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/*
Medicare Nursing Facilities 2014 Data Cleaning and Exploration in SQL Queries
Skills Used: CTE, Aggregate Functions, Window Function, Conditional Function, Subquery
Platform: GCP BigQuery
-- DATA CLEANING IN SQL QUERIES
-- Preview the nursing_facilities_2014 table
SELECT
FROM
    `bigquery-public-data.cms_medicare.nursing_facilities_2014` LIMIT 200;
-- Check if the provider_id column contains duplicate
SELECT
   COUNT(DISTINCT provider_id) as unique_provider_id,
    COUNT(*) as total_row_number
FROM
    `bigguery-public-data.cms medicare.nursing facilities 2014`;
-- Check the percentage of null in each column
SELECT
    COUNTIF(provider id IS NULL)/COUNT(*)*100 as null provider id,
    COUNTIF(facility_name IS NULL)/COUNT(*)*100 as null_facility_name,
    COUNTIF(street_address IS NULL)/COUNT(*)*100 as null_street_address,
    COUNTIF(city IS NULL)/COUNT(*)*100 as null_city,
    COUNTIF(state IS NULL)/COUNT(*)*100 as null_state,
    COUNTIF(zip_code IS NULL)/COUNT(*)*100 as null_zip_code,
    COUNTIF(total stays IS NULL)/COUNT(*)*100 as null total stays,
    COUNTIF(distinct_beneficiaries_per_provider IS NULL)/COUNT(*)*100 as null_distinct_beneficiaries_per_provider,
    COUNTIF(average_length_of_stays_days IS NULL)/COUNT(*)*100 as null_average_length_of_stays_days,
    COUNTIF(total_snf_charge_amount IS NULL)/COUNT(*)*100 as null_total_snf_charge_amount,
    COUNTIF(total_snf_medicare_allowed_amount IS NULL)/COUNT(*)*100 as null_total_snf_medicare_allowed_amount,
    COUNTIF(total_snf_medicare_payment_amount IS NULL)/COUNT(*)*100 as null_total_snf_medicare_payment_amount,
    COUNTIF(total_snf_medicare_standard_payment_amount IS NULL)/COUNT(*)*100 as null_total_snf_medicare_standard_payment_amount,
    COUNTIF(average_age IS NULL)/COUNT(*)*100 as null_average_age,
    COUNTIF(male_beneficiaries IS NULL)/COUNT(*)*100 as null_male_beneficiaries,
    COUNTIF(female_beneficiaries IS NULL)/COUNT(*)*100 as null_female_beneficiaries,
    COUNTIF(nondual_beneficiaries IS NULL)/COUNT(*)*100 as null_nondual_beneficiaries,
    COUNTIF(dual beneficiaries IS NULL)/COUNT(*)*100 as null dual beneficiaries,
    COUNTIF(white_beneficiaries IS NULL)/COUNT(*)*100 as null_white_beneficiaries,
    COUNTIF(black beneficiaries IS NULL)/COUNT(*)*100 as null black beneficiaries,
    COUNTIF(asian_pacific_islander_beneficiaries IS NULL)/COUNT(*)*100 as null_asian_pacific_islander_beneficiaries,
    COUNTIF(hispanic_beneficiaries IS NULL)/COUNT(*)*100 as null_hispanic_beneficiaries,
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COUNTIF(american indian or alaska native beneficiaries IS NULL)/COUNT(*)*100 as null american indian or alaska native benefici
aries.
    COUNTIF(other_unknown_beneficiaries IS NULL)/COUNT(*)*100 as null_other_unknown_beneficiaries,
    COUNTIF(average_hcc_score IS NULL)/COUNT(*)*100 as null_average_hcc_score,
    COUNTIF(percent_of_beneficiaries_with_atrial_fibrillation IS NULL)/COUNT(*)*100 as null_percent_of_beneficiaries_with_atrial_f
ibrillation.
    COUNTIF(percent_of_beneficiaries_with_alzheimers IS NULL)/COUNT(*)*100 as null_percent_of_beneficiaries_with_alzheimers,
    COUNTIF(percent of beneficiaries with asthma IS NULL)/COUNT(*)*100 as null percent of beneficiaries with asthma,
    COUNTIF(percent_of_beneficiaries_with_cancer IS NULL)/COUNT(*)*100 as null_percent_of_beneficiaries_with_cancer,
    COUNTIF(percent_of_beneficiaries_with_chf IS NULL)/COUNT(*)*100 as null_percent_of_beneficiaries_with_chf,
    COUNTIF(percent of beneficiaries with chronic kidney disease IS NULL)/COUNT(*)*100 as null percent of beneficiaries with chron
ic kidnev disease.
    COUNTIF(percent_of_beneficiaries_with_copd IS NULL)/COUNT(*)*100 as null_percent_of_beneficiaries_with_copd,
    COUNTIF(percent_of_beneficiaries_with_depression IS NULL)/COUNT(*)*100 as null_percent_of_beneficiaries_with_depression,
    COUNTIF(percent_of_beneficiaries_with_diabetes IS NULL)/COUNT(*)*100 as null_percent_of_beneficiaries_with_diabetes,
    COUNTIF(percent_of_beneficiaries_with_hyperlipidemia IS NULL)/COUNT(*)*100 as null_percent_of_beneficiaries_with_hyperlipidemi
    COUNTIF(percent_of_beneficiaries_with_hypertension IS NULL)/COUNT(*)*100 as null_percent_of_beneficiaries_with_hypertension,
    COUNTIF(percent of beneficiaries with ihd IS NULL)/COUNT(*)*100 as null percent of beneficiaries with ihd,
    COUNTIF(percent_of_beneficiaries_with_osteoporosis IS NULL)/COUNT(*)*100 as null_percent_of_beneficiaries_with_osteoporosis,
    COUNTIF(percent_of_beneficiaries_with_ra_oa IS NULL)/COUNT(*)*100 as null_percent_of_beneficiaries_with_ra_oa,
    COUNTIF(percent of beneficiaries with schizophrenia IS NULL)/COUNT(*)*100 as null percent of beneficiaries with schizophrenia,
    COUNTIF(percent_of_beneficiaries_with_stroke IS NULL)/COUNT(*)*100 as null_percent_of_beneficiaries_with_stroke,
    `bigquery-public-data.cms_medicare.nursing_facilities_2014`;
-- Check the percentage of null in each column grouped by state
SELECT.
    state AS state.
    COUNTIF(provider_id IS NULL)/COUNT(*)*100 as null_provider_id,
    COUNTIF(facility name IS NULL)/COUNT(*)*100 as null facility name,
    COUNTIF(street address IS NULL)/COUNT(*)*100 as null street address,
    COUNTIF(city IS NULL)/COUNT(*)*100 as null city,
    COUNTIF(state IS NULL)/COUNT(*)*100 as null state,
    COUNTIF(zip code IS NULL)/COUNT(*)*100 as null zip code,
    COUNTIF(total_stays IS NULL)/COUNT(*)*100 as null_total_stays,
    COUNTIF(distinct_beneficiaries_per_provider IS NULL)/COUNT(*)*100 as null_distinct_beneficiaries_per_provider,
    COUNTIF(average length of stays days IS NULL)/COUNT(*)*100 as null average length of stays days,
    COUNTIF(total_snf_charge_amount IS NULL)/COUNT(*)*100 as null_total_snf_charge_amount,
    COUNTIF(total snf medicare allowed amount IS NULL)/COUNT(*)*100 as null total snf medicare allowed amount,
    COUNTIF(total_snf_medicare_payment_amount IS NULL)/COUNT(*)*100 as null_total_snf_medicare_payment_amount,
    COUNTIF(total_snf_medicare_standard_payment_amount IS NULL)/COUNT(*)*100 as null_total_snf_medicare_standard_payment_amount,
    COUNTIF(average age IS NULL)/COUNT(*)*100 as null average age,
    COUNTIF(male_beneficiaries IS NULL)/COUNT(*)*100 as null_male_beneficiaries,
    COUNTIF(female_beneficiaries IS NULL)/COUNT(*)*100 as null_female_beneficiaries,
    COUNTIF(nondual_beneficiaries IS NULL)/COUNT(*)*100 as null_nondual_beneficiaries,
    COUNTIF(dual_beneficiaries IS NULL)/COUNT(*)*100 as null_dual_beneficiaries,
    COUNTIF(white_beneficiaries IS NULL)/COUNT(*)*100 as null_white_beneficiaries,
    COUNTIF(black beneficiaries IS NULL)/COUNT(*)*100 as null black beneficiaries,
    COUNTIF(asian_pacific_islander_beneficiaries IS NULL)/COUNT(*)*100 as null_asian_pacific_islander_beneficiaries,
    COUNTIF(hispanic beneficiaries IS NULL)/COUNT(*)*100 as null hispanic beneficiaries,
    COUNTIF(american_indian_or_alaska_native_beneficiaries IS NULL)/COUNT(*)*100 as null_american_indian_or_alaska_native_benefici
aries.
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COUNTIF(average_hcc_score IS NULL)/COUNT(*)*100 as null_average_hcc_score,
    COUNTIF(percent_of_beneficiaries_with_atrial_fibrillation IS NULL)/COUNT(*)*100 as null_percent_of_beneficiaries_with_atrial_f
ibrillation,
    COUNTIF(percent_of_beneficiaries_with_alzheimers IS NULL)/COUNT(*)*100 as null_percent_of_beneficiaries_with_alzheimers,
    COUNTIF(percent of beneficiaries with asthma IS NULL)/COUNT(*)*100 as null percent of beneficiaries with asthma,
    COUNTIF(percent_of_beneficiaries_with_cancer IS NULL)/COUNT(*)*100 as null_percent_of_beneficiaries_with_cancer,
    COUNTIF(percent of beneficiaries with chf IS NULL)/COUNT(*)*100 as null percent of beneficiaries with chf,
    COUNTIF(percent_of_beneficiaries_with_chronic_kidney_disease IS NULL)/COUNT(*)*100 as null_percent_of_beneficiaries_with_chron
ic_kidney_disease,
    COUNTIF(percent_of_beneficiaries_with_copd IS NULL)/COUNT(*)*100 as null_percent_of_beneficiaries_with_copd,
    COUNTIF(percent of beneficiaries with depression IS NULL)/COUNT(*)*100 as null percent of beneficiaries with depression,
    COUNTIF(percent_of_beneficiaries_with_diabetes IS NULL)/COUNT(*)*100 as null_percent_of_beneficiaries_with_diabetes,
    COUNTIF(percent_of_beneficiaries_with_hyperlipidemia IS NULL)/COUNT(*)*100 as null_percent_of_beneficiaries_with_hyperlipidemi
    COUNTIF(percent_of_beneficiaries_with_hypertension IS NULL)/COUNT(*)*100 as null_percent_of_beneficiaries_with_hypertension,
    COUNTIF(percent of beneficiaries with ihd IS NULL)/COUNT(*)*100 as null percent of beneficiaries with ihd,
    COUNTIF(percent_of_beneficiaries_with_osteoporosis IS NULL)/COUNT(*)*100 as null_percent_of_beneficiaries_with_osteoporosis,
    COUNTIF(percent of beneficiaries with ra oa IS NULL)/COUNT(*)*100 as null percent of beneficiaries with ra oa,
    COUNTIF(percent_of_beneficiaries_with_schizophrenia IS NULL)/COUNT(*)*100 as null_percent_of_beneficiaries_with_schizophrenia,
    COUNTIF(percent_of_beneficiaries_with_stroke IS NULL)/COUNT(*)*100 as null_percent_of_beneficiaries_with_stroke,
    `bigquery-public-data.cms medicare.nursing facilities 2014`
GROUP BY state;
-- EXPLORATORY DATA ANALYSIS WITH SQL QUERIES
-- Number of nursing facility per state
SELECT
    state AS state,
   COUNT(*) AS number_of_nursing_facility
FROM
    `bigquery-public-data.cms_medicare.nursing_facilities_2014`
GROUP BY state
ORDER BY number_of_nursing_facility DESC;
-- Number of nursing facility per city in top 5 states
SELECT
   state.
    city,
   COUNT(city) as city count
FROM (
   SELECT
    state.
    city,
    COUNT(city) OVER(
    PARTITION BY state
    ROWS BETWEEN UNBOUNDED PRECEDING AND UNBOUNDED FOLLOWING)
    AS total_state_count
    FROM
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COUNTIF(other unknown beneficiaries IS NULL)/COUNT(*)*100 as null other unknown beneficiaries,

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`bigguery-public-data.cms medicare.nursing facilities 2014`
   )
   WHERE state IN ('TX', 'CA', 'OH', 'IL', 'PA')
GROUP BY state, city,total_state_count
ORDER BY total_state_count DESC, city_count DESC;
-- Demographic information: National average number of male and female beneficiaries, dual and non-dual beneficiaries and
-- age of beneficiaries
SELECT
    ROUND(AVG(average_age), 2) AS national_avg_age,
    ROUND(AVG(male_beneficiaries), ∅) as national_avg_male_beneficiaries,
    ROUND(AVG(female_beneficiaries), 0) as national_avg_female_beneficiaries,
    {\tt ROUND}({\tt AVG}({\tt nondual\_beneficiaries}), \ {\tt 0}) \ {\tt as} \ {\tt national\_avg\_nondual\_beneficiaries},
    ROUND(AVG(dual_beneficiaries), 0) as national_avg_dual_beneficiariess,
FROM
    `bigquery-public-data.cms medicare.nursing facilities 2014`;
-- Demographic information: Average number of male and female beneficiaries, dual and non-dual beneficiaries and age of
-- beneficiaries by state
SELECT
    state.
   ROUND(AVG(average_age), 2) AS state_avg_age,
    ROUND(AVG(male_beneficiaries), 0) as state_avg_male_beneficiaries,
    ROUND(AVG(female_beneficiaries), 0) as state_avg_female_beneficiaries,
    ROUND(AVG(nondual_beneficiaries), 0) as state_avg_nondual_beneficiaries,
    ROUND(AVG(dual beneficiaries), 0) as state avg dual beneficiariess,
    `bigquery-public-data.cms medicare.nursing facilities 2014`
GROUP BY state
ORDER BY state_avg_age DESC;
-- National average, minimum and maximum average length of stav in days in nursing facilities
SELECT.
    ROUND(AVG(average_length_of_stays_days), 2) AS national_average_length_of_stays_days,
   MIN(average_length_of_stays_days) AS national_min_average_length_of_stays_days,
   MAX(average length of stays days) AS national max length of stays days
FROM
    `bigquery-public-data.cms medicare.nursing facilities 2014`;
-- Average, minimum and maximum average length of stay in days in nursing facilities for each state
SELECT
    ROUND(AVG(average_length_of_stays_days), 2) AS state_average_length_of_stays_days,
    MIN(average_length_of_stays_days) AS state_min_average_length_of_stays_days,
   MAX(average_length_of_stays_days) AS state_max_length_of_stays_days
    `bigquery-public-data.cms_medicare.nursing_facilities_2014`
GROUP BY state
ORDER BY state_average_length_of_stays_days DESC;
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-- States with average length of stay in days above national average
SELECT.
    state.
    state_average_length_of_stays_days
FROM (
    WITH new_nursing_facilities AS
    (SELECT
    state,
    average_length_of_stays_days,
    AVG(average_length_of_stays_days) OVER () AS national_average_length_of_stays_days,
    `bigquery-public-data.cms_medicare.nursing_facilities_2014`)
    SELECT
    ROUND(AVG(average_length_of_stays_days), 2) AS state_average_length_of_stays_days,
    IF(AVG(average length of stays days) > national average length of stays days, 'true', 'false') AS states above national avg
    FROM new_nursing_facilities
    GROUP BY state, national_average_length_of_stays_days
    WHERE states above national avg = 'true'
    GROUP BY state, state_average_length_of_stays_days
    ORDER BY state_average_length_of_stays_days;
-- National total, average, minimum and maximum medicare standard payment amount for nursing facilities
SELECT.
    SUM(total snf medicare standard payment amount) AS national total medicare standard payment,
    ROUND(AVG(total_snf_medicare_standard_payment_amount), 2) AS national_avg_medicare_standard_payment,
    MIN(total_snf_medicare_standard_payment_amount) AS national_min_medicare_standard_payment,
    {\tt MAX} ({\tt total\_snf\_medicare\_standard\_payment\_amount}) \ \ {\tt AS} \ \ {\tt national\_max\_medicare\_standard\_payment}
FROM
    `bigquery-public-data.cms_medicare.nursing_facilities_2014`;
-- State total, average, minimum and maximum medicare standard payment amount for nursing facilities
SELECT
    state,
    ROUND(AVG(total snf medicare standard payment amount), 2) AS state avg medicare standard payment,
    {\color{blue} {\tt MIN}(total\_snf\_medicare\_standard\_payment\_amount)} ~{\color{blue} {\tt AS}} ~{\color{blue} {\tt state\_min\_medicare\_standard\_payment,}} \\
    MAX(total_snf_medicare_standard_payment_amount) AS state_max_medicare_standard_payment,
    {\tt SUM}({\tt total\_snf\_medicare\_standard\_payment\_amount}) \ \ {\tt AS} \ \ {\tt state\_total\_medicare\_standard\_payment},
FROM
    `bigquery-public-data.cms_medicare.nursing_facilities_2014`
GROUP BY state
ORDER BY state_avg_medicare_standard_payment DESC;
-- National average, minimum and maximum total stays in nursing facilities and medicare payment amount per stay
SELECT
    ROUND(AVG(total_stays), 2) AS national_average_total_stays,
    MIN(total stays) AS national min total stays,
    MAX(total_stays) AS national_max_total_stays,
    SUM(total_stays) AS national_year_total_stays,
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SUM(total snf medicare standard payment amount) AS national year medicare standard payment,
    ROUND(SUM(total_snf_medicare_standard_payment_amount)/SUM(total_stays), 2) AS national_amount_per_stay
FROM
    `bigquery-public-data.cms_medicare.nursing_facilities_2014`;
-- Average, minimum and maximum total stays in nursing facilities and medicare payment amount per stay for each state
SELECT
    state,
    ROUND(AVG(total_stays), 2) AS state_average_total_stays,
    MIN(total_stays) AS state_min_total_stays,
    MAX(total_stays) AS state_max_total_stays,
    SUM(total_stays) AS state_year_total_stays,
    {\tt SUM(total\_snf\_medicare\_standard\_payment\_amount)} \  \  {\tt AS} \  \  {\tt state\_year\_medicare\_standard\_payment,} \\
    ROUND(SUM(total_snf_medicare_standard_payment_amount)/SUM(total_stays), 2) AS state_amount_per_stay
FROM
    `bigguery-public-data.cms medicare.nursing facilities 2014`
GROUP BY state
ORDER BY state amount per stay DESC;
-- States with medicare payment amount per stay above national average
SELECT
    state_amount_per_stay
    WITH nursing_facilities_total_stays AS
    (SELECT
    state,
    total stays,
    {\tt total\_snf\_medicare\_standard\_payment\_amount,}
    {\tt SUM(total\_snf\_medicare\_standard\_payment\_amount)} \ \ {\tt OVER} \ \ () \ \ {\tt AS} \ \ {\tt national\_standard\_payment\_amount},
    SUM(total_stays) OVER () AS national_total_stays
    FROM
    `bigquery-public-data.cms_medicare.nursing_facilities_2014`)
    SELECT
    state.
    ROUND(SUM(total_snf_medicare_standard_payment_amount)/SUM(total_stays), 2) AS state_amount_per_stay,
    ROUND(national standard payment amount/national total stays, 2) AS national amount per stay,
    FROM nursing_facilities_total_stays
    GROUP BY state, national amount per stay
    WHERE state_amount_per_stay > national_amount_per_stay
    GROUP BY state, state_amount_per_stay
    ORDER BY state_amount_per_stay DESC;
-- National total, average, minimum and maximum average HCC score for nursing facilities
SELECT
    ROUND(AVG(average hcc score), 2) AS national avg average hcc score,
    MIN(average_hcc_score) AS national_min_average_hcc_score,
    MAX(average_hcc_score) AS national_max_average_hcc_score
FROM
    `bigquery-public-data.cms_medicare.nursing_facilities_2014`;
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-- State average, minimum, maximum HCC score and disparity between highest and lowest HCC score for nursing facilities
SELECT
            state.
            ROUND(AVG(average hcc score), 2) AS state avg average hcc score,
            MIN(average_hcc_score) AS state_min_average_hcc_score,
            MAX(average_hcc_score) AS state_max_average_hcc_score,
            ROUND(MAX(average_hcc_score) - MIN(average_hcc_score), 2) AS diff_max_min_average_hcc_score
FROM
             `bigquery-public-data.cms_medicare.nursing_facilities_2014`
GROUP BY state
ORDER BY diff_max_min_average_hcc_score DESC;
-- States with HCC score above national average
SELECT
            state.
            state average hcc score
FROM (
            WITH nursing_facilities_hcc_score AS
            (SELECT
            state.
            average_hcc_score,
            AVG(average_hcc_score) OVER () AS national_average_hcc_score,
             `bigquery-public-data.cms_medicare.nursing_facilities_2014`)
            SELECT
            state.
            ROUND(AVG(average_hcc_score), 2) AS state_average_hcc_score,
            ROUND(national_average_hcc_score, 2) AS national_average_hcc_score
            FROM nursing_facilities_hcc_score
            GROUP BY state, national_average_hcc_score
            WHERE state_average_hcc_score > national_average_hcc_score
            GROUP BY state, state_average_hcc_score
            ORDER BY state_average_hcc_score DESC;
-- Nationwide average percent of beneficiaries having some specific chronic conditions
SELECT
            ROUND(AVG(percent_of_beneficiaries_with_atrial_fibrillation), 2) AS national_avg_percent_atrial_fibrillation,
            ROUND(AVG(percent_of_beneficiaries_with_alzheimers), 2) AS national_avg_percent_alzheimers,
            ROUND(AVG(percent_of_beneficiaries_with_asthma), 2) AS national_avg_percent_asthma,
            ROUND(AVG(percent_of_beneficiaries_with_cancer), 2) AS national_avg_percent_cancer,
            ROUND(AVG(percent_of_beneficiaries_with_chf), 2) AS national_avg_percent_chf,
            \label{local_round_round} \textbf{ROUND}(\textbf{AVG}(\texttt{percent\_of\_beneficiaries\_with\_chronic\_kidney\_disease}), \textbf{ 2}) \ \textbf{AS} \ \textbf{national\_avg\_percent\_chronic\_kidney\_disease}, \textbf{ 2}) \\ \textbf{AS} \ \textbf{national\_avg\_percent\_chronic\_kidney\_disease}, \textbf{ 3}) \\ \textbf{AS} \ \textbf{national\_avg\_percent\_chronic\_kidney\_disease}, \textbf{ 3}) \\ \textbf{AS} \ \textbf{national\_avg\_percent\_chronic\_kidney\_disease}, \textbf{ 4}) \\ \textbf{AS} \ \textbf{AS} \ \textbf{national\_avg\_percent\_chronic\_kidney\_disease}, \textbf{ 4}) \\ \textbf{AS} \ \textbf{AS} \ \textbf{national\_avg\_percent\_chronic\_kidney\_disease}, \textbf{ 4}) \\ \textbf{AS} \ \textbf{AS} \\ \textbf{AS} \ \textbf{AS
            ROUND(AVG(percent_of_beneficiaries_with_copd), 2) AS national_avg_percent_copd,
            ROUND(AVG(percent_of_beneficiaries_with_depression), 2) AS national_avg_percent_depression,
            ROUND(AVG(percent of beneficiaries with diabetes), 2) AS national avg percent diabetes,
            ROUND(AVG(percent_of_beneficiaries_with_hyperlipidemia), 2) AS national_avg_percent_hyperlipidemia,
            ROUND(AVG(percent_of_beneficiaries_with_ihd), 2) AS national_avg_percent_ihd,
            {\tt ROUND} ({\tt AVG} ({\tt percent\_of\_beneficiaries\_with\_osteoporosis}), {\tt 2}) \ {\tt AS} \ {\tt national\_avg\_percent\_osteoporosis}, {\tt 3}) \ {\tt AS} \ {\tt national\_avg\_percent\_osteoporosis}, {\tt 3}) \ {\tt 2} \ {\tt NS} \
            ROUND(AVG(percent_of_beneficiaries_with_ra_oa), 2) AS national_avg_percent_ra_oa,
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ROUND(AVG(percent_of_beneficiaries_with_schizophrenia), 2) AS national_avg_percent_schizophrenia,
    ROUND(AVG(percent_of_beneficiaries_with_stroke), 2) AS national_avg_percent_stroke
FROM
    `bigquery-public-data.cms_medicare.nursing_facilities_2014`;
-- Average percent of beneficiaries having some specific chronic conditions by state
SELECT
   state,
   ROUND(AVG(percent_of_beneficiaries_with_atrial_fibrillation), 2) AS state_avg_percent_atrial_fibrillation,
    ROUND(AVG(percent_of_beneficiaries_with_alzheimers), 2) AS state_avg_percent_alzheimers,
    ROUND(AVG(percent_of_beneficiaries_with_asthma), 2) AS state_avg_percent_asthma,
    ROUND(AVG(percent_of_beneficiaries_with_cancer), 2) AS state_avg_percent_cancer,
    ROUND(AVG(percent_of_beneficiaries_with_chf), 2) AS state_avg_percent_chf,
    ROUND(AVG(percent_of_beneficiaries_with_chronic_kidney_disease), 2) AS state_avg_percent_chronic_kidney_disease,
    ROUND(AVG(percent_of_beneficiaries_with_copd), 2) AS state_avg_percent_copd,
    ROUND(AVG(percent of beneficiaries with depression), 2) AS state avg percent depression,
    ROUND(AVG(percent_of_beneficiaries_with_diabetes), 2) AS state_avg_percent_diabetes,
    ROUND(AVG(percent_of_beneficiaries_with_hyperlipidemia), 2) AS state_avg_percent_hyperlipidemia,
    ROUND(AVG(percent_of_beneficiaries_with_ihd), 2) AS state_avg_percent_ihd,
    ROUND(AVG(percent_of_beneficiaries_with_osteoporosis), 2) AS state_avg_percent_osteoporosis,
    ROUND(AVG(percent_of_beneficiaries_with_ra_oa), 2) AS state_avg_percent_ra_oa,
    {\tt ROUND(AVG(percent\_of\_beneficiaries\_with\_schizophrenia), 2)} \ \ {\tt AS} \ \ {\tt state\_avg\_percent\_schizophrenia, 2} \\
    ROUND(AVG(percent_of_beneficiaries_with_stroke), 2) AS state_avg_percent_stroke
FROM
    `bigquery-public-data.cms_medicare.nursing_facilities_2014`
GROUP BY state;
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