

Package ‘CohortCharacteristics’

November 26, 2024

Type Package

Title Summarise and Visualise Characteristics of Patients in the OMOP CDM

Version 0.4.0

Maintainer Marti Catala <marti.catalasabate@ndorms.ox.ac.uk>

Description Summarise and visualise the characteristics of patients in data mapped to the Observational Medical Outcomes Partnership (OMOP) common data model (CDM).

License Apache License (>= 2)

Encoding UTF-8

RoxygenNote 7.3.2

Imports CDMConnector (>= 1.6.0), dplyr, tidyr, rlang, cli, stringr, omopgenerics (>= 0.4.0), visOmopResults (>= 0.5.0), PatientProfiles (>= 1.2.0), snakecase, lifecycle, purrr

URL <https://darwin-eu.github.io/CohortCharacteristics/>

BugReports <https://github.com/darwin-eu/CohortCharacteristics/issues>

Language en-US

Depends R (>= 2.10)

Config/testthat/edition 3

Config/testthat/parallel true

VignetteBuilder knitr

Suggests CodelistGenerator, CohortConstructor, covr, DBI, dbplyr, DiagrammeR, DrugUtilisation, duckdb (>= 1.0.0), flextable, ggplot2, ggpubr, glue, gt, here, knitr, odbc, omock, plotly, rmarkdown, RPostgres, scales, spelling, testthat (>= 3.1.5), tictoc, withr

NeedsCompilation no

Author Marti Catala [aut, cre] (<<https://orcid.org/0000-0003-3308-9905>>), Yuchen Guo [aut] (<<https://orcid.org/0000-0002-0847-4855>>), Mike Du [ctb] (<<https://orcid.org/0000-0002-9517-8834>>),

Kim Lopez-Guell [aut] (<<https://orcid.org/0000-0002-8462-8668>>),
 Edward Burn [aut] (<<https://orcid.org/0000-0002-9286-1128>>),
 Nuria Mercade-Besora [aut] (<<https://orcid.org/0009-0006-7948-3747>>),
 Marta Alcalde [aut] (<<https://orcid.org/0009-0002-4405-1814>>)

Repository CRAN

Date/Publication 2024-11-26 22:10:02 UTC

Contents

availablePlotColumns	2
availableTableColumns	3
benchmarkCohortCharacteristics	4
mockCohortCharacteristics	5
plotCharacteristics	6
plotCohortAttrition	7
plotCohortCount	8
plotCohortOverlap	9
plotCohortTiming	10
plotComparedLargeScaleCharacteristics	12
plotLargeScaleCharacteristics	13
summariseCharacteristics	14
summariseCohortAttrition	17
summariseCohortCount	18
summariseCohortOverlap	18
summariseCohortTiming	19
summariseLargeScaleCharacteristics	20
tableCharacteristics	22
tableCohortAttrition	23
tableCohortCount	24
tableCohortOverlap	25
tableCohortTiming	26
tableLargeScaleCharacteristics	27

Index	29
--------------	-----------

availablePlotColumns *Available columns to use in facet and colour arguments in plot functions.*

Description

Available columns to use in `facet` and `colour` arguments in plot functions.

Usage

```
availablePlotColumns(result)
```

Arguments

result A summarised_result object.

Value

Character vector with the available columns.

Examples

```
{  
  cdm <- mockCohortCharacteristics()  
  
  result <- summariseCharacteristics(cdm$cohort1)  
  
  availablePlotColumns(result)  
  
  mockDisconnect(cdm)  
}
```

availableTableColumns *Available columns to use in header, groupColumn and hide arguments in table functions.*

Description

Available columns to use in header, groupColumn and hide arguments in table functions.

Usage

```
availableTableColumns(result)
```

Arguments

result A summarised_result object.

Value

Character vector with the available columns.

Examples

```
{  
  cdm <- mockCohortCharacteristics()  
  
  result <- summariseCharacteristics(cdm$cohort1)  
  
  availableTableColumns(result)  
  
  mockDisconnect(cdm)  
}
```

benchmarkCohortCharacteristics

Benchmark the main functions of CohortCharacteristics package.

Description

Benchmark the main functions of CohortCharacteristics package.

Usage

```
benchmarkCohortCharacteristics(
  cohort,
  analysis = c("count", "attrition", "characteristics", "overlap", "timing",
  "large scale characteristics")
)
```

Arguments

cohort	A cohort_table from a cdm_reference.
analysis	Set of analysis to perform, must be a subset of: "count", "attrition", "characteristics", "overlap", "timing" and "large scale characteristics".

Value

A summarised_result object.

Examples

```
## Not run:
CDMConnector::requireEunomia()
con <- duckdb::dbConnect(duckdb::duckdb(), CDMConnector::eunomiaDir())
cdm <- CDMConnector::cdmFromCon(
  con = con, cdmSchema = "main", writeSchema = "main"
)

cdm <- CDMConnector::generateConceptCohortSet(
  cdm = cdm,
  conceptSet = list(sinusitis = 40481087, pharyngitis = 4112343),
  name = "my_cohort"
)

benchmarkCohortCharacteristics(cdm$my_cohort)

## End(Not run)
```

mockCohortCharacteristics

It creates a mock database for testing CohortCharacteristics package

Description

It creates a mock database for testing CohortCharacteristics package

Usage

```
mockCohortCharacteristics(  
  con = NULL,  
  writeSchema = NULL,  
  numberIndividuals = 10,  
  ...  
  seed = NULL  
)
```

Arguments

con	A DBI connection to create the cdm mock object.
writeSchema	Name of an schema on the same connection with writing permissions.
numberIndividuals	Number of individuals to create in the cdm reference.
...	User self defined tables to put in cdm, it can input as many as the user want.
seed	A number to set the seed. If NULL seed is not used.

Value

A mock cdm_reference object created following user's specifications.

Examples

```
library(CohortCharacteristics)  
library(CDMConnector)  
  
cdm <- mockCohortCharacteristics()  
  
mockDisconnect(cdm = cdm)
```

plotCharacteristics *Create a ggplot from the output of summariseCharacteristics.*

Description

[Experimental]

Usage

```
plotCharacteristics(
  result,
  plotType = "barplot",
  facet = NULL,
  colour = NULL,
  plotStyle = lifecycle::deprecated()
)
```

Arguments

<code>result</code>	A summarised_result object.
<code>plotType</code>	Either barplot, scatterplot or boxplot. If barplot or scatterplot subset to just one estimate.
<code>facet</code>	Columns to facet by. See options with availablePlotColumns(result). Formula is also allowed to specify rows and columns.
<code>colour</code>	Columns to color by. See options with availablePlotColumns(result).
<code>plotStyle</code>	deprecated.

Value

A ggplot.

Examples

```
library(CohortCharacteristics)
library(dplyr, warn.conflicts = FALSE)

cdm <- mockCohortCharacteristics()

results <- summariseCharacteristics(
  cohort = cdm$cohort1,
  ageGroup = list(c(0, 19), c(20, 39), c(40, 59), c(60, 79), c(80, 150)),
  tableIntersectCount = list(
    tableName = "visit_occurrence", window = c(-365, -1)
  ),
  cohortIntersectFlag = list(
    targetCohortTable = "cohort2", window = c(-365, -1)
  )
)
```

```
)  
  
results |>  
  filter(  
    variable_name == "Cohort2 flag -365 to -1", estimate_name == "percentage"  
  ) |>  
  plotCharacteristics(  
    plotType = "barplot",  
    colour = "variable_level",  
    facet = c("cdm_name", "cohort_name")  
  )  
  
results |>  
  filter(variable_name == "Age", estimate_name == "mean") |>  
  plotCharacteristics(  
    plotType = "scatterplot",  
    facet = "cdm_name"  
  )  
  
results |>  
  filter(variable_name == "Age", group_level == "cohort_1") |>  
  plotCharacteristics(  
    plotType = "boxplot",  
    facet = "cdm_name",  
    colour = "cohort_name"  
  )  
  
mockDisconnect(cdm)
```

plotCohortAttrition *create a ggplot from the output of summariseLargeScaleCharacteristics.*

Description

[Experimental]

Usage

```
plotCohortAttrition(  
  result,  
  show = c("subjects", "records"),  
  cohortId = lifecycle::deprecated()  
)
```

Arguments

result A summarised_result object.

show	Which variables to show in the attrition plot, it can be 'subjects', 'records' or both.
cohortId	deprecated.

Value

A grViz visualisation.

Examples

```
library(CohortCharacteristics)
library(omopgenerics)
library(dplyr, warn.conflicts = FALSE)

cdm <- mockCohortCharacteristics(numberIndividuals = 1000)

cdm[["cohort1"]] <- cdm[["cohort1"]] |>
  filter(year(cohort_start_date) >= 2000) |>
  recordCohortAttrition("Restrict to cohort_start_date >= 2000") |>
  filter(year(cohort_end_date) < 2020) |>
  recordCohortAttrition("Restrict to cohort_end_date < 2020") |>
  compute(temporary = FALSE, name = "cohort1")

result <- summariseCohortAttrition(cdm$cohort1)

result |>
  filter(group_level == "cohort_2") |>
  plotCohortAttrition()

mockDisconnect(cdm)
```

plotCohortCount *Plot the result of summariseCohortCount.*

Description

[Experimental]

Usage

```
plotCohortCount(result, x = NULL, facet = c("cdm_name"), colour = NULL)
```

Arguments

result	A summarised_result object.
x	Variables to use in x axis.

facet	Columns to facet by. See options with availablePlotColumns(result). Formula is also allowed to specify rows and columns.
colour	Columns to color by. See options with availablePlotColumns(result).

Value

A ggplot.

Examples

```
library(CohortCharacteristics)
library(PatientProfiles)
library(dplyr, warn.conflicts = FALSE)

cdm <- mockCohortCharacteristics(numberIndividuals = 100)

counts <- cdm$cohort2 |>
  addSex() |>
  addAge(ageGroup = list(c(0, 29), c(30, 59), c(60, Inf))) |>
  summariseCohortCount(strata = list("age_group", "sex", c("age_group", "sex"))) |>
  filter(variable_name == "Number subjects")

counts |>
  plotCohortCount(
    x = "sex",
    facet = cohort_name ~ age_group,
    colour = "sex"
  )

mockDisconnect(cdm)
```

plotCohortOverlap *Plot the result of summariseCohortOverlap.*

Description

[Experimental]

Usage

```
plotCohortOverlap(
  result,
  uniqueCombinations = TRUE,
  y = NULL,
  facet = c("cdm_name", "cohort_name_reference"),
  colour = "variable_name",
  .options = lifecycle::deprecated()
)
```

Arguments

<code>result</code>	A summarised_result object.
<code>uniqueCombinations</code>	Whether to restrict to unique reference and comparator comparisons.
<code>y</code>	Variables to use in y axis, if NULL all variables not present in facet are used.
<code>facet</code>	Columns to facet by. See options with availablePlotColumns(result). Formula is also allowed to specify rows and columns.
<code>colour</code>	Columns to color by. See options with availablePlotColumns(result).
<code>.options</code>	deprecated.

Value

A ggplot.

Examples

```
library(CohortCharacteristics)

cdm <- mockCohortCharacteristics()

overlap <- summariseCohortOverlap(cdm$cohort2)

plotCohortOverlap(overlap, uniqueCombinations = FALSE)

mockDisconnect(cdm)
```

plotCohortTiming *Plot summariseCohortTiming results.*

Description

[Experimental]

Usage

```
plotCohortTiming(
  result,
  plotType = "boxplot",
  timeScale = "days",
  uniqueCombinations = TRUE,
  facet = c("cdm_name", "cohort_name_reference"),
  colour = c("cohort_name_comparator")
)
```

Arguments

result	A summarised_result object.
plotType	Type of desired formatted table, possibilities are "boxplot" and "densityplot".
timeScale	Time scale to show, it can be "days" or "years".
uniqueCombinations	Whether to restrict to unique reference and comparator comparisons.
facet	Columns to facet by. See options with availablePlotColumns(result). Formula is also allowed to specify rows and columns.
colour	Columns to color by. See options with availablePlotColumns(result).

Value

A ggplot.

Examples

```
## Not run:
library(CohortCharacteristics)
library(duckdb)
library(CDMConnector)
library(DrugUtilisation)

con <- dbConnect(duckdb(), eunomiaDir())
cdm <- cdmFromCon(con, cdmSchem = "main", writeSchema = "main")

cdm <- generateIngredientCohortSet(
  cdm = cdm,
  name = "my_cohort",
  ingredient = c("acetaminophen", "morphine", "warfarin")
)

timings <- summariseCohortTiming(cdm$my_cohort)

plotCohortTiming(
  timings,
  timeScale = "years",
  uniqueCombinations = FALSE,
  facet = c("cdm_name", "cohort_name_reference"),
  colour = c("cohort_name_comparator")
)

plotCohortTiming(
  timings,
  plotType = "densityplot",
  timeScale = "years",
  uniqueCombinations = FALSE,
  facet = c("cdm_name", "cohort_name_reference"),
  colour = c("cohort_name_comparator")
)
```

```
cdmDisconnect(cdm)

## End(Not run)
```

plotComparedLargeScaleCharacteristics

create a ggplot from the output of summariseLargeScaleCharacteristics.

Description

[Experimental]

Usage

```
plotComparedLargeScaleCharacteristics(
  result,
  reference,
  missings = 0,
  facet = NULL,
  colour = NULL
)
```

Arguments

<code>result</code>	A summarised_result object.
<code>reference</code>	A named character to set up the reference.
<code>missings</code>	Value to replace the missing value with. If NULL missing values will be eliminated.
<code>facet</code>	Columns to facet by. See options with availablePlotColumns(result). Formula is also allowed to specify rows and columns.
<code>colour</code>	Columns to color by. See options with availablePlotColumns(result).

Value

A ggplot.

Examples

```
## Not run:
library(CohortCharacteristics)
library(duckdb)
library(CDMConnector)
library(DrugUtilisation)
library(plotly, warn.conflicts = FALSE)
```

```

con <- dbConnect(duckdb(), eunomiaDir())
cdm <- cdmFromCon(con, cdmSchem = "main", writeSchema = "main")

cdm <- generateIngredientCohortSet(
  cdm = cdm, name = "my_cohort", ingredient = "acetaminophen"
)

resultsLsc <- cdm$my_cohort |>
  summariseLargeScaleCharacteristics(
    window = list(c(-365, -1), c(1, 365)),
    eventInWindow = "condition_occurrence"
  )

resultsLsc |>
  plotComparedLargeScaleCharacteristics(
    reference = c(variable_level = "-365 to -1"),
    colour = "variable_name",
    missings = NULL
  ) |>
  ggplotly()

cdmDisconnect(cdm)

## End(Not run)

```

plotLargeScaleCharacteristics

create a ggplot from the output of summariseLargeScaleCharacteristics.

Description

[Experimental]

Usage

```
plotLargeScaleCharacteristics(
  result,
  facet = c("cdm_name", "cohort_name"),
  colour = "variable_level"
)
```

Arguments

<code>result</code>	A summarised_result object.
<code>facet</code>	Columns to facet by. See options with availablePlotColumns(result). Formula is also allowed to specify rows and columns.
<code>colour</code>	Columns to color by. See options with availablePlotColumns(result).

Value

A ggplot2 object.

Examples

```
## Not run:
library(CohortCharacteristics)
library(duckdb)
library(CDMConnector)
library(DrugUtilisation)

con <- dbConnect(duckdb(), eunomiaDir())
cdm <- cdmFromCon(con, cdmSchem = "main", writeSchema = "main")

cdm <- generateIngredientCohortSet(
  cdm = cdm, name = "my_cohort", ingredient = "acetaminophen"
)

resultsLsc <- cdm$my_cohort |>
  summariseLargeScaleCharacteristics(
    window = list(c(-365, -1), c(1, 365)),
    eventInWindow = "condition_occurrence"
  )

resultsLsc |>
  plotLargeScaleCharacteristics(
    facet = c("cdm_name", "cohort_name"),
    colour = "variable_level"
  )

cdmDisconnect(cdm)

## End(Not run)
```

summariseCharacteristics

Summarise characteristics of cohorts in a cohort table

Description

Summarise characteristics of cohorts in a cohort table

Usage

```
summariseCharacteristics(
  cohort,
  cohortId = NULL,
  strata = list(),
```

```

counts = TRUE,
demographics = TRUE,
ageGroup = NULL,
tableIntersectFlag = list(),
tableIntersectCount = list(),
tableIntersectDate = list(),
tableIntersectDays = list(),
cohortIntersectFlag = list(),
cohortIntersectCount = list(),
cohortIntersectDate = list(),
cohortIntersectDays = list(),
conceptIntersectFlag = list(),
conceptIntersectCount = list(),
conceptIntersectDate = list(),
conceptIntersectDays = list(),
otherVariables = character(),
estimates = list(),
otherVariablesEstimates = lifecycle::deprecated()
)

```

Arguments

cohort	A cohort_table object.
cohortId	A cohort definition id to restrict by. If NULL, all cohorts will be included.
strata	A list of variables to stratify results. These variables must have been added as additional columns in the cohort table.
counts	TRUE or FALSE. If TRUE, record and person counts will be produced.
demographics	TRUE or FALSE. If TRUE, patient demographics (cohort start date, cohort end date, age, sex, prior observation, and future observation will be summarised).
ageGroup	A list of age groups to stratify results by.
tableIntersectFlag	A list of arguments that uses PatientProfiles::addTableIntersectFlag() to add variables to summarise.
tableIntersectCount	A list of arguments that uses PatientProfiles::addTableIntersectCount() to add variables to summarise.
tableIntersectDate	A list of arguments that uses PatientProfiles::addTableIntersectDate() to add variables to summarise.
tableIntersectDays	A list of arguments that uses PatientProfiles::addTableIntersectDays() to add variables to summarise.
cohortIntersectFlag	A list of arguments that uses PatientProfiles::addCohortIntersectFlag() to add variables to summarise.
cohortIntersectCount	A list of arguments that uses PatientProfiles::addCohortIntersectCount() to add variables to summarise.

cohortIntersectDate
A list of arguments that uses PatientProfiles::addCohortIntersectDate() to add variables to summarise.

cohortIntersectDays
A list of arguments that uses PatientProfiles::addCohortIntersectDays() to add variables to summarise.

conceptIntersectFlag
A list of arguments that uses PatientProfiles::addConceptIntersectFlag() to add variables to summarise.

conceptIntersectCount
A list of arguments that uses PatientProfiles::addConceptIntersectCount() to add variables to summarise.

conceptIntersectDate
A list of arguments that uses PatientProfiles::addConceptIntersectDate() to add variables to summarise.

conceptIntersectDays
A list of arguments that uses PatientProfiles::addConceptIntersectDays() to add variables to summarise.

otherVariables Other variables contained in cohort that you want to be summarised.

estimates To modify the default estimates for a variable. By default: 'min', 'q25', 'median', 'q75', 'max' for "date", "numeric" and "integer" variables ("numeric" and "integer" also use 'mean' and 'sd' estimates). 'count' and 'percentage' for "categorical" and "binary". You have to provide them as a list: list(age = c("median", "density")). You can also use 'date', 'numeric', 'binary' or 'categorical' keywords.

otherVariablesEstimates
deprecated.

Value

A summary of the characteristics of the cohorts in the cohort table.

Examples

```
library(dplyr, warn.conflicts = FALSE)
library(CohortCharacteristics)
library(PatientProfiles)

cdm <- mockCohortCharacteristics()

cdm$cohort1 |>
  addSex() |>
  addAge(
    ageGroup = list(c(0, 40), c(41, 150))
  ) |>
  summariseCharacteristics(
    strata = list("sex", "age_group"),
    cohortIntersectFlag = list(
      "Cohort 2 Flag" = list(
        targetCohortTable = "cohort2", window = c(-365, 0)
```

```

        )
),
cohortIntersectCount = list(
  "Cohort 2 Count" = list(
    targetCohortTable = "cohort2", window = c(-365, 0)
  )
)
) |>
glimpse()

mockDisconnect(cdm)

```

summariseCohortAttrition*Summarise attrition associated with cohorts in a cohort table***Description**

Summarise attrition associated with cohorts in a cohort table

Usage

```
summariseCohortAttrition(cohort, cohortId = NULL)
```

Arguments

- | | |
|----------|---|
| cohort | A cohort_table object. |
| cohortId | A cohort definition id to restrict by. If NULL, all cohorts will be included. |

Value

A summary of the attrition for the cohorts in the cohort table.

Examples

```

library(CohortCharacteristics)
library(dplyr, warn.conflicts = FALSE)

cdm <- mockCohortCharacteristics()

summariseCohortAttrition(cohort = cdm$cohort1) |>
  glimpse()

mockDisconnect(cdm)

```

summariseCohortCount *Summarise counts for cohorts in a cohort table*

Description

Summarise counts for cohorts in a cohort table

Usage

```
summariseCohortCount(cohort, cohortId = NULL, strata = list())
```

Arguments

- | | |
|----------|--|
| cohort | A cohort_table object. |
| cohortId | A cohort definition id to restrict by. If NULL, all cohorts will be included. |
| strata | A list of variables to stratify results. These variables must have been added as additional columns in the cohort table. |

Value

A summary of counts of the cohorts in the cohort table.

Examples

```
library(CohortCharacteristics)
library(dplyr, warn.conflicts = FALSE)

cdm <- mockCohortCharacteristics()

summariseCohortCount(cohort = cdm$cohort1) |>
  glimpse()

mockDisconnect(cdm)
```

summariseCohortOverlap

Summarise overlap between cohorts in a cohort table

Description

Summarise overlap between cohorts in a cohort table

Usage

```
summariseCohortOverlap(
  cohort,
  cohortId = NULL,
  strata = list(),
  overlapBy = "subject_id"
)
```

Arguments

cohort	A cohort_table object.
cohortId	A cohort definition id to restrict by. If NULL, all cohorts will be included.
strata	A list of variables to stratify results. These variables must have been added as additional columns in the cohort table.
overlapBy	Columns in cohort to use as record identifiers.

Value

A summary of overlap between cohorts in the cohort table.

Examples

```
library(CohortCharacteristics)
library(dplyr, warn.conflicts = FALSE)

cdm <- mockCohortCharacteristics()

summariseCohortOverlap(cdm$cohort2) |>
  glimpse()

mockDisconnect(cdm)
```

summariseCohortTiming *Summarise timing between entries into cohorts in a cohort table*

Description

Summarise timing between entries into cohorts in a cohort table

Usage

```
summariseCohortTiming(
  cohort,
  cohortId = NULL,
  strata = list(),
  restrictToFirstEntry = TRUE,
```

```

estimates = c("min", "q25", "median", "q75", "max", "density"),
density = lifecycle::deprecated()
)

```

Arguments

<code>cohort</code>	A cohort_table object.
<code>cohortId</code>	A cohort definition id to restrict by. If NULL, all cohorts will be included.
<code>strata</code>	A list of variables to stratify results. These variables must have been added as additional columns in the cohort table.
<code>restrictToFirstEntry</code>	If TRUE only an individual's first entry per cohort will be considered. If FALSE all entries per individual will be considered.
<code>estimates</code>	Summary statistics to use when summarising timing.
<code>density</code>	deprecated.

Value

A summary of timing between entries into cohorts in the cohort table.

Examples

```

library(CohortCharacteristics)
library(dplyr, warn.conflicts = FALSE)

cdm <- mockCohortCharacteristics(numberIndividuals = 100)

summariseCohortTiming(cdm$cohort2) |>
  glimpse()

mockDisconnect(cdm)

```

summariseLargeScaleCharacteristics

This function is used to summarise the large scale characteristics of a cohort table

Description

This function is used to summarise the large scale characteristics of a cohort table

Usage

```
summariseLargeScaleCharacteristics(
  cohort,
  cohortId = NULL,
  strata = list(),
  window = list(c(-Inf, -366), c(-365, -31), c(-30, -1), c(0, 0), c(1, 30), c(31, 365),
    c(366, Inf)),
  eventInWindow = NULL,
  episodeInWindow = NULL,
  indexDate = "cohort_start_date",
  censorDate = NULL,
  includeSource = FALSE,
  minimumFrequency = 0.005,
  excludedCodes = c(0)
)
```

Arguments

cohort	A cohort_table object.
cohortId	A cohort definition id to restrict by. If NULL, all cohorts will be included.
strata	A list of variables to stratify results. These variables must have been added as additional columns in the cohort table.
window	Temporal windows that we want to characterize.
eventInWindow	Tables to characterise the events in the window. eventInWindow must be provided if episodeInWindow is not specified.
episodeInWindow	Tables to characterise the episodes in the window. episodeInWindow must be provided if eventInWindow is not specified.
indexDate	Variable in x that contains the date to compute the intersection.
censorDate	whether to censor overlap events at a specific date or a column date of x
includeSource	Whether to include source concepts.
minimumFrequency	Minimum frequency of codes to be reported. If a concept_id has a frequency smaller than minimumFrequency in a certain window that estimate will be eliminated from the result object.
excludedCodes	Codes excluded.

Value

The output of this function is a ResultSummary containing the relevant information.

Examples

```
## Not run:
library(CohortCharacteristics)
library(duckdb)
```

```

library(CDMConnector)
library(DrugUtilisation)
library(dplyr, warn.conflicts = FALSE)

con <- dbConnect(duckdb(), eunomiaDir())
cdm <- cdmFromCon(con, cdmSchem = "main", writeSchema = "main")

cdm <- generateIngredientCohortSet(
  cdm = cdm, name = "my_cohort", ingredient = "acetaminophen"
)

cdm$my_cohort |>
  summariseLargeScaleCharacteristics(
    window = list(c(-365, -1), c(1, 365)),
    eventInWindow = "condition_occurrence"
  ) |>
  glimpse()

cdmDisconnect(cdm)

## End(Not run)

```

tableCharacteristics *Format a summarise_characteristics object into a visual table.*

Description

[Experimental]

Usage

```

tableCharacteristics(
  result,
  type = "gt",
  header = c("cdm_name", "cohort_name"),
  groupColumn = character(),
  hide = c(additionalColumns(result), settingsColumns(result))
)

```

Arguments

<code>result</code>	A summarised_result object.
<code>type</code>	Type of table. Check supported types with visOmolResults::tableType().
<code>header</code>	Columns to use as header. See options with availableTableColumns(result).
<code>groupColumn</code>	Columns to group by. See options with availableTableColumns(result).
<code>hide</code>	Columns to hide from the visualisation. See options with availableTableColumns(result).

Value

A formatted table.

Examples

```
library(CohortCharacteristics)

cdm <- mockCohortCharacteristics()

result <- summariseCharacteristics(cdm$cohort1)

tableCharacteristics(result)

mockDisconnect(cdm)
```

tableCohortAttrition *Create a visual table from the output of summariseCohortAttrition.*

Description

[Experimental]

Usage

```
tableCohortAttrition(
  result,
  type = "gt",
  header = "variable_name",
  groupColumn = c("cdm_name", "cohort_name"),
  hide = c("variable_level", "reason_id", "estimate_name", settingsColumns(result))
)
```

Arguments

<code>result</code>	A summarised_result object.
<code>type</code>	Type of table. Check supported types with vis0mopResults::tableType().
<code>header</code>	Columns to use as header. See options with availableTableColumns(result).
<code>groupColumn</code>	Columns to group by. See options with availableTableColumns(result).
<code>hide</code>	Columns to hide from the visualisation. See options with availableTableColumns(result).

Value

A formatted table.

Examples

```
library(CohortCharacteristics)

cdm <- mockCohortCharacteristics()

result <- summariseCohortAttrition(cdm$cohort2)

tableCohortAttrition(result)

mockDisconnect(cdm)
```

tableCohortCount

Format a summarise_characteristics object into a visual table.

Description

[Experimental]

Usage

```
tableCohortCount(
  result,
  type = "gt",
  header = "cohort_name",
  groupColumn = character(),
  hide = c("variable_level", settingsColumns(result))
)
```

Arguments

result	A summarised_result object.
type	Type of table. Check supported types with vis0mopResults::tableType().
header	Columns to use as header. See options with availableTableColumns(result).
groupColumn	Columns to group by. See options with availableTableColumns(result).
hide	Columns to hide from the visualisation. See options with availableTableColumns(result).

Value

A formatted table.

Examples

```
library(CohortCharacteristics)

cdm <- mockCohortCharacteristics()

result <- summariseCohortCount(cdm$cohort1)

tableCohortCount(result)

mockDisconnect(cdm = cdm)
```

tableCohortOverlap *Format a summariseOverlapCohort result into a visual table.*

Description

[Experimental]

Usage

```
tableCohortOverlap(
  result,
  uniqueCombinations = TRUE,
  type = "gt",
  header = c("variable_name"),
  groupColumn = c("cdm_name"),
  hide = c("variable_level", settingsColumns(result))
)
```

Arguments

<code>result</code>	A summarised_result object.
<code>uniqueCombinations</code>	Whether to restrict to unique reference and comparator comparisons.
<code>type</code>	Type of table. Check supported types with visOmopResults::tableType().
<code>header</code>	Columns to use as header. See options with availableTableColumns(result).
<code>groupColumn</code>	Columns to group by. See options with availableTableColumns(result).
<code>hide</code>	Columns to hide from the visualisation. See options with availableTableColumns(result).

Value

A formatted table.

Examples

```
library(CohortCharacteristics)

cdm <- mockCohortCharacteristics()

overlap <- summariseCohortOverlap(cdm$cohort2)

tableCohortOverlap(overlap)

mockDisconnect(cdm = cdm)
```

tableCohortTiming *Format a summariseCohortTiming result into a visual table.*

Description

[Experimental]

Usage

```
tableCohortTiming(
  result,
  timeScale = "days",
  uniqueCombinations = TRUE,
  type = "gt",
  header = strataColumns(result),
  groupColumn = c("cdm_name"),
  hide = c("variable_level", settingsColumns(result))
)
```

Arguments

<code>result</code>	A summarised_result object.
<code>timeScale</code>	Time scale to show, it can be "days" or "years".
<code>uniqueCombinations</code>	Whether to restrict to unique reference and comparator comparisons.
<code>type</code>	Type of table. Check supported types with visOmopResults::tableType().
<code>header</code>	Columns to use as header. See options with availableTableColumns(result).
<code>groupColumn</code>	Columns to group by. See options with availableTableColumns(result).
<code>hide</code>	Columns to hide from the visualisation. See options with availableTableColumns(result).

Value

A formatted table.

Examples

```
## Not run:
library(CohortCharacteristics)
library(duckdb)
library(CDMConnector)
library(DrugUtilisation)

con <- dbConnect(duckdb(), eunomiaDir())
cdm <- cdmFromCon(con, cdmSchem = "main", writeSchema = "main")

cdm <- generateIngredientCohortSet(
  cdm = cdm,
  name = "my_cohort",
  ingredient = c("acetaminophen", "morphine", "warfarin")
)

timings <- summariseCohortTiming(cdm$my_cohort)

tableCohortTiming(timings, timeScale = "years")

cdmDisconnect(cdm)

## End(Not run)
```

tableLargeScaleCharacteristics

Format a summarise_large_scale_characteristics object into a visual table.

Description

[Experimental]

Usage

```
tableLargeScaleCharacteristics(
  result,
  topConcepts = NULL,
  type = "gt",
  header = c("cdm_name", "cohort_name", strataColumns(result), "variable_level"),
  groupColumn = c("table_name", "type", "analysis"),
  hide = character()
)
```

Arguments

result A summarised_result object.

<code>topConcepts</code>	Number of concepts to restrict the table.
<code>type</code>	Type of table. Check supported types with <code>visOmopResults::tableType()</code> .
<code>header</code>	Columns to use as header. See options with <code>availableTableColumns(result)</code> .
<code>groupColumn</code>	Columns to group by. See options with <code>availableTableColumns(result)</code> .
<code>hide</code>	Columns to hide from the visualisation. See options with <code>availableTableColumns(result)</code> .

Value

A formatted table.

Examples

```
## Not run:
library(duckdb)
library(CDMConnector)

con <- dbConnect(duckdb(), eunomiaDir())
cdm <- cdmFromCon(con = con, cdmSchema = "main", writeSchema = "main")
cdm <- generateConceptCohortSet(
  cdm = cdm,
  conceptSet = list("viral_pharyngitis" = 4112343),
  name = "my_cohort"
)

result <- summariseLargeScaleCharacteristics(
  cohort = cdm$my_cohort,
  eventInWindow = "condition_occurrence",
  episodeInWindow = "drug_exposure"
)

tableLargeScaleCharacteristics(result)

cdmDisconnect(cdm)

## End(Not run)
```

Index

availablePlotColumns, 2
availableTableColumns, 3

benchmarkCohortCharacteristics, 4

mockCohortCharacteristics, 5

plotCharacteristics, 6
plotCohortAttrition, 7
plotCohortCount, 8
plotCohortOverlap, 9
plotCohortTiming, 10
plotComparedLargeScaleCharacteristics,
 12
plotLargeScaleCharacteristics, 13

summariseCharacteristics, 14
summariseCohortAttrition, 17
summariseCohortCount, 18
summariseCohortOverlap, 18
summariseCohortTiming, 19
summariseLargeScaleCharacteristics, 20

tableCharacteristics, 22
tableCohortAttrition, 23
tableCohortCount, 24
tableCohortOverlap, 25
tableCohortTiming, 26
tableLargeScaleCharacteristics, 27