

# **CMS 2008 Chronic Conditions Public Use File (PUF)**

## **General Documentation**

### **1. Overview of the PUF**

This release contains the *2008 Chronic Conditions Public Use File (PUF)* with information from 2008 Medicare claims.<sup>1</sup> The *CMS 2008 Chronic Conditions PUF* is an aggregated file in which each record is a *profile* or *cell* defined by the characteristics of Medicare beneficiaries. A profile is defined by all combinations of age category, gender, various chronic conditions, and dual-eligibility status of the beneficiaries. Hence, the number of rows (or records) in the *CMS 2008 Chronic Conditions PUF* represents the number of unique profiles in the Medicare population. For each profile many claim-related variables are provided in the form of averages as detailed below.

### **2. Source Data for the PUF**

The *CMS 2008 Chronic Conditions PUF* represents 100% of the Medicare beneficiaries provided in the 100% Beneficiary Summary File for reference year 2008. The 100% Beneficiary Summary File is created annually and contains demographic, entitlement and enrollment data for beneficiaries who were:

- a) documented as being alive for some part of the reference year of the Beneficiary Summary File, and
- b) entitled to Medicare benefits during the reference year, and
- c) enrolled in Medicare Part A and/or Part B for at least one month in the reference year.

The *CMS 2008 Chronic Conditions PUF* provides various measures of utilization as averages for different groups of Medicare beneficiaries, or *profiles*. The 100% Beneficiary Summary File contains approximately 48 million beneficiaries in 2008, all of whom are represented in the PUF. As a result, the PUF provides utilization measures for Medicare beneficiaries who are enrolled in Fee-for-Service (FFS) plans. The averages are calculated for different types of Medicare beneficiaries by months of enrollment. Beneficiaries with 12 months of enrollment in FFS Part A or Part B are separated from beneficiaries with less than 12 months of enrollment. Beneficiaries with less than 12 months of enrollment include:

- Beneficiaries who turned 65 in the calendar year,

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<sup>1</sup> Claims with services ending in 2008, as defined by the "claim through date."

- Beneficiaries who died during the calendar year, and
- Beneficiaries who switched in and out of Medicare Part C, or Medicare Advantage (MA) plans, during the calendar year.

Note also that the *CMS 2008 Chronic Conditions PUF* includes information from beneficiaries who are enrolled in Medicare on the basis of disability and End-Stage Renal Disease (ESRD).

### **3. Content of the PUF**

The most important aspects of the *CMS 2008 Chronic Conditions PUF* are as follows:

- a) It contains information from 100% of the 2008 Medicare beneficiary population.
- b) It contains analytic variables for different types of services available for FFS beneficiaries.
- c) Every profile in the PUF consists of at least 30 beneficiaries. To accomplish this, some profiles are coarsened (see below) into broader ones by suppressing selected chronic condition indicators. As a result, the count of beneficiaries enrolled in Medicare Part A or Part B for at least one month in the calendar year is never less than 30 in the PUF. However, the PUF does not provide this count variable.
- d) Because the PUF does not provide beneficiary-level information, there is less concern about the privacy of the beneficiaries. Nevertheless, the PUF is tested rigorously to ensure that it can be released to the public without compromising beneficiaries' privacy.

### **4. Variables of the PUF**

The *CMS 2008 Chronic Conditions PUF* contains 55 variables. Fifteen of these variables define profiles or cells:

- 1) Age: the beneficiary's age, reported in six categories: (1) under 65, (2) 65 - 69, (3) 70 - 74, (4) 75 - 79, (5) 80 - 84, (6) 85 and above.
- 2) Gender: (1) male or (2) female.
- 3) Chronic condition indicator for "Alzheimer's Disease and Related Disorders or Senile Dementia": (0) if the condition does not exist, (1) if the condition exists, and missing/blank if suppressed.
- 4) Chronic condition indicator for "Cancer": (0) if the condition does not exist, (1) if the condition exists, and missing/blank if suppressed. This indicator indicates the existence of one or more of the following types of cancer: breast cancer, colorectal cancer, prostate cancer, or lung cancer.
- 5) Chronic condition indicator for "Heart Failure": (0) if the condition does not exist and (1) if the condition exists.

- 6) Chronic condition indicator for “Chronic Kidney Disease”: (0) if the condition does not exist and (1) if the condition exists.
- 7) Chronic condition indicator for “Chronic Obstructive Pulmonary Disease”: (0) if the condition does not exist, (1) if the condition exists, and missing/blank if suppressed.
- 8) Chronic condition indicator for “Depression”: (0) if the condition does not exist, (1) if the condition exists, and missing/blank if suppressed.
- 9) Chronic condition indicator for “Diabetes”: (0) if the condition does not exist and (1) if the condition exists.
- 10) Chronic condition indicator for “Ischemic Heart Disease”: (0) if the condition does not exist and (1) if the condition exists.
- 11) Chronic condition indicator for “Osteoporosis”: (0) if the condition does not exist, (1) if the condition exists, and missing/blank if suppressed.
- 12) Chronic condition indicator for “Rheumatoid Arthritis/Osteoarthritis Arthritis”: (0) if the condition does not exist and (1) if the condition exists.
- 13) Chronic condition indicator for “Stroke / Transient Ischemic Attack”: (0) if the condition does not exist, (1) if the condition exists, and missing/blank if suppressed.
- 14) Multiple chronic conditions indicator: (0) total number of chronic conditions is less than two, (1) total number of chronic conditions is two or more. This variable is created based on the 11 chronic conditions listed above.
- 15) Dual eligibility status indicator: (0) not dual eligible and (1) dual eligible.

The remaining variables provide enrollment information for Medicare programs and cost and/or utilization measures in the form of averages from the 100% of Medicare claims data sets. The averages are calculated and presented separately for beneficiaries with 12 months of enrollment and those with less than 12 months of enrollment. For example, “Average Medicare reimbursement for inpatient stays” is calculated separately for beneficiaries who were enrolled in FFS Medicare Part A for 12 months (i.e., full year) and for beneficiaries who were enrolled for less than 12 months. These variables are:

- For beneficiaries with **less than 12 months of Part A enrollment** in the calendar year:
  1. Number of beneficiaries enrolled
  2. Average months of enrollment
  3. Average total Medicare reimbursement per beneficiary for Part A services
    - Contains the sum of average Medicare reimbursement for Inpatient, Skilled Nursing Facility, Home Health Agency (covered by Part A) and Hospice services
  4. Average Medicare reimbursement per beneficiary for Inpatient services
  5. Average Medicare reimbursement per beneficiary for Skilled Nursing Facility services
  6. Average Medicare reimbursement per beneficiary for other services
    - Contains Home Health Agency (covered by Part A) and Hospice services

7. Average number of Inpatient admissions per beneficiary
8. Average number of Skilled Nursing Facility covered days per beneficiary
- For beneficiaries with **12 months of Part A enrollment** in the calendar year:
  9. Number of beneficiaries enrolled
  10. Average total Medicare reimbursement per beneficiary for Part A services
    - Contains the sum of average Medicare reimbursement for Inpatient, Skilled Nursing Facility, Home Health Agency (covered by Part A) and Hospice services
  11. Average Medicare reimbursement per beneficiary for Inpatient services
  12. Average Medicare reimbursement per beneficiary for Skilled Nursing Facility services
  13. Average Medicare reimbursement per beneficiary for other services
    - Contains Home Health Agency (covered by Part A) and Hospice services
  14. Average number of Inpatient admissions per beneficiary
  15. Average number of Skilled Nursing Facility covered days beneficiary
- For beneficiaries with **less than 12 months of Part B enrollment** in the calendar year:
  16. Number of beneficiaries enrolled
  17. Average months of enrollment
  18. Average total Medicare reimbursement per beneficiary for Part B services
    - Contains the sum of average Medicare reimbursement for Carrier/Physician, Outpatient, Home Health Agency (covered by Part B) and Durable Medical Equipment services
  19. Average Medicare reimbursement per beneficiary for Carrier/Physician services
  20. Average Medicare reimbursement per beneficiary for Outpatient services
  21. Average Medicare reimbursement per beneficiary for other services
    - Contains Home Health Agency (covered by Part B) and Durable Medical Equipment services
  22. Average number of Physician visits per beneficiary
  23. Average number of Outpatient visits per beneficiary
- For beneficiaries with **12 months of Part B enrollment** in the calendar year:
  24. Number of beneficiaries enrolled
  25. Average total Medicare reimbursement per beneficiary for Part B services
    - Contains the sum of average Medicare reimbursement for Carrier/Physician, Outpatient, Home Health Agency (covered by Part B) and Durable Medical Equipment services
  26. Average Medicare reimbursement per beneficiary for Carrier/Physician services
  27. Average Medicare reimbursement per beneficiary for Outpatient services
  28. Average Medicare reimbursement per beneficiary for other services
    - Contains Home Health Agency (covered by Part B) and Durable Medical Equipment services

- 29. Average number of Physician visits per beneficiary
- 30. Average number of Outpatient visits per beneficiary
- For beneficiaries with **less than 12 months of Part C enrollment** in the calendar year:
  - 31. Number of beneficiaries enrolled
  - 32. Average months of enrollment
- For beneficiaries with **12 months of Part C enrollment** in the calendar year:
  - 33. Number of beneficiaries enrolled
- For beneficiaries with **less than 12 months of Part D enrollment** in the calendar year:
  - 34. Number of beneficiaries enrolled in Part D
  - 35. Average months of enrollment
  - 36. Average drug cost per beneficiary
  - 37. Average number of prescriptions per beneficiary
- For beneficiaries with **12 months of Part D enrollment** in the calendar year:
  - 38. Number of beneficiaries enrolled
  - 39. Average drug cost per beneficiary
  - 40. Average number of prescriptions per beneficiary

The detailed definitions and frequency distributions of these variables are provided in the Data Dictionary that accompany this document.

## 5. Methodology and Key Assumptions

The purpose of the *CMS 2008 Chronic Conditions PUF* is to provide averages for various cost and/or utilization measures for the full Medicare population disaggregated by the profiles (i.e., combinations of the 15 variables listed in Section 4). All variables are calculated from the 100% Beneficiary Summary File (BSF) and the Beneficiary Annual Summary File (BASf) for 2008 (available from the Chronic Condition Data Warehouse (CCW)<sup>2</sup>) except the following variables calculated from the respective claims files:

- Average drug cost per beneficiary, and
- Average number of prescriptions per beneficiary.

The source file and the variables used in the calculation of the variables in the *CMS 2008 Chronic Conditions PUF* are provided in the Data Dictionary. The chronic condition indicators are calculated by the CCW for each beneficiary and calendar year using algorithms based on coverage and claim history. The details of the chronic conditions can be found on the CCW website.<sup>3</sup>

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<sup>2</sup> <http://www.ccwdata.org/data-dictionaries/index.htm>

<sup>3</sup> <http://www.ccwdata.org/chronic-conditions/index.htm>

The *CMS 2008 Chronic Conditions PUF* contains two types of variables: (1) variables that define the profiles (i.e., age, gender, chronic condition indicators, and dual eligibility status) and (2) variables that summarize the cost and/or utilization measures for different types of beneficiaries defined by enrollment characteristics (e.g., enrollment in individual Medicare program and length of enrollment in months). The cost and/or utilization variables can be divided into *blocks* of information that are defined by the individual Medicare programs (e.g., Part A) and length of enrollment in the program in 2008. That is, the PUF provides 8 blocks of variables based on enrollment in Medicare Part A, Part B, Part C, and Part D. Each block is divided into two types of beneficiaries: beneficiaries with at least 1 month but less than 12 months of enrollment and beneficiaries with 12 months of enrollment.

One key property of the *CMS 2008 Chronic Conditions PUF* is that it provides information for the entire Medicare population (i.e., all profiles and beneficiaries) while protecting the privacy and confidentiality of the Medicare beneficiaries. This was achieved through de-identification in three steps. In Step 1, some of the profiles are coarsened so that every profile contains at least 30 beneficiaries. This was done by local suppression, that is, by making the actual value of some chronic conditions missing/blank. Hence, even though the entire list of chronic conditions is available in the file, the values for some of the chronic condition indicators are not provided for some of the profiles. The following chronic condition indicators are affected by local suppression:

- 1) Alzheimer's Disease and Related Disorders or Senile Dementia
- 2) Cancer
- 3) Chronic Obstructive Pulmonary Disease
- 4) Depression
- 5) Osteoporosis
- 6) Stroke/Transient Ischemic Attack

The number of beneficiaries in such profiles constitutes a very small percentage of the Medicare population. Table 1 provides descriptive statistics for the effect of this aggregation. Because of this step, six chronic conditions listed above are suppressed for 768 profiles in the *CMS 2008 Chronic Conditions PUF*. Hence, it is not possible to determine whether or not the beneficiaries in such profiles have a particular chronic condition. Also, the cost and/or utilization measures in such coarsened profiles are weighted averages over profiles that are combined together by the local suppression.

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[http://www.ccwdata.org/cs/groups/public/documents/document/ccw\\_conditioncategories.pdf](http://www.ccwdata.org/cs/groups/public/documents/document/ccw_conditioncategories.pdf)

Table 1. Aggregation of Profiles in Step 1 in the *CMS 2008 Chronic Conditions PUF*

	Number of Profiles	Number of Beneficiaries*	Percentage of Profiles	Percentage of Beneficiaries*
All chronic conditions available	20,596	47,639,369	96.41%	99.56%
Six chronic conditions suppressed	768	211,038	3.59%	0.44%
Total in the PUF	21,364	47,850,407	100%	100%

\* The number of beneficiaries presented in this table refers to the number of beneficiaries enrolled in Medicare Part A or Part B for at least one month in 2008. These values are not available in the *2008 Chronic Conditions PUF*.

In Step 2, all cost and/or utilization measures are replaced with missing/blank if the number of beneficiaries for a particular block is less than 30. For example, if there are only 8 beneficiaries with enrollment in Part A for 12 months for a particular profile, then none of the cost and/or utilization measures are reported for that block. Note that the measures are available for other blocks (e.g., beneficiaries with enrollment in Part A for less than 12 months) in the same profile as long as they contain at least 30 beneficiaries. Table 2 shows the effect of this suppression.

In Step 3, a cost and/or utilization measure is replaced with missing/blank if the number of beneficiaries with at least one claim (for the relevant service) is less than 11. For example, if there are only 8 beneficiaries with at least one inpatient admission in a particular block, then the cost and/or utilization measures for inpatient services are not reported for that block. Note that the measures are available for other blocks in the same profile as long as there are at least 11 beneficiaries with a claim. This also applies to the variables that contain the average total Medicare reimbursement for each block (e.g., average Medicare payment per beneficiary for all Part A services for beneficiaries with enrollment in Part A for 12 months). That is, the calculation of every measure in the PUF is based on at least 11 beneficiaries with a claim associated with that measure. Table 3 shows the effect of this suppression by individual variables. Note that the number of enrolled beneficiaries in each block is not suppressed in this step.

The following properties are also worth noting:

- The number of rows (or records) in the *CMS 2008 Chronic Conditions PUF* is equal to the number of unique profiles in the Medicare population. Hence, the file allows for comparison of cost and/or utilization statistics for 21,364 unique types of beneficiaries covered by Medicare in 2008.
- All Medicare payment variables are based on actual payments as provided in the BASF or respective Medicare claims data sets.
- All cost and/or utilization measures are averages per *enrolled* beneficiaries, but not per actual users of Medicare services. Hence, the denominators in the calculation of these

measures are the number of enrolled beneficiaries who could have had a claim rather than the beneficiaries who actually had a claim. The denominators that are used are also provided in the *CMS 2008 Chronic Conditions PUF* for each block (see above).

- The source files for the *CMS 2008 Chronic Conditions PUF* are the Medicare FFS claims for the entire Medicare population. Hence, the information that is contained in the file provides precise estimates regarding costs and/or utilization in Medicare programs.
- The *CMS 2008 Chronic Conditions PUF* does not exclude any beneficiaries (e.g., under 65 years of age, enrolled only in Part A or Part B, or part-year enrollees). Instead, the beneficiaries are divided into different groups defined by their characteristics such as age, chronic conditions, and enrollment in Medicare programs.
- The *CMS 2008 Chronic Conditions PUF* is organized such that the first 15 variables constitute the profile variables. Also, the records are sorted by the profile variables in the same order as they appear in the PUF.

## 6. Analytic Utility of the PUF

The *CMS 2008 Chronic Conditions PUF* is designed so that utilization of various Medicare services can be compared for different types of beneficiaries, who are defined by gender, age categories, 11 types of chronic conditions, and enrollment characteristics. The profiles can be used to analyze the impact of a particular characteristic while controlling for many other factors including co-morbidities provided by the chronic conditions.

Note that beneficiaries may be enrolled in “Part A only,” “Part B only,” and “Part A and Part B” plans, or may be enrolled in a Part C plan in any given month. Beneficiaries may be enrolled in a particular plan for a full year or change their type of enrollment from one month to another. Users should not add up the number of beneficiaries provided for different blocks because beneficiaries are accounted for in more than one variable. For example, a beneficiary can be counted both in the number of beneficiaries with less than 12 months of Part A enrollment and in the number of beneficiaries with less than 12 months of Part B enrollment. The *CMS 2008 Chronic Conditions PUF* does not contain a variable with the total number of enrolled Medicare beneficiaries (regardless of the enrolled Medicare program).<sup>4</sup> However, CMS provides more aggregated statistics separately on the CMS website, and users are encouraged to review that information.<sup>5</sup>

As detailed above, the information for small profiles is suppressed in the *CMS 2008 Chronic Conditions PUF*. Table 4 provides the distribution of beneficiaries for each of the blocks prior to

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<sup>4</sup> The total number of beneficiaries enrolled in Medicare Part A or Part B for at least one month in 2008 is 47,850,407, as shown in Table 1 above.

<sup>5</sup> [http://www.cms.gov/BSAPUFS/downloads/2008\\_Enrollment\\_and\\_User\\_Rates.pdf](http://www.cms.gov/BSAPUFS/downloads/2008_Enrollment_and_User_Rates.pdf)



any suppression. Table 5 provides the distribution of beneficiaries for each of the blocks in the *CMS 2008 Chronic Conditions PUF* (after suppression). Table 6 provides the percentage of suppression by gender and age categories.

The construction of the variables in the *CMS 2008 Chronic Conditions PUF* is detailed in the Data Dictionary. Users interested in the source variables and their relationships to the variables in the *CMS 2008 Chronic Conditions PUF* are encouraged to review the Data Dictionary. Further information about the source files and variables is available on the CCW website.<sup>6</sup>

It is worth noting that the creation of the CCW chronic condition indicators requires rigorous algorithms based on clinical information from the FFS claims and the coverage criteria. These indicators are calculated for each beneficiary and year by searching for utilization patterns (e.g., ICD-9 diagnosis codes) in Medicare FFS claims during the period of interest. The CCW indicators and the corresponding chronic condition indicators in the *CMS 2008 Chronic Conditions PUF* are provided in Table 7. A particular chronic condition indicator in the *CMS 2008 Chronic Conditions PUF* is set equal to 0 if the CCW indicator is equal to 0 or 2 and set equal to 1 if the CCW indicator is equal to 1 or 3. Because the existence of FFS claims is central to determination of the existence of a particular condition for each beneficiary, the indicators in the *CMS 2008 Chronic Conditions PUF* are not reliable for beneficiaries enrolled in Medicare Part C. Because there are very few claims, if at all, submitted to CMS for beneficiaries enrolled in Part C, identification of chronic conditions is seldom possible for such beneficiaries. Hence, the *CMS 2008 Chronic Conditions PUF* understates the prevalence of chronic conditions among those enrolled in Part C. However, over 17 percent beneficiaries enrolled in Part C for some or all of 2008 have at least one chronic condition indicated as the result of claims submitted to CMS.

## 7. Support for the PUF and Further Information

Questions about the *CMS 2008 Chronic Conditions PUF* can be submitted to the Research Data Assistance Center (ResDAC)<sup>7</sup> at the University of Minnesota by calling 1-888-9RESDAC or by sending an email to [resdac@umn.edu](mailto:resdac@umn.edu).

Users can request any of the files used in the construction of the *CMS 2008 Chronic Conditions PUF* or any other CMS data files by following the instructions on the CMS website.<sup>8</sup>

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<sup>6</sup> <http://www.ccwdata.org/data-dictionaries/index.htm>  
[http://www.ccwdata.org/cs/groups/public/documents/document/ccw\\_techguideresearchers.pdf](http://www.ccwdata.org/cs/groups/public/documents/document/ccw_techguideresearchers.pdf)  
[http://www.ccwdata.org/cs/groups/public/documents/document/ccw\\_conditioncategories.pdf](http://www.ccwdata.org/cs/groups/public/documents/document/ccw_conditioncategories.pdf)

<sup>7</sup> <http://www.resdac.org/>

<sup>8</sup> <http://www.cms.gov/FilesForOrderGenInfo/>

Table 2. Suppression of Blocks in Step 2 in the *CMS 2008 Chronic Conditions PUF*

Block/Segment	Number of Suppressed Profiles	Number of Profiles	Percentage of Suppressed Profiles	Number of Suppressed Beneficiaries	Number of Beneficiaries*	Percentage of Suppressed Beneficiaries
	(a)	(b)	(c) = (a)/(b)	(d)	(e)	(f) = (d)/(e)
Less Than 12 Months of Part A Enrollment	12,243	21,364	57.3%	150,141	5,133,246	2.9%
12 Months of Part A Enrollment	1,741	21,364	8.1%	43,702	32,667,924	0.1%
Less Than 12 Months of Part B Enrollment	12,133	21,364	56.8%	149,695	5,011,559	3.0%
12 Months of Part B Enrollment	1,667	21,364	7.8%	42,031	29,884,499	0.1%
Less Than 12 Months of Part C Enrollment	18,392	21,364	86.1%	100,080	1,997,680	5.0%
12 Months of Part C Enrollment	19,206	21,364	89.9%	62,665	9,012,358	0.7%
Less Than 12 Months of Part D Enrollment	13,884	21,364	65.0%	151,237	3,532,453	4.3%
12 Months of Part D Enrollment	4,569	21,364	21.4%	86,262	23,997,077	0.4%

\* The number of beneficiaries in the Medicare population prior to any suppression.

Table 3. Suppression of Individual Variables in Step 3 in the *CMS 2008 Chronic Conditions PUF*

Variable Name	Number of Suppressed Profiles	Number of Unsuppressed Profiles After Step 2	Percentage of Suppressed Profiles <sup>(1)</sup>
	(a)	(b)	(c) = (a)/(b)
AVE_PA_PAY_PA_LT_12	74	9,121	0.8%
AVE_IP_PAY_PA_LT_12	1,040	9,121	11.4%
AVE_SNF_PAY_PA_LT_12	2,391	9,121	26.2%
AVE_OTH_PAY_PA_LT_12	2,391	9,121	26.2%
AVE_IP_ADM_PA_LT_12	1,040	9,121	11.4%
AVE_SNF_DAYS_PA_LT_12	2,391	9,121	26.2%
AVE_PA_PAY_PA_EQ_12	128	19,623	0.7%
AVE_IP_PAY_PA_EQ_12	2,662	19,623	13.6%
AVE_SNF_PAY_PA_EQ_12	5,995	19,623	30.6%
AVE_OTH_PAY_PA_EQ_12	5,995	19,623	30.6%
AVE_IP_ADM_PA_EQ_12	2,662	19,623	13.6%
AVE_SNF_DAYS_PA_EQ_12	5,995	19,623	30.6%
AVE_PB_PAY_PB_LT_12	0	9,231	0.0%
AVE_CA_PAY_PB_LT_12	0	9,231	0.0%
AVE_OP_PAY_PB_LT_12	320	9,231	3.5%
AVE_OTH_PAY_PB_LT_12	320	9,231	3.5%
AVE_CA_VST_PB_LT_12	0	9,231	0.0%
AVE_OP_VST_PB_LT_12	320	9,231	3.5%
AVE_PB_PAY_PB_EQ_12	0	19,697	0.0%
AVE_CA_PAY_PB_EQ_12	0	19,697	0.0%
AVE_OP_PAY_PB_EQ_12	103	19,697	0.5%
AVE_OTH_PAY_PB_EQ_12	103	19,697	0.5%
AVE_CA_VST_PB_EQ_12	0	19,697	0.0%
AVE_OP_VST_PB_EQ_12	103	19,697	0.5%
AVE_PDE_CST_PD_LT_12	0	7,480	0.0%
AVE_PDE_PD_LT_12	0	7,480	0.0%
AVE_PDE_CST_PD_EQ_12	0	16,795	0.0%
AVE_PDE_PD_EQ_12	0	16,795	0.0%

Table 4. Distribution of Beneficiaries by Gender and Age Categories in 2008 before Suppression

	Beneficiaries with At Least One Month of Part A and/or Part B Enrollment*	Beneficiaries with Less Than 12 Months of Part A Enrollment	Beneficiaries with 12 Months of Part A Enrollment	Beneficiaries with Less Than 12 Months of Part B Enrollment	Beneficiaries with 12 Months of Part B Enrollment	Beneficiaries with Less Than 12 Months of Part C Enrollment	Beneficiaries with 12 Months of Part C Enrollment	Beneficiaries with Less Than 12 Months of Part D Enrollment	Beneficiaries with 12 Months of Part D Enrollment
<b>Male</b>									
Under 65	4,129,554	540,747	3,100,158	589,819	2,630,347	166,748	457,091	386,156	2,282,133
65 - 69	5,503,205	1,107,481	3,373,706	972,400	2,746,836	337,487	854,765	570,466	1,952,372
70 - 74	4,158,953	194,594	2,997,332	210,151	2,726,220	123,959	917,693	160,501	1,995,799
75 - 79	3,235,440	174,877	2,257,628	178,178	2,135,308	95,280	750,027	136,612	1,509,501
80 - 84	2,377,013	170,119	1,643,536	170,151	1,588,321	76,788	510,914	128,359	1,065,942
85 & Older	1,956,111	224,068	1,317,547	223,049	1,239,234	77,818	349,260	169,189	795,011
<b>Total</b>	<b>21,360,276</b>	<b>2,411,886</b>	<b>14,689,907</b>	<b>2,343,748</b>	<b>13,066,266</b>	<b>878,080</b>	<b>3,839,750</b>	<b>1,551,283</b>	<b>9,600,758</b>
<b>Female</b>									
Under 65	3,712,936	503,463	2,701,694	539,767	2,343,922	181,421	477,646	373,498	2,271,490
65 - 69	6,085,967	1,169,153	3,593,792	1,058,564	3,145,068	417,640	1,080,113	710,399	2,625,082
70 - 74	4,863,289	203,240	3,442,329	215,850	3,280,330	143,049	1,147,232	161,766	2,789,843
75 - 79	4,161,238	195,829	2,901,734	199,890	2,838,203	119,866	991,170	158,447	2,435,997
80 - 84	3,574,932	215,462	2,515,655	217,102	2,485,192	107,792	768,674	183,642	2,056,408
85 & Older	4,091,769	434,213	2,822,813	436,638	2,725,518	149,832	707,773	393,418	2,217,499
<b>Total</b>	<b>26,490,131</b>	<b>2,721,360</b>	<b>17,978,017</b>	<b>2,667,811</b>	<b>16,818,233</b>	<b>1,119,600</b>	<b>5,172,608</b>	<b>1,981,170</b>	<b>14,396,319</b>
<b>Total</b>	<b>47,850,407</b>	<b>5,133,246</b>	<b>32,667,924</b>	<b>5,011,559</b>	<b>29,884,499</b>	<b>1,997,680</b>	<b>9,012,358</b>	<b>3,532,453</b>	<b>23,997,077</b>

\* This variable is not provided in the *CMS 2008 Chronic Conditions PUF*.

Table 5. Distribution of Beneficiaries by Gender and Age Categories in 2008 after Suppression

	Beneficiaries with Less Than 12 Months of Part A Enrollment	Beneficiaries with 12 Months of Part A Enrollment	Beneficiaries with Less Than 12 Months of Part B Enrollment	Beneficiaries with 12 Months of Part B Enrollment	Beneficiaries with Less Than 12 Months of Part C Enrollment	Beneficiaries with 12 Months of Part C Enrollment	Beneficiaries with Less Than 12 Months of Part D Enrollment	Beneficiaries with 12 Months of Part D Enrollment
<b>Male</b>								
Under 65	532,321	3,098,215	581,444	2,628,160	161,034	454,123	377,473	2,277,522
65 - 69	1,098,421	3,370,411	963,281	2,743,745	331,300	851,120	560,913	1,946,453
70 - 74	183,764	2,994,063	199,396	2,723,153	116,862	913,364	149,657	1,989,471
75 - 79	162,956	2,253,813	166,199	2,131,773	87,757	745,407	125,083	1,501,517
80 - 84	157,499	1,639,411	157,603	1,584,278	69,324	506,026	115,924	1,056,527
85 & Older	210,793	1,312,627	209,844	1,234,546	70,090	344,007	155,594	785,772
<b>Total</b>	<b>2,345,754</b>	<b>14,668,540</b>	<b>2,277,767</b>	<b>13,045,655</b>	<b>836,367</b>	<b>3,814,047</b>	<b>1,484,644</b>	<b>9,557,262</b>
<b>Female</b>								
Under 65	493,363	2,699,613	529,657	2,341,618	174,182	473,817	363,489	2,266,898
65 - 69	1,157,355	3,590,232	1,046,952	3,141,684	409,158	1,075,170	698,673	2,618,579
70 - 74	188,630	3,438,578	201,281	3,276,890	133,444	1,141,487	147,326	2,782,544
75 - 79	179,631	2,897,776	183,613	2,834,404	109,402	984,613	142,321	2,428,078
80 - 84	198,858	2,511,402	200,524	2,481,319	96,777	761,416	166,653	2,048,318
85 & Older	419,514	2,818,081	422,070	2,720,898	138,270	699,143	378,110	2,209,136
<b>Total</b>	<b>2,637,351</b>	<b>17,955,682</b>	<b>2,584,097</b>	<b>16,796,813</b>	<b>1,061,233</b>	<b>5,135,646</b>	<b>1,896,572</b>	<b>14,353,553</b>
<b>Total</b>	<b>4,983,105</b>	<b>32,624,222</b>	<b>4,861,864</b>	<b>29,842,468</b>	<b>1,897,600</b>	<b>8,949,693</b>	<b>3,381,216</b>	<b>23,910,815</b>

Table 6. Suppression by Gender and Age Categories in the *CMS 2008 Chronic Conditions PUF\**

	Beneficiaries with Less Than 12 Months of Part A Enrollment	Beneficiaries with 12 Months of Part A Enrollment	Beneficiaries with Less Than 12 Months of Part B Enrollment	Beneficiaries with 12 Months of Part B Enrollment	Beneficiaries with Less Than 12 Months of Part C Enrollment	Beneficiaries with 12 Months of Part C Enrollment	Beneficiaries with Less Than 12 Months of Part D Enrollment	Beneficiaries with 12 Months of Part D Enrollment
<b>Male</b>								
Under 65	1.6%	0.1%	1.4%	0.1%	3.4%	0.6%	2.2%	0.2%
65 - 69	0.8%	0.1%	0.9%	0.1%	1.8%	0.4%	1.7%	0.3%
70 - 74	5.6%	0.1%	5.1%	0.1%	5.7%	0.5%	6.8%	0.3%
75 - 79	6.8%	0.2%	6.7%	0.2%	7.9%	0.6%	8.4%	0.5%
80 - 84	7.4%	0.3%	7.4%	0.3%	9.7%	1.0%	9.7%	0.9%
85 & Older	5.9%	0.4%	5.9%	0.4%	9.9%	1.5%	8.0%	1.2%
<b>Total</b>	<b>2.7%</b>	<b>0.1%</b>	<b>2.8%</b>	<b>0.2%</b>	<b>4.8%</b>	<b>0.7%</b>	<b>4.3%</b>	<b>0.5%</b>
<b>Female</b>								
Under 65	2.0%	0.1%	1.9%	0.1%	4.0%	0.8%	2.7%	0.2%
65 - 69	1.0%	0.1%	1.1%	0.1%	2.0%	0.5%	1.7%	0.2%
70 - 74	7.2%	0.1%	6.7%	0.1%	6.7%	0.5%	8.9%	0.3%
75 - 79	8.3%	0.1%	8.1%	0.1%	8.7%	0.7%	10.2%	0.3%
80 - 84	7.7%	0.2%	7.6%	0.2%	10.2%	0.9%	9.3%	0.4%
85 & Older	3.4%	0.2%	3.3%	0.2%	7.7%	1.2%	3.9%	0.4%
<b>Total</b>	<b>3.1%</b>	<b>0.1%</b>	<b>3.1%</b>	<b>0.1%</b>	<b>5.2%</b>	<b>0.7%</b>	<b>4.3%</b>	<b>0.3%</b>
<b>Total</b>	<b>2.9%</b>	<b>0.1%</b>	<b>3.0%</b>	<b>0.1%</b>	<b>5.0%</b>	<b>0.7%</b>	<b>4.3%</b>	<b>0.4%</b>

\* The percentages in this table are calculated using the values in Table 4 and Table 5.

Table 7. Chronic Condition Indicators in the *CMS 2008 Chronic Conditions PUF*

CCW Indicator Value*	CCW Indicator Description	Chronic Condition Indicator in the <i>CMS 2008 Chronic Conditions PUF</i>
0	Neither claims nor coverage met	0
1	Claims met, coverage not met	1
2	Claims not met, coverage met	0
3	Claims and coverage met	1

\* See [http://www.ccwdata.org/cs/groups/public/documents/document/ccw\\_techguideresearchers.pdf](http://www.ccwdata.org/cs/groups/public/documents/document/ccw_techguideresearchers.pdf)  
[http://www.ccwdata.org/cs/groups/public/documents/document/ccw\\_conditioncategories.pdf](http://www.ccwdata.org/cs/groups/public/documents/document/ccw_conditioncategories.pdf)