

Disproportionality Analysis for medical claims data

Version 3.1

Description of parameter file, *DP_parameters.txt*:

Sample parameter file for Disproportionality Analysis program:

<BEGIN FILE "DP_parameters.txt">

CONDITION_TYPE_1_2: 1 2
COUNTING_SCENARIO_1_to_4: 2
DEFINE_DP_METRIC_1_to_11: 1 3 4 7 8 10 11
STRATIFICATION_BY_AGE_0_(no)_or_1_(yes): 0
STRATIFICATION_BY_SEX_0_(no)_or_1_(yes): 0
STRATIFICATION_BY_YEAR_0_(no)_or_1_(yes): 0
SURVEILLANCE_WINDOW_IN_DAYS: 30
DRUG_PERSISTENCE_WINDOW_DAYS_0_or_30: 30
CONDITION_PERSISTENCE_WINDOW_DAYS_0_or_30: 30
DATABASE_NAME: NULL

<END OF FILE "DP_Parameters.txt">

The input parameters for the DP program as following:

1. CONDITION_TYPE: whether to consider all occurrences (1-prevalent) or first occurrence (2-incident) of conditions as potential outcomes
2. COUNTING_SCENARIO: 3 alternative strategies for constructing 2-by-2 contingency tables based on the available data (1-distinct patients, where

- persons are classified as exposed or not, having condition or not; 2- spontaneous reporting where only drug-event co-occurrences are classified by exposure and outcome status; 3-modified SRS, where drugs without conditions and conditions without drugs are also included)
3. DEFINE_DP_METRIC : approaches for calculating disproportionality score based on a 2-by-2 table (ex. 1-proportional reporting ratio, 2-reporting odds ratio, 3- Bayesian confidence propagation neural network/information component, 4-multi-item gamma Poisson shrinker empiric Bayes geometric mean), 7- signed chi square, 8-PRR05; 9-ROR05; 10-BCPNN05; 11=EB05)
 4. STRATIFICATION_BY_AGE: whether to stratify the 2x2 tables by age groups (0-no, 1-yes)
 5. STRATIFICATION_BY_SEX: whether to stratify the 2x2 tables by gender (0-no, 1-yes)
 6. STRATIFICATION_BY_YEAR: whether to stratify the 2x2 tables by year of report (0-no, 1-yes)
 7. SURVEILLANCE_WINDOW: the period of time a patient is inferred to be 'at-risk' and therefore counting occurrence of conditions as potential events (ex: -30 is used to capture events that happen within 30 days of initiation of exposure; +60 is used to capture events that happen anytime during or within 60 days following the end of exposure)
 8. DRUG_PERSISTENCE_WINDOW: the OMOP common data model provides supplementary tables populated with 'drug eras' to derive periods of exposure from disparate sources (such as prescription dispensing, procedural administrations, medication history, prescription histories).

- 'Drug eras' were built using a 0-d and 30-day persistence window assumption used to characterize continuous use. This parameter specifies which of the two assumptions to apply.
9. `CONDITION_PERSISTENCE_WINDOW`: the OMOP common data model provides supplementary tables populated with 'condition eras' to derive episodes of care for a given condition, based on available information (such as diagnoses, problem lists) 'Condition eras' were built using a 0-d and 30-day persistence window assumption used to aggregate observations that are likely part of one period. This parameter specifies which of the two assumptions to apply.
10. `DATABASE_NAME` [alphanumeric abbreviation]. Database name parameter that is used in the name of the output file. If parameter is set to 'NULL', program will use database name defined in the body of the SAS code.