Version H conversion this field was populated with data throughout history (back to service year 1991).

Note: These variables were imputed/suppressed/coarsened as part of disclosure treatment. Analyses using these variables should be interpreted with caution. Analytic inferences to the Medicare population should not be made when using these variables.

[51] As of September 10, 2012, the ResDAC short SAS variable name is "BETOS."

CAR-65-77.

Label prefix: DESYNPUF: Line Beneficiary Part B Deductible Amount

Variable prefix: LINE_BENE_PTB_DDCTBL_AMT[52]

Label: DESYNPUF: Line Beneficiary Part B Deductible Amount 1 – DESYNPUF: Line Beneficiary Part B Deductible Amount 13

Variable Name: LINE_BENE_PTB_DDCTBL_AMT_1 – LINE_BENE_PTB_DDCTBL_AMT_13

Source

- **File:** 2008 – 2010: Carrier files
- **Variable:** LINE_BENE_PTB_DDCTBL_AMT_1 – LINE_BENE_PTB_DDCTBL_AMT_13
- **Label:** LINE BENEFICIARY PART B DEDUCTIBLE AMOUNT 1 – LINE BENEFICIARY PART B DEDUCTIBLE AMOUNT 13
- **Coding scheme:** N/A

Codebook from ResDAC website:

http://www.resdac.org/cms-data/variables/Line-Beneficiary-Part-B-Deductible-Amount

Effective with Version H, the payment made to the provider for the line item service on the noninstitutional claim.

NOTE: Beginning with NCH weekly process date 10/3/97 this field was populated with data. Claims processed prior to 10/3/97 will contain zeroes in this field.

Note: These variables were imputed/suppressed/coarsened as part of disclosure treatment. Analyses using these variables should be interpreted with caution. Analytic inferences to the Medicare population should not be made when using these variables.

[52] As of September 10, 2012, the ResDAC short SAS variable name is "LPRVPMT."

CAR-78-90.

Label prefix: DESYNPUF: Line Beneficiary Primary Payer Paid Amount

Variable prefix: LINE_BENE_PRMRY_PYR_PD_AMT[53]

Label: DESYNPUF: Line Beneficiary Primary Payer Paid Amount 1 – DESYNPUF: Line Beneficiary Primary Payer Paid Amount 13

Variable Name: LINE_BENE_PRMRY_PYR_PD_AMT_1 – LINE_BENE_PRMRY_PYR_PD_AMT_13

Source

- **File:** 2008 – 2010: Carrier files
- **Variable:** LINE_BENE_PRMRY_PYR_PD_AMT_1 – LINE_BENE_PRMRY_PYR_PD_AMT_13
- **Label:** LINE BENEFICIARY PRIMARY PAYER PAID AMOUNT 1 – LINE BENEFICIARY PRIMARY PAYER PAID AMOUNT 13
- **Coding scheme:** N/A

Codebook from ResDAC website:

http://www.resdac.org/cms-data/variables/Line-Beneficiary-Primary-Payer-Paid-Amount

The amount of a payment made on behalf of a Medicare beneficiary by a primary payer other than Medicare, that the provider is applying to covered Medicare charges for to the line ITEM SERVICE ON THE NONINSTITUTIONAL.

Note: These variables were imputed/suppressed/coarsened as part of disclosure treatment. Analyses using these variables should be interpreted with caution. Analytic inferences to the Medicare population should not be made when using these variables.

[53] As of September 10, 2012, the ResDAC short SAS variable name is "LPRPDAMT."

CAR-91-103.

Label prefix: DESYNPUF: Line Coinsurance Amount

Variable prefix: LINE_COINSRNC_AMT[54]

Label: DESYNPUF: Line Coinsurance Amount 1 – DESYNPUF: Line Coinsurance Amount 13

Variable Name: LINE_COINSRNC_AMT_1 – LINE_COINSRNC_AMT_13

Source

- **File:** 2008 – 2010: Carrier files
- **Variable:** LINE_COINSRNC_AMT_1 – LINE_COINSRNC_AMT_13
- **Label:** LINE COINSURANCE AMOUNT 1 – LINE COINSURANCE AMOUNT 13
- **Coding scheme:** N/A

Codebook from ResDAC website:

http://www.resdac.org/cms-data/variables/Line-Coinsurance-Amount

Effective with Version H, the beneficiary coinsurance liability amount for this line item service on the noninstitutional claim.

NOTE: Beginning with NCH weekly process date 10/3/97 this field was populated with data. Claims processed prior to 10/3/97 will contain zeroes in this field.

Note: These variables were imputed/suppressed/coarsened as part of disclosure treatment. Analyses using these variables should be interpreted with caution. Analytic inferences to the Medicare population should not be made when using these variables.

[54] As of September 10, 2012, the ResDAC short SAS variable name is "COINAMT."

CAR-104-116.

Label prefix: DESYNPUF: Line Allowed Charge Amount

Variable prefix: LINE_ALOWD_CHRG_AMT55

Label: DESYNPUF: Line Allowed Charge Amount 1 – DESYNPUF: Line Allowed Charge Amount 13

Variable Name: LINE_ALOWD_CHRG_AMT_1 – LINE_ALOWD_CHRG_AMT_13

Source

- **File:** 2008 – 2010: Carrier files
- **Variable:** LINE_ALOWD_CHRG_AMT_1 – LINE_ALOWD_CHRG_AMT_13
- **Label:** LINE ALLOWED CHARGE AMOUNT 1 – LINE ALLOWED CHARGE AMOUNT 13
- **Coding scheme:** N/A

Codebook from ResDAC website:

http://www.resdac.org/cms-data/variables/Line-Allowed-Charge-Amount

The amount of allowed charges for the line item service on the noninstitutional claim. This charge is used to compute pay to providers or reimbursement to beneficiaries. **NOTE: The

Note1: The amount includes beneficiary–paid amounts (i.e., deductible and coinsurance).

Note2: The allowed charge is determined by the lower of three charges: prevailing, customary or actual.

Note: These variables were imputed/suppressed/coarsened as part of disclosure treatment. Analyses using these variables should be interpreted with caution. Analytic inferences to the Medicare population should not be made when using these variables.

[55] As of September 10, 2012, the ResDAC short SAS variable name is "LALOWCHG."

CAR-117-129.

Label prefix: DESYNPUF: Line Processing Indicator Code

Variable prefix: LINE_PRCSG_IND_CD[56]

Label: DESYNPUF: Line Processing Indicator Code 1 – DESYNPUF: Line Processing Indicator Code 13

Variable Name: LINE_PRCSG_IND_CD_1 – LINE_PRCSG_IND_CD_13

Source

- **File:** 2008 – 2010: Carrier files
- **Variable:** LINE_PRCSG_IND_CD_1 – LINE_PRCSG_IND_CD_13
- **Label:** LINE PROCESSING INDICATOR CODE 1 – LINE PROCESSING INDICATOR CODE 13
- **Coding scheme:** N/A

Codebook from ResDAC website:

http://www.resdac.org/cms-data/variables/Line-Processing-Indicator-Code

The code on a noninstitutional claim indicating to whom payment was made or if the claim was denied.

NOTE1: Effective with Version 'J', the field has been expanded on the NCH record to 2 bytes, With this expansion, the NCH will no longer use the character values to represent the official two byte values sent in by CWF since 4/2002. During the Version J conversion, all character values were converted to the two byte values.

NOTE2: Effective 4/1/02, this field was expanded to two bytes to accommodate new values. The NCH Nearline file did not expand the current 1–byte field but instituted a crosswalk of the 2–byte field to the 1–byte character value. See table of code for the crosswalk.

LINE_PRCSG_IND_TB Line Processing Indicator Table

Valid values effective 1/2011 (2–byte values are replacing the character values)

A = Allowed

B = Benefits exhausted

C = Noncovered care

D = Denied (existed prior to 1991; from BMAD)

I = Invalid data

L = CLIA (eff 9/92)

[56] As of September 10, 2012, the ResDAC short SAS variable name is "PRCNGIND."

M = Multiple submittal—duplicate line item

N = Medically unnecessary

O = Other

P = Physician ownership denial (eff 3/92)

Q = MSP cost avoided (contractor #88888) – voluntary agreement (eff. 1/98)

R = Reprocessed—adjustments based on subsequent reprocessing of claim

S = Secondary payer

T = MSP cost avoided – IEQ contractor (eff. 7/76)

U = MSP cost avoided – HMO rate cell adjustment (eff. 7/96)

V = MSP cost avoided – litigation settlement (eff. 7/96)

X = MSP cost avoided – generic

Y = MSP cost avoided – IRS/SSA data match project

Z = Bundled test, no payment (eff. 1/1/98)

00 = MSP cost avoided – COB Contractor

12 = MSP cost avoided – BC/BS Voluntary Agreements

13 = MSP cost avoided – Office of Personnel Management

14 = MSP cost avoided – Workman's Compensation (WC) Data match

15 = MSP cost avoided – Workman's Compensation Insurer Voluntary Data Sharing Agreements (WC VDSA) (eff. 4/2006)

16 = MSP cost avoided – Liability Insurer VDSA (eff.4/2006)

17 = MSP cost avoided – No–Fault Insurer VDSA (eff.4/2006)

18 = MSP cost avoided – Pharmacy Benefit Manager Data Sharing Agreement (eff.4/2006)

21 = MSP cost avoided – MIR Group Health Plan (eff.1/2009)

22 = MSP cost avoided – MIR non–Group Health Plan (eff.1/2009)

25 = MSP cost avoided – Recovery Audit Contractor – California (eff.10/2005)

26 = MSP cost avoided – Recovery Audit Contractor – Florida (eff.10/2005)

NOTE: Effective 4/1/02, the Line Processing Indicator code was expanded to a 2–byte field. The NCH instituted a crosswalk from the 2–byte code to a 1–byte character code. Below are the character codes (found in NCH & NMUD). At some point, NMUD will carry the 2–byte code but NCH will continue to have the 1–byte character code.

!	=	MSP cost avoided – COB Contractor ('00' 2–byte code)
@	=	MSP cost avoided – BC/BS Voluntary Agreements ('12' 2–byte code)
#	=	MSP cost avoided – Office of Personnel Management ('13' 2–byte code)
$	=	MSP cost avoided – Workman's Compensation (WC) Data match ('14' 2–byte code)
*	=	MSP cost avoided – Workman's Compensation Insurer Voluntary Data Sharing Agreements (WC VDSA) ('15' 2–byte code) (eff. 4/2006)
(	=	MSP cost avoided – Liability Insurer VDSA ('16' 2–byte code) (eff. 4/2006)
)	=	MSP cost avoided – No–Fault Insurer VDSA ('17' 2–byte code) (eff. 4/2006)
+	=	MSP cost avoided – Pharmacy Benefit Manager Data Sharing Agreement ('18' 2 –byte code) (eff. 4/2006)
<	=	MSP cost avoided – MIR Group Health Plan ('21' 2–byte code) (eff. 1/2009)
>	=	MSP cost avoided – MIR non–Group Health Plan ('22' 2–byte code) (eff. 1/2009)
%	=	MSP cost avoided – Recovery Audit Contractor – California ('25' 2–byte code) (eff. 10/2005)
&	=	MSP cost avoided – Recovery Audit Contractor – Florida ('26' 2–byte code) (eff. 10/2005)

Note: These variables were imputed/suppressed/coarsened as part of disclosure treatment. Analyses using these variables should be interpreted with caution. Analytic inferences to the Medicare population should not be made when using these variables.

CAR-130-142.

Label prefix: DESYNPUF: Line Diagnosis Code

Variable prefix: LINE_ICD9_DGNS_CD

Label: DESYNPUF: Line Diagnosis Code 1 – DESYNPUF: Line Diagnosis Code 13

Variable Name: LINE_ICD9_DGNS_CD_1 – LINE_ICD9_DGNS_CD_13

Source

- **File:** 2008 – 2010: Carrier files
- **Variable:** LINE_ICD9_DGNS_CD_1 – LINE_ICD9_DGNS_CD_13
- **Label:** LINE DIAGNOSIS CODE 1 – LINE DIAGNOSIS CODE 13
- **Coding scheme:** N/A

Codebook from ResDAC website:

http://www.resdac.org/cms-data/variables/Line-Diagnosis-Code

The code indicating the diagnosis supporting this line item procedure/service on the noninstitutional claim.

Note: These variables were imputed/suppressed/coarsened as part of disclosure treatment. Analyses using these variables should be interpreted with caution. Analytic inferences to the Medicare population should not be made when using these variables.

CMS Prescription Drug Events (PDE) DE-SynPUF Codebook

PDE-1.

Label: DESYNPUF: Beneficiary Code

Variable Name: DESYNPUF_ID

Type: Char

Summary Statistics

- **Range:** N/A
- **Unique values:** 1,456,213 in 2008; 1,810,747 in 2009; 1,656,378 in 2010.
- **Missing:** 0
- **Valid:** 39,927,827 in 2008; 43,379,293 in 2009; 27,778,849 in 2010.

Note: Cryptographic number provided on each file to link claims to a beneficiary. This beneficiary ID carries no information about the patient or any patient records, and is provided solely for reference and data processing purposes.

PDE-2.

Label: DESYNPUF: CCW Part D Event Number

Variable Name: PDE_ID

Type: Char

Codebook from ResDAC website:

http://www.resdac.org/cms-data/variables/CCW-Encrypted-Part-D-Event-Number

Identifies a unique Part D event for a beneficiary.

Note: Random numbers provided on PDE file for each and every Part D event. This event ID carries no information about the patient or any patient records, and is provided solely for reference and data processing purposes.

PDE-3.

Label: DESYNPUF: RX Service Date

Variable Name: SRVC_DT

Type: Num

Format: YYYYMMDD

Source

- **File:** 2008 – 2010: PDE files
- **Variable:** SRVC_DT
- **Label:** RX SERVICE DATE
- **Coding scheme:** N/A

Codebook from ResDAC website:

http://www.resdac.org/cms-data/variables/RX-Service-Date-DOS

This field contains the date on which the prescription was filled.

Note: This variable was imputed/suppressed/coarsened as part of disclosure treatment. Analyses using this variable should be interpreted with caution. Analytic inferences to the Medicare population should not be made when using this variable.

PDE-4.

Label: DESYNPUF: Product Service ID

Variable Name: PROD_SRVC_ID[57]

Source

- **File:** 2008 – 2010: PDE files
- **Variable:** PROD_SRVC_ID
- **Label:** PRODUCT SERVICE ID
- **Coding scheme:** N/A

Codebook from ResDAC website:

http://www.resdac.org/cms-data/variables/Product-Service-ID

This field identifies the dispensed drug using a National Drug Code (NDC). The NDC is reported in NDC11 format. In instances where a pharmacy formulates a compound containing multiple NDC drugs, the NDC of the most expensive drug is used.

Note: This variable was imputed/suppressed/coarsened as part of disclosure treatment. Analyses using this variable should be interpreted with caution. Analytic inferences to the Medicare population should not be made when using this variable.

[57] As of September 10, 2012, the ResDAC short SAS variable name is "PRDSRVID."

PDE-5.

Label: DESYNPUF: Quantity Dispensed

Variable Name: QTY_DSPNSD_NUM[58]

Source

- **File:** 2008 – 2010: PDE files
- **Variable:** QTY_DSPNSD_NUM
- **Label:** QUANTITY DISPENSED
- **Coding scheme:** N/A

Codebook from ResDAC website:

http://www.resdac.org/cms-data/variables/Quantity-Dispensed

This field indicates the number of units, grams, milliliters, or other dispensed in the current drug event. If a compounded item, then the QUANTITY DISPENSED is the total of all ingredients. Partial–fill quantities should be submitted for the prescribed quantity.

Note: This variable was imputed/suppressed/coarsened as part of disclosure treatment. Analyses using this variable should be interpreted with caution. Analytic inferences to the Medicare population should not be made when using this variable.

[58] As of September 10, 2012, the ResDAC short SAS variable name is "QTYDSPNS."

PDE-6.

Label: DESYNPUF: Days Supply

Variable Name: DAYS_SUPLY_NUM[59]

Source

- **File:** 2008 – 2010: PDE files
- **Variable:** DAYS_SUPLY_NUM
- **Label:** DAYS SUPPLY
- **Coding scheme:** N/A

Codebook from ResDAC website:

http://www.resdac.org/cms-data/variables/Days-Supply

This field indicates the number of days' supply of medication dispensed by the pharmacy and will consist of the amount the pharmacy enters for the prescription.

Note: This variable was imputed/suppressed/coarsened as part of disclosure treatment. Analyses using this variable should be interpreted with caution. Analytic inferences to the Medicare population should not be made when using this variable.

[59] As of September 10, 2012, the ResDAC short SAS variable name is "DAYSSPLY."

PDE-7.

Label: DESYNPUF: Patient Pay Amount

Variable Name: PTNT_PAY_AMt[60]

Source

- **File:** 2008 – 2010: PDE files
- **Variable:** PTNT_PAY_AMT
- **Label:** PATIENT PAY AMOUNT
- **Coding scheme:** N/A

Codebook from ResDAC website:

http://www.resdac.org/cms-data/variables/Patient-Pay-Amount

This field lists the dollar amount the beneficiary paid that is not reimbursed by a third party (e.g., copayments, coinsurance, deductible or other patient pay amounts). This amount contributes to a beneficiary's TrOOP only when it is payment for a covered drug. Payments made by the beneficiary or family and friends shall also be reported in this field. Other third party payments made on behalf of a beneficiary that contribute to TrOOP shall be reported in field 33 (Other TrOOP Amount) or field 34 (Low–Income Cost–Sharing Amount) and payments that do not contribute shall be reported in field 35 (Patient Liability Reduction due to Other Payer Amount).

Amount beneficiary paid that is not reimbursed by a third party.

Note: This variable was imputed/suppressed/coarsened as part of disclosure treatment. Analyses using this variable should be interpreted with caution. Analytic inferences to the Medicare population should not be made when using this variable.

[60] As of September 10, 2012, the ResDAC short SAS variable name is "PTPAYAMT."

PDE-8.

Label: DESYNPUF: Gross Drug Cost

Variable Name: TOT_RX_CST_AMT[61]

Source

- **File:** 2008 – 2010: PDE files
- **Variable:** TOT_RX_CST_AMT
- **Label:** GROSS DRUG COST
- **Coding scheme:** N/A

Codebook from ResDAC website:

http://www.resdac.org/cms-data/variables/Gross-Drug-Cost

This variable is derived from the sum of these variables:
Ingredient Cost Paid
Dispensing Fee Paid
Total Amount Attributed to Sales Tax
Vaccine Administration Fee

Note: This variable was imputed/suppressed/coarsened as part of disclosure treatment. Analyses using this variable should be interpreted with caution. Analytic inferences to the Medicare population should not be made when using this variable.

[61] As of September 10, 2012, the ResDAC short SAS variable name is "TOTALCST."

Appendices

Appendix 1. List of chronic condition diseases[1]

Variable names	Algorithms	Reference Time Period (# of years)	Valid ICD–9/CPT4/HCPCS Codes[2]	Number/Type of Claims to Qualify[3]
SP_ALZHDMTA	Alzheimer's Disease and Related Disorders or Senile Dementia	1 year	DX 331.0, 331.1, 331.11, 331.19, 331.2, 331.7, 290.0, 290.1, 290.10, 290.11, 290.12, 290.13, 290.20, 290.21, 290.3, 290.40, 290.41, 290.42, 290.43, 294.0, 294.1, 294.10, 294.11, 294.8, 797 (any DX on the claim)	At least 1 inpatient, HOP or Carrier claim with DX codes during the yearly period
SP_CHF	Heart Failure	1 year	DX 398.91, 402.01, 402.11, 402.91, 404.01, 404.11, 404.91, 404.03, 404.13, 404.93, 428.0, 428.1, 428.20, 428.21, 428.22, 428.23, 428.30, 428.31, 428.32, 428.33, 428.40, 428.41, 428.42, 428.43, 428.9 (any DX on the claim)	At least 1 inpatient, HOP or Carrier claim with DX codes during the yearly period
SP_CHRNKIDN	Chronic Kidney Disease	1 year	DX 016.00, 016.01, 016.02, 016.03, 016.04, 016.05, 016.06, 095.4, 189.0, 189.9, 223.0, 236.91, 249.40, 249.41, 250.40, 250.41, 250.42, 250.43, 271.4, 274.1, 274.10, 283.11, 403.01, 403.11, 403.91, 404.02, 404.03, 404.12, 404.13, 404.92, 404.93, 440.1, 442.1, 572.4, 580.0, 580.4, 580.81, 580.89, 580.9, 581.0, 581.1, 581.2, 581.3, 581.81, 581.89, 581.9, 582.0, 582.1, 582.2, 582.4, 582.81, 582.89, 582.9, 583.0, 583.1, 583.2, 583.4, 583.6, 583.7, 583.81, 583.89, 583.9, 584.5, 584.6, 584.7, 584.8, 584.9, 585, 585.1, 585.2, 585.3, 585.4, 585.5, 585.6, 585.9, 586, 587, 588.0, 588.1, 588.81, 588.89, 588.9, 591, 753.12, 753.13, 753.14, 753.15, 753.16, 753.17, 753.19, 753.20, 753.21, 753.22, 753.23, 753.29, 794.4 (any DX on the claim)	At least 1 inpatient or 2 HOP or Carrier claims with DX codes during the yearly period
SP_COPD	Chronic Obstructive Pulmonary Disease	1 year	DX 491.0, 491.1, 491.20, 491.21, 491.22, 491.8, 491.9, 492.0, 492.8, 494.0, 494.1, 496 (any DX on the claim)	At least 1 inpatient, or 2 HOP or Carrier claims with DX codes during yearly period
SP_DEPRESSN	Depression	1 year	DX 296.20, 296.21, 296.22, 296.23, 296.24, 296.25, 296.26, 296.30, 296.31, 296.32, 296.33, 296.34, 296.35, 296.36, 296.50, 296.51, 296.52, 296.53, 296.54, 296.55, 296.56, 296.60, 296.61, 296.62, 296.63, 296.64, 296.65, 296.66, 296.89, 298.0, 300.4, 309.1, 311 (any DX on the claim)	At least 1 inpatient, HOP or Carrier claim with DX codes during the yearly period

Variable names	Algorithms	Reference Time Period (# of years)	Valid ICD–9/CPT4/HCPCS Codes[2]	Number/Type of Claims to Qualify[3]
SP_DIABETES	Diabetes	1 year	DX 249.00, 249.01, 249.10, 249.11, 249.20, 249.21, 249.30, 249.31, 249.40, 249.41, 249.50, 249.51, 249.60, 249.61, 249.70, 249.71, 249.80, 249.81, 249.90, 249.91, 250.00, 250.01, 250.02, 250.03, 250.10, 250.11, 250.12, 250.13, 250.20, 250.21, 250.22, 250.23, 250.30, 250.31, 250.32, 250.33, 250.40, 250.41, 250.42, 250.43, 250.50, 250.51, 250.52, 250.53, 250.60, 250.61, 250.62, 250.63, 250.70, 250.71, 250.72, 250.73, 250.80, 250.81, 250.82, 250.83, 250.90, 250.91, 250.92, 250.93, 357.2, 362.01, 362.02, 366.41 (any DX on the claim)	At least 1 inpatient or 2 HOP or Carrier claim with DX codes during the yearly period
SP_ISCHMCHT	Ischemic Heart Disease	1 year	DX 410.00, 410.01, 410.02, 410.10, 410.11, 410.12, 410.20, 410.21, 410.22, 410.30, 410.31, 410.32, 410.40, 410.41, 410.42, 410.50, 410.51, 410.52, 410.60, 410.61, 410.62, 410.70, 410.71, 410.72, 410.80, 410.81, 410.82, 410.90, 410.91, 410.92, 411.0, 411.1, 411.81, 411.89, 412, 413.0, 413.1, 413.9, 414.00, 414.01, 414.02, 414.03, 414.04, 414.05, 414.06, 414.07, 414.10, 414.11, 414.12, 414.19, 414.2, 414.3, 414.8, 414.9 Proc 00.66, 36.01, 36.02, 36.03, 36.04, 36.05, 36.06, 36.07, 36.09, 36.10, 36.11, 36.12, 36.13, 36.14, 36.15, 36.16, 36.17, 36.19, 36.2, 36.31, 36.32 HCPCS 33510, 33511, 33512, 33513, 33514, 33515, 33516, 33517, 33518, 33519, 33521, 33522, 33523, 33533, 33534, 33535, 33536, 33542, 33545, 33548, 92975, 92977, 92980, 92982, 92995, 33140, 33141 (any DX, PROC or HCPCS on the claim)	At least 1 inpatient, HOP or Carrier claim with DX, Procedure or HCPC codes during the yearly period
SP_OSTEOPRS	Osteoporosis	1 year	DX 733.00, 733.01, 733.02, 733.03, 733.09 (any DX on the claim)	At least 1 inpatient, HOP or Carrier claim with DX code during the yearly period
SP_RA_OA	RA/OA	1 year	DX 714.0, 714.1, 714.2, 714.30, 714.31, 714.32, 714.33, 715.00, 715.04, 715.09, 715.10, 715.11, 715.12, 715.13, 715.14, 715.15, 715.16, 715.17, 715.18, 715.20, 715.21, 715.22, 715.23, 715.24, 715.25, 715.26, 715.27, 715.28, 715.30, 715.31, 715.32, 715.33, 715.34, 715.35, 715.36, 715.37, 715.38, 715.80, 715.89, 715.90, 715.98 (any DX on the claim)	At least 2 inpatient, HOP or Carrier claims with DX codes during yearly period

Variable names	Algorithms	Reference Time Period (# of years)	Valid ICD–9/CPT4/HCPCS Codes[2]	Number/Type of Claims to Qualify[3]
SP_STRKETIA	Stroke / Transient Ischemic Attack	1 year	DX 430, 431, 434.00, 434.01, 434.10, 434.11, 434.90, 434.91, 435.0, 435.1, 435.3, 435.8, 435.9, 436, 997.02 (any DX on the claim)	At least 1 inpatient claim or 2 HOP or Carrier claims with DX codes during the yearly period
SP_CNCR	Any Cancer below			
	Female Breast Cancer[4]	1 year	DX 174.0, 174.1, 174.2, 174.3, 174.4, 174.5, 174.6, 174.8, 174.9, 233.0 (any DX on the claim)	At least 1 inpatient or 2 HOP or Carrier claims with DX codes during yearly time period
	Colorectal Cancer	1 year	DX 154.0, 154.1, 153.0, 153.1, 153.2, 153.3, 153.4, 153.5, 153.6, 153.7, 153.8, 153.9, 230.3, 230.4 (any DX on the claim)	At least 1 inpatient or 2 HOP or Carrier claims with DX codes during the yearly time period
	Prostate Cancer	1 year	DX 185, 233.4 (any DX on the claim)	At least 1 inpatient or 2 HOP or Carrier claims with DX codes during the yearly time period
	Lung Cancer	1 year	DX 162.0, 162.2, 162.3, 162.4, 162.5, 162.8, 162.9, 231.2 (any DX on the claim)	At least 1 inpatient or 2 HOP or Carrier claims with DX codes during yearly time period

[1] modified from "CMS Chronic Condition Data Warehouse Condition Categories" accessed on Aug 1, 2012 http://www.ccwdata.org/cs/groups/public/documents/document/conditioncategories.pdf

[2] Effective dates of these codes vary. Researchers may be interested in confirming the code(s) of interest in accompanying claims or assessment data files.

[3] HOP refers to hospital outpatient.

[4] The diagnosis codes included in this definition are for female breast cancer only (male breast cancer codes are not included). Researchers may be interested in confirming gender with the accompanying beneficiary data file due to the potential miscoding of diagnosis codes.

Appendix 2. List of Reimbursement Variables

Variable names	Labels	Sum of	Type
MEDREIMB_IP	Inpatient annual Medicare reimbursement amount	CLM_PMT_AMT + CLM_UTLZTN_DAY_CNT * CLM_PASS_THRU_PER_DIEM_AMT	NUM
BENRES_IP	Inpatient annual beneficiary responsibility amount	NCH_BENE_IP_DDCTBL_AMT + NCH_BENE_PTA_COINSRNC_LBLTY_AM + NCH_BENE_BLOOD_DDCTBL_LBLTY_AM	NUM
PPPYMT_IP	Inpatient annual primary payer reimbursement amount	NCH_PRMRY_PYR_CLM_PD_AMT	NUM
MEDREIMB_OP	Outpatient Institutional annual Medicare reimbursement amount	CLM_PMT_AMT	NUM
BENRES_OP	Outpatient Institutional annual beneficiary responsibility amount	NCH_BENE_BLOOD_DDCTBL_LBLTY_AM + NCH_BENE_PTB_DDCTBL_AMT + NCH_BENE_PTB_COINSRNC_AMT	NUM
PPPYMT_OP	Outpatient Institutional annual primary payer reimbursement amount	NCH_PRMRY_PYR_CLM_PD_AMT	NUM
MEDREIMB_CAR	Carrier annual Medicare reimbursement amount	LINE_NCH_PMT_AMT IF LINE_PRCSG_IND_CD = 'A' OR (LINE_PRCSG_IND_CD IN ('R','S') & LINE_ALOWD_CHRG_AMT > 0)	NUM
BENRES_CAR	Carrier annual beneficiary responsibility amount	LINE_BENE_PTB_DDCTBL_AMT + LINE_COINSRNC_AMT IF LINE_PRCSG_IND_CD = 'A' OR (LINE_PRCSG_IND_CD IN ('R','S') & LINE_ALOWD_CHRG_AMT > 0)	NUM
PPPYMT_CAR	Carrier annual primary payer reimbursement amount	LINE_BENE_PRMRY_PYR_PD_AMT IF LINE_PRCSG_IND_CD = 'A' OR (LINE_PRCSG_IND_CD IN ('R','S') & LINE_ALOWD_CHRG_AMT > 0)	NUM