

CMS 2010 Basic Stand Alone (BSA) Hospice Beneficiary Public Use File (PUF)

Frequently Asked Questions (FAQ)

1. What is the *CMS 2010 BSA Hospice Beneficiary PUF*?

The *CMS 2010 BSA Hospice Beneficiary PUF* is a free downloadable file containing a subset of the information contained on Hospice claims provided to a 5% sample of 2010 Medicare beneficiaries. There are 5,192 records in the file with a total is 56,943 beneficiaries. Each record includes:

1. Gender of the beneficiary;
2. Age of the beneficiary at the end of 2010, reported as (1) under 65 years of age; (2) 65 to 69; (3) 70 to 74; (4) 75 to 79; (5) 80 to 84; (6) 85 to 89; and (7) 90 or older;
3. Terminal illness/diagnosis code for the beneficiary (defined below);
4. Indicator for whether or not the diagnosis is cancerous (also defined below);
5. Number of covered days for the beneficiary;
6. Indicator for whether or the beneficiary was deceased at discharge;
7. Rounded Medicare payment for the Hospice claims of the beneficiary; and
8. Number of beneficiaries for each combination of values for the seven variables above.

2. How was this PUF created?

The *CMS 2010 BSA Hospice Beneficiary PUF* originates from a disjoint 5% random sample of beneficiaries from the 100% Beneficiary Summary File for 2010. To exclude any overlap with the beneficiaries in the existing 5% CMS research sample,¹ the beneficiaries in that other sample were excluded, and a 5-in-95 random draw was made of the remaining 95% of beneficiaries. All Hospice claims for the selected 5% of beneficiaries were then included in the sample from which the *CMS 2010 BSA Hospice Beneficiary PUF* was developed.

The selected beneficiaries were subjected to a thorough de-identification process. The methods used to protect the identity of beneficiaries are described in the answer to the next question.

3. What has been done to protect the privacy of Medicare beneficiaries?

Of paramount importance in the release of the PUF is the protection of beneficiary confidentiality. To that end, all directly identifiable information has been removed in accordance with the HIPAA Privacy Rules.

Other important steps were taken:

¹ http://www.resdac.org/tools/TBs/TN-011_How5percentMedicarefilescreated_508.pdf

- Only a small subset of possible variables was selected for inclusion in the file. This reduced the possible information that could be used to identify the beneficiaries included in the new 5% sample.
- For the variables selected for inclusion, categorization was used to protect identities. For example, in place of date of birth or current age in years, the file was created with age categorized into seven intervals: (1) under 65 years of age; (2) 65 to 69; (3) 70 to 74; (4) 75 to 79; (5) 80 to 84; (6) 85 to 89; and (7) 90 and older. This categorization allows researchers to differentiate patterns in other data (e.g., in the frequency of a particular diagnosis at hospital admission) between younger and older beneficiaries but not to use age or date of birth as a highly identifying variable.
- The final protection was provided by excluding about 1.2% of records from the final PUF, those for which the combination of values for all seven variables in the file were extremely uncommon in the Medicare population. No combination that occurred for fewer than 11 beneficiaries in the full Medicare population was allowed into the final PUF. This criterion tended to exclude beneficiaries with uncommon values in variables such as days of service and Medicare payment.

4. Why is this file a beneficiary-level file and not a claim-level?

The Hospice benefit provides care and support for the terminally ill focusing on comfort, not on curing an illness. Beneficiary is therefore a better unit of analysis than claim.

5. How was provider confidentiality protected?

There is no risk of provider identification in the *CMS 2010 BSA Hospice Beneficiary PUF* as the PUF does not contain any information about individual providers.

6. Hospice claims can have multiple diagnoses, but I only see one diagnosis in the *CMS 2010 BSA Hospice Beneficiary PUF*. What exactly is the diagnosis in this PUF?

The variable HOSPC_DX_CD is a categorical variable describing the patient's terminal illness. It was created using the ICD-9 CM primary diagnosis code on the first claim at admission (ICD9_DGNS_CD1) for the beneficiary in the Medicare Hospice claims file. This variable provides the terminal illness for the first five most frequent categories in the population of Medicare beneficiaries and all other diagnoses are grouped under a sixth value.

7. What diagnosis code is presented for beneficiaries who choose to leave hospice and are later re-admitted?

In the rare case that a beneficiary had more than one Hospice admission during 2010, the diagnosis on the first Hospice admission is reported in the *CMS 2010 BSA Hospice Beneficiary PUF*.

8. How are the ICD-9 CM primary diagnosis codes categorized into the terminal diagnosis codes in the *CMS 2010 BSA Hospice Beneficiary PUF*?

The criteria are taken from “Medicare Hospice Data Trends report: 1998-2009” available at https://www.cms.gov/Hospice/20_Medicare_Hospice_Data.asp. The exact ICD-9 CM codes that are included in each category are described in the *CMS 2010 Basic Stand Alone (BSA) Hospice Beneficiary Public Use File (PUF) General Documentation*.

9. How can I use the HOSPC_CANCER_CD variable?

This variable is created directly from the ICD-9 CM primary diagnosis code. Hence, the HOSPC_CANCER_CD is consistent with the HOSPC_DX_CD variable. HOSPC_CANCER_CD variable allows users to separate the “Other” category of the HOSPC_DX_CD into cancer and no-cancer.

10. How are the days categorized in the *CMS 2010 BSA Hospice Beneficiary PUF*?

Hospice care is given in periods of care. A beneficiary can get hospice care for two 90-day periods followed by an unlimited number of 60-day periods. A period of care starts the day the beneficiary begins to get hospice care. It ends when either the 90-day or 60-day period ends. To reflect the fact that a high percentage of beneficiaries dies within the first 30 days after admission to hospice care, the *CMS 2010 HOSPICE Beneficiary PUF* includes two additional categories (1-7 days and 8-30 days).

11. Is the variable HOSPC_DAYS_CD the same as length of stay?

HOSPC_DAYS_CD is based on the total number of days a beneficiary was under hospice care in 2010. Beneficiaries can voluntarily leave hospice care at any time and, if eligible, be readmitted to hospice care at a later time. Since the *CMS 2010 HOSPICE Beneficiary PUF* is based on claims ending in 2010, HOSPC_DAY_CD does not include days of hospice care for a beneficiary who had begun hospice care before 2010 or was still in hospice care at the end of 2010. For these reasons, HOSPC_DAYS_CD is not necessarily the same as length of stay. Please refer to General Documentation for additional information.

12. Are there beneficiaries who were in hospice care before 2010 in the file?

Yes, some beneficiaries in the *CMS 2010 HOSPICE Beneficiary PUF* may have entered hospice care before 2010. However, the *CMS 2010 HOSPICE Beneficiary PUF* does not allow users to distinguish such cases. Please refer to General Documentation for additional information.

13. Are there beneficiaries who were still not discharged by December 31st 2010 in the file?

Yes, some beneficiaries in the *CMS 2010 HOSPICE Beneficiary PUF* may still be in hospice care on December 31st, 2010. However, the *CMS 2010 HOSPICE Beneficiary PUF* does not allow users to distinguish such cases. Please refer to General Documentation for additional information.

14. Why are the age categories different in the CMS 2010 HOSPICE Beneficiary PUF from the other Basic Stand Alone PUFs?

The nature of hospice care is different from other types of care because the focus is the palliation of a terminally ill patient's symptoms. As a result the *CMS 2010 HOSPICE Beneficiary PUF* includes beneficiaries who are older, on average, than beneficiaries that are present in the other BSA PUFs. The user can combine the last two age categories (85-89 and 90 or older) to obtain a consistent age categorization across the Basic Stand Alone PUFs.

15. Can you explain what the HOSPC_DECEASED_CD variable means?

If the value of the HOSPC_DECEASED_CD is equal to 1, then it means that the beneficiary was discharged deceased at the end of the hospice care. A value of 0 means either that the beneficiary was discharged alive (i.e., left hospice care) or that the beneficiary is still in hospice care. The latter can happen if the beneficiary is still in hospice care at the end of 2010.

16. How is the HOSPC_PMT_AMT calculated?

This variable is the sum of all the payments made by Medicare for a beneficiary's hospice claims ending in 2010. It is also the sum over all the admissions, if a beneficiary has multiple admissions in 2010.

17. How is the CMS 2010 BSA Hospice Beneficiary PUF different from the 5% CMS standard research sample?

There is no overlap in terms of beneficiaries between the 5% CMS standard research sample and the *CMS 2010 BSA Hospice Beneficiary PUF*. These two 5% samples are disjoint.

18. What are the limitations of the CMS 2010 BSA Hospice Beneficiary PUF?

The *CMS 2010 BSA Hospice Beneficiary PUF* is intended to give researchers a convenient initial look at data drawn from CMS Hospice claims. The file contains measures of demographic characteristics of beneficiaries, terminal diagnosis, covered days of hospice care, and Medicare payment amount. In order to preserve confidentiality, suppression criteria have been applied to variables and beneficiaries on the initial file. Some variables are rounded or categorized. Researchers should read the General Documentation and the Data Dictionary and Codebook to determine the appropriateness of the PUF for addressing specific research questions.

19. How may I request additional data?

See the Files for Order section of the CMS Web site <http://www.cms.gov/home/rsds.asp>. This site lists available CMS data files, data file properties, information about data-use agreements, as well as ordering and payment information.

20. How may I provide feedback on the CMS 2010 BSA Hospice Beneficiary PUF?

Questions and comments can be submitted to Research Data Assistance Center (<http://www.resdac.org/>) via resdac@umn.edu or 1-888-9RESDAC.