**VERSION HISTORY**

|  |  |  |  |
| --- | --- | --- | --- |
| **SL NO.** | **Document Version** | **Revision Date** | **Revision Description** |
| 1 | Version 1.0 | 04/8/2020 | Initial Draft   * + - 1. Table of content       2. Document Objective       3. Source Data Description       4. High Level Data Flow       5. Integration Layer Schema       6. Data Mart Schema |
| 2 | Version 1.1 | 4/23/2018 | Source Data Description   * Changed Data set – added 3 new datasets with description and removed 2 old data sets   Improved High level Diagram  Modified Integration Layer Schema  Modified Data Mart Schema  Modified mapping of data fields |

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1. **DOCUMENT OBJECTIVE:**

The objective of the document is to provide information about the enterprise data warehouse design in the sense of data flow from source table to destination table in data warehouse and then into the data mart, and the mapping of each and every field throughout the staging area to data mart star schema.

1. **SOURCE DATA DESCRIPTION:**

* Each dataset was gathered from online CMS data repository available for free for the public use.
* The data was collected for three years- 2015,2016.

1. Legacy Medicare Provider Utilization and Payment Data: Hospice Providers

The Hospice Utilization and Payment Public Use File (Hospice PUF) provides information on services provided to Medicare beneficiaries by hospice providers. The dataset contains sites of service, information on utilization, payment, charges, primary diagnoses, and hospice beneficiary demographics organized by CMS Certification Number (6-digit provider identification number) and state.

Key Column: Provider ID

Link: [https://www.cms.gov/Research-Statistics-Data-and-Systems/Statistics-Trends-and- Reports/Medicare-Provider-Charge-Data/Hospice2016](https://www.cms.gov/Research-Statistics-Data-and-Systems/Statistics-Trends-and-%20%20%20%20%20%20%20%20%20%20%20%20Reports/Medicare-Provider-Charge-Data/Hospice2016)

1. Legacy Medicare Provider Utilization and Payment Data: Skilled Nursing Facilities

The Skilled Nursing Facility Utilization and Payment Public Use File (Skilled Nursing Facility PUF) provides information on services provided to Medicare beneficiaries residing in skilled nursing facilities. The Skilled Nursing Facility PUF contains information on utilization, payment (allowed amount, Medicare payment and standard payment), submitted charges, and beneficiary demographic and chronic condition indicators organized by CMS Certification Number (6-digit provider identification number), Resource Utilization Group (RUG), and state of service.

Key Column: Provider ID

Link:<https://www.cms.gov/Research-Statistics-Data-and-Systems/Statistics-Trends-and-Reports/Medicare-Provider-Charge-Data/SNF>

1. Legacy Medicare Provider Utilization and Payment Data: Home Health Agencies

The Home Health Agency Utilization and Payment Public Use File (herein referred to as “Home Health Agency PUF”) presents information on services provided to Medicare beneficiaries by home health agencies. The Home Health Agency PUF contains information on utilization, payment (Medicare payment and standard payment), submitted charges, and demographic and chronic condition indicators organized by CMS Certification Number (6-digit provider identification number), Home Health Resource Group (HHRG), and state of service.

Link: [https://www.cms.gov/Research-Statistics-Data-and-Systems/Statistics-Trends-and- Reports/Medicare-Provider-Charge-Data/HHA](https://www.cms.gov/Research-Statistics-Data-and-Systems/Statistics-Trends-and-%20%20%20%20%20%20%20%20Reports/Medicare-Provider-Charge-Data/HHA)

1. Medicare Provider Utilization and Payment Data: Inpatient

This dataset contains information on services and procedures provided to Medicare

beneficiaries by hospital facilities.

Key Column: Provider ID

Link: <https://www.cms.gov/Research-Statistics-Data-and-Systems/Statistics-Trends-and-Reports/Medicare-Provider-Charge-Data/Inpatient2015> (Detailed Data)

1. Medicare Provider Utilization and Payment Data: Outpatient

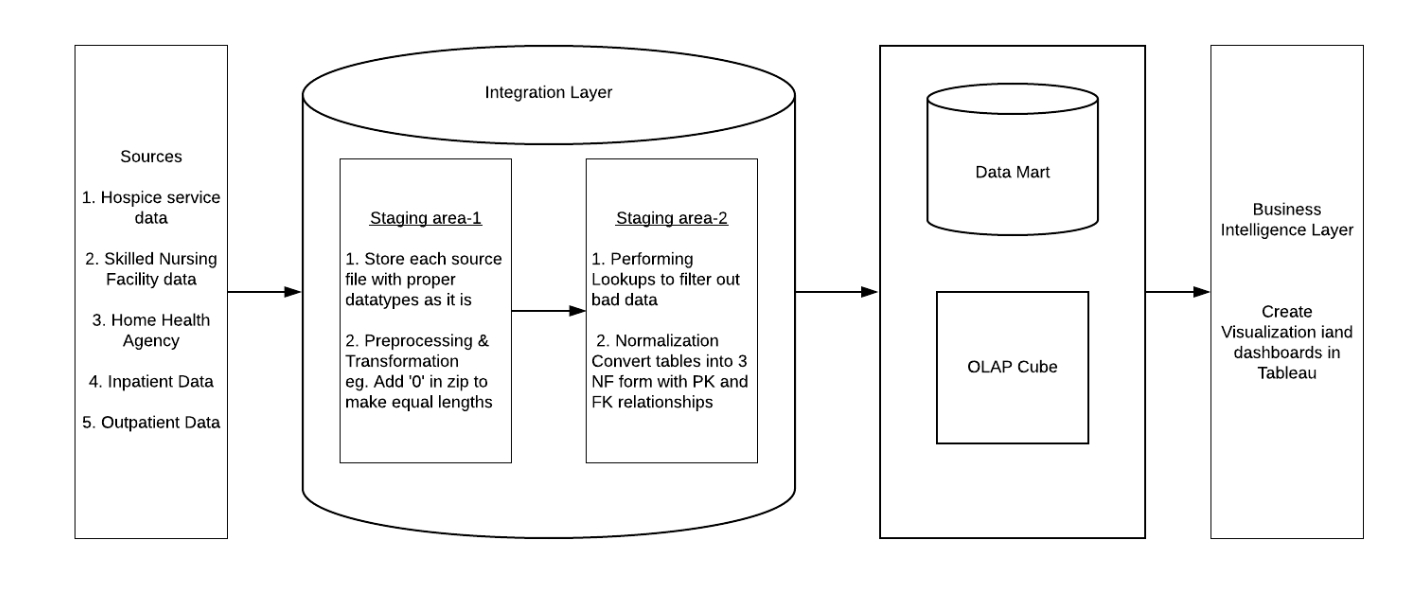
This dataset contains information on services and procedures provided to Medicare

beneficiaries by hospital outpatient facilities.

Key Column: Provider ID

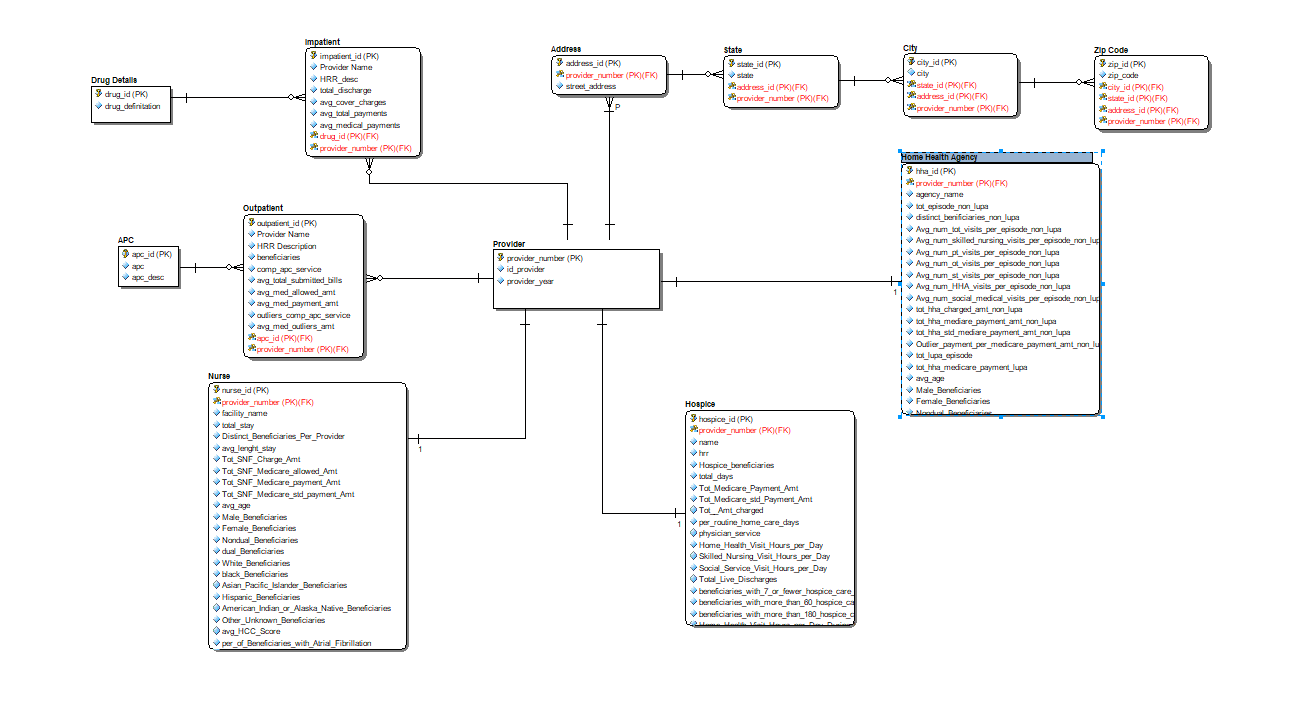
Link: [https://www.cms.gov/Research-Statistics-Data-and-Systems/Statistics-Trends-and- Reports/Medicare-Provider-Charge-Data/Outpatient](https://www.cms.gov/Research-Statistics-Data-and-Systems/Statistics-Trends-and-%20%20%20%20%20Reports/Medicare-Provider-Charge-Data/Outpatient) (Detailed Data)

1. **HIGH LEVEL DATA FLOW:(From Source files to Data Mart)**



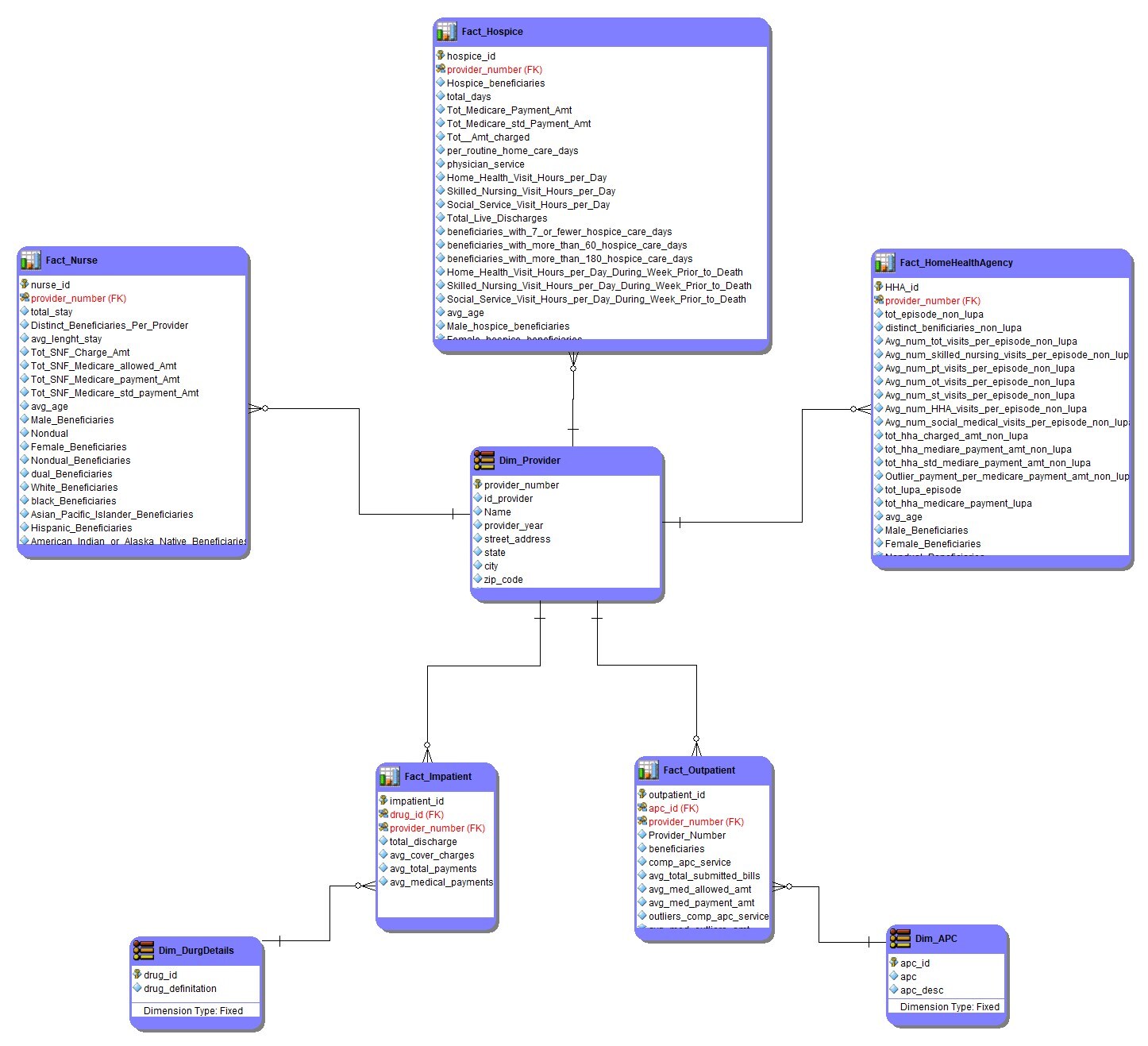
* The data from 5 source file is taken in the staging tables as it is. No transformation has been done on that.
* Then the data is transformed.
* Zip code length is checked and if it is less than 5 the required processing is done to save it accurately.
* Data with acceptable null values are removed.
* Unique key with provider id and year is generated.
* Table with unique addresses is stored.
* Then data is stored in 5 different destination table with year column indicating the year the record belongs to.
* Datamart with required facts and dimension is created that answeres specific business needs.
* In business intelleginece layer, Tableau is connected with the data mart to create a visualizartion showcasing KPIs.

1. **INTEGRATION LAYER SCHEMA (ERD):**



* Data is stored first in the staging table from the source file.
* For fields with business importance, approriate look up is performed to test the quality of the data.
* If each and every lookup checks out, the data is stored in the datawarehouse destination tables for their sources.
* In the destination table, data is stored with respective lookup key and whenever data retirival is required, particular join is made to query the data.
* Storing data in such manner improves efficiency as it reduces working with the text data which takes longer time to process.

1. **DATA MART SCHEMA (ERD):**



* After data is stored in the Data warehouse, Data Mart for a particular business requirement is created.
* The objective of the data mart here is to analyze the performance of a provider in 4 different areas. Hence, we have 4 fact tables.
* The 4 facts share 3 common dimension. Provider name, location and year.
* There are other dimensions specific to one fact table which provides additional information about the provider.
* This data mart can be used further in business intelligence layer.

1. **Mapping of dataset columns**

**Hospice Data**

**Source**

|  |  |  |  |
| --- | --- | --- | --- |
| **Sr. no** | **Columns** | **Description** | **DataSize(Bytes)** |
| 1 | Provider ID | This is provider's Identification Number. | 32 |
| 2 | Name | Name of the provider | 32 |
| 3 | Street Address | street address with the unit number and street name | 32 |
| 4 | City | city of the provider - Full name | 32 |
| 5 | State | state of the provider- two letter short name | 32 |
| 6 | ZIP Code | 4/5 digit zipcode of provider | 32 |
| 7 | HRR | The hospital referral region (HRR) of the hospice provider based on provider ZIP code. | 32 |
| 8 | Hospice beneficiaries | number of people who use the service | 32 |
| 9 | Total Days | Total count of hospice care days provided in the calendar year. Includes first and last day of care. | 32 |
| 10 | Total Medicare Payment Amount | Total amount that Medicare paid for hospice care. Hospice services do not have any cost-sharing requirements and the Medicare payment amount will equal the allowed amount. | 32 |
| 11 | Total Medicare Standard Payment Amount | Total amount that Medicare paid for hospice care adjusted for geographic differences in payment rates. | 32 |
| 12 | Total Charge Amount | Total charges that hospice providers submitted for hospice care. | 32 |
| 13 | Percent Routine Home Care Days | Percent of total number of hospice days that were routine home care (RHC) days. RHC days identified using Revenue Code 0651. | 58 |
| 14 | Physician Services | Total number of hospice care physician services provided. Physician services identified using Revenue Code 0657. | 32 |
| 15 | Home Health Visit Hours per Day | Average number of hours per day of home health aide hospice care provided. Home health visits identified using Revenue Codes 0570, 0571, 0572 and 0579. | 32 |
| 16 | Skilled Nursing Visit Hours per Day | Average number of hours per day of skilled nursing hospice care provided. Skilled nursing visits identified using Revenue Codes 0550, 0551, 0552 and 0559. | 32 |
| 17 | Social Service Visit Hours per Day | Average number of hours per day of social services hospice care provided. Social service visits identified using Revenue Codes 0560, 0561, 0562 and 0569. | 32 |
| 18 | Total Live Discharges | The percent of Medicare beneficiaries who died while receiving hospice care. This variable is available in the State Table. The denominator is the total number of Medicare decedents in the calendar year in the state. | 32 |
| 19 | Hospice beneficiaries with 7 or fewer hospice care days | Number of distinct Medicare beneficiaries with live discharges from hospice care. A hospice beneficiary was considered to have a live discharge if hospice beneficiary did not die in hospice care and was not receiving hospice care. Includes live discharges for any reason including revocation. | 32 |
| 20 | Hospice beneficiaries with more than 60 hospice care days | Number of distinct Medicare beneficiaries with 7 or fewer hospice care days. Excludes hospice beneficiaries whose hospice care continued from a previous calendar year or into the next calendar year. | 32 |
| 21 | Hospice beneficiaries with more than 180 hospice care days | Number of distinct Medicare beneficiaries with more than 60 hospice care days | 32 |
| 22 | Home Health Visit Hours per Day During Week Prior to Death | Number of distinct Medicare beneficiaries with more than 180 hospice care days. | 32 |
| 23 | Skilled Nursing Visit Hours per Day During Week Prior to Death | Average number of hours per day of home health aide hospice care provided during the seven days prior to death. Home health aide visits identified using Revenue Codes 0570, 0571, 0572 and 0579. | 32 |
| 24 | Social Service Visit Hours per Day During Week Prior to Death | Average number of hours per day of social services hospice care provided during the seven days prior to death. Social service visits identified using Revenue Codes 0560, 0561, 0562 and 0569. | 32 |
| 25 | Average Age | Average age of Medicare beneficiaries using hospice care. | 32 |
| 26 | Male hospice beneficiaries | Number of distinct male Medicare beneficiaries receiving at least one day of hospice care in the calendar year. | 32 |
| 27 | Female hospice beneficiaries | Number of distinct female Medicare beneficiaries receiving at least one day of hospice care in the calendar year. | 32 |
| 28 | White hospice beneficiaries | Number of distinct non-Hispanic white Medicare beneficiaries receiving at least one day of hospice care in the calendar year | 32 |
| 29 | Black hospice beneficiaries | Number of distinct black or African American Medicare beneficiaries receiving at least one day of hospice care in the calendar year. | 32 |
| 30 | Asian hospice beneficiaries | Number of distinct Asian/Pacific Islander Medicare beneficiaries receiving at least one day of hospice care in the calendar year. | 32 |
| 31 | Hispanic hospice beneficiaries | Number of distinct Hispanic Medicare beneficiaries receiving at least one day of hospice care in the calendar year | 32 |
| 32 | Other/unknown race hospice beneficiaries | Number of distinct Medicare beneficiaries of other race receiving at least one day of hospice care in the calendar year. This category also includes the count of American Indian/Alaska Native beneficiaries. | 32 |
| 33 | Medicare Advantage hospice beneficiaries | Number of distinct Medicare beneficiaries enrolled in Medicare Advantage for at least one month and receiving at least one day of hospice care in the calendar yea | 32 |
| 34 | Medicaid Eligible hospice beneficiaries | Number of distinct Medicare beneficiaries eligible for Medicaid for at least one month and receiving at least one day of hospice care in the calendar year. | 32 |
| 35 | Hospice beneficiaries with a primary diagnosis of cancer | Number of distinct Medicare beneficiaries receiving hospice care for a primary diagnosis of cancer. Clinical Classifications Software single level diagnosis categories 11-17 were used to define cancer diagnoses. If a hospice beneficiary had more than one primary diagnosis the most frequent diagnosis in terms of hospice care days was used. | 32 |
| 36 | Hospice beneficiaries with a primary diagnosis of dementia | Number of distinct Medicare beneficiaries receiving hospice care for a primary diagnosis of dementia. Clinical Classifications Software single level diagnosis category 653 were used to define dementia diagnoses. If a hospice beneficiary had more than one primary diagnosis the most frequent diagnosis in terms of hospice care days was used | 32 |
| 37 | Hospice beneficiaries with a primary diagnosis of stroke | Number of distinct Medicare beneficiaries receiving hospice care for a primary diagnosis of circulatory/heart disease. Clinical Classifications Software single level diagnosis categories 96-108 and 114-121 were used to define circulatory/heart diagnoses. If a hospice beneficiary had more than one primary diagnosis the most frequent diagnosis in terms of hospice care days was used. | 32 |
| 38 | Hospice beneficiaries with a primary diagnosis of circulatory/heart disease | Number of distinct Medicare beneficiaries receiving hospice care for a primary diagnosis of stroke. Clinical Classifications Software single level diagnosis categories 109-113 were used to define stroke diagnoses. If a hospice beneficiary had more than one primary diagnosis the most frequent diagnosis in terms of hospice care days was used. | 32 |
| 39 | Hospice beneficiaries with a primary diagnosis of respiratory disease |  | 32 |
| 40 | Hospice beneficiaries with other primary diagnoses | Number of distinct Medicare beneficiaries receiving hospice care for a primary diagnosis of respiratory disease. Clinical Classifications Software single level diagnosis categories 127-134 were used to define respiratory diagnoses. If a hospice beneficiary had more than one primary diagnosis the most frequent diagnosis in terms of hospice care days was used | 32 |
| 41 | Site-of-service - Home hospice beneficiaries | Number of distinct Medicare beneficiaries receiving hospice care for a primary diagnosis other than cancer, dementia, circulatory/heart, stroke, or respiratory. If a hospice beneficiary had more than one primary diagnosis the most frequent diagnosis in terms of hospice care days was used. | 32 |
| 42 | Site-of-service - Assisted Living Facility hospice beneficiaries |  | 32 |
| 43 | Site-of-service - Long-term-care or non-skilled Nursing Facility hospice beneficiaries | Number of distinct Medicare beneficiaries receiving the majority of their hospice care days at home. HCPCS code Q5001 indicates care provided in hospice beneficiary's private residence (home). | 32 |
| 44 | Site-of-service - Skilled Nursing Facility hospice beneficiaries | Number of distinct Medicare beneficiaries receiving the majority of their hospice care days in an assisted living facility. HCPCS code Q5002 indicates care provided in an assisted living facility. | 32 |
| 45 | Site-of-service - Inpatient Hospital hospice beneficiaries | Number of distinct Medicare beneficiaries receiving the majority of their hospice care days in a long term care or nonskilled nursing facility. HCPCS code Q5003 indicates care provided in a long term care or non-skilled nursing facility. | 32 |
| 46 | Site-of-service - Inpatient Hospice hospice beneficiaries | Number of distinct Medicare beneficiaries receiving the majority of their hospice care days in an inpatient hospice facility. HCPCS code Q5006 indicates care provided in an inpatient hospice facility | 32 |
| 47 | Site-of-service - Other Facility hospice beneficiaries | Number of distinct Medicare beneficiaries receiving the majority of their hospice care days in a long term care hospital, psychiatric facility, home care in a hospice facility or unknown facility. HCPCS codes Q5007-Q5010 indicate care provided in other facilities. | 32 |

**Staging**

|  |  |  |
| --- | --- | --- |
| **Sr.No** | **Column** | **Datatype** |
| 1 | ProviderID | int |
| 2 | Name | varchar |
| 3 | StreetAddress | varchar |
| 4 | City | varchar |
| 5 | State | varchar |
| 6 | ZIPCode | int |
| 7 | HRR | varchar |
| 8 | Hospicebeneficiaries | int |
| 9 | TotalDays | int |
| 10 | TotalMedicarePaymentAmount | float |
| 11 | TotalMedicareStandardPaymentAmount | float |
| 12 | TotalChargeAmount | float |
| 13 | PercentRoutineHomeCareDays | int |
| 14 | PhysicianServices | int |
| 15 | HomeHealthVisitHoursperDay | int |
| 16 | SkilledNursingVisitHoursperDay | int |
| 17 | SocialServiceVisitHoursperDay | int |
| 18 | TotalLiveDischarges | float |
| 19 | Hospicebeneficiarieswith7orfewerhospicecaredays | int |
| 20 | Hospicebeneficiarieswithmorethan60hospicecaredays | int |
| 21 | Hospicebeneficiarieswithmorethan180hospicecaredays | int |
| 22 | HomeHealthVisitHoursperDayDuringWeekPriortoDeath | float |
| 23 | SkilledNursingVisitHoursperDayDuringWeekPriortoDeath | int |
| 24 | SocialServiceVisitHoursperDayDuringWeekPriortoDeath | int |
| 25 | AverageAge | float |
| 26 | Malehospicebeneficiaries | int |
| 27 | Femalehospicebeneficiaries | int |
| 28 | Whitehospicebeneficiaries | int |
| 29 | Blackhospicebeneficiaries | int |
| 30 | Asianhospicebeneficiaries | int |
| 31 | Hispanichospicebeneficiaries | int |
| 32 | Other/unknownracehospicebeneficiaries | int |
| 33 | MedicareAdvantagehospicebeneficiaries | int |
| 34 | MedicaidEligiblehospicebeneficiaries | int |
| 35 | Hospicebeneficiarieswithaprimarydiagnosisofcancer | int |
| 36 | Hospicebeneficiarieswithaprimarydiagnosisofdementia | int |
| 37 | Hospicebeneficiarieswithaprimarydiagnosisofstroke | int |
| 38 | Hospicebeneficiarieswithaprimarydiagnosisofcirculatory/heartdisease | int |
| 39 | Hospicebeneficiarieswithaprimarydiagnosisofrespiratorydisease | int |
| 40 | Hospicebeneficiarieswithotherprimarydiagnoses | int |
| 41 | Site-of-service-Homehospicebeneficiaries | int |
| 42 | Site-of-service-AssistedLivingFacilityhospicebeneficiaries | int |
| 43 | Site-of-service-Long-term-careornon-skilledNursingFacilityhospicebeneficiaries | int |
| 44 | Site-of-service-SkilledNursingFacilityhospicebeneficiaries | int |
| 45 | Site-of-service-InpatientHospitalhospicebeneficiaries | int |
| 46 | Site-of-service-InpatientHospicehospicebeneficiaries | int |
| 47 | Site-of-service-OtherFacilityhospicebeneficiaries | int |

**Mapping of data fields**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Sr.No** | **SourceTable** | **Sourcefield** | **Destination Table** | **Destination Field** | **Logic** |
| 1 |  |  | Hospice | hospice\_id | identity autoincrement starts with 1 |
| 2 | stg\_hospice | ProviderID | Hospice | provider\_number | FK from Provider table |
| 3 | stg\_hospice | Name | Hospice | name | copied as it is |
| 4 | stg\_hospice | StreetAddress | Hospice | Address | saved in address table with address id |
| 5 | stg\_hospice | City | City | city | saved in city table with city id |
| 6 | stg\_hospice | State | State | state | saved in state table with state id |
| 7 | stg\_hospice | ZIPCode | Hospice | Zipcode | saved in zip code table with zip code id |
| 8 | stg\_hospice | HRR | Hospice | hrr | saved in hrr table with hrr id |
| 9 | stg\_hospice | Hospicebeneficiaries | Hospice | Hospice\_beneficiaries | copied as it is |
| 10 | stg\_hospice | TotalDays | Hospice | total\_days | copied as it is |
| 11 | stg\_hospice | TotalMedicarePaymentAmount | Hospice | Tot\_Medicare\_Payment\_Amt | copied as it is |
| 12 | stg\_hospice | TotalMedicareStandardPaymentAmount | Hospice | Tot\_Medicare\_std\_Payment\_Amt | copied as it is |
| 13 | stg\_hospice | TotalChargeAmount | Hospice | Tot\_\_Amt\_charged | copied as it is |
| 14 | stg\_hospice | PercentRoutineHomeCareDays | Hospice | per\_routine\_home\_care\_days | copied as it is |
| 15 | stg\_hospice | PhysicianServices | Hospice | physician\_service | copied as it is |
| 16 | stg\_hospice | HomeHealthVisitHoursperDay | Hospice | Home\_Health\_Visit\_Hours\_per\_Day | copied as it is |
| 17 | stg\_hospice | SkilledNursingVisitHoursperDay | Hospice | Skilled\_Nursing\_Visit\_Hours\_per\_Day | copied as it is |
| 18 | stg\_hospice | SocialServiceVisitHoursperDay | Hospice | Social\_Service\_Visit\_Hours\_per\_Day | copied as it is |
| 19 | stg\_hospice | TotalLiveDischarges | Hospice | Total\_Live\_Discharges | copied as it is |
| 20 | stg\_hospice | Hospicebeneficiarieswith7orfewerhospicecaredays | Hospice | beneficiaries\_with\_7\_or\_fewer\_hospice\_care\_days | copied as it is |
| 21 | stg\_hospice | Hospicebeneficiarieswithmorethan60hospicecaredays | Hospice | beneficiaries\_with\_more\_than\_60\_hospice\_care\_days | copied as it is |
| 22 | stg\_hospice | Hospicebeneficiarieswithmorethan180hospicecaredays | Hospice | beneficiaries\_with\_more\_than\_180\_hospice\_care\_days | copied as it is |
| 23 | stg\_hospice | HomeHealthVisitHoursperDayDuringWeekPriortoDeath | Hospice | Home\_Health\_Visit\_Hours\_per\_Day\_During\_Week\_Prior\_to\_Death | copied as it is |
| 24 | stg\_hospice | SkilledNursingVisitHoursperDayDuringWeekPriortoDeath | Hospice | Skilled\_Nursing\_Visit\_Hours\_per\_Day\_During\_Week\_Prior\_to\_Death | copied as it is |
| 25 | stg\_hospice | SocialServiceVisitHoursperDayDuringWeekPriortoDeath | Hospice | Social\_Service\_Visit\_Hours\_per\_Day\_During\_Week\_Prior\_to\_Death | copied as it is |
| 26 | stg\_hospice | AverageAge | Hospice | avg\_age | copied as it is |
| 27 | stg\_hospice | Malehospicebeneficiaries | Hospice | Male\_hospice\_beneficiaries | copied as it is |
| 28 | stg\_hospice | Femalehospicebeneficiaries | Hospice | Female\_hospice\_beneficiaries | copied as it is |
| 29 | stg\_hospice | Whitehospicebeneficiaries | Hospice | White\_hospice\_beneficiaries | copied as it is |
| 30 | stg\_hospice | Blackhospicebeneficiaries | Hospice | Black\_hospice\_beneficiaries | copied as it is |
| 31 | stg\_hospice | Asianhospicebeneficiaries | Hospice | Asian\_hospice\_beneficiaries | copied as it is |
| 32 | stg\_hospice | Hispanichospicebeneficiaries | Hospice | Hispanic\_hospice\_beneficiaries | copied as it is |
| 33 | stg\_hospice | Other/unknownracehospicebeneficiaries | Hospice | Other\_unknown\_race\_hospice\_beneficiaries | copied as it is |
| 34 | stg\_hospice | MedicareAdvantagehospicebeneficiaries | Hospice | Medicare\_Advantage\_hospice\_beneficiaries | copied as it is |
| 35 | stg\_hospice | MedicaidEligiblehospicebeneficiaries | Hospice | Medicaid\_Eligible\_hospice\_beneficiaries | copied as it is |
| 36 | stg\_hospice | Hospicebeneficiarieswithaprimarydiagnosisofcancer | Hospice | Hospice\_beneficiaries\_with\_a\_primary\_diagnosis\_of\_cancer | copied as it is |
| 37 | stg\_hospice | Hospicebeneficiarieswithaprimarydiagnosisofdementia | Hospice | Hospice\_beneficiaries\_with\_a\_primary\_diagnosis\_of\_dementia | copied as it is |
| 38 | stg\_hospice | Hospicebeneficiarieswithaprimarydiagnosisofstroke | Hospice | Hospice\_beneficiaries\_with\_a\_primary\_diagnosis\_of\_stroke | copied as it is |
| 39 | stg\_hospice | Hospicebeneficiarieswithaprimarydiagnosisofcirculatory/heartdisease | Hospice | Hospice\_beneficiaries\_with\_a\_primary\_diagnosis\_of\_circulatory\_heart\_disease | copied as it is |
| 40 | stg\_hospice | Hospicebeneficiarieswithaprimarydiagnosisofrespiratorydisease | Hospice | Hospice\_beneficiaries\_with\_a\_primary\_diagnosis\_of\_respiratory\_disease | copied as it is |
| 41 | stg\_hospice | Hospicebeneficiarieswithotherprimarydiagnoses | Hospice | Hospicebeneficiaries\_with\_other\_primary\_diagnoses | copied as it is |
| 42 | stg\_hospice | Site-of-service-Homehospicebeneficiaries | Hospice | SOS\_Home\_hospice\_beneficiaries | copied as it is |
| 43 | stg\_hospice | Site-of-service-AssistedLivingFacilityhospicebeneficiaries | Hospice | SOS\_Assisted\_Living\_Facility\_hospice\_beneficiaries | copied as it is |
| 44 | stg\_hospice | Site-of-service-Long-term-careornon-skilledNursingFacilityhospicebeneficiaries | Hospice | SOS\_Long-term-care\_or\_non-skilled\_Nursing\_Facility\_hospice\_beneficiaries | copied as it is |
| 45 | stg\_hospice | Site-of-service-SkilledNursingFacilityhospicebeneficiaries | Hospice | SOS\_Skilled\_Nursing\_Facility\_hospice\_beneficiaries | copied as it is |
| 46 | stg\_hospice | Site-of-service-InpatientHospitalhospicebeneficiaries | Hospice | SOS\_Inpatient\_Hospital\_hospice\_beneficiaries | copied as it is |
| 47 | stg\_hospice | Site-of-service-InpatientHospicehospicebeneficiaries | Hospice | SOS\_Inpatient\_Hospice\_hospice\_beneficiaries | copied as it is |
| 48 | stg\_hospice | Site-of-service-OtherFacilityhospicebeneficiaries | Hospice | SOS\_Other\_Facility\_hospice\_beneficiaries | copied as it is |

**Nursing and Facilities**

|  |  |  |  |
| --- | --- | --- | --- |
| **Sr. no** | **Columns** | **Description** | **DataSize(Bytes)** |
| 1 | Provider ID | This is provider's Identification Number. | 32 |
| 2 | Facility Name | Name of the provider | 32 |
| 3 | Street Address | street address with the unit number and street name | 58 |
| 4 | City | city of the provider - Full name | 32 |
| 5 | State | state of the provider- two letter short name | 32 |
| 6 | Zip Code | 4/5 digit zipcode of provider | 32 |
| 7 | Total Stays | Total number of skilled nursing facility stays. | 32 |
| 8 | Distinct Beneficiaries Per Provider | Number of distinct Medicare beneficiaries with at least one skilled nursing facility day per provider. A beneficiary will only be counted once per provider, but may be double-counted across providers. | 32 |
| 9 | Average Length of Stay (Days) | Average lenth of stay, in days, for all Medicare beneficiaries with at least one stay in the skilled nursing facility in the year. | 32 |
| 10 | Total SNF Charge Amount | Total of the charges that the skilled nursing facility submitted for all Medicare stays in the year. | 32 |
| 11 | Total SNF Medicare Allowed Amount | Total Medicare allowed amount for all Medicare stays in the year. This figure is the sum of the amount Medicare pays, the deductible and coinsurance amounts that the beneficiary is responsible for paying, and any amounts that a third party is responsible for paying. | 32 |
| 12 | Total SNF Medicare Payment Amount | Total amount that Medicare paid for all Medicare stays in the year after deductible and coinsurance amounts have been deducted. | 32 |
| 13 | Total SNF Medicare Standard Payment Amount | Total amount that Medicare paid for all Medicare stays in the year after deductible and coinsurance amounts have been deducted, adjusted for geographic differences in payment rates. | 32 |
| 14 | Average Age | Average age of beneficiaries. Beneficiary age is calculated at the end of the calendar year or at the time of death. | 32 |
| 15 | Male Beneficiaries | Number of male beneficiaries. | 32 |
| 16 | Female Beneficiaries | Number of female beneficiaries. | 32 |
| 17 | Nondual Beneficiaries | Number of Medicare beneficiaries qualified to receive Medicare only benefits. Beneficiaries are classified as Medicare only entitlement if they received zero months of any Medicaid benefits (full or partial) in the given calendar year. | 32 |
| 18 | Dual Beneficiaries | Number of Medicare beneficiaries qualified to receive Medicare and Medicaid benefits. Beneficiaries are classified as Medicare and Medicaid entitlement if in any month in the given calendar year they were receiving full or partial Medicaid benefits. | 32 |
| 19 | White Beneficiaries | Number of non-Hispanic white beneficiaries. | 32 |
| 20 | Black Beneficiaries | Number of non-Hispanic black or African American beneficiaries. | 32 |
| 21 | Asian Pacific Islander Beneficiaries | Number of Asian Pacific Islander beneficiaries. | 32 |
| 22 | Hispanic Beneficiaries | Number of Hispanic beneficiaries. | 32 |
| 23 | American Indian or Alaska Native Beneficiaries | Number of American Indian or Alaska Native beneficiaries. | 32 |
| 24 | Other/ Unknown Beneficiaries | Number of beneficiaries with race not elsewhere classified. | 32 |
| 25 | Average HCC Score | Average Hierarchical Condition Category (HCC) risk score of beneficiaries. Please refer to the “Additional Information” section of the Methodology document for more details on HCC risk scores. | 32 |
| 26 | Percent of Beneficiaries with Atrial Fibrillation | Percent of beneficiaries meeting the CCW chronic condition algorithm for atrial fibrillation. | 32 |
| 27 | Percent of Beneficiaries with Alzheimer's | Percent of beneficiaries meeting the CCW chronic condition algorithm for Alzheimer’s, related disorders, or dementia. |  |
| 28 | Percent of Beneficiaries with Asthma | Percent of beneficiaries meeting the CCW chronic condition algorithm for Asthma. |  |
| 29 | Percent of Beneficiaries with Cancer | Percent of beneficiaries meeting the CCW chronic condition algorithms for cancer. Includes breast cancer, colorectal cancer, lung cancer and prostate cancer. | 58 |
| 30 | Percent of Beneficiaries with CHF | Percent of beneficiaries meeting the CCW chronic condition algorithm for heart failure. | 56 |
| 31 | Percent of Beneficiaries with Chronic Kidney Disease | Percent of beneficiaries meeting the CCW chronic condition algorithm for chronic kidney disease. | 32 |
| 32 | Percent of Beneficiaries with COPD | Percent of beneficiaries meeting the CCW chronic condition algorithm for chronic obstructive pulmonary disease. | 32 |
| 33 | Percent of Beneficiaries with Depression | Percent of beneficiaries meeting the CCW chronic condition algorithm for depression. | 32 |
| 34 | Percent of Beneficiaries with Diabetes | Percent of beneficiaries meeting the CCW chronic condition algorithm for diabetes. | 32 |
| 35 | Percent of Beneficiaries with Hyperlipidemia | Percent of beneficiaries meeting the CCW chronic condition algorithm for hyperlipidemia. | 32 |
| 36 | Percent of Beneficiaries with Hypertension | Percent of beneficiaries meeting the CCW chronic condition algorithm for hypertension. | 32 |
| 37 | Percent of Beneficiaries with IHD | Percent of beneficiaries meeting the CCW chronic condition algorithm for ischemic heart disease. | 32 |
| 38 | Percent of Beneficiaries with Osteoporosis | Percent of beneficiaries meeting the CCW chronic condition algorithm for osteoporosis. | 32 |
| 39 | Percent of Beneficiaries with RA/OA | Percent of beneficiaries meeting the CCW chronic condition algorithm for rheumatoid arthritis/osteoarthritis. | 32 |
| 40 | Percent of Beneficiaries with Schizophrenia | Percent of beneficiaries meeting the CCW chronic condition algorithm for schizophrenia and other psychotic disorders. | 32 |
| 41 | Percent of Beneficiaries with Stroke | Percent of beneficiaries meeting the CCW chronic condition algorithm for stroke. | 32 |

**Staging**

|  |  |  |
| --- | --- | --- |
| **Sr.No** | **Column** | **Datatype** |
| 1 | ProviderID | int |
| 2 | FacilityName | varchar |
| 3 | StreetAddress | varchar |
| 4 | City | varchar |
| 5 | State | varchar |
| 6 | ZipCode | int |
| 7 | TotalStays | int |
| 8 | DistinctBeneficiariesPerProvider | int |
| 9 | AverageLengthofStay(Days) | int |
| 10 | TotalSNFChargeAmount | float |
| 11 | TotalSNFMedicareAllowedAmount | float |
| 12 | TotalSNFMedicarePaymentAmount | float |
| 13 | TotalSNFMedicareStandardPaymentAmount | float |
| 14 | AverageAge | float |
| 15 | MaleBeneficiaries | int |
| 16 | FemaleBeneficiaries | int |
| 17 | NondualBeneficiaries | int |
| 18 | DualBeneficiaries | int |
| 19 | WhiteBeneficiaries | int |
| 20 | BlackBeneficiaries | int |
| 21 | AsianPacificIslanderBeneficiaries | int |
| 22 | HispanicBeneficiaries | int |
| 23 | AmericanIndianorAlaskaNativeBeneficiaries | int |
| 24 | Other/UnknownBeneficiaries | int |
| 25 | AverageHCCScore | float |
| 26 | PercentofBeneficiarieswithAtrialFibrillation | float |
| 27 | PercentofBeneficiarieswithAlzheimer's | float |
| 28 | PercentofBeneficiarieswithAsthma | float |
| 29 | PercentofBeneficiarieswithCancer | float |
| 30 | PercentofBeneficiarieswithCHF | float |
| 31 | PercentofBeneficiarieswithChronicKidneyDisease | float |
| 32 | PercentofBeneficiarieswithCOPD | float |
| 33 | PercentofBeneficiarieswithDepression | float |
| 34 | PercentofBeneficiarieswithDiabetes | float |
| 35 | PercentofBeneficiarieswithHyperlipidemia | float |
| 36 | PercentofBeneficiarieswithHypertension | float |
| 37 | PercentofBeneficiarieswithIHD | float |
| 38 | PercentofBeneficiarieswithOsteoporosis | float |
| 39 | PercentofBeneficiarieswithRA/OA | float |
| 40 | PercentofBeneficiarieswithSchizophrenia | float |
| 41 | PercentofBeneficiarieswithStroke | float |

**Mapping of Data fields**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Sr.No** | **Source Table** | **Source field** | **Destination Table** | **Destination Field** | **Logic** |
| 1 |  |  | Nurse | nurse\_id | identity autoincrement starts with 1 |
| 2 | stg\_nurse | ProviderID | Nurse | provider\_number | FK from Provider table |
| 3 | stg\_nurse | FacilityName | Nurse | facility\_name | copied as it is |
| 4 | stg\_nurse | StreetAddress | Nurse | Address | saved in address table with address id |
| 5 | stg\_nurse | City | Nurse | city | saved in city table with city id |
| 6 | stg\_nurse | State | Nurse | state | saved in state table with state id |
| 7 | stg\_nurse | ZipCode | Nurse | Zipcode | saved in zip code table with zip code id |
| 8 | stg\_nurse | TotalStays | Nurse | total\_stay | copied as it is |
| 9 | stg\_nurse | DistinctBeneficiariesPerProvider | Nurse | Distinct\_Beneficiaries\_Per\_Provider | copied as it is |
| 10 | stg\_nurse | AverageLengthofStay(Days) | Nurse | avg\_lenght\_stay | copied as it is |
| 11 | stg\_nurse | TotalSNFChargeAmount | Nurse | Tot\_SNF\_Charge\_Amt | copied as it is |
| 12 | stg\_nurse | TotalSNFMedicareAllowedAmount | Nurse | Tot\_SNF\_Medicare\_allowed\_Amt | copied as it is |
| 13 | stg\_nurse | TotalSNFMedicarePaymentAmount | Nurse | Tot\_SNF\_Medicare\_payment\_Amt | copied as it is |
| 14 | stg\_nurse | TotalSNFMedicareStandardPaymentAmount | Nurse | Tot\_SNF\_Medicare\_std\_payment\_Amt | copied as it is |
| 15 | stg\_nurse | AverageAge | Nurse | avg\_age | copied as it is |
| 16 | stg\_nurse | MaleBeneficiaries | Nurse | Male\_Beneficiaries | copied as it is |
| 17 | stg\_nurse | FemaleBeneficiaries | Nurse | Female\_Beneficiaries | copied as it is |
| 18 | stg\_nurse | NondualBeneficiaries | Nurse | Nondual\_Beneficiaries | copied as it is |
| 19 | stg\_nurse | DualBeneficiaries | Nurse | dual\_Beneficiaries | copied as it is |
| 20 | stg\_nurse | WhiteBeneficiaries | Nurse | White\_Beneficiaries | copied as it is |
| 21 | stg\_nurse | BlackBeneficiaries | Nurse | black\_Beneficiaries | copied as it is |
| 22 | stg\_nurse | AsianPacificIslanderBeneficiaries | Nurse | Asian\_Pacific\_Islander\_Beneficiaries | copied as it is |
| 23 | stg\_nurse | HispanicBeneficiaries | Nurse | Hispanic\_Beneficiaries | copied as it is |
| 24 | stg\_nurse | AmericanIndianorAlaskaNativeBeneficiaries | Nurse | American\_Indian\_or\_Alaska\_Native\_Beneficiarie | copied as it is |
| 25 | stg\_nurse | Other/UnknownBeneficiaries | Nurse | Other\_Unknown\_Beneficiaries | copied as it is |
| 26 | stg\_nurse | AverageHCCScore | Nurse | avg\_HCC\_Score | copied as it is |
| 27 | stg\_nurse | PercentofBeneficiarieswithAtrialFibrillation | Nurse | per\_of\_Beneficiaries\_with\_Atrial\_Fibrillation | copied as it is |
| 28 | stg\_nurse | PercentofBeneficiarieswithAlzheimer's | Nurse | [per\_of\_Beneficiaries\_with\_Alzheimer's] | copied as it is |
| 29 | stg\_nurse | PercentofBeneficiarieswithAsthma | Nurse | per\_of\_Beneficiaries\_with\_Asthma | copied as it is |
| 30 | stg\_nurse | PercentofBeneficiarieswithCancer | Nurse | per\_of\_Beneficiaries\_with\_Cancer | copied as it is |
| 31 | stg\_nurse | PercentofBeneficiarieswithCHF | Nurse | per\_of\_Beneficiaries\_with\_CHF | copied as it is |
| 32 | stg\_nurse | PercentofBeneficiarieswithChronicKidneyDisease | Nurse | per\_of\_Beneficiaries\_with\_Chronic\_Kidney\_Disease | copied as it is |
| 33 | stg\_nurse | PercentofBeneficiarieswithCOPD | Nurse | per\_of\_Beneficiaries\_with\_Depression | copied as it is |
| 34 | stg\_nurse | PercentofBeneficiarieswithDepression | Nurse | per\_of\_Beneficiaries\_with\_Depression | copied as it is |
| 35 | stg\_nurse | PercentofBeneficiarieswithDiabetes | Nurse | per\_of\_Beneficiaries\_with\_Diabetes | copied as it is |
| 36 | stg\_nurse | PercentofBeneficiarieswithHyperlipidemia | Nurse | per\_of\_Beneficiaries\_with\_Hyperlipidemia | copied as it is |
| 37 | stg\_nurse | PercentofBeneficiarieswithHypertension | Nurse | per\_of\_Beneficiaries\_with\_Hypertension | copied as it is |
| 38 | stg\_nurse | PercentofBeneficiarieswithIHD | Nurse | per\_ of\_Beneficiaries\_with\_IHD | copied as it is |
| 39 | stg\_nurse | PercentofBeneficiarieswithOsteoporosis | Nurse | per\_of\_Beneficiaries\_with\_Osteoporosis | copied as it is |
| 40 | stg\_nurse | PercentofBeneficiarieswithRA/OA | Nurse | per\_of\_Beneficiaries\_with\_RA\_OA | copied as it is |
| 41 | stg\_nurse | PercentofBeneficiarieswithSchizophrenia | Nurse | per\_of\_Beneficiaries\_with\_Schizophrenia | copied as it is |
| 42 | stg\_nurse | PercentofBeneficiarieswithStroke | Nurse | per\_of\_Beneficiaries\_with\_Stroke | copied as it is |

**Home Health Agency**

**Source**

|  |  |  |  |
| --- | --- | --- | --- |
| **Sr. no** | **Columns** | **Description** | **DataSize(Bytes)** |
| 1 | Provider ID | This is provider's Identification Number. | 32 |
| 2 | Agency Name | Name of the provider | 32 |
| 3 | Street Address | street address with the unit number and street name | 32 |
| 4 | City | city of the provider - Full name | 32 |
| 5 | State | state of the provider- two letter short name | 32 |
| 6 | Zip Code | 4/5 digit zipcode of provider | 32 |
| 7 | Total Episodes (non-LUPA) | Total count of non-LUPA episodes provided by a specific home health agency or in a unique HHRG category in the calendar year. | 32 |
| 8 | Distinct Beneficiaries (non-LUPA) | Number of distinct Medicare beneficiaries receiving at least one non-LUPA home health episode in the calendar year. Beneficiaries may receive multiple home health episodes per year but are only counted once in this field. | 32 |
| 9 | Average Number of Total Visits Per Episode (non-LUPA) | Average number of total visits provided by the HHA during a non-LUPA episode. | 32 |
| 10 | Average Number of Skilled Nursing Visits Per Episode (non-LUPA) | Average number of skilled nursing visits provided by the HHA during a non-LUPA episode. | 32 |
| 11 | Average Number of PT Visits Per Episode (non-LUPA) | Average number of physical therapy visits provided by the HHA during a non-LUPA episode. | 32 |
| 12 | Average Number of OT Visits Per Episode (non-LUPA) | Average number of occupational therapy visits provided by the HHA during a non-LUPA episode. | 32 |
| 13 | Average Number of ST Visits Per Episode (non-LUPA) | Average number of speech therapy visits provided by the HHA during a non-LUPA episode. | 32 |
| 14 | Average Number of Home Health Aide Visits Per Episode (non-LUPA) | Average number of home health aide visits provided by the HHA during a non-LUPA episode. | 32 |
| 15 | Average Number of Medical-Social Visits Per Episode (non-LUPA) | Average number of medical-social visits provided by the HHA during a non-LUPA episode. | 32 |
| 16 | Total HHA Charge Amount (non-LUPA) | Total charges that the home health agency submitted for non-LUPA episodes. | 32 |
| 17 | Total HHA Medicare Payment Amount (non-LUPA) | Total amount that Medicare paid for non-LUPA episodes. Home health services do not have any cost-sharing requirements and the Medicare payment amount will equal the allowed amount. | 32 |
| 18 | Total HHA Medicare Standard Payment Amount (non-LUPA) | Total amount that Medicare paid for non-LUPA episodes adjusted for geographic differences in payment rates. | 32 |
| 19 | Outlier Payments as a Percent of Medicare Payment Amount (non-LUPA) | The percent of total Medicare payments for non-LUPA episodes paid to an HHA for outlier episodes. | 32 |
| 20 | Total LUPA Episodes | Total count of low utilization payment amount episodes provided by a specific HHA in the calendar year. | 32 |
| 21 | Total HHA Medicare Payment Amount for LUPAs | Total amount that Medicare paid for LUPA episodes provided by a specific HHA in the calendar year. | 32 |
| 22 | Average Age | Average age of beneficiaries. Beneficiary age is calculated at the end of the calendar year or at the time of death. | 32 |
| 23 | Male Beneficiaries | Number of male beneficiaries. | 32 |
| 24 | Female Beneficiaries | Number of female beneficiaries. | 32 |
| 25 | Nondual Beneficiaries | Number of Medicare beneficiaries qualified to receive Medicare only benefits. Beneficiaries are classified as Medicare only entitlement if they received zero months of any Medicaid benefits (full or partial) in the given calendar year. | 32 |
| 26 | Dual Beneficiaries | Number of Medicare beneficiaries qualified to receive Medicare and Medicaid benefits. Beneficiaries are classified as Medicare and Medicaid entitlement if in any month in the given calendar year they were receiving full or partial Medicaid benefits. | 32 |
| 27 | White Beneficiaries | Number of non-Hispanic white beneficiaries. | 32 |
| 28 | Black Beneficiaries | Number of non-Hispanic black or African American beneficiaries. | 32 |
| 29 | Asian Pacific Islander Beneficiaries | Number of Asian Pacific Islander beneficiaries. | 32 |
| 30 | Hispanic Beneficiaries | Number of Hispanic beneficiaries. | 32 |
| 31 | American Indian or Alaska Native Beneficiaries | Number of American Indian or Alaska Native beneficiaries. | 32 |
| 32 | Other/ Unknown Beneficiaries | Number of beneficiaries with race not elsewhere classified. | 32 |
| 33 | Average HCC Score | Average Hierarchical Condition Category (HCC) risk score of beneficiaries. Please refer to the “Additional Information” section of the Methodology document for more details on HCC risk scores. | 32 |
| 34 | Percent of Beneficiaries with Atrial Fibrillation | Percent of beneficiaries meeting the CCW chronic condition algorithm for atrial fibrillation. | 32 |
| 35 | Percent of Beneficiaries with Alzheimer's | Percent of beneficiaries meeting the CCW chronic condition algorithm for Alzheimer’s, related disorders, or dementia. | 32 |
| 36 | Percent of Beneficiaries with Asthma | Percent of beneficiaries meeting the CCW chronic condition algorithm for Asthma. | 32 |
| 37 | Percent of Beneficiaries with Cancer | Percent of beneficiaries meeting the CCW chronic condition algorithms for cancer. Includes breast cancer, colorectal cancer, lung cancer and prostate cancer. | 58 |
| 38 | Percent of Beneficiaries with CHF | Percent of beneficiaries meeting the CCW chronic condition algorithm for heart failure. | 58 |
| 39 | Percent of Beneficiaries with Chronic Kidney Disease | Percent of beneficiaries meeting the CCW chronic condition algorithm for chronic kidney disease. | 58 |
| 40 | Percent of Beneficiaries with COPD | Percent of beneficiaries meeting the CCW chronic condition algorithm for chronic obstructive pulmonary disease. | 58 |
| 41 | Percent of Beneficiaries with Depression | Percent of beneficiaries meeting the CCW chronic condition algorithm for depression. | 58 |
| 42 | Percent of Beneficiaries with Diabetes | Percent of beneficiaries meeting the CCW chronic condition algorithm for diabetes. | 58 |
| 43 | Percent of Beneficiaries with Hyperlipidemia | Percent of beneficiaries meeting the CCW chronic condition algorithm for hyperlipidemia. | 58 |
| 44 | Percent of Beneficiaries with Hypertension | Percent of beneficiaries meeting the CCW chronic condition algorithm for hypertension. | 58 |
| 45 | Percent of Beneficiaries with IHD | Percent of beneficiaries meeting the CCW chronic condition algorithm for ischemic heart disease. | 58 |
| 46 | Percent of Beneficiaries with Osteoporosis | Percent of beneficiaries meeting the CCW chronic condition algorithm for osteoporosis. | 58 |
| 47 | Percent of Beneficiaries with RA/OA | Percent of beneficiaries meeting the CCW chronic condition algorithm for rheumatoid arthritis/osteoarthritis. | 58 |
| 48 | Percent of Beneficiaries with Schizophrenia | Percent of beneficiaries meeting the CCW chronic condition algorithm for schizophrenia and other psychotic disorders. | 58 |
| 49 | Percent of Beneficiaries with Stroke | Percent of beneficiaries meeting the CCW chronic condition algorithm for stroke. | 58 |

**Staging**

|  |  |  |
| --- | --- | --- |
| **Sr.No** | **Column** | **Datatype** |
| 1 | ProviderID | int |
| 2 | AgencyName | varchar |
| 3 | StreetAddress | varchar |
| 4 | City | varchar |
| 5 | State | varchar |
| 6 | ZipCode | int |
| 7 | TotalEpisodes(non-LUPA) | float |
| 8 | DistinctBeneficiaries(non-LUPA) | int |
| 9 | AverageNumberofTotalVisitsPerEpisode(non-LUPA) | float |
| 10 | AverageNumberofSkilledNursingVisitsPerEpisode(non-LUPA) | float |
| 11 | AverageNumberofPTVisitsPerEpisode(non-LUPA) | float |
| 12 | AverageNumberofOTVisitsPerEpisode(non-LUPA) | float |
| 13 | AverageNumberofSTVisitsPerEpisode(non-LUPA) | float |
| 14 | AverageNumberofHomeHealthAideVisitsPerEpisode(non-LUPA) | float |
| 15 | AverageNumberofMedical-SocialVisitsPerEpisode(non-LUPA) | float |
| 16 | TotalHHAChargeAmount(non-LUPA) | float |
| 17 | TotalHHAMedicarePaymentAmount(non-LUPA) | float |
| 18 | TotalHHAMedicareStandardPaymentAmount(non-LUPA) | float |
| 19 | OutlierPaymentsasaPercentofMedicarePaymentAmount(non-LUPA) | float |
| 20 | TotalLUPAEpisodes | float |
| 21 | TotalHHAMedicarePaymentAmountforLUPAs | float |
| 22 | AverageAge | float |
| 23 | MaleBeneficiaries | int |
| 24 | FemaleBeneficiaries | int |
| 25 | NondualBeneficiaries | int |
| 26 | DualBeneficiaries | int |
| 27 | WhiteBeneficiaries | int |
| 28 | BlackBeneficiaries | int |
| 29 | AsianPacificIslanderBeneficiaries | int |
| 30 | HispanicBeneficiaries | int |
| 31 | AmericanIndianorAlaskaNativeBeneficiaries | int |
| 32 | Other/UnknownBeneficiaries | int |
| 33 | AverageHCCScore | float |
| 34 | PercentofBeneficiarieswithAtrialFibrillation | float |
| 35 | PercentofBeneficiarieswithAlzheimer's | float |
| 36 | PercentofBeneficiarieswithAsthma | float |
| 37 | PercentofBeneficiarieswithCancer | float |
| 38 | PercentofBeneficiarieswithCHF | float |
| 39 | PercentofBeneficiarieswithChronicKidneyDisease | float |
| 40 | PercentofBeneficiarieswithCOPD | float |
| 41 | PercentofBeneficiarieswithDepression | float |
| 42 | PercentofBeneficiarieswithDiabetes |  |
| 43 | PercentofBeneficiarieswithHyperlipidemia | float |
| 44 | PercentofBeneficiarieswithHypertension | float |
| 45 | PercentofBeneficiarieswithIHD | float |
| 46 | PercentofBeneficiarieswithOsteoporosis | float |
| 47 | PercentofBeneficiarieswithRA/OA | float |
| 48 | PercentofBeneficiarieswithSchizophrenia | float |
| 49 | PercentofBeneficiarieswithStroke | float |

**Mapping of Data Fields**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Sr.No** | **Source Table** | **Source field** | **Destination Table** | **Destination Field** | **Logic** |
| 1 |  |  | Home Health Agency | hha\_id | identity autoincrement starts with 1 |
| 2 | stg\_hha | ProviderID | Home Health Agency | provider\_number | FK from Provider table |
| 3 | stg\_hha | AgencyName | Home Health Agency | agency\_name | copied as it is |
| 4 | stg\_hha | StreetAddress | Home Health Agency | Address | saved in address table with address id |
| 5 | stg\_hha | City | Home Health Agency | city | saved in city table with city id |
| 6 | stg\_hha | State | Home Health Agency | state | saved in state table with state id |
| 7 | stg\_hha | ZipCode | Home Health Agency | Zipcode | saved in zip code table with zip code id |
| 8 | stg\_hha | TotalEpisodes(non-LUPA) | Home Health Agency | tot\_episode\_non\_lupa | copied as it is |
| 9 | stg\_hha | DistinctBeneficiaries(non-LUPA) | Home Health Agency | distinct\_benificiaries\_non\_lupa | copied as it is |
| 10 | stg\_hha | AverageNumberofTotalVisitsPerEpisode(non-LUPA) | Home Health Agency | Avg\_num\_tot\_visits\_per\_episode\_non\_lupa | copied as it is |
| 11 | stg\_hha | AverageNumberofSkilledNursingVisitsPerEpisode(non-LUPA) | Home Health Agency | Avg\_num\_skilled\_nursing\_visits\_per\_episode\_non\_lupa | copied as it is |
| 12 | stg\_hha | AverageNumberofPTVisitsPerEpisode(non-LUPA) | Home Health Agency | Avg\_num\_pt\_visits\_per\_episode\_non\_lupa | copied as it is |
| 13 | stg\_hha | AverageNumberofOTVisitsPerEpisode(non-LUPA) | Home Health Agency | Avg\_num\_ot\_visits\_per\_episode\_non\_lupa | copied as it is |
| 14 | stg\_hha | AverageNumberofSTVisitsPerEpisode(non-LUPA) | Home Health Agency | Avg\_num\_st\_visits\_per\_episode\_non\_lupa | copied as it is |
| 15 | stg\_hha | AverageNumberofHomeHealthAideVisitsPerEpisode(non-LUPA) | Home Health Agency | Avg\_num\_HHA\_visits\_per\_episode\_non\_lupa | copied as it is |
| 16 | stg\_hha | AverageNumberofMedical-SocialVisitsPerEpisode(non-LUPA) | Home Health Agency | Avg\_num\_social\_medical\_visits\_per\_episode\_non\_lupa | copied as it is |
| 17 | stg\_hha | TotalHHAChargeAmount(non-LUPA) | Home Health Agency | tot\_hha\_charged\_amt\_non\_lupa | copied as it is |
| 18 | stg\_hha | TotalHHAMedicarePaymentAmount(non-LUPA) | Home Health Agency | tot\_hha\_mediare\_payment\_amt\_non\_lupa | copied as it is |
| 19 | stg\_hha | TotalHHAMedicareStandardPaymentAmount(non-LUPA) | Home Health Agency | tot\_hha\_std\_mediare\_payment\_amt\_non\_lupa | copied as it is |
| 20 | stg\_hha | OutlierPaymentsasaPercentofMedicarePaymentAmount(non-LUPA) | Home Health Agency | Outlier\_payment\_per\_medicare\_payment\_amt\_non\_lupa | copied as it is |
| 21 | stg\_hha | TotalLUPAEpisodes | Home Health Agency | tot\_lupa\_episode | copied as it is |
| 22 | stg\_hha | TotalHHAMedicarePaymentAmountforLUPAs | Home Health Agency | tot\_hha\_medicare\_payment\_lupa | copied as it is |
| 23 | stg\_hha | AverageAge | Home Health Agency | avg\_age | copied as it is |
| 24 | stg\_hha | MaleBeneficiaries | Home Health Agency | Male\_Beneficiaries | copied as it is |
| 25 | stg\_hha | FemaleBeneficiaries | Home Health Agency | Female\_Beneficiaries | copied as it is |
| 26 | stg\_hha | NondualBeneficiaries | Home Health Agency | Nondual\_Beneficiaries | copied as it is |
| 27 | stg\_hha | DualBeneficiaries | Home Health Agency | dual\_Beneficiaries | copied as it is |
| 28 | stg\_hha | WhiteBeneficiaries | Home Health Agency | White\_Beneficiaries | copied as it is |
| 29 | stg\_hha | BlackBeneficiaries | Home Health Agency | black\_Beneficiaries | copied as it is |
| 30 | stg\_hha | AsianPacificIslanderBeneficiaries | Home Health Agency | Asian\_Pacific\_Islander\_Beneficiaries | copied as it is |
| 31 | stg\_hha | HispanicBeneficiaries | Home Health Agency | Hispanic\_Beneficiaries | copied as it is |
| 32 | stg\_hha | AmericanIndianorAlaskaNativeBeneficiaries | Home Health Agency | American\_Indian\_or\_Alaska\_Native\_Beneficiaries | copied as it is |
| 33 | stg\_hha | Other/UnknownBeneficiaries | Home Health Agency | Other\_Unknown\_Beneficiaries | copied as it is |
| 34 | stg\_hha | AverageHCCScore | Home Health Agency | avg\_HCC\_Score | copied as it is |
| 35 | stg\_hha | PercentofBeneficiarieswithAtrialFibrillation | Home Health Agency | per\_of\_Beneficiaries\_with\_Atrial\_Fibrillation | copied as it is |
| 36 | stg\_hha | PercentofBeneficiarieswithAlzheimer's | Home Health Agency | per\_of\_Beneficiaries\_with\_Alzheimer's | copied as it is |
| 37 | stg\_hha | PercentofBeneficiarieswithAsthma | Home Health Agency | per\_of\_Beneficiaries\_with\_Asthma | copied as it is |
| 38 | stg\_hha | PercentofBeneficiarieswithCancer | Home Health Agency | per\_of\_Beneficiaries\_with\_Cancer | copied as it is |
| 39 | stg\_hha | PercentofBeneficiarieswithCHF | Home Health Agency | per\_of\_Beneficiaries\_with\_CHF | copied as it is |
| 40 | stg\_hha | PercentofBeneficiarieswithChronicKidneyDisease | Home Health Agency | per\_of\_Beneficiaries\_with\_Chronic\_Kidney\_Disease | copied as it is |
| 41 | stg\_hha | PercentofBeneficiarieswithCOPD | Home Health Agency | per\_of\_Beneficiaries\_with\_COPD | copied as it is |
| 42 | stg\_hha | PercentofBeneficiarieswithDepression | Home Health Agency | per\_of\_Beneficiaries\_with\_Depression | copied as it is |
| 43 | stg\_hha | PercentofBeneficiarieswithDiabetes | Home Health Agency | per\_of\_Beneficiaries\_with\_Diabetes | copied as it is |
| 44 | stg\_hha | PercentofBeneficiarieswithHyperlipidemia | Home Health Agency | per\_of\_Beneficiaries\_with\_Hyperlipidemia | copied as it is |
| 45 | stg\_hha | PercentofBeneficiarieswithHypertension | Home Health Agency | per\_of\_Beneficiaries\_with\_Hypertension | copied as it is |
| 46 | stg\_hha | PercentofBeneficiarieswithIHD | Home Health Agency | per\_ of\_Beneficiaries\_with\_IHD | copied as it is |
| 47 | stg\_hha | PercentofBeneficiarieswithOsteoporosis | Home Health Agency | per\_of\_Beneficiaries\_with\_Osteoporosis | copied as it is |
| 48 | stg\_hha | PercentofBeneficiarieswithRA/OA | Home Health Agency | per\_of\_Beneficiaries\_with\_RA\_OA | copied as it is |
| 49 | stg\_hha | PercentofBeneficiarieswithSchizophrenia | Home Health Agency | per\_of\_Beneficiaries\_with\_Schizophrenia | copied as it is |
| 50 | stg\_hha | PercentofBeneficiarieswithStroke | Home Health Agency | per\_of\_Beneficiaries\_with\_Stroke | copied as it is |

**Inpatient**

**Source**

|  |  |  |  |
| --- | --- | --- | --- |
| **sr.no** | **Columns** | **Description** | **DataSize(Bytes)** |
| 1 | DRG Definition | It includes 3 digit code and description identifying the MS-DRG. It is a group representation of similar clinical conditions. | 123 |
| 2 | Provider Id | It is five to six digit number which is called CMS Certification Number (CCN) assigned to the Medicare certified hospital facility. | 32 |
| 3 | Provider Name | The name of provider healthcare institute. | 81 |
| 4 | Provider Street Address | First address line of provider | 71 |
| 5 | Provider City | City name of the providers' location. | 55 |
| 6 | Provider State | two character id for state from providers' location | 51 |
| 7 | Provider Zip Code | Zipcode of providers' location | 32 |
| 8 | Hospital Referral Region (HRR) Description | It includes both state and city information where provider is located. | 60 |
| 9 | Total Discharges | The number of discharges billed by the provider for inpatient hospital services. | 32 |
| 10 | Average Covered Charges | The provider's average charge for services covered by Medicare for all discharges in the MS-DRG. | 32 |
| 11 | Average Total Payments | The average total payments to all providers for the MS-DRG including the MS-DRG amount, teaching, disproportionate share, capital, and outlier payments for all cases. | 32 |
| 12 | Average Medicare Payments | The average amount that Medicare pays to the provider for Medicare's share of the MS-DRG. | 32 |

**Staging**

|  |  |  |
| --- | --- | --- |
| **Sr.no** | **Columns** | **Datatype** |
| 1 | DRGDefinition | varchar |
| 2 | ProviderId | int |
| 3 | ProviderName | varchar(255) |
| 4 | ProviderStreetAddress | varchar(255) |
| 5 | ProviderCity | varchar(200) |
| 6 | ProviderState | varchar(150) |
| 7 | ProviderZipCode | int |
| 8 | HospitalReferralRegion(HRR)Description | varchar |
| 9 | TotalDischarges | int |
| 10 | AverageCoveredCharges | varchar |
| 11 | AverageTotalPayments | varchar |
| 12 | AverageMedicarePayments | varchar |

**Mapping of Data Fields**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **sr.no** | **Source Table** | **Source field** | **Destination Table** | **Destination Field** | **Logic** |
| 1 | stg\_inpatient | DRGDefinition | destination\_inptient | drg\_id | perfom lookup aginst LK\_ drg and stored the Primary key of the lookup table as a foreign key |
| 2 | stg\_inpatient | ProviderId | destination\_inptient | provider\_code | perfom lookup aginst LK\_provider and stored the Primary key of the lookup table as a foreign key |
| 3 | stg\_inpatient | ProviderName | destination\_inptient | provider\_name | provider\_name |
| 4 | stg\_inpatient | ProviderStreetAddress | destination\_inptient | provider\_street\_address\_1 | provider\_street\_address\_1 |
| 5 | stg\_inpatient | ProviderCity | destination\_inptient | provider\_city\_id | perfom lookup aginst LK\_city and stored the Primary key of the lookup table as a foreign key |
| 6 | stg\_inpatient | ProviderState | destination\_inptient | provider\_state\_id | perfom lookup aginst LK\_state and stored the Primary key of the lookup table as a foreign key |
| 7 | stg\_inpatient | ProviderZipCode | destination\_inptient | provider\_zip\_id | perfom lookup aginst LK\_zip and stored the Primary key of the lookup table as a foreign key |
| 8 | stg\_inpatient | HospitalReferralRegion(HRR)Description | destination\_inptient | hrr\_id | perfom lookup aginst LK\_hrr and stored the Primary key of the lookup table as a foreign key |
| 9 | stg\_inpatient | TotalDischarges | destination\_inptient | TotalDischarges | copied as it is |
| 10 | stg\_inpatient | AverageCoveredCharges | destination\_inptient | AverageCoveredCharges | copied as it is |
| 11 | stg\_inpatient | AverageTotalPayments | destination\_inptient | AverageTotalPayments | copied as it is |
| 12 | stg\_inpatient | AverageMedicarePayments | destination\_inptient | AverageMedicarePayments | copied as it is |

**Outpatient**

**Source**

|  |  |  |  |
| --- | --- | --- | --- |
|  | **Columns** | **Description** | **DataSize(Bytes)** |
| **1** | Provider ID | It is five to six digit number which is called CMS Certification Number (CCN) assigned to the Medicare certified hospital facility. | 32 |
| **2** | Provider Name | The name of provider healthcare institute. | 81 |
| **3** | Provider Street Address | First address line of provider | 71 |
| **4** | Provider City | City name of the providers' location. | 55 |
| **5** | Provider State | two character id for state from providers' location | 51 |
| **6** | Provider Zip Code | Zipcode of providers' location | 32 |
| **7** | Provider HRR | It includes both state and city information where provider is located in STATE - CITY format. | 60 |
| **8** | APC | APCs or Ambulatory Payment Classifications are the United States government's method of paying for facility outpatient services for the Medicare (United States) program. | 32 |
| **9** | APC Description | The description of the APC Code. | 94 |
| **10** | Beneficiaries | The number of Medicare fee-for-service beneficiaries receiving outpatient hospital services. | 32 |
| **11** | Comprehensive APC Services | The number of primary HCPCS services billed by the provider for outpatient hospital services. | 32 |
| **12** | Average Estimated Total Submitted Charges | The provider's average estimated submitted charge for services covered by Medicare for the APC. | 32 |
| **13** | Average Medicare Allowed Amount | The average of total regular payments the provider receives for the APC. | 32 |
| **14** | Average Medicare Payment Amount | The average of total regular payments the provider receives directly from Medicare. | 32 |
| **15** | Outlier Comprehensive APC Services | The number of comprehensive APC services with outlier payments. | 32 |

**Staging**

|  |  |  |
| --- | --- | --- |
| **Sr.no** | **Columns** | **Datatype** |
| 1 | ProviderID | int |
| 2 | ProviderName | varchar |
| 3 | ProviderStreetAddress | varchar(255) |
| 4 | ProviderCity | varchar(200) |
| 5 | ProviderState | varchar(150) |
| 6 | ProviderZipCode | int |
| 7 | ProviderHRR | varchar |
| 8 | APC | varchar |
| 9 | APCDescription | varchar |
| 10 | Beneficiaries | int |
| 11 | ComprehensiveAPCServices | int |
| 12 | AverageEstimatedTotalSubmittedCharges | varchar |
| 13 | AverageMedicareAllowedAmount | varchar |
| 14 | AverageMedicarePaymentAmount | varchar |
| 15 | OutlierComprehensiveAPCServices | varchar |
| 16 | AverageMedicareOutlierAmount | varchar |

**Mapping of Data Fields**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Source Table** | **Source field** | **Destination Table** | **Destination Field** | **Logic** |
| stg\_inpatient | ProviderID | destination\_outpatient | provider\_code | perfom lookup aginst LK\_ provider and stored the Primary key of the lookup table as a foreign key |
| stg\_inpatient | ProviderName | destination\_outpatient | provider\_first\_name | copied as it is |
| stg\_inpatient | ProviderStreetAddress | destination\_outpatient | provider\_street\_address\_1 | copied as it is |
| stg\_inpatient | ProviderCity | destination\_outpatient | provider\_city\_id | perfom lookup aginst LK\_ city and stored the Primary key of the lookup table as a foreign key |
| stg\_inpatient | ProviderState | destination\_outpatient | provider\_state\_id | perfom lookup aginst LK\_ stateand stored the Primary key of the lookup table as a foreign key |
| stg\_inpatient | ProviderZipCode | destination\_outpatient | provider\_zip\_id | perfom lookup aginst LK\_ zip and stored the Primary key of the lookup table as a foreign key |
| stg\_inpatient | ProviderHRR | destination\_outpatient | hrr\_id | perfom lookup aginst LK\_ hrr and stored the Primary key of the lookup table as a foreign key |
| stg\_inpatient | APC | destination\_outpatient | apc\_id | perfom lookup aginst LK\_ apc and stored the Primary key of the lookup table as a foreign key |
| stg\_inpatient | APCDescription | destination\_outpatient | varchar | coped as it is |
| stg\_inpatient | Beneficiaries | destination\_outpatient | int | coped as it is |
| stg\_inpatient | ComprehensiveAPCServices | destination\_outpatient | int | coped as it is |
| stg\_inpatient | AverageEstimatedTotalSubmittedCharges | destination\_outpatient | varchar | coped as it is |
| stg\_inpatient | AverageMedicareAllowedAmount | destination\_outpatient | varchar | coped as it is |
| stg\_inpatient | AverageMedicarePaymentAmount | destination\_outpatient | varchar | coped as it is |
| stg\_inpatient | OutlierComprehensiveAPCServices | destination\_outpatient | varchar | coped as it is |
| stg\_inpatient | AverageMedicareOutlierAmount | destination\_outpatient | varcahr | coped as it is |